



# CITY OF TALENT TRANSPORTATION SYSTEM PLAN VOLUME 1

#### **Prepared for**

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#### **ACKNOWLEDGEMENTS**

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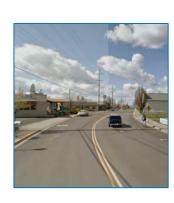
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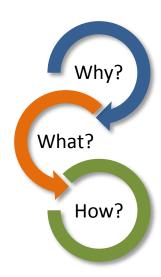


# **Executive Summary**

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The Talent Transportation System Plan (TSP) details projects and policies that address transportation facilities in the City of Talent. Population growth and new development in recent years has led to an update of the TSP to address transportation needs for all users, including pedestrians, bicyclists, drivers, and public transit users. This document provides a 20-year list of improvement projects and a plan for implementing the projects. The TSP has been developed in compliance with the requirements of the state Transportation Planning Rule (TPR) and to be consistent with state, regional, and local plans, including the recently adopted 2013-2038 Rogue Valley Metropolitan Planning Organization's 2013–2038 Regional Transportation Plan (RTP).

# Why Plan for Transportation?

Transportation is part of everyday life for citizens and businesses in Talent. Whether you are commuting to a job in town or traveling to another nearby community, such as Ashland, running local errands or driving into Medford for a specialty store, you are using some form of transportation to achieve that task. Businesses rely on transportation for employees and transporting goods, both locally or accessing highways, such as OR Highway 99 (OR 99) or Interstate 5 (I-5), for longer trips. It is also important to remember that transportation is not just about driving a car or truck; it could be walking, riding a bicycle, or taking transit. It can also include rail, air, water, and pipeline facilities that may serve both businesses and people. A healthy transportation system is vital to the livability and economy of a community.

The City of Talent is a compact community with a well-developed transportation system but there are gaps in the system that need to be completed. As the community grows, the system also needs to expand. These are the reasons for developing and continually updating a transportation system plan (TSP).

### What is a Transportation System Plan (TSP)?

A TSP provides a long-term guide for investments in the transportation network that improve existing facilities and plan for future growth. At the most basic level, it provides a blueprint for all modes of travel: vehicles (both personal and freight), bicycle, pedestrian, and transit. It is also an opportunity to build on community values and protect what makes Talent a great place to live, work, and visit.

The Talent TSP contains goals, objectives, projects, and implementation guidelines needed to provide mobility for all users, now and in the future. It examines current transportation conditions and looks ahead 20 years at that may be needed to accommodate planned growth in the city and surrounding communities. Elements of the plan can be implemented by agencies (City, State or Federal) as well as private developers.

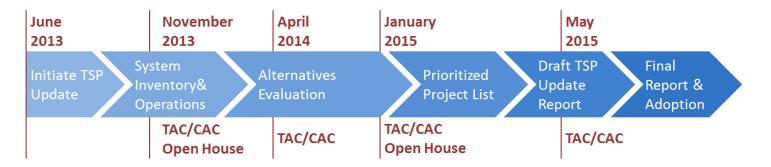
Statewide Planning Goal 12: Transportation

To provide and encourage a safe, convenient and economic transportation system.



### How was the TSP developed?

The Talent TSP was updated through a collaborative process that involved public agencies and the community. Over a period of 2 years, members of the Citizen Advisory Committee (CAC), Technical Advisory Committee (TAC), and Project Management Team (PMT) met to aid in the development of the TSP. Additionally, citizens and business owners, along with some of the Planning Commission members and City Councilors attended open houses to help shape the TSP.



This document provides a summary of each of the key analysis and evaluation steps shown above. The majority of this report focuses on the modal plans, proposed projects, and transportation standards. A second volume provides the detail and supporting documentation that led to the development of the plan.

### What is the Planned System and Improvements?

The preferred project list resulting from the selection and prioritization process is summarized in Table ES-1 and illustrated in Figures ES-1 through ES-3. The list consists of 50 "complete streets" and trails projects. The complete streets projects include all improvements that upgrade streets to better serve all travel modes. These projects may be as simple as adding a sidewalk to one side of the street or may involve a complete upgrade to improve the quality of the facility for vehicles, bicyclists, and pedestrians. All new street construction for development would meet the city standard for complete streets. The trails projects are off-street facilities that connect and expand trail network and also connect to or cross the street network.

### How Will Improvements Get Funded and Implemented?

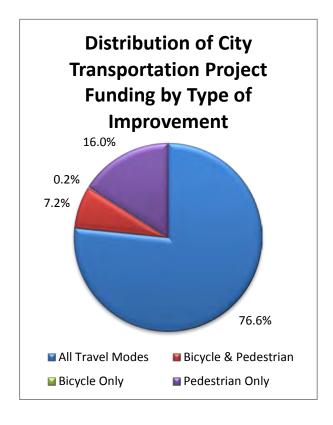
Over 20 years, the City is expected to earn \$12.3 million in transportation revenue (2014 dollars) assuming that existing funding sources remain stable and no new revenue streams are established. Accounting for ongoing expenses, the City can expect \$5.2 million in net revenue over the 20-year planning horizon of the TSP.





This TSP offers a menu of 50 projects (see Table ES-1) that can be selected as funding sources become available or as adjacent improvements are made. Recognizing that current funding resources are not sufficient for implementing all of the city improvements, the project list was further divided into Tier 1 projects, which have a reasonable likelihood of being funded with existing sources, and Tier 2 projects, which would require new funding sources for implementation. Eighteen projects were identified as Tier 1, including one project on OR 99 that is currently funded by the state. The total comes to nearly \$8 million in city-funded projects, which is still greater than the forecast of city revenue for transportation projects based on recent trends. Additional refinement to the project list may be necessary unless higher local revenues for transportation can be secured.

A breakdown of how city revenue would be invested in the transportation system is illustrated to the right. This estimate includes both Tier 1 and Tier 2 projects that would be implemented by the City.





**Table ES-1. Summary of Complete Street & Trail Projects** 

				Mo	ode					
ID	Location	Description	Vehicle	Bicycle	Pedestrian	Freight	Preliminary Estimated Cost	Priority	Likely Funding Source	Funding Tier
Sho	ort Term (0-5 years)									
1	West Valley View Rd - OR 99 to I-5	Restripe roadway to three lanes with buffered bike lanes and address bike lane transition at OR 99	<b>√</b>	✓	✓	<b>✓</b>	\$250,000	High	City	Tier 1
2	First St - Main St to 850 feet north	Upgrade to local street standards	<b>\</b>	✓	✓		\$380,000	High	City	Tier 1
3	Second St - Main St to West St.	Upgrade to local street standards	✓	<b>✓</b>	<b>✓</b>		\$210,000	High	City	Tier 1
4	Front St - Colver Rd to Urban Renewal Boundary	Add curbs and sidewalks to both sides of street	<b>√</b>	<b>✓</b>	<b>✓</b>		\$450,000	High	City	Tier 1
5	Citywide Network	Create a bike priority network with hierarchy of bicycle routes throughout the city		<b>✓</b>			\$20,000	High	City	Tier 1
6	OR 99 - Rapp Rd to Talent City Limits	Add curbs and sidewalks and restripe existing roadway to three lanes with bike lanes (STIP Key Number 17478)	✓	✓	✓	✓	\$3,300,000	High	State	Tier 1
7	Second St – Wagner St to Schoolhouse Rd	Add curb and sidewalk to west side of street			✓		\$150,000	High	City	Tier 1
8	Schoolhouse Road – Wagner Creek Road to 2nd Street	Add curb and sidewalk to north side of street			<b>✓</b>		\$160,000	High	City	Tier 1
9	Bear Creek Greenway at Suncrest Rd	Install traffic calming improvements on Suncrest Rd		<b>✓</b>	✓		\$100,000	High	County	Tier 2
10	Wagner St RR Crossing	Upgrade crossing and provide for pedestrians and bicyclists and upgrade warning devices	✓	<b>✓</b>	<b>✓</b>		\$500,000	Medium	City	Tier 2
11	Talent Ave - Creel Rd to Alpine Way	Upgrade to collector standard	<b>√</b>	<b>✓</b>	✓		\$960,000	Medium	City	Tier 2
12	Wagner St - Wagner Creek Road to 1st Street	Add curb and sidewalk to north side of street			<b>✓</b>		\$200,000	Medium	City	Tier 2
13	Wagner St - Railroad Crossing to John Street	Add curb and sidewalk to south side of street			✓		\$70,000	Medium	City	Tier 2
14	Main St - West St to Front St	Add curb and sidewalk to south side of street			✓		\$240,000	Medium	City	Tier 2
Me	dium Term (5-10 yea	ars)								
15	West Valley View Rd - OR 99 to I-5	Add hardscaping (landscaped islands and/or raised barrier) in bike lane buffers	✓	~	<b>✓</b>	<b>✓</b>	\$250,000	High	City	Tier 1



**Table ES-1. Summary of Complete Street & Trail Projects** 

			Mode							
ID	Location	Description	Vehicle	Bicycle	Pedestrian	Freight	Preliminary Estimated Cost	Priority	Likely Funding Source	Funding Tier
	Rapp Rd - 150' south of Graham Way to Wagner Creek Bridge	Rebuild and upgrade to (major) collector standard	✓	<b>✓</b>	<b>✓</b>	✓	\$1,080,000	High	City	Tier 1
17	Foss Rd - Wagner St to City Limits	Upgrade to collector standard	✓	✓	✓		\$400,000	High	City	Tier 1
18	Creel Rd – 75 feet east of Lithia Way to OR 99	Add curb and sidewalk to north side of street			✓		\$120,000	High	City	Tier 1
	West Valley View Rd @ Wagner Creek Greenway Trail	Create a mid-block crossing with pedestrian-activated device		<b>✓</b>	<b>✓</b>		\$100,000	High	City	Tier 1
	OR 99 - Creel Rd to Bear Creek Greenway connection	Construct a 10-foot-wide multi-use path along the east side of the highway		<b>✓</b>	<b>✓</b>		\$450,000	High	State	Tier 2
21	First St - Main St to Wagner St	Upgrade to local street standards	✓	✓	✓		\$270,000	Medium	City	Tier 2
22	Second St Main St to Wagner St.	Upgrade to local street standards	✓	✓	✓		\$240,000	Medium	City	Tier 2
	OR 99 – Creel Rd (Talent City) Limits to S Valley View Rd	Restripe roadway to include a center turn lane, two through travel lanes (one in each direction), and shoulder	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	\$700,000	Medium	State	Tier 2
	Talent Ave - 200' south of Wagner St to Main St	Remove parking on one side of street (west) and stripe bike lanes through downtown Talent		<b>✓</b>			\$10,000	Medium	City	Tier 2
	Front St - Urban Renewal Boundary to Wagner St	Add curb and sidewalk to west side of street			<b>✓</b>		\$320,000	Medium	City	Tier 2
26	OR 99 @ Wagner Creek Greenway Trail	Create a mid-block crossing with pedestrian-activated device		✓	✓		\$100,000	Medium	City /State	Tier 2
27	Wagner Creek Greenway Path OR 99 to 225 feet west of OR 99	Construct new 10-foot-wide multimodal path near Wagner Creek connecting to Bear Creek Greenway		<b>✓</b>	<b>✓</b>		\$25,000	Medium	City	Tier 2
28	Wagner Creek Greenway Path OR 99 to West Valley View Rd	Construct new 10-foot-wide multimodal path near Wagner Creek connecting to Bear Creek Greenway		<b>✓</b>	<b>✓</b>		\$60,000	Medium	Other	Tier 2
29	Wagner Creek Greenway Path West Valley View Rd to Bear Creek Greenway	Construct new 10-foot-wide multimodal path near Wagner Creek connecting to Bear Creek Greenway		✓	✓		\$880,000	Medium	City	Tier 2



**Table ES-1. Summary of Complete Street & Trail Projects** 

				Mo	de					
ID	Location	Description	Vehicle	Bicycle	Pedestrian	Freight	Preliminary Estimated Cost	Priority	Likely Funding Source	Funding Tier
30	Bear Creek Greenway	Enhance connections to OR 99 throughout OR 99 corridor with wayfinding signage and other amenities		<b>&gt;</b>	<b>√</b>		\$450,000	Medium	Other	Tier 2
31	Rapp Rd - Wagner Creek Bridge	Rebuild and upgrade to (major) collector standard	✓	✓	✓	✓	\$600,000	Medium	City	Tier 1
	Rapp Rd - Wagner Creek Bridge to Wagner Creek Rd	Rebuild and upgrade to (major) collector standard	<b>√</b>	<b>\</b>	<b>\</b>	<b>✓</b>	\$950,000	Medium	City	Tier 1
Lon	g Term (10-20 years	)								
33	Wagner Creek Rd - West St to Rapp Rd	Upgrade to collector standard	✓	✓	✓		\$960,000	Medium	City	Tier 1
34	Talent Avenue – Rapp Road to Creel Road	Add curb and sidewalk to east side of street			<b>√</b>		\$920,000	Medium	City	Tier 1
35	Rapp Rd – Graham Way to OR 99	Add curb and sidewalk to south side of street to eliminate gaps			<b>~</b>		\$70,000	Medium	City	Tier 1
36	Wagner Creek Greenway Path—Rapp Rd to Talent Ave	Construct new 10-foot-wide multimodal path near Wagner Creek		<b>✓</b>	✓		\$200,000	Medium	City	Tier 2
37	Bear Creek Greenway Access	Create ramp connection to north side of West Valley View Rd		>	>		\$250,000	Medium	Other	Tier 2
38	Wagner St Extension - Talent Ave to West Valley View Rd	Construct new collector street (50 ft) to complete downtown improvements	>	>	>		\$730,000	Medium	City	Tier 1
39	Bain St - First St to Wagner St	Upgrade to local street standards	✓	<b>~</b>	✓		\$230,000	Low	City	Tier 2
	Westside Bypass - Wagner Creek Rd/Rapp Rd to Colver Rd	Construct new collector street west of city in Urban Reserve Area TA-1	<b>✓</b>	<b>\</b>	<b>✓</b>	<b>✓</b>	\$2,730,000	Low	City	Tier 2
41	West Valley View Rd east of I-5	Widen shoulders		<b>~</b>	<b>√</b>		\$1,500,000 <sup>1</sup>	Low	City/ County	Tier 2
42	West Valley View Road I-5 Overcrossing	Widen shoulders		✓	✓		\$8,000,0001	Low	State	Tier 2
43	Bear Creek Greenway	Upgrade 800 feet of path north of West Valley View Road to statewide multi-use path standards (minimum 10 feet, desired 12 feet)		<b>✓</b>	✓		\$305,000	Low	Other	Tier 2
44	Arnos Trail	Connect Arnos St to the Bear Creek Greenway		✓	✓		n/a	Low	Other	Tier 2



#### Table ES-1. Summary of Complete Street & Trail Projects

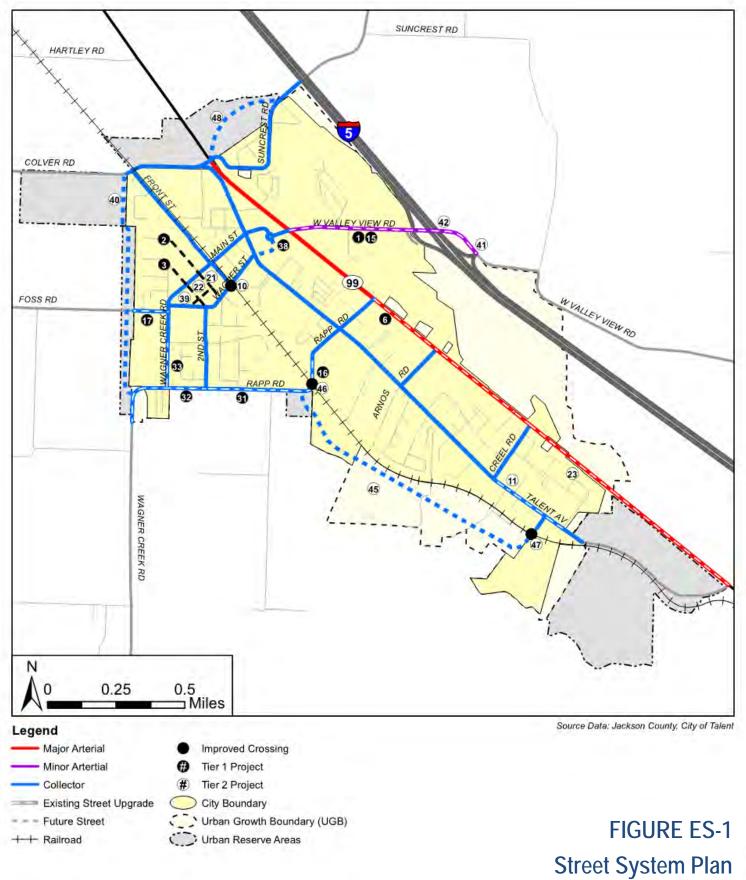
				Mo	ode					
ID	Location	Description	Vehicle	Bicycle	Pedestrian	Freight	Preliminary Estimated Cost	Priority	Likely Funding Source	Funding Tier
Dev	elopment Driven Pr	ojects								
45	Railroad District Collector—Belmont Rd to Rapp Rd	Construct new collector street to serve UGB area south and west of Railroad tracks and Urban Reserve Area TA-2	✓	✓	<b>✓</b>		\$4,100,000	Low	Other	Tier 2
46	Rapp Rd Railroad Crossing	Realign street and upgrade crossing	✓	✓	✓	✓	\$800,000	Low	City	Tier 2
47	Belmont Rd - Talent Ave to Railroad District Collector	Upgrade to collector standard and upgrade railroad crossing & restrict other crossings (Pleasant View, Hilltop, public to south)	<b>✓</b>	<b>✓</b>	<b>✓</b>		\$800,000	Low	City	Tier 2
48	Suncrest Road Connector	Construct new collector street through Urban Reserve Area TA-5 from east of signal at OR 99 to Willow Springs Dr	<b>✓</b>	~	<b>~</b>		\$1,500,000	Low	Other	Tier 2
49	Colver Road – West UGB to OR 99	Add sidewalk to north side of street			<b>√</b>		\$260,000	Low	City	Tier 2
50	Suncrest Road – Autumn Ridge Road [east] to East UGB	Add curb and sidewalk to north side of street			~		\$160,000	Low	City	Tier 2
Cos	t Totals				Cit	ty O	nly	A	ll Project	s <sup>2</sup>
Shor	t Term (0-5 years)		\$1,620			1,620	0,000	\$4,920,000		00
Med	ium Term (5-10 years)		\$3,50			3,500	0,000		\$3,500,00	00
Long Term (10-20 years)		\$2,68			2,680	0,000		\$2,680,00	00	
Tier 1 Subtotal						0,000		\$11,100,00		
Short Term (0-5 years)		\$1,970,000			-	-		\$2,070,00		
Medium Term (5-10 years)				_		5,000	\$3,505,000			
Long Term (10-20 years)		\$3,160,000				-	\$13,215,000			
Development Driven Projects		\$2,020,								
	2 Subtotal		\$8,895,000					\$26,410,000		
TOT	AL COST				<b>\$16</b>	,695	5,000	\$3	37,510,00	00

#### Notes:

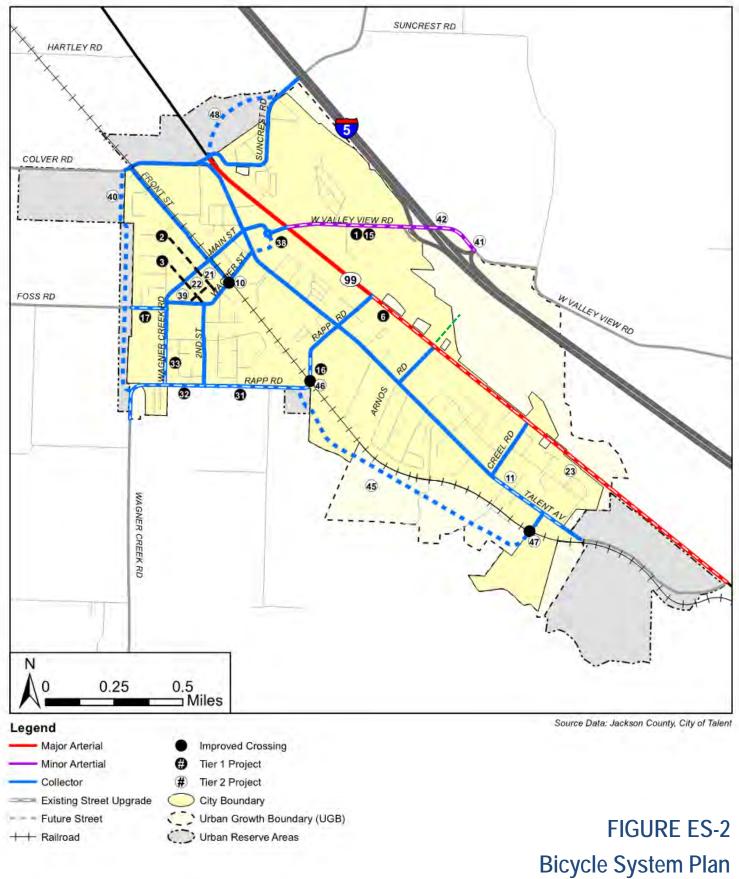
<sup>1.</sup> Project cost estimates from I-5 Exit 21 Interchange Area Management Plan Technical Memorandum #6: Concepts and Evaluation, December 30, 2014.

<sup>2. &</sup>quot;All Projects" includes those funded by the City as well as projects funded by other agencies or developers.

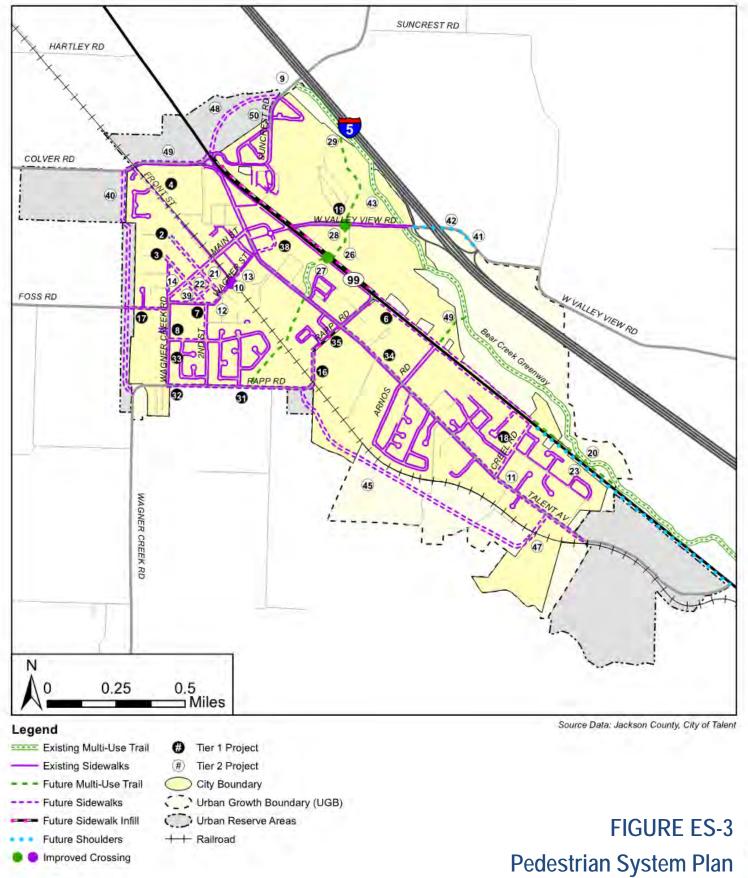














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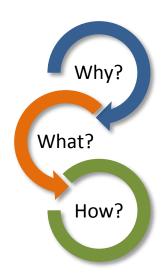


# **Section 1: Introduction**

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# Why Plan for Transportation?

Transportation is part of everyday life for citizens and businesses in Talent. Whether you are commuting to a job in town or traveling to another nearby community, such as Ashland, running local errands or driving into Medford for a specialty store, you are using some form of transportation to achieve that task. Businesses rely on transportation for employees and transporting goods, both locally or accessing highways, such as OR Highway 99 (OR 99) or Interstate 5 (I-5), for longer trips. It is also important to remember that transportation is not just about driving a car or truck; it could be walking, riding a bicycle, or taking transit. It can also include rail, air, water, and pipeline facilities that may serve both businesses and people. A healthy transportation system is vital to the livability and economy of a community.

So, what does a healthy transportation system look like? It should:

- Provide a well-connected travel network for both residents and businesses
- Offer choices of how to travel (driving, walking, bicycling, transit)
- Support safe travel for all system users
- Accommodate the needs of both local users and those visiting or traveling through the community

The City of Talent is a compact community located in the Rogue Valley in southern Oregon. It already has a transportation system with many of these features but there are gaps in the system that need to be completed. As the community grows, the system also needs to expand. These are the reasons for developing and continually updating a transportation system plan (TSP).

### What is a Transportation System Plan (TSP)?

A TSP provides a long-term guide for investments in the transportation network that improve existing facilities and plan for future growth. At the most basic level, it provides a blueprint for all modes of travel: vehicles (both personal and freight), bicycle, pedestrian, and transit. It is also an opportunity to build on community values and protect what makes Talent a great place to live, work, and visit.

Talent's TSP is part of a larger planning process required by Oregon's Statewide Planning Goals and implemented through Transportation Planning Rule (TPR). The TPR requires that all governing agencies, from cities and counties to the state plan "plan and develop transportation facilities and services in close coordination with urban and rural development." These plans build upon each other to form the statewide transportation system.

Statewide Planning Goal 12:
Transportation

To provide and encourage a safe, convenient and economic transportation system.



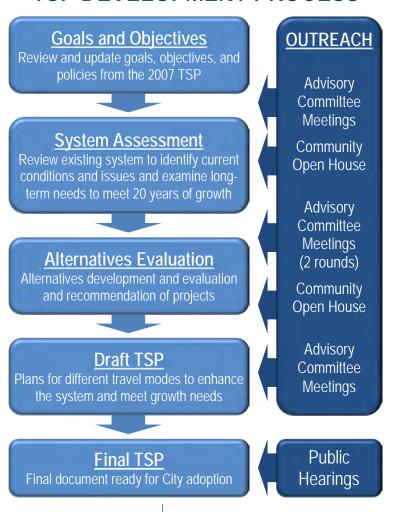
The Talent TSP contains goals, objectives, projects, and implementation guidelines needed to provide mobility for all users, now and in the future. It examines current transportation conditions and looks ahead 20 years at what may be needed to accommodate planned growth in the city and surrounding communities. Elements of the plan can be implemented by agencies (City, State or Federal) as well as private developers.

TSPs are not static documents; they must be updated to reflect changing conditions. Each update revisits how the system is currently operating and what demand may be, always looking 20 years into the future. Projects that have been built are removed and new projects are added. An update is also an opportunity to bring ideas and projects from other plans into the TSP for consistency.

### How was the TSP developed?

The Talent TSP was updated through a collaborative process that involved public

### TSP DEVELOPMENT PROCESS



agencies and the community. Over a period of 2 years, members of the Citizen Advisory Committee (CAC), Technical Advisory Committee (TAC), and Project Management Team (PMT) met to aid in the development of the TSP. Additionally, citizens and business owners, along with some of the Planning Commission members and City Councilors attended open houses to help shape the TSP.

The key steps in developing the TSP are illustrated to the left. This document provides a summary of each of the key analysis and evaluation steps. The majority of this report focuses on the modal plans, proposed projects, and transportation standards. A second volume provides the detail and supporting documentation that led to the development of the plan.

# **Updating the TSP**

The TSP update builds upon the previous planning efforts rather than starting over. It includes minor revisions to the Goals, Objectives, and Polices from the 2007 TSP. It updates system inventory data and identifies gaps that still remain in the system. One of the more



major steps was gaining an understanding of existing operating conditions (traffic and safety) and then projecting how things may change over the next 20 years based on both Talent's growth and the expected growth in the Rogue Valley. The projects identified in this plan build on those identified in the 2007 TSP and other community plans combined with some new ideas that support the transportation system's transition to provide a more integrated and comprehensive multi-modal network for all users.

# Coordination with Other Projects

Two other projects were under way while the Talent TSP was being developed. The OP OO Pogue Valley Corridor Plan included the highway through Talent as well as

I parts of Medford and Jackson County. A final plan has been d and the projects have been incorporated into the TSP. The I-5 nterchange Area Management Plan (IAMP) started after the outset TSP update. This project focuses on the interchange and West alley View Road from OR 99 across the freeway and into Jackson

County. This project has been closely coordinated with the TSP efforts to ensure consistency in recommendations.



The planning area for the Talent TSP is illustrated in Figure 1. The TSP addresses the transportation system within the City of Talent, its Urban Growth Boundary (UGB), and the Urban Reserve Areas (URAs) outside of the city that may be added to the UGB in the future.

The majority of the city's downtown area, most of its businesses, the post office, fire station, and employers lie to the east of the railroad tracks. The city's interchange for I-5 is at the eastern portion of the city. A very small portion of the city's UGB lies to the east of I-5.

I-5 is the principal highway in Talent, but OR 99 also bisects the community. West Valley View Road connects Highway 99 with the I-5 interchange.

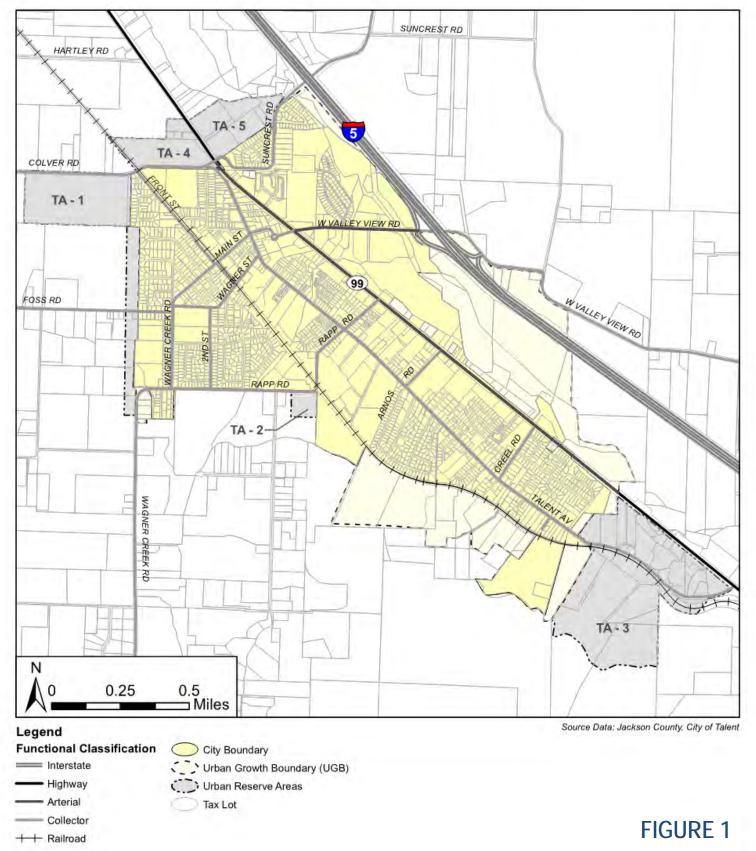
### Agency Coordination

The street system within the City of Talent includes roadways under three jurisdictions: State, County, and City. The state facilities include all of OR 99 and the freeway (I-5) including its ramps and overpass. Jackson County maintains several roads abutting the Talent UGB including Colver Road and portions of Suncrest Road, West Valley View Road, and Wagner Creek Road.



This TSP, including the project lists, does not have any legal or regulatory effect on state or county land or transportation facilities. Without additional action by the State of Oregon or Jackson County, any project that involves a non-City facility is only a recommendation. Coordination and cooperation with City and governmental partners is needed to develop and plan well-connected and efficient transportation network. The Plan does not, however, obligate the State of Oregon, Jackson County or any other governmental partner to take any action or construct any projects.





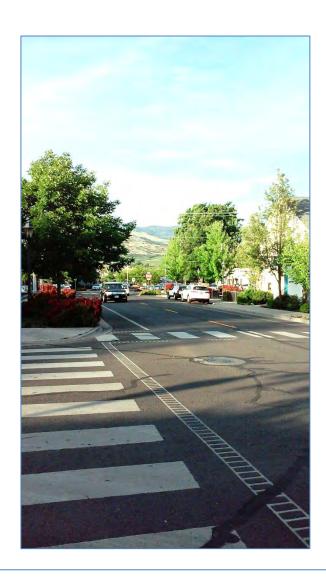
**ELEMENT D – 2015 Transportation System Plan** 

**Talent TSP Planning Area** 



# **Section 2: TSP Vision**

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### **Goals and Objectives**

The vision for Talent's transportation system is reflected in its goals and objectives. These were carried forward from the 2007 TSP with minor updates to reflect regional coordination and state ordinance. The supporting policies for the goals and objectives are included in Appendix A.

#### **General Transportation Goal**

Provide a safe and efficient transportation system that reduces energy requirements, regional air contaminants, and public costs and provides for the needs of those not able or wishing to drive automobiles.

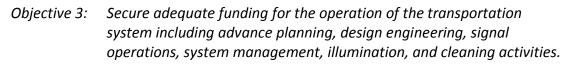


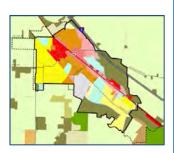
#### Finance Goal

Establish adequate funding to meet the current and future capital, maintenance, and operations needs of the transportation system for the Talent urban area.

Objective 1: Meet the current and future capital improvement needs of the transportation system for the Talent urban area, as outlined in this plan, through a variety of funding sources.

Objective 2: Secure adequate funding to implement a street maintenance program that will sustain a maximum service life for pavement surface and other transportation facilities.



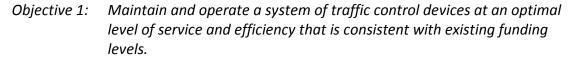


#### Land Use Goal

Encourage land uses that reduce reliance on single-occupancy automobiles.

#### Transportation System Management Goal

Maximize the efficiency of the existing surface transportation system through management techniques and facility improvements.





Objective 2: Maximize the effective capacity of the street system through improvements in physical design and management of on-street parking.



#### **Access Management Goal**

Maximize the efficiency and safety of surface transportation systems by managing access.

Objective: Increase street system safety and capacity through the adoption and

implementation of access management standards.

#### **Transportation Demand Management Goal**

Reduce the demands placed on the current and future transportation system by the single-occupant automobile.

Objective 1: Encourage the use of alternative travel modes by serving as an

institutional model for other agencies and businesses in the

community.

Objective 2: Work towards reducing the vehicle miles traveled (VMT) in the Talent

urban area by assisting individuals in choosing alternative travel

modes.

#### Parking Goal

Ensure the Talent urban area has an appropriate supply of parking facilities that supports the goals and objectives of this plan.

Objective 1: Define an appropriate role for on-street parking facilities.

Objective 2: Promote economic vitality and neighborhood livability by requiring an

appropriate supply of off-street parking facilities.

Objective 3: Work towards meeting the State Transportation Planning Rule goals to

reduce per capita parking supply by the year 2019 to discourage reliance on private cars and consequently encourage the use of public

chance on private cars and consequently encourage in

transit, bicycles, and walking.

#### Streets Goal

Provide a comprehensive system of streets and highways that serves the mobility and multimodal travel needs of the Talent urban area.

Objective 1: Develop a comprehensive, hierarchical system of streets and highways

that provides for optimal mobility for all travel modes throughout the

Talent urban area.

Objective 2: Design City streets in a manner that maximizes the utility of public

right-of-way, is appropriate to their functional role, and provides for multiple travel modes, while minimizing their impact on the character

and livability of surrounding neighborhoods and business districts.









Objective 3: Continue to promote traffic safety by enforcing clear vision area

regulations applicable to public and private property located at

intersections.

Objective 4: Efficiently plan, design, and construct City-funded street improvement

projects to meet the safety and travel demands of the community.

Objective 5: Improve the street system to accommodate travel demand created by

growth and development in the community.



Build and maintain the transportation system to facilitate economic development in the region.

### Bicycle Goal

Facilitate and encourage the increased use of bicycle transportation in Talent by ensuring that convenient, accessible, and safe cycling facilities are provided.

Objective 1: Create a comprehensive system of bicycle facilities.

Objective 2: Promote bicycle safety and awareness.

#### Pedestrian Goal

Provide a comprehensive system of connecting sidewalks and walkways that will encourage and increase safe pedestrian travel.

Objective 1: Create a comprehensive system of pedestrian facilities.

Objective 2: Support mixed-use development that encourages pedestrian travel by

including housing close to commercial and institutional activities.

Objective 3: Encourage education services and promote safe pedestrian travel to

reduce the number of accidents involving pedestrians.

#### Transit Goal

Support a transit system that provides convenient and accessible transit services to the citizens of the Talent urban area.

Objective 1: Ensure that transit services are accessible to Talent urban area

residences and businesses.

Objective 2: Increase overall daily transit ridership in the Talent urban area to

mitigate a portion of the traffic pressures expected by regional growth.



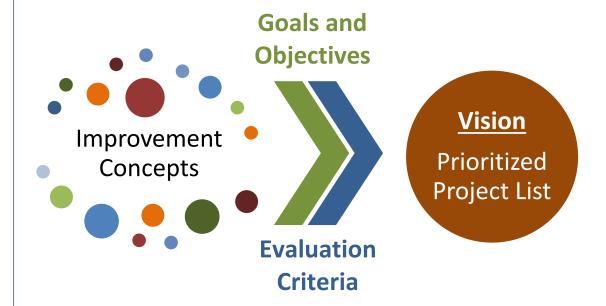






# How Were the Goals Used to Develop the TSP?

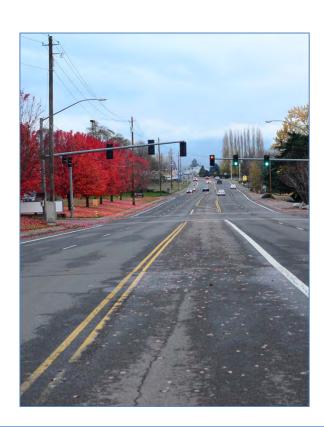
The goals and objectives were used to develop evaluation criteria for to assess whether projects should be included in the TSP. The evaluation criteria were then used to objectively evaluate potential improvements for consistency with the city vision for its transportation system. Once filtered through the evaluation criteria, and presented to the community for input, a prioritized project list was developed.





# **Section 3: Existing Gaps and Future Needs**

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### Assessing the Transportation System

There are three parts to the assessment of the transportation system:

- Conducting an inventory of transportation facilities to understand what is complete (fully meets standards) and where gaps in the system exist.
- Evaluating how the system works today from an operational and safety perspective.
- Anticipating how well the system will accommodate future growth in Talent and the surrounding region over the next 20 years.

Each of these elements is summarized briefly in this section with the detailed inventory presented in *Technical Memorandum # 2: Existing System Inventory* and *Technical Memorandum # 3: Transportation System Operations* in TSP Volume 2.

### **Multimodal System Inventory**

An inventory of the existing transportation system in Talent was conducted as part of the TSP process. This inventory includes the street, pedestrian, bikeway, public transportation, rail, air, water, and pipeline systems within the UGB as shown in the open house exhibit below.

# Transportation System Inventory Update – Exhibit from Open House

#### Street

- · Block-by-block review of facilities
- Focuses on major roadways based on functional classification
- Identifies system deficiencies (pavement and urban design)





#### **Pedestrian**

 Identifies location of sidewalks and pathways and system deficiencies

#### **Bikeway**

 Identifies location of bike lanes and pathways and system deficiencies

#### **Public Transportation**

 Identifies Bus Route and stop amenities and other public transit services



#### Other

 General inventory of Rail, Air, Water, and Pipeline facilities



### **Existing Street Facilities**

Initially, Talent developed parallel to the highway and the railroad tracks, resulting in a slightly skewed alignment from a true north-south and east-west orientation. The newer portions of the town; however, have developed with a true north-south and east-west orientation. A full inventory of the street network is included in *Technical Memorandum # 2*, *Appendix A* of TSP Volume 2.

Talent generally has a well-connected network of arterial and collector streets that allow traffic to move through the city. The railroad tracks are the most significant disruption to the continuity of the grid street pattern. Much of the newer residential development and the schools are on the west side of the railroad tracks. Limited railroad crossings are present. The most important are: Colver Road, Main Street, Wagner Street, and Rapp Road.

Pavement conditions for the city streets were reviewed and were fair or better on all of the arterial and collector system with the exception of Belmont Road. This street is a designated collector because it would eventually provide access across the railroad tracks to lands that could develop in the future as the Railroad District.

The street network was also assessed for urban design deficiencies such as missing curb and gutter, sidewalks, or bike facilities. Streets that include all of these amenities are also known as "complete streets" because they provide a range of safe

No Curb, Gutter, or Sidewalk



Fully Developed Urban Street or "Complete Street"

travel options for all types of users. Talent has complete street segments throughout its system but many streets are improved on one side with urban facilities but remain unimproved along the other side.

# Pedestrian System

Talent's sidewalk system varies widely from neighborhood to neighborhood. Most of the newer subdivisions have complete sidewalk systems. The sidewalk network was more intermittent in the downtown area when the 2007 TSP was prepared; however, the city has been actively building sidewalks since then. While there are still gaps in the network, new sidewalks have been constructed as part of many improvement projects. They have been added along street segments where none existed at all and a second sidewalk has been added to streets which had only one sidewalk previously.





In addition to sidewalks, pedestrians can also use multi-use trails. The Bear Creek Greenway runs through Talent between OR 99 and I-5. For much of the its length the Greenway is located on the east side of Bear Creek, which limits accessibility to three locations: 1) just south of the city limits, where there are currently no connecting facilities, 2) West Valley View Road, and 3) Suncrest Road. The Wagner Creek Greenway Trail is a planned multi-use trail that will eventually extend from the residential areas on the west side of the city to the Bear Creek Greenway. Currently, only a short segment of this trail has been constructed.

Both OR 99 and West Valley View Road have at least four travel lanes and higher travel speeds (40 or 45 mph) and pose a barrier to pedestrian activity. Traffic signals are located at three intersections on OR 99 (Suncrest/Colver Road, West Valley View Road, and Rapp Road). While these signalized intersections include crosswalks and provide a pedestrian phase to support crossing, the spacing between signals is over 2,000 feet. In addition to the signal at OR 99, a second traffic signal is located on West Valley View Road at Hinkley Road with crosswalks and pedestrian phases. Pedestrians can also cross West Valley View Road using the grade-separated Bear Creek Greenway.

# Bicycle System

The number of roadways with on-street bicycle facilities has grown considerably within Talent since the 2007 TSP update, especially in centrally-located areas. OR 99 features bicycle lanes between Colver Road/Suncrest Road and Rapp Road. Talent Avenue now has continuous bicycle lanes from Eva Way to Creel Road, while Main Street has bicycle lanes in its entirety from Wagner Creek Road to Talent Avenue. Other notable additions on Wagner Street, Creel Road, Rapp Road and Valley View Road have helped create a more cohesive bicycle network in Talent.

Bicyclists face the same challenge as pedestrians when it comes to crossing OR 99 and West Valley View Road. However, unlike pedestrians, the green light is not extended to aid bicyclists with crossing these wider roadways. At the intersections with lower side street volumes, crossing the street while the signal is green can be challenging for some bicyclists. While a bicyclist can choose to activate the pedestrian signal, he or she must get onto the sidewalk to press the pedestrian-activation button.

Bicyclists also have access to the multi-use trail system.

# Transit System

The Rogue Valley Transportation District (RVTD) provides public transportation to the Talent area. RVTD Route 10 passes through Talent along OR 99 and Talent Avenue. The route connects Talent to the Cities of Ashland, Phoenix, and Medford with connections available to five additional routes at the Front Street Transfer Station in





Medford. In recent years, service frequency was increased on Route 10 to 20-minute headways during peak periods with Saturday and Evening service through a Congestion Mitigation and Air Quality (CMAQ) grant. As of 2015, RVTD no longer provides these services and Route 10 now provides 30-minute frequency due to a funding shortfall. RVTD has been exploring options to improve schedule reliability and ensure adequate passenger capacity.

Route 10 currently experiences on-time performance issues. The route is long (over 13 miles one way) and the current route cycle is approximately one hour and 45 minutes, making schedule adherence difficult. RVTD is reviewing options to improve on-time performance, which may include eliminating or combining some stops along the route. As of March 2015, RVTD changed Route 10 in Talent to use OR 99 south of Arnos Road to travel at a higher speed for schedule purposes (changes were also made in Medford and Ashland). RVTD considered Rapp Road or Arnos Road for Route 10 but cannot use Creel Road due to pavement integrity issues in the spring caused by a high water table. After some discussion, Arnos Road was considered the best choice because it has sidewalks and good potential ridership areas. Stops were established on OR 99 south of Arnos Road amid concerns over pedestrian safety. A future ODOT project to urbanize the highway south of Rapp Road will enhance the pedestrian experience and could include enhanced pedestrian crossings.

Bus stops in Talent have a mix of amenities. Only half of the bus stops within Talent have sidewalks and loading pads. The Americans with Disabilities Act (ADA) requires that a solid surface, such as a sidewalk, in order to provide amenities like bus shelters and seating. Furthermore, without these pedestrian facilities, accessibility for some users is limited.

### Air Transportation

Although the City of Talent does not have an airport within its UGB, two airports are located within 10 miles. The Rogue Valley International Medford Airport offers commercial passenger service and air freight transportation approximately seven miles north of the city. Regularly scheduled service to nearby international airports in Portland, San Francisco, and other west coast destinations is available. The City of Ashland operates a general aviation airport located approximately seven miles to the south of Talent. Charter passenger and freight service is available.

### **Rail Transportation**

The Central Oregon and Pacific (CORP) Railroad line runs through Talent, west of OR 99 from Springfield, Oregon to Black Butte, California. Although no trains are currently running on the section of CORP track south of Medford, Oregon and CORP were awarded a \$7.1 million federal grant to repair and reopen the line. Once repairs



are made, it is very likely that freight service will resume on the rail line within Talent. No passenger rail service is available.

Talent has seven rail crossings within the city limits. These include:

- Colver Road public crossing with activated gate system
- Main Street public crossing with activated gate system
- Wagner Street public crossing with STOP sign control
- Rapp Road public crossing with activated gate system
- Pleasant View private crossing
- Hilltop Road private crossing
- Belmont Road public crossing with STOP sign control

### **Pipeline Transportation**

A natural gas distribution line located along the I-5 corridor between Grants Pass and Ashland serves the entire Talent area. The distribution lines in the area are operated by WP Natural Gas, a subsidiary of Washington Water Power. The Talent area's distribution lines connect at Grants Pass to a major natural gas transmission line operated by Northwest Pipeline Company. This natural gas transmission line connects from Grants Pass north to Portland and Vancouver, Washington. From the Portland/Vancouver area, it continues east to Umatilla and Ontario, Oregon.

# Water Transportation

No water transportation is located in Talent.

#### Additional Resources

In addition to the system inventory, data regarding land uses and environmental resources were collected to inform the selection of projects for the TSP. These data are summarized in *Technical Memorandum # 2: Existing System Inventory* in TSP Volume 2.

### **Existing Safety and Operations**

The assessment of existing traffic conditions includes development of existing traffic volumes, analysis of traffic operations, and a review of historical crash patterns. Additional data about existing conditions is included in *Technical Memorandum # 3: Transportation System Operations* in TSP Volume 2.



Safety Review

Where are crashes occurring?

Traffic Demand

How much traffic is on the streets?

Intersection Operations

How well do things work?



# Safety Review

A safety analysis was conducted to determine whether any significant, documented safety issues exist within the study area and to inform future measures or general strategies for improving overall safety. This analysis includes a review of crash records, critical crash rates, and ODOT Safety Priority Index System (SPIS) data.

A review of five year of crash data<sup>1</sup> showed that approximately 60 percent of reported crashes occurred at intersections and about 40 percent were along street segments. Just over one third of the crashes resulted in minor injury(s), but there were no crashes that resulted in a fatality or severe injury. The three intersections with the greatest number of crashes that warrant monitoring include:

- OR 99 and West Valley View Road (traffic signal)
- OR 99 and Arnos Road
- OR 99 and Creel Road

ODOT is working with the City of Talent to implement signal improvements at OR 99 and West Valley View Road. The State also has a funded project to improve OR 99 from Rapp Road through Creel Road in the next few years that should improve safety at the other two locations.

West Valley View Road experienced the highest number of segment crashes with eight reported between study area intersections, mostly due to the number of driveways and intersections along the corridor.

### Traffic Demand

Existing traffic volume data was assembled from turning movement counts conducted at intersections throughout the city and annual data collected by ODOT on the state highway system.

OR 99 is the busiest street in Talent (excluding the freeway) with traffic demand currently averaging under 9,000 vehicles during a day; summer months are slightly busier than winter months. Historic data shows that volumes in the OR 99 corridor peaked in 2007 and have been lower since then. This trend is consistent throughout the region where volumes have remained steady or declined.

West Valley View Road is the second busiest street in the city, but daily volumes are lower than those on OR 99 (about 85 percent). Volumes elsewhere in the city are generally less than half of the two busiest streets.

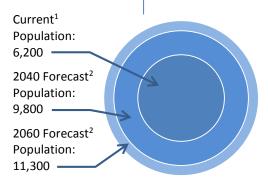
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<sup>&</sup>lt;sup>1</sup> January 1, 2007, and December 31, 2011



### **Intersection Operations**

A review of how existing intersections are working shows little to no congestion on the transportation network. Not surprisingly, the intersection of West Valley View Road and OR 99 is the busiest in the city, but even this intersection experiences only minor congestion during peak travel hours in the morning and evening.



#### Notes:

- <sup>1</sup> Oregon Blue Book, 2015
- <sup>2</sup> Greater Bear Creek Valley Regional Plan

#### **Future Growth**

Talent's current population is nearly 6,200 residents within the city limits. According to the Greater Bear Creek Valley Regional Plan, anticipated future population of Talent is about 9,800 by the year 2040 and about 11,300 by 2060.<sup>2</sup>

Future traffic volumes were estimated for the year 2038, which is consistent with regional forecasting for the Rogue Valley. Forecast volumes on the street system are expected to increase by 20 to 30 percent over the next 20+ years. With this growth, study area intersections would still work well even during the busiest hours of the day. Additional data about future conditions is included in *Technical Memorandum # 3: Transportation System Operations* in TSP Volume 2.

<sup>&</sup>lt;sup>2</sup> Oregon law requires that coordinated population forecast be prepared for all counties. In the past, these forecasts were prepared by the counties themselves. However, in 2013, the Oregon Legislature assigned coordinated population forecasting to the Population Research Center (PRC) at Portland State University (PSU). The process is underway and proposed forecasts for Jackson County have been prepared but not finalized. Preliminary Jackson County forecast numbers show growth for the City of Talent through 2040 that is consistent with the numbers in the Bear Creek Valley Regional Plan.



# **Section 4: Project Prioritization and Funding**

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This section summarizes how projects were identified and prioritized for the preferred system plan for the TSP. These recommendations are based on feedback from the Technical and Citizen Advisory Committees (TAC and CAC); comments received at the Public Open Houses; other community review; and input other agency staff.

## **TSP Project Selection Process**

The preferred project list for this TSP update was developed in steps, as illustrated below. The first two steps are described in detail in *Technical Memorandum # 4:*Alternatives Evaluation in TSP Volume 2.

# Review Projects in Existing Plans

- Review projects in 2007 TSP Update and other Local and Regional Plans
- Identify which should be included in the 2015 TSP Update
- Identify which should be deleted because of significant barriers to implementation

# Identify Additional Improvements

- Develop alternatives to existing recommendations
- Develop new projects for concerns not previously addressed
- Evaluate using criteria developed from the TSP goals and objectives

# Develop Preferred Project List

- Present recommended existing projects and potential new projects to Advisory Committees
- Hold a Community Open House to solicit feedback on potential projects
- Use outreach input and technical evaluations to identify a preferred list

The initial project list was refined and then presented to the Technical and Citizen Advisory Committees and a Community Open House was held to solicit feedback. Using the outreach input and the technical evaluations, City staff reviewed the project list and developed the preferred list of projects. Several local street projects were also added that were noted to be important to the community. Once the project list was established, it then moved into the prioritization process.

## **Funding Summary**

Although a financing plan is not required for small city TSPs, developing an understanding of how projected funding needs compare with available revenues is important.



## Existing Revenue

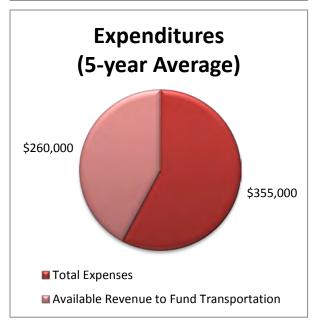
The City of Talent collects revenue from a variety of sources that can be used to fund roadway, pedestrian, bicycle, and transit maintenance and improvement projects. The City's Street Fund allocates monetary resources toward general transportation system operations, maintenance, and minor improvement projects. Spending priorities for the Street Fund have been placed on right-of-way maintenance, street

repairs, striping, and other maintenance actions necessary to keep the transportation system in stable, usable condition. A smaller source of revenue are System Development Charges (SDCs), which are fees assessed on new building permits at the time development occurs to mitigate the impact of new developments on existing public infrastructure. Street projects are funded by the Transportation SDC fund, which collects fees from new development based on the expected level of traffic generation for a given land use.

# Revenue Sources (5-year Average) \$75,000 \$540,000 City Street Fund Transportation SDC Fund

## Revenue Expectations

Based on a review of previous City budgets, an estimated \$615,000 of revenue is available annually from the Street and Transportation SDC funds, the two main sources of revenue for transportation projects. Over 20 years, the City is expected to earn \$12.3 million in transportation revenue (2014 dollars) assuming that existing funding sources remain stable and no new revenue streams are established. In addition, the City spends an average of \$355,000 annually on expenses related to



personnel, materials and services. Assuming that expenses continue at approximately 58 percent of total revenue, the City can expect \$260,000 per year or \$5.2 million in net revenue over the 20-year planning horizon of the TSP.



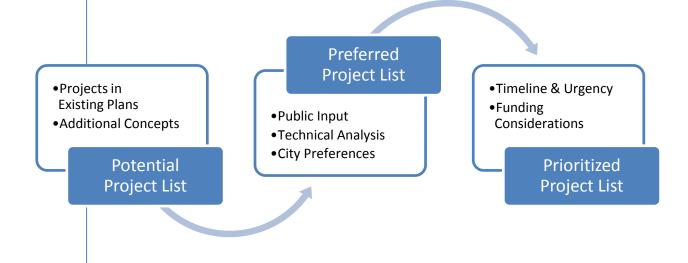
### Additional Revenue Resources

In addition, there are various funding sources which the City could leverage to finance transportation improvements. However, most of these opportunities would involve applying for competitive grants that require interagency cooperation with regional and state partners. Any projects in Talent entered into the Statewide Transportation Improvement Program (STIP) are eligible for federal funding from the Surface Transportation Program (STP). Talent is also located in the Rogue Valley Metropolitan Planning Organization (RVMPO), which maintains a list of projects in its Regional Transportation Plan (RTP) that are eligible for discretionary funds paid through the federal STP and Congestion Management/Air Quality (CMAQ) programs. Other potential funding mechanisms include a citywide gas tax, local improvement districts (LID), downtown parking fees, revenue bonds and statewide grant and loan funding opportunities which include the ConnectOregon, Oregon Transportation Infrastructure Bank, Immediate Opportunity Fund and Special City Allotment programs. Transit improvements to local bus service in collaboration with the Rogue Valley Transit District (RVTD) can be financed through formula funds from the Federal Transit Administration.

Technical Memorandum # 5: Preferred System Plan, Appendix A in provides a complete overview of funding for transportation system projects in the Talent TSP. It identifies potential local, state, regional, and federal funding sources that could be used for the implementation of projects recommended as part of the preferred transportation system. Transportation system revenue forecast assumptions that incorporate these funding sources are also included.

## **Project Prioritization**

The general steps taken to move from the potential project list to a prioritized list of projects are illustrated below.





Since the advancement of any project is contingent upon the availability of future funding, it is important to establish a flexible program of prioritized projects that meet diverse stakeholders needs while leveraging current and future funding opportunities. Ultimately, this refined and prioritized list is intended to serve as a menu of projects, with multiple factors that can be used together to assess the highest priority projects that can be completed within the available budget.

Projects for the TSP are prioritized based on community priorities, urgency of the need, funding availability and complexity of the project. Two factors were considered in the prioritization process 1) need (high, medium, and low priority), and 2) by time frame for implementation (short, medium, long, and development driven). The factors below were used for prioritizing projects.

Using the outreach input, technical evaluations, and suggested guidelines for prioritizing projects, City staff reviewed the preferred project list and identified a priority (high, medium, low) and timeline (short, medium, long, development driven) for each project.

#### **Priority**

- High priority with significant benefits to the community
- Medium importance with moderate benefits to the community
- Low importance with limited localized benefits

#### Time Frame

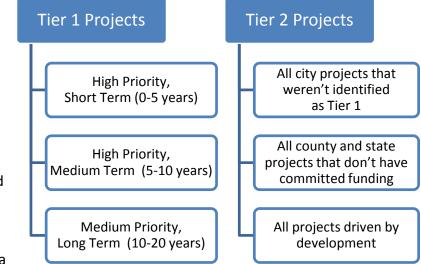
- Short Term Projects addressing existing transportation issues which should be prioritized for funding
- Medium Term Projects are generally larger and more complex in nature (possibly needing planning or environmental analysis) but still requiring near-term funding consideration
- Long Term Projects with unmet "triggers" or other dependence on interim projects; with the least urgent need for funding
- Development Driven Projects that would only occur with future development

#### **Funding Considerations**

The preferred project list was developed with an unconstrained budget to identify a comprehensive list that focuses on filling gaps and meeting needs. However, the total cost of the project list is greater than the City's ability to raise transportation funds. Projects that would be funded with the City as the primary funding source total nearly \$17 million and an additional \$2 million in projects could require some city contributions. As identified in the Funding Summary, net revenue for transportation projects is estimated at \$5.2 million in net revenue over the 20-year planning horizon of the TSP. The difference is a gap of more the \$11 million.



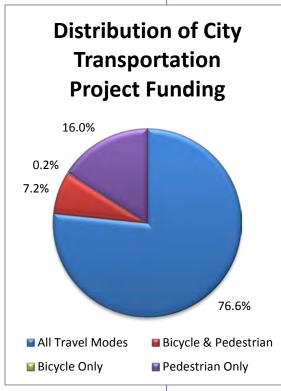
To acknowledge the gap in funding, the project list was further divided into Tier 1 projects, which have a reasonable likelihood of being funded with existing sources, and Tier 2 projects, which would require new funding sources for implementation. For the draft project list, a simple process was



used to suggest a funding tier for City projects, as shown to the right.

Using these criteria, 18 projects were identified as Tier 1, including one project on OR 99 that is currently included in the STIP. The total comes to nearly \$8 million in city-funded projects which is greater than the forecast of city revenue for transportation projects based on recent trends. Additional refinement to the project list may be necessary unless higher local revenues for transportation can be secured.

## Recommended Project List



The preferred project list resulting from the selection and prioritization process is summarized in Table 1. The list consists of 50 complete streets and trails projects. The complete streets projects include all improvements that upgrade streets to better serve all travel modes. These projects may be as simple as adding a sidewalk to one side of the street or may involve a complete upgrade to improve the quality of the facility for vehicles, bicyclists, and pedestrians. All new street construction for development would meet the city standard for complete streets. The trails projects are off-street facilities that connect and expand trail network and also connect to or cross the street network. More detailed descriptions are included in the Section 5: Modal Plans.

A breakdown of how city revenue would be invested in the transportation system is illustrated to the left. This estimate includes both Tier 1 and Tier 2 projects that would be implemented by the City.



**Table 1. Summary of Complete Street & Trail Projects** 

			Mode							
9	Location	Description	/ehicle	Bicycle	edestrian	reight	Preliminary Estimated Cost	Priority	Likely Funding Source	Funding Tier
	ort Term (0-5 years)	Description	>	<u> </u>	ă		Cost	FIIOTILY	Source	IICI
1	West Valley View Rd - OR 99 to I-5	Restripe roadway to three lanes with buffered bike lanes and address bike lane transition at OR 99	✓	✓	<b>√</b>	<b>√</b>	\$250,000	High	City	Tier 1
2	First St - Main St to 850 feet north	Upgrade to local street standards	✓	✓	✓		\$380,000	High	City	Tier 1
3	Second St - Main St to West St.	Upgrade to local street standards	✓	✓	✓		\$210,000	High	City	Tier 1
4	Front St - Colver Rd to Urban Renewal Boundary	Add curbs and sidewalks to both sides of street	<b>✓</b>	<b>✓</b>	<b>✓</b>		\$450,000	High	City	Tier 1
5	Citywide Network	Create a bike priority network with hierarchy of bicycle routes throughout the city		<b>✓</b>			\$20,000	High	City	Tier 1
6	OR 99 - Rapp Rd to Talent City Limits	Add curbs and sidewalks and restripe existing roadway to three lanes with bike lanes (STIP Key Number 17478)	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>√</b>	\$3,300,000	High	State	Tier 1
7	Second St — Wagner St to Schoolhouse Rd	Add curb and sidewalk to west side of street			✓		\$150,000	High	City	Tier 1
8	Schoolhouse Road – Wagner Creek Road to 2nd Street	Add curb and sidewalk to north side of street			<b>✓</b>		\$160,000	High	City	Tier 1
9	Bear Creek Greenway at Suncrest Rd	Install traffic calming improvements on Suncrest Rd		✓	✓		\$100,000	High	County	Tier 2
	Wagner St RR Crossing	Upgrade crossing and provide for pedestrians and bicyclists and upgrade warning devices	<b>✓</b>	<b>✓</b>	<b>✓</b>		\$500,000	Medium	City	Tier 2
11	Talent Ave - Creel Rd to Alpine Way	Upgrade to collector standard	<b>√</b>	<b>√</b>	✓		\$960,000	Medium	City	Tier 2
12	Wagner St - Wagner Creek Road to 1st Street	Add curb and sidewalk to north side of street			✓		\$200,000	Medium	City	Tier 2
13	Wagner St - Railroad Crossing to John Street	Add curb and sidewalk to south side of street			✓		\$70,000	Medium	City	Tier 2
14	Main St - West St to Front St	Add curb and sidewalk to south side of street			✓		\$240,000	Medium	City	Tier 2
Me	dium Term (5-10 yea	ars)								
15	West Valley View Rd - OR 99 to I-5	Add hardscaping (landscaped islands and/or raised barrier) in bike lane buffers	✓	✓	✓	✓	\$250,000	High	City	Tier 1



**Table 1. Summary of Complete Street & Trail Projects** 

			Mode							
ID	Location	Description	/ehicle	Bicycle	Pedestrian	Freight	Preliminary Estimated Cost	Priority	Likely Funding Source	Funding Tier
16	Rapp Rd - 150' south of Graham Way to Wagner Creek Bridge	Rebuild and upgrade to (major) collector standard	<b>&gt;</b>	<b>\</b>	<b>\</b>	✓	\$1,080,000	High	City	Tier 1
17	Foss Rd - Wagner St to City Limits	Upgrade to collector standard	✓	<b>✓</b>	✓		\$400,000	High	City	Tier 1
18	Creel Rd – 75 feet east of Lithia Way to OR 99	Add curb and sidewalk to north side of street			✓		\$120,000	High	City	Tier 1
19	West Valley View Rd @ Wagner Creek Greenway Trail	Create a mid-block crossing with pedestrian-activated device		<b>\</b>	<b>\</b>		\$100,000	High	City	Tier 1
20	OR 99 - Creel Rd to Bear Creek Greenway connection	Construct a 10-foot-wide multi-use path along the east side of the highway		<b>\</b>	>		\$450,000	High	State	Tier 2
21	First St - Main St to Wagner St	Upgrade to local street standards	✓	<b>✓</b>	✓		\$270,000	Medium	City	Tier 2
22	Second St Main St to Wagner St.	Upgrade to local street standards	✓	<b>✓</b>	✓		\$240,000	Medium	City	Tier 2
23	OR 99 – Creel Rd (Talent City) Limits to S Valley View Rd	Restripe roadway to include a center turn lane, two through travel lanes (one in each direction), and shoulder	<b>✓</b>	<	<b>✓</b>	<b>✓</b>	\$700,000	Medium	State	Tier 2
24	Talent Ave - 200' south of Wagner St to Main St	Remove parking on one side of street (west) and stripe bike lanes through downtown Talent		<b>✓</b>			\$10,000	Medium	City	Tier 2
25	Front St - Urban Renewal Boundary to Wagner St	Add curb and sidewalk to west side of street			<b>✓</b>		\$320,000	Medium	City	Tier 2
26	OR 99 @ Wagner Creek Greenway Trail	Create a mid-block crossing with pedestrian-activated device		<b>✓</b>	✓		\$100,000	Medium	City /State	Tier 2
27	Wagner Creek Greenway Path OR 99 to 225 feet west of OR 99	Construct new 10-foot-wide multimodal path near Wagner Creek connecting to Bear Creek Greenway		<b>✓</b>	<b>√</b>		\$25,000	Medium	City	Tier 2
28	Wagner Creek Greenway Path OR 99 to West Valley View Rd	Construct new 10-foot-wide multimodal path near Wagner Creek connecting to Bear Creek Greenway		<b>√</b>	✓		\$60,000	Medium	Other	Tier 2
29	Wagner Creek Greenway Path West Valley View Rd to Bear Creek Greenway	Construct new 10-foot-wide multimodal path near Wagner Creek connecting to Bear Creek Greenway		<b>✓</b>	<b>√</b>		\$880,000	Medium	City	Tier 2



**Table 1. Summary of Complete Street & Trail Projects** 

			Mode							
ID	Location	Description	Vehicle	Bicycle	Pedestrian	Freight	Preliminary Estimated Cost	Priority	Likely Funding Source	Funding Tier
30	Bear Creek Greenway	Enhance connections to OR 99 throughout OR 99 corridor with wayfinding signage and other amenities		<b>√</b>	<b>√</b>		\$450,000	Medium	Other	Tier 2
31	Rapp Rd - Wagner Creek Bridge	Rebuild and upgrade to (major) collector standard	✓	✓	✓	✓	\$600,000	Medium	City	Tier 1
	Rapp Rd - Wagner Creek Bridge to Wagner Creek Rd	Rebuild and upgrade to (major) collector standard	<b>√</b>	<b>\</b>	<b>✓</b>	<b>✓</b>	\$950,000	Medium	City	Tier 1
Lon	g Term (10-20 years									
33	Wagner Creek Rd - West St to Rapp Rd	Upgrade to collector standard	<b>✓</b>	<b>✓</b>	<b>✓</b>		\$960,000	Medium	City	Tier 1
34	Talent Avenue – Rapp Road to Creel Road	Add curb and sidewalk to east side of street			✓		\$920,000	Medium	City	Tier 1
35	Rapp Rd – Graham Way to OR 99	Add curb and sidewalk to south side of street to eliminate gaps			✓		\$70,000	Medium	City	Tier 1
	Wagner Creek Greenway Path—Rapp Rd to Talent Ave	Construct new 10-foot-wide multimodal path near Wagner Creek		✓	✓		\$200,000	Medium	City	Tier 2
37	Bear Creek Greenway Access	Create ramp connection to north side of West Valley View Rd		>	✓		\$250,000	Medium	Other	Tier 2
38	Wagner St Extension - Talent Ave to West Valley View Rd	Construct new collector street (50 ft) to complete downtown improvements	>	>	✓		\$730,000	Medium	City	Tier 1
39	Bain St - First St to Wagner St	Upgrade to local street standards	✓	✓	✓		\$230,000	Low	City	Tier 2
	Westside Bypass - Wagner Creek Rd/Rapp Rd to Colver Rd	Construct new collector street west of city in Urban Reserve Area TA-1	>	>	<b>✓</b>	<b>✓</b>	\$2,730,000	Low	City	Tier 2
41	West Valley View Rd east of I-5	Widen shoulders		>	✓		\$1,500,000 <sup>1</sup>	Low	City/ County	Tier 2
42	West Valley View Road I-5 Overcrossing	Widen shoulders		✓	✓		\$8,000,0001	Low	State	Tier 2
43	Bear Creek Greenway	Upgrade 800 feet of path north of West Valley View Road to statewide multi-use path standards (minimum 10 feet, desired 12 feet)		<b>√</b>	<b>√</b>		\$305,000	Low	Other	Tier 2
44	Arnos Trail	Connect Arnos St to the Bear Creek Greenway		✓	✓		n/a	Low	Other	Tier 2



**Table 1. Summary of Complete Street & Trail Projects** 

			Mode								
ID	Location	Description	Vehicle	Bicycle	Pedestrian	Freight	Preliminary Estimated Cost	Priority	Likely Funding Source	Funding Tier	
Development Driven Projects											
45	Railroad District Collector—Belmont Rd to Rapp Rd  Construct new collector street to serve UGB area south and west of Railroad tracks and Urban Reserve Area TA-2		✓	<b>✓</b>	✓		\$4,100,000	Low	Other	Tier 2	
46	Rapp Rd Railroad Crossing	Realign street and upgrade crossing	✓	✓	✓	<b>√</b>	\$800,000	Low	City	Tier 2	
47	Belmont Rd - Talent Ave to Railroad District Collector	Upgrade to collector standard and upgrade railroad crossing & restrict other crossings (Pleasant View, Hilltop, public to south)		<b>✓</b>	<b>✓</b>		\$800,000	Low	City	Tier 2	
48	Suncrest Road Connector	Construct new collector street through Urban Reserve Area TA-5 from east of signal at OR 99 to Willow Springs Dr	<b>✓</b>	~	<b>✓</b>		\$1,500,000	Low	Other	Tier 2	
49	Colver Road – West UGB to OR 99	Add sidewalk to north side of street			<b>✓</b>		\$260,000	Low	City	Tier 2	
50	Suncrest Road – Autumn Ridge Road [east] to East UGB	Add curb and sidewalk to north side of street			<b>✓</b>		\$160,000	Low	City	Tier 2	
Cos	t Totals				Cit	ty O	nly	All Projects <sup>2</sup>			
Shor	t Term (0-5 years)		\$1,620,000				0,000	\$4,920,000			
Med	ium Term (5-10 years)		\$3,500				0,000		\$3,500,000		
	Long Term (10-20 years)						0,000 \$2,			\$2,680,000	
	Tier 1 Subtotal		\$7,800			-	-	Ş	\$11,100,00		
	Short Term (0-5 years)		\$1,970			-	-		\$2,070,00		
	Medium Term (5-10 years)		\$1,745,0			_	-	\$3,505,000			
	Long Term (10-20 years)		\$3,160,000				-	\$13,215,000			
	Development Driven Projects		\$2,020					\$7,620,000			
	2 Subtotal		\$8,895,000						26,410,00		
ΤΟΤ	AL COST		\$16,695,000 \$37,510,000							00	

#### Notes:

<sup>1.</sup> Project cost estimates from I-5 Exit 21 Interchange Area Management Plan Technical Memorandum #6: Concepts and Evaluation, December 30, 2014.

<sup>2. &</sup>quot;All Projects" includes those funded by the City as well as projects funded by other agencies or developers.



# **Section 5: Modal Plans**

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The modal plans describe Talent's preferred transportation system. The planned projects will provide a balanced and connected transportation network over the next 20 years. The list of planned projects consists of 50 complete streets and trails improvements (see Table 1 in Section 4: Project Prioritization and Funding).

The complete streets projects include all improvements that upgrade streets to better serve all travel modes. These projects may be as simple as adding a sidewalk to one side of the street or may involve a complete upgrade to improve the quality of the facility for vehicles, bicyclists, and pedestrians. Each future complete street project is identified in the modal maps if the improvements are relevant to the travel mode (i.e., street, pedestrian, bicycle).

The trails projects are off-street facilities that connect and expand trail network and also connect to or cross the street network. Each future trails project is identified on both the pedestrian and bicycle maps.

# Street System Plan

The street system plan consists of lane conversion projects, upgrading existing roadways to full urban design standards, and new construction that would be driven by future development. Figure 2 illustrates the street system plan including the location of projects and the functional classification of the roads. (Additional information is provided about functional classification in Section 6: Standards.)

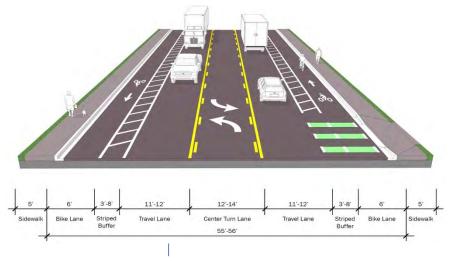
## Lane Conversion Projects

A lane conversion project is intended to improve the safety of all roadway users (vehicles, bicycles, and pedestrians) by modifying how the public right of way and pavement surface are used. Three lane conversion projects are identified in Talent. One is located on West Valley View Road, a city street, and two are located on OR 99.

**Streets Goal:** 

Provide a comprehensive system of streets and highways that serves the mobility and multimodal travel needs of the Talent urban area.

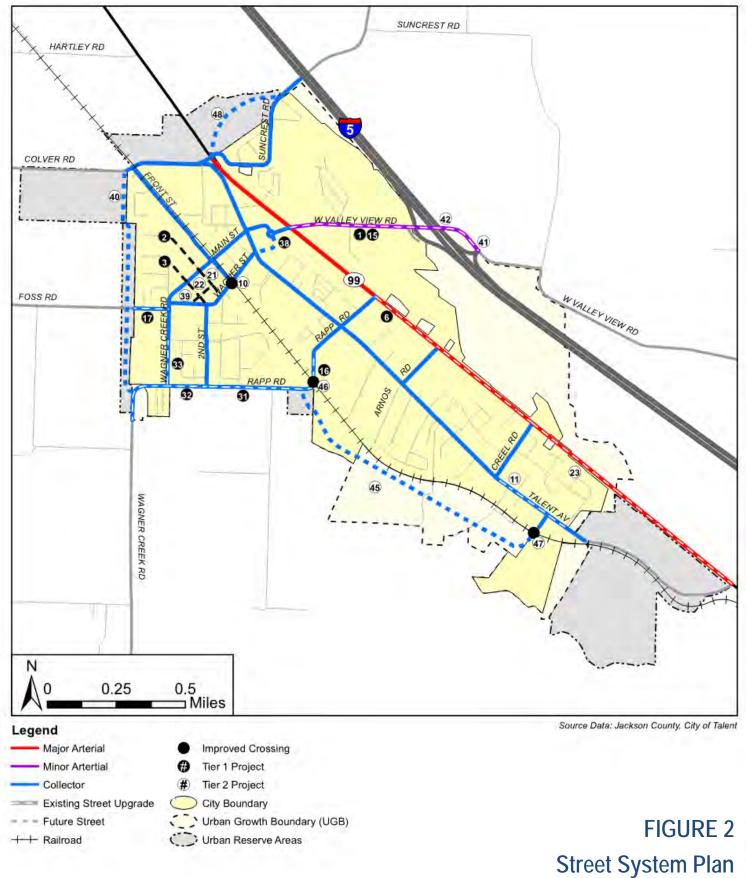
**Project 1: West Valley View Road Striping Concept** 



# West Valley View Road (Projects 1 and 15)

Projects 1 and 15 are phased improvements that would convert West Valley View Road from its current layout to three lanes with a buffered bike like between OR 99 and the Bear Creek Greenway. The first phase (Project 1) of the improvement would restripe the entire length of roadway as shown to the left. A center refuge lane would be included between OR 99 and I-5 to improve vehicular safety.

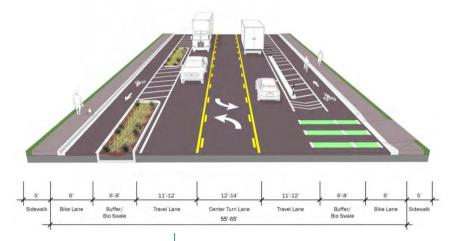






Although the new striping plan shows only one through travel lane in each direction, the three-lane plan should have plenty of capacity to meet future demand. Reducing the number of vehicular travel lanes allows the city to widen the bike lane and add a striped buffer between bicyclists and cars using the street. The bike lane transition at OR 99 will also be improved with the lane conversion.

**Project 15: West Valley View Road Hardscaping Concept** 



In the second phase (Project 15 shown to the left), some form of hardscaping, most likely low-maintenance landscaped islands, would be added. In addition to providing a more permanent buffer, the added treatment would enhance the gateway from the freeway into the city.

Pedestrians would also benefit from these improvements. When walking along the sidewalk, they would be further from the vehicular travel lanes. When crossing the street, they would have a shorter distance where they are exposed to traffic.

#### OR 99 – Rapp Road to Talent City Limits (Project 6)

ODOT currently has a project in the Statewide Transportation Improvement Program (STIP) to add curbs and sidewalks to OR 99 and restripe the existing roadway to provide a center turn lane, two through travel lanes (one in each direction), and bike lanes on both sides of the highway. This project (STIP Key Numb 17478) is currently planned for construction in 2017.

#### OR 99 – Talent City Limits to South Valley View Road (Project 23)

The OR 99 Corridor Plan identifies the lane conversion on OR 99 within the city limits continuing southward on the rural section of highway to South Valley View Road. A rural cross section would be provided with two through travel lanes (one in each direction), a center turn lane, and wide shoulders to accommodate other users (bicyclist and pedestrians) and allow for a distressed vehicle to pull out of the travel lane in the event of an emergency. Some portion of this project is located within the Talent UGB.

## Street Upgrades

Twelve city street segments were identified for upgrades to full urban design standards that include adequate paved surface for vehicular demand, sidewalks on both sides of the street, and appropriate bike facilities. Most of these projects are on collector roadways but there are some local street improvements included as well. In



addition to the city projects, two projects on the state- and county owned segments of West Valley View Road have been identified in the I-5 Exit 21 IAMP.

#### Talent Avenue Upgrade (Project 11)

Talent Avenue runs parallel to OR 99 for the entire length of the city. It is mostly improved to urban standards within the city limits but the segment south of Creel Road still needs urban features. Project 11 would upgrade Talent Avenue to a collector standard (assumed two travel lanes, bike lane, sidewalks, no parking) from Alpine Way to Creel Road.



#### Rapp Road Upgrades (Projects 16, 31, and 32)

Rapp Road is improved with sidewalks and bike lanes east of Graham Way but is unimproved west of Graham Way. Three projects would incrementally upgrade Rapp Road to a collector standard (assumed two travel lanes, bike lanes, sidewalks, no parking) for its entire length. Project 16 would upgrade Rapp Road from the end of the current improved section, about 150 feet south of Graham Way to just east of the Wagner Creek Bridge. Project 31 would upgrade the bridge over Wagner Creek. Project 32 would upgrade Rapp Road from the bridge west to the city limits.



#### Foss Road Upgrade (Project 17)

Foss Road is a county collector street than enters Talent from the west city limits and connects with Wagner Creek Road near Talent Elementary School. Project 17 would upgrade Foss Road to a collector standard (assumed two travel lanes, bike lanes, sidewalks, no parking) within the city limits.



#### Wagner Creek Road Upgrade (Project 33)

Wagner Creek Road has sidewalks on the east side of the street from West Street to Rapp Road and bike lanes from West Street to School House Road. However, the bike lanes do not extend to Rapp Road and sidewalk is missing on the east side. This street provides access to both Talent Elementary and Middle Schools. Project 33 would upgrade Wagner Creek Road to a collector standard (assumed two travel lanes, bike lanes, sidewalks, no parking) within the city limits.



#### Wagner Street Rail Crossing (Project 10)

The Wagner Street rail crossing is currently controlled with STOP signs and does not include any type of warning device or gates that would be activated in the presence of a train. Project 10 would upgrade the crossing to include activated gates and also improve the bicycle and pedestrian facilities across the tracks. Improvements at this crossing may be included as part of the CORP upgrades to the rail line.





#### Local Street Improvements (Projects 2, 3, 21, 22, and 39)

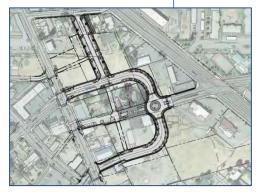
Some of the older residential neighborhood streets were constructed without curbs or sidewalks. Five projects would incrementally upgrade sections of First Street, Second Street, and Bain Street over time to local residential street standards (assumed 28-foot narrow section).

#### West Valley View Road (Projects 41 and 42)

The I-5 Exit 21 IAMP identifies two projects on West Valley View Road east of the Talent city limits. Project 41 would retrofit the bridge crossing over I-5 to allow two standard travel lanes with 4-foot shoulders for non-vehicular modes. Project 42 would widen West Valley View Road east of the overcrossing to the I-5 northbound ramp terminal with the same cross section (two travel lanes and 4-foot shoulders).

#### **Future Connections**

Six future connections projects are identified in the project list. These have all been identified previously in the 2007 TSP. With the exception of the Wagner Street extension, all of these projects are expected to be driven by development within the current UGB or in one of the Urban Reserve Areas; alignments have not been determined and the lines on Figure 2 are only intended to indicate the concept.



Prepared by ZCS Engineering

#### Wagner Street Extension (Project 38)

Project 40 would complete the downtown improvements by extending Wagner Street from Talent Avenue eastward to connect with the roundabout on West Valley View Road. This project is part of the urban renewal plans for downtown but has not yet been constructed because the right of way is not currently available.

#### Westside Bypass (Project 40)

The westside bypass is identified as a connection between Colver Road and Wagner Creek Road to be constructed in the Urban Reserve Area TA-1 west of the current city limits.

#### Railroad District Master Plan Network (Projects 45, 46, and 47)

Three projects associated with the development of the land identified as the Railroad District have been included in the TSP. Project 45 is the collector roadway that would extend the length of the Railroad District from Rapp Road to Belmont Road. Project 46 would realign Rapp Road and improve the railroad crossing when the Railroad District connection to Rapp Road occurs. Project 47 would upgrade Belmont Road and improve the railroad crossing when the Railroad District connection to Belmont Road occurs. Project 47 could also involve restricting other private and public crossing in exchange for the increased activity at Belmont Road.



#### Suncrest Road Connector (Project 48)

Project 48 would extend through Urban Reserve Area TA-5 as a collector street connecting with Suncrest Road east of the traffic signal with OR 99 and in the vicinity or Willow Springs Drive.

#### Planned Local Connections

Other opportunities exist for extensions of the local street system but they have not been included as projects in the TSP. However, planned connections of the local street system are tabulated and mapped Appendix B. These planned connections focus on vacant or under-utilized parcels. The City of Talent will require that any development proposal in these areas include these planned connections. They are deemed to be essential components in the transportation system. The locations and alignments shown are not intended to be precise; they are starting points for planning.

## **Bicycle System Plan**

Talent's bicycle system benefits from many of the lane conversion and upgrade projects identified under the street system improvements. The additional projects that benefit the bicycle system are mostly trails projects but there is one on-street project identified as well. Figure 3 illustrates the location of existing bicycle facilities along with the type and location of future improvements. It identifies all projects that benefit the system, including those described for the street plan.

## Citywide Network

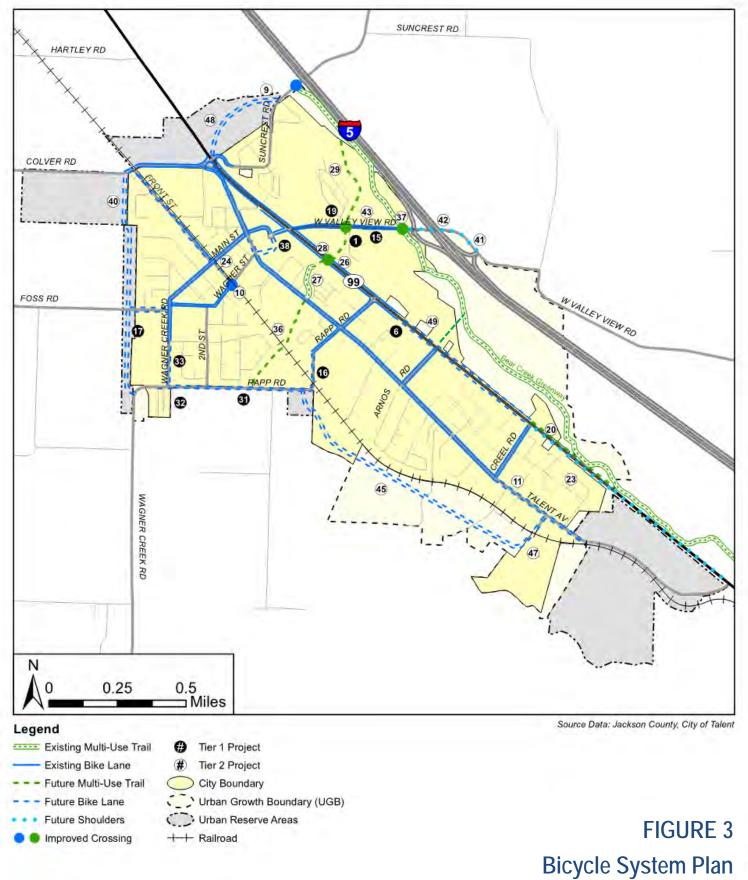
Project 5 identifies a citywide priority network of interconnected bicycle routes that would enable people to satisfy their daily travel needs within the city or surrounding region by bicycle. As illustrated in Figure 4, the priority network would provide connections to key local destinations, including schools, parks, the library, downtown Talent, and other identified activity centers. The classification system would set up a hierarchy of bikeways in Talent that reflect the type of facility and would be accompanied by bicycle wayfinding signage that indicates the direction of travel, location of nearby destinations, and travel time and distance to those destinations.

Type 1 Bikeways. These regional facilities would form the spine of the
network, consisting of high-quality, high-priority routes that provide direct,
relatively unimpeded access between local and regional area destinations.
The existing Bear Creek Greenway presently performs this function, as it
connects Talent with major regional destinations in Ashland and Medford.
Type 1 Bikeways would prioritize bicycle traffic on separated or buffered
facilities, primarily multi-use paths.

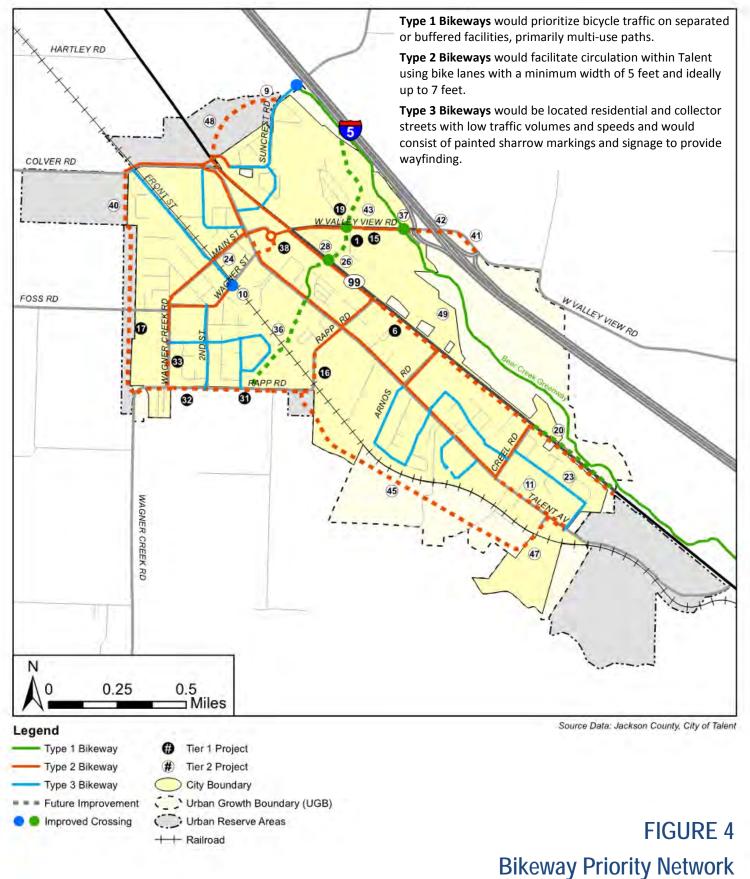
#### **Bicycle Goal:**

Facilitate and encourage the increased use of bicycle transportation in talent by ensuring that convenient, accessible and safe cycling facilities are provided.





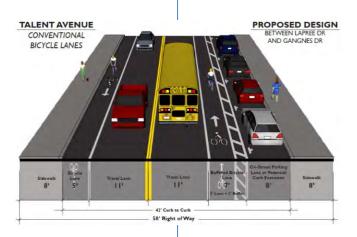






- Type 2 Bikeways. These routes would facilitate circulation within Talent using bike lanes with a minimum width of 5 feet and ideally up to 7 feet. Type 2 facilities would provide relatively quick access between residential neighborhoods and local destinations such as downtown Talent, schools, transit stops and parks.
- Type 3 Bikeways. These neighborhood routes would be located mostly on residential and collector streets with low traffic volumes and speeds. They are designed to provide safe, comfortable, low-stress access to short-distance destinations within neighborhoods and for individuals of all bicycling confidence levels and families of all ages. Bicycle-specific infrastructure would consist of painted sharrow markings and signage to provide wayfinding.

## Downtown Connectivity



Talent Avenue is an important north-south bicycling route within the city, with bike lanes in both directions for the majority of the way between Colver Road and Creel Road. The one exception is a short stretch (approximately 850 feet) between Lapree Street and a point south of Wagner Street where the bike lanes end because the street is too narrow to provide bike lanes in addition to two travel lanes and on-street parking. Project 24 would eliminate parking on one side of the street to allow bike lanes to be striped through town. The removal of parking on the west side of the street would result in the loss of 9 existing on-street spaces.

## Bear Creek Greenway Improvements

Four projects to enhance the Bear Creek Greenway trail in or near Talent are included in the TSP.



#### Bear Creek Greenway at Suncrest Road (Project 9)

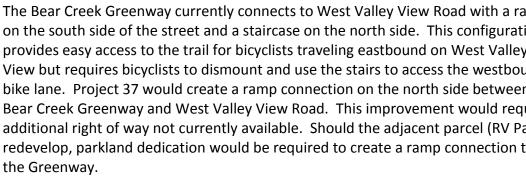
There is a gap in the Bear Creek Greenway trail at Suncrest Road just north of the Talent city limits. The south leg intersection is 375 feet east of the north leg intersection, and trail users are required to use Suncrest Road on a narrow bridge across Bear Creek with two travel lanes and no bike lanes or sidewalks. Project 9 would install warning signage and possibly user-activated traffic safety warning devices to alert motorists to the presence of trail traffic. Due to the location along the outside of the city UGB, this would be a Jackson County project.







The Bear Creek Greenway currently connects to West Valley View Road with a ramp on the south side of the street and a staircase on the north side. This configuration provides easy access to the trail for bicyclists traveling eastbound on West Valley View but requires bicyclists to dismount and use the stairs to access the westbound bike lane. Project 37 would create a ramp connection on the north side between the Bear Creek Greenway and West Valley View Road. This improvement would require additional right of way not currently available. Should the adjacent parcel (RV Park) redevelop, parkland dedication would be required to create a ramp connection to





## Bear Creek Greenway Trail Widening (Project 43)

Currently, the Bear Creek Greenway is only 7 feet wide for approximately 800 feet north of West Valley View Road due to topography and right of way constraints. The narrow width compromises safety and comfort as it makes it difficult for trail users going in opposite directions to pass each other, or for faster users to overtake slower users travelling in the same direction. Project 43 would widen the Bear Creek Greenway trail to statewide multi-use path standards where it is currently substandard north of the Bear Creek Bridge. Parkland dedication would be required from adjacent property for implementation.

#### Bear Creek Greenway Enhanced Connections (Project 30)

The OR 99 Corridor Plan includes a project to enhance connections between the Bear Creek Greenway and OR 99 with wayfinding signage and other amenities at existing and new trail access points. Project 30 in this TSP supports the plan for enhancing existing connections from South Medford to North Ashland. The TSP also includes three future multi-use path connections to the Greenway that would be developed in the future.

## Wagner Creek Greenway Improvements

The planned Wagner Creek Greenway is a trail that would connect from Rapp Road to the Bear Creek Greenway traversing northward through Talent. A short segment of the trail has been constructed northward from Talent Avenue; however, most of the trail does not yet exist. Construction of the remainder of the Wagner Creek Greenway has been divided into six discrete projects.



#### Wagner Creek Greenway Trail Completion (Projects 27, 28, 29, and 36)

Completing the Wagner Creek Greenway from the existing segment northward to the Bear Creek Greenway has been identified as three project segments because land ownership may affect how and when segments can be completed. Project 27 would connect the trail from its current end to OR 99. Project 28 would complete the trail



segment between OR 99 and West Valley View Road. Project 29 would make the connection from West Valley View Road to Bear Creek Greenway.

Project 36 would complete the Wagner Creek Greenway trail southward from Talent Avenue to Rapp Road. The trail would likely pass under the railroad tracks because grade separation is needed.

#### Wagner Creek Greenway Trail Crossings (Projects 19 and 26)

The Wagner Creek Greenway would cross both OR 99 and West Valley View Road at midblock crossings. Project 19 would create a crossing with a pedestrian-activated device, such as a rectangular rapid flashing beacon (RRFB), on West Valley View Road. This midblock crossing has additional merit because it can serve connect residential development on the south side of West Valley View Road with commercial services to the north. Project 26 would install a midblock crossing with pedestrian-activated device on OR 99. This project is also identified in the OR 99 Corridor Plan.

#### Additional Trail Connections

Two additional multi-use trail connections are identified in the TSP.

#### OR 99 Multi-Use Path (Project 20)

The OR 99 Corridor Plan identifies a multi-use trail on the east side of the highway from Creel Road southward to a connection with the Bear Creek Greenway. This connection (Project 20) would allow users who cross the highway at Creel Road to safely travel on an off-street facility to the Greenway. This trail would be the southernmost connection to the Greenway, which crosses to the east side of Bear Creek and has no other connection points until West Valley View Road.

#### Arnos Multi-Use Path (Project 44)

Project 44 would create a multi-use path connection from OR 99 (near Arnos Road) across Bear Creek to connect with the Bear Creek Greenway. This trail is identified in the Parks Master Plan.

# Pedestrian System Plan

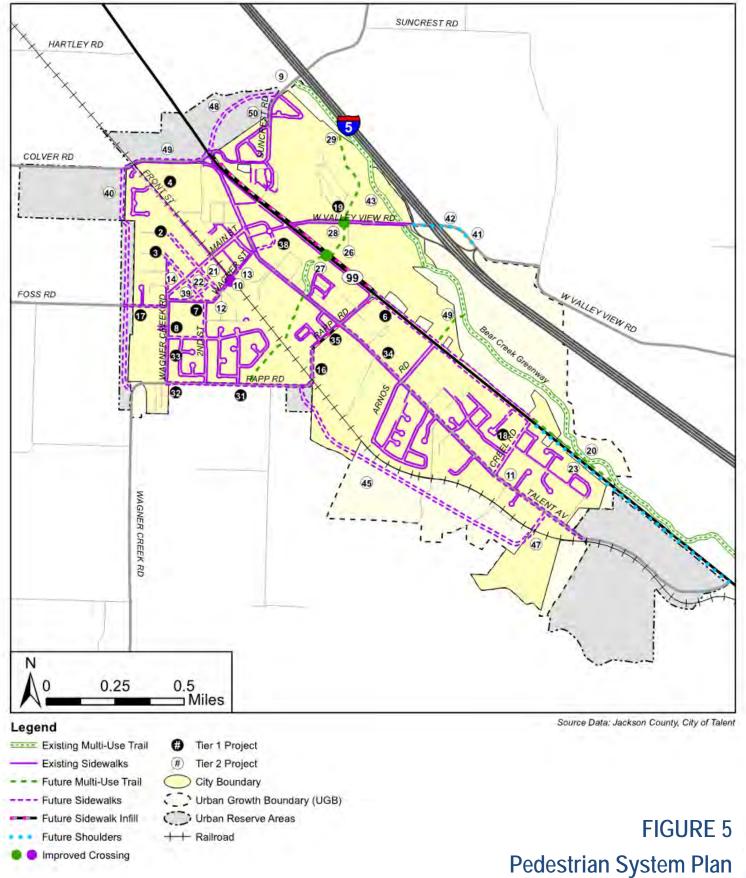
Talent's pedestrian system benefits from many of the lane conversion and upgrade projects identified under the street system improvements as well as the trail projects described for the bicycle system. The additional projects that benefit pedestrians are sidewalk projects that fill in gaps in the pedestrian system. Figure 5 illustrates the location of existing pedestrian facilities along with the type and location of future improvements. It identifies all projects that improve the pedestrian network, including those described for the street and bicycle plans.



#### **Pedestrian Goal:**

Provide a comprehensive system of connecting sidewalks and walkways that will encourage and increase safe pedestrian travel.











Since the 2007 TSP was adopted, the City of Talent has made large strides in completing its sidewalk network along arterial and collector roadways; however, some gaps still remain. The following new or improved connections are recommended to improve pedestrian mobility and access to local destinations such as schools, parks, and downtown destinations. Most are along arterial or collector roadways, with the exception of one that is adjacent to Talent Elementary School.

Sidewalk network improvements are illustrated in Figure 5 and include:

- Project 4: Front Street Add curbs and sidewalks to both sides of the street from the Urban Renewal Boundary to Colver Road
- Project 7: Second Street- Add curb and sidewalk to the west side between Wagner Street and Schoolhouse Road
- Project 8: Schoolhouse Road Add curb and sidewalk to the north side between Wagner Creek Road and Second Street
- Project 12: Wagner Street Add curb and sidewalk to the north side between Wagner Creek Road and First Street
- Project 13: Wagner Street Add curb and improve sidewalk on the south side between the railroad crossing and John Street
- Project 14: Main Street Add curb and sidewalk to the south side between
   West Street and Front Street
- Project 18: Creel Road Add curb and sidewalk where missing on the north side between Lithia Way and OR 99
- Project 25: Front Street Add curb and sidewalk to the west side between the Urban Renewal Boundary and Wagner Street.
- Project 34: Talent Avenue Add curb and sidewalk to the east side between Rapp Road and Creel Road
- Project 35: Rapp Road Add curb and sidewalk to the south side to fill in remaining gaps between Graham Way and Talent Avenue



# Additional Projects with UGB Expansion

Two additional sidewalk projects were identified should Talent's UGB expand to include one or more of the Urban Renewal Areas. These projects include:

- Project 49: Colver Road Add curb and sidewalk to the north side from OR 99 to the west UGB when TA-4 is brought into the UGB
- Project 50: Suncrest Road Add curb and sidewalk to the north side from Autumn Ridge Road (east) to the east UGB when TA-5 is brought into the UGB



#### **Transit Goal:**

Support a transit system that provides convenient and accessible transit services to the citizens of the talent urban area.



## **Transit System Plan**

RVTD provides public transportation to the City of Talent. RVTD Route 10 passes through Talent along OR 99 and Talent Avenue. The route connects Talent to the Cities of Ashland, Phoenix, and Medford with connections available to five additional routes at the Front Street Transfer Station in Medford.

The complete streets and trails projects identified in this TSP support transit by improving multimodal links to bus stops along the existing routes. New sidewalks at bus stops will allow for amenities, such as shelters and seating, to be added along the Route 10.

## Existing Route 10 Enhancements

Route 10 currently experiences on-time performance issues. The route is long (over 13 miles one way) and the current route cycle is approximately one hour and 45 minutes, making schedule adherence difficult. RVTD is continuing to review options to improve travel speeds and on-time performance, which may include eliminating or combining some stops along the route as well as different route options.

#### **Route Service Adjustments**

RVTD is also evaluating the possibility of splitting Route 10 into two separate routes with a transfer in Talent. Splitting the route would improve on-time performance and better serve the relatively high demand for transit travel between Talent and Ashland. The Talent Depot building has been identified as a potential transfer location.<sup>3</sup>

#### City Circulator

RVTD includes circulator service in its long range transit plan. A city-wide circulator service could connect riders to routed bus service and provide access to community destinations within Talent. RVTD is presently evaluating potential route options for the circulator service. The circulator could serve residential areas to the west of Talent Ave that are currently beyond the ¼-mile walking distance generally considered ideal for transit access.

#### Feeder Service

Deviated fixed-route and/or feeder service could connect riders who live too far from an existing RVTD stop to routed service. RVTD is considering a "Valley Feeder" service that would make use of unused capacity in the paratransit system; the Feeder service

<sup>&</sup>lt;sup>3</sup> Talent Depot construction was partially funded with grants monies from RVTD. The grant stipulates that RVTD have access to the property and building for potential transit use.





would be available to residents within ¾ mile of an existing RVTD line. Riders could call and reserve a ride on an available paratransit vehicle to their nearest bus stop or final destination (dependent on location).

#### Schedule Information

None of the bus stops in Talent have printed schedule information available. As indicated by the rider survey, many transit riders likely rely on printed schedule information. Schedule information could be provided at all stops in Talent at relatively low cost.

# High Capacity Transit

RVTD is also exploring options for providing High Capacity Transit (HCT) between Central Point and Ashland within the OR 99 corridor. The process is in the early stages of development with a focus on understanding community perception of transit enhancements. The goal of HCT is to provide improved travel times and schedule reliability in the heavily used OR 99 corridor. HCT options could include express bus service, Bus Rapid Transit (BRT), and commuter rail service.

In conjunction with the community perceptions work, RVTD is completing an operational analysis to better understand the capital and funding requirements to implement HCT. They have documented the schedule reliability and passenger capacity issues experienced along the corridor. RVTD has many of the HCT elements already in place. These include low-floor buses, an upcoming electronic fare collection system, and a strong marketing program. RVTD is now pursuing transit signal priority in the corridor.



The City of Talent does not have an airport within its UGB and relies on other airports in the region for air service. The Rogue Valley International Medford Airport offers commercial passenger service and air freight transportation. The City of Ashland operates a general aviation airport.

## **Rail Transportation**

The Central Oregon and Pacific (CORP) Railroad line runs through Talent, west of OR 99 from Springfield, Oregon to Black Butte, California. Although no trains are currently running on the section of CORP track south of Medford, Oregon and CORP were awarded a \$7.1 million grant to repair and reopen the line. Once repairs are made, it is very likely that freight service will resume on the rail line within Talent. No passenger rail service is available.

This TSP includes three projects to upgrade existing rail crossings in Talent:





- Project 10: Wagner Street Railroad Crossing Upgrade crossing warning devices and provide for pedestrians and bicyclists
- Project 46: Rapp Road Railroad Crossing Realign street to improve angle of crossing when the Railroad District collector street is developed
- Project 47: Belmont Road Railroad Crossing Upgrade crossing warning devices and restrict other crossings (Pleasant View and Hilltop Road) when Railroad District collector street is developed

# **Pipeline Transportation**

No changes to the pipeline system are planned.

# **Water Transportation**

No water transportation is located in Talent.



# Section 6: Standards

Functional Classification	
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Standards ensure that the projects in this plan have clear guidance on how they should look. Combined with supporting code, the standards also ensure that future development is consistent with the goals of this TSP. This section defines the functional classification of the transportation system and the appropriate street design, access, and mobility standards.

#### **Functional Classification**

Streets and highways are assigned a classification to indicate purpose, design and function. This functional classification ensures that streets are built and maintained with features that can support demand from both the surrounding land uses and from traffic that may be traveling through parts of the city. It also describes how adjacent properties are accessed and how much mobility the street provides, as illustrated below.

#### **Functional Classification** Unrestricted Local Access Number of Access Points Less Control Collector (Driveways, Parking, Loading Arterial Zones, etc.) Highway More Control Full Access Control Freeway Low Speed Increaing Speed High Speed No Through Less Local Traffic Minimal Local Traffic More Through Traffic Traffic **Mobility**

The functional classification system for the Talent street network includes five classifications as shown in Figure 6:

- Interstate
- Minor and Major Arterial (including highways)
- Collector
- Local Street



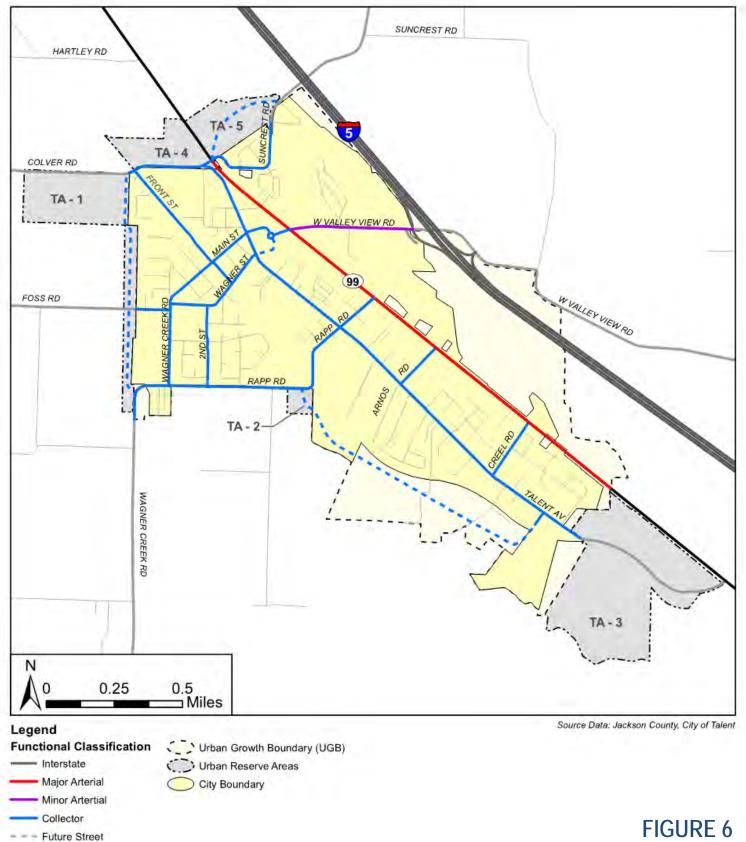


FIGURE 6 Functional Classification System



## **Complete Street Standards**

The traditional term "street standards" implies a focus on the requirements to serve motor vehicles but the design guidance actually addresses pedestrian, bicycle, and motor vehicle needs. The standards are multimodal or "complete."

The standards in Table 2 generally apply to new development. Where the City is upgrading existing streets and cannot obtain more right-of-way, it shall not be bound by a strict application of the standard cross-sections. Safety and efficiency for all modes should be the primary concern when designing the upgrade.

#### **Arterials**

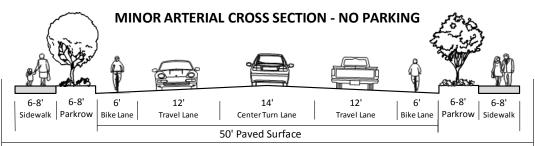
Arterial streets form the primary roadway network within and through a region. They provide a continuous roadway system that distributes traffic between different neighborhoods and districts. They provide limited access to abutting land with a greater focus on mobility and through traffic movement. Arterial streets carry the highest volumes on the network. On-street parking is rarely provided on new arterial streets. Talent's functional classification includes major and minor arterial streets.

#### Major Arterial

The only street classified as a major arterial in Talent is OR 99. The segment from Suncrest Road to Rapp Road is five lanes and was constructed to ODOT standards. The section from Rapp Road to the Talent city limits will be improved by ODOT to provide three lanes with bike lanes and sidewalks according to their standards.

#### Minor Arterial

The minor arterial standard includes three travel lanes (two through lanes and a center turn lane) with bike lanes and sidewalk, as illustrated below. Table 2 also includes an option with on-street parking. Sidewalks shall be at least 8 feet in commercial areas. Tree wells may be substituted for the parkrow if on-street parking is included to allow direct sidewalk access from vehicles. The center turn lane may be replaced with a 10-foot raised median.



80' Minimum Right-of-Way



**Table 2. City of Talent Complete Street Design Standards** 

	Minimum Design Widths									
			١	Within Curb-	To-Curb Are	a				
Functional Classification	Right- of-Way	Minimum Curb-To- Curb Paving <sup>1</sup>	Motor Vehicle Travel Lane	Median and/or Center Turn Lane	Bike Lane (Both Sides)	On- Street Parking	Parkrow (Both Sides)	Sidewalks (Both Sides)	Average Daily Trips (ADT)	
Major Arterial/Highw	ay									
3 Lanes 5 Lanes		ODOT :	standards		6 ft	None	Min. 4 ft or Tree Wells	6-10 ft	10,000 to 30,000	
Minor Arterial									·	
3 Lanes	80 ft	50 ft	12 ft	14 ft	6 ft	None	Min. 4 ft or		5,000 to	
3 Lanes with Parking	90 ft	66 ft	12 ft	14 ft	6 ft	8 ft	Tree Wells	6-8 ft	14,000	
Collector – Residentia	ı	1								
No parking	70 ft	36 ft	12 ft			None	6–8 ft			
Parking one side Parking both sides	70 ft 80 ft	43 ft 50 ft	11-12 ft	N/A	6 ft		3–8 ft	6 ft	1,500 to 6,000	
Multi-Use Path <sup>2</sup>	70 ft	36 ft	11-12 ft		10-12 ft path	- 7-8 ft	4-6 ft	6 ft one side		
Collector – Commercia	al	1	1			1		<u>'</u>		
Parking one side	70 ft	43 ft	11 12 ft	NI/A	c ft	7.0 ft	Troc Wells	0 10 ft	2,000 to	
Parking both sides	70 ft	50 ft	11-12 ft	N/A	6 ft	7-8 ft	Tree Wells	8-10 ft	6,000	
Local – Residential/Co	mmercial									
Parking one side	60 ft	32 ft	Unstriped	N/A	N/A	Unstriped	6–8 ft	5 ft	200 to	
Parking both sides	60 ft	36 ft	Unstriped	IN/A	N/A	Unstriped	0-611	311	1,500	
Narrow Exception <sup>3,4</sup>	50 ft	28 ft	Unstriped	N/A	N/A	Unstriped	5 ft	5 ft	200 to 800	
Cul-de-sac <sup>4</sup>	60 ft	32 ft	Unstriped	N/A	N/A	Unstriped	None	5 ft	< 500	
Alley <sup>4</sup>	20–24	18-20	N/A	N/A	N/A	none	none	optional	N/A	
Local – Industrial										
Parking both sides	60 ft	40 ft	Unstriped	N/A	N/A	Unstriped	Behind <sup>5</sup>	5-6 ft	<1,200	
Local – Commercial Se	ervice/Alle	у	_							
No Parking	30 ft	20 ft	Unstriped	N/A	N/A	None	None	4 ft <sup>6</sup>	200 to	
Parking one side	40 ft	28 ft	Onstriped	13/7	11/7	Unstriped	NOTIC	711	1,500	
Trails	ı		ı							
Trails	10-20 ft	10-12 ft	N/A	N/A	N/A	N/A	2–7	N/A	N/A	

#### Notes

- 1. Curbs are generally six (6) inches wide.
- 2. Collector with multi-use path includes sidewalk on one side of street and path on other side of street.
- 3. This standard is only applicable to residential streets under certain conditions and requires Planning Commission approval for the exception.
- 4. Not appropriate standards for commercial streets.
- 5. Street trees shall be located on the outside edges of the ROW.
- 6. Sidewalk required on one side only.

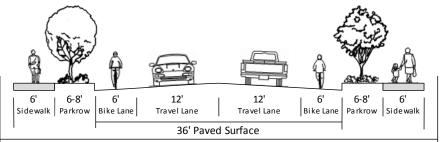


#### Collector Streets

Collector streets gather traffic from neighborhoods local streets and distribute traffic to and from and arterial streets. Collector streets are primarily intended to serve abutting lands and local access needs of neighborhoods. They are intended to carry between 1,500 and 6,000 vehicles per day, including limited through traffic. Collector streets can serve residential, commercial, industrial, or mixed land uses.

The residential collector standard includes two travel lanes with bike lanes and sidewalk, as illustrated below. An option to include on-street parking on one or both sides of the street has also been included.

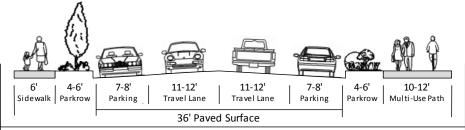
#### **RESIDENTIAL COLLECTOR CROSS SECTION - NO PARKING**



70' Minimum Right-of-Way

A residential collector with a multi-use path has also been identified as an option that provides an off-street bicycle facility rather than bike lanes.

#### RESIDENTIAL COLLECTOR CROSS SECTION WITH MULTI-USE PATH

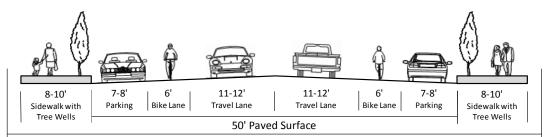


70' Minimum Right-of-Way



Sidewalks shall be at least 8 feet in commercial areas and tree wells should be substituted for the parkrow when on-street parking is present so that drivers have direct sidewalk access from vehicles.

#### COMMERCIAL COLLECTOR CROSS SECTION - PARKING BOTH SIDES



70' Minimum Right-of-Way

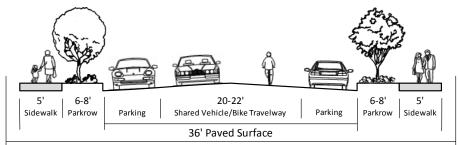
#### Local Streets

Local streets are intended to serve adjacent land uses with unrestricted access and almost no traffic traveling through the area. These streets serve all modes of travel and should have sidewalks to accommodate pedestrians but bicyclists share the roadway with motor vehicles because demands are low and travel speeds are slow.

Local residential streets are narrower and generally allow on-street parking while local industrial streets may be wider to accommodate turning trucks, as illustrated below.

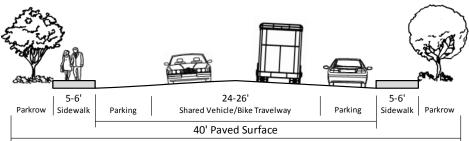


#### **LOCAL RESIDENTIAL CROSS SECTION - PARKING BOTH SIDES**



60' Minimum Right-of-Way

#### LOCAL INDUSTRIAL CROSS SECTION



60' Minimum Right-of-Way

#### Narrow Street Exception

An exception to the local residential standard may be considered by the Planning Commission under certain conditions:

- Average Daily Traffic is not reasonably expected to exceed 800 trips.
- Distance between cross streets is no more than 600 feet.
- The street is a cul-de-sac not designed to provide future through-connection.
- Expected parking demand can be met off street (considering the land uses/zoning in the vicinity).
- The street is provided as an infill connecting street within an existing grid system or will be a short segment (no more than two blocks) fulfilling a similar secondary role in a proposed subdivision.
- The street has alley access on at least one side (however, the City may still require standard right-of-way widths because of the resultant availability of uninterrupted curb for continuous on-street parking).

Although the City may agree that a wide street is not necessary *now*, it may become necessary in the future. For this reason, the Planning Commission may require dedication of a standard right-of-way—with reduced paving width when initially built—so the City may increase capacity when needed. The Commission may also



consider requiring the provision of additional parking on a one-to-one basis to compensate for loss of on-street parking. Such parking may be located in mini-lots or some other alternative.

#### Cul-de-Sacs

Cul-de-sac streets are common in the newer, westerly part of the community. Few are longer than 200 feet. Cul-de-sac streets are intended to serve only the adjacent land in residential neighborhoods. Based on recent guidance from the Department of Land Conservation and Development (DLCD) and from various urban planning organizations, the City of Talent prohibits cul-de-sac streets except in special circumstances. New cul-de-sac streets shall not be permitted except where topography or other natural or man-made features prohibit through connections. These streets shall be short, serving a maximum of 12 dwelling units.

# **Access Spacing Standards**

Access management is an important key to balanced urban growth. As evidence, the lack of a prudent access management plan has led to miles of strip commercial development along the arterial streets of many urban areas. Business activities along arterial streets lead to increased traffic demands and the provision of roadway improvements to accommodate the increasing traffic demand. Roadway improvements stimulate more business activity and traffic demands. This often continues in a cyclical fashion, and requires extensive capital investments for roadway improvements and relocation. However, with the tightening of budgets by federal, state, and local governments, the financial resources to pay for such solutions are becoming increasingly scarce.

Reducing capital expenditures is not the only argument for access management. Additional driveways along arterial streets lead to an increased number of potential conflict points among vehicles entering and exiting the driveways, and through vehicles on the arterial streets. This leads to increased vehicle delay and deterioration in the level of service on the arterial. Increases in volumes and conflict points may also lead to a reduction in safety. Thus, it is essential that all levels of government try to maintain the efficiency of existing streets through better access management.

Table 3 describes recommended access management guidelines by roadway functional classification for all categories of city streets in Talent.



**Table 3. Access Management Guidelines** 

Functional Classification	Posted Speed	Minimum Spacing between Driveways and/or Streets <sup>1,2</sup>	Minimum Spacing between Intersections <sup>1,2</sup>
Major Arterial	35-45 mph	ODOT Standard	ODOT Standard
Minor Arterial	30-40 mph	300 feet	600 feet
Collector	25-30 mph	50 feet	300 feet
Local Residential	25 mph	Access to each lot permitted	125 feet
Local Industrial	25 mph	Access to each lot permitted	300 feet

#### Notes:

- 1. Desirable design spacing; existing spacing will vary. Each parcel is permitted one driveway regardless of the minimum driveway spacing standard although shared access is encouraged.
- 2. Spacing standards are measured centerline to centerline.

# **Mobility Standards**

Mobility standards help agencies maintain acceptable and reliable performance, primarily vehicular, for a transportation system. They apply to land use decisions as a way to understand how development could impact the function of the transportation system. The Transportation Planning Rule (TPR) also requires that comprehensive plan amendments and zone changes must be consistent with the adopted TSP and uses mobility standards as one tool for evaluating consistency.

The Oregon Highway Plan (OHP) has established several policies for maintaining highway mobility include Policy 1F, which establishes maximum volume-to-capacity (v/c) ratio<sup>4</sup> targets for peak hour operating conditions for all highways in Oregon. The OHP policy also specifies that the v/c ratio targets be maintained for ODOT facilities through a 20-year horizon. The OHP target for OR 99 is v/c ratio less than or equal to 0.95. The target for the I-5 ramps is a v/c ratio less than or equal to 0.85.

With this TSP update, the City of Talent is creating a mobility standard for traffic operations. A dual standard based on v/c ratio and level of service<sup>5</sup> is proposed:

- Maximum v/c ratio = 0.95
- LOS D or better for signalized intersections
- LOS E or better for unsignalized intersections

<sup>&</sup>lt;sup>4</sup> A volume-to-capacity (v/c) ratio compares traffic demand to an estimate of capacity, which is the amount of traffic that an intersection can serve during a fixed period of time. A v/c ratio less than 1.00 indicates that the volume is less than capacity. When the v/c ratio is closer to 0.00, traffic conditions are generally good with little congestion and low delays for most intersection movements. As the v/c ratio approaches 1.00, traffic becomes more congested and unstable with longer delays.

<sup>&</sup>lt;sup>5</sup> Six level of service (LOS) standards have been established ranging from LOS A where there is little or no delay, to LOS F, where there is delay of more than 50 seconds at unsignalized intersections, or more than 80 seconds at signalized intersections.



# APPENDIX A: GOALS, OBJECTIVES, AND POLICIES





### **General Transportation Policies**

Goal: Provide a safe and efficient transportation system that reduces energy requirements, regional air contaminants, and public costs and provides for the needs of those not able or wishing to drive automobiles.

- 1. The City will implement its transportation goals through this Transportation System Plan (TSP) and will review and update the TSP during periodic review, or more frequently if necessary.
- 2. The construction of transportation facilities shall be timed to coincide with community needs, and shall be implemented in a way that minimizes impacts on existing development. Where possible, the timing of facility maintenance will be coordinated with other capital improvements to minimize cost and avoid extraordinary maintenance on a facility scheduled for reconstruction or replacement.
- 3. Investments that preserve the existing transportation system, including the implementation of transportation system and demand management measures, enhanced transit service, and provision for bicycle and pedestrian facilities shall be pursued as a first choice for accommodating travel demand and relieving congestion in a travel corridor, before street widening projects are considered.
- 4. Transportation facilities shall be designed and constructed to minimize noise, energy consumption, neighborhood disruption, economic losses to the private or public economy and social, health, environmental and institutional impacts, and to encourage the use of public transit, bikeways and walkways.
- 5. Aesthetics and landscaping shall be considered in the design of the transportation system. Within the physical and financial constraints of the project, landscaping, and where appropriate, public art, shall be included in the design of the transportation facility. Various landscaping designs, suitable plants and materials shall be used by the City, private entities or individuals to enhance the livability of the area.
- 6. The rapid and safe movement of fire, medical and police vehicles shall be an integral part of the design and operation of the transportation system.

  Transportation facilities shall be designed to support development of alternate transportation routes to respond to emergency needs.
- 7. The City shall coordinate transportation planning and construction efforts with County, regional, State and Federal plans.



- 8. The City shall promote and encourage the development of the Talent Transportation Depot.
- 9. The TSP shall identify transportation needs relevant to the City and the scale of the transportation network being planned to meet the needs of the transportation disadvantaged, including low-income, elderly, youth, and disabled populations that require non-single occupant vehicle (SOV) modes for mobility and access.
- 10. The City shall determine local transportation needs based upon population and employment forecasts and distributions that are consistent with the City's Comprehensive Plan and the RVMPO Regional Transportation Plan.
- 11. The City shall design and operate its transportation system to reduce vulnerability of the public, goods movement, and critical transportation infrastructure to crime, emergencies, and natural hazards.
- 12. The City shall support 20-year regional alternative performance measures adopted by RVMPO to demonstrate reduced reliance on the automobile and bring the RTP into compliance with the TPR. The following seven measures were adopted in 2000 (with 2020 targets in parenthesis):
  - Transit and bicycle/pedestrian mode share (3% transit and 11% bike/ped)
  - Percentage of dwelling units within ¼ mile walk to 30 minute transit service (50%)
  - Percentage of collectors and arterials with bicycle facilities (60%)
  - Percentage of collectors and arterials in TOD areas with sidewalks (75%)
  - Percentage of mixed-use DUs in new development (49%)
  - Percentage of mixed-use employment in new development (44%)
  - Regional funding dedicated to alternate transportation (\$6.4 million)

#### **Finance**

Goal: Establish adequate funding to meet the current and future capital, maintenance, and operations needs of the transportation system for the Talent urban area.

Objective 1: Meet the current and future capital improvement needs of the transportation system for the Talent urban area, as outlined in this plan, through a variety of funding sources.

#### **Policies:**

 Transportation system development charges (SDCs), as defined by Oregon Revised Statutes and City ordinances, will be collected by the City to offset



- costs of new development on area-wide transportation facilities. The City will continue to collect SDCs as an important and equitable funding source to pay for transportation capacity improvements.
- The City shall require those responsible for new development to mitigate their development's impacts to the transportation system, as authorized in the Talent Zoning Code and Oregon Revised Statutes, concurrent with the development of the property.
- 3. The City shall continue to set-aside one-percent of its allocation of State Highway Fuel Tax funds for creation of on-street bicycle and pedestrian facilities.
- 4. When the City agrees to vacation of a public right-of-way at the request of a property owner, conditions of such agreement shall include payment by the benefited property owner of fair market value for the land being converted to private ownership. Funds received for vacated lands shall be placed in a trust fund for the acquisition of future rights-of-way.
- Objective 2: Secure adequate funding to implement a street maintenance program that will sustain a maximum service life for pavement surface and other transportation facilities.

#### **Policies:**

- 1. Assuming no changes in State funding mechanisms, the primary funding sources for street system maintenance activities shall be the City's allocation of the State Highway Fuel Tax.
- 2. The City shall seek additional funding sources to meet the long-term financial requirements of sustaining a street maintenance program.
- 3. The City shall continue to participate in cooperative agreements with other State and local jurisdictions for maintenance and operation activities based on equitable determinations of responsibility and benefit.
- Objective 3: Secure adequate funding for the operation of the transportation system including advance planning, design engineering, signal operations, system management, illumination, and cleaning activities.

#### **Policies:**

1. Assuming no changes in State funding mechanisms, transportation system operations shall be funded primarily from the City's allocation of the State Highway Fuel Tax. Other funding sources should be pursued to augment the financial requirements of providing adequate future system operations.



- 2. The City shall encourage the formation of local street lighting districts when a neighborhood proposes the installation or improvement of lighting facilities. Lighting District members assume or share the costs of capital improvements, maintenance and operations of their own lighting system. Entire subdivisions shall be served by a proposed lighting district whenever practicable to promote cost equity and reduce costs.
- 3. The City shall continue to pursue federal, state and private grants to augment operations activities, especially in the planning and engineering functions.

#### Land Use

Goal: Encourage land uses that reduce reliance on single-occupancy automobiles.

- The City shall consider changes to the Zoning Code that will more effectively implement Comprehensive Plan goals that encourage transit-oriented, mixeduse and high-density development near the city center to reduce private vehicle trips by increasing access to transportation alternatives in conformity with the Oregon Transportation Planning Rule (TPR).
- 2. The City shall implement plans for both the traditional downtown area and the area designated for future downtown development that include mixed-use, high-density (where appropriate), transit oriented and pedestrian-friendly design standards.
- 3. To reinforce the implementation of this transportation plan in land use decision-making, corridors for future auto, bicycle and pedestrian facilities have been adopted into this plan.
- 4. The City shall adopt a new <u>Subdivision Code</u> that includes simplified Planned Unit Development requirements, and that includes design standards and review criteria for adequate transportation facilities. Such provisions shall include, but are not limited to, connectedness between neighborhoods for vehicles, bicycles and pedestrians, access management standards, and street width and parking requirements.
- 5. The City shall revise the <u>Talent Zoning Code</u> wherever appropriate, especially the articles regarding Off-Street Parking, Site Development Plan review and Conditional Use Permit review, to add or improve transportation-related design standards and review criteria. Such revisions shall include, but are not limited to, connectedness between neighborhoods for vehicles, bicycles and pedestrians, access management standards, and street width and parking requirements.



- 6. The City shall coordinate land use planning with transportation planning by notifying the City Administrator, Traffic Committee, Public Works Director, City Engineer, Fire Department and Police Department of all planning proposals that include transportation components. All departments will be invited to make suggestions for design improvement and conditions of approval, and to participate in pre-application conferences whenever practical.
- 7. The City shall coordinate land use planning for properties with access onto Highway 99 and Valley View Road, and other projects large enough to impact traffic counts on those roads, with the Oregon Department of Transportation. To this end, the City will provide notice of pending decisions and invite ODOT to make suggestions for design improvement and conditions of approval, and to participate in pre-application conferences whenever practical.

## **Transportation System Management**

Goal: Maximize the efficiency of the existing surface transportation system through management techniques and facility improvements.

Objective 1: Maintain and operate a system of traffic control devices at an optimal level of service and efficiency that is consistent with existing funding levels.

- 1. The City recognizes that efficient management of the transportation system can reduce costs by avoiding the need for more expensive roadway expansion projects. The City shall effectively integrate technology with transportation infrastructure consistent with strategies and projects in the RVMPO's Intelligent Transportation Systems (ITS) Plan.
- 2. The City shall continue to modernize the signal system and improve its coordination and efficiency by ultimately connecting all of its signals to a centralized traffic control center. The City shall employ traffic signal timing plans that maximize the efficiency of the system given the particular travel demand during different time periods throughout the typical weekday and weekend day.
- 3. The City shall conduct regular and preventative maintenance on the signals within its inventory, to prevent traffic delays and congestion due to avoidable malfunctions.
- 4. The City shall regularly maintain all of the traffic control devices (signs and markings) within its inventory to minimize congestion and driver delay due to confusion. While priority shall always be given to regulatory and warning



signs, informational (street name and directional) signs shall also be given proper maintenance.

5. The City shall consider the removal of traffic signals where they are no longer justified due to land use changes and the resultant change in traffic patterns.

Objective 2: Maximize the effective capacity of the street system through improvements in physical design and management of on-street parking.

#### **Policies:**

- 1. The City shall give the physical improvement of intersections a higher priority in the design process than general street corridor widening, when seeking ways to increase capacity and relieve congestion on a street.
- 2. Where on-street parking is permitted on a congested arterial street, the City shall give first priority to removing on-street parking as a means of enhancing the capacity of the facility. The exception will be arterial streets within the central business district, where parking will not be removed. Depending upon the situation and proper analysis, the City may consider timed on-street parking prohibitions during peak travel periods in lieu of permanent removal.
- 3. The City shall facilitate implementation of bus bays by RVTD on congested arterial streets as a means of facilitating traffic flow during peak travel periods. The feasibility, location and design of bus bays shall be developed in consultation between the City and RVTD.

## **Access Management**

Goal: Maximize the efficiency and safety of surface transportation systems by managing access.

Objective: Increase street system safety and capacity through the adoption and implementation of access management standards.

- 1. The City shall develop and adopt specific access management standards to be contained in the *Department of Public Works Standard Details*, based on the following principles:
  - A. Properties with frontage along two streets shall take primary access from the street with the lower classification.



- B. Any one development along the arterial street system shall be considered in its entirety, regardless of the number of individual parcels it contains. Individual driveways will not be considered for each parcel.
- C. Signalized access for private streets and driveways onto the major street system shall not be permitted within 1,320 feet (1/4 mile) of any existing or planned future signal.
- D. Shared, mutual access easements shall be designed and provided along arterial street frontage for both existing and future development.
- E. The spacing of access points shall be determined based on street classification. Generally, access spacing includes accesses along the same side of the street or on the opposite side of the street. Access points shall be located directly across from existing or future access, provided adequate spacing results.
- F. All access to the public right-of-way shall be located, designed, and constructed to the approval of the Public Works Director, or his designee. Likewise, variances to access management standards shall be granted at the discretion of the Public Works Director, or his designees.
- 2. The City shall incorporate access management standards into all of its arterial street design projects. Access management measures may include, but are not limited to, construction of raised median, driveway consolidation, driveway relocation, and closure of local street access to the arterial.
- 3. Consistent with the City's goal of improving mobility, the City shall consider developing access management projects for congested arterials to help improve safety and traffic flow. Access management projects may include, but are not limited to, construction of raised medians, driveway consolidation, driveway relocation, and closure of local street access to the arterial.
- 4. The City shall maintain carrying capacity and safety of pedestrian, bicycle, public transit and motor vehicle movement on arterials and collectors through driveway and curb cut consolidation or reduction.
- The City shall discourage direct driveway access onto streets designated as collectors and arterials whenever an economically feasible alternative exists or can be made available.
- 6. The City shall require design that combines multiple driveway accesses to a single point in a residential and commercial development.



### **Transportation Demand Management**

Goal: Reduce the demands placed on the current and future transportation system by the single-occupant automobile.

Objective 1: Encourage the use of alternative travel modes by serving as an institutional model for other agencies and businesses in the community.

#### **Policies:**

- The City shall serve as a leading example for other businesses and agencies by
  maximizing the use of alternative transportation modes among City
  employees through incentive programs. The City shall provide information on
  alternative transportation modes and provide incentives for employees who
  use alternatives to the single-occupant automobile.
- 2. The City shall offer flexible schedules and compressed workweek options whenever feasible, as a way of reducing travel demand. The City shall allow employees to telecommute, whenever feasible.

Objective 2: Work towards reducing the vehicle miles traveled (VMT) in the Talent urban area by assisting individuals in choosing alternative travel modes.

#### **Policies:**

- 1. The City shall encourage major employers to allow work arrangements providing an alternative to the 8-to-5-work schedule. These arrangements shall include, but are not limited to, employee flextime programs, staggered work hours, and compressed workweeks.
- 2. The City shall encourage major employers to allow telecommuting where feasible.
- 3. The City and major employers shall encourage ridesharing by making ridesharing more convenient.
- 4. The City shall encourage major employers to work with RVTD to adopt trip reduction goals designed to reduce site vehicular trip generation.

## **Parking**

Goal: Ensure the Talent urban area has an appropriate supply of parking facilities that supports the goals and objectives of this plan.

Objective 1: Define an appropriate role for on-street parking facilities.



#### **Policies:**

- 1. The City shall manage the supply, operations and demand for parking in the public right-of-way to encourage economic vitality, traffic safety and livability of neighborhoods. Parking in the right-of-way, in general, should serve land uses in the immediate area.
- 2. The provision of on-street parking is second in priority to the needs of the travel modes (i.e., vehicle, transit, bicycle, and pedestrian) using the street right-of-way, except where abutting properties have no ability to provide their own off-street parking, or where on-street parking is needed to support an existing business district.
- 3. Where practical, existing on-street parking will be removed in preference to widening streets for additional travel lanes, except for streets within the central business district. Efforts will be made to mitigate the impact of parking removal in those areas where abutting properties have no ability to provide their own adequate supply of off-street parking, or where on-street parking is needed to support an existing business district.
- 4. The City shall re-evaluate parking space size requirements due to the increased use of smaller cars.
- 5. In those areas where demand exists, an adequate supply of on-street carpool and vanpool parking spaces shall be provided. The location of these spaces shall have preference over those intended for general-purpose on-street parking.

Objective 2: Promote economic vitality and neighborhood livability by requiring an appropriate supply of off-street parking facilities.

- 1. To avoid the negative impacts to surrounding residential neighborhoods or other nearby land uses, new development must provide, or have access to, an appropriate supply of off-street parking.
- 2. The City shall consider establishing lower minimum parking requirements in their current zoning codes to encourage in-fill development, shared parking facilities, and the use of alternative travel modes.
- 3. The City shall consider adopting maximum parking requirements in the current zoning code to reduce the amount of off-street parking supply provided by new businesses.



- 4. The location of major activity centers shall be accessible by transit, and shall meet their parking demand through a combination of shared, leased, and new off-street parking facilities.
- 5. The City shall encourage sharing of existing and future parking facilities by various nearby businesses.
- 6. The City shall continue to require effective landscaping throughout continuous paved parking areas to provide shading, screening and buffering aesthetics, and shall consider standards for percolation of water into the groundwater table.

Objective 3: Work towards meeting the State Transportation Planning Rule goals to reduce per capita parking supply by the year 2019 to discourage reliance on private cars and consequently encourage the use of public transit, bicycles, and walking.

#### **Policies:**

- The City of Talent shall carefully monitor how new lands are designated in the Talent Comprehensive Plan to achieve a decrease in the parking supply per capita for commercial, industrial, and institutional lands over the next 20 years.
- Impacts on overall parking supply and Transportation Planning Rule compliance shall be taken into account when any significant expansion in the supply of commercial, industrial, or institutional designated land is considered.
- 3. The City shall inventory the parking spaces available and shall set up a process for updating the parking space inventory.
- 4. The City will create a parking management plan to support the development of a vibrant area for shopping, working, living, and playing and meet the needs of the community's businesses, residents, employees, and visitors. The plan will establish the framework for assessing and managing the supply of on- and off-street parking in the central business district to accommodate existing and future demand, while supporting regional vehicle miles traveled (VMT) reduction goals by encouraging alternative access modes, including public transit, biking, walking, and carpooling.

#### Streets

Goal: Provide a comprehensive system of streets and highways that serves the mobility and multimodal travel needs of the Talent urban area.



Objective 1: Develop a comprehensive, hierarchical system of streets and highways that provides for optimal mobility for all travel modes throughout the Talent urban area.

- 1. The City shall fulfill its system wide travel capacity needs through the use of multiple travel modes within the public rights-of-way.
- The City's street system shall contain a grid network of arterial streets and highways that link the central core area and major industry with regional and statewide highways.
- 3. The City's street system shall contain a network of collector streets that connect local traffic to the arterial street system.
- 4. The City shall classify streets and highways within the Talent urban area based on how they will function within the overall system.
- 5. The City shall periodically review and revise street design standards. The City shall consider incorporating traditional neighborhood design elements including, but not limited to, planting strips, minimum necessary curb radius, alleys and skinny streets in standards.
- To facilitate pedestrian crossing, discourage through traffic, and reduce speeds, local streets shall not be excessive in width. However, local streets must have sufficient width to provide emergency access.
- 7. The City shall integrate traffic calming techniques into city street design standards to reduce automobile speeds within new and existing neighborhoods.
- The City shall maintain street surfaces to achieve maximum pavement life so that road conditions are good and pavement maintenance costs are minimized.
- 9. The City shall prohibit development of new unpaved roads.
- 10. The City shall discourage new development on unpaved roads.
- 11. The City shall discourage cul-de-sac or dead-end street designs whenever an interconnection alternative exists. Development of a modified grid street pattern shall be encouraged for connecting new and existing neighborhoods during subdivisions, partitions, and through the use of the Street Dedication Map.



- 12. The City shall require street dedications as a condition of land development.
- 13. Improvements to streets in addition to those in or abutting a development may be required as a condition of approval of subdivisions and other intensification of land use.

Objective 2: Design City streets in a manner that maximizes the utility of public right-of-way, is appropriate to their functional role, and provides for multiple travel modes, while minimizing their impact on the character and livability of surrounding neighborhoods and business districts.

- 1. The City of Talent shall design its streets to safely accommodate pedestrian, bicycle and motor vehicle travel.
- Arterial and collector street intersections shall be designed to promote safe and accessible crossings for pedestrians and bicyclists. Intersection design should incorporate measures to make pedestrian crossings convenient, minimizing barriers to pedestrian mobility.
- 3. Left-turn pockets shall be incorporated into the design of intersections of arterial streets with other arterial and collector streets, as well as collector streets with arterials and other collectors.
- 4. The City of Talent Standard Details shall be the basis for all street design within the Talent urban area.
- The City of Talent shall apply the street design standard that most safely and efficiently provides motor vehicle capacity appropriate for the functional classification of the street.
- 6. Wherever possible the City of Talent shall incorporate safely designed, aesthetic features into the streetscape of its public rights-of-way. These features may include street trees, shrubs, and grasses; planting strips and raised medians; and, in some instances, street furniture, planters, special lighting, public art, or non-standard paving materials.
- 7. When existing streets are widened or reconstructed they shall be designed to the adopted street design standards for the appropriate street classification. Adjustments to the design standards may be necessary to avoid existing topographical constraints, historic properties, schools, cemeteries, existing on-street parking and significant cultural features. The design of the street shall be sensitive to the livability of the surrounding neighborhood.



- 8. Affected neighborhoods shall be invited to review proposed designs before construction begins.
- 9. To maintain the utility of the public right-of-way for the mobility of all users; access location and spacing to arterial and collector streets shall be controlled.

Objective 3: Continue to promote traffic safety by enforcing clear vision area regulations applicable to public and private property located at intersections.

#### **Policies:**

- The City shall work with other federal, state and local government agencies to promote traffic safety education and awareness, emphasizing the responsibilities and courtesies required of drivers and cyclists.
- Through its law enforcement resources, the City shall continue to work to increase traffic safety by actively enforcing the City and State motor vehicle codes.
- 3. The City shall place a higher priority on funding and constructing street projects that address identified vehicular, bicycle, and pedestrian safety problems than those projects that solely respond to automotive capacity deficiencies in the street system. Exceptions are those capacity improvements that are designed to also resolve identified safety problems.
- 4. The City shall work to increase traffic safety by requiring private property owners to maintain vision areas adjacent to intersections and driveways clear of fences, landscaping, and foliage that obstruct the necessary views of motorists, bicyclists, and pedestrians.
- 5. The City shall develop a process for identifying and addressing areas prone to traffic accidents.

Objective 4: Efficiently plan, design, and construct City-funded street improvement projects to meet the safety and travel demands of the community.

#### **Policies:**

 The City shall select street improvement projects from those listed in the Talent Transportation System Plan when making significant increases in system capacity or bringing arterial or collector streets up to urban standards. The selection of improvement projects should be prioritized based on consideration of improvements to safety, relief of existing congestion,



- response to near-term growth, system-wide benefits, geographic equity, and availability of funding.
- To maximize the longevity of its capital investments, the City shall design street improvement projects to meet existing travel demand and, whenever possible to accommodate anticipated travel demand for the next 20 years for that facility.
- 3. New arterial and collector street alignments shall be surveyed and delineated after their adoption in the Talent Transportation System Plan. The determination of alignments will allow for the preservation of land for public rights-of-way and give advance notice to property owners and citizens of where future expansions of the street system will occur.
- 4. The City shall involve representatives of affected neighborhood associations and citizens in an advisory role in the design of street improvement projects.

Objective 5: Improve the street system to accommodate travel demand created by growth and development in the community.

#### **Policies:**

- The City shall require Traffic Impact Analyses as part of land use development proposals to assess the impact that a development will have on the existing and planned transportation system. Thresholds for having to fulfill this requirement and specific analysis criteria shall be established in the Talent Zoning Code.
- 2. The City shall require new development to make reasonable site-related improvements to connecting streets where capacity is inadequate to serve the development.
- 3. The City may require new development to pay charges towards the mitigation of system-wide transportation impacts created by new growth in the community through established Street System Development Charges (SDCs) and any other street fees that are established by the City. These funds can be used towards improvements to the street system. Projects funded through these charges are growth-related and should be selected from the approved list and prioritized based upon the established criteria.

#### **Fconomic**

Goal: Build and maintain the transportation system to facilitate economic development in the region.



#### **Policies:**

- 1. The City shall consider effects on freight mobility when prioritizing projects.
- The City supports projects serving commercial, industrial and resourceextraction lands where an inadequate transportation network impedes freight-generating development.
- 3. The City plans for enhanced train-truck-transit interface for the movement of goods and people.

### **Bicycle**

Goal: Facilitate and encourage the increased use of bicycle transportation in Talent by ensuring that convenient, accessible, and safe cycling facilities are provided.

Objective 1: Create a comprehensive system of bicycle facilities.

- 1. The City of Talent recognizes bicycle transportation as a necessary and viable component of the transportation system, both as an important transportation mode, and as an air quality improvement strategy.
- The City shall support and promote bicycling for transportation and recreation recognizing the benefits to human health, economic, and environmental for the individual and community.
- 3. The Bicycle Element of this plan serves as the Talent Bicycle Master Plan.
- 4. The City of Talent shall progressively develop a linked bicycle network, focusing on the arterial and collector street system, and concentrating on the provision of bicycle lanes, to be completed within the planning period (20 years). The bikeway network will serve bicyclists needs for travel to employment centers, commercial districts, transit centers, institutions and recreational destinations.
- 5. The City of Talent shall use all opportunities to add bike lanes in conjunction with road reconstruction and restriping projects on collector and arterial streets.
- 5. The City of Talent shall assure that the design of streets and public improvement projects facilitates bicycling by providing proper paving, lane width, traffic control, storm drainage grates, striping, signage, lighting, etc.



- The City of Talent shall assure regular maintenance of existing bicycle facilities, and take actions to improve crossings at railroads, creeks, major streets.
- 7. The City of Talent shall assure the provision of bicycle racks and/or shelters at critical locations within the downtown and other locations where publicly provided bicycle parking facilities are called for.
- 8. The City of Talent shall actively work with ODOT to improve bicycling on State Highway 99 within Talent.
- 9. The City of Talent shall support the local transit provider in their efforts to facilitate bikes on buses and bicycle facilities at transit stations and stops.
- 10. The City of Talent shall give priority to bicycle traffic over parking within public rights-of-way designated on the Bicycle Master Plan or otherwise determined to be important bicycling routes.
- 11. The City of Talent shall encourage bicycle recreation.
- 12. The City shall require pedestrian and bicycle easements to provide neighborhood connectors and reduce vehicle trips. The City shall modify the street vacation process so pedestrian and bicyclist through access is maintained.
- 13. The City shall require sidewalks and pedestrian access in all new developments.
- 14. The City shall require secure, sheltered bicycle parking in business developments, institutions, duplexes and multi-family developments.
- 15. The City shall coordinate bicycle planning efforts with Jackson County and the Jackson County Bicycle Master Plan.

Objective 2: Promote bicycle safety and awareness.

- The City of Talent shall actively support and encourage local and state bicycle education and safety programs intended to improve bicycling skills, observance of laws, and overall safety for both children and adults.
- 2. The City shall consider the use of the media, bicycle committees, bicycle plans and other methods to promote use of bicycling for transportation purposes.



#### Pedestrian

Goal: Provide a comprehensive system of connecting sidewalks and walkways that will encourage and increase safe pedestrian travel.

Objective 1: Create a comprehensive system of pedestrian facilities.

- 1. The City shall continue to inventory and map existing pedestrian facilities.
- 2. The City shall establish a Sidewalk Construction Program to complete the pedestrian facility network.
- 3. Sidewalks and walkways shall complement access to transit stations/stops and multi-use paths. Activity centers and business districts should focus attention on and encourage pedestrian travel within their proximity.
- All future development shall include sidewalk and pedestrian access construction as required by the Talent Zoning Code and adopted Street Standard Details. All road construction or renovation projects shall include sidewalks.
- 5. All signalized intersections shall have marked crosswalks. Crosswalks at controlled intersections should be provided near schools, commercial areas, and other high volume pedestrian locations.
- 6. The location and design of sidewalks shall comply with the requirements of the Americans with Disabilities Act.
- 7. The City shall require pedestrian and bicycle easements to connect neighborhoods and reduce vehicle trips. The City shall modify the street vacation process so pedestrian and bicyclist through-access is maintained.
- 8. Pedestrian walkway or accessway connections shall be required between adjacent developments when roadway connections cannot be provided.
- 9. The City will establish evaluation criteria for prioritizing sidewalk projects.
- 10. The City shall identify a systematic approach to filling gaps in the sidewalk system.
- Objective 2: Support mixed-use development that encourages pedestrian travel by including housing close to commercial and institutional activities.



#### **Policies:**

- The City shall establish standards for the maintenance and safety of pedestrian facilities. These standards shall include the removal of hazards and obstacles to pedestrian travel, as well as maintenance of benches and landscaping.
- 2. Zoning shall be developed to allow for mixed land uses that promote pedestrian travel.
- The City shall support and promote walking for transportation and recreation recognizing the benefits to human health, economic, and environmental for the individual and community.
- 4. The City shall encourage the development of a connecting, multi-use trail network, using linear corridors including, but not limited to: Bear Creek, Wagner Creek, utility easements, and rail lines, that complement and connect to the sidewalk system.
- 5. The City shall provide sidewalks and other amenities to make pedestrian access to bus stops easier.

Objective 3: Encourage education services and promote safe pedestrian travel to reduce the number of accidents involving pedestrians.

- The City shall encourage schools, safety organizations, and law enforcement agencies to provide information and instruction on pedestrian safety issues that focus on prevention of the most important accident problems. The programs shall educate all roadway users of their privileges and responsibilities when driving, bicycling and walking.
- 2. The City shall enforce pedestrian safety laws and regulations to help increase safety as measured by a reduction in accidents. Attention should be focused on areas where high volumes of automobile and pedestrian travel occur. Warnings and citations given to drivers and pedestrians should serve to impress the importance of safety issues.
- 3. The City shall work toward the completion of the street lighting system, designed to city illumination standards, on all arterial and collector streets within the City limits. Through the use of neighborhood street lighting districts, property owners shall be encouraged to provide street lighting, designed to city illumination standards, on all public local streets within the City limits.



4. Pedestrian traffic should be separated from auto traffic on streets in parking lots wherever possible.

#### **Transit**

Goal: Support a transit system that provides convenient and accessible transit services to the citizens of the Talent urban area.

Objective 1: Ensure that transit services are accessible to Talent urban area residences and businesses.

- 1. The City shall work with the local transit provider to encourage transit services be routed in a manner that, where practical, provides service coverage within a 1/4 mil walking distance of Talent urban area residences and businesses.
- To encourage accessibility and increased ridership, the City shall continue to encourage future transit-supportive land uses, such as mixed uses, multiplefamily, and employment centers to be located on or near transit corridors.
- 3. Through its zoning and development regulations, the City shall continue to facilitate accessibility to transit services through transit-supportive streetscape, subdivision, and site design requirements that promote pedestrian connectivity, convenience and safety.
- 4. The City shall include the consideration of transit operations in the design and operation of street infrastructure wherever it is appropriate.
- 5. The City shall support the continued development and implementation of accessible fixed-route and appropriate complementary paratransit services.
- 6. The City of Talent shall encourage connectivity between different travel modes. The Talent Transportation Depot and park-and-ride facilities should be accessible by pedestrian, bicycle, bus and automobile travel modes.
- 7. The City shall cooperate with the local transit provider to identify and include features beneficial to transit riders and transit district operations when developing plans for roadway projects.
- 8. The City shall support the local transit providers' efforts to provide pleasant, clean, safe, comfortable shelters along transit lines, at or near transit stops.
- 9. The City shall install bike racks or lockers at transit stops when adequate financial resources are available.



- 10. The City shall identify park and ride, bike and ride, and walk and ride lots in Talent to support ridesharing.
- Objective 2: Increase overall daily transit ridership in the Talent urban area to mitigate a portion of the traffic pressures expected by regional growth.
  - 1. Through rideshare programs and other TDM efforts, the City shall work with Talent employers and other government agencies to increase commuter transit ridership through voluntary, employer-based incentives such as subsidized transit passes and guaranteed ride home programs.
  - 2. The City shall work through RVTD rideshare programs and other transportation demand efforts (TDM) efforts to assist in the effective marketing of the local transit provider services to Talent urban area residents and businesses.
  - 3. The City shall encourage promotional and educational activities that encourage school children and people who own cars to use public transit.

#### **Aviation**

#### **Policies**

- 1. The City shall support reasonably priced air transportation and convenient connections with other areas in the state, nation and abroad.
- 2. The City shall support intermodal connections between the City of Talent and the Medford International Airport.

#### Rail

- 1. The City shall support rail transportation in the region and its connections with the other areas in the state and nation. The City shall encourage passenger service as part of statewide rail transportation planning efforts.
- 2. The City shall encourage mitigation of railroad noise by recommending appropriate berming and landscaping in developments adjacent to the railroad that are impacted by railroad noise.



# APPENDIX B: PLANNED LOCAL STREET CONNECTIONS



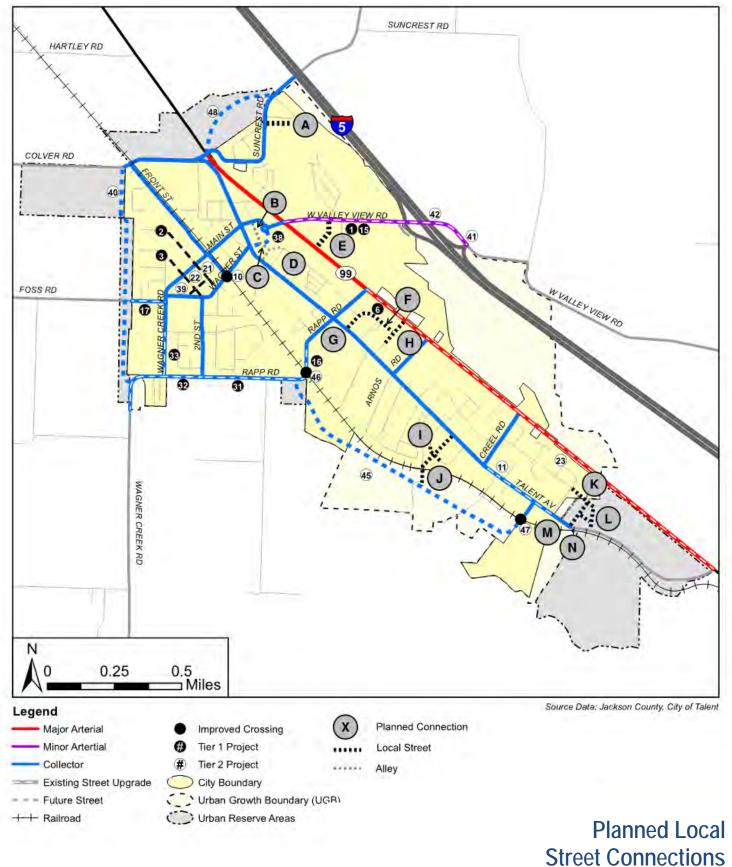


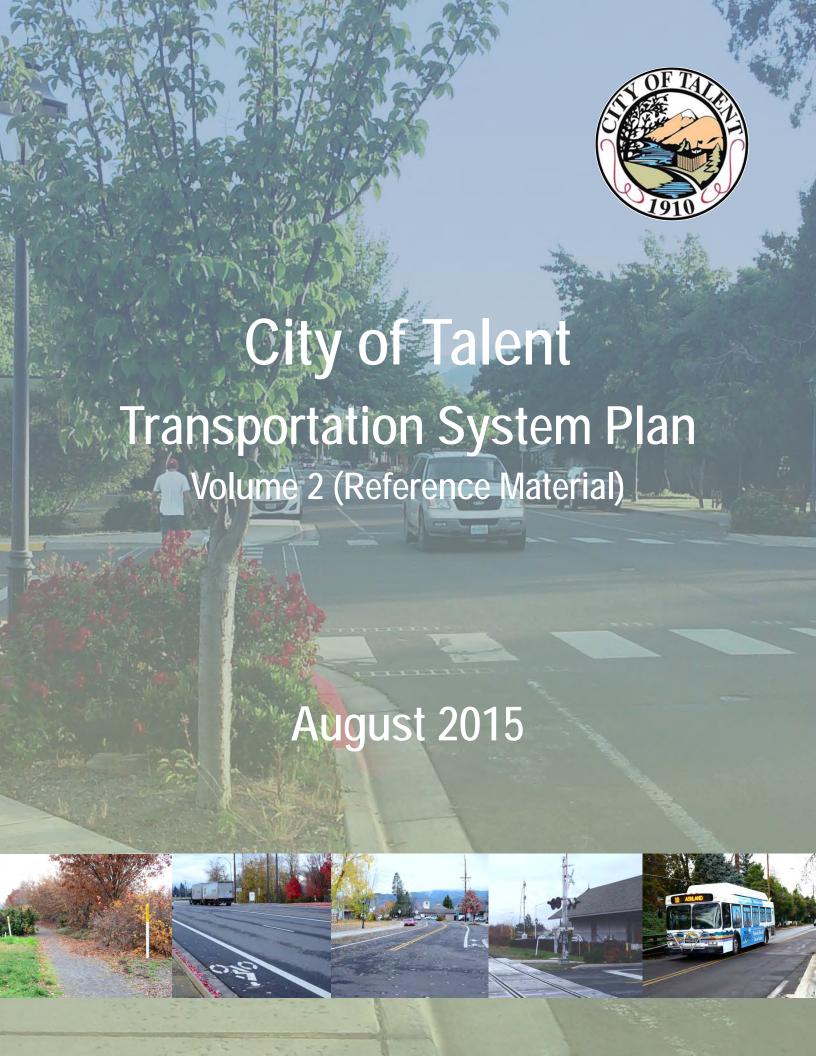
### **Planned Local Street Connections**

<b>Project ID</b>	Location/Description
Α	Suncrest Park access
В	New alley (Alley)
С	Connection from new Gangnes St alley to E. Wagner extension (Alley)
D	From terminus of Gangnes St to Talent Ave (Alley)
E	S. Oak Valley Dr (W. Valley View to OR 99) with adjacent bike path
F	Commercial access road
G	New local street
Н	Rogue River Pkwy extension
1	Nerton St extension to Joy Dr stub at Mariah Ct
J	Mariah extension to RR tracks (poss. emergency crossing loc.)
K	Lithia Way extension to Talent Ave
L	New local street
М	Access for Alpine Way properties (Alley)
N	New local street

# **APPENDIX**







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# **ACKNOWLEDGEMENTS**

The development of this Transportation System Plan has been the collective effort of the following people:

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# **VOLUME 2 (REFERENCE MATERIAL)**

Technical Memorandum # 1: Definition and Background

Technical Memorandum # 2: Existing System Inventory

Technical Memorandum # 3: Transportation System Operations

Technical Memorandum # 4: Alternatives Evaluation

Technical Memorandum # 5: Preferred System Plan

Technical Memorandum # 6: Summary of Outreach

This companion document to the Talent TSP contains the technical memorandums and analysis that were prepared during the update of the TSP. It also documents the public involvement that was conducted throughout the planning process.

# **City of Talent**

# **Transportation System Plan Update**

# **Technical Memorandum #1:**

# **Definition and Background**

Prepared for

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and

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### June 2015

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# **List of Appendices**

Appendix A – Revised Goals and Objectives

Appendix B – Review of Plans and Policies

Appendix C – Analysis Methodology

# **List of Figures (Attached to Memorandum)**

Figure 1-1. Study Area

#### 1. DEFINITION AND BACKGROUND

This memorandum provides the purpose and context for updating the TSP and establishes proposed amendments to the goals and objectives in the City of **Talent's current** *2007 Transportation System Plan* (TSP).

### 1.1. Purpose of the TSP Update

The purpose of this TSP update is to update the City's documentation of existing transportation conditions and future transportation needs, achieve consistency with the recently-adopted 2013-2038 Rogue Valley Metropolitan Planning Organization's 2013-2038 Regional Transportation Plan (RTP), and in doing so, continue to fulfill requirements in Oregon Administrative Rule 660-012, which is also known as the Transportation Planning Rule (TPR). Figure 1-1 illustrates the study area for the TSP Update, including the City Limits, Urban Growth Boundary (UGB), and Urban Reserve Areas (URAs).

### 1.2. Proposed Amendments to Goals and Objectives

Table 1-1 presents proposed amendments to the existing goals and objectives of the Talent TSP. The amendments proposed are necessary to achieve consistency and compliance with either the TPR or the 2013-2038 RTP, or both. Circumstances that may warrant revising local policies include instances where the section openly contradicts or otherwise fails to acknowledge guidelines mandated by regional and statewide planning documents. The revised goals and objectives and supporting policies are included in Appendix A.

Goals and objectives are listed within the following table in the same order as presented in the 2007 TSP. Only those sections where changes are recommended have been included in this memorandum. Proposed additions to Goals and Objectives are represented as <u>underlined</u> text and proposed deletions as <u>strike through</u> text.

Table 1-1: Recommended Amendments to 2007 TSP

2007 TSP Section	Policy Justification
Chapter 2: Goals and Objectives	
(Intro) In addition to the Goals and Objectives listed below, this Element adopts herein by reference the Goals and Objectives of the Rogue Valley Metropolitan Planning Organization's (RVMPO) Regional Transportation Plan, 2005–2030 2013-2038.	Recognizes that the 2013-2038 RTP has been updated in the intervening timeframe since the previous Talent TSP was adopted.
General Transportation Policies	
3. Investments that preserve the existing transportation system, including <u>t</u> The implementation of transportation system and demand management measures, enhances transit service, and provision for bicycle and pedestrian facilities shall be pursued as a first choice for accommodating travel demand and relieving congestion in a travel corridor before street widening projects are considered.	Recommended to achieve consistency with Goal 4-2 of the RVMPO 2013-2038 RTP.

Table 1-1: Recommended Amendments to 2007 TSP

	2007 TSP Section	Policy Justification
4	Transportation facilities shall be designed and constructed to minimize noise, energy consumption, neighborhood disruption, economic losses to the private or public economy and social, <u>health</u> , environmental and institutional <u>impacts disruptions</u> , and to encourage the use of public transit, bikeway and walkways.	Recommended to achieve consistency with Goal 3-4 of the RVMPO 2013-2038 RTP.
6.	The rapid and safe movement of fire, medical and police vehicles shall be an integral part of the design and operation of the transportation system.  Transportation facilities shall be designed to support development of alternate transportation routes to respond to emergency needs.	Recommended to achieve consistency with Goal 2-5 of the RVMPO 2013-2038 RTP.
9.	The TSP shall identify transportation needs relevant to the City and the scale of the transportation network being planned to meet the needs of the transportation disadvantaged, including low-income, elderly, youth, and disabled populations that require non-single occupant vehicle (SOV) modes for mobility and access.	Recommended to attain compliance with Section 660-012-0030(1)(b) of the Statewide TPR.
<u>10.</u>	The City shall determine local transportation needs based upon population and employment forecasts and distributions that are consistent with the City's Comprehensive Plan and the RVMPO Regional Transportation Plan.	Recommended to attain compliance with Section 660-012-0030(3)(a) of the Statewide TPR.
11.	The City shall design and operate its transportation system to reduce vulnerability of the public, goods movement, and critical transportation infrastructure to crime, emergencies, and natural hazards.	Recommended to achieve consistency with Goal 2-4 of the RVMPO 2013-2038 RTP.
12.	The City shall support 20-year regional alternative performance measures adopted by RVMPO to demonstrate reduced reliance on the automobile and bring the RTP into compliance with the TPR. The following seven measures were adopted in 2000 (with 2020 targets in parenthesis):  A. Transit and bicycle/pedestrian mode share (3% transit and 11% bike/ped)  B. Percentage of dwelling units within ¼ mile walk to 30 minute transit service (50%)  C. Percentage of collectors and arterials with bicycle facilities (60%)  D. Percentage of collectors and arterials in TOD areas with sidewalks (75%)  E. Percentage of mixed-use DUs in new development (49%)  F. Percentage of mixed-use employment in new development (44%)  G. Regional funding dedicated to alternate transportation (\$6.4 million)	Recommended to attain compliance with Section 660-012-0035(5) of the Statewide TPR.
	Land Use - Policies	
1.	The City shall consider changes to the Zoning Code that will more effectively implement Comprehensive Plan goals that encourage <u>transitoriented</u> , mixed-use and high-density development near the city center to reduce private vehicle trips by increasing access to transportation alternatives <u>in conformity with the Oregon Transportation Planning Rule (TPR)</u> .	Recommended to attain compliance with Section 660-012-0045(5)(a) of the Statewide TPR.

Table 1-1: Recommended Amendments to 2007 TSP

2007 TSP Section	Policy Justification
Transportation System Management – Objective 1 F	
1. The City recognizes that efficient management of the transportation  system can reduce costs by avoiding the need for more expensive roadway  expansion projects. The City shall effectively integrate technology with  transportation infrastructure consistent with strategies and projects in  RVMPO's Intelligent Transportation Systems (ITS) Plan.  This should become the first policy and the others should be renumbered to follow.	Recommended to achieve consistency with Goal 5-4 of the RVMPO 2013-2038 RTP.
Parking – Objective 3 Policies	
4. The City will create a parking management plan to support the development of a vibrant area for shopping, working, living, and playing, and meet the needs of the community's businesses, residents, employees, and visitors. The plan will establish the framework for assessing and managing the supply of on- and off-street parking in the central business district to accommodate existing and future demand, while supporting regional VMT reduction goals by encouraging alternative access modes, including public transit, biking, walking, and carpooling.	Recommended to attain compliance with Sections 660-012-0020(2)(g) and 660-012-0045(5)(c) of the Statewide TPR.
<u>Freight</u> – New Goal, Objective, Policies	
Objective: The City of Talent will build and maintain the transportation system to facilitate economic development in the region.	New goal and objectives recommended addressing the needs of local industries and truck-based freight.
The City shall consider effects on freight mobility when prioritizing projects.	Recommended to achieve consistency with Goal 8-2 of the RVMPO 2013-2038 RTP.
2. The City supports projects serving commercial, industrial and resource- extraction lands where an inadequate transportation network impedes freight-generating development.	Recommended to achieve consistency with Goal 8-4 of the RVMPO 2013-2038 RTP.
3. The City plans for enhanced train-truck-transit interface for the movement of goods and people.	Recommended to achieve consistency with Goal 8-5 of the RVMPO 2013-2038 RTP.
Bicycle – Objective 1 Policies	
2. The City shall support and promote bicycling for transportation and recreation recognizing the benefits to human health, economic, and environmental for the individual and community. This should become the second policy and the others should be renumbered to follow.	Recommended to achieve consistency with Goal 3-4 of the RVMPO 2013-2038 RTP.
11. The City of Talent shall encourage bicycle recreation.	Recommended for deletion as it has been superseded by proposed Bicycle Policy 2 above.
Pedestrian – Objective 2	
3. The City shall <u>support encourage efforts that inform</u> and promote <u>walking for transportation and recreation recognizing the benefits to the human health, economic, and environmental <del>benefits of walking for the individual and community. Walking for travel and recreation shall be encouraged to achieve a more healthful environment that reduces pollution and noise, which will foster a more livable community.</del></u>	Recommended to achieve consistency with Goal 3-4 of the RVMPO 2013-2038 RTP.

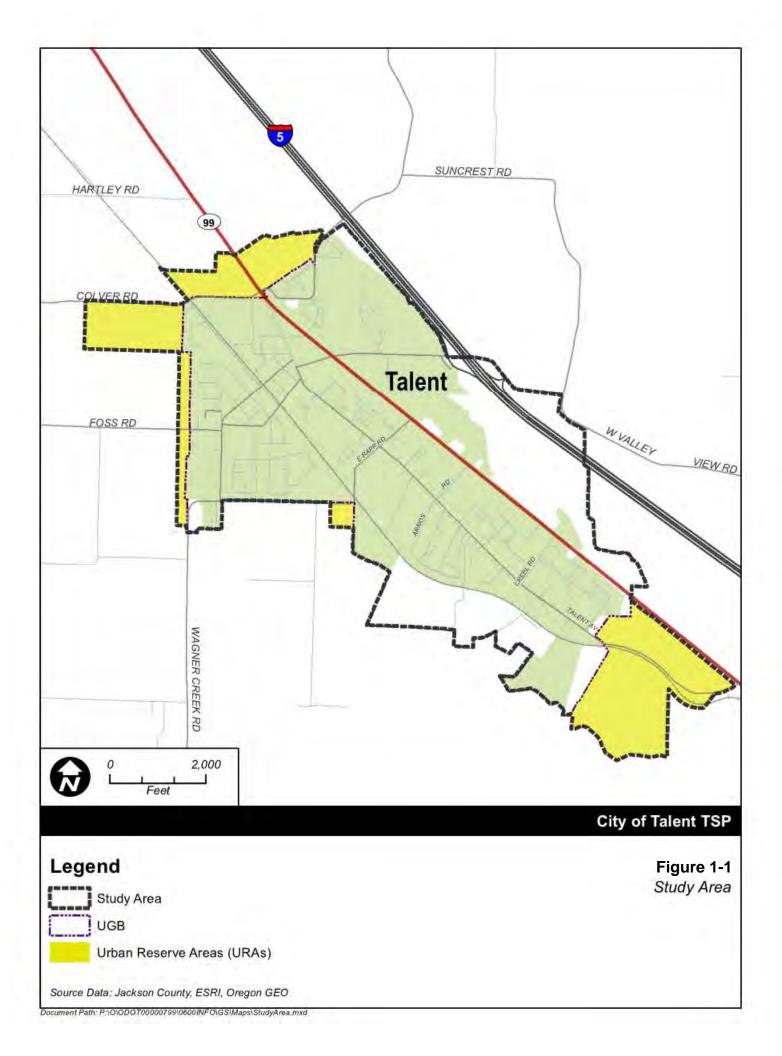
## 1.3. Relevant Plans and Policy Review

As part of the TSP Update, relevant plans and policies were reviewed to ensure the necessary compatibility, consistency, and compliance required by state law and ODOT policy. A summary description of the reviewed plans and policies is attached at the end of this technical memorandum as Appendix B.

### 1.4. Proposed Analysis Methodology

The TSP Update also includes collection and evaluation of new traffic data as well as long-range forecasting for consistency with the 2013-2038 RTP. Appendix C summarizes the approach for collection and evaluation of information that the Transportation System Plan (TSP) will use for traffic analysis.

Attachments:
Figure 1-1. Study Area
Appendix A – Revised Goals and Objectives
Appendix B – Review of Plans and Policies
Appendix C – Analysis Methodology



# **City of Talent**

# **Transportation System Plan Update**

**Technical Memorandum #1** 

**Appendix A:** 

**Revised Goals and Objectives** 

Prepared for

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and

Oregon Department of Transportation Region 3 3500 NW Stewart Parkway Roseburg, Oregon 97470 Prepared by

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### **June 2015**

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### A. GOALS AND OBJECTIVES

In addition to the Goals and Objectives listed below, this Element adopts herein by reference the Goals and Objectives of the Rogue Valley Metropolitan Planning Organization's Regional Transportation Plan, 2013-2038.

# General Transportation Policies

Goal: Provide a safe and efficient transportation system that reduces energy requirements, regional air contaminants and public costs, and provides for the needs of those not able or wishing to drive automobiles.

- 1. The City will implement its transportation goals through this Transportation System Plan (TSP) and will review and update the TSP during periodic review, or more frequently if necessary.
- 2. The construction of transportation facilities shall be timed to coincide with community needs, and shall be implemented in a way that minimizes impacts on existing development. Where possible, the timing of facility maintenance will be coordinated with other capital improvements to minimize cost and avoid extraordinary maintenance on a facility scheduled for reconstruction or replacement.
- 3. Investments that preserve the existing transportation system, including the implementation of transportation system and demand management measures, enhanced transit service, and provision for bicycle and pedestrian facilities shall be pursued as a first choice for accommodating travel demand and relieving congestion in a travel corridor, before street widening projects are considered.
- 4. Transportation facilities shall be designed and constructed to minimize noise, energy consumption, neighborhood disruption, economic losses to the private or public economy and social, health, environmental and institutional impacts, and to encourage the use of public transit, bikeways and walkways.
- 5. Aesthetics and landscaping shall be considered in the design of the transportation system. Within the physical and financial constraints of the project, landscaping, and where appropriate, public art, shall be included in the design of the transportation facility. Various landscaping designs, suitable plants and materials shall be used by the City, private entities or individuals to enhance the livability of the area.
- 6. The rapid and safe movement of fire, medical and police vehicles shall be an integral part of the design and operation of the transportation system. Transportation facilities shall be designed to support development of alternate transportation routes to respond to emergency needs.

- 7. The City shall coordinate transportation planning and construction efforts with County, regional, State and Federal plans.
- 8. The City shall promote and encourage the development of the Talent Transportation Depot.
- 9. The TSP shall identify transportation needs relevant to the City and the scale of the transportation network being planned to meet the needs of the transportation disadvantaged, including low-income, elderly, youth, and disabled populations that require non-single occupant vehicle (SOV) modes for mobility and access.
- 10. The City shall determine local transportation needs based upon population and employment forecasts and distributions that are consistent with the City's Comprehensive Plan and the RVMPO Regional Transportation Plan.
- 11. The City shall design and operate its transportation system to reduce vulnerability of the public, goods movement, and critical transportation infrastructure to crime, emergencies, and natural hazards.
- 12. The City shall support 20-year regional alternative performance measures adopted by RVMPO to demonstrate reduced reliance on the automobile and bring the RTP into compliance with the TPR. The following seven measures were adopted in 2000 (with 2020 targets in parenthesis):
  - Transit and bicycle/pedestrian mode share (3% transit and 11% bike/ped)
  - Percentage of dwelling units within ¼ mile walk to 30 minute transit service (50%)
  - Percentage of collectors and arterials with bicycle facilities (60%)
  - Percentage of collectors and arterials in TOD areas with sidewalks (75%)
  - Percentage of mixed-use DUs in new development (49%)
  - Percentage of mixed-use employment in new development (44%)
  - Regional funding dedicated to alternate transportation (\$6.4 million)

### Finance

Goal: Establish adequate funding to meet the current and future capital, maintenance and operations needs of the transportation system for the Talent urban area.

Objective 1: Meet the current and future capital improvement needs of the transportation system for the Talent urban area, as outlined in this plan, through a variety of funding sources.

### Policies:

1. Transportation system development charges (SDCs), as defined by Oregon Revised Statutes and City ordinances, will be collected by the City to offset costs of new

- development on area-wide transportation facilities. The City will continue to collect SDCs as an important and equitable funding source to pay for transportation capacity improvements.
- 2. The City shall require those responsible for new development to mitigate their development's impacts to the transportation system, as authorized in the Talent Zoning Code and Oregon Revised Statutes, concurrent with the development of the property.
- 3. The City shall continue to set-aside one-percent of its allocation of State Highway Fuel Tax funds for creation of on-street bicycle and pedestrian facilities.
- 4. When the City agrees to vacation of a public right-of-way at the request of a property owner, conditions of such agreement shall include payment by the benefited property owner of fair market value for the land being converted to private ownership. Funds received for vacated lands shall be placed in a trust fund for the acquisition of future rights-of-way.
- Objective 2: Secure adequate funding to implement a street maintenance program that will sustain a maximum service life for pavement surface and other transportation facilities.

- 1. Assuming no changes in State funding mechanisms, the primary funding sources for street system maintenance activities shall be the City's allocation of the State Highway Fuel Tax.
- 2. The City shall seek additional funding sources to meet the long-term financial requirements of sustaining a street maintenance program.
- 3. The City shall continue to participate in cooperative agreements with other State and local jurisdictions for maintenance and operation activities based on equitable determinations of responsibility and benefit.
- Objective 3: Secure adequate funding for the operation of the transportation system including advance planning, design engineering, signal operations, system management, illumination, and cleaning activities.

- 1. Assuming no changes in State funding mechanisms, transportation system operations shall be funded primarily from the City's allocation of the State Highway Fuel Tax. Other funding sources should be pursued to augment the financial requirements of providing adequate future system operations.
- 2. The City shall encourage the formation of local street lighting districts when a neighborhood proposes the installation or improvement of lighting facilities. Lighting

District members assume or share the costs of capital improvements, maintenance and operations of their own lighting system. Entire subdivisions shall be served by a proposed lighting district whenever practicable to promote cost equity and reduce costs.

3. The City shall continue to pursue federal, state and private grants to augment operations activities, especially in the planning and engineering functions.

### Land Use

Goal: Encourage land uses that reduce reliance on single-occupancy automobiles.

- 1. The City shall consider changes to the Zoning Code that will more effectively implement Comprehensive Plan goals that encourage transit-oriented, mixed-use and high-density development near the city center to reduce private vehicle trips by increasing access to transportation alternatives in conformity with the Oregon Transportation Planning Rule (TPR).
- 2. The City shall implement plans for both the traditional downtown area and the area designated for future downtown development that include mixed-use, high-density (where appropriate), transit oriented and pedestrian-friendly design standards.
- 3. To reinforce the implementation of this transportation plan in land use decision-making, corridors for future auto, bicycle and pedestrian facilities have been adopted into this plan.
- 4. The City shall adopt a new <u>Subdivision Code</u> that includes simplified Planned Unit Development requirements, and that includes design standards and review criteria for adequate transportation facilities. Such provisions shall include, but are not limited to, connectedness between neighborhoods for vehicles, bicycles and pedestrians, access management standards, and street width and parking requirements.
- 5. The City shall revise the <u>Talent Zoning Code</u> wherever appropriate, especially the articles regarding Off-Street Parking, Site Development Plan review and Conditional Use Permit review, to add or improve transportation-related design standards and review criteria. Such revisions shall include, but are not limited to, connectedness between neighborhoods for vehicles, bicycles and pedestrians, access management standards, and street width and parking requirements.
- 6. The City shall coordinate land use planning with transportation planning by notifying the City Administrator, Traffic Committee, Public Works Director, City Engineer, Fire Department and Police Department of all planning proposals that include transportation components. All departments will be invited to make suggestions for design

- improvement and conditions of approval, and to participate in pre-application conferences whenever practical.
- 7. The City shall coordinate land use planning for properties with access onto Highway 99 and Valley View Road, and other projects large enough to impact traffic counts on those roads, with the Oregon Department of Transportation. To this end, the City will provide notice of pending decisions and invite ODOT to make suggestions for design improvement and conditions of approval, and to participate in pre-application conferences whenever practical.

# Transportation System Management

Goal: Maximize the efficiency of the existing surface transportation system through management techniques and facility improvements.

Objective 1: Maintain and operate a system of traffic control devices at an optimal level of service and efficiency that is consistent with existing funding levels.

- 1. The City recognizes that efficient management of the transportation system can reduce costs by avoiding the need for more expensive roadway expansion projects. The City shall effectively integrate technology with transportation infrastructure consistent with strategies and projects in the RVMPO's Intelligent Transportation Systems (ITS) Plan.
- 2. The City shall continue to modernize the signal system and improve its coordination and efficiency by ultimately connecting all of its signals to a centralized traffic control center. The City shall employ traffic signal timing plans that maximize the efficiency of the system given the particular travel demand during different time periods throughout the typical weekday and weekend day.
- 3. The City shall conduct regular and preventative maintenance on the signals within its inventory, to prevent traffic delays and congestion due to avoidable malfunctions.
- 4. The City shall regularly maintain all of the traffic control devices (signs and markings) within its inventory to minimize congestion and driver delay due to confusion. While priority shall always be given to regulatory and warning signs, informational (street name and directional) signs shall also be given proper maintenance.
- 5. The City shall consider the removal of traffic signals where they are no longer justified due to land use changes and the resultant change in traffic patterns.
- Objective 2: Maximize the effective capacity of the street system through improvements in physical design and management of on-street parking.

- 1. The City shall give the physical improvement of intersections a higher priority in the design process than general street corridor widening, when seeking ways to increase capacity and relieve congestion on a street.
- 2. Where on-street parking is permitted on a congested arterial street, the City shall give first priority to removing on-street parking as a means of enhancing the capacity of the facility. The exception will be arterial streets within the central business district, where parking will not be removed. Depending upon the situation and proper analysis, the City may consider timed on-street parking prohibitions during peak travel periods in lieu of permanent removal.
- 3. The City shall facilitate implementation of bus bays by RVTD on congested arterial streets as a means of facilitating traffic flow during peak travel periods. The feasibility, location and design of bus bays shall be developed in consultation between the City and RVTD.

### Access Management

Goal: Maximize the efficiency and safety of surface transportation systems by managing access.

Objective: Increase street system safety and capacity through the adoption and implementation of access management standards.

- 1. The City shall develop and adopt specific access management standards to be contained in the *Department of Public Works Standard Details*, based on the following principles:
  - A. Properties with frontage along two streets shall take primary access from the street with the lower classification.
  - B. Any one development along the arterial street system shall be considered in its entirety, regardless of the number of individual parcels it contains. Individual driveways will not be considered for each parcel.
  - C. Signalized access for private streets and driveways onto the major street system shall not be permitted within 1,320 feet (1/4 mile) of any existing or planned future signal.
  - D. Shared, mutual access easements shall be designed and provided along arterial street frontage for both existing and future development.
  - E. The spacing of access points shall be determined based on street classification. Generally, access spacing includes accesses along the same side of the street or on

- the opposite side of the street. Access points shall be located directly across from existing or future access, provided adequate spacing results.
- F. All access to the public right-of-way shall be located, designed, and constructed to the approval of the Public Works Director, or his designee. Likewise, variances to access management standards shall be granted at the discretion of the Public Works Director, or his designees.
- 2. The City shall incorporate access management standards into all of its arterial street design projects. Access management measures may include, but are not limited to, construction of raised median, driveway consolidation, driveway relocation, and closure of local street access to the arterial.
- 3. Consistent with the City's goal of improving mobility, the City shall consider developing access management projects for congested arterials to help improve safety and traffic flow. Access management projects may include, but are not limited to, construction of raised medians, driveway consolidation, driveway relocation, and closure of local street access to the arterial.
- 4. The City shall maintain carrying capacity and safety of pedestrian, bicycle, public transit and motor vehicle movement on arterials and collectors through driveway and curb cut consolidation or reduction.
- 5. The City shall discourage direct driveway access onto streets designated as collectors and arterials whenever an economically feasible alternative exists or can be made available.
- 6. The City shall require design that combines multiple driveway accesses to a single point in a residential and commercial development.

# Transportation Demand Management

Goal: Reduce the demands placed on the current and future transportation system by the single-occupant automobile.

Objective 1: Encourage the use of alternative travel modes by serving as an institutional model for other agencies and businesses in the community.

### Policies:

1. The City shall serve as a leading example for other businesses and agencies by maximizing the use of alternative transportation modes among City employees through incentive programs. The City shall provide information on alternative transportation modes and provide incentives for employees who use alternatives to the single-occupant automobile.

2. The City shall offer flexible schedules and compressed workweek options whenever feasible, as a way of reducing travel demand. The City shall allow employees to telecommute, whenever feasible.

Objective 2: Work towards reducing the vehicle miles traveled (VMT) in the Talent urban area by assisting individuals in choosing alternative travel modes.

### Policies:

- 1. The City shall encourage major employers to allow work arrangements providing an alternative to the 8-to-5-work schedule. These arrangements shall include, but are not limited to, employee flextime programs, staggered work hours, and compressed workweeks.
- 2. The City shall encourage major employers to allow telecommuting where feasible.
- 3. The City and major employers shall encourage ridesharing by making ridesharing more convenient.
- 4. The City shall encourage major employers to work with RVTD to adopt trip reduction goals designed to reduce site vehicular trip generation.

### Parking

Goal: Ensure the Talent urban area has an appropriate supply of parking facilities that supports the goals and objectives of this plan.

Objective 1: Define an appropriate role for on-street parking facilities.

- 1. The City shall manage the supply, operations and demand for parking in the public right-of-way to encourage economic vitality, traffic safety and livability of neighborhoods. Parking in the right-of-way, in general, should serve land uses in the immediate area.
- 2. The provision of on-street parking is second in priority to the needs of the travel modes (i.e., vehicle, transit, bicycle, and pedestrian) using the street right-of-way, except where abutting properties have no ability to provide their own off-street parking, or where on-street parking is needed to support an existing business district.
- 3. Where practical, existing on-street parking will be removed in preference to widening streets for additional travel lanes, except for streets within the central business district. Efforts will be made to mitigate the impact of parking removal in those areas where abutting properties have no ability to provide their own adequate supply of off-street parking, or where on-street parking is needed to support an existing business district.

- 4. The City shall re-evaluate parking space size requirements due to the increased use of smaller cars.
- 5. In those areas where demand exists, an adequate supply of on-street carpool and vanpool parking spaces shall be provided. The location of these spaces shall have preference over those intended for general-purpose on-street parking.
- Objective 2: Promote economic vitality and neighborhood livability by requiring an appropriate supply of off-street parking facilities.

- 1. To avoid the negative impacts to surrounding residential neighborhoods or other nearby land uses, new development must provide, or have access to, an appropriate supply of off-street parking.
- 2. The City shall consider establishing lower minimum parking requirements in their current zoning codes to encourage in-fill development, shared parking facilities, and the use of alternative travel modes.
- 3. The City shall consider adopting maximum parking requirements in the current zoning code to reduce the amount of off-street parking supply provided by new businesses.
- 4. The location of major activity centers shall be accessible by transit, and shall meet their parking demand through a combination of shared, leased, and new off-street parking facilities.
- 5. The City shall encourage sharing of existing and future parking facilities by various nearby businesses.
- 6. The City shall continue to require effective landscaping throughout continuous paved parking areas to provide shading, screening and buffering aesthetics, and shall consider standards for percolation of water into the groundwater table.
- Objective 3: Work towards meeting the State Transportation Planning Rule goals to reduce per capita parking supply by the year 2019 to discourage reliance on private cars and consequently encourage the use of public transit, bicycles and walking.

- 1. The City of Talent shall carefully monitor how new lands are designated in the Talent Comprehensive Plan to achieve a decrease in the parking supply per capita for commercial, industrial, and institutional lands over the next 20 years.
- 2. Impacts on overall parking supply and Transportation Planning Rule compliance shall be taken into account when any significant expansion in the supply of commercial, industrial, or institutional designated land is considered.

- 3. The City shall inventory the parking spaces available and shall set up a process for updating the parking space inventory.
- 4. The City will create a parking management plan to support the development of a vibrant area for shopping, working, living, and playing and meet the needs of the community's businesses, residents, employees, and visitors. The plan will establish the framework for assessing and managing the supply of on- and off-street parking in the central business district to accommodate existing and future demand, while supporting regional vehicle miles traveled (VMT) reduction goals by encouraging alternative access modes, including public transit, biking, walking, and carpooling.

### Streets

Goal: Provide a comprehensive system of streets and highways that serves the mobility and multimodal travel needs of the Talent urban area.

Objective 1: Develop a comprehensive, hierarchical system of streets and highways that provides for optimal mobility for all travel modes throughout the Talent urban area.

- 1. The City shall fulfill its system wide travel capacity needs through the use of multiple travel modes within the public rights-of-way.
- 2. **The City's street** system shall contain a grid network of arterial streets and highways that link the central core area and major industry with regional and statewide highways.
- 3. The City's street system shall contain a network of collector streets that connect local traffic to the arterial street system.
- 4. The City shall classify streets and highways within the Talent urban area based on how they will function within the overall system.
- 5. The City shall periodically review and revise street design standards. The City shall consider incorporating traditional neighborhood design elements including, but not limited to, planting strips, minimum necessary curb radius, alleys and skinny streets in standards.
- 6. To facilitate pedestrian crossing, discourage through traffic, and reduce speeds, local streets shall not be excessive in width. However, local streets must have sufficient width to provide emergency access.
- 7. The City shall integrate traffic calming techniques into city street design standards to reduce automobile speeds within new and existing neighborhoods.

- 8. The City shall maintain street surfaces to achieve maximum pavement life so that road conditions are good and pavement maintenance costs are minimized.
- 9. The City shall prohibit development of new unpaved roads.
- 10. The City shall discourage new development on unpaved roads.
- 11. The City shall discourage cul-de-sac or dead-end street designs whenever an interconnection alternative exists. Development of a modified grid street pattern shall be encouraged for connecting new and existing neighborhoods during subdivisions, partitions, and through the use of the Street Dedication Map.
- 12. The City shall require street dedications as a condition of land development.
- 13. Improvements to streets in addition to those in or abutting a development may be required as a condition of approval of subdivisions and other intensification of land use.
- Objective 2: Design City streets in a manner that: maximizes the utility of public right-of-way, is appropriate to their functional role, and provides for multiple travel modes, while minimizing their impact on the character and livability of surrounding neighborhoods and business districts.

- 1. The City of Talent shall design its streets to safely accommodate pedestrian, bicycle and motor vehicle travel.
- 2. Arterial and collector street intersections shall be designed to promote safe and accessible crossings for pedestrians and bicyclists. Intersection design should incorporate measures to make pedestrian crossings convenient, minimizing barriers to pedestrian mobility.
- 3. Left-turn pockets shall be incorporated into the design of intersections of arterial streets with other arterial and collector streets, as well as collector streets with arterials and other collectors.
- 4. The City of Talent Standard Details shall be the basis for all street design within the Talent urban area.
- 5. The City of Talent shall apply the street design standard that most safely and efficiently provides motor vehicle capacity appropriate for the functional classification of the street.
- 6. Wherever possible the City of Talent shall incorporate safely designed, aesthetic features into the streetscape of its public rights-of-way. These features may include street trees, shrubs, and grasses; planting strips and raised medians; and, in some

instances, street furniture, planters, special lighting, public art, or non-standard paving materials.

- 7. When existing streets are widened or reconstructed they shall be designed to the adopted street design standards for the appropriate street classification. Adjustments to the design standards may be necessary to avoid existing topographical constraints, historic properties, schools, cemeteries, existing on-street parking and significant cultural features. The design of the street shall be sensitive to the livability of the surrounding neighborhood.
- 8. Affected neighborhoods shall be invited to review proposed designs before construction begins.
- 9. To maintain the utility of the public right-of-way for the mobility of all users; access location and spacing to arterial and collector streets shall be controlled.

Objective 3: Continue to promote traffic safety by enforcing clear vision area regulations applicable to public and private property located at intersections.

- 1. The City shall work with other federal, state and local government agencies to promote traffic safety education and awareness, emphasizing the responsibilities and courtesies required of drivers and cyclists.
- 2. Through its law enforcement resources, the City shall continue to work to increase traffic safety by actively enforcing the City and State motor vehicle codes.
- 3. The City shall place a higher priority on funding and constructing street projects that address identified vehicular, bicycle, and pedestrian safety problems than those projects that solely respond to automotive capacity deficiencies in the street system. Exceptions are those capacity improvements that are designed to also resolve identified safety problems.
- 4. The City shall work to increase traffic safety by requiring private property owners to maintain vision areas adjacent to intersections and driveways clear of fences, landscaping, and foliage that obstruct the necessary views of motorists, bicyclists, and pedestrians.
- 5. The City shall develop a process for identifying and addressing areas prone to traffic accidents.
- Objective 4: Efficiently plan, design, and construct City-funded street improvement projects to meet the safety and travel demands of the community.

- 1. The City shall select street improvement projects from those listed in the Talent Transportation System Plan when making significant increases in system capacity or bringing arterial or collector streets up to urban standards. The selection of improvement projects should be prioritized based on consideration of improvements to safety, relief of existing congestion, response to near-term growth, system-wide benefits, geographic equity, and availability of funding.
- 2. To maximize the longevity of its capital investments, the City shall design street improvement projects to meet existing travel demand and, whenever possible to accommodate anticipated travel demand for the next 20 years for that facility.
- 3. New arterial and collector street alignments shall be surveyed and delineated after their adoption in the Talent Transportation System Plan. The determination of alignments will allow for the preservation of land for public rights-of-way and give advance notice to property owners and citizens of where future expansions of the street system will occur.
- 4. The City shall involve representatives of affected neighborhood associations and citizens in an advisory role in the design of street improvement projects.

Objective 5: Improve the street system to accommodate travel demand created by growth and development in the community.

### Policies:

- 1. The City shall require Traffic Impact Analyses as part of land use development proposals to assess the impact that a development will have on the existing and planned transportation system. Thresholds for having to fulfill this requirement and specific analysis criteria shall be established in the Talent Zoning Code.
- 2. The City shall require new development to make reasonable site-related improvements to connecting streets where capacity is inadequate to serve the development.
- 3. The City may require new development to pay charges towards the mitigation of system-wide transportation impacts created by new growth in the community through established Street System Development Charges (SDCs) and any other street fees that are established by the City. These funds can be used towards improvements to the street system. Projects funded through these charges are growth-related and should be selected from the approved list and prioritized based upon the established criteria.

### **Economic**

Goal: Build and maintain the transportation system to facilitate economic development in the region.

Objective: The City of Talent will build and maintain the transportation system to facilitate economic development in the region.

### Policies:

1. The City shall consider effects on freight mobility when prioritizing projects.

- 2. The City supports projects serving commercial, industrial and resource-extraction lands where an inadequate transportation network impedes freight-generating development.
- 3. The City plans for enhanced train-truck-transit interface for the movement of goods and people.

# Bicycle

Goal: Facilitate and encourage the increased use of bicycle transportation in Talent by ensuring that convenient, accessible and safe cycling facilities are provided.

Objective 1: Create a comprehensive system of bicycle facilities.

- 1. The City of Talent recognizes bicycle transportation as a necessary and viable component of the transportation system, both as an important transportation mode, and as an air quality improvement strategy.
- 2. The City shall support and promote bicycling for transportation and recreation recognizing the benefits to human health, economic, and environmental for the individual and community.
- 3. The Bicycle Element of this plan serves as the Talent Bicycle Master Plan.
- 4. The City of Talent shall progressively develop a linked bicycle network, focusing on the arterial and collector street system, and concentrating on the provision of bicycle lanes, to be completed within the planning period (20 years). The bikeway network will serve bicyclists needs for travel to employment centers, commercial districts, transit centers, institutions and recreational destinations.
- 5. The City of Talent shall use all opportunities to add bike lanes in conjunction with road reconstruction and restriping projects on collector and arterial streets.
- 5. The City of Talent shall assure that the design of streets and public improvement projects facilitates bicycling by providing proper paving, lane width, traffic control, storm drainage grates, striping, signage, lighting, etc.
- 6. The City of Talent shall assure regular maintenance of existing bicycle facilities, and take actions to improve crossings at railroads, creeks, major streets.

- 7. The City of Talent shall assure the provision of bicycle racks and/or shelters at critical locations within the downtown and other locations where publicly provided bicycle parking facilities are called for.
- 8. The City of Talent shall actively work with ODOT to improve bicycling on State Highway 99 within Talent.
- 9. The City of Talent shall support the local transit provider in their efforts to facilitate bikes on buses and bicycle facilities at transit stations and stops.
- 10. The City of Talent shall give priority to bicycle traffic over parking within public rights-of-way designated on the Bicycle Master Plan or otherwise determined to be important bicycling routes.
- 11. The City of Talent shall encourage bicycle recreation.
- 12. The City shall require pedestrian and bicycle easements to provide neighborhood connectors and reduce vehicle trips. The City shall modify the street vacation process so pedestrian and bicyclist through access is maintained.
- 13. The City shall require sidewalks and pedestrian access in all new developments.
- 14. The City shall require secure, sheltered bicycle parking in business developments, institutions, duplexes and multi-family developments.
- 15. The City shall coordinate bicycle planning efforts with Jackson County and the Jackson County Bicycle Master Plan.

Objective 2: Promote bicycle safety and awareness.

### Policies:

- 1. The City of Talent shall actively support and encourage local and state bicycle education and safety programs intended to improve bicycling skills, observance of laws, and overall safety for both children and adults.
- 2. The City shall consider the use of the media, bicycle committees, bicycle plans and other methods to promote use of bicycling for transportation purposes.

### Pedestrian

Goal: To provide a comprehensive system of connecting sidewalks and walkways that will encourage and increase safe pedestrian travel.

Objective 1: Create a comprehensive system of pedestrian facilities.

- 1. The City shall continue to inventory and map existing pedestrian facilities.
- 2. The City shall establish a Sidewalk Construction Program to complete the pedestrian facility network.
- 3. Sidewalks and walkways shall complement access to transit stations/stops and multi-use paths. Activity centers and business districts should focus attention on and encourage pedestrian travel within their proximity.
- 4. All future development shall include sidewalk and pedestrian access construction as required by the Talent Zoning Code and adopted Street Standard Details. All road construction or renovation projects shall include sidewalks.
- 5. All signalized intersections shall have marked crosswalks. Crosswalks at controlled intersections should be provided near schools, commercial areas, and other high volume pedestrian locations.
- 6. The location and design of sidewalks shall comply with the requirements of the Americans with Disabilities Act.
- 7. The City shall require pedestrian and bicycle easements to connect neighborhoods and reduce vehicle trips. The City shall modify the street vacation process so pedestrian and bicyclist through-access is maintained.
- 8. Pedestrian walkway or accessway connections shall be required between adjacent developments when roadway connections cannot be provided.
- 9. The City will establish evaluation criteria for prioritizing sidewalk projects.
- 10. The City shall identify a systematic approach to filling gaps in the sidewalk system.

Objective 2: Support mixed-use development that encourages pedestrian travel by including housing close to commercial and institutional activities.

- 1. The City shall establish standards for the maintenance and safety of pedestrian facilities. These standards shall include the removal of hazards and obstacles to pedestrian travel, as well as maintenance of benches and landscaping.
- 2. Zoning shall be developed to allow for mixed land uses that promote pedestrian travel.
- 3. The City shall support and promote walking for transportation and recreation recognizing the benefits to human health, economic, and environmental for the individual and community.

- 4. The City shall encourage the development of a connecting, multi-use trail network, using linear corridors including, but not limited to: Bear Creek, Wagner Creek, utility easements, and rail lines, that complement and connect to the sidewalk system.
- 5. The City shall provide sidewalks and other amenities to make pedestrian access to bus stops easier.
- Objective 3: Encourage education services and promote safe pedestrian travel to reduce the number of accidents involving pedestrians.

- The City shall encourage schools, safety organizations, and law enforcement agencies to
  provide information and instruction on pedestrian safety issues that focus on
  prevention of the most important accident problems. The programs shall educate all
  roadway users of their privileges and responsibilities when driving, bicycling and
  walking.
- 2. The City shall enforce pedestrian safety laws and regulations to help increase safety as measured by a reduction in accidents. Attention should be focused on areas where high volumes of automobile and pedestrian travel occur. Warnings and citations given to drivers and pedestrians should serve to impress the importance of safety issues.
- 3. The City shall work toward the completion of the street lighting system, designed to city illumination standards, on all arterial and collector streets within the City limits. Through the use of neighborhood street lighting districts, property owners shall be encouraged to provide street lighting, designed to city illumination standards, on all public local streets within the City limits.
- 4. Pedestrian traffic should be separated from auto traffic on streets in parking lots wherever possible.

### Transit

Goal: Support a transit system that provides convenient and accessible transit services to the citizens of the Talent urban area.

Objective 1: Ensure that transit services are accessible to Talent urban area residences and businesses.

### Policies:

1. The City shall work with the local transit provider to encourage transit services be routed in a manner that, where practical, provides service coverage within a 1/4 mil walking distance of Talent urban area residences and businesses.

- 2. To encourage accessibility and increased ridership, the City shall continue to encourage future transit-supportive land uses, such as mixed uses, multiple-family, and employment centers to be located on or near transit corridors.
- 3. Through its zoning and development regulations, the City shall continue to facilitate accessibility to transit services through transit-supportive streetscape, subdivision, and site design requirements that promote pedestrian connectivity, convenience and safety.
- 4. The City shall include the consideration of transit operations in the design and operation of street infrastructure wherever it is appropriate.
- 5. The City shall support the continued development and implementation of accessible fixed-route and appropriate complementary paratransit services.
- 6. The City of Talent shall encourage connectivity between different travel modes. The Talent Transportation Depot and park-and-ride facilities should be accessible by pedestrian, bicycle, bus and automobile travel modes.
- 7. The City shall cooperate with the local transit provider to identify and include features beneficial to transit riders and transit district operations when developing plans for roadway projects.
- 8. The City shall support the local transit providers' efforts to provide pleasant, clean, safe, comfortable shelters along transit lines, at or near transit stops.
- 9. The City shall install bike racks or lockers at transit stops when adequate financial resources are available.
- 10. The City shall identify park and ride, bike and ride, and walk and ride lots in Talent to support ridesharing.
- Objective 2: Increase overall daily transit ridership in the Talent urban area to mitigate a portion of the traffic pressures expected by regional growth.
  - 1. Through rideshare programs and other TDM efforts, the City shall work with Talent employers and other government agencies to increase commuter transit ridership through voluntary, employer-based incentives such as subsidized transit passes and guaranteed ride home programs.
  - 2. The City shall work through RVTD rideshare programs and other transportation demand efforts (TDM) efforts to assist in the effective marketing of the local transit provider services to Talent urban area residents and businesses.
  - 3. The City shall encourage promotional and educational activities that encourage school children and people who own cars to use public transit.

### Aviation

### **Policies**

- 1. The City shall support reasonably priced air transportation and convenient connections with other areas in the state, nation and abroad.
- 2. The City shall support intermodal connections between the City of Talent and the Medford International Airport.

### Rail

- 1. The City shall support rail transportation in the region and its connections with the other areas in the state and nation. The City shall encourage passenger service as part of statewide rail transportation planning efforts.
- 2. The City shall encourage mitigation of railroad noise by recommending appropriate berming and landscaping in developments adjacent to the railroad that are impacted by railroad noise.

# **City of Talent**

# **Transportation System Plan Update**

**Technical Memorandum #1** 

**Appendix B:** 

**Review of Plans and Policies** 

Prepared for

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and

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# June 2015

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### B. INTRODUCTION

This appendix documents state, regional, and local transportation and land use plans and policies that are relevant to transportation planning in the City of Talent, Oregon. The purpose of this review is to ensure that the update of the City of Talent Transportation System Plan (TSP) is compatible and compliant with all laws and policies.

### B.1. Statewide Plans and Policies

The following statewide planning documents are reviewed:

- Statewide Plans and Policies
- Oregon Transportation Plan (OTP, Amended September 20, 2006)
- Oregon Highway Plan (1999, with Amendments)
- OAR Chapter 734 Division 051 (Division 51)

# B.1.1. OAR Chapter 734 Division 051 (Division 51)

The purpose of Division 51 is to balance development needs with transportation safety and access management objectives of state highways in a manner consistent with local transportation system plans and the land uses permitted in applicable local comprehensive plan(s). Division 51 provides standards to govern highway approaches, access control, spacing standards, medians, and restriction of turning movements, in compliance with statewide planning goals and in a manner compatible with acknowledged comprehensive plans and consistent with Oregon Revised Statutes (ORS), Oregon Administrative Rules (OAR), and the Oregon Highway Plan (OHP). The Oregon Highway Plan serves as the policy basis for implementing Division 51, and guides the administration of access management rules, including mitigation and public involvement.

### Project Relevance

Improvements to OR 99 or in the vicinity of I-5 Exit 21, both state facilities, must consider the standards in Division 51. The City of Talent will be required to adopt the OR 99 Rogue Valley Corridor Plan and the I-5 Exit 21 Interchange Area Management Plan as part of their TSP.

- Oregon Bicycle and Pedestrian Plan (1995)
- Oregon Rail Plan (2001)
- Oregon Public Transportation Plan (1997)
- Oregon Freight Plan (2011)
- Transportation Safety Action Plan (2011)
- Oregon Department of Aviation 2007 Oregon System Plan
- Title VI Guidance for Transportation Planning (2009)
- 2012-2015 Statewide Transportation Improvement Program (STIP)

# B.1.2. Statewide Planning Goals

Since 1973, Oregon has maintained a strong statewide program for land use planning. The foundation of that program is a set of 19 statewide planning goals. Most of the goals are accompanied by guidelines, which are suggestions about how a goal may be applied. The goals express the state's policies on land use and related topics, such as citizen involvement, housing, and natural resources. Oregon's statewide goals are achieved through local comprehensive planning. State law requires each city and county to adopt a comprehensive plan, of which transportation system plans are a part, and the zoning and land-division ordinances needed to put the plan into effect. The local comprehensive plans must be consistent with the Statewide Planning Goals. When the state's Land Conservation and Development Commission (LCDC) officially approves a local government's plan, the plan is said to be acknowledged. It then becomes the controlling document for land use in the area covered by that plan. Oregon's planning laws strongly emphasize coordination—keeping plans and programs consistent with each other, with the statewide planning goals, and with acknowledged local plans. The goals that are most pertinent to transportation system planning are described below.

# <u>Statewide Planning Goal 1 (Citizen Involvement) and OAR 660, Division 4</u>

Goal 1, Citizen Involvement, ensures the opportunity for all citizens to be involved in all phases of the planning process. The citizen involvement program shall be appropriate to the scale of the planning effort. The program shall provide for continuity of citizen participation and of information that enables citizens to identify and understand the issues surrounding a given planning process.

### Project Relevance

Goal 1 requires federal, state, regional, and special districts agencies to coordinate their planning efforts with the City of Talent, and in addition, make use of existing local established citizen involvement programs.

The key components of Goal 1 relevant to the project include:

- To provide for widespread citizen involvement.
- To provide effective two-way communication with citizens.
- To provide the opportunity for citizens to be involved in all phases of the planning process.
- To assure technical information is available and provided in a user-friendly manner.
- To assure that policy makers provide feedback to citizens.

# Statewide Planning Goal 2 (Land Use Planning) and OAR 660, Division 4

Goal 2, Land Use Planning, requires that a land use planning process and policy framework be established as a basis for all decisions and actions relating to the use of land. Goal 2 plays a key role in transportation planning along with Goals 11 (Public Facilities and Services), 12 (Transportation) and 14 (Urbanization).

### Project Relevance

Part of the Talent TSP process will include estimating future demand for transportation facilities and services. Assumptions used in the TSP regarding the future use of land and projected development will form the basis of the estimates for future transportation demand.

# <u>Statewide Planning Goal 11 (Public Facilities and Services) and OAR 660,</u> <u>Division 11</u>

Statewide Planning Goal 11, Public Facilities and Services, requires cities and counties to plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

### Project Relevance

As it applies to this project, Goal 11 requires that projects and plans (urban development) be "guided and supported by types and levels of urban and rural public facilities and services appropriate for, but limited to, the needs and requirements of the urban, urbanizable and rural areas to be served."

# Statewide Planning Goal 12 (Transportation) and OAR 660, Division 12

The purpose of the TPR is "to implement Statewide Planning Goal 12 (Transportation) and promote the development of safe, convenient and economic transportation systems that are designed to reduce reliance on the automobile so that the air pollution, traffic and other livability problems faced by urban areas in other parts of the country might be avoided." A major purpose of the TPR is to promote more careful coordination of land use and transportation planning, to assure that planned land uses are supported by and consistent with planned transportation facilities and improvements.

The TPR divides transportation planning into two phases: transportation system planning and transportation project development (660-012-0010(1)). This rule identifies transportation facilities, services and improvements which may be permitted on rural lands consistent with Goals 3, 4, 11, and 14 without a goal exception. These include replacement of an intersection with an interchange, channelization, and medians. The local government must identify reasonable build design alternatives, assess their impacts, and select the alternative with the least impact.

The Land Conservation and Development Commission adopted amendments to the TPR. These include amendments to OAR 660-012-0060 (plan and land use regulation amendments). The primary focus of this rule is keeping land use and transportation in balance. When a plan or zoning amendment would result in levels of traffic that exceed the highway performance standards for a roadway, it is deemed to have a significant effect on the roadway.

# Project Relevance

The TPR contains specific requirements for the development of Transportation System Plans. Moreover, TSPs are required to be developed in accordance with the TPR. The following table provides an analysis of the existing TSP's compliance with the TPR1, and recommended areas that should be addressed in the TSP Update.

Table B-1. Transporation Planning Rule Compliance

TPR Section	Compliant?	Finding	
660-012-0015 Preparation and Coordination of Transportation System Plans			
3(a) Local TSPs shall establish a system of transportation facilities and services adequate to meet identified local transportation needs and shall be consistent with regional TSPs and adopted elements of the state TSP;	Partially	An update to the RTP was complete in March, 2013. The TSP should be updated to reflect changes made to the RTP.	
(4) Cities and counties shall adopt regional and local TSPs required by this division as part of their comprehensive plans. Transportation financing programs required by OAR 660-012-0040 may be adopted as a supporting document to the comprehensive plan.	Yes	The RTP was adopted as part of the 2007 TSP Update (Element D of the Comprehensive Plan)	
(5) The preparation of TSPs shall be coordinated with affected state and federal agencies, local governments, special districts, and private providers of transportation services.	Yes	The 2007 TSP Update was coordinated with the Rogue Valley MPO, ODOT, Jackson County, and other relevant government organizations.	
660-012-0020 Elements of Transportation System Plans			
2(a) A determination of transportation needs as provided in OAR 660-012-0030	Yes	Chapter 6 of the 2007 TSP Update contains discussion of transportation needs.	
(b) A road plan for a system of arterials and collectors and standards for the layout of local streets and other important non-collector street connections	Yes	The 2007 TSP Update contains these standards and a functional classification plan that describes a system of collectors and arterial streets.	
(c) A public transportation plan	Yes	Chapter 7	
(d) A bicycle and pedestrian plan for a network of bicycle and pedestrian routes throughout the planning area.	Yes	Chapter 7	
(e) An air, rail, water and pipeline transportation plan	Yes	Chapter 7	
(g) A parking plan in MPO areas as provided in OAR 660-012-0045(5)(c);	No	The 2007 TSP Update does not have a parking plan.	
(h) Policies and land use regulations for implementing the TSP	Partially	The TSP contains transportation policies, goals and objectives. TSP implementation is accomplished through the city subdivision code (8-2) and zoning code (8-3). The code will need to be updated to reflect new or revised policies in the 2013 TSP Update	
(i) For areas within an urban growth boundary containing a population greater than 2500 persons, a transportation financing program	Yes	Chapter 8	

Table B-1. Transporation Planning Rule Compliance

TPR Section	Compliant?	Finding	
(3) Each element identified in subsections (2)(b)-(d) of this	s rule shall cor	ntain:	
(a) An inventory and general assessment of existing and committed transportation facilities and services by function, type, capacity and condition	Yes	Chapter 3	
(B) For state and regional facilities, the transportation capacity analysis shall be consistent with standards of facility performance considered acceptable by the affected state or regional transportation agency	Yes	Chapter 4	
(3)(b) A system of planned transportation facilities, services and major improvements.	Yes	Chapter 7	
660-012-0030 Determination of Transportation Needs			
(1) The TSP shall identify transportation needs relevant to network being planned including:	the planning	area and the scale of the transportation	
(a) State, regional, and local transportation needs;	Yes	Chapter 5 & 6	
(b) Needs of the transportation disadvantaged;	Partially	The 2007 TSP Update provides limited discussion of the needs of the transportation disadvantaged. Given median income in Talent is significantly below the county and state's median, the needs of the transportation disadvantaged may need to be more thoroughly addressed.	
(c) Needs for movement of goods and services to support industrial and commercial development	Yes	The transportation facility projects list in the 2007 TSP Update addresses the needs of freight.	
Within urban growth boundaries, the determination of local and regional transportation needs shall be based upon:			
(a) Population and employment forecasts and distributions that are consistent with the acknowledged comprehensive plan	Partially	The 2007 TSP Update uses growth assumptions that do not fully match those of the Comprehensive Plan. These should be reviewed.	
(b) Measures adopted pursuant to OAR 660-012-0045 to encourage reduced reliance on the automobile.	Yes	The 2007 TSP contains a multi-modal mix of policies and projects to encourage reduced reliance on autos.	
660-012-0035 Evaluation and Selection Transportation System Alternatives			
(1) The TSP shall be based upon evaluation of potential impacts of system alternatives that can reasonably be expected to meet the identified transportation needs in a safe manner and at a reasonable cost with available technology. The following shall be evaluated as components of system alternatives:			
(a) Improvements to existing facilities or services;	Yes	Chapter 7	
(b) New facilities and services, including different modes or combinations of modes that could reasonably meet identified transportation needs;	Yes	Chapter 7	

Table B-1. Transporation Planning Rule Compliance

TPR Section	Compliant?	Finding		
660-012-0045 Implementation of the Transportation Sys	660-012-0045 Implementation of the Transportation System Plan			
(1) Each local government shall amend its land use regulations to implement the TSP.				
(c) In the event that a transportation facility, service or improvement is determined to have a significant impact on land use or to concern the application of a comprehensive plan or land use regulation and to be subject to standards that require interpretation or the exercise of factual, policy or legal judgment, the local government shall provide a review and approval process that is consistent with 660-012-0050.	Yes	Chapter 8-3(L) of the Talent City Code describes development review procedures.		
(2) Local governments shall adopt land use or subdivision ordinance regulations, consistent with applicable federal and state requirements, to protect transportation facilities, corridors and sites for their identified functions. Such regulations shall include:				
(a) Access control measures;	Yes	Chapter 7		
(b) Standards to protect future operation of roads, transitways and major transit corridors;	Yes	Chapter 7		
(c) Measures to protect public use airports by controlling land uses within airport noise corridors	Yes	N/A		
(d) A process for coordinated review of future land use decisions affecting transportation facilities, corridors or sites;	Yes	Transportation impacts are reviewed pursuant to Chapter 8-2 of the Talent City Code.		
(e) A process to apply conditions to development proposals in order to minimize impacts and protect transportation facilities, corridors or sites;	Yes	Conditions may be applied to projects pursuant to Chapter 8-3, L.160 of the Talent City Code.		
(f) Regulations to provide notice to public agencies providing transportation facilities and services, MPOs, and ODOT of: (A) Land use applications that require public hearings; (B) Subdivision and partition applications; (C) Other applications which affect private access to roads; and (D) Other applications within airport noise corridors and imaginary surfaces which affect airport operations; and (g) Regulations assuring that amendment	Yes	Chapter 8-3(M) of the Talent City Code contains noticing requirements.		
(3) Local governments shall adopt land use or subdivision regulations for urban areas and rural communities as set forth below.				
(a) Bicycle parking facilities as part of new multi-family residential developments of four units or more, new retail, office and institutional developments, and all transit transfer stations and park-and-ride lots;	No	The 2007 TSP Update has language stating that the City will require bike parking, but the City Code does not contain this requirement. The Code should be revised.		

Table B-1. Transporation Planning Rule Compliance

TPR Section	Compliant?	Finding
(b) On-site facilities shall be provided which accommodate safe and convenient pedestrian and bicycle access from within new subdivisions, multifamily developments, planned developments, shopping centers, and commercial districts to adjacent residential areas and transit stops, and to neighborhood activity centers within one-half mile of the development. Singlefamily residential developments shall generally include streets and accessways. Pedestrian circulation through parking lots should generally be provided in the form of accessways.	Yes	Chapter 8-2 of the Talent City Code.
(B) Bikeways shall be required along arterials and major collectors.	Yes	TSP design standards require bicycle facilities on collectors and arterials.
(D) Local governments shall establish their own standards or criteria for providing streets and accessways consistent with the purposes of this section.	Yes	Chapter 8-2 of Talent City Code
(c) Where off-site road improvements are otherwise required as a condition of development approval, they shall include facilities accommodating convenient pedestrian and bicycle travel, including bicycle ways along arterials and major collectors;	Yes	Design standards require pedestrian facilities on all streets; bicycle facilities are required on all collectors and arterials.
(e) Internal pedestrian circulation within new office parks and commercial developments shall be provided through clustering of buildings, construction of accessways, walkways and similar techniques.	Yes	Chapter 8-2 of Talent City Code
(5) In MPO areas, local governments shall adopt land use and subdivision regulations to reduce reliance on the automobile which:		
(a) Allow transit-oriented developments (TODs) on lands along transit routes;	Yes	TODs are not expressly called out in the code, but are not prohibited either.
(b) Implements a demand management program to meet the measurable standards set in the TSP in response to 660-012-0035(4);	Yes	The Rogue Valley MPO and Rogue Valley Transit District (RVTD) have a regional TDM; RVTD is the primary implementer of the TDM program.
(c) Implements a parking plan which: (A) Achieves a 10% reduction in the number of parking spaces per capita in the MPO area over the planning period. (B) Aids in achieving the measurable standards set in the TSP in response to OAR 660-012-0035(4);(C) Includes land use and subdivision regulations setting minimum and maximum parking requirements in appropriate locations, such as downtowns, designated regional or community centers, and transit oriented-developments	No	The 2007 TSP Update does not contain a parking plan.
(6) In developing a bicycle and pedestrian circulation plan as required by 660-012-0020(2)(d), local governments shall identify improvements to facilitate bicycle and pedestrian trips to meet local travel needs in developed areas.	Yes	Chapter 7

Table B-1. Transporation Planning Rule Compliance

TPR Section	Compliant?	Finding
(7) Local governments shall establish standards for local streets and accessways that minimize pavement width and total right-of-way consistent with the operational needs of the facility.	Yes	Code requires that streets be built to TSP design standards; the standards provide for a "narrow" pavement section option for local streets.
660-012-0035 Evaluation and Selection of Transportation System Alternatives		
(c) Transportation system management measures;	Yes	The 2007 TSP Update contains goals and policies related to TSM.
(d) Demand management measures; and	Yes	The 2007 TSP Update contains goals and policies related to TDM; RVTD is the primary implementer of TDM programs in the region.
(e) A no-build system alternative required by the National Environmental Policy Act of 1969 or other laws.	Yes	Future conditions under a no-build scenario are considered in the Future Conditions chapter of the 2007 TSP Update.
(5) MPO areas shall adopt standards to demonstrate progress towards increasing transportation choices and reducing automobile reliance[or] (6) A metropolitan area may also accomplish compliance with requirements of subsection (3)(e), sections (4) and (5) by demonstrating to the commission that adopted plans and measures are likely to achieve a five percent reduction in VMT per capita over the 20-year planning period.	Yes	The MPO has adopted alternative VMT reduction standards to comply with the TPR. The 2007 Talent TSP Update does not directly address these measures, but does contain policies intended to reduce VMT. The TSP and/or City Code should more directly address the VMT reduction standards and measures adopted by the MPO.

# Statewide Planning Goal 14 (Urbanization), and OAR 660, Divisions 14 and 22

Goal 14, Urbanization, requires an orderly and efficient transition from rural to urban land use. This is accomplished through the establishment of UGBs and unincorporated communities. UGBs and unincorporated community boundaries separate urbanizable land from rural land. Land uses permitted within the urban areas are more urban in nature and higher intensity than in rural areas, which primarily include farm and forest uses.

Goal 14 is important because it focuses development within relatively compact boundaries of the UGB and to a lesser degree in unincorporated communities. This compact development helps contain the costs of public facilities such as transportation by reducing the need for facilities further out and helping jurisdictions better anticipate where growth will occur. The location, type, and intensity of development within Talent will impact use and development of the transportation system and affects future use and operations.

### Project Relevance

The relevance of Goal 14 to the project is underlined in Guideline B.4: "Local land use controls and ordinances should be mutually supporting, adopted and enforced to integrate the type,

timing and location of public facilities and services in a manner to accommodate increased public demands as urbanizable lands become more **urbanized**."

### B.1.3. Oregon Transportation Plan (OTP, Amended September 20, 2006)

The Oregon Transportation Plan (OTP) is the state's long-range multimodal transportation plan. The OTP is the overarching policy document among a series of plans that together form the state transportation system plan (TSP). The OTP considers all modes of Oregon's transportation system as a single system and addresses the future needs of Oregon's airports, bicycle and pedestrian facilities, highways and roadways, pipelines, ports and waterway facilities, public transportation, and railroads. The current OTP assesses state, regional, and local public and private transportation facilities through 2030. The OTP establishes goals, policies, strategies, and initiatives that address the core challenges and opportunities facing Oregon. It also provides the framework for prioritizing transportation improvements based on varied future revenue conditions.

This OTP supersedes the 1992 OTP, which established a vision of a balanced, multimodal transportation system and called for an expansion of ODOT's role in funding non-highway investments. The current OTP furthers these policy objectives with emphasis on maintaining the assets in place, optimizing the existing system performance, creating sustainable funding, and investing in strategic capacity enhancements.

### Project Relevance

Transportation improvements must be consistent with the applicable OTP goals and policies and, therefore, findings of compatibility with the OTP will be part of the basis for adoption of the TSP Update. The most pertinent OTP goals and policies for the TSP are as follows:

### Goal 1 - Mobility and Accessibility

<u>Policy 1.1 – Development of an Integrated Multimodal System</u>: It is the policy of the State of Oregon to plan and develop a balanced, integrated transportation system with modal choices for the movement of people and goods.

<u>Policy 1.3 – Relationship of Interurban and Urban Mobility</u>: It is the policy of the State of Oregon to provide intercity mobility through and near urban areas in a manner that minimizes adverse effects on urban land use and travel patterns and provides for efficient long distance travel.

### Goal 2 - Management of the System

<u>Policy 2.1 - Capacity and Operational Efficiency</u>: It is the policy of the State of Oregon to manage the transportation system to improve its capacity and operational efficiency for the long-term benefit of people and goods movement.

<u>Policy 2.2 - Management of Assets</u>: It is the policy of the State of Oregon to manage transportation assets to extend their life and reduce maintenance costs.

### Goal 3 - Economic Vitality

<u>Policy 3.1 – An Integrated and Efficient Freight System</u>: It is the policy of the State of Oregon to promote an integrated, efficient, and reliable freight system involving air, barges, pipelines, rail, ships, and trucks to provide Oregon a competitive advantage by moving goods faster and more reliably to regional, national, and international markets.

<u>Policy 3.2 – Moving People to Support Economic Vitality</u>: It is the policy of the State of Oregon to develop an integrated system of transportation facilities, services, and information so that intrastate, interstate, and international travelers can travel easily for business and recreation.

### Goal 4 - Sustainability

<u>Policy 4.1 – Environmentally Responsible Transportation System</u>: It is the policy of the State of Oregon to provide a transportation system that is environmentally responsible and encourages conservation and protection of natural resources.

<u>Policy 4.3 – Creating Communities</u>: It is the policy of the State of Oregon to increase access to goods and services and promote health by encouraging the development of compact communities and neighborhoods that integrate residential, commercial, and employment land uses to help make shorter trips, transit, walking, and bicycling feasible, and that integrate features that support the use of transportation choices.

### Goal 5 - Safety and Security

<u>Policy 5.1 – Safety and Security</u>: It is the policy of the State of Oregon to continually improve the safety and security of all modes and transportation facilities for system users including operators, passengers, pedestrians, recipients of goods and services, and property owners.

<u>Policy 5.2 – Security</u>: It is the policy of the State of Oregon to provide transportation security consistent with the leadership of federal, state, and local homeland security entities.

### Goal 7 - Coordination, Communication and Cooperation

<u>Policy 7.1 - A Coordinated Transportation System</u>: It is the policy of the State of Oregon to work collaboratively with other jurisdictions and agencies with the objective of removing barriers so the transportation system can function as one system.

<u>Policy 7.3 – Public Involvement and Consultation</u>: It is the policy of the State of Oregon to involve Oregonians to the fullest practical extent in transportation planning and implementation in order to deliver a transportation system that meets the diverse needs of the state.

<u>Policy 7.4 – Environmental Justice</u>: It is the policy of the State of Oregon to provide all Oregonians, regardless of race, culture or income, equal access to transportation decision-making so all Oregonians may fairly share in benefits and burdens and enjoy the same degree of protection from disproportionate adverse impacts.

# B.1.4. Oregon Highway Plan (1999, with Amendments)

The Oregon Highway Plan (OHP) identifies OR 99, which runs parallel to Interstate 5 (I-5), as a designated District Highway in portions of Medford and Ashland. The OHP further defines specific performance standards for district highways, including priorities to provide for safe and efficient, moderate to high-speed continuous-flow operation in rural areas reflecting the surrounding environment and moderate to low-speed operation in urban and urbanizing areas for traffic flow and for pedestrian and bicycle movement.

The performance and mobility standards in the OHP vary by location and adjacent land use type, establishing a higher level of service expectation in the more rural areas and a lower level of service in urbanized areas.

The OHP establishes policies and investment strategies for Oregon's state highway system over a 20-year period and refines the goals and policies found in the OTP. Policies in the OHP emphasize the efficient management of the highway system to increase safety and to extend highway capacity, partnerships with other agencies and local governments, and the use of new techniques to improve road safety and capacity. These policies also link land use and transportation, set standards for highway performance and access management, and emphasize the relationship between state highways and the local road, bicycle, pedestrian, transit, rail, and air systems.

### Project Relevance

The policies applicable to planning for Highway 99 improvements and the TSP Update are described below.

### Goal 1 - System Definition

<u>Policy 1A – State Highway Classification System</u>: Establishes that the management objective of Interstate Highways is to provide for safe and efficient, high-speed, continuous-flow operation in urban and rural areas; and for District Highways, to provide for safe and efficient, moderate to high-speed continuous-flow operation in rural areas and moderate to low-speed operation in urban and urbanizing areas.

<u>Policy 1B – Land Use and Transportation</u>: Recognizes the need for coordination between state and local jurisdictions.

<u>Policy 1C – State Highway Freight System</u>: States the need to balance the movement of goods and services with other uses of the highway system, and to recognize the importance of maintaining efficient through movement on major truck freight routes.

<u>Police 1E – Lifeline Routes</u>: Recognizes the need for a secure lifeline network of streets, highways, and bridges to facilitate emergency services response and to support rapid economic recovery after a disaster.

<u>Policy 1F – Highway Mobility Standards</u>: Sets mobility standards for ensuring a reliable and acceptable level of mobility on the highway system based on highway classification and

location by providing the appropriate standards that would allow the corridor area and associated interchanges to function in a manner consistent with OHP mobility standards.

<u>Policy 1G – Major Improvements</u>: Requires maintaining performance and improving safety by improving efficiency and management before adding capacity.

### Goal 2 - System Management

<u>Policy 2A – Partnerships</u>: Establishes cooperative partnerships to make more efficient and effective use of limited resources to develop, operate, and maintain the highway and road system.

<u>Policy 2B – Off-System Improvements</u>: Helps local jurisdictions identify and evaluate offsystem improvements that would be cost-effective in improving performance of the state highway.

<u>Policy 2E – Intelligent Transportation Systems</u>: Considers services to improve system efficiency and safety through effective incident management, en-route driver information, and traffic control.

Policy 2F – Traffic Safety: Improves the safety of the highway system.

<u>Policy 2G – Rail and Highway Compatibility</u>: States the need to increase safety and transportation efficiency through the reduction and prevention of conflicts between railroad and highway users.

#### Goal 4 - Travel Alternatives

<u>Policy 4A – Efficiency of Freight Movement</u>: Seeks to balance the needs of long distance and through freight movements with local transportation needs on highway facilities in both urban and rural areas.

<u>Policy 4D – Transportation Demand Management</u>: Supports the efficient use of the state transportation system through investment in efforts that reduce peak period congestion.

# B.1.5. OAR Chapter 734 Division 051 (Division 51)

The purpose of Division 51 is to balance development needs with transportation safety and access management objectives of state highways in a manner consistent with local transportation system plans and the land uses permitted in applicable local comprehensive plan(s). Division 51 provides standards to govern highway approaches, access control, spacing standards, medians, and restriction of turning movements, in compliance with statewide planning goals and in a manner compatible with acknowledged comprehensive plans and consistent with Oregon Revised Statutes (ORS), Oregon Administrative Rules (OAR), and the Oregon Highway Plan (OHP). The Oregon Highway Plan serves as the policy basis for implementing Division 51, and guides the administration of access management rules, including mitigation and public involvement.

### Project Relevance

Improvements to OR 99 or in the vicinity of I-5 Exit 21, both state facilities, must consider the standards in Division 51. The City of Talent will be required to adopt the OR 99 Rogue Valley Corridor Plan and the I-5 Exit 21 Interchange Area Management Plan as part of their TSP.

# B.1.6. Oregon Bicycle and Pedestrian Plan (1995)

The 1995 Oregon Bicycle and Pedestrian Plan offers general principles and policies for providing bikeways and walkways along state highways and provides standards for planning, designing, and maintaining bikeways and walkways throughout the state. The plan is intended to provide a framework for cooperation between ODOT and local jurisdictions, and offers guidance to cities and counties for developing local bicycle and pedestrian plans. Fundamentally, the plan is designed to fulfill the requirements of the Intermodal Surface Transportation Efficiency Act (ISTEA), whereby each state must adopt a statewide bicycle and pedestrian plan, and Oregon Administrative Rule 660-12 (Transportation Planning Rule 12).

The 2011 updated design portion of the OBPP focuses on the importance of good design and understanding the context of facilities. The document includes chapters addressing on-road bikeways, restriping, bicycle parking, walkways, street crossings, intersections, shared-use paths. Both standards and minimums are recommended in the manual along with innovative designs that have been implemented successfully in Oregon or other parts of the county.

### Project Relevance

Improvements to Highway 99, a state facility, must consider the standards in the Plan. The TSP Update will take guidance on bikeway and walkway development into account.

# B.1.7. Oregon Rail Plan (2001)

The Oregon Rail Plan is a comprehensive assessment of the state's rail planning, freight rail, and passenger rail systems. The Oregon Rail Plan identifies specific policies and planning processes concerning rail in the state, including minimum level of service standards for statewide freight and passenger rail systems.

### Project Relevance

The primary railroad serving southwestern Oregon is the Central Oregon & Pacific Railroad (CORP), whose main line (Siskiyou Line) runs south from Eugene through Medford. Based on a conversation between the project team and John Bullion, CORP Assistant General Manager, during research for the *I-5 Rogue Valley Corridor Plan*, no rail traffic currently occurs south of the City of Ashland. Therefore, all railroad traffic along the CORP line from Ashland and points north that are destined for California must currently go through Eugene, then divert east across the Cascade summit and south through Klamath Falls, Oregon.

# B.1.8. Oregon Public Transportation Plan (1997)

The Oregon Public Transportation Plan (OPTP) forms the transit modal plan of the Oregon Transportation Plan (OTP). The vision guiding the public transportation plan calls for the following:

- A comprehensive, interconnected and dependable public transportation system, with stable funding, that provides access and mobility in and between communities of Oregon in a convenient, reliable and safe manner that encourages people to ride.
- A public transportation system that provides appropriate service in each area of the state, including service in urban areas that is an attractive alternative to the singleoccupant vehicle, and high-quality, dependable service in suburban, rural, and frontier (remote) areas.
- A system that enables those who do not drive to meet their daily needs.
- A public transportation system that plays a critical role in improving the livability and
  economic prosperity for Oregonians. The plan contains goals, policies, and strategies
  relating to the whole of the state's public transportation system. The plan is intended to
  provide guidance for ODOT and public transportation agencies regarding the
  development of public transportation systems. The OPTP also identifies minimum levels
  of service, by size of jurisdiction, for fulfilling its goals and policies.

The Public Transportation 2015 Section of the plan identifies minimum levels of service, by size of jurisdiction, for fulfilling its goals and policies. The OPTP also recognizes, however, that the achievements of these levels of service is dependent upon the availability of resources and therefore are not to be understood as performance mandates placed upon other jurisdictions.

Public transportation services in the project vicinity should:

- Provide daily peak hour commuter service to the core areas of the city.
- Provide a guaranteed ride home program to all users of the public transportation system and publicize it well.
- Provide park-and-ride facilities along transit route corridors to meet reasonable peak and off-peak demand for such facilities.

#### Project Relevance

The TAC includes a representative from the Rogue Valley Transportation District (RVTD). The project will incorporate improvements to support planned transit service provided by RVTD.

# B.1.9. Oregon Freight Plan (2011)

The purpose of the Oregon Freight Plan, which is an Element of the Oregon Transportation Plan, is to "improve freight connections to local, state, tribal, regional, national and international markets with the goal of increasing trade-related jobs and income for Oregon workers and businesses". The plan documents the economic importance of freight movement in Oregon, identifies transportation networks important to freight-dependent industries and

recommends multimodal strategies to increase strategic freight system efficiency. The plan identifies sixteen freight issues and strategies with action steps to address the issues.

The study area is in the Western Freight Corridor of the state. According to the Freight Plan, the Western Freight Corridor contains some of the major intermodal facilities in the state, which move both heavy and valuable goods to markets around the world. Transportation facilities area also identified as necessary to support resource based industries as those found in the study area and the area surrounding the study area. Interstate 5 carries the majority of north/south freight traffic in Oregon and connects the Oregon freight system with national and international destinations. Besides I-5, the Western Corridor Freight Facilities, in or near Talent include:

- Shortline rail: Central Oregon & Pacific Railroad, WCTU Railway
- Categories I, II and III Airports: Ashland Municipal Airport, Grants Pass Airport, Rogue Valley International-Medford Airport
- Facilities Providing Connectivity: U.S. 199 & OR 227, OR 140

The study area is in the Rogue Valley Area Commission on Transportation (ACT). In the Rogue Valley ACT, the largest commodity group is Machinery, Instruments, Transportation Equipment and Metals in terms of value, and Forest or Wood Products in terms of tons. However, neither of these commodity groups is expected to grow particularly fast over the next 25 years. The Petroleum, Coal and Chemicals group is expected to nearly double over the next 25 years both in terms of value and tons.

# Project Relevance

Maintaining and enhancing freight system efficiency will be integrated into the TSP in consideration of the motor vehicle, aviation and rail freight networks in the study area.

# B.1.10. Transportation Safety Action Plan (2011)

The Transportation Safety Action Plan (OTSAP) is an Element of the Oregon Transportation Plan. The OTSAP is intended to help sustain and strengthen the focus on factors contributing to transportation related fatalities and injuries and encourage safety programs and practices that address other significant safety problems including the rising death toll for pedestrians and roadside workers, secondary crashes occurring on urban freeways, inadequate emergency response services, and conflicts between motor vehicles and other travel modes. Strategies and Actions to integrate into TSPs include:

OTP Strategy 5.1.3 – Ensure that safety and security issues are addressed in planning, design, construction, operation and maintenance of new and existing transportation systems, facilities and assets.

<u>Action 4</u>. Implement engineering solutions for bicyclists and pedestrians

Action 5. Engineering systems for public input that hear multiple viewpoints

Action 6. Engineering incorporating safety messages into the roadway system

Action 8. Advocate safety in local system plans

Strongly advocate for the consideration of roadway, human, and vehicle elements of safety in modal, corridor and local system plan development and implementation. These plans should include the following:

- Involvement in the planning process of engineering, enforcement, and emergency service personnel as well as local transportation safety groups.
- Safety objectives.
- Resolution of goal conflicts between safety and other issues.
- Application of access management standards to corridor and system planning.
- Improve collaboration between Roadway and Traffic Engineering and TSD to enhance the "'4 E' approach to transportation safety (Education, Engineering, EMS, and Enforcement)."
- Ensure wherever possible the ODOT Local Programs and Technology Transfer (T2) Center to include the "4 E" approach to transportation safety as is described in the FHWA's
- Office of Safety Mission Statement (Education, Engineering, EMS, and Enforcement).
- Enhance existing safety programs by creating a unified statewide approach similar to the national "Toward Zero Deaths" initiative.
- Allow usage of raised medians as a safety countermeasure ensuring that safety concerns are considered and implemented wherever practical.

Action 9. Consider access management

<u>Action 10</u>. Consider the special needs of motorcycles, bicyclists and pedestrians in the safety of road maintenance functions

Action 11. Improve motorcyclist traction

<u>Action 12</u>. Use vegetation management techniques to reduce hazards and increase visibility

Action 15. Evaluate the value of individual ITS tools and Subsystems

<u>Action 21</u>. Consider local needs and limitations when establishing safety standards.

# Project Relevance

The TSP Update will incorporate the applicable strategies and actions to the maximum extent practicable.

# B.1.11. Oregon Department of Aviation 2007 Oregon System Plan

The Oregon Aviation Plan 2007 (OAP 2007) is an evaluation of Oregon's aviation system to serve as a guide for future aviation development. The plan includes an assessment of the

condition of the existing aviation infrastructure, the economic benefit of the aviation industry, and the national importance and state significance of each airport.

The primary goals of the OAP 2007 are:

- 1. Develop a comprehensive document that addresses all public-use airports, identifies how to improve individual airports as part of the larger state system, and meets the needs of tourism, economic development, and transportation services for each community and the state.
- 2. Develop a comprehensive summary of the economic impact of each airport to its local community and the total economic value of the state aviation system. The OTP goals have been integrated into the OAP 2007 to provide a consistent foundation from which to evaluate and improve aviation infrastructure.

The most applicable policies and actions for TSP Updates include:

1.2.e Intermodal Accessibility Policies and Actions

Interest: Provide access to the air transportation system and its connections with other modes for people and freight throughout the state.

.....For example, roads accessing Portland International Airport, Eugene-Mahlon Sweet Field, and Rogue Valley International - Medford Airport are designated intermodal connectors on the National Highway System.

<u>Policy</u>: Provide Oregon with an airport system that is integrated with surface transportation modes, and allows for a choice of modes for the movement of people and goods.

#### Actions ...

- Work with airport owners and the FAA to identify airport ground access issues
- Develop a comprehensive approach to airport ground access as part of local and regional transportation system plans, of corridor planning, and of modal planning
- Provide information to airport owners on highway and other surface mode planning and programming efforts affecting airports
- Encourage and support the integration of airports into local and regional corridor planning

# Project Relevance

The TSP Update will incorporate the applicable policies and actions to the maximum extent practicable.

# B.1.12. Title VI Guidance for Transportation Planning (2009)

Federal regulations require that any agency receiving federal funding comply with Title VI requirements during transportation planning activities. In order to receive federal financial

assistance, ODOT instituted a Title VI Program to address nondiscrimination laws that impact transportation investment decision making. Title VI of the Civil Rights Act of 1964 and related statutes and policies prohibit discrimination on the basis of race, color, national origin, gender, age, and disability in ODOT's programs, activities and services. The purpose of the Title VI and related statutes and policies is to ensure that public funds are not spent in a way that encourages, subsidizes or results in discrimination.

Planning, design, construction, and operations and maintenance projects across all travel modes have well defined Title VI and Environmental Justice compliance components. To address Environmental Justice, Executive Order 12898 and the USDOT and FHWA orders, project must:

- Avoid, minimize or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
- Ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- Prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and/or low-income populations.

Title VI issues must be considered from the very start of program development and the planning stage through the entire project development process.

# Project Relevance

The development of the TSP includes consideration of Title VI and Environmental Justice requirements throughout the process. Public outreach targeted at these protected populations will be performed by ODOT and a memorandum documenting the steps taken for identification of, outreach to, and inclusion of Title VI and Environmental Justice populations will be included in the TSP. In the inventory phases of developing the TSP, protected populations for the study area will be mapped and summarized based on US Census Data. Existing transportation barriers (motorized and non-motorized) for Title VI and Environmental Justice populations will be identified. When evaluating improvement concepts, the mapping and land use data to identify land use and transportation impacts and benefits of alternatives to Title VI and Environmental Justice populations.

# B.1.13. 2012-2015 Statewide Transportation Improvement Program (STIP)

The four-year STIP identifies the funding and scheduling for federal, state, city, and county transportation projects. STIP projects are generally regionally significant and many receive state and/or federal funding.

# Project Relevance

The City of Talent has one project in conjunction with the City of Central Point on the current STIP – "Central Point and Talent Parking Lot Improvements." The application process for the

2015 – 2018 STIP has passed, but the City will have an opportunity to submit projects for the 2017 – 2020 STIP. Projects identified in the Talent TSP Update may be eligible for state or federal funding and inclusion in the STIP.

# B.2. Regional Plans and Policies

The following regional planning documents are reviewed:

- I-5 Rogue Valley Corridor Plan (2011)
- OR 99 Rogue Valley Corridor Plan (Currently being developed)
- Rogue Valley Metropolitan Planning Organization 2013-2038 Regional Transportation Plan (Adopted 2013)
- Rogue Valley Metropolitan Planning Organization Metropolitan Transportation Improvement Program (MTIP), 2012 2015
- Rogue Valley Transportation District (RVTD) Five Year Strategic Business and Operations Plan, 2008-2015
- Rogue Valley Transportation District (RVTD) Ten-Year Long Range Plan, 2007-2017

# B.2.1. Rogue Valley Transportation District (RVTD) Ten-Year Long Range Plan, 2007-2017

**RVTD's ten**-year plan is "designed to meet the community's public transportation needs as determined by the future revenue potential." The plan examines future revenue scenarios, and service expansion scenarios.

#### Project Relevance

The plan identifies needs for the City of Talent based on public input. These include:

Priorities and Immediate Needs

- Establish a feeder service or circulator route west of Hwy 99.
- Provide service to a Jackson County work release facility located on Hwy99 outside the city limits.
- Establish peak hour service for commuters.
- Coordinate transit service with the Urban Renewal Agency.

#### Future Needs

- Wagner St., Rapp Rd. and Belmont are collector streets and each connects to Talent Ave. where service is currently.
- There is potential for a school to be developed at a school designated site west of Talent but within the city limits along Colver Rd.

In addition to the Tier 1 service expansion listed under RVTD's Strategic Plan, the service expansion scenarios included in the plan include:

- A Local circulator in Talent west of OR 99
- Express routes to Ashland
- Rogue Valley Metropolitan Planning Organization Transportation Demand Management Refinement Plan
- Jackson County Transportation System Plan (2005)
- Greater Bear Creek Valley Regional Problem Solving
- North-South Travel Demand Study
- Bear Creek Greenway Plan
- Southern Oregon Commuter Rail Study (2001)
- Rogue Valley Commuter Rail Project Final Report (2007)
- Regional Intelligent Transportation System (ITS) Operations & Implementation Plan for the Rogue Valley Metropolitan Area – Final Report (July 2004)

# B.2.2. I-5 Rogue Valley Corridor Plan (2011)

This Plan was developed to address deficiencies in the Rogue Valley I-5 corridor, from the southern end of Ashland to north of Central Point (about 25 miles). Multiple operational and safety deficiencies, including increased congestion and roadway design issues, on this section of I-5 prompted development of this plan. Existing and future traffic conditions were evaluated to determine improvement needs and a list of project alternatives developed which include capacity enhancements, transportation system management, and others. The Plan also makes recommendations for improvements on Highway 99, which serves as a parallel route to I-5.

# Project Relevance

Corridor concepts discussed in the Plan are designed to improve safety, reduce congestion, and correct roadway design deficiencies in the entire I-5 corridor from Ashland to Medford. Several corridor concepts identified in the Plan are applicable to Interstate 5 in Talent. Corridor concepts are presented for future planning years 2034 and 2050, based on anticipated need.

#### 2034 Concepts

- Add incident Response Vehicles: incident response vehicles reduce incident response time and improve traffic operations. Expansion of the existing traffic operations center (TOC) is also proposed; ODOT proposes working with local governments to upgrade the TOC.
- Northbound ramp meter at Talent Interchange: the Plan proposes ramp meters at this interchange and others in the corridor to increase effective freeway capacity.
- Highway 99 Enhance Local Street alternative: recommended improvements include fully coordinating the traffic signal system along Highway 99 to increase travel speeds and reduce travel time.

#### 2050 Concepts

• Southbound auxiliary lane from Talent interchange to north Ashland interchange and northbound and southbound auxiliary lane from Talent Interchange north to Phoenix: auxiliary lanes (limited travel lanes that extend from the off-ramp of one interchange to the on-ramp of another) increase highway capacity.

The Rogue Valley Metropolitan Planning Organization (RVMPO) encompasses the urbanized area of Jackson County, including the cities of Ashland, Central Point, Eagle Point, Jacksonville, Medford, Phoenix, and Talent, and the unincorporated area of White City and surrounding Jackson County. As part of its transportation planning responsibilities, the RVMPO prepares and revises its Regional Transportation Plan (RTP). The RTP is a multimodal transportation plan designed to meet the anticipated 25-year transportation needs within the RVMPO planning area boundary. The RTP serves as a guide for the management of existing transportation facilities and for the design and implementation of future transportation facilities through a future model year. The current revision of the RTP for 2009-2034, adopted by the RVMPO on March 24, 2009, provides a summary of the regional transportation actions anticipated to occur in the planning area through 2034. The actions presented are in the context of the respective modes and planning issues and include: multimodal safety and security, transportation system management, transportation demand management, street system, bicycle and pedestrian facilities, transit system, parking, future conditions, and plan consistency.

# B.2.3. OR 99 Rogue Valley Corridor Plan (Currently being developed)

The purpose of the Corridor Plan is to evaluate the OR Highway 99 corridor from the south Medford city limit to the north Ashland city limit. Through this, the goal is to determine how the existing highway functions and project 20 years into the future. The study will culminate in a long-term plan for the corridor to function based on assumed future growth while enhancing livability within and surrounding the cities of Phoenix and Talent.

It will identify strategies and improvements to enhance transportation safety and capacity within the corridor consistent with state and local policy. The intent is to build upon other planning efforts including the *I-5 Rogue Valley Corridor Plan* and the *OR 99 Title VI* work.

The corridor planning process examines existing and potential future land use and transportation conditions along with opportunities and limitations and identifies long-range needs. Outcomes include improvements within the OR 99 corridor and potential enhancements to transportation system needed to accommodate anticipated growth in the region.

#### Project Relevance

The Corridor Plan is still in the process of being developed. The existing and future conditions in the study area have been assessed and concepts are being evaluated. During development of the TSP update, the Corridor Plan's applicable existing and future conditions tech memos will be reviewed as well as the preferred concept for the OR 99 corridor once finalized. The

concepts being developed for the Plan are being designed to improve safety, reduce congestion, and improve multimodal conditions.

# B.2.4. Rogue Valley Metropolitan Planning Organization 2013-2038 Regional Transportation Plan (Adopted 2013)

The RVMPO encompasses the urbanized area of Jackson County, including the cities of Ashland, Central Point, Eagle Point, Jacksonville, Medford, Phoenix, and Talent, and the unincorporated area of White City and surrounding Jackson County. As part of its transportation planning responsibilities, the RVMPO prepares and revises its Regional Transportation Plan (RTP). The RTP is a multimodal transportation plan designed to meet the anticipated 25-year transportation needs within the RVMPO planning area boundary. The RTP serves as a guide for the management of existing transportation facilities and for the design and implementation of future transportation facilities through a future model year. The current revision of the RTP for 2013-2038, adopted by the RVMPO on March 26, 2013, provides a summary of the regional transportation actions anticipated to occur in the planning area through 2038. The actions presented are in the context of the respective modes and planning issues and include: multimodal safety and security, transportation system management, transportation demand management, street system, bicycle and pedestrian facilities, transit system, parking, future conditions, and plan consistency.

#### Project Relevance

Goals and objectives in the 2013-2038 RTP remain largely unchanged from the previous RTP. Specific policies relevant to the project include:

- Goal 1 Plan for, develop and maintain a balanced multi-modal transportation system that will address existing and future needs.
  - 1-1: Improve the accessibility, connectivity, efficiency and viability of the transportation system for all users.
  - 1-2. As transportation facilities are developed in urban areas, use design standards, landscaping and other amenities to encourage people to walk and ride bicycles.
  - 1-4: Encourage land uses, design standards and funding opportunities that support public transportation.
- Goal 2 Optimize Safety and Security of the transportation system.
  - 2-2: Inventory crash-prone areas and place a higher priority on investments that correct safety-related deficiencies in all modes.
  - 2-4: Reduce vulnerability of the public, goods movement, and critical transportation infrastructure to crime, emergencies and natural hazards.
  - 2-5: Support development of alternate transportation routes to respond to emergency needs.

- Goal 3 Use transportation investments to foster compact, livable unique communities.
  - 3-2: Promote street and pathway connectivity, including off-road corridors, for non-motorized users.
  - 3.4: Identify and support beneficial human health effects when planning and funding transportation projects.
- Goal 4 Develop a plan that can be funded and reflects responsible stewardship of public funds.
  - 4-2: Prioritize investments to preserve the existing transportation system.
- Goal 5 Maximize efficient use of transportation infrastructure for all users and modes.
  - 5-3: Manage street access to improve traffic flow.
  - 5-4: Effectively integrate technology with transportation infrastructure consistent with RVMPO Intelligent Transportation Systems (ITS) program.
- Goal 6 Use diverse strategies to reduce reliance on single-occupant vehicles.
  - 6-1: Support Transportation Demand Management strategies.
  - 6-2: Facilitate alternative parking strategies to encourage walking, bicycling, carpooling and transit.
  - 6-3: Enhance bicycle and pedestrian systems.
  - 6-4: Support transit service.
- Goal 8 Use transportation investments to foster economic opportunities.
- 8-2: Consider effects on freight mobility when prioritizing projects.
  - 8-4: Support projects serving commercial, industrial and resource-extraction lands where an inadequate transportation network impedes freight-generating development.
  - 8-5: Plan for enhanced train-truck-transit interface for movement of goods and people.

Projects in or near the Study Area identified include:

- Project Number 208: Chuck Roberts Park Improvements, short term.
- Project Number 600: 4th St., OR 99 (SB) to OR 99 (NB) Widen to provide bike lanes, medium- term, \$296,516
- Project Number 601: 4th St., Rose St. to Colver Rd. Widen to provide bike lanes and sidewalks, medium- term, \$338,708
- Project Number 603: Rose St., First St. to Fifth St. Widen to provide bike lanes, mediumterm, \$293,000
- Project Number 605: Bolz Rd., OR 99 to Fern Valley Rd. Widen to provide bike lanes and sidewalks, medium- term,\$410,200

- Project Number 614: 3rd St., existing terminus to OR 99 (NB) Construct new street with bike lanes and sidewalks, long-term, \$586,000
- Project Number 615: Parking St., OR 99 (NB) to Third St. Construct new street with bike lanes and sidewalks, long-term, \$1,758,000
- Project Number 717: Rapp Road/Railroad Crossing to Wagner Creek Road. Rebuild and upgrade to major collector standard, medium-term. \$2,600,000.
- Project Number 720: Helms/Hilltop, Rapp Rd. to Belmont St. Construct new railroad district collector street, long-term.
- Project Number 722: Rogue River Parkway, OR99 to Talent Ave. Construct new street or upgrade existing street to major collector, long-term.
- Project Number 725: W.Talent Ave: paving signs & signals Overlay / Safety, short-term, \$140,418
- Project Number 902: I-5: Fern Valley Interchange, Phase 2 Reconstruct interchange; realign, widen connecting roads: replace Bear Creek Bridge, short-term, \$75,000,000

# B.2.5. Rogue Valley Metropolitan Planning Organization Metropolitan Transportation Improvement Program (MTIP), 2012 – 2015

The Metropolitan Transportation Improvement Program (MTIP), like the STIP, is the transportation project and scheduling program for jurisdictions within the Rogue Valley MPO. MTIP projects are drawn from the Regional Transportation Plan. The MTIP includes all projects that will utilize federal funds or that use state/local funds for projects that are "regionally significant."

#### Project Relevance

The following projects in or near Talent are programmed in the 2012-2015 MTIP:

- Project Number 727: Chuck Roberts Parking Lot Improvements; project includes safety improvements and resurfacing. This project was combined with a project in the City of Central Point. \$380,000
- Project Number 902: I-5: Fern Valley Interchange, Phase 2 Reconstruct interchange; realign, widen connecting roads: replace Bear Creek Bridge, short-term, \$75,000,000
- Project Number 932: OR 99: Rapp Rd to Valley View Paving Grind/Inlay and Overlay pavement, short- term, 1,800,000

# B.2.6. Rogue Valley Transportation District (RVTD) Five Year Strategic Business and Operations Plan, 2008-2015

RVTD provides fixed-route and paratransit services in the Rogue Valley. Talent is served by RVTD Route 10, which connects Talent to Ashland and Medford. RVTD's five year strategic plan details the impending funding gap that the agency will face in coming years, coupled with increased demand for service.

#### Project Relevance

**RVTD's operations plan includes** Tier 1 improvements affecting transit service to and from Talent:

- Expanded service hours: the operations plan calls for expanding service hours on all routes (except low productivity routes) from 4AM to 10 PM on weekdays.
- Saturday service: add base service from 8 AM to 6 PM on all routes.
- No additional routed service to or from Talent is proposed beyond the existing Route 10.
  Headways on Route 10 will be 1 hour from 4:00 AM to 6:00 AM, 30 minutes from 6:00
  AM to 7:00 PM, and 1 hour from 7:00 PM to 10:00 PM.

At the time the plan was written, all Tier 1 service improvements were unfunded. Most of these improvements were implemented in 2012 due to federal funding, but continued funding for these operational enhancements is uncertain.

# B.2.7. Rogue Valley Transportation District (RVTD) Ten-Year Long Range Plan, 2007-2017

RVTD's ten-year plan is "designed to meet the community's public transportation needs as determined by the future revenue potential." The plan examines future revenue scenarios, and service expansion scenarios.

#### Project Relevance

The plan identifies needs for the City of Talent based on public input. These include:

Priorities and Immediate Needs

- Establish a feeder service or circulator route west of Hwy 99.
- Provide service to a Jackson County work release facility located on Hwy99 outside the city limits.
- Establish peak hour service for commuters.
- Coordinate transit service with the Urban Renewal Agency.

#### Future Needs

- Wagner St., Rapp Rd. and Belmont are collector streets and each connects to Talent Ave. where service is currently.
- There is potential for a school to be developed at a school designated site west of Talent but within the city limits along Colver Rd.

In addition to the Tier 1 service expansion listed under RVTD's Strategic Plan, the service expansion scenarios included in the plan include:

- A Local circulator in Talent west of OR 99
- Express routes to Ashland

# B.2.8. Rogue Valley Metropolitan Planning Organization Transportation Demand Management Refinement Plan

This plan is a component of the Regional Transportation Plan (RTP). The RTP specifies that transportation demand management (TDM) measures be implemented, but does not detail what measures will be implemented. Though RVTD is the primary manager of the region's TDM program, the Refinement Plan supplements RTVD's efforts by specifying those TDM actions that will be taken in the region.

#### Project Relevance

No specific TDM projects are identified for the City of Talent. The Refinement Plan presents a list of prioritized TDM measures that are intended to be implemented by jurisdictions within the MPO. Regionally, there are limited funds available to implement this plan; RVTD's FY 2010 budget for the program is \$145,000. Talent is unlikely to receive any funds directly to implement TDM measures discussed in the Refinement Plan, but will continue to benefit from RTVD's implementation of the TDM program.

# B.2.9. Jackson County Transportation System Plan (2005)

Jackson County and ODOT began updating the transportation element of the comprehensive plan in 2001 and completed the adopted Jackson County TSP in March of 2005. The primary study area for the TSP consists of all areas of Jackson County located outside the Urban Growth Boundaries (UGBs) of incorporated cities, although it does include issues identified in local TSPs or the RTP that affect state and county facilities inside UGBs. The proposed improvements are required to be compatible with Jackson County TSP goals and policies.

The TSP has three primary goals: livability, modal components, and integration. The TSP includes associated policies that provide direction for accomplishment of the goals and that "have the force of law."

#### Project Relevance

The goals and policies applicable to the Corridor Plan are described below.

#### Goal 4.1 - Livability

The Livability Goal is to "develop and maintain a safe and multi-modal transportation system capable of meeting the diverse transportation needs of Jackson County while minimizing adverse impacts to the environment and to the County's quality of life." Policies applicable to the Corridor Plan are as follows:

<u>Policy 4.1.2-A – Connectivity</u>: Jackson County will promote a well-connected street and road system to minimize travel distances. This policy, in turn, could potentially spur alternative routes for I-5 and OR 99.

<u>Policy 4.1.4-A – Safety</u>: Jackson County will provide a transportation system that supports access for emergency vehicles and provides for evaluation in the event of a wildfire hazard or other emergency.

## Goal 4.2 - Modal Components

The Modal Components Goal is to plan an integrated transportation system that maintains existing facilities and responds to the changing needs of Jackson County by providing effective multimodal transportation options.

<u>Policy 4.2.1-A – Vehicular System</u>: Jackson County will prioritize preservation and maintenance of the existing road system rather than increasing vehicular capacity.

<u>Policies 4.2.1-G through J – Truck Freight</u>: Jackson County will: Balance the need for movement of goods with other uses of county arterials and state highways by maintaining efficient through movement on major truck routes (G). Work with ODOT to identify roadway obstacles and barriers to efficient truck movements on state highways and coordinate highway projects with other freight movement projects and infrastructure (H). Support employment of technology to improve freight mobility (I). Jackson County is committed to maintaining and improving roadway facilities serving inter-modal freight facilities (J).

<u>Policy 4.2.1-P – Coordination</u>: Jackson County will coordinate with ODOT to ensure that highway designations and management policies are appropriate and meet the Goals and Policies of the OHP and the Jackson County TSP. Jackson County will work with ODOT for effective management of highway capacity.

<u>Policies 4.2.1-S and T – MPO Area Traffic Engineering and Performance Standard</u>: Jackson County is committed to maintaining a volume-to-capacity ratio of 0.95 for weekday peak hour vehicular traffic in the MPO area (S). Jackson County will engineer traffic flow to provide efficient transportation system management (T).

<u>Policies 4.2.6-A and B – Bulk Transport and Mass Freight System</u>: Jackson County will continue to plan for rail service as a viable long-term transportation option for the Rogue Valley (A). Jackson County will encourage bulk transportation facilities to provide efficient transport of bulk goods (B).

Tier 1 Short and Medium Range projects in or near the Study Area include:

10. Fern Valley Road - Bear Creek Bridge - This RTP project widens the bridge on Fern Valley Road over Bear Creek to add capacity to the roadway, matching the capacity improvements in the vicinity of the I-5 interchange. This project is entirely within Phoenix, but the section of Fern Valley from the bridge to HWY 99 is still under county jurisdiction. This project will facilitate jurisdictional transfer of this facility.

<u>34. South Valley View Road</u> - To accommodate anticipated future traffic volumes, this project widens South Valley View Road to a five-lane cross-section with bike lanes and sidewalks between the I-5 interchange and Highway 99. The needs analysis in the TSP anticipates failure of the intersection with Highway 99 at the end of the planning

horizon. The additional travel lanes, in conjunction with increased loading of Eagle Mill Road, should extend the functioning of this intersection within the ODOT performance standard through the planning horizon. Expected v/c would be .67. This road improvement lies outside an acknowledged urban growth boundary and adds travel lanes across a resource zoned (OSR) parcel. At a minimum, a review for compliance with ORS 215.293 (implemented by the County's LDO) and potentially an exception to Statewide Planning Goal 4 (Forest Lands) would be required. However, a corollary to this project is Lowe Road. This is a local road that intersects with S. Valley View immediately south of the I-5 Interchange. This access is much too close to the interchange and ODOT has expressed a desire to move the intersection. It would be logical to upgrade S. Valley View and move Lowe Road in a coordinated project. Depending on final project design and absent an action to rezone the property, an additional road across OSR zoned land may require a goal exception because the project would not meet the requirements of OAR 660-12-0065.

#### 5.4 Pedestrian and Bicycle Plan

Tier1 Short and Medium Range (Financially constrained 2004 – 2013):

<u>1. Bear Creek Greenway</u> - This project is identified in the Jackson County Bicycle Master Plan. It completes the County portions of the Bear Creek Greenway from Ashland to Central Point at Upton Road.

#### Tier 2 (Unfunded):

<u>29. Highway 99 (Medford to Ashland)</u> - Highway 99 between Medford and Ashland carries relatively high volumes of traffic, but lacks sidewalks and bicycle facilities in many locations. It is also part of the bus route connecting Medford with Ashland. Due to right-of-way constraints, constructing both bike lanes and sidewalks is not feasible in all locations. Given the proximity of the parallel Bear Creek Greenway and the provision of bicycle racks on RVTD buses, bicycle lanes are considered a lower priority for this corridor, but should still be provided to serve local access needs where the combination of adequate right-of-way, east-west connections to the Greenway, and compatible land uses exist. Sidewalks should be developed in all built-up areas along Highway 99, and at least to the nearest cross street from RVTD bus stops in other locations.

# B.2.10. Greater Bear Creek Valley Regional Problem Solving

The State of Oregon, Jackson County, and the cities of Ashland, Central Point, Eagle Point, Jacksonville, Medford, Phoenix, and Talent began a collaborative effort in April 2000 to launch the Greater Bear Creek Valley Regional Problem Solving (RPS) project. Under the authority of Oregon's Regional Problem Solving (RPS) Statute (Oregon Revised Statute (ORS) 197.652-658), multiple jurisdictions working in a collaborative effort may depart from state administrative rules where needed to implement creative solutions to mutually agreed-upon regional land use problems. The process must offer an opportunity to participate with appropriate state agencies and all local governments within the region affected by the problems that are the subject of the problem-solving process.

The RPS process has created a coordinated expansion plan for Jackson County and the cities of Ashland, Central Point, Eagle Point, Jacksonville, Medford, Phoenix, and Talent known as the *Greater Bear Creek Valley Regional Plan* (Regional Plan). Currently in the draft stage, the plan is the only effort of such complexity and scope under RPS to reach this final stage of adoption and acknowledgement. The Regional Plan, when implemented, will establish coordinated urban reserves between the seven participating cities and Jackson County, and will establish regional policies and mechanisms to balance rural and urban land needs to prepare for a future doubling of the regional population.

The purpose of the Greater Bear Creek Valley RPS process is to identify additional lands needed for urban development to accommodate a doubling of the region's population. The jurisdictions involved in the RPS project have agreed upon and adopted a set of goals and policies to guide the development of the Regional Plan.

Goal 1 - Manage Future Regional Growth for the Greater Public Good

Goal 1 includes policies calling for the use of intergovernmental agreements and amendments to comprehensive plans to implement the Regional Plan, increased residential densities across the region, identification of major infrastructure corridors, a more efficient network of public streets, and a balance of jobs and housing on the local and regional levels.

Goal 2 – Conserve Resource and Open Space Lands for their Important Economic, Cultural, and Livability Benefits

Goal 2 includes policies calling for a shared vision of maintaining a commercially viable agricultural land base, uniform standards of agricultural buffering, and the long-term preservation of regionally significant open space.

Goal 3 – Recognize and Emphasize the Individual Identity, Unique Features, and Relative Competitive Advantages and Disadvantages of Each Community within the Region

Goal 3 includes policies calling for mechanisms to enhance individual community identity, increase flexibility in the event of future boundary expansions, and permit an unequal distribution of certain land uses among jurisdictions, and the development of individual definitions of each community based on its unique identity and vision of future urban form.

#### Project Relevance

This Project will contribute to implementation of Goal 1 by studying and planning for one of the region's major infrastructure corridors, the OR 99 Corridor. In the November 2009, Greater Bear Creek Valley Regional Draft Plan, portions of the Study Area (mostly the area between Medford and Phoenix, a small area adjacent to the northern Talent city limits and a small area adjacent to the southern Talent City limits) have been identified as suitable under Goal 14 for an Urban Reserve designation. Urban Reserve Areas (URAs) are areas proposed through this regional planning effort to accommodate the amount of growth projected over the next 50 years. Community buffer areas were also identified between Phoenix and Talent and between Talent and Ashland to preserve the separate identities of the communities.

# B.2.11. North-South Travel Demand Study

The RVMPO is preparing to conduct a study intended to develop a long-term multimodal concept plan for the OR-99 Corridor Area as an alternative to I-5 north-south travel from Crowson Road in Ashland to Interchange 35 north of Central Point. The plan will include strategies that reduce vehicular traffic congestion, greenhouse gases, and support economic development along the north-south corridor and beyond the study area. In recognition of the strong influence of land use and multimodal transportation on peak-hour travel, the study will determine the appropriate population density and land use patterns necessary to support transit alternatives such as enhanced commuter transit, bus rapid transit, and commuter rail. The study will also identify transportation options and ITS strategies to reduce vehicle trips and improvements needed to improve bicycle and pedestrian connectivity. The study will develop and evaluate various alternatives to improve mobility of all modes within the study area.

# Project Relevance

Because this project is expected to be under way concurrently with development of the TSP, close coordination among the two project teams should be established.

# B.2.12. Bear Creek Greenway Plan

The Bear Creek Greenway is a narrow corridor of publicly owned land that follows the Bear Creek streambed from Ashland (Nevada Street) to Central Point (Pine Street). Development of the Bear Creek Greenway bicycle and pedestrian path began in 1973 when ODOT built the first 3.4-mile section of the pedestrian/bicycle path through Medford. The Bear Creek Greenway currently completed from Upton Road in Central Point to Nevada Street in Ashland.

When complete, the Bear Creek Greenway will provide a 20-mile, multi-use path from the I-5 Seven Oaks Interchange in Central Point to Nevada Street in Ashland. It will serve as an important facility for intercity travel in the I-5/OR-99 corridor. Additionally, a Rogue River Greenway is currently in the planning stages. This greenway will connect the communities of Grants Pass, Rogue River, and Gold Hill and would eventually be linked to the Bear Creek Greenway at the Seven Oaks Interchange.

## Project Relevance

Due to its proximity to the Bear Creek Greenway, TSP projects should be developed in consideration of the Greenway and its planned goal.

# B.2.13. Southern Oregon Commuter Rail Study (2001)

In 2001, local governments in the Rogue Valley area, along with ODOT's Rail Division, issued a report entitled *Southern Oregon Commuter Rail Study*. At a conceptual level, the study analyzed the technical elements and costs associated with the introduction of commuter rail service between Grants Pass and Ashland along with a shorter segment between Central Point and Ashland. The study presumed the commuter trains would operate over the existing CORP tracks, which parallel OR-99 through most of the area.

The study considered that extensive upgrading of the track structure would be required. The upgrades would include the placement of heavy rail and insertion of thousands of ties, along with installation of a new train control system and upgrades to all grade crossings along CORP's Siskiyou Branch Main between Grants Pass and Ashland. In addition, a 1.5-mile-long bypass track to CORP's Medford yards would need to be constructed to separate the commuter train's operations from CORP's freight activities in the Medford area.

New self-propelled diesel rail cars known as Diesel-Multiple Units (DMUs) were contemplated to carry the passengers, and the construction of numerous park-and-ride facilities was considered. Meanwhile, extensive changes would be made to the existing transit service operated by the Rogue Valley Transit District (RVTD) that would convert its operation to act as a feeder system to the commuter rail operations.

Costs were estimated at three different levels of service:

- 1. Full service would consist of six roundtrips in the morning and six in the evening between Ashland and Central Point.
- 2. The second level of service would include the full service trips discussed in Item #1, along with two roundtrips in the AM and two in PM between Grants Pass and Central Point.
- 3. The third level of service provided six full roundtrips in both the AM and PM peak hours along the full length of the corridor between Grants Pass and Ashland.

Capital costs associated with the three levels of service ranged from \$38 million to \$90 million annually, with operating costs ranging between \$3.6 million and \$7.6 million. Projected annual ridership was between 124,000 and 221,000 passengers.

The 2001 study listed 11 items that greatly influence the success of any commuter rail system:

- 1. Direct Rail Link. Does the corridor have an existing rail line with a reasonably direct route connecting the communities to be served and with sufficient unused capacity to accommodate frequent rush hour passenger service?
- 2. Support Regional Goals. Have the communities involved adopted land use and transportation goals seeking to:
  - A. Concentrate commercial and residential development in and near urbanized areas in the corridor?
  - B. Promote higher-density residential development within the corridor?
- 3. Growing Population/High Density Close to Stations. Is there moderate to rapid growth in population within and along the corridor, with a high concentration of residences and/or business/commercial activity close to proposed station sites?
- 4. Limited Funding for Highway Projects. Is it difficult to raise funds for new highway projects that would increase traffic capacity in the corridor?

- 5. High Level of Daily Commuting Within the Corridor. Does the rail line to be used for commuter rail parallel a route used by many corridor residents commuting to and from work?
- 6. Traffic Congestion. Is traffic congestion on highways paralleling the rail line worsening and becoming severe? Are paralleling highways reaching or exceeding their design carrying capacity?
- 7. Limited, High Cost Parking. Is parking at commuter destination points limited and expensive?
- 8. Competitive Transit Times. Can the rail commuter system provide service on a schedule that is competitive to auto commute times?
- 9. Competitive Transit Costs. Will the cost of using the rail commuter system be competitive with the cost of commuting by automobile?
- 10. Willingness to Use Transit. Do daily commuters in the corridor have a relatively high propensity to use mass transit?
- 11. Compelling Circumstances. Does the region need to take drastic action because of some overriding economic, environmental, and/or safety concerns that make it imperative that more people switch from auto commuting to mass transit?

#### Project Relevance

This study will be considered in development of the TSP Update.

# B.2.14. Rogue Valley Commuter Rail Project - Final Report (2007)

The most recent commuter rail study was launched by RVMPO to reflect the unavailability of the ODOT cars. In addition, RVMPO sought information that it could possibly use to approach the Federal Transit Administration (FTA) for potential funding under the agency's "Small Starts" Program.

The most recent study updated the 2006 Draft Report, listing the equipment options to replace the ODOT rail diesel cars that were sold, prepare an update to the capital program to permit bidirectional operations, and revisit earlier ridership projections resulting from increased frequencies permitted by bi-directional operations. Some of the conclusions from the report are:

<u>Equipment</u>: Four train sets of at least 180 seats would be needed in order to provide the contemplated 30-minute service levels, while two sets would be needed for hourly interval service. Estimated capital cost, depending upon the type of cars chosen, could range from \$8 million to over \$20 million.

<u>Operating Intervals</u>: The study developed two operating scenarios, one for hourly interval service and the other based on 30-minute interval service.

<u>Track Upgrades</u>: The existing CORP's Siskiyou Branch track conditions and maintenance levels limit freight trains to a maximum 25 miles per hour (mph). In order to meet proposed

schedules, it would be necessary to operate commuter trains at speeds of approximately 59 mph. To achieve this speed, track upgrades of \$16 million to \$18 million would be necessary.

<u>Stations</u>: The project envisions seven passenger stations—two each in Central Point and Medford and one each in Phoenix, Talent, and Ashland.

<u>Yearly Operating Costs</u>: Operating costs would vary depending upon the equipment chosen, but a general estimate places yearly operating cost at around \$3.8 million.

#### Project Relevance

This study will be considered in development of the TSP Update.

# B.2.15. Regional Intelligent Transportation System (ITS) Operations & Implementation Plan for the Rogue Valley Metropolitan Area – Final Report (July 2004)

In 2004 the RVMPO completed a comprehensive Rogue Valley Intelligent Transportation Systems plan (RVITS). This 20-year plan identifies advanced technologies and management techniques that can relieve traffic congestion, enhance safety, provide services to travelers, and assist transportation system operators in implementing suitable traffic management strategies. The project is part of a federal initiative to use ITS to increase the efficiency of existing transportation infrastructure, improving overall system performance and reducing the need to add capacity. Efficiency is achieved by providing services and information to travelers so that they can make better travel decisions and to transportation system managers so they can better manage the system. To ensure the development of a relevant plan, RVITS used guidance from RVMPO member jurisdictions and key stakeholders from emergency services and communications agencies.

The RVITS plan provides a framework of policies, procedures, and strategies for integration of ITS with the region's existing resources to meet future regional transportation needs and expectations. The plan includes the continuation and expansion of Transportation System Management (TSM) projects and programs that have been under way for some time, such as coordination of traffic signals.

RVITS projects address the following categories:

- Travel and Traffic Management
- Communications
- Public Transportation Management
- Emergency Management
- Information Management
- Maintenance and Construction Management

#### Project Relevance

ITS strategies and plans will be considered when developing the TSP Update.

#### B.3. Local Plans and Policies

The following statewide planning documents are reviewed:

- City of Talent Transportation System Plan (2000, updated 2007)
- Talent Code & Design Standards
- City of Talent Comprehensive Plan (1999)
- Talent Railroad District Master Plan (2005)

# B.3.1. City of Talent Transportation System Plan (2000, updated 2007)

The City of Talent TSP was initially adopted in April 2000 with update to the TSP adopted in March 2007. The overall goal of the Talent TSP is to provide a safe and efficient transportation system that reduces energy requirements, regional air contaminants, and public costs and provides for the needs of those not able or wishing to drive automobiles.

The TSP's purpose is to comply with state mandates requiring transportation planning, develop standards for the transportation system, address current transportation problems, identify future roadway needs required to support 20 years of expected growth, and provide transportation planning guidelines. The TSP contains goals, objectives and policies, and a review of the existing physical transportation system. Future conditions analysis and transportation needs are identified, which inform Chapter 7, the Transportation System Plan. A funding and financing plan is also included.

# B.3.2. Talent Code & Design Standards

These applicable elements include:

# Old Town Design Standards

This document prescribes design standards for Talent's historic urban core. These standards apply to the Old Town design district. There are no specific transportation-related standards or requirements.

# Subdivision Ordinance

The subdivision ordinance and associated standards describe requirements for property subdivision and development in Talent.

# Project Relevance

The following code sections contain standards related to the development of transportation facilities within Talent.

#### 8-2.230 Pedestrian Access and Circulation

This section describes pedestrian access standards for streets in Talent, last updated in 2008. **Developers must provide "safe, reasonably direct and convenient" connections between** buildings and streets. Separate mid-block bicycle and pedestrian pathways must be provided where block lengths exceed code standards, and at dead-end/cul-de-sac streets. Paths must be a minimum of 10' wide and hard-surfaced.

#### 8-2.250 Transportation Facility Standards

Engineering standards for new city streets, as well as right-of-way requirements, are described in this section. The location of new streets, as well as bicycle and pedestrian improvements, must be constructed in accordance with the current TSP.

Developers must provide a future streets plan, showing the location of existing and proposed new streets. Street design must conform to the standards described in the TSP. In general, street rights-of-way are generally 50-60', with paved width of 10-12'. Sidewalks are required on all streets, and bike lanes are required on collectors and arterials.

#### 8-2.260 Vehicular Access and Circulation

Local street intersection spacing is 125'. All local and collector streets that abut a site must be extended through the site, unless the street extension is precluded by environmental constraints. Maximum block length is 400' in Residential and Commercial zones, and 800' in Light Industrial.

#### 8-2.230 Preliminary Plat Submission Requirements

Applicants proposing new or modifications to existing rail crossings must demonstrate that they contacted the Oregon Department of Transportation and the Public Utility Commission. Evidence of contact must also be provided if connection to a state highway is proposed. The applicant must also demonstrate compliance with the TSP before preliminary plat approval will be granted.

# City of Talent Zoning Code (1980)

The City of Talent's Zoning Code was adopted in 1980. The purpose of the zoning code is to encourage the appropriate and orderly physical development in the city through standards to regulate and control the location and use of the land, buildings, and structures for residential, commercial, industrial, and other purposes; to meet the policies and text of the Comprehensive Plan of the City of Talent; to provide assurance of opportunities for effective utilization of land; and to promote in other ways the public health, safety, convenience, and general welfare.

#### Project Relevance

The following code sections affect transportation planning in Talent:

#### 8-3H.150 Standard of Development in the Steep Slopes Overlay zone (OSS)

The Steep Slopes overlay zone code (consisting of those areas of the city with slopes greater than 10%) contains special site development and circulation requirements. Street grades are permitted up to 15%, provided they are no long than 200' in length. The overall grade of streets cannot exceed 10%. Pedestrian walkways must be a minimum of 4'.

#### 8-3J-6 Access, Circulation and Street Improvements

New development must project for safe internal movement of vehicles and pedestrians, and must accommodate the existing or anticipated street network on adjacent properties.

# **Development Review Standards**

Development review standards specify the procedures for development approval.

# Project Relevance

Developers are required to construct frontage improvements on unimproved streets for all multi-family, commercial and industrial developments. Single-family developments must construct frontage improvements or enter into a consent agreement with the City to complete the improvements.

# B.3.3. City of Talent Comprehensive Plan (1999)

The purpose of the City of Talent Comprehensive Plan is to "establish policies and implement strategies to encourage activities that contribute to the protection of the historic context of the area by further improving our understanding of local history, optimizing opportunities for preserving our historic resources, and promoting compatible new construction."

#### Project Relevance

Listed below are the goals and policies that should inform the TSP update.

#### Element A: Historic Preservation

<u>Policy 1: A Sense of Place</u>. It is the policy of the City of Talent to preserve the historic resources of the city as a way to maintain its unique character and to provide for the social and economic needs of the people who live here.

#### Relevant Implementation Strategies

2. Minimize pavement in historic neighborhoods by promoting the use of paved pedestrian paths in areas where urban style curb/gutter/sidewalk development is inappropriate and by adopting development standards allowing minimal street widths without compromising public safety, utilities or public transportation. Consider the possibility of vacating excess right-of-way on side streets that do not have the potential to become through streets.

#### Element B: Parks and Recreation

<u>Policy 2: Conservation</u>. It is the policy of the City of Talent to conserve open spaces, riparian areas, wooded areas, and wetlands for wildlife habitat, flood hazard mitigation, and future, park needs.

<u>Policy 5: Urban Forestry</u>. It is the policy of the City of Talent to promote healthy trees as fundamental to the quality of life in the City of Talent.

#### Element C Natural Hazards

<u>Policy 1.1. Flood Hazards</u>. It is the policy of the City of Talent to implement a comprehensive strategy that will mitigate and reduce risks of flood damage from naturally occurring flood events.

#### Element D: Transportation

The Transportation Element summarizes the goals, objectives, and findings of the Talent TSP. Discussion of the Talent TSP is included above.

# Element E: Economy

<u>Policy 4: Infrastructure Support</u>. The City will continue to pursue funding or needed infrastructure to support economic development activities.

<u>Policy 5: Livability</u>. The City recognizes that livability is an important factor in the location choices of some types of businesses, and the policy of maintaining livability for the benefits of City residents is further reinforced by the potential for economic benefits.

#### Relevant Implementation Strategies

- 3. Create a walkable, bikable community where residents and visitors can make connections between home, work and commerce with a minimal reliance on the automobile.
- 4. Create streetscapes and landscaping that make comfortable and appealing transitions between public and business areas and nearby neighborhoods.

# B.3.4. Talent Railroad District Master Plan (2005)

The Master Plan is intended to guide growth and development of Talent's urban land reserves southwest of Rapp Road and the Central Oregon and Pacific Railroad. The Master Plan intends to inform future zoning, annexation, transportation investments, and other public infrastructure on 155 acres of land.

#### Project Relevance

The Master Plan contains one transportation-specific goal and corresponding objectives (Goal 2): provide a multi-modal (automobile, pedestrian, bicycle, and transit) transportation system.

# **Objectives**

- To provide multi-modal access to the plan area from Downtown Talent, schools, and other activity centers.
- To provide connectivity between the plan area and Talent Avenue, Highway 99, and Valley View Road.
- To provide a collector street through the plan area for multiple modes of transportation.
- To provide neighborhood access and circulation (i.e., to individual uses) for multiple modes.
- To provide block lengths and street design that supports multiple modes, given the topography and other natural constraints.
- To minimize out-of-direction travel, planning for east-west multimodal connectivity.
- To provide for compatible transportation relationships with the Central Oregon and Pacific Railroad.
- To provide for the safety and operational needs of the transportation system.
- To correct existing transportation (geometric, safety, and other) deficiencies at Rapp Road and the existing private railroad crossings.
- To provide for wildfire evacuation in the Lodgepole Pine Sub alpine Zone.
- To avoid development with excessive street grades.

The Master Plan proposes several transportation improvement projects/action items, in addition to these policies and objectives:

- Collector street and realignment of Rapp Road/Helms Road: A new collector extending from Rapp Road east to southernmost extent of the urban reserve boundary is proposed. Most of the alignment follows the existing CORP railroad. Street standards are proposed for this new street. This new street will be funded whole or in part by developers, or potentially public bonds.
- Railroad crossings: there are two existing railroad crossings in the planning area, one
  unimproved and one improved at Rapp Road. The Master Plan proposes to close the
  unimproved crossing and fully improve (i.e., include signals, gates, etc.) a new crossing
  at Belmont Road. Additionally, the existing Rapp Road crossing will require realignment
  of the road.

These projects were incorporated into the Talent TSP during the 2007 update.

# **City of Talent**

# **Transportation System Plan Update**

# **Technical Memorandum #1**

**Appendix C:** 

**Analysis Methodology** 

Prepared for

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and

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#### **June 2015**

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## C. ANALYSIS METHODOLOGY

This memorandum summarizes the approach for collection and evaluation of information that the Transportation System Plan (TSP) will use for traffic analysis.

# C.1. Study Area

The study area includes the City of Talent within the City Limits, the Urban Growth Boundary (UGB) and proposed urban reserves.

The TSP includes 18 intersections for analysis:

- OR99 & Colver Rd
- OR99 & Valley View Rd
- OR99 & Rapp Rd
- OR99 & Creel Rd
- Valley View Rd & NB I-5 Ramps
- Valley View Rd & SB I-5 Ramps
- Colver Rd & Front St
- Colver Rd & Talent Ave
- Front St & Main St

- Front St & Wagner St
- Talent Ave & Main St
- Talent Ave & Valley View Rd
- Talent Ave & Wagner St
- Talent Ave & Creel Rd
- Talent Ave & Rapp Rd
- Wagner Creek Rd/Main St & Wagner St
- Wagner Creek Rd & Foss Rd
- Wagner Creek Rd & Rapp Rd

# C.2. Study Period

The transportation and traffic analysis will be based on existing year 2013 conditions for the design hour (30<sup>th</sup> highest) volumes.

Future analysis will focus on design hour conditions for the year 2038 to correspond with the forecast period for the nearby Rogue Valley Metropolitan Planning Organization (MPO) travel demand forecasting model.

#### C.3. Data Collection

The Consultant shall assemble 2010 counts (from OR 99 Corridor Study) for the intersections of OR 99 at Colver Road, Valley View Road, Rapp Road and Creel Road. ODOT will provide current manual 3- hour classification counts for the remaining study area intersections, except where noted for the following locations:

- Valley View Rd & NB I-5 Ramps (16-hour classification)
- Valley View Rd & SB I-5 Ramps (16-hour classification)
- Colver Rd & Front St (no vehicle classification)
- Colver Rd & Talent Ave
- Front St & Main St

- Front St & Wagner St (no vehicle classification)
- Talent Ave & Main St (no vehicle classification)
- Talent Ave & Valley View Rd
- Talent Ave & Wagner St (no vehicle classification)
- Talent Ave & Creel Rd (no vehicle classification if OR99 & Creel Rd has classification)
- Talent Ave & Rapp Rd
- Wagner Creek Rd/Main St & Wagner St
- Wagner Creek Rd & Foss Rd
- Wagner Creek Rd & Rapp Rd (no vehicle classification)

Data for existing weekday counts will be reviewed to determine which hour is the highest traffic demand hour for each interchange management area. Turning movements, peak hour factors, vehicle classification, and other data describing demand in the study area will be derived for this peak hour.

Crash data will be obtained from the ODOT Crash Analysis and Reporting Unit for the most recent five complete years for the study area. Data will be requested for the entire City of Talent within the Federal Aid Urban Transportation Boundary, and within the City Limits.

# C.4. Inventory of Existing Facilities

The transportation system inventory is a city-wide inventory of the street network, bicycle and pedestrian facilities and transit facilities. The Consultant shall revise the inventory contained in Appendix B of the 2007 TSP based on information provided by the City and data collected during a site visit.

#### C.5. Traffic Volumes

Traffic volumes will be developed for two study periods: existing 2013 and future year 2038.

# C.5.1. Existing 2013 Volumes

The existing peak hour volumes will be determined from the existing weekday counts and adjusted to design hourly volumes following the methodologies outlined in the ODOT Transportation Planning and Analysis Unit's (TPAU) Analysis Procedures Manual (APM).

# C.5.2. Future Design Year 2038 Volumes

Forecast (year 2038) projected traffic volumes will be developed at count locations using model output provided by TPAU. Consultant shall post-process (on a link-basis) model volumes in order to create future baseline 2038 traffic volumes. Consultant shall develop PM peak hour volumes for the scenario in accordance with **ODOT**'s APM. Future volumes will be generated by the current RVMPO travel demand model and supplied to the Consultant by TPAU.

# C.6. Evaluation Comparison Tools

Tools and techniques used to evaluate and compare the alternatives include traffic operations analysis tools for more detailed assessment of future conditions.

# C.6.1. Traffic Operations Standards

City operational standards will be used in the assessment of intersections that are within the City, but not intersecting with OR 99 (a state highway).

Along OR99, the operational standards from the Oregon Highway Plan (OHP) and the Highway Design Manual (HDM) will be used in the assessment of intersection operations. Both documents base their mobility standards on the calculation of volume-to-capacity (v/c) ratios; however, the standards in the HDM are based on higher performance levels than those in the OHP. The mobility standards from the OHP will be applied to the existing and future baseline (no build) analysis while the standards from the HDM will be applied to the evaluation of design alternatives.

# C.6.2. Arterial and Intersection Operations

The operational analysis will evaluate v/c ratios and level of service (LOS) using the Synchro/SimTraffic software program. Throughout the analysis process, TPAU and Region 3 Traffic staff will review modeling assumptions, analysis settings, and other assumptions to help ensure consistency of data with other studies under way.

An assessment of adding traffic signals may be needed. Any assessments of new traffic signals will use **ODOT's** preliminary signal warrant spreadsheets. Operational analysis results will be compared with applicable mobility standards, and specific recommendations for mitigation improvements needed to meet standards must be identified and verified by TPAU and Region 3 Traffic.

# C.7. Crash History Analysis

The study area evaluation will include an analysis of the most recent five-year crash history on state and non-state roadways at count locations and arterial and collector segments between count locations. This analysis will screen for patterns amongst the crashes that are indicative of existing geometric or operational deficiencies. The Highway Safety Manual Part B Network Screening Critical Crash Rate method will be used in the screening process. Based on the crash patterns, the analysis may identify improvements for the build alternatives that could mitigate safety issues.

#### C.8. Multi-Modal Evaluation

In additional to vehicular analyses, non-auto modes will also be evaluated to assess current and future conditions, and support the development of build alternatives. The qualitative multimodal level of service (MMLOS) assessment for the OR 99 corridor will also be incorporated.

# **City of Talent**

# **Transportation System Plan Update**

# **Technical Memorandum #2:**

# **Existing System Inventory**

Prepared for

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and

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# June 2015

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#### 2. EXISTING SYSTEM INVENTORY

This memorandum updates the existing transportation system inventory provided in the City of **Talent's current** 2007 Transportation System Plan (TSP). It also provides additional data regarding land uses and environmental resources that will be used in the evaluation of future transportation system improvements.

# 2.1. Inventory Review

An inventory of the existing transportation system in Talent was conducted as part of the Transportation System Planning process. This inventory includes the street, pedestrian, bikeway, public transportation, rail, air, water, and pipeline systems within the City of Talent Urban Growth Boundary (UGB).

# 2.2. Street System

Several jurisdictions, including the Oregon Department of Transportation (ODOT), Jackson County and the City of Talent maintain portions of the existing street system within the study area. The City of Talent Public Works Department conducted a comprehensive inventory of all arterial, collector and local streets, as well as identifying privately maintained streets with the City's UGB. This data collection was updated using aerial photography and field data collected in October of 2013.

# 2.2.1. Street Inventory Tables

The detailed street inventory table is contained in Appendix A. The data within the inventory table were obtained through a combination of the physical inventory and previous Talent Street Inventory documents. The street inventory tables include each street within the City of Talent's jurisdiction as well as county and state maintained facilities. Additionally, a few of the "named" private streets are included in the street inventory tables.

#### 2.2.2. Street Jurisdiction

The street system within the City of Talent includes roadways under three jurisdictions: State, County, and City. There are also numerous private streets within the city.

# State-Maintained Highways

Within the planning area, ODOT maintains Interstate 5 (I-5) and OR 99 (OR 99). I-5 is a well-maintained, four-lane divided freeway with a posted speed of 65 miles per hour in the Talent area. It is classified by the 1999 Oregon Highway Plan as having interstate significance and serves as the primary through north and south route for traffic traveling through the area.

Paralleling I-5, OR 99 serves as another north-south access through the Talent area and is classified in the 1999 Oregon Highway Plan as a District Highway. The cross section of OR 99 varies from four to five lanes in Talent. The posted speed on OR 99 throughout the Talent area

is 45 mph. Within Talent, OR 99 is referred to as the Rogue Valley Highway and the South Pacific Highway.

# **County-Maintained Roads**

Jackson County maintains several roads within the Talent UGB, including Colver Road, a portion of Talent Avenue, and a portion of West Valley View Road. The street inventory tables in Appendix A specify streets maintained by Jackson County.

# City-Maintained Roads

The City of Talent maintains a complex network of streets. The cross sections range from two to five lanes and the posted speed ranges from 20 to 40 mph. John Street is the only one-way street in Talent. There are four public railroad crossings in Talent. None of the crossings are grade-separated. The crossing at Wagner is controlled by stop signs only; while the crossings at Main, Colver and Rapp are controlled by cross-arms.

# **Privately Maintained Roads**

There are many streets in Talent that are maintained privately. Several of these streets are specifically listed in the street inventory tables as privately maintained streets. However, there are numerous other privately maintained streets within Talent. Many of these privately maintained streets are not named, hindering a tabular description of these private roads. *All other streets within the Talent UGB that are not specifically listed in the Talent Street Inventory tables are privately maintained.* The exception being City-acknowledged planned streets and City-acknowledged future street connections.

#### 2.2.3. Functional Classification

The functional classification system for the Talent street network includes arterials (principal and minor), collectors (major and minor) and local streets. Figure 2-1 illustrates the existing functional classification system and the street classifications from the 2007 TSP are also listed in Table 2-1.

Table 2-1. Collector and Arterial Streets

Street Name	From	То				
Principal Arterial						
OR 99	S. city limit	Suncrest Rd/Colver Rd				
W. Valley View Rd.	OR 99	Suncrest Rd.				
Minor Arterial						
Talent Ave.	Wagner Ave.	Colver Rd.				
W. Valley View Rd.	Talent Ave.	OR 99				

Street Name From Major Collector Belmont Rd. Talent Ave. **UGB** OR 99 Colver Rd **UGB** OR 99 Creel Rd. Talent Ave. Main St. Wagner Creek Rd. Talent Ave. Rapp Rd. OR 99 Wagner Creek Rd. Suncrest Rd. OR 99 Interstate 5 Talent Ave. UGB Wagner Ave. Wagner Creek Rd. Rapp Rd. Wagner Ave. Wagner St. Talent Ave. Wagner Creek Rd. Minor Collector 2nd St. W. Rapp Rd. Wagner St. Arnos St. OR 99 Talent Ave. Front St. W. Wagner St. Colver Rd. Rogue River Pkwy Talent Ave. End

Table 2-1. Collector and Arterial Streets.

General descriptions of the existing classifications include:

- Major arterial streets are intended to serve as primary routes for travel between major urban activity centers and are equivalent to ODOT's classification of principal arterial.
   These streets function in a similar manner to minor arterial streets but generally carry a much higher traffic volume.
- Minor arterial streets are intended to move traffic, loaded from collector streets, between areas and across portions of a city or region. New residential property other than major complexes of multi-family dwellings shall not face or be provided with access onto arterial streets.
- Major collector streets are gather traffic from neighborhoods but also serve abutting lands, particularly commercial uses. They are intended to carry between 2,000 and 10,000 vehicles per day, including through traffic. Major collector streets can serve residential, commercial, industrial, or mixed land uses.
- Minor collector streets are primarily intended to serve abutting lands and local access needs of neighborhoods. They are intended to carry between 1,200 and 6,000 vehicles per day, including limited through traffic. Minor collector streets can serve residential, commercial, industrial, or mixed land uses.
- Local residential streets are intended to serve the adjacent land without carrying through traffic. These streets shall be designed to carry up to 1,500 vehicles per day. To maintain low volumes, local residential streets shall be designed to encourage lowspeed travel.
- Local industrial streets are intended to serve the adjacent land without carrying through traffic. These streets shall be designed to carry less than 1,200 vehicles per day.

If the forecast volume exceeds 1,200 vehicles per day, as determined in the design stage, the street system configuration shall either be changed to reduce the forecast volume or the street shall be designated as a collector street.

### 2.2.4. Pavement Conditions

The pavement condition ratings for the street system were obtained during the physical inventory process according to methods specified in the 1994 ODOT Pavement Rating guide. This data collection was updated using aerial photography and field data collected in October of 2013. The streets with pavement rate Poor or Very Poor are summarized in Table 2-2.

Table 2-2. Talent Streets in Poor or Very Poor Condition

Street	From	То	Functional Classification
Very Poor Condition			
2 <sup>nd</sup> St.	Bain St.	Main St.	Local
David Way	Lithia Way	Segment End	Local
Foss Rd.	Wagner Creek Rd.	City Limit (South)	Local
Lani Way (East)	Talent Ave.	Lithia Way	Local
Lithia Way	Lani Way (East)	David Way	Local
Wagner Butte Ave.	South 2 <sup>nd</sup> St.	Madison St.	Local
Poor Condition			
1 <sup>st</sup> St.	Wagner Ave.	Main St.	Local
2 <sup>nd</sup> St.	Wagner Ave.	Bain St.	Local
2 <sup>nd</sup> St.	Main St.	Segment End	Local
Alpine Way	Lithia Way	Talent Ave.	Local
Bain St.	Wagner Ave.	1 <sup>st</sup> St.	Local
Belmont Rd.	Talent Ave.	UGB	Major Collector
Christian Ave.	Wagner Creek Rd.	Segment End	Local
Gibson Ave.	Lapree St.	Colver Rd.	Local
Hilltop Rd.	Talent Ave.	UGB	Local
Lithia Way	Faith Circle	Alpine Way	Local
Meadow Slope Dr.	Talent Ave.	Deborah	Local
Roy St.	Lapree St.	Sunny St.	Local
Sunny St.	Roy St.	Talent Ave.	Local
West St.	Main St.	2 <sup>nd</sup> St.	Local

# 2.2.5. Roadway Design Deficiencies

Like most communities, the City of Talent has developed from a small rural center. As the community has developed, development occurred along the roads leading to outlying areas. For the most part, houses were constructed individually without significant improvements to the abutting streets. Not until recently did the development occur as subdivisions. Many of the streets within the city are merely rural streets with houses and businesses constructed on the

adjacent property. Most of these rural roads feature paved travel lanes, either gravel or paved shoulders, and open ditches for drainage.

Newer streets, including those constructed in connection with subdivisions in the last twenty to thirty years, feature curbs, gutters, and sidewalks. These streets meet "urban standards." Streets designed to urban standards are generally considered to be less expensive to maintain than rural streets. They are also superior to the rural streets since they make provisions for pedestrians and bicyclists. These advantages have led to the adoption of design standards for all new streets and policies of improving existing streets to urban standards.

Table 2-3 summarizes the roadway deficiencies on arterial and collector roadways in Talent when compared to an appropriate urban standard. The most common deficiencies are the lack of curbs, gutters, and sidewalks. There are many local streets that also have deficiencies (see Appendix A) although only a few of the local streets lack a hard surface pavement.

Table 2-3. Existing Roadway Design Deficiencies

Deficiencies	Street Name	Location
Arterial Streets		
No curb and gutter or	OR 99	Rapp Rd. to UGB (missing both sides)
sidewalk:	W. Valley View Rd.	East City Limits to UGB (missing both sides)
No sidewalk:	W. Valley View Rd.	Talent Ave. to OR 99 (missing north side only)
Collector Streets		
No pavement	Belmont Rd.	Talent Ave. to End (entire road)
	Creel Rd.	OR 99 to Talent Ave. (missing north side only)
	Front St.	900 ft. north of Main St. to Colver Rd. (missing both sides)
	Rapp Rd.	Graham Way to Wagner Creek Rd. (missing both sides)
	Rogue River Pkwy.	Talent Ave. to North End (missing both sides)
No curb and gutter or	Suncrest Rd.	Autumn Ridge Dr. to City Limits (missing south/east side only)
sidewalk:	Talent Ave.	Rapp Rd. to Creel Rd. (missing east side only)
	Talent Ave.	Creel Rd. to UGB (missing both sides)
	Wagner St.	Madison St. to Wagner Creek Rd. (missing north side only)
	Wagner Creek Rd.	Wagner Ave. to Rapp Rd. (missing west side only)
	Wagner Creek Rd.	Rapp Rd. to UGB (missing both sides)
No curb and gutter	Wagner St.	John St. to Front St. (missing south side only)
	2 <sup>nd</sup> St.	Schoolhouse Rd. to Wagner St. (missing west side only)
	Colver Rd.	OR 99 to Front St. (missing north side only)
	Colver Rd.	Front St. to UGB (missing both sides)
	Front St.	Wagner St. to 900 ft. north of Main St. (missing west side only)
No sidewalk:	Main St.	Front St. to Wagner Creek Rd. (missing both sides)
	Rapp Rd.	OR 99 to Lithia Way (missing north side only)
	Rapp Rd.	Lithia Way to Graham Way (missing north side only)
	Rogue River Pkwy.	Talent Ave. to South End (missing both sides)
	Suncrest Rd.	Between Autumn Ridge Rd. N and S (one side only)

## 2.3. Pedestrian System along City Streets

The City of Talent sidewalk system varies widely from neighborhood to neighborhood. Most of the newer subdivisions have complete sidewalk systems, while older neighborhoods lack adequate facilities. Since the 2007 TSP update, the City has added several segments of new sidewalks as part of arterial and collector street reconstruction projects, particularly in the downtown area. In some locations, sidewalks have been added along street segments where none existed previously, while in other locations a second sidewalk has been constructed on the opposite side of the street from an existing facility. Figure 2-2 illustrates the existing pedestrian system (including pathways). Table 2-4 summarizes the remaining sections of arterials and collectors within the Talent UGB that do not have sidewalks on at least one side of the street.

Table 2-4. Arterial and Collector Streets Segments without Any Sidewalks

Street Name	From	То
Arterial Streets		
OR 99	Rapp Rd.	UGB
W. Valley View Rd.	East City Limits	UGB
Collector Streets		
Belmont Rd.	Talent Ave.	End
Colver Rd.	Front St.	UGB
Front St.	900 ft. north of Main St.	Colver Rd.
Main St.	Front St.	Wagner Creek Rd.
Rapp Rd.	Graham Way	Wagner Creek Rd.
Rogue River Pkwy.	Talent Ave.	North End
Rogue River Pkwy.	Talent Ave.	South End
Talent Ave.	Creel Rd.	UGB
Wagner Creek Rd.	Rapp Rd.	UGB

The City of Talent Street Inventory tables in Appendix A also catalog the presence and conditions of sidewalks for each of the street segments inventoried.

Most of the streets are two lanes with narrower cross sections and low traffic demand. Pedestrians can cross these roads easily without the aid of traffic signals or other pedestrianactivated crossing devices.

Both OR 99 and West Valley View Road have at least four travel lanes and higher travel speeds (40 or 45 mph) and pose a greater barrier to pedestrian activity. Traffic signals are located at three intersections on OR 99 (Suncrest/Colver Road, West Valley View Road, and Rapp Road). While these signalized intersections include crosswalks and provide a pedestrian phase to support crossing, the spacing between signals is over 2,000 feet. In addition to the signal at OR 99, a second traffic signal is located at Hinkley Road with crosswalks and pedestrian phases.

Pedestrians can also cross West Valley View Road using the grade-separated Bear Creek Greenway.

## 2.4. Bicycle System along City Streets

The number of roadways with on-street bicycle facilities has grown considerably within Talent since the previous TSP update, especially in centrally-located areas. OR 99 features bicycle lanes between Colver Road/Suncrest Road and Rapp Road. Talent Avenue now has continuous bicycle lanes from Eva Way to Creel Road, while Main Street has bicycle lanes in its entirety from Wagner Creek Road to Talent Avenue. Other notable additions on Wagner Street, Creel Road, Rapp Road and Valley View Road have helped create a more cohesive bicycle network in Talent.

Figure 2-3 illustrates the existing bicycle system (including pathways). Table 2-5 summarizes the remaining sections of arterials and collectors within the Talent UGB that do not have bicycle facilities on both sides:

Table 2-5. Arterial and Collector Streets Segments without Two-Way Bicycle Facilities

Street Name	From	То
Arterial Streets		
OR 99	Rapp Rd.	UGB
W. Valley View Rd.	Talent Ave.	OR 99)
W. Valley View Rd.	East City Limits	UGB
Collector Streets		
2nd St.	Wagner St.	Rapp Rd.
Belmont Rd.	Talent Ave.	End
Colver Rd.	Front St.	UGB
Front St.	Wagner St.	Colver Rd
Rapp Rd.	Graham Way	Wagner Creek Rd.
Rogue River Pkwy.	Talent Ave.	North End
Rogue River Pkwy.	Talent Ave.	South End
Suncrest Rd.	OR 99	City Limits
Talent Ave.	Lapree St.	Eva Way
Talent Ave.	Creel Rd.	UGB
Wagner Creek Rd.	Christian Ave.	UGB
Wagner St.	Talent Ave.	Front St.

Bicyclists face the same challenge as pedestrians when it comes to crossing OR 99 and West Valley View Road. However, unlike pedestrians, the green time is not extended to aid bicyclists with crossing these wider roadways. At the intersections with lower side street volumes, crossing the street while the signal is green can be challenging for some bicyclists. While a bicyclist can choose to activate the pedestrian signal, he or she must get onto the sidewalk to press the pedestrian-activation button.

### 2.5. Multi-Use Paths

The Talent transportation system also includes multi-use paths that serve both pedestrians and bicyclists. Some of these paths, like the Bear Creek Greenway, are designated while others are informal routes created by repeated use over time.

### 2.5.1. Designated Paths

The Bear Creek Greenway is the primary multi-use path in the vicinity of Talent, extending 18 miles north-south from Ashland to Central Point. The Greenway is located between I-5 and OR 99 in the Talent area, roughly paralleling Bear Creek. All road crossings along the greenway are grade-separated, except for a single location in Talent where an at-grade crossing is required, at Suncrest Road. This crossing requires trail users to walk/bicycle in the travel lanes on Suncrest Road to cross Bear Creek before returning to the trail. The bridge across the creek is not wide enough for shoulders.

The planned 1.5-mile Wagner Creek Greenway will eventually connect downtown Talent to the Bear Creek Greenway, extending an existing trail that runs from Talent Avenue to OR 99 east of Wagner Creek.

### 2.5.2. Informal Paths

The informal paths network represents all unimproved pedestrian and bicycle paths in the City of Talent. It is human nature for individuals to find the shortest route to their destination. Many informal paths exist between subdivisions, commercial areas, and along creeks and parks. Users are a diverse group, which include local students as well as others who do not have access to autos. The purpose of the inventory is to officially document these paths and recognize them as viable transportation corridors. The City of Talent is committed to improving connectivity and the informal paths present future opportunities to meet this goal. An informal path "inventory" was conducted in June 1999.

# 2.6. Public Transportation

Public transportation in In Talent includes fixed-route bus service as well as assorted ondemand services.

#### 2.6.1. Fixed-Route Bus Service

The Rogue Valley Transportation District (RVTD) provides public transportation to the Talent area. RVTD Route 10 passes through Talent along Talent Avenue, as shown in Figure 2-4<sup>1</sup>. The route connects Talent to the Cities of Phoenix, Medford, Central Point and Ashland. There are

<sup>&</sup>lt;sup>1</sup> Route 10 has changed since it was documented in 2013 for this TSP Update. The new route travels a greater distance on OR 99 and less distance on Talent Avenue. However, the current routing is likely to change again in response to concerns raised with regard to the accessibility of some of the bus stops on OR 99. Therefore, no revisions have been prepared to the 2013 inventory mapping.

10 stops in the southbound direction to Ashland and 10 timepoint stops on the northbound route to Medford. There are three bus shelters at stops in Talent.

Currently, service is provided Monday through Friday with limited Saturday service. The first bus leaves Front Street in Medford at 5:00 a.m. arriving in Talent at approximately 5:20 a.m. The last bus leaves Front Street in Medford at 8:30 p.m. and passes through Talent around 8:50 p.m. Route 10 has 20 minute service frequency Monday through Friday, with hourly service from 8:00 AM to 4:00 PM on Saturday. Bus fare is \$2.00 for full-paying passengers, with a reduced fare for seniors and youth (10-17 years old). SOU and RCC students do not pay fares when boarding.

Service was recently expanded on a trial-basis due to one-time grant funding RVTD received; increased service frequencies, longer service hours, and Saturday service were all added to RVTD routes in 2012. Increased service is funded through 2015, but maintenance of these service improvements beyond 2015 is uncertain.

There are 24 bus stops within Talent. In the month of May 2013, there was an average of 21 daily combined boardings and alightings per stop in Talent. The bus stops on Talent Avenue, north of Lapree Street, and on Valley View Road, east of Talent Avenue, have the highest average monthly ridership, with 93 and 73 riders respectively. Both stops near the intersection of OR 99 and Talent Avenue at the south end of town experience the lowest average daily ridership, with two combined boardings and alightings. RVTD also picks up riders anywhere along Talent Avenue from this intersection north to the intersection of Belmont and Talent Avenue, but the average number of boardings and alightings along this segment is near zero.

Table 2-6 presents an inventory of amenities provided at bus stops in Talent. All bus stops have adjacent bike parking. Approximately half of the bus stops within Talent have sidewalks and loading pads. Only one-quarter of bus stops in Talent have shelters, and no bus stops in Talent display schedule information.

Table 2-6.	Summary of	Bus Stop	Amenities

Amenity	No. of Stops	% of Stops
Shelter	6	25%
Sidewalks	13	54%
Lighting	8	33%
Schedule Information	0	0%
Seating	5	21%
Loading Pad	13	54%
Bike Parking	24	100%

## 2.6.2. Valley Lift

RVTD provides curb-to-curb service, called Valley Lift, for people who are unable to use a regular lift equipped bus because of a disability. The service is intended only for those trips that an individual cannot make on the regular routed bus system. An application is required to determine when and under what circumstances the applicant can use the bus and when Valley Lift service is required. Anyone with a disability that prevents them from getting to or from a regular bus stop, or anyone who cannot independently board, ride or disembark from a regular lift-equipped bus is eligible for participation in the Valley Lift program.

Persons enrolled in the Valley Lift program do not pay fares when boarding. Valley Lift monthly passes are \$38 for full fare and \$19 for reduced fare.

#### 2.6.3. TransLink

TransLink provides non-emergency medical transportation to eligible Oregon Health Plan Plus clients. The service is available Monday – Friday, 7 AM to 6 PM. Translink provides a number of services, including door-to-door van services, bus tickets, or vouchers for taxis, depending on the needs of the individual rider.

### 2.6.4. Taxi Service

There are two privately operated taxi services available to the Talent area in addition to a locally operated taxi service. All operators provide service 24 hours per day, seven days per week.

# 2.6.5. Intercity Bus Service

There is no commercial bus service available in Talent. The closest Greyhound stop is located at the intersection of South Valley View and OR 99 approximately 1½ miles from the southern city limit.

# 2.7. Rail Transportation

The Central Oregon and Pacific (CORP) rail line runs northeast-southeast through Talent, west of OR 99. Table 2-7 summarizes the location and features of the seven at-grade street crossings within the city limits and UGB.

Road Widths No. of Crossing Name Type of Warning Device at Crossings Tracks Jurisdiction Public Road\* Crossbucks Public Road 1 Belmont Rd Crossbucks 1 City Rapp Rd. Gates and Flashing Lights 32 1 County 2 Wagner Ave. Vehicle Stop Sign 18 City 22 2 Main Street Flashing Lights City Colver Rd. 1 36 Gates County Hill Top Rd. 18 1 Private

Table 2-7. Railroad Crossing Locations within the City of Talent

#### Notes:

Source of crossing data: Oregon Department of Transportation.

The majority of the rail section was derived from the Regional Transportation Plan.

### 2.7.1. Freight Rail Service

The former Southern Pacific Railroad Siskiyou Line runs from Springfield, Oregon to Black Butte, California with a total length of a little more than 300 miles of which about 250 miles are in Oregon. Steep grades and tight turns limit operating speeds, which mostly fall in the range of 25 to 35 miles per hour. Forty-three miles of track is limited to an operating speed of only ten miles per hour.

In June 1995, the Siskiyou line was taken over by the CORP railroad. Service has been increased and is now being offered six days per week. Service increases have led to increases in cars to a rate of approximately 28,000 cars per year. As of 2010, CORP is not operating the line between Ashland, OR and Montague, CA, due to pricing disputes.

According to the 2010 Oregon Rail Study, no trains are current running on the section of CORP track south of Medford, due to significant repair work needed on the line across Siskiyou Pass. The railroad was operating one train north and south, five days a week, between Eugene and Medford as of 2010. In May, 2013, Oregon State and CORP were awarded a \$7 million TIGER grant from USDOT to repair the line between Medford and Montague, California. Once repairs are made, it is very likely that freight service will resume on the rail line within Talent.

Rail service provides specific advantages for various bulk commodities or loads longer than those normally permitted on highways. Lumber and other wood products are the principal commodities transported over the Siskiyou Line. Even with recent increases in railroad traffic, the total volume of rail freight is far less than the highway freight tonnage for the region. The combined highway and rail freight tonnage in the I-5 corridor alone is estimated at 25 million

<sup>\*</sup> This crossing is at the extreme south of the city's urban growth boundary. Its designation as a "public road" appears to indicate it has been dedicated for public road purposes, but it has not necessarily been accepted as a road by any jurisdiction.

tons annually. The rail freight portion accounts for between 5 and 10 percent of this total in the I-5 corridor.

## 2.7.2. Passenger Rail Service

Passenger rail service is not available in Talent or between Eugene and Medford. North-south rail passenger service in the California-Oregon-Washington corridor is provided through Klamath Falls, bypassing the Rogue Valley region on the way to Eugene. The *Oregon Rail Passenger Policy and Plan (1992)* proposes Eugene to Roseburg passenger rail service as a "Second Stage" expansion, with Eugene to Medford service as a "Third Stage" addition. The ongoing Oregon Passenger Rail study currently does not include passenger rail service improvements further south than Eugene. A final alignment decision is likely in 2015 or 2016. The 2010 Oregon Rail study updated analysis conducted in the 1992 *Oregon Rail Passenger Policy and Plan*, and looked at the potential for utilizing the existing freight line from Eugene to Ashland for passenger rail. However, the Study found that the cost of improvements would exceed \$2.9 billion and would only attract 2,700 passengers per year, effectively precluding development of passenger rail at this time.

The 2007 Rogue Valley Commuter Rail Project assessed the potential for developing commuter rail on existing CORP rail lines between Central Point and Ashland, a distance of 16 miles. Capital costs were estimated between \$27 and \$42 million, with about \$3 in operating costs per year. The study only made a cursory assessment of demand for such service, but did conclude that commuter rail service would be feasible.

## 2.8. Air Transportation

Although the City of Talent does not have an airport within its UGB, two airports are located within 10 miles.

# 2.8.1. Medford-Jackson County International Airport

The majority of following discussion was derived from the Regional Transportation Plan.

The Rogue Valley area is served by the Medford-Jackson County International Airport located north and east of I-5, between Crater Lake Highway and Table Rock Road. The airport is approximately seven miles north of Talent. Transportation from Talent to the airport is available through privately operated taxis and RVTD. RVTD provides direct service the airport, Monday through Saturday, on Route 1.

Airport activities have increased recently and show potential for air transportation as an important component of the regional transportation system. The airport and related services offer air passenger and air freight transportation opportunities to Rogue Valley area residents and businesses. The airport provides a national and international connection to the region.

The Medford-Jackson County Airport 2010 Master Plan Update serves as the airport's guiding document providing planning assumptions and governing anticipated development of the

airport. Key information gleaned from the *Airport Master Plan Update* important to the development of a multi-model transportation plan includes forecasts of passenger enplanement and employment in the Foreign Trade Zone (FTZ).

According to the 2010 *Airport Master Plan Update*, passenger enplanement is forecast to increase substantially from the 2010 level of approximately 300,000. The baseline growth scenario predicts a 79 percent increase in enplanements by 2030, with the high growth scenario predicting a near 100% increase to 600,000.

The FTZ is designed to help the airport develop to its fullest potential and boost the local economy in the southern Oregon region. The FTZ is projected to boost employment in the immediate vicinity of the airport and produce an annual increase in revenue of more than \$3 million.

Air freight movements are unlikely to substitute for a measurable portion of truck freight on the Interstate highway system, unless air freight capacity and demand increase dramatically. Freight volumes in 2010 were approximately 5.5 million pounds per year, and are forecast to increase 2.4% annually through 2030, though still represent a small fraction of the freight tonnage moved annually on I-5.

## 2.8.2. Ashland Municipal Airport

The City of Ashland operates a general aviation airport. This airport is located approximately seven miles to the south of Talent. Charter passenger and freight service is available at the Ashland Municipal Airport.

# 2.9. Water Transportation

No water transportation is located in Talent.

# 2.10. Pipeline Transportation

A natural gas distribution line located along the I-5 corridor between Grants Pass and Ashland serves the entire Talent area. The distribution lines in the area are operated by WP Natural Gas, a subsidiary of Washington Water Power. The Talent area's distribution lines connect at Grants Pass to a major natural gas transmission line operated by Northwest Pipeline Company. This natural gas transmission line connects from Grants Pass north to Portland and Vancouver, Washington. From the Portland/Vancouver area, it continues east to Umatilla and Ontario, Oregon.

### 2.11. Additional Resources

As the TSP update moves forward with the evaluation of the future transportation system and potential improvements, data regarding land uses and environmental resources will be used to help determine recommendations. These data have been summarized in Appendix B and Appendix C.

### 2.11.1. Environmental and Land Use Reconnaissance

To understand the potential existing environmental and land use issues, and to help inform the conceptual alternatives development process in a subsequent phase of planning for improvements in the study area, Appendix B identifies and reviews the existing environmental and land use conditions in the study area as defined below. The resources identified in Appendix B were based on Geographic Information System (GIS) maps, previous reports, and known resource sites. The analysis is limited to "visual windshield validation." Further resources may exist in the study area that are not yet documented or are not visually apparent.

The environmental and land use data includes:

- Environmental Reconnaissance
  - o Goal 5 Resources (Riparian Corridors, Wetlands, Wildlife Habitat, Recreation Trails)
  - Wildlife Crossings
  - o Threatened and Endangered Species
  - o Floodplains and Floodways
  - Air Quality
  - Hazardous Materials
  - Visual Resources
- Land Use Summary (Summary of Built Environment)
  - o Community Features
  - Parks and Recreation Areas
  - o Historic and Archaeological Resources
  - Section 6(f) Resources)

### 2.11.2. Socioeconomic and Environmental Justice

Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations of February 11, 1994, requires agencies undertaking federal projects to identify low-income and minority populations; assess whether high and adverse human health or environmental impacts would result from the alternatives; and ensure participation of low-income and minority populations in the transportation decision making process. Appendix C includes an analysis of socioeconomic data related to the City of Talent.

Attachments:

Figure 2-1. Functional Classification

Figure 2-2. Pedestrian System

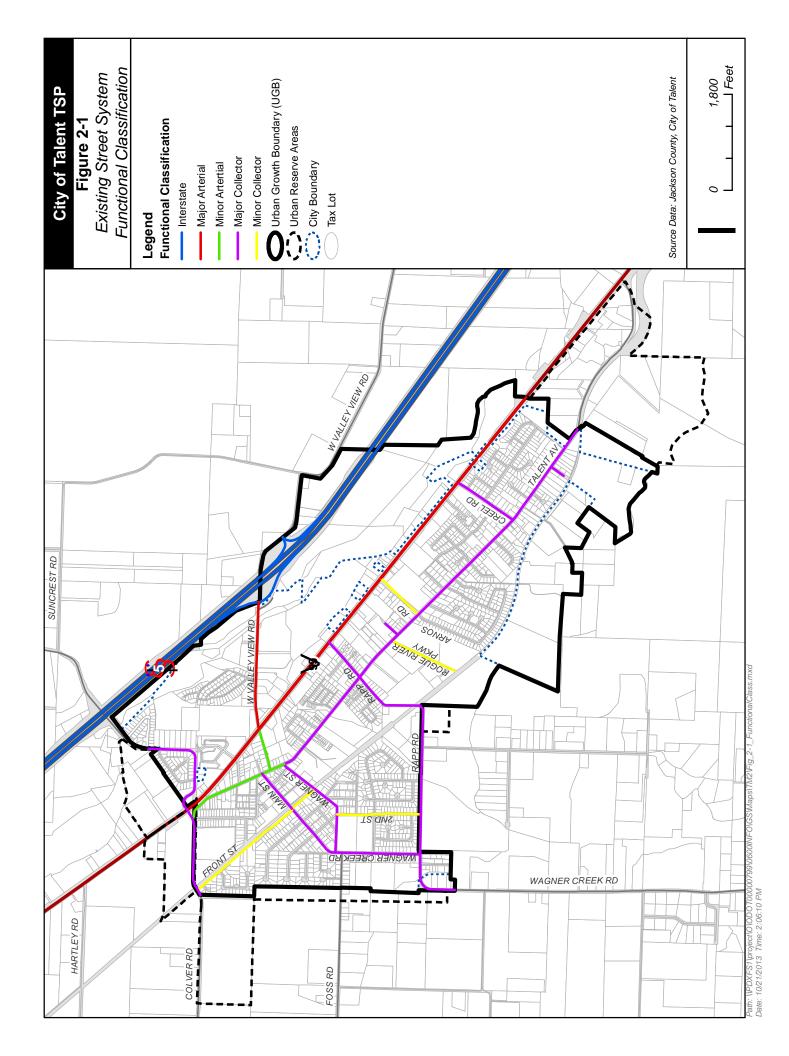
Figure 2-3. Bicycle System

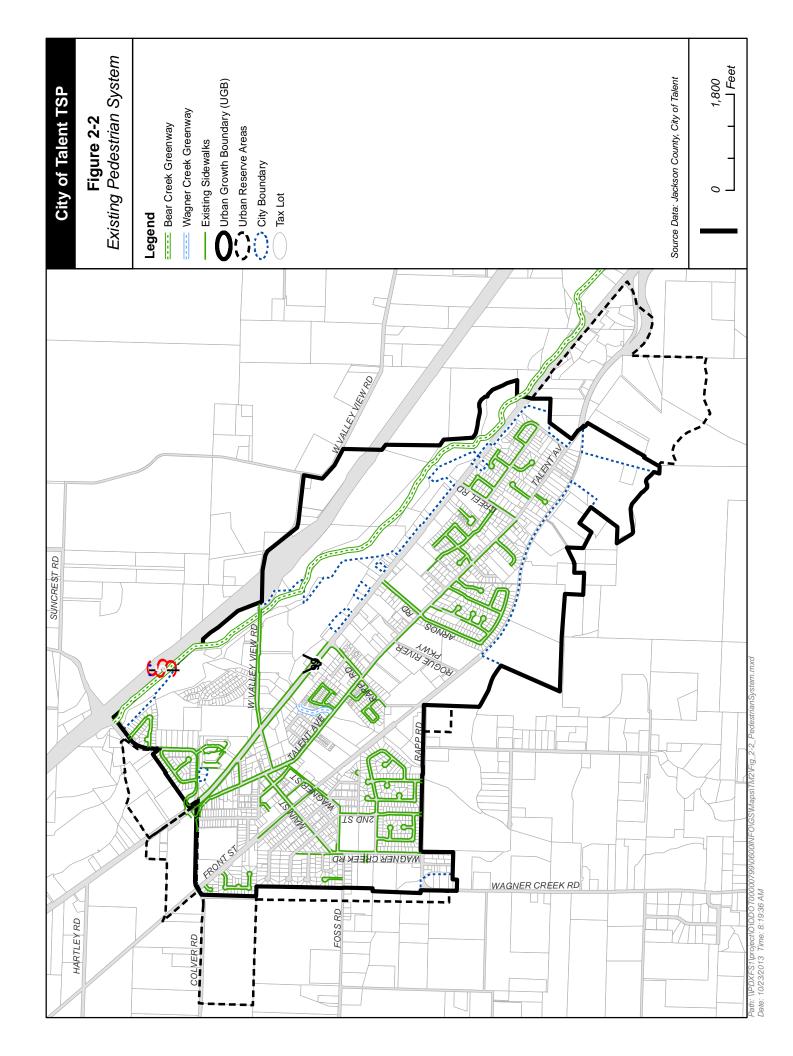
Figure 2-4. Transit System

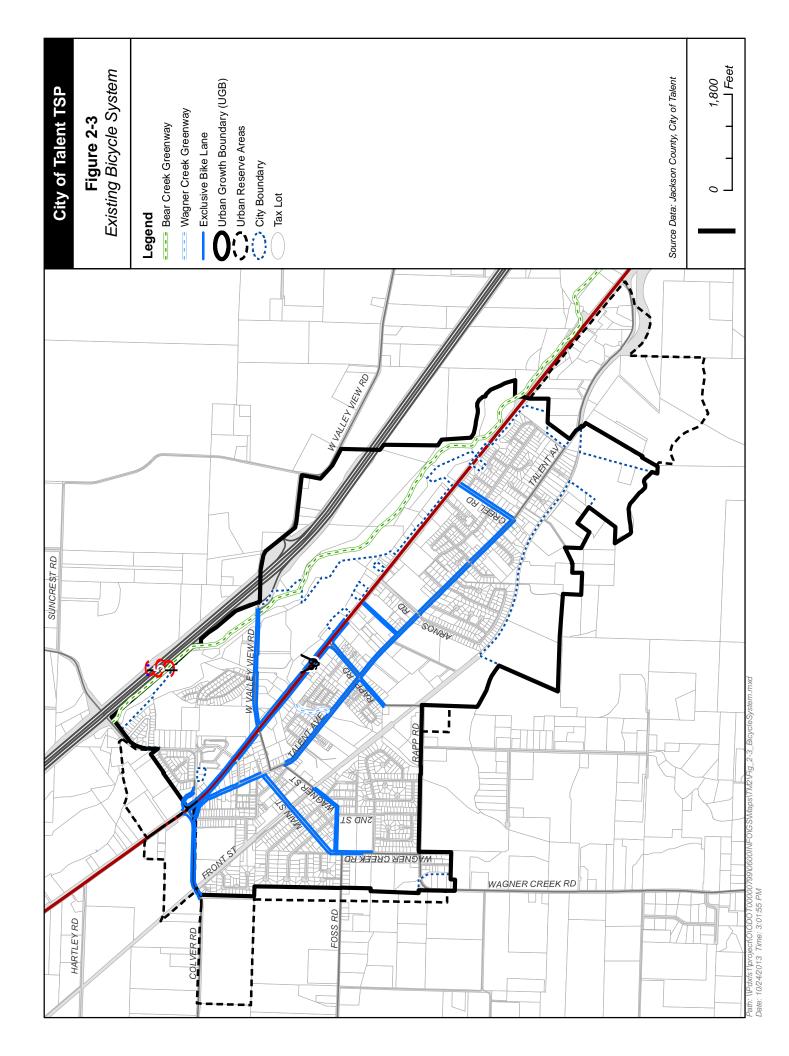
Appendix A – Street System Inventory

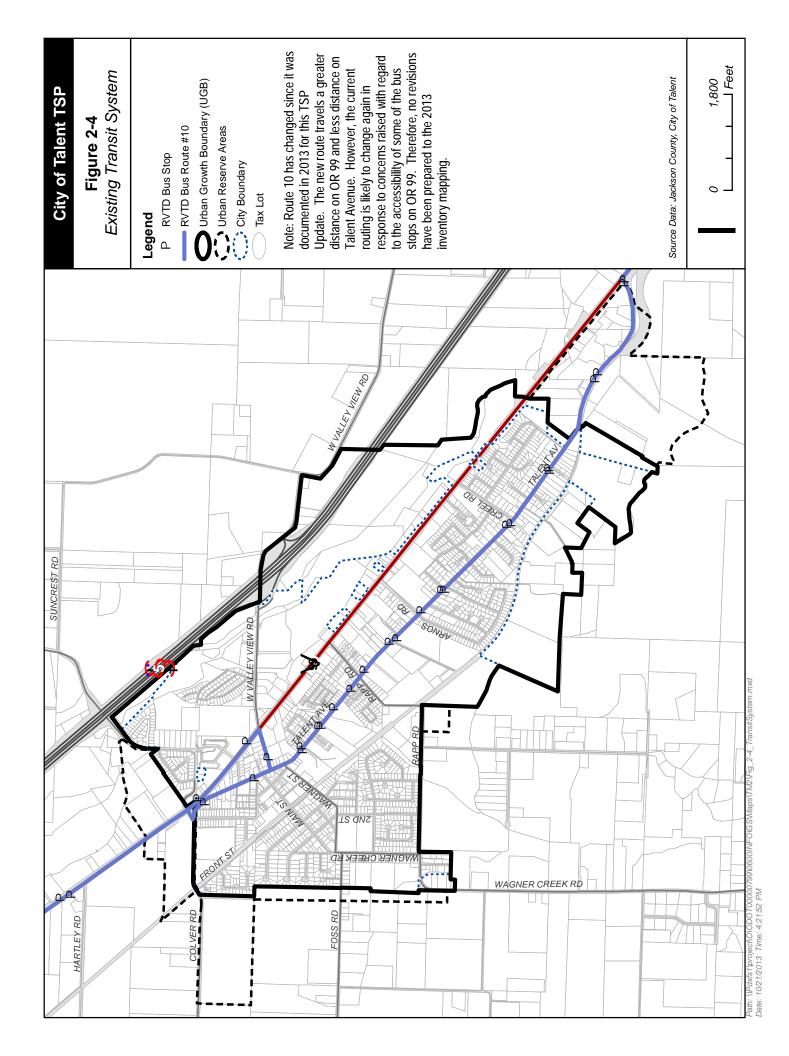
Appendix B - Land Use and Environmental Resources

Appendix C - Socioeconomic and Environmental Justice Analysis









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	N. 1st St.	S. 1st St.	S. 1st St.	S. 1st St.	1st St.	N. 2nd St	N. 2nd St.	S. 2nd St.	S. 2nd St	S 2nd St	S. 2nd St.	S. 2nd St.	S. 2nd St.	2nd St.	N. 3rd St.	N. 4th St.		A Malia Cir	Aldırı CII.	Alpine Way	Amos St.	Amos St.	AMIOS St.	В	Bain St.	Bain St.	Bain St.	Bell Rd.	Bell Rd.	Bell Rd.	Bell Ka.	Belmont Rd.	Belmont Rd. Belmont Rd.	Belmont Rd. Belmont Rd. Belmont Rd.					

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Curbs	both				hoth	both			none	both	none	none		both	both	both	none	none	one side			none	none	none			none	none		none	none	none	none	none	none	none	both	both	hoth
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Roadway Pavement Condition	excellent				excellent	excellent			pood	excellent	poob	pood		excellent	poob	excellent	excellent	excellent	excellent			poor	fair	fair							excellent	excellent	avrollant						
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25         both         50         33         asphalt         excellent         curb         both         <	Schoolhouse Rd. Beth Ann Cir. 215 city local
25         both         50         33         asphalt         excellent         curb         both         both         both         excellent           25         one side         50         asphalt         excellent         curb         both         both         excellent         curb         both         excellent         <	530 city
25         both         50         33         asphalt         excellent         curb         both         both         both         excellent           25         one side         50         asphalt         excellent         curb         both         both         excellent           25         one side         50         17         asphalt         excellent         asphalt         one side         one side           25         both         50         33         asphalt         excellent         asphalt         one side         one side           25         both         60         20         asphalt         good         gravel         none         one side           25         both         60         20         asphalt         good         gravel         none         one side           25         both         60         20         asphalt         good         gravel         none         one side           25         both         60         20         asphalt         good         gravel         none         one side           25         both         60         27         asphalt         good         gravel         none         one si	(tot.) 745
25         one side         50         asphalt         excellent         curb         both         both         excellent           25         one side         50         asphalt         excellent         curb         both         both         both         excellent           25         none         50         33         asphalt         excellent         asphalt         one side         one side           25         both         50         33         asphalt         excellent         asphalt         one side         one side           25         both         60         20         asphalt         good         gravel         none         one side           25         both         60         20         asphalt         good         gravel         none         one side           25         both         60         20         asphalt         good         gravel         none         one side           25         both         60         20         asphalt         good         gravel         none         one side           25         both         60         27         asphalt         good         gravel         none         both         exce	Talent Ave. End local city local
25         one side         50         asphalt         excellent         curb         both         both         excellent           25         none         50         17         asphalt         Poor         gravel         none         none         excellent           25         both         50         17         asphalt         poor         gravel         none         none         none           25         both         50         33         asphalt         good         gravel         none         none         none           25         both         60         20         asphalt         good         gravel         none         none         none           25         both         60         20         asphalt         good         gravel         none         none         none           25         both         60         20         asphalt         good         gravel         none         none         none           25         both         60         27         asphalt         good         gravel         none         both         excellent         5           25         both         60         27         asphalt	
25         none         50         17         asphalt         poor         gravel         none         cone           25         both         50         33         asphalt         excellent         asphalt         asphalt         excellent         asphalt         asphalt	Lithia Way E. Nerton St. 600 city local F. Nerton St. Kamarin Sontinus Park 315 city local
25         none         50         17         asphalt         poor         gravel         none         none         none           25         both         50         33         asphalt         excellent         asphalt         one side         none         one side           25         both         60         20         asphalt         good         gravel         none         none         none           25         both         60         20         asphalt         good         gravel         none         none         none           25         both         60         20         asphalt         good         gravel         none         none         none           25         both         60         20         asphalt         good         gravel         none         none         none           25         both         60         27         asphalt         good         gravel         none         both         excellent         5           25         both         60         27         asphalt         good         S.gavel         none         both         excellent         5           25         both         60	(tot.) 915
25         none         50         17         asphalt         poor         gravel         none         none         none         none         none           25         both         50         33         asphalt         excellent         asphalt         one side         none	
25         both         50         33         asphalt         excellent         asphalt         one side         one side           25         both         60         20         asphalt         good         gravel         none         none           25         both         60         20         asphalt         good         gravel         none         none           25         both         60         20         asphalt         good         gravel         none         none           25         both         60         27         asphalt         good         gravel         none         none         none           25         both         60         27         asphalt         good         gravel         none         none         both         scellent         5           25         both         60         27         asphalt         good         gravel         none         both         excellent         5           25         both         60         27         asphalt         good         S. gravel         none         both         excellent         5           25         both         60         21         asphalt	Talent Ave. Lithia Way 490 city local
25         both         50         33         asphalt         excellent         asphalt         excellent         asphalt         excellent         one side         one side           25         both         60         20         asphalt         good         gravel         none         none           25         both         60         20         asphalt         good         gravel         none         none           25         both         30-35         18         asphalt         good         gravel         none         none           25         both         60         27         asphalt         good         S. gravel         none         N. side         excellent           25         both         60         27         asphalt         good         S. gravel         none         both         excellent           25         both         60         27         asphalt         good         S. gravel         none         both         excellent           25         both         60         21         asphalt         good         S. gravel         none         both         excellent         5           25         none         50	Betty Jo Way 855 city
25         both         60         20         asphalt         good         gravel         none         none           25         both         60         20         asphalt         good         gravel         none         none           25         both         60         20         asphalt         good         gravel         none         none           25         both         30-35         18         asphalt         good         gravel         none         none           25         both         60         27         asphalt         good         S. gravel         none         both         excellent         5           25         both         60         27         asphalt         good         S. gravel         none         both         excellent         5           25         both         60         21         asphalt         good         S. gravel         none         both         excellent         5           25         both         60         21         asphalt         good         S. gravel         none         both         excellent         5           25         none         50         28         asphalt	245 city
25         both         60         20         asphalt         good         gravel         none         none           25         both         60         20         asphalt         good         gravel         none         none           25         both         60         20         asphalt         good         gravel         none         none           25         both         60         27         asphalt         good         gravel         none         none           25         both         60         27         asphalt         good         S. gravel         none         both         excellent         5           25         both         60         27         asphalt         good         S. gravel         none         both         excellent         5           25         both         60         27         asphalt         good         S. gravel         none         both         excellent         5           25         both         60         21         asphalt         good         S. gravel         none         both         excellent         5           25         both         60         21         asphalt	(101) 1,590
25         both         60         20         asphalt         good         gravel         none	Ave. Roy St. 165 city
25         both         60         20         asphalt         good         gravel         none         one side           25         both         30-35         18         asphalt         good         gravel         none         none           25         none         22         asphalt         good         S. gravel         none         N. side         excellent         5           25         both         60         27         asphalt         good         S. gravel         none         both         excellent         5           25         both         60         27         asphalt         good         S. gravel         none         both         excellent         5           25         both         60         21         asphalt         good         S. gravel         none         both         excellent         5           25         both         60         21         asphalt         excellent         curb         none         both         excellent         5           25         none         50         28         asphalt         excellent         curb         none         both         excellent         5           25	Home St. 90 city
25         both         30-33         10         asphalt         good         gravel         none         none         none           25         both         60         27         asphalt         good         S. gravel         none         N. side         excellent         5           25         both         60         27         asphalt         good         S. gravel         none         both         excellent         5           25         both         60         21         asphalt         good         S. gravel         none         both         excellent         5           25         none         60         21         asphalt         good         S. gravel         none         N. side         excellent         5           25         none         50         28         asphalt         excellent         curb         none         both         excellent         5           25         none         50         28         asphalt         excellent         curb         none         both         excellent         5           25         none         25         18         asphalt         excellent         curb         none         both <td>Market St./Park St. 145 city</td>	Market St./Park St. 145 city
25         none         22         asphalt         good         Sravel         none         N side         excellent         5           25         both         60         27         asphalt         good         S. gravel         none         both         excellent         5           25         both         60         21         asphalt         good         S. gravel         none         both         excellent         5           25         both         60         21         asphalt         good         S. gravel         none         both         excellent         5           25         none         60         21         asphalt         excellent         curb         none         both         excellent         5           25         none         50         28         asphalt         excellent         curb         none         both         excellent         5           25         none         50         28         asphalt         excellent         curb         none         both         excellent         5           25         none         50         28         asphalt         excellent         curb         none         both	Market Surrain St. Taleill Ave. 373 City 10cal
25         both         60         27         asphalt         good         S.gravel         none         N. side         excellent         5           25         both         60         27         asphalt         good         S.gravel         none         both         excellent         5           25         both         60         21         asphalt         good         S.gravel         none         both         excellent         5           25         none         60         21         asphalt         good         S.gravel         none         N. side         excellent         5           25         none         50         28         asphalt         excellent         curb         none         both         excellent         5           25         none         50         28         asphalt         excellent         curb         none         both         excellent         5           25         none         25         18         asphalt         excellent         curb         none         S.side         scellent           25         none         25         18         asphalt         good         gravel         none         S.side <td>E. Rapp Rd. End 430 city local</td>	E. Rapp Rd. End 430 city local
25         both         60         27         asphalt         good         3. gavel         none         both         excellent         5           25         both         60         27         asphalt         good         S. gavel         none         both         excellent         5           25         both         60         21         asphalt         good         S. gavel         none         N. side         excellent         5           25         none         50         28         asphalt         excellent         curb         none         both         excellent         5           25         none         50         28         asphalt         excellent         curb         none         both         excellent         5           25         none         50         28         asphalt         excellent         curb         none         both         excellent         5           25         none         25         18         asphalt         excellent         curb         none         both         excellent         5           25         none         25         18         asphalt         good         gravel         curb	C AOO
25         both both both both both both both both	Alpine Way Jordan St. 400 city local
25         both         60         21         aspliat         90xd         3. gavel         none         both         excellent         5           25         both         60         21         asphalt         good         S. gavel         none         N. side         excellent         5           25         none         50         28         asphalt         excellent         curb         none         both         excellent         5           25         none         50         28         asphalt         excellent         curb         none         both         excellent         5           25         none         25         18         asphalt         excellent         curb         none         S. side         scellent         5	Mintercoll/(controlled)
25         Down         21         asphalat         9 odd         3. gravel         10 no.         N side         pood         5           25         none         50         28         asphalt         excellent         curb         none         both         excellent         5           25         none         50         28         asphalt         excellent         curb         none         both         excellent         5           25         none         50         28         asphalt         excellent         curb         none         both         excellent         5           25         none         25         18         asphalt         excellent         good         gravel         none         S. side         5	Faith of Whitels way 60 city local Whitels way 60 city local
25         none         50         28         asphalt         excellent         curb         none         both         excellent         5           25         none         50         28         asphalt         excellent         curb         none         both         excellent         5           25         none         50         28         asphalt         excellent         curb         none         both         excellent         5           25         none         50         28         asphalt         excellent         curb         none         both         excellent         5           25         none         25         18         asphalt         good         gravel         none         S. side         5	n Greet Rd 265 city local
25         none         50         28         asphat         excellent         curb         none         both         excellent         5           25         none         50         28         asphat         excellent         curb         none         both         excellent         5           25         none         50         28         asphat         excellent         curb         none         both         excellent         5           25         none         25         18         asphat         good         gravel         none         S. side         5	Kamerin Springs Dr. 800 city
25         France         30         28         asphalt         excellent         curb         none         both         excellent         5           25         none         25         18         asphalt         good         gravel         none         S. side         5	Dr. F. Norton St. 2500 2500 2500
25 none 25 18 asphalt good gravel none S. side 5	David Way 455
	Lani Way 310 city
	(101) 3 5(15

Width (ft.)																																			
Bike Lanes  Location Condition																																			
B	none	none	none	none		anon	none	hoth	hoth	both	both	both	both		none	none		none	none	none	none		none		none	none	none	none		none			none	none	
Width (ft.)	9	9	9	9							9	9	9							9	9														
Sidewalks Location Condition								avrellent	excellent	excellent	excellent	excellent	excellent							excellent	excellent														
Si	both	both	both	both		anon	none	ahis ano	one side	one side	both	both	both		one side (both -	both		one side - alternating	one side (both partial)	both	both		one side		none	none	none	none		both			none	both	
Curbs	both	both	both	poth		adou	euou	anon	Duon	none	none	hod	both		both	poth		none	none	none	none				both	both	poth	poth		both			none	both	
Shoulder	curb	curb	curb	curb		ditch	ditch	orave	gravel	gravel	gravel	curb	curb		curb	curb		ditch	ditch	ditch	ditch				curb	curb	curb	curb		curb			gravel	curb	
Roadway Pavement Condition	excellent	excellent	excellent	excellent		fair	fair	μουσ	good	pood	poob	good	good		poob	dood									excellent	excellent	excellent	excellent		boog			poor	excellent	
Surface	asphalt	asphalt	asphalt	asphalt		acubalt	asphalt	acnhalt	asphalt	asphalt	asphalt	asphalt	asphalt		asphalt	asphalt		gravel	gravel	gravel	gravel		asphalt		asphalt	asphalt	asphalt	asphalt		asphalt			asphalt	asphalt	
Width (ft.)	33	33	33	333		17	17	22	22	20	20	20	41-33		41-33	41		22-28	28-36	36	36				33-36	38	28	29		18			20	33	
ROW (ff.)	20	20	20	20		20	20	09	9	09	09	09	09		09	20		09	09	09	09				20	20	20	20		35			30	20	
On-Street Parking	both	poth	poth	poth		duon	none	anon	auou	none	none	both	both		both	poth		none	none	none	none				both	poth	poth	poth		both			poth	both	
Posted Speed	25	25	22	52		25	25	25	25	25	25	25	25		25	25		25	25	25	25				25	25	25	22		25			25	25	
No. of Lanes	2	2	2	7.		0	2	0		2	2	2	2		2	2		2	2	2	2				2	2	2	2		2			2	2	
Functional Class	local	local	local	local		local	local	maior collector	major collector		local	local		local	local	local	local				local	local	local	loca		local			local	local					
Juris- diction	city	city	city	city		) it	city	city				city	city		city	A)		city	city	city	city		private		city	city	city	city		city			city	city	
Approx. Segment Length (ft.)	270	320	200	155 945		110	340	480	320	315	280	310	265	1,970	365	430	795	435	360	200	235	1,230	750		530	155	255	325	007,1	440			370	635	
To	Reames Cir.	Joseph Dr.	Brittson Dr.	W. Rapp Rd. (tot.)		Fnd	End	2nd St	1st St	Front St.	John St.	Market St.	Talent Ave.	(tot.)	E. Main St.	E. Wagner St.	(tot.)	Marin Ct.	Andi Ct.	Carolyne Ct.	Deborah Dr.	(tot.)	Mtn. View Estates		End	Crimson Ct.	Lithia Way	Kamerin Sp. Dr.	(101:)	Hwy. 99			Sunny St.	Lithia Way	
From	Schoolhoue Rd.		Joseph Dr.			Wanner Butte Ave		Wanner Creek Rd			St.	John St.	Market St.		Lapree St.	E. Main St.		Talent Ave.	Marin Ct.	Andi Ct.	Ct.		W. Valley View Rd.				t.	Lithia Way		Talent Ave.			Lapree St.	Creel Rd.	
Street Name	Louis J. Ave.	Louis J. Ave.	Louis J. Ave.	Louis J. Ave.	-	Madison St	Madison St.	W Main St	W. Main St	W. Main St.	E. Main St.	E. Main St.	E. Main St.	Main St.	N. Market St.	S. Market St.	Market St.	Meadow Slope Dr.	Meadow Slope Dr.	Meadow Slope Dr.	Meadow Slope Dr.	Meadow Slope Dr.	Mountainview Dr.	Z	Nerton St.	E. Nerton St.		E. Nerton St.	L. INCITOIL OF.	New St.	0	Ь	Park St.	Pheasant Run	0

												, conspoor			Ö	Cidowollo		Dily Lough	0
			Approx.								⊢	⊢	1000		กั		47	DIVE LAI	_
Street Name	From	To T	Segment Lenath (ft.)	Juris- diction	Functional Class	No. of H	Posted U	Un-Street Parking	KOW (ft.) Wic	S Width (ft.)	Sunace P. Type C	Paverment Condition	Shoulder Type	Curbs	Location	Condition	widin (ft.) Loca	Location Condition	ion (ft.)
						-											H	H	
E. Rapp Rd.	Hwy. 99	Lithia Ave.	425	city	major collector	2	25	none	40	20 a	asphalt	pood	ditch	none	one side		both	th	
E. Rapp Rd.	Lithia Ave.	Talent Ave.	450	city	major collector	2	25	none	09	20 a	asphalt	good	ditch	none	both		both	th	
E. Rapp Rd.	Talent Ave.	Logan Way	250	city	major collector	2	25	none	40	20 a	asphalt	good	ditch	none	one side		both	th	
E. Rapp Rd.	Logan Way	Graham Way	250	city	major collector	2	25	none	40	20 a	asphalt	pood	ditch	none	one side		both	th	
E. Rapp Rd.	Graham Way	CORP RR	800	city	major collector	2	25	none	40	20 a	asphalt	poob	ditch	none	one side - partial		both - partial	h - tial	
W. Rapp Rd.	CORP RR	Rapp Ln.	855		major collector	2	25	none	40		asphalt	pood	ditch	none	none		none	ЭС	
W. Rapp Rd.	Rapp Ln.	Louis J. St.	640	city	major collector	2	25	none	40	23 a	asphalt	pood	ditch	none	none		none	ne ne	
W. Rapp Rd.	Louis J. st.	S. 2nd St.	620		major collector	2	25	none	40	23 a	asphalt	pood	ditch	none	none		none	ne ne	
W. Rapp Rd.	S. 2nd St.	Wagner Crk Rd.	750		major collector	2	25	none	40	23 a	asphalt	poob	ditch	none	none		none	ЭС	H
карр ка.		(101.)	5,040																
Reames Cir.	Louis J. Ave.	cul-de-sac	06	city	local	2	25	both	20	30 a	asphalt	excellent	curb	poth	both		none	Je	
Rockfellow Place	End	Creekside Way	130		local	2		south		28 a	asphalt	excellent	asphalt	none	none		none	ЭС	
Rockfellow Place	Creekside Way	Davidson Way	400		local	2		south		28 a	asphalt	excellent	asphalt	none	one side - partial		none	<u>е</u>	
Rockfellow Place	Davidson Way	End	125		local	2		south		28 a	asphalt	excellent	asphalt	none	none		none	ne ne	
Rockfellow Place		(tot.)	929																
Rogue River Pkwy	Talent Ave.	End	1,310	city	minor collector	2	25	both		29 a	asphalt	excellent	curb	poth	one side - partial		none	ЭС	
Roy St.	Lapree St.	Sunny St.	380	city	local	2	25	none	30	19 a	asphalt	pood	ditch	none	none		none	ЭС	
Schoolhouse Rd.	Wagner Creek Rd.	Bell Rd.	275	city	local	2	25	both	20	33 a	asphalt e	excellent	curb	both	one side		none	ne ne	
Schoolhouse Rd.	Bell Rd.	S. 2nd St.	460	city	local	2	25	both	20		_	excellent	curb	both	one side		none	Je Je	
Schoolhouse Rd.	S. 2nd St.	James St.	270	city	local	2	25	poth	20			excellent	curb	both	both		none	ле	
Schoolhouse Rd.	James St.	Louis J. Ave.	355	city	local	2	25	poth	20			excellent	curb	poth	both		none	ЭС	
Schoolhouse Rd.	Louis J. Ave.	Joseph Dr. (tot.)	7.25	city	local	7	97	poth	20	33	asphalt	excellent	curb	poth	poth		none	ЭС	+
Sherwood Court	Briarwood Dr.	Segment Ends	260	city	local	2	25	both	20	33 a	asphalt	excellent	curb	poth	both		none	Э	
Summers Place	Cul-de-sac	Winters Way	200	city	local	2		both		36 a	asphalt e	excellent	curb	both	both		none	Je	
Summers Place	Winters Way	End	170	city	local	2		both				excellent	curb	both	both		none	Je	
Summers Place	End	Jordan Ave.	140	city	local	2		poth			_	excellent	curb	poth	one side		none	Э	
Summers Place	Jordan Ave.	Lithia Ave.	009	city	local	2		poth		24 a	asphalt	excellent	curb	poth	both		none	Эе	
Summers Place		(tot.)	1,110									1							
Suncrest Rd.	Hwy. 99	Autumn Ridge Dr. W.	460	city	major collector	2	25	both	8 09	30-36 a	asphalt e	excellent	curb	both	both		both - partial	h - tial	
Suncrest Rd.	Autumn Ridge Dr. W.	Clearview Dr	510		major collector	2	25	both				excellent	curb	both	both		none	Je	
Suncrest Rd.	Clearview Dr	Autumn Ridge Dr. E.	099		major collector	2	25	poth		,0	_	excellent		both	both		none	ле	
Suncrest Rd.	Autumn Ridge Dr. E.	Willow Springs Dr. S.	230		major collector	2	25	poth	09		-t	excellent	t	one side	one side		none	Э	
Suncrest Rd.	Willow Springs Dr. S.	Willow Springs Dr. N.	450		major collector	2	25	poth	09		-	excellent	asphalt	one side	one side		none	ЭС	
Suncrest Rd.	Willow Springs Dr. N.	Interstate 5	490	city	major collector	7.	52	poth	09	Z2 a	asphalt	excellent	gravel	partial	none		none	ЭС	
Sunciest Ru.		(101.)	7,800														_		

	Width n (ft.)	_																																								
Bike Lanes	Condition	L																																								
	Location	none	none		none		none	none	none	none	none	none	both	both	both	both	both	both	both	both	both	both	both	both	both	both	both	poth	poth	none	none	allolle Inolle	none	DOILL Poth	hoth	both	none		none	none	none	
(0	Width ion (ft.)												ant	ant	ent	-	ant	ent	ent	ent	tus	sut	int	int	ent	ent	ant	int	ent	tu.	ti it	II. 1	IU.	E ta	unt	tui,		-				
Sidewalks	Condition												excellent	-	excellent	poob	excellent	excellent	excellent	excellent	excellent	excellent	excellent		excellent	excellent	excellent	excellent	excellent	excellent	excellent	excellent	excellent	excellent	avcollont	excellent		-			lal	
	Location	none	none		both		none	none	none	none	none	none	one side	one side	one side	one side	one side	one side		both	both	both	both	poth	poth	poth	100	Doth	DOILL Poth	190 A	hoth			poth	both	both - partial						
	Curbs	none	none		both		none	none	one side	one side	one side	one side	one side	both	both	poth	poth	poth	poth	poth	1000	ntoa	DOIL Poth	hoth	hoth			poth	both	both												
	Shoulder Type	gravel	gravel		asphalt		gravel	gravel	gravel	gravel	gravel	aravel	gravel	curb	curb	curb	curb	curb	curb	curb	cuin	curp	Currb	c and	quilo			asphalt	asphalt	asphalt												
Roadway	Pavement Condition	poor	poor		excellent		fair	fair	fair	fair	fair	fair	fair	fair	fair	fair	fair	fair	fair	fair	<u>a</u>	rair	lall fair	fair	Taj.			excellent	excellent	excellent												
	Surface Type	asphalt	asphalt		asphalt		asphalt	asphalt	asphalt	asphalt	asphalt	asphalt	asphalt	asphalt	asphalt	asphalt	asphalt	asphalt	asphalt	asphalt	aspillall	asphait	aspinali	aspinant	asphalt		-	asphalt	asphalt	asphalt												
	Width (ft.)	17	18		33		27	27	27	27	27	27	27	27	24/23	24/23	24/23	24/23	24/23	24/23	24/24	24/24	24/24	24/23	24/23	24/23	27	27	27	27	45	£ 6	87	22.40	32-40	36			33	28	33	
	ROW		30		50-40		09	09	09	09	09	09	09	09	09	09	09	09	09	09	19	19	19	09	09	09	09	09	09	09	09 9	90 5	09	09	8 9	9			20	75	20	
	On-Street Parking	none	none		poth		both	both	both	both	both	poth	both	poth	both	both	both	both	both	both	both	both	poth	both	both	both	poth	poth	poth	poth	poth	DOI!	Doth	Doth	Hod 4	hoth			poth	poth	both	
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# **City of Talent**

# **Transportation System Plan Update**

## **Technical Memorandum #2**

## **Appendix B:**

### **Environmental and Land Use Reconnaissance**

Prepared for

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and

Oregon Department of Transportation Region 3 3500 NW Stewart Parkway Roseburg, Oregon 97470 Prepared by

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June 2015

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Exhibit B-2. Historic Resources List

### B. ENVIRONMENTAL AND LAND USE RECONNAISSANCE

To understand the potential existing environmental and land use issues, and to help inform the conceptual alternatives development process, this memorandum identifies and reviews the existing environmental and land use conditions in the study area as defined below. The resources identified in the Environmental and Land Use Section were based on Geographic Information System (GIS) maps, previous reports, and known resource sites. The analysis is limited to "visual windshield validation." Further resources may exist in the study area that are not yet documented or are not visually apparent.

The City of Talent Transportation System Plan (TSP) will consider transportation policies and alternative actions for Talent's multi-modal transportation system.

This memorandum begins with a review of environmental and historic resources, then examines existing land use conditions, and concludes with a summary of potential constraints.

### B.1. Environmental Reconnaissance

Below is a summary of research that includes the mapped known environmental resources. The information gathered was taken primarily from published documents and maps, GIS data, and conversations with appropriate professional contacts.

### B.1.1. Goal 5 Resources

Statewide Planning Goal 5 requires local jurisdictions to inventory natural resources such as riparian corridors, wetlands, wildlife habitat, and recreation trails. These resources are shown on Figure B-1 and described below.

## Riparian Corridors

Bear Creek, which is indicated on Figure B-1, is a key riparian corridor paralleling OR 99 to the east at varying distances. Bear Creek comes closest to, and in some areas is nearly adjacent to, OR 99 on the southern portion of OR 99 in Talent. Bear Creek is designated as Essential Salmonid Habitat (ESH) by the Oregon Department of State Lands (DSL). Bear Creek supports runs of coho and Chinook salmon steelhead trout, and resident cutthroat trout. The U.S. Environmental Protection Agency lists Bear Creek as a "303(d)" stream because of flow modification, habitat modification, summer temperatures, and fecal coliform levels.

Smaller riparian corridors that may at times be broken up by development and that flow into Bear Creek include: Gore Creek (Medford/Phoenix), Coleman Creek (Phoenix), Anderson Creek (Phoenix), and Wagner Creek (Talent), which flow into Bear Creek from the west, and Myer and Butler Creeks (Talent/Ashland), which flow from the east into Bear Creek. Of these, only Wagner Creek and Coleman Creek provide aquatic habitat.

## **Wetlands**

Small areas of wetlands are found in the study area, as displayed on Figure B-1. The largest wetland, a Lacustrine wetland, is east of and adjacent to Bear Creek. Riparian and wetland vegetation identified within the study area includes Douglas fir, Siskiyou mixed evergreen forest, Pacific madrone forest/woodland, annual grasslands, and agricultural grassland.

The riparian wetlands are classified as:

- Lacustrine
- Palustrine, Aquatic
- Palustrine, Emergent
- Palustrine, Forested
- Palustrine, Scrub-Shrub
- Palustrine, Other

Due to the topography of the study area—a valley floor with a major tributary of the Rogue River flowing the length of it and numerous smaller creeks—additional wetland areas than those mapped are likely to be found in the study area.

### Wildlife Habitat

The Jackson County Goal 5 Resources Background Document (1991) identifies a Deer and Elk winter range habitat, the West Valley Unit, west of OR 99 just south of Talent in the southern end of the study area, as shown on Figure B-1. The document characterizes the habitat as follows: "The West Valley Unit supports low densities of resident deer throughout the year, with animal movement fluctuating according to weather severity. Its slope aspect, predominance of conifer and hardwoods, and limited browse species make this extended range relatively poor habitat and of least importance in comparison to other range units in the county." Bear Creek and its tributaries provide a network of linear wildlife habitat throughout the study area.

## **Recreation Trails**

The Bear Creek Greenway, which is shown in Figure B-1 and which extends from Medford to Ashland, is a linear park that also provides valuable habitat for wildlife. Ultimately, the Bear Creek Greenway Foundation intends to complete the greenway from Ashland to Central Point, and eventually to the confluence with the Rogue River near Gold Hill. The multi-use path, which follows the creek within the Bear Creek Greenway, was designated as a National Scenic Trail in 1975 and is part of the Oregon Recreational Trail system.

## B.1.2. Wildlife Crossings

The Oregon Department of Fish and Wildlife, under the Oregon Wildlife Movement Strategy and in partnership with other government agencies, produces data for wildlife linkages, which are key movement areas for wildlife, specifically across roads. The data identified the area

between Talent and Ashland along OR 99 as having a high wildlife movement threat value based off of roadkill data for that area (see Figure B-1). This area correlates with the western frontage of the West Valley Unit and may represent wildlife crossing from that West Valley Unit Wildlife Area to the Bear Creek riparian corridor.

### B.1.3. Threatened and Endangered Species

The Oregon Biodiversity Information Center (formally known as the Natural Heritage Information Center) database documents the federally listed and state listed, threatened, or endangered species. The State of Oregon and the federal government maintain separate lists of Threatened and Endangered (T & E) species. These are species whose status is such that they are at some degree of risk of becoming extinct. The ONHIC information, based on reported historic sightings, is summarized in Table B-1. Only one species, the coho salmon, is listed as a threatened species within the area.

Table B-1. ONHIC-Identified Listed Threatened or Endangered Species within the I-5/OR 99 Rogue Valley Corridor Area

		Sta	tus
Common Name	Scientific Name	Federal <sup>1</sup>	State <sup>2</sup>
Mammals			
Pallid bat	Antrozous pallidus	SOC	SV
Townsend's big-eared bat	Corynorhinus townsendii	SOC	SC
Birds			
Grasshopper sparrow	Ammodramus savannarum	No Status	SV
Reptiles/Amphibians			
Northern Pacific pond turtle	Actinemys marmorata marmorata	SOC	SC
Black salamander	Aneides flavipunctatus	No Status	SV
California mountain kingsnake	Lampropeltis zonata	SOC	SV
Fish			
Coho salmon	Oncorhynchus kisutch	LT	SV
Steelhead	Oncorhynchus mykiss	No Status	SV
Chinook salmon	Oncorhynchus tshawytscha	No Status	SV
Insect			
Franklin's bumblebee	Bombus franklini	SOC	No Status
Plant			
Southern Oregon buttercup	Ranunculus austrooreganus	No Status	С

Notes:

Under state law (ORS 496.171-496.192) the Fish and Wildlife Commission, through the Oregon Department of Fish and Wildlife (ODFW), maintains the list of native wildlife species in Oregon that have been determined to be either "threatened" or "endangered" according to criteria set forth by rule (OAR 635-100-0105). Plant listings are handled through the Oregon Department

<sup>1.</sup> SOC (Species of Concern); LT (Listed Threatened)

<sup>2.</sup> SV (Sensitive-Vulnerable); SC (Sensitive-Critical); C (Critical)

of Agriculture, while most invertebrate listings are conducted through the Oregon Natural Heritage Program.

Under federal law, the U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration (NOAA) share responsibility for implementing the federal Endangered Species Act (ESA) of 1973 (Public Law 93-205, 16 United States Code (USC) § 1531), as amended. In general, USFWS has oversight for land and freshwater species and NOAA for marine and anadromous species. In addition to information about species already listed, the USFWS Oregon Field Office maintains a list of Species of Concern.

Once it is listed as threatened or endangered, a species is afforded the full range of protections available under the ESA, including prohibitions on killing, harming or otherwise "taking" a species. In some instances, the listing of a species can be avoided by the development of Candidate Conservation Agreements that may remove threats facing the candidate species.

A species is listed under one of two categories, endangered or threatened, depending on its status and the degree of threat it faces. An "endangered species" is one that is in danger of extinction throughout all or a significant portion of its range. A "threatened species" is one that is likely to become endangered in the foreseeable future throughout all or a significant portion of its range. "Species of Concern" is an informal term under the federal listing that is not specifically defined in the federal ESA. The term commonly refers to species that are declining or appear to be in need of conservation.

Under Oregon's Sensitive Species Rule (OAR 635-100-040), a "sensitive" species classification focuses fish and wildlife management and research activities on species that need conservation attention. "Sensitive" refers to naturally reproducing fish and wildlife species, subspecies, or populations that are facing one or more threats to their populations and/or habitats. Implementation of appropriate conservation measures to address the threats may prevent them from declining to the point of qualifying for threatened or endangered status.

Sensitive species are assigned one of two subcategories. "Critical" sensitive species are imperiled with extirpation from a specific geographical area of the state because of small population sizes, habitat loss or degradation, and/or immediate threats. Critical sensitive species may decline to the point of qualifying for threatened or endangered status if conservation actions are not taken. "Vulnerable" sensitive species are facing one or more threats to their populations and/or habitats. Although not currently imperiled with extirpation from a specific geographical area of the state, vulnerable species could, however, become so with continued or increased threats to populations and/or habitats.

# B.1.4. Floodplains and Floodways

Acting through the local planning agencies, the Federal Emergency Management Agency (FEMA) regulates development within floodplains. FEMA-designated floodplains and floodways in the vicinity of the study area are displayed in Figure B-1, and generally trace Bear Creek, Myer Creek, Wagner Creek, and other small tributaries. OR 99 roughly parallels the Bear Creek floodway and its 100-year and 500-year floodplain, between Medford and Ashland. Wagner

Creek (Talent), which flow into Bear Creek from the west, and of Myer and Butler Creeks (Talent/Ashland), which flow into Bear Creek from the east.

# B.1.5. Air Quality

Under the 1990 Clean Air Act Amendments, the Rogue Valley (Jackson County, Ashland, Phoenix, Talent, Medford, Jacksonville, Central Point, White City, and Eagle Point) became a nonattainment area for particulate matter ( $PM_{10}$ ). These communities share a common airshed, known as the Medford-Ashland Air Quality Maintenance Area (AQMA). During the 1980s, particulate pollution in the Medford-Ashland AQMA reached some of the highest levels in the nation and violated the federal air quality health standards also known as the National Ambient Air Quality Standards (NAAQS).

Particulate matter (PM) is a complex mixture of extremely small particles and liquid droplets that is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health problems. The U.S. Environmental Protection Agency (EPA) monitors particles that are 10 micrometers in diameter or smaller because those are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. The EPA divides particle pollution into two categories differentiated by size, assigning them a notation of  $PM_{10}$  or  $PM_{2.5}$ :

- PM<sub>10</sub> (larger than 2.5 micrometers and smaller than 10 micrometers in diameter) are course particles, generally found near roadways and dusty industries.
- PM<sub>2.5</sub> (smaller than 2.5 micrometers in diameter) are fine particles that can form when gases that are emitted from power plants, industries, and automobiles react in the air. They are also directly emitted from sources such as forest fires. Essentially, the smaller and lighter the particle is, the longer it will stay in the air.

Medford's urban growth boundary (UGB), which includes the northern section of the study area, was established as the boundary for carbon monoxide (CO) in 1978. Carbon monoxide emissions from transportation sources are tied exclusively to tailpipe emissions and are generated from the combustion of fuel. Vehicle tailpipes emit the highest concentrations of CO when idling or traveling at low speeds. Emission rates decrease as speeds increase, reaching a minimum rate between 45 miles per hour (mph) and 50 mph, and gradually increase again as the vehicle speed surpasses 50 mph.

In the past, the Rogue Valley region exceeded the NAAQS for both CO and PM and, subsequently, became a designated non-attainment area for these pollutants. Non-attainment means that a geographic area has not consistently met the clean air levels set by the EPA through the NAAQS. Recent air quality monitoring results have demonstrated consistent compliance with NAAQS in the Rogue Valley region, as displayed in Table B-2.

With improved air quality, the Medford metropolitan area, including Talent, is today an EPA-designated maintenance area, meaning that it has had a history of non-attainment but now

consistently meets EPA standards set by NAAQS. The area encompassed by the Medford UGB was redesignated from non-attainment to attainment by the EPA in 2002, while the area within the Medford-Ashland AQMA was redesignated from non-attainment to attainment in 2005. Analysis by the Rogue Valley Metropolitan Planning Organization has found that throughout the horizon of the 2009-2034 Regional Transportation Plan (RTP) and the 2010 Metropolitan Transportation Improvement Plan (MTIP) emissions from transportation will not exceed current federal and state air quality standards.

Table B-2. Ambient Air Quality Standards and Data Summaries for the Rogue Valley Region

	Medford <sup>4</sup>	Standard Exce	edance Level <sup>4</sup>
Pollutant	(2007)	Federal NAAQS	Oregon
Carbon Monoxide (CO) – Maximum 1-hour average not to be exceeded more than once per year <sup>1</sup>	4.7 ppm	35 ppm	35 ppm
Carbon Monoxide (CO) – Maximum 8-hour average not to be exceeded more than once per year <sup>1</sup>	3.1 ppm	9 ppm	9 ppm
PM <sub>10</sub> Particulate Matter – Maximum 24-hour average <sup>2</sup>	94 μg/m <sup>3</sup>	150 μg/m <sup>3</sup>	150 μg/m <sup>3</sup>
PM <sub>2.5</sub> Particulate Matter – 3-year average of annual arithmetic mean <sup>3</sup>	9.7 μg/m <sup>3</sup>	15 μg/m <sup>3</sup>	Not Specified
PM <sub>2.5</sub> Particulate Matter – 98 <sup>th</sup> percentile of the 24- hour values determined for each year <sup>3</sup>	30 μg/m <sup>3</sup>	35 μg/m <sup>3</sup>	Not Specified

#### Notes:

- 1. Recorded at Rogue Valley Mall
- 2. Recorded at Welch Street and Jackson Drive
- 3. Recorded at Grant Avenue and Belmont Street
- $4.\;\;$  ppm (parts per million); µg/m3 (micrograms of pollutant per cubic meter of air)

Source: 2007 Oregon Air Quality Annual Report, DEQ

### B.1.6. Hazardous Materials

In January 2011, the ODOT Region 3 Hazardous Materials Group performed an assessment of the OR 99 corridor, titled *OR 99 Corridor Plan Known HazMat Sites*, to identify known sources of contamination within the study area. Sources of hazardous substances that were identified in the study area include heating oil tanks, Aboveground Storage Tanks (ASTs), Underground Storage Tanks (USTs), Hazardous Waste Generators, oil water separators, septic systems, solid waste, and suspect building materials (structures built before 1974 that may contain asbestos, lead-based paint, polychlorinated biphenyls [PCBs], and fluorescent or High Intensity Discharge Lamps).

ODOT searched through web-based databases to review the available federal and state records for identified hazardous waste sites. The federal databases include the National Priority List (NPL), Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), Resource Conservation and Recovery Act (RCRA) Generators, and Emergency Response Notification System (ERNS).

The state databases include the Environmental Cleanup Site Information System (ECSIS), the Oregon State Fire Marshal's (OSFM) Hazardous Materials Incidents, Solid Waste Landfills, Leaking Underground Storage Tanks (LUSTs), and Underground Storage Tanks (USTs). Table B-3 summarizes the databases searched and the search radii used for the study area. The complete report detailing identified hazardous waste sites categorized by site type is provided in Exhibit B-1.

These sites represent known sites near or adjacent to OR 99 in Talent. There may be other such facilities within Talent that are not identified on this list.

Table B-3. Summary of Federal and State-Listed Hazardous Waste Sites

Database Record	Search Radius	Total Sites Found
Federal NPL	Plan Area & Adjacent Properties	0
Federal CERCLIS	Plan Area & Adjacent Properties	0
Federal RCRA Generators	Plan Area & Adjacent Properties	1
Federal ERNS	Plan Area & Adjacent Properties	0
State ECSIS	Plan Area & Adjacent Properties	1
State Fire Marshall's Spills	Plan Area & Adjacent Properties	0
Oregon Permitted Landfills	Plan Area & Adjacent Properties	1
State LUSTs	Plan Area & Adjacent Properties	3
State USTs	Plan Area & Adjacent Properties	2

Source: ODOT, 2011.

### B.1.7. Visual Resources

The study area is in the southern portion of the relatively flat valley floor of the Rogue Valley. The foothills of the Cascade Range are to the east, the Siskiyous to the south, and the Coast Range to the west. East of OR 99, Interstate 5 (I-5) traverses from north to south. In between OR 99 and I-5 is Bear Creek, a creek whose flow fluctuates seasonally. The creek, located in its own small valley, is bordered by cottonwood, alder, and willow trees. An asphalt multi-use path is located alongside the creek. The creek and path are part of the Bear Creek Greenway, a linear park that extends from Medford to Ashland.

The areas between Talent and other cities are generally farm and rural uses.

# B.2. Land Use Summary (Summary of Built Environment)

This section summarizes existing land use conditions within the study area. Figure B-2 shows the zoning designations and Figure B-3 shows the Comprehensive Plan designations. The information in this section is taken primarily from published documents, maps, GIS data, city and county websites, and other Internet websites.

Within the city limits, land uses adjacent to the OR 99 corridor and near the I-5/Valley View Road interchange are automobile-oriented commercial in nature, and include Highway Commercial (CH), Interchange Commercial (CI), and Highway Central Business District (CBH)

zones. The area near Talent Avenue and Main Street in Talent's historic downtown features small-scale retail uses within the Central Business District zone (CBD). Beyond the commercial areas, the designated land uses change to residential, with the High Density Residential zone (RM-22) oriented closest to the city's downtown, and lower-density single-family residential uses, including Manufactured Homes (RS-MH), Medium Density Residential (RS-7), and Low Density Residential (RS-5) set further back or buffered by the Central Oregon & Pacific Railroad (CORP) line. In addition, there is a Light Industrial (LI) zone located southeast of downtown along the CORP rail line near Rapp Road.

Outside of the city limits but within the UGB, the area is primarily designated as Rural Residential (RR-5) for large-lot, low-density residential uses. There are also some General Commercial (GC) zoned properties adjacent to OR 99 east of downtown.

There are several districts, area plans, and overlays in Talent as well:

- The purpose of the Old Town District Design Standards is "to respect and enhance the character of Talent's original core areas while maintaining the city's traditional, rural, vernacular architectural heritage."
- The Floodway, Parks, Greenway Overlay zone is intended to protect significant resources located within its boundaries that contribute to the unique character of the community. This zone sets minimum standards applicable to new development in or adjacent to areas designated as floodplains, greenways, wetlands, and riparian areas.
- The Historical Overlay is intended to protect historical resources because they contribute to the unique character of the community. Therefore, any projects that may affect these resources must go through design review.
- A supplement to the City of Talent's Comprehensive Plan, the West Valley View Vision Master Plan aims to, among other things, create an accessible, multimodal community. The foundation of the plan is reconfiguring and aligning some of the major streets that provide an entry into Talent, such as OR 99.
- The Wagner Creek Greenway Connector Plan provides a key means, via the Wagner Creek Greenway Trail, to connect the downtown to the existing Bear Creek Trail for pedestrians and bicyclists. A portion of the Wagner Creek Greenway Trail has been constructed. The entire completed trail will be approximately 1.5 miles long and will cross OR 99 and Valley View Road.

Key sites along the highway include the Talent Work Release Center, the Southern Oregon Education Services District, and the Fire District No. 5 headquarters. The RPS Plan designates this area as a rural buffer to preserve existing zoning and protect the separate identities of the two communities.

An abundance of multiple-unit housing and manufactured dwelling parks causes Talent to have one of the lowest percentages of single-family dwellings in Jackson County, trailing only White City. In 2000, about 46 percent of homes were single-family dwellings, compared to 63 percent for the county. Talent also has a cluster of industrial uses on Rapp Road near the railroad.

## B.2.1. Community Features

Community features within or near the Corridor Plan study area are listed below and shown on Figure B-4:

- Valley Bible Fellowship, 616 S Pacific Hwy, Talent, OR 97540
- Talent Elementary School, 307 Wagner Creek Road, Talent, OR 97540
- Talent Middle School, 102 Christian Avenue, Talent, OR 97540
- Talent Community Center, 110 East Main Street, Talent, OR 97540
- Talent Police Department, 604 Talent Avenue, Talent, OR 97540

### B.2.2. Parks and Recreation Areas

Parks within the study area are shown on Figure B-4. The Bear Creek Greenway is a narrow corridor of public-owned land that follows the lush Bear Creek streambed from Ashland to Central Point. The Bear Creek Greenway is spread out over 600 acres of pristine southern Oregon landscape and will one day include a continuous 21-mile path from Oak Street in Ashland to the Seven Oaks Interchange in Central Point. The greenway runs north to south through the study area.

Other parks located within or near the corridor include:

- Whacker's Hollow/De Young Park
- Lynn Newbry Park
- Colver Rd Baseball/Softball and Soccer Field
- Library Park
- Jackson County
- Old Town Park
- Wagner Park
- Chuck Roberts Park
- Kamerin Springs Park

## B.2.3. Historic and Archaeological Resources

Under Section 106 of the National Historic Preservation Act of 1966 (Public Law 89-665), 16 USC 470-470m, and under federal regulations governing the protection of historic and cultural resources (36 Code of Federal Regulations [CFR] 800), federal agencies, and the state and local agencies to which the federal agency has delegated responsibility, are directed to avoid undertakings that adversely affect properties that are included in or are eligible for inclusion in the National Register of Historic Places (NRHP). The NRHP identifies and documents (in partnership with state, federal, and tribal preservation programs) districts, sites, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and culture. This section summarizes NRHP resources near the study area, as well as other historic, prehistoric, and cultural resources.

For the study area, the State Historic Preservation Office (SHPO) database shows historical resources listed on the NRHP and resources that are not listed on the register but that are identified as potentially eligible for inclusion on the register. The identified resources are shown on Figure B-4 and listed in Exhibit B-2. Two resources in the study area are listed on the National Register:

- Hanscom Hall, 201 Talent Ave, Talent Museum, Vernacular, Built in 1855.
- Talent Elementary School, 307 Wagner Creek Road

Jessica Bochart, ODOT's Rogue Valley Office Archaeologist, was contacted to identify recorded archaeological locations within the study area. No recorded archaeological resources were identified; however, only limited archaeological surveys have been conducted for the area.

There may be historical and archaeological resources in the study area in areas that have not been surveyed or for structures that have not been reviewed and identified as eligible and entered into the SHPO database. Historical and cultural resources surveys by professionals should be conducted during the development of specific transportation improvement projects to ensure that there are no impacts to protected resources.

### B.2.4. Section 6(f) Resources

The Land and Water Conservation Fund (LWCF) Act of 1965 established grants-in-aid funding to assist states in the planning, acquisition, and development of outdoor recreational land and water areas and facilities. Section 6(f) of the LWCF Act prohibits the conversion of property acquired or developed with the assistance of the fund to anything other than public outdoor recreation use without the approval of the Secretary of the U.S. Department of the Interior. Transportation projects that propose impacts to outdoor recreation property that was acquired or developed with LWCF Act grant assistance would to provide replacement lands of equal value, location, and usefulness as conditions to approval of land conversions.

Section 6(f) resources within the study area include:

- Talent Park, Potable Water System City of Talent
- South Talent Park Acquisition City of Talent
- Chuck Robert's Park Courts Rehab City of Talent

#### Attachments:

Figure B-1. Natural Resources

Figure B-2. Zoning Designations

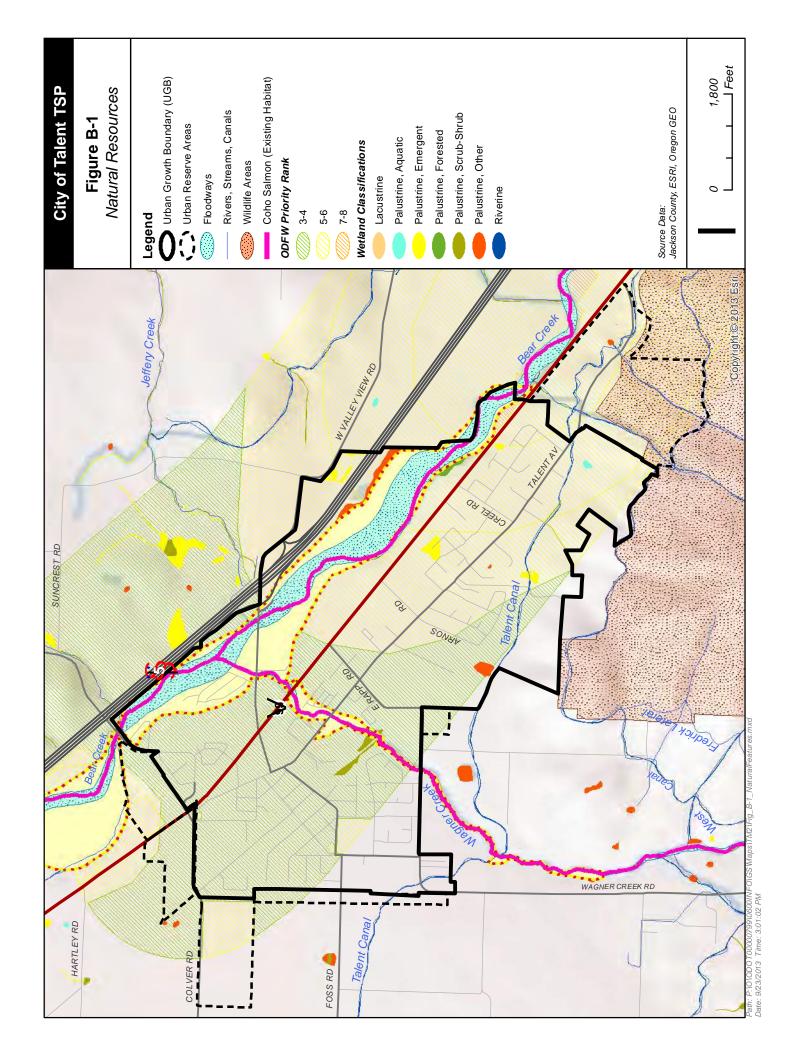
Figure B-3. Comprehensive Plan Designations

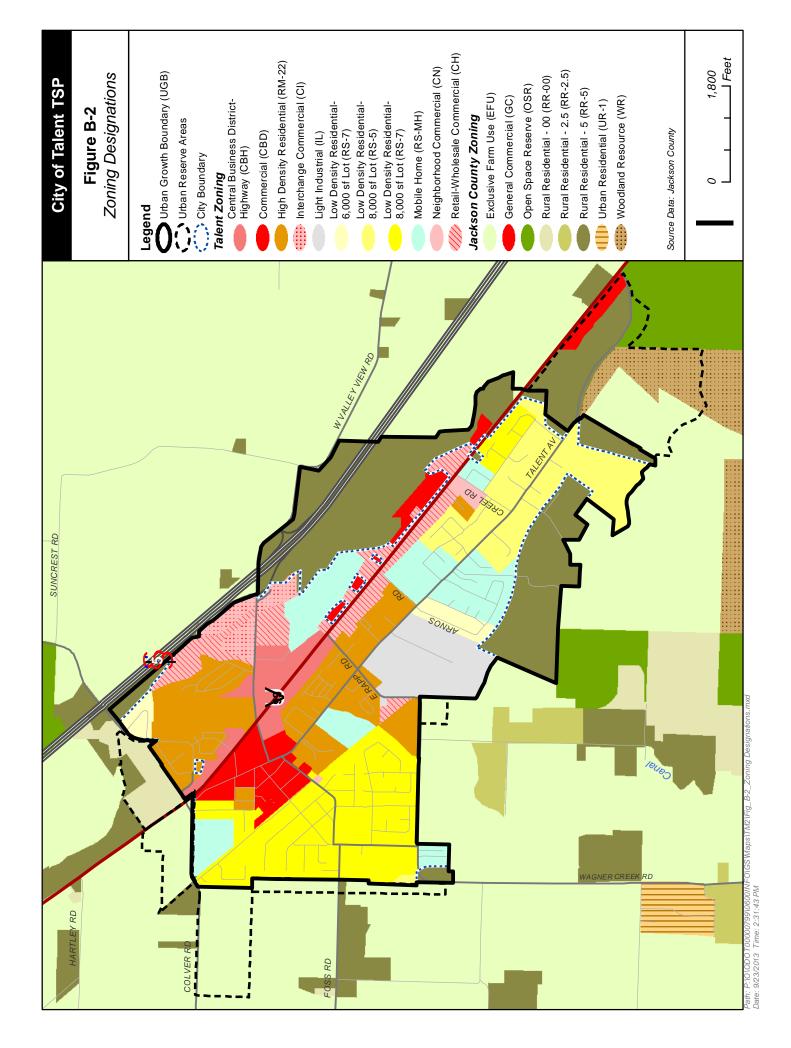
Figure B-4. Community Features

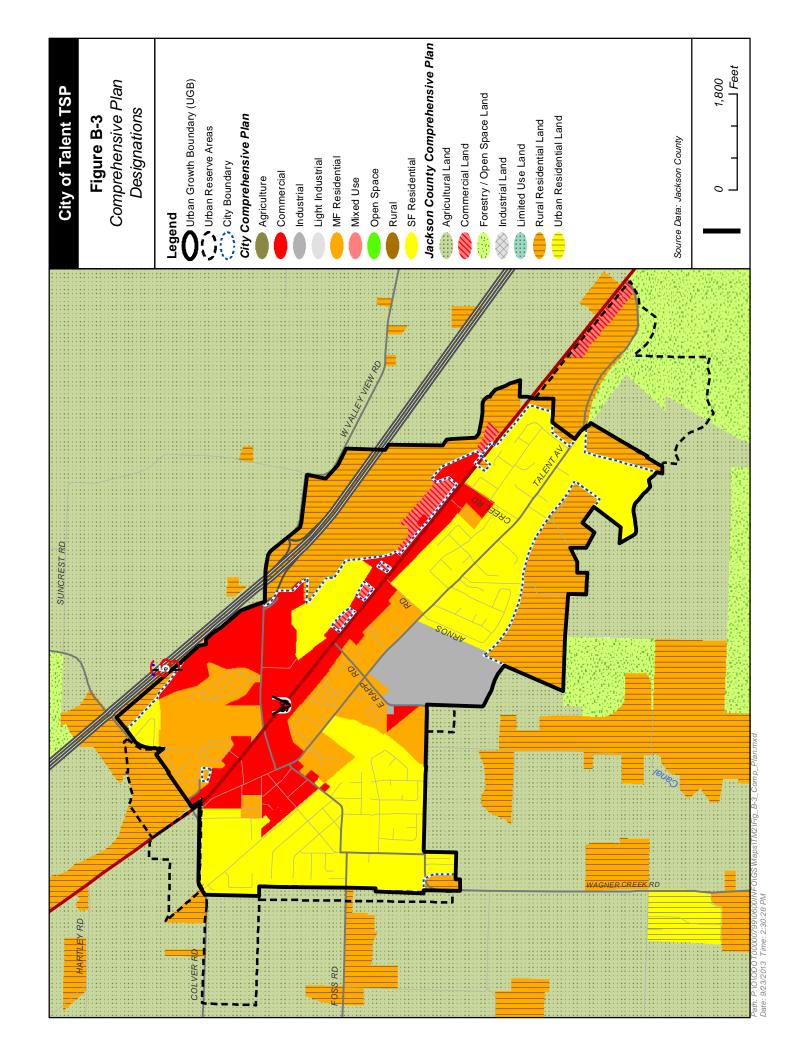
Figure B-5. Tax Lot Maps

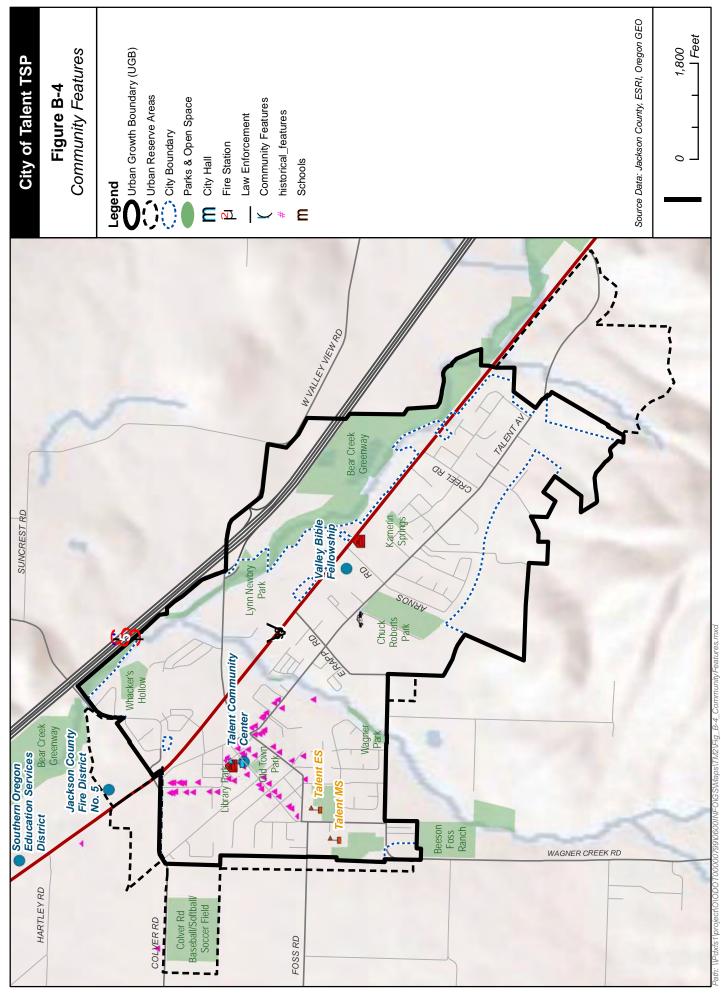
Exhibit B-1. Hazmat Report

Exhibit B-2. Historic Resources List

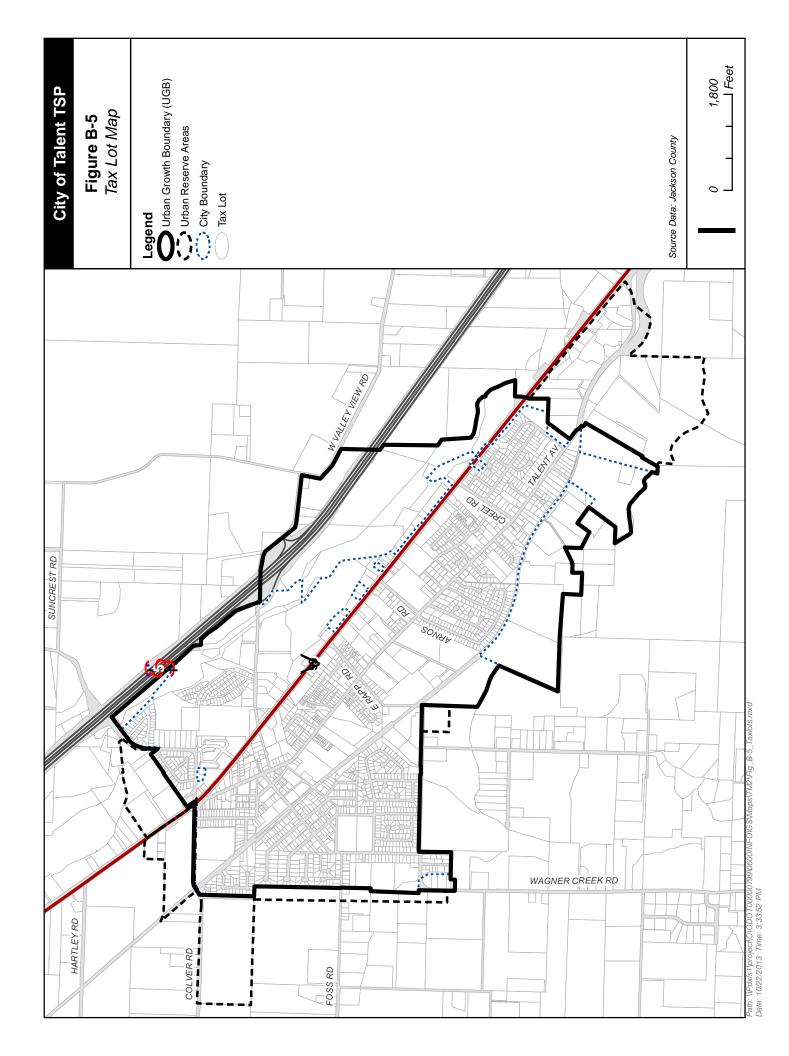








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# OR:99 CORRIDOR PLAN ASSESSMENT

Jackson County

# GEO/ENVIRONMENTAL UNIT

TECHNICAL SERVICES

OREGON DEPARTMENT OF TRANSPORTATION



HAZARDOUS MATERIALS GROUP

# OR 99 Corridor Plan Known HazMat Sites

OR 99; between MP 8.57-17.02 Rogue Valley, Oregon

January 18th 2011

Oregon Department of Transportation

Region 3 Geo/Environmental Section Hazardous Materials Group 3500 Stewart Parkway. Roseburg, Orogon 97470

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# Appendices

Appendix A Maps
Appendix B. Environmental Data Base Report Summaries

#### Introduction

This list of known Hazardous Material (HazMat) sites was constructed by the Oregon Department of Transportation (ODOT) Region 3 Hazardous Materials Group, and is for the:

### OR 99: Corridor Study's Land Use & Environmental Reconnaissance Report

This list is intended primarily as an approach to identifying known hazardous material sites within the OR 99: Rogue Valley Corridor Study Plan Area.

#### 1.1 Purpose

The purpose of this report is to identify any known sources of hazardous materials within the Plan Area. Such hazardous material sites within the Plan Area could affect worker safety, property value, and project costs.

### (2 Project Site Lucation

The Project Corridor is located along OR 99 between Mile Points (MP) 8.57 and 17.02. The Plan Area extends 1320 feet (1/4 mile) from centerline on each side of OR 99. A project site location map is attached in Appendix A.

#### 1.3 Potential Sources of Hazardous Substances

The table below summarizes potential sources of hazardous substances identified at the project site. Potential sources identified are discussed in detail below:

Tuble 1: Potential Sources of Hazardous Substances

Heating oil tanks	Y
Aboveground Storage Tanks (ASTs)	Y
USTs, fill and vent pipes, fuel dispensers	Y
Other hazardous substance containers	N
Hazardous waste generation	Y
Oil water separators, dry wells or floor/storm drains	Y
Septic systems	Y
Stains or odors	N
Stressed vegetation	N
Solid waste	Y
Suspect asbestos-containing materials	Y
Suspect lead-based paint	Y
Potential PCB-containing equipment	Y
Florescent or high intensity discharge (HID) lamps	Y
Treated timbers	N
Water wells or monitoring wells	Y

Aboveground Storage Tanks/ Heating Oil Tanks

The DEQ Facility Profiler indicates that Heating oil tanks have been present within the Corridor Study area.

Underground Storage Tanks, Pipes and Fuel Dispensers

The DEQ Facility Profiler indicates that Underground Storage Tanks are located within the Corridor Study area.

#### Hazardous Waste Generation

The DEQ Facility Profiler indicates that Hazardous Waste Generators are located within the Corridor Study area.

Oil-Water Separators, Water Wells, Monitoring Wells

It should be assumed that Oil Water separators. Water Wells, or Monitoring Wells may be located with in the Corridor Study area.

Suspect Building Materials

Structures built prior to 1974 may contain Asbestos, lead Based Paint, PCBs, and Florescent or High Intensity Discharge Lamps.

#### Environmental Records

ODOT reviewed available federal and State records for identified hazardous waste sites using the web-based databases. The databases searched and the search radii used are listed in the table below. Search radii were based on the Plan Area.

Table 2: Environmental Records Listings

Database Record	Search Radius	Total Sites Found
Federal NPL	Plan Area & Adj. Properties	0
Federal CERCLIS	Plan Area & Adj. Properties	0
Federal RCRA Generators	Plan Area & Adj. Properties	15
Federal ERNS	Plan Area & Adj. Properties	1
State ECSI	Plan Area & Adj. Properties	6
State Fire Marshal's Spills	Plan Area & Adj. Properties	1
Oregon Permitted Landfills	Plan Area & Adj, Properties	1
State LUSTs	Plan Area & Adj, Properties	18
State Listed USTs	Plan Area & Adj. Properties	8

#### 1.4 Federal Databases

### 1.4.1 National Priority List (NPL)

NPL sites (also known as Superfund sites) are sites that present long-term threats to public safety and have been determined by the U.S. Environmental Protection Agency (EPA). No NPL sites are listed within I mile of the Plan Area.

# 1.4.2 Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)

CERCLIS is the official repository for federal-listed sites not included in the NPL. No CERCLIS sites are listed within the Plan Area.

### 1,4.3 Resource Conservation and Recovery Act (RCRA) Generators

RCRA generators are facilities that generate or store a defined amount of hazardous waste in any one calendar month and are subject to regulatory control. There are 14 RCRA generators located within the Plan Area, as listed below. Report summaries are attached in Appendix B.

Table 3: DEO Facility Profiler RCRA Generators

Legend ID#	Site Name and Location	EPA Number	Generator Status
2	Skinner Buidt Cadillac Inc. 2177 S Pacific Hwy; Medford	ORD982659450	CEG
3	Lumber Yard 2399 S Pacific Hwy; Medford	ORD027682772	CEG
4	Bear Creek Operations Inc 2518 S Pacific Hwy: Medford	ORD007908429	CEG
б	Commercial Documentation Services Inc. 2603 S Pacific Hwy; Medford	OR000000976	sqg
7	Commercial Printing Company 2661 S Pacific Hwy: Medford	ORD987196706	SQG
9	Tucker Sno-Cat Corp. 2872 S Pacific Hwy.; Medford	ORD009050600	CEG
11	Modoc Orchard Co. 3050 S Pacific Hwy: Medford	ORD987179845	SQG
13	17 Stage Rd Medford	ORQ000026416	CEG
18	DSU Peterbilt & GMC Truck. 5727 N Phoenix Rd Medford	ORD987185105	CEG
27	Berry's Auto Body 4594 S Pacific Hwy, Phoenia	ORD107962938	CEG
28	Summit Forrest Inc. 5065 S Pacific Hwy; Phoenix	ORQ000021634	CEG
37	Wal-Mart Stores, Inc. 300 W Valley View Rd. Talent	ORD987202355	sog
4)	Butler Ford INC 1977 HWY 99N Ashland	ORD06585114	CEG
42	Town & Country Chevrolet Oldsmobile 2045 Hwy 99N Ashland	ORD027597012	CEG

CEO - Conditionally Exempt Generality SQG - Small Quentity Generality

## 1.4.4 Emergency Response Notification System (ERNS)

ERNS data includes all releases or potential releases reported to the National Response Center which acts as a reporting center for the EPA and U.S. Coast Guard. ERNS list I incident within the plan area, as shown below. Report summaries are attached in appendix B.

Table 4: ERNS Incident Locations

Incident Location	Incident Report#	Released Material/Quantity
I-5 Southbound between exits 27 and 30	268257	Diesel / 150 gallons

#### 1.5 State Databases

### 1.5.1 Environmental Cleanup Site Information System (ECSIS)

The Oregon Department of Environmental Quality (DEQ) ECSIS database contains approximately 2800 sites in Oregon that may be contaminated and require cleanup. The list includes sites on the Confirmed Release List (CRL) and the CRL Inventory. There are 6 ECSIS sites within or adjacent to the Plan Area; these sites are listed below. Report summaries are attached in Appendix B.

Table 5: DEQ ECSIS Sites

Legend ID#	Site Name and Address	Operation ID	Status
1	Hays Oil Plant Card lock 1890 S Pacific Hwy: Medford	2080	Suspect Site Requiring Further Investigation
8.	Inibbard's Aca Home CTR 2655 S Pacific Hwy; Medford	1233	Suspect Site Requiring Further investigation
25	Pete's Automatic Transmission 4586 S Pacific Hwy, Phoenix	336	Suspect Site Requiring Further Investigation
26	Lindvig Machine Shop 4612 S Pacific Hwy, Phoenix	2286	Suspect Site Requiring Further Investigation
39	Green's Wrecking Yard 1007 S Pacific Hwy; Talent	4289	No Further Action Required
15	Glenwood Business Park former MGP 117 W. Glenwood Rd, Procesix	4333	No Further Action Required

### 1.5.2 Oregon State Fire Marshal's (OSFM) Hazardous Materials Incidents

The OSFM hazardous substance incident database includes all hazardous material emergency incidents which Fire Marshal Hazardous Materials Response Teams have responded to. The OSFM database included 1 incident within the plan area; many are of no concern and are not considered Hazardous Material sites. Report summaries are attached in appendix B

Table 6: OSFM Incidents

Legend ID#	Incident Location	OSFM ID#	Release Description
	5085 S Pacific Hwy; Phomix	20227	Hose line from elevated diesel tank had cut and valve was open. Discovered during suppression of structure fire. Adjacent to tank. Estimated loss of 400 gallons of diesel.

	Estimated loss of 400 gallans of diesel.
--	--

#### 1.5.3 Solid Waste Landfills

The Oregon Landfills list includes all solid waste facilities permitted by the DEQ. There is one permitted landfill within or adjacent to the Plan Area, which is listed below. A Report summary is attached in Appendix B.

Table 7: Solid Waste Landfill Locations

Legend ID#	Facility Name and Location	DEQ D#	Permit Type/ Facility Status
32	Associated Fruit Co. 2518 S Pacific Hwy: Talent	111985	Compost Geoeral/Terminated

### 1.5.4 Leaking Underground Storage Tanks (LUSTs)

DEQ maintains the list of LUST (leaking underground storage tank) facilities, which includes known sites where leaks in buried tanks have been reported. DEQ Facility Profiler lists 18 LUST sites within or adjacent to the Plan Area. These sites are listed below and report summaries are attached in Appendix B.

Table 8: DEQ Listed LUST Sites

Legend ID#	Site Name and Location	DEQ Program ID	Regulatory Statu	
æ	Lumber Yard 2399 S Pacific Hwy; Medford	15-90-0171	Cleanup Complete	
4	Bear Creek Operations Inc.	15-89-0024	Cleanup Complete	
.,	2518 S Pacific Hwy; Medford	15-93-0123	Cleanup Complete	
iŌ	Colvin Oil Company 20 S'Stage Rd Medford	15-97-0031 15-99-0077 15-99-0078	Cleanup Started Cleanup Completed Reported	
14	Western Oil & Burner of Medford 5 S. Stage Rd. Medford	15-98-0088	Cleanup Started	
16	Boylan, William 3628 S Pacific Hwy; Medford	15-95-0028	Cleanup Started	
17	Roth Property ic Pacific Hwy, Medford	15-02-0008	Cleanup Started	
20	Phoenix High School 745 N Rose St. Phoenix	15-89-0033	Cleanup Completed	
21	BI-Mor Stations, Inc. #2 608 N Main St; Phoenix	15-98-0082	Cleanup Started	
22	Phoenix Elementary School (HOT) 215 N Rose Phoenix	15-95-0025	Cleanup Started	
.23	Valley of the Rouge Bank. 48th & Main Phoenix	15-91-0089	Cleanup Completed	
24	Oregon Roof Saver 3629 S pacific Hwy, Phoenix	15-92-0023	Cleanup Completed	
29	US West Communications Inc. 5143 S Pacific Hwy; Phoenix	15-96-0059	Cleanup Complete	
31	Yates, Dean 5800 S Pacific Hwy; Phoenix	15-93-0105	Cleanip Started	

Legend ID#	Site Name and Location	DEQ Program ID	Regulatory Status
33	Talent Gas 4 Less 21 Talent Ave, Talent	15-93-0043 15-91-0013	Cleanup Completed Cleanup Completed
35	Talent Main St. Market 102 Talent Ave, Talent	15-92-0067	Cleanup Completed
38	Stark Jerry 200 Talem Ave, Talem	15-93-0072	Cleanup Started
40	Rogue Valley Station 461 Valley view d Ashland	15-90-0144	Cleanup Completed
41	Butler Ford INC 1977 HWY 99 N Ashland	15-88-0013	Cleanop Completed

### 1.5.5 Underground Storage Tauks (USTs)

DEQ maintains the list of certified USTs (underground storage tanks), which includes known sites where baried tanks exist or have existed in the past. The DEQ database is never complete since many tanks were installed prior to record keeping and their locations remain unknown. DEQ Facility Profiler lists seven 8 DST sites within or adjacent to the Plan Area; as listed below. Report summaries are attached in Appendix B.

Table 9: DEQ Listed UST Sites

Legend ID#	Facility Name and Address	DEQ Facility ID	Content, Capacity and Status
12	Arco AM/PM 3082 Samike Dr. Medford	5541	12,000 gal, Gasoline, Active 20,000 gal, Gasoline, Active 10,000 gal, Gasoline, Active
18	Phoenix Exxon #9290 800 Main St.; Phoenix	2430	i 5,000 gal, Gasoline, Active i 0,000 gal, Gasoline, Active i 0,000 gal, Gasoline, Active
21	Bl-Mor Stations, Inc. #2 608 N Main St.; Phoenix	3409	8,000 gal, Gasoline, Active 8,000 gal, Gasoline, Active 8,000 gal, Gasoline, Active
29	US West Communications, INC 5143 S. Pacific Hwy , phoenix	6035	1000 gal, Diesel Active
30	Jackson County DPW Phoenix Telent Shop 5595 S Pacific Hwy; Phoenix	8564	5,000 gal, Diesel, Active 2,500 gal, Gasoline, Active
33	Talent Gas 4 Less 21 Talent Ave, Talent	4234	15,000 gal, Gasoline Active 8,000 gal, Diesel Active 8,000 gal, Gasoline Active
36	Arco Products Co FAC 5959 301 Valley View Rd W Talent	11421	10,000 gat, Gasoline Active 10,000 gat, Gasoline Active 10,000gat, Gasoline Active 10,000 gat, Diesel Active
40	Rogue Valley Station 461 Valley View Rd Ashland	1372	3,000 gal, Diesel Active 7,500 gal Gasoline Active 7,500 gal, Gasoline Active

#### 1.6 Limitations

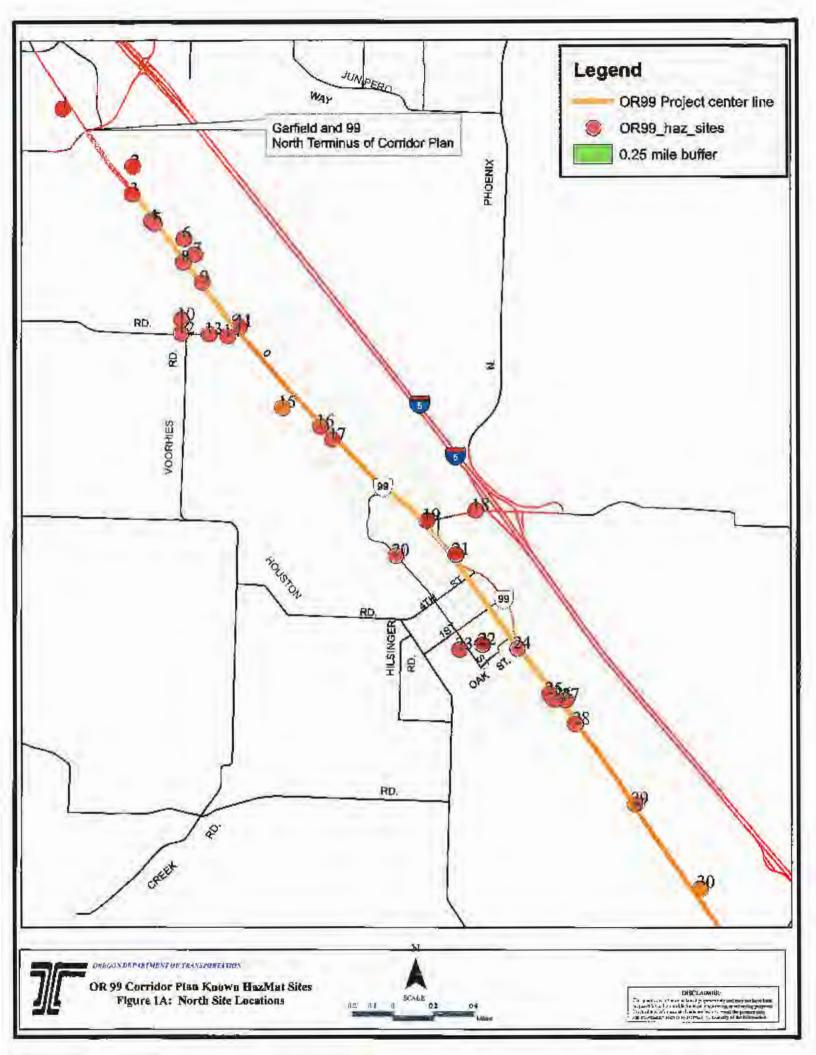
This assessment is for internal ODOT use only and may not be relied upon by any other entity without the written permission of an authorized ODOT representative. This report is presented as current at the time of publication; it does not warranty against changes in land use or environmental conditions subsequent to its publication.

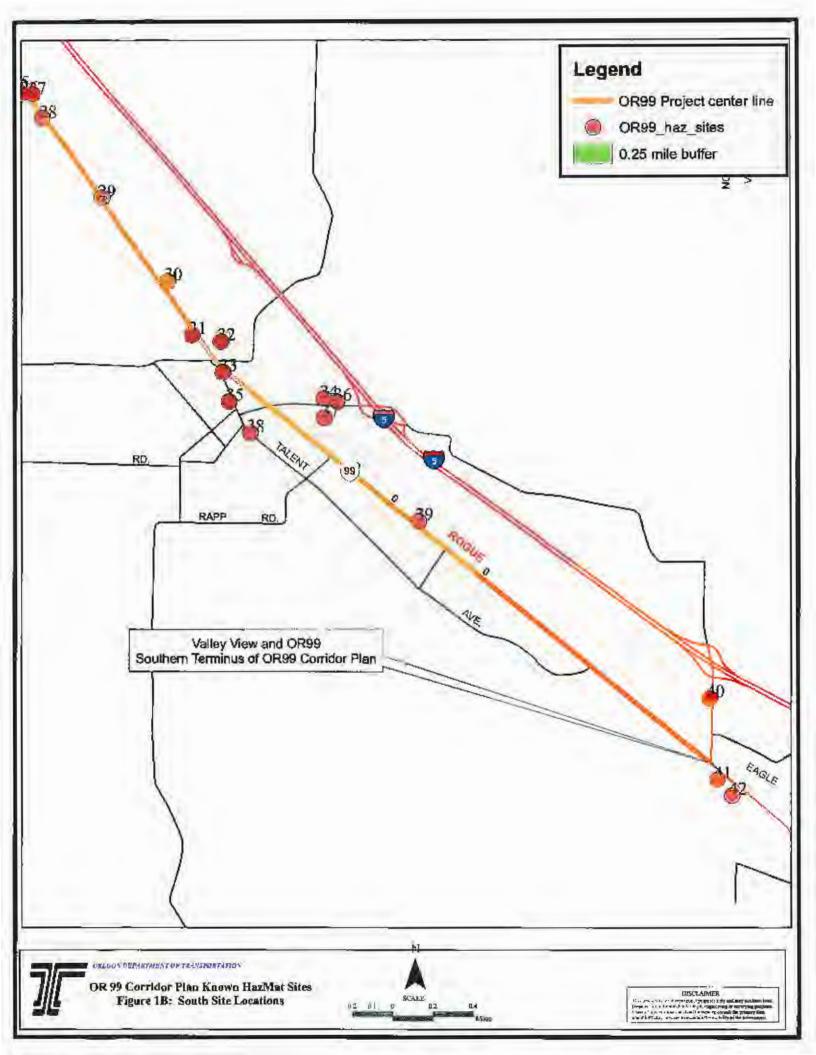
# Signatures

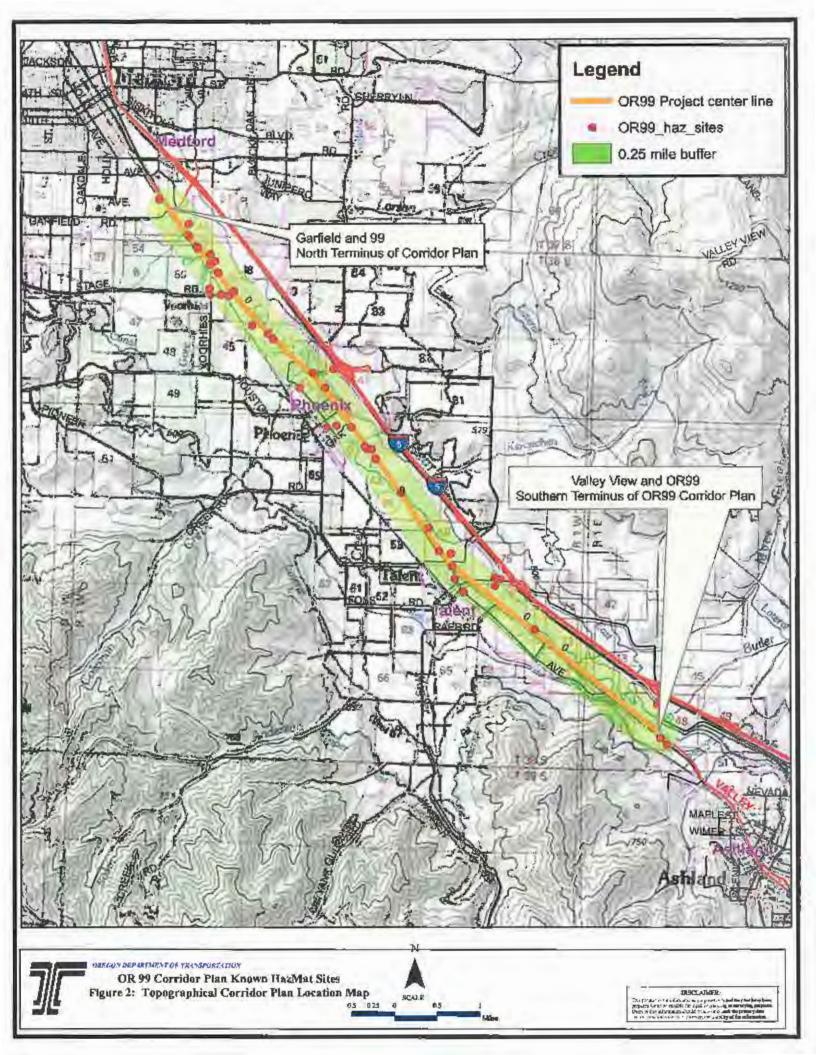
Report preparation conducted	by Kenny Camp.
Signature ()	Date
Technical review conducted by	y Nicholas Harris.
Night Horos	1/2// 1/ Date
Signature	Date
Corporate review conducted by	y Daniel Raker, R.G.
Daniel Rake	1/21/11
Signature	Date

Registered Geologist Stamp:

Appendix A Maps







# Аррепсіх В

# Database Report Summaries

Not included in this Appendix. Reference the OR 99 Rogue Valley.

Corridor Plan Volume 2 for Database Report Summaries.

Talent TSP Update Historical Resources

Property Name	Address		Construction Date	Eligibilty Evaluation	National Register status	Primary Original Use	Primary Style
Alford, Albert & Katherine, House	200 Main St W	Talent	1911 EC	EC	)	Single Dwelling	Craftsman
Bahr-Brown House	202 Main St E	Talent	1902	1902 EC		Single Dwelling	Vernacular
Barclay-Wolters House	110 Wagner St E	Talent	1894	1894 EC		Single Dwelling	Vernacular
Barrett, Jonas & Minnie, House	234 Gibson St	Talent	1912	1912 EC		Single Dwelling	Bungalow (Type)
Bates Service Station	200 Talent Ave	Talent	1930	1930 EC		Sepcility Store	Vernacular
Bell, T J "Jeff", House	231 Gibson St	Talent	1914	1914 EC		Single Dwelling	Bungalow (Type)
Bell, Thomas Jefferson, House	104 S I St	Talent	1897	1897 EC		Single Dwelling	Vernacular
Burgan-Wells House	227 Talent Ave	Talent	1895	1895 EC		Single Dwelling	Vernacular
Burnett-Davidson House	209 Gibson St	Talent	1912	1912 EC		Single Dwelling	Craftsman
Campbell, James W, Rental #1	232 Gibson St	Talent	1913	1913 EC		Single Dwelling	Bungalow (Type)
Campbell, James W, Rental #2	230 Gibson St	Talent	1913	1913 EC		Single Dwelling	Bungalow (Type)
Carey-Alford House	104 Main St W	Talent	1910	1910 EC		Single Dwelling	Craftsman
Carl, Marcus & Margaret, House	206 Talent Ave	Talent	1894	1894 EC		Single Dwelling	Vernacular
Centers, Elizabeth & F M, House	236 Talent Ave	Talent	1915	1915 EC		Single Dwelling	Vernacular
Christian Church	207 Wagner St	Talent	1912	1912 EC		Religious Facility	Vernacular
Church & Brethern Cemetery	S Hwy 99	Talent	1888	1888 EC		Cemetary	
Church & Brethern Cemetery	S Hwy 99The cemetery is located along Highway 99 in the city of Talent, Jackson County, OR. The cemetery is on the left side of Highway 99. The cemetery and it's sign can't be seen from the highway. From Talent, take Highway 99 north. Go approximately 2 tenths of a mile past the Colver Rd - Highway 99 intersection. Turn left into the driveway at #5800 Highway 99, a business without a sign. To the right side of the property, follow the little dirt road. The cemetery is behind the large shop building. The Business at #5800 Highway 99 is right across the highway from the new Talent fire department	Talent	1888	888 BEC			
Clark-Havman House	205 Main St W	Talent	1935	1935 EC		Single Dwelling	Rustic
Clayton House	109 Wagner St W	Talent	1922	1922 EC		unknown	vernacular
Cochran, Edith, Building	114 Talent Ave	Talent	1925	1925 EC		Restaurant	Commerical
Crosby, W R, House	216 Gibson St	Talent	1914	1914 EC		Sinale Dwellina	Craftsman
Dickey, Anna, House	209 Main St E	Talent	1940	1940 EC		Single Dwelling	Vernacular
End Gable Cottage #1	303 Main St W	Talent	1940	1940 EC		Single Dwelling	Bungalow (Type)
End Gable Cottage #2	305 Main St W	Talent	1942	1942 EC		Single Dwelling	Bungalow (Type)
Estes, Charles & Martha, House		Talent	1930	1930 EC		Single Dwelling	Bungalow (Type)
Gedlick-Kirkpatrick House	205 Main St E	Talent	1935	1935 EC		Single Dwelling	Bungalow (Type)
Hanscom Hall	201 Talent Ave	Talent	1906	1906 ES	NRI	Musuem	Vernacular
Hart, Benjamin & Ethel, House	102 Main St W	Talent	1940	1940 EC		Single Dwelling	Bungalow (Type)

Talent TSP Update Historical Resources

Property Name	Address		Construction Date Eligibility Evaluation	National Register status	Primary Original Use	Primary Style
Hartley-Rush House	219 Talent Ave	Talent	1920 EC		Single Dwelling	Vernacular
Hazen, Clarence A, House	223 Gibson St	Talent	1912 EC		Single Dwelling	Bungalow (Type)
Helms-Hanson House	109 John St	Talent	1896 EC		Single Dwelling	Vernacular
Hill-Stearns Building	106 Talent Ave	Talent	1923 EC		Department Store	Commerical
Jones, Robert H, House	238 Gibson St	Talent	1911 EC		Single Dwelling	Bungalow (Type)
Malmgren Garage	111 Talent Ave	Talent	1925 EC		Sepcility Store	Vernacular
Manning-Nyswaner House	207 Talent Ave	Talent	1906 EC		Single Dwelling	Vernacular
McMahan-Foxall House	226 Talent Ave	Talent	1909 EC		Single Dwelling	Craftsman
Netherland-Sowash House	102 Home St	Talent	1890 EC		Single Dwelling	Vernacular
Nininger-Norman House	108 I St	Talent	1909 EC		Single Dwelling	Vernacular
Nye, S A, House	5626 S Hwy 99	Talent	1915 EC		Single Dwelling	Craftsman
Nyswaner-Furrer House	105 Main St W	Talent	1914 EC		Single Dwelling	Vernacular
Oatman, F B & Nida, House	201 Madison St	Talent	1910 EC		Single Dwelling	Bungalow (Type)
Overholser, L B & P, House	240 Gibson St	Talent	1911 EC		Single Dwelling	Bungalow (Type)
Pellett-Malster House	104 Wagner St E	Talent	1910 EC		Single Dwelling	Bungalow (Type)
Reynolds, Alfred B, House	235 Gibson St	Talent	1913 EC		Single Dwelling	Bungalow (Type)
Rhodes, L M, House	213 Talent Ave	Talent	1913 EC		Single Dwelling	Bungalow (Type)
Roberts, Emma, House	233 Gibson St	Talent	1925 EC		Single Dwelling	Bungalow (Type)
Root-Ager House	0 Home St	Talent	1890 EC		Single Dwelling	Vernacular
Sleppy-Withrow House	104 N I St	Talent	1910 EC		Single Dwelling	Vernacular
Spitzer, J S, House	201 Main St W	Talent	1906 EC		Single Dwelling	Vernacular
Talent Baptist Church	303 Main St E	Talent	1871 EC		Religious Facility	Vernacular
Talent Elementary School	204 Main St E	Talent	1899 EC		School	Vernacular
Talent Hotel	101 Main St W	Talent	1910 EC		hotel	Vernacular
Way-Mitchell House	211 Gibson St	Talent	1913 EC		Single Dwelling	Vernacular
Weidner, Andreas, House	361 Main St W	Talent	1904 EC		Single Dwelling	Vernacular
Wolters Rental House	204 Talent Ave	Talent	1910 EC		Single Dwelling	Vernacular
Wolters, C W & Amanda, House	202 Talent Ave	Talent	1911 EC		Single Dwelling	Vernacular
Works, Mary E, House	215 Talent Ave	Talent	1914 EC		Single Dwelling	Craftsman
	219 Gibson St	Talent	1911 EC		Single Dwelling	Vernacular

Source: Historical Resources from the OR 99 Rogue Valley Corridor Plan.

# **City of Talent**

# **Transportation System Plan Update**

### **Technical Memorandum #2**

### **Appendix C:**

# **Socioeconomic and Environmental Justice Analysis**

Prepared for

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and

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June 2015

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- Figure C-3. Percent of Population in Poverty
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#### C. SOCIOECONOMIC AND ENVIRONMENTAL JUSTICE ANALYSIS

The Oregon Department of Transportation ensures compliance with Title VI of the Civil Rights Act of 1964; 49 CFR, part 21; and related statutes and regulations. Title VI of the 1964 Civil Rights Act states that "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations of February 11, 1994, requires agencies undertaking federal projects to identify low-income and minority populations; assess whether high and adverse human health or environmental impacts would result from the alternatives; ensure participation of low-income and minority populations in the transportation decision making process and to prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations. The Federal Highway Administration (FHWA) defines a disproportionately high and adverse impact on minority and low-income populations as one that:

- Is predominantly borne by a minority population and/or a low-income population; or
- Will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.

Projects receiving federal assistance must also evaluate impacts to the transportation disadvantaged to comply with the Age Discrimination Act of 1975, Federal-Aid Highways Act, Rehabilitation Act of 1973 and Americans with Disabilities Act of 1990. The transportation disadvantaged are those persons who, because of physical or mental disability, income status, or age, are unable to transport themselves or to purchase transportation and are, therefore, dependent upon others to obtain access to health care, employment, education, shopping, social activities, or other life-sustaining activities.

#### C.1. Data Sources and Methods

Socioeconomic data was drawn primarily from the U.S. Census Survey of 2010 and the American Community Survey (ACS) 2011, 5 year estimates. The Census provides the smallest geographical unit of data available. Although some data from the Census is available by block group (which is the smallest geographical unit available for the 2010 survey), not all data is available at the block group level. Some data applicable to this memorandum is not available at the block group thus, the census tract level is used. The census tracts and block groups in the study area contain the following areas (Figure C-1):

- Block group 1, census tract 17 generally represents the northern portion of Talent including areas of urban reserve; north of W Valley View Road and W Wagner Road.
- Block group 2, census tract 17 generally represents the western portion of Talent; west
  of the railroad tracks.

- Block group 3, census tract 17 generally represents the area east of OR 99 south of W Valley View Road and southwestern Talent.
- Block group 4, census tract 17 generally represents downtown Talent between OR 99 and the railroad tracks.

## C.2. Population and Community

The 2000 and 2010 Census data documented a 12 percent population increase for both Jackson County and for the state as a whole between 2000 and 2010, compared to a 9 percent increase for Talent (see Table C-1).

Table C-1.	Census 2000	and 2010	Population

		Total Population	
Geography	2000	2010	% Change
Oregon	3,421,399	3,831,074	12%
Jackson	181,269	203,206	12%
Talent	5,589	6,066	9%
Census Tract 17		7,322	
Block Group 1		1,251	
Block Group 2		1,701	
Block Group 3		297	
Block Group 4		2,817	

As shown in Table C-2, Jackson County (18%) and Talent (16%) have a slightly higher percentage of 65 and over residents than the state average (14%). However, Block Group 3 has significantly more people 65 and over than the surrounding area due to 55 and over residential communities. The proportion of school age residents (ages 0-17) are roughly equal between Jackson County (22%), the state (23%), Block Group 1 (20%) and Block Group 4 (25%). Block Group 2 has a slightly higher percentage (28%) while Block Group 3 has a significantly lower percentage (9%).

Table C-2. Age Distribution

	% Population	% Population	% Population	
Geography	0-17 Years	18-64 Years	65 Years and Older	Median Age
Oregon	23%	63%	14%	38
Jackson County, Oregon	22%	61%	18%	42
Talent	24%	60%	16%	38
Census Tract 17	22%	61%	17%	38
Block Group 1	20%	57%	22%	41
Block Group 2	28%	63%	9%	35
Block Group 3	8%	27%	66%	73
Block Group 4	25%	62%	13%	36

### C.3. Minorities

The U.S. Bureau of Census identifies minorities as individuals who are members of the population groups including Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and other Pacific Islander, other race, two or more races, and of Hispanic origin.

Based on U.S. Census 2010 data by block group (Table C-3), Block Group 4 has a substantially larger Hispanic population than the surrounding area and Block Group 3 has a substantially lower Hispanic population than the surrounding area. Interestingly, these Block Groups are adjacent to each other. Block Groups 1 and 2 have similar racial and ethnic profile to Jackson County. Table C-4 shows the use of English language spoken in households.

Table C-3. Race and Ethnicity, Percentage of Total Population (2010 Decennial Cenus)

Race										
Geography	White	Non-white	Black or African American	American Indian & Alaska Native	Asian	Native Hawaiian & Other Pacific Islander	Some Other Race	Two or More Races	Not Hispanic	Hispanic
Oregon	84%	16%	2%	1%	4%	0%	5%	4%	88%	12%
Jackson County	89%	11%	1%	1%	1%	0%	5%	4%	89%	11%
Census Tract 17	87%	13%	1%	1%	1%	0%	6%	4%	84%	16%
Block Group 1	87%	13%	1%	1%	1%	0%	6%	4%	91%	9%
Block Group 2	87%	13%	1%	2%	1%	0%	5%	4%	89%	11%
Block Group 3	90%	10%	1%	1%	1%	0%	3%	4%	98%	2%
Block Group 4	96%	4%	0%	0%	1%	0%	0%	3%	71%	29%

Source: DEC\_10\_SF1\_P6

Table C-4. Language Spoken at Home

Geography	English Only	Speak English less than "very well"
Oregon	85.7%	6.3%
Jackson County	91.3%	3.3%
Talent	88.5%	7.9%
Census Tract 17	88.9%	7.0%

Source: American Survey B16006

Figure C-2 utilizes the Diversity Index, based on 2012 (ESRI) data, to summarize racial and ethnic diversity in the study area. The index shows the likelihood that two persons, chosen at random from the same area, belong to different racial or ethnic groups. The index ranges from 0 (no diversity) to 100 (complete diversity). For example, the diversity score for the United States is 61, indicating that there is a 61 percent probability that two people randomly chosen from the

U.S. population would belong to different racial or ethnic groups. Due to the Hispanic Population in Block Group 4 it is more diverse than the surrounding block groups especially Block Group 3 which has a low diversity index.

### C.4. Poverty, Income, and Employment

In determining the poverty status of families and unrelated individuals, the Census Bureau used income earned in the previous 12 months (2010) and based income threshold on family size, presence and number of children, and age. Persons are in poverty status when income earned is less than the income threshold. As shown on Figure C-3 and in Table C-5, the study area has a higher percentage of people below poverty than the surrounding area and a significantly lower family income.

Table C-5. Percentage of Indiviuals Living in Poverty and Median Family Income

Geography	All Individuals	0 to 17 Years	18 to 64 Years	65 to 74 Years	Median Family Income
Oregon	15%	4%	9%	1%	61,302
Jackson County	16%	5%	10%	1%	53,751
Talent	17%	4%	11%	0%	39,354
Census Tract 17	17%	4%	8%	0%	39,354

Source: Census 2000 Summary File (SF-3).

As of August 2013, the Oregon Employment Department recorded unemployment is 2.5% percentage points lower than the rates from 2010 (12.1 %), with 9.6 percent unemployment for the county (Oregon Employment Department 2013).

The Talent-Phoenix School District tracks the socioeconomic composition of its students partly through the Free and Reduced Lunch Program. As shown in Table C-6, Free and Reduced Lunch Enrollment is higher and the number of Hispanic Students is slightly lower than the state as a whole.

Table C-6. Free and Reduced Lunch and Hispanic Students - Talent Schools

Geography	Free and Reduced Price Lunch Enrollment (2011) <sup>2</sup>	Hispanic Students (2011) <sup>3</sup>
Oregon	51%	21%
Talent Elementary School	66%	19%
Talent Middle School	62%	19%

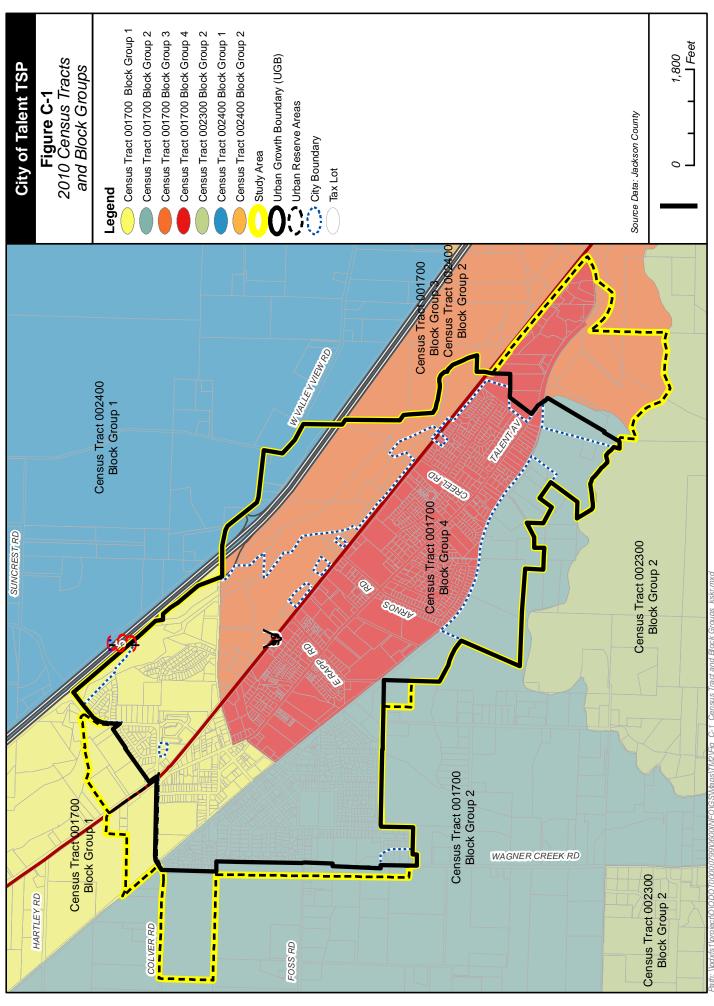
#### Attachments:

Figure C-1. Census Tract and Block Groups

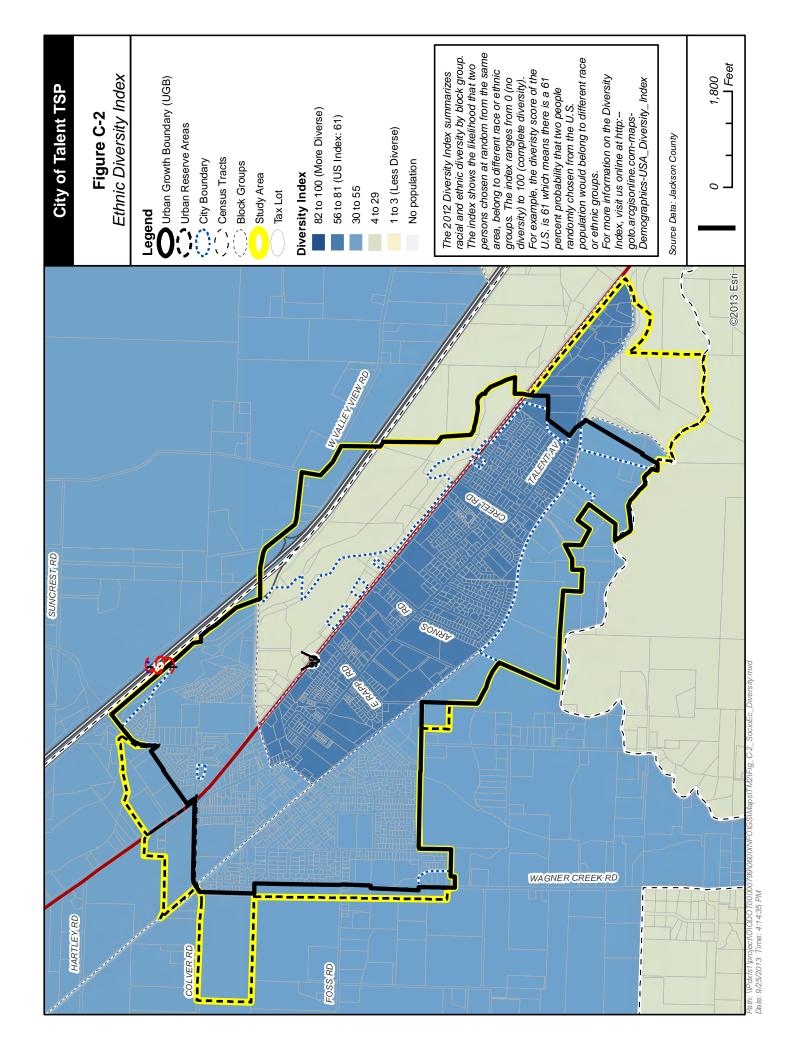
Figure C-2. Diversity Index Map

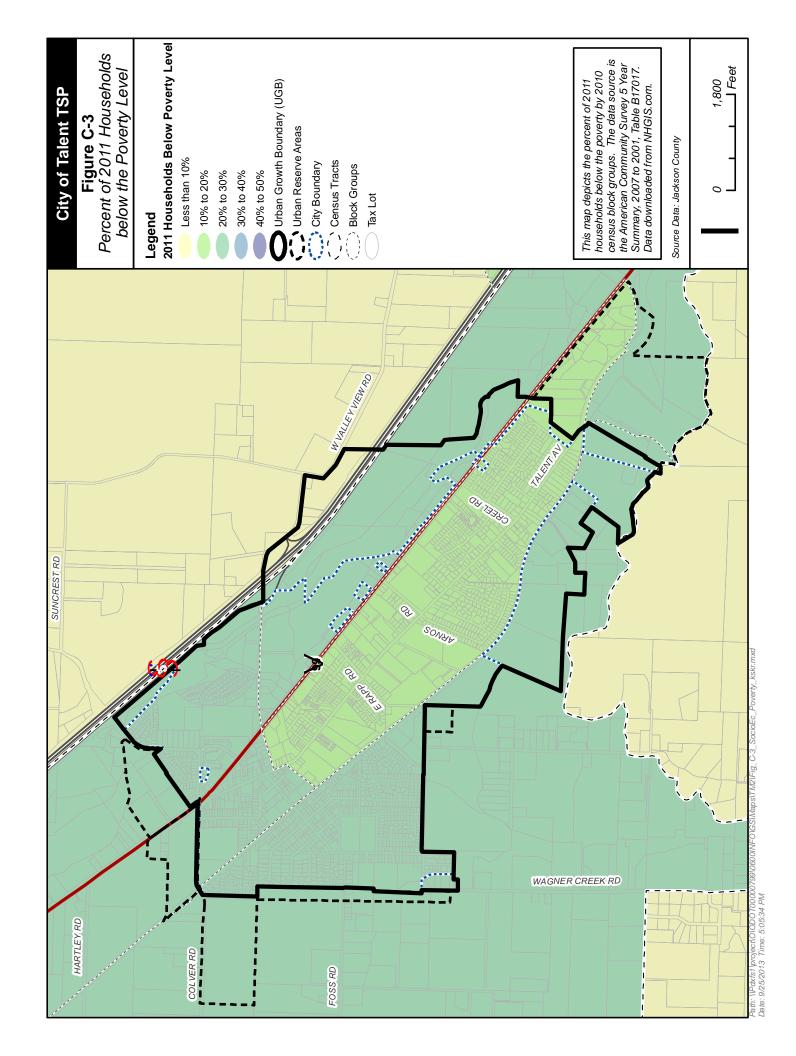
Figure C-3. Percent of Population in Poverty

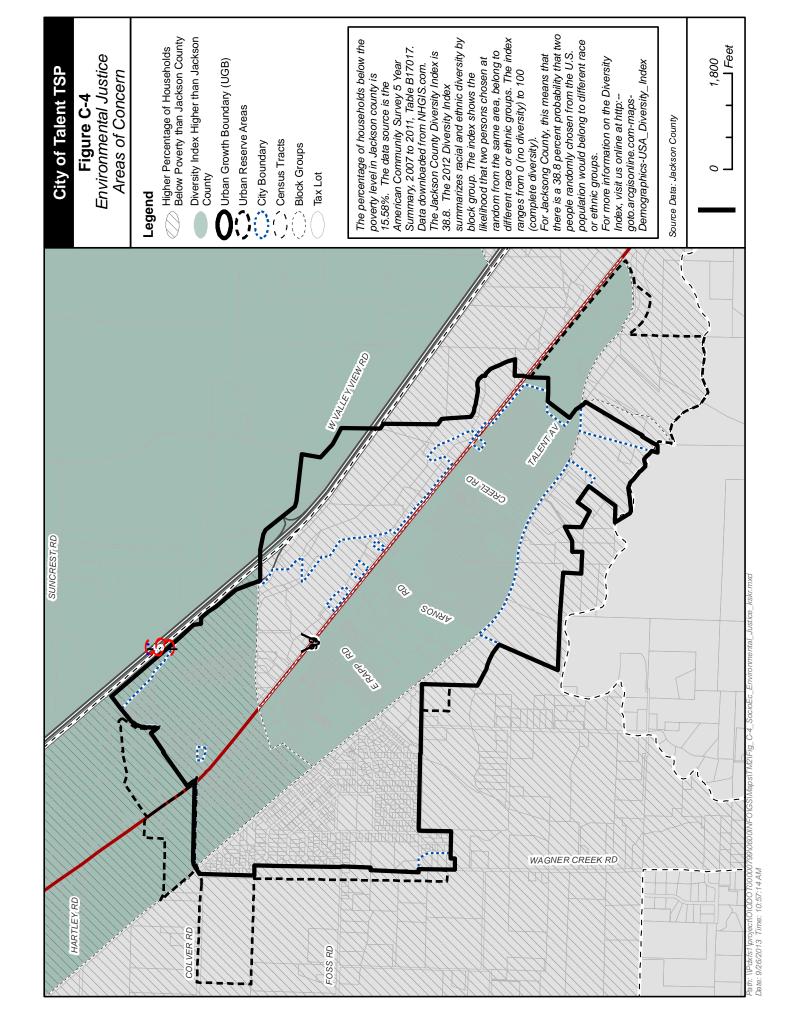
Figure C-4. Environmental Justice Areas of Concern



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# **City of Talent**

# **Transportation System Plan Update**

### **Technical Memorandum #3:**

## **Transportation System Operations**

### **Prepared for**

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June 2015



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#### 3 TRANSPORTATION SYSTEM OPERATIONS

This memorandum presents an evaluation of how the City of Talent transportation system operates under existing conditions and how it will continue to operate in the future as the City of Talent and other communities in the Rogue Valley grow over the next 25 years.

### 3.1 Existing Conditions Analysis

The assessment of traffic conditions includes development of existing traffic volumes, assessment of traffic operations, multimodal analysis, and a review of historical crash patterns.

### 3.1.1 Existing Traffic Volumes

Existing traffic volume data was assembled from turning movement traffic counts conducted at intersections throughout the city and annual data collected by ODOT on the state highway system.

### Average Daily Traffic Volumes

The average annual daily traffic (AADT) volumes for OR 99, I-5 and the Interchange 21 ramps are currently available for the year 2011. The volumes are summarized in Table 3-1.

Table 3-1. Average Annual Daily Traffic Volumes (2011)

Location Description	Volume
OR 99	
North of Suncrest Rd.	8,200 vpd
South of W. Valley View Rd.	9,100 vpd
South Talent City Limits	8,100 vpd
Talent Automatic Traffic Recorder, Sta. 15-014	8,700 vpd
I-5	
North of Interchange 21	38,900 vpd
South of Interchange 21	35,600 vpd
Interchange 21	
Northbound Off-Ramp	2,150 vpd
Northbound On-Ramp	3,540 vpd
Southbound Off-Ramp	3,580 vpd
Southbound On-Ramp	1,680 vpd

vpd = vehicles per day

Source: 2011 Transportation Volume Tables, Oregon Department of Transportation

Historic Automatic Traffic Recorder (ATR) data shows negligible growth along OR 99 in recent years. Between the years of 2006 and 2011, volumes on OR 99 through the study area reached

a high in 2007, and decreased in 2008 before a slight rise in 2009. Between 2009 and 2011 volumes have consistently decreased.

## **Turning Movement Counts**

Traffic counts for this study were compiled from available 2010 and 2012 count data. Local street and I-5 Interchange counts were collected between June and September of 2012 while OR 99 Counts were collected in July and August of 2010. Traffic counts at intersections with local streets consisted of 3-hour turning movement counts. The traffic counts at I-5 ramps and signalized intersections with OR 99 were 16-hour turning movement counts. With the exception of counts collected at Rapp Road and Wagner Creek Road, all counts included full Federal Highway Administration (FHWA) 13-class vehicle classifications. Table 3-2 below provides a list of all intersection count locations and includes the type of count.

Table 3-2. Vehicle Count Locations and Types

Location	Type of Count	Count Date
1. Colver Rd. at Front St.	3-hour PM Peak Period <sup>1</sup>	9/13/2012
2. Colver Rd. at Talent Ave.	3-hour PM Peak Period <sup>1</sup>	9/11/2012
3. Colver Rd. at OR 99 (Signalized)	16-hour <sup>2</sup>	7/15/2010
4. Main St. at Front St.	3-hour PM Peak Period <sup>1</sup>	9/10/2012
5. Main St. at Talent Ave.	3-hour PM Peak Period <sup>1</sup>	9/12/2012
6. W. Valley View Rd. at Talent Ave.	3-hour PM Peak Period <sup>1</sup>	9/19/2012
7. W. Valley View Rd. at OR 99 (Signalized)	16-hour <sup>2</sup>	7/15/2010
8. W. Valley View Rd. at I-5 SB Ramps	16-hour <sup>2</sup>	9/11/2012
9. W. Valley View Rd. at I-5 NB Ramps	16-hour <sup>2</sup>	9/11/2012
10. Wagner St. at Wagner Creek Rd.	3-hour PM Peak Period <sup>1</sup>	6/11/2012
11. Wagner St. at Front St.	3-hour PM Peak Period <sup>1</sup>	9/13/2012
12. Wagner St. at Talent Ave.	3-hour PM Peak Period <sup>1</sup>	9/13/2012
13. Foss Rd. at Wagner Creek Rd.	3-hour PM Peak Period <sup>1</sup>	9/10/2012
14. Rapp Rd. at Wagner Creek Rd.	3-hour PM Peak Period <sup>1</sup>	6/11/2012
15. Rapp Rd. at Talent Ave.	3-hour PM Peak Period <sup>1</sup>	9/10/2012
16. Rapp Rd. at OR 99 (Signalized)	16-hour <sup>2</sup>	8/10/2012
17. Creel Rd. at Talent Ave.	3-hour PM Peak Period <sup>1</sup>	9/24/2012
18. Creel Rd. at OR 99	3-hour PM Peak Period <sup>1</sup>	7/6/2010

#### Notes:

# **Design Hourly Volumes**

ODOT generally requires that transportation facilities be analyzed under design hourly volumes (DHVs), known as 30th highest hour volumes. The 30th highest hour volumes are used in traffic operations analysis so that results are valid for all but a few hours of the year. The procedure

<sup>1. 3-</sup>hour counts were collected from 3:00 to 6:00 PM and included turning movement and vehicle classification.

<sup>2. 16-</sup>hour counts were collected from 6:00 AM to 10:00 PM and included turning movement and vehicle classification.

for determining 30<sup>th</sup> highest hour volumes is specified in ODOT's Analysis Procedures Manual (APM)<sup>1</sup> and briefly described below.

The 30th highest hour traffic volumes are calculated by multiplying the peak hour volumes by a seasonal factor. The seasonal factor is determined from automatic traffic recorders (ATR), which are electronic counting sites on roadways that count vehicles continuously. It is desirable to obtain data from ATRs that either (1) are within the management area or (2) are on similar roadway types or within similar area types. The seasonal factors for OR 99 use data from an on-site ATR (Sta. 15-014) south of Creel Road. Local street seasonal factors use a seasonal commuter trend to adjust volumes according to the date of data collection. Freeway ramps at Interchange 21 use a combination of the seasonal trend factors from the local network and data from two ATRs with comparable characteristics to the mainline segment through Talent. The data used in calculating the seasonal factors is included in Appendix A (available upon request).

Peak hour count data was seasonally adjusted and volumes were balanced, where appropriate, to achieve a uniform dataset for analysis. Because negligible growth has been experienced throughout the area, an annual adjustment was not applied to the counts for the 2013 baseline year. However, the 2010 traffic counts on OR 99 were adjusted to account for the closure of the Walmart store on W. Valley View between OR 99 and the I-5 ramps. Figure 3-1 shows the existing balanced PM peak hour volumes developed for this project.

## 3.1.2 Existing Traffic Operations

Existing PM peak hour traffic operations were evaluated for the 18 study area intersections. The operational criteria, jurisdictional standards, and procedures are described below followed by a discussion of the operational findings.

# Operational Criteria

Transportation engineers have established various methods for measuring traffic operations of roadways and intersections. Most jurisdictions use either volume-to-capacity (v/c) ratio or level of service (LOS) to establish performance criteria. Both the LOS and v/c ratio concepts require consideration of factors that include traffic demand, capacity of the intersection or roadway, delay, frequency of interruptions in traffic flow, relative freedom for traffic maneuvers, driving comfort, convenience, and operating cost.

# Volume-to-Capacity (V/C) Ratio

A comparison of traffic volume demand to intersection capacity is one method of evaluating how well an intersection is operating. This comparison is presented as a v/c ratio. A v/c ratio of less than 1.00 indicates that the volume is less than capacity. When it is closer to 0, traffic

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<sup>&</sup>lt;sup>1</sup> Analysis Procedures Manual, Oregon Department of Transportation, Transportation Development Division Planning Section, Transportation Planning and Analysis Unit, Salem, Oregon, April, 2006, Section 4.3.

conditions are generally good, with little congestion and low delays for most intersection movements. As the v/c ratio approaches 1.00, traffic becomes more congested and unstable, with longer delays.

## Level of Service (LOS)

Level of service is also a widely recognized and accepted measure and descriptor of traffic operations. At both stop-controlled and signalized intersections, LOS is a function of control delay, which includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Six standards have been established, ranging from LOS A, where there is little or no delay, to LOS F, where there is delay of more than 50 seconds at unsignalized intersections, or more than 80 seconds at signalized intersections.

It should be noted that, although delays can sometimes be long for some movements at a STOP-controlled intersection, the v/c ratio may indicate that there is adequate capacity to process the demand for that movement. Similarly at signalized intersections, some movements, particularly side street approaches or left turns onto side streets, may experience longer delays because they receive only a small portion of the green time during a signal cycle, but their v/c ratio may be relatively low. For these reasons, it is important to examine both v/c ratio and LOS when evaluating overall intersection operations. Both are reported in the following section.

## **Operational Standards**

The Oregon Highway Plan (OHP) has established several policies that enforce general objectives and approaches for maintaining highway mobility. Of these policies, the Highway Mobility Standards (Policy 1F) establish maximum v/c ratio targets for peak hour operating conditions for all highways in Oregon based on the location and classification of the highway segment being examined. The OHP policy also specifies that the v/c ratio targets be maintained for ODOT facilities through a 20-year horizon. The OHP target for OR 99, which is classified as a district highway, is v/c ratio less than or equal to 0.95. The target for the I-5 ramps is a v/c ratio less than or equal to 0.85.

Review of the 2007 TSP and the development code indicates the City of Talent does not currently have operational standards for their roadways.

# Traffic Operations Analysis Procedures

All operations were evaluated using the methodology outlined in the 2010 Highway Capacity Manual (HCM) along with the procedures outlined in ODOT's Analysis Procedures Manual (APM). The Synchro analysis software was selected to perform the intersection analysis since it can provide the v/c ratio and LOS output of an HCM analysis and consider the systematic interaction of the intersections with regard to queuing and delays.

Synchro is a macroscopic model similar to the Highway Capacity Software (HCS), and like the HCS, is based on the 2010 HCM. The Synchro model explicitly evaluates traffic operations under

coordinated and uncoordinated systems of signalized and unsignalized intersections. The v/c ratios and LOS presented in this report are based on the Synchro model output.

# **Existing PM Peak Traffic Operations**

Existing (2013) PM peak hour traffic operations were evaluated at the 18 study area intersections. These findings reflect the current signal timing plans. Operations are described in the following sections and the detailed analysis worksheets are presented in Appendix B (available upon request). Table 3-3 summarizes the results of the traffic operations analysis and Figure 3-2 presents the v/c ratios and LOS performance by lane group for the area intersections.

Table 3-3. Existing (Year 2013) PM Peak Hour Traffic Operations Analysis Results

Intersection	Critical Movement <sup>1</sup>	V/C Ratio <sup>2</sup>	LOS <sup>2</sup>	OHP Target <sup>3</sup>
1. Colver Rd. at Front St.	NB L/R	0.08	В	-
2. Colver Rd. at Talent Ave.	NB L/R	0.18	В	-
3. Colver Rd. at OR 99 (Signalized)	Overall	0.31	А	0.95
4. Main St. at Front St.	SB L/T/R	0.08	В	-
5. Main St. at Talent Ave.	EB L/T/R	0.28	В	-
6. W. Valley View Rd. at Talent Ave.	WB L	0.32	С	-
7. W. Valley View Rd. at OR 99 (Signalized)	Overall	0.42	В	0.95
8. W. Valley View Rd. at I-5 SB Ramp Terminal	SB L/T/R	0.40	В	0.85
9. W. Valley View Rd. at I-5 NB Ramp Terminal	NB L/R	0.20	В	0.85
10. Wagner St. at Wagner Creek Rd.	WB L/R	0.06	В	-
11. Wagner St. at Front St.	SB L/R	0.02	А	-
12. Wagner St. at Talent Ave.	EB L/R	0.27	В	-
13. Foss Rd. at Wagner Creek Rd.	EB L/R	0.07	В	-
14. Rapp Rd. at Wagner Creek Rd.	EB L/T	0.12	А	-
15. Rapp Rd. at Talent Ave.	WB L/T/R	0.24	А	-
16. Rapp Rd. at OR 99 (Signalized) <sup>5</sup>	Overall	0.32	А	0.95
17. Creel Rd. at Talent Ave.	SB L/T/R	0.07	А	-
18. Creel Rd. at OR 99	EB L/R	0.10	В	0.95

Acronyms: EB = eastbound; WB = westbound; NB = northbound; and SB = southbound. L = left; T = through; and R = right.

- 1. At signalized intersections, the overall results are reported along with all individual movements, while at unsignalized intersections the results are reported for all movements that must stop or yield the right of travel to other traffic flows.
- 2. The v/c ratios and LOS are based on the results of the macrosimulation analysis using Synchro, which cannot account for the influence of adjacent intersection operations.
- 3. 1999 Oregon Highway Plan (OHP), Policy 1F applies to existing and no-build conditions through the planning horizon.
- 4. The Jackson County Transportation System Plan (TSP) designates traffic operational standards for county roadways inside the MPO as 0.95. No specific operational standards for the City of Talent are available; therefore, the county standard of 0.95 is reported for all non-state facilities.
- 5. Intersection operations based on HCM 2000 methodology.

Source: David Evans and Associates, Inc.

Analysis for the PM peak period shows that all of the study area intersections currently meet applicable mobility thresholds. There is little to no congestion present at any of the study area intersections.

## 3.1.3 Freight Assessment

The interstate is the only designated freight route in Talent but freight uses the many of the existing roadways in the city. Table 3-4 summarizes the percentage of truck traffic on some of the higher volume roadways in Talent. Only locations where 16 hours of traffic count data were used in the calculations.

Table 3-4. Existing Truck Traffic Percentages in Talent					
	Truck Percentages				
Location	Single Unit	Multi-Unit	Total		
I-5 Ramps					
Southbound Off-Ramp	2.5	1.8	4.3		
Southbound On-Ramp	2.9	3.0	5.9		
Northbound Off-Ramp	2.5	1.9	4.4		
Northbound On-Ramp	2.6	2.0	4.6		
OR 99					
North of W. Valley View Rd.	2.8	0.5	3.3		
South of W. Valley View Rd.	3.1	0.6	3.7		
North of Rapp Rd.	1.5	0.5	2.0		
South of Rapp Rd.	1.4	0.4	1.8		
W. Valley View Rd.					
East of I-5 Ramps	3.7	2.3	5.0		
West of I-5 Ramps	2.7	2.1	4.8		
East of OR 99	2.2	0.5	2.7		
West of OR 99	2.0	0.4	2.4		
Rapp Rd.					
East of OR 99	1.2	0.4	1.6		

Source: 16-hour turning movement counts collected by ODOT in 2010 and 2012.

The highest truck activity occurs in the vicinity of the I-5 interchange with lower percentages (and volumes) of trucks further from the interchange. This pattern is particularly true with the multi-unit trucks, which account for two to three percent of traffic around the interchange but only about 0.5 percent on OR 99 or city streets closer to the center of town. Off of the arterial street system, truck percentages generally drop below two percent of total traffic. A review of the 3-hour PM peak period counts indicate truck percentages generally between one and two percent on major collectors with very few multi-unit trucks.

### 3.1.4 Multimodal Assessment

A multimodal analysis provides a comprehensive assessment of all modes, taking into account the impact of adjacent modes of travel. Table 3-5 provides a qualitative summary of performance on OR 99 for each mode, using a ranking system with three categories, from poor to good. These rankings take into account available facilities and their widths, vehicular travel speeds, volumes, operations, access, transit routes and frequencies, general conditions, and other factors that influence level of service for each mode. While bicycle, pedestrian, and transit conditions are largely influenced by adjacent modes, vehicular performance is primarily rated based on vehicular-oriented variables. The analysis breaks the corridor into intersections and the segments between them.

Table 3-5. OR 99 Multimodal Assessment

	Travel Mode				
Location	Bicycle	Pedestrian	Transit	Auto	
OR 99 at Colver/Suncrest Rd.	Good	Good	Good	Good	
Colver/Suncrest Rd. to W. Valley View Rd.	Good	Good	Good	Good	
OR 99 at W Valley View Rd.	Good	Good	Good	Good	
W. Valley View Rd. to Rapp Rd.	Good	Good	NA	Good	
OR 99 at Rapp Rd.	Good	Good	NA	Good	
Rapp Rd. to Arnos Rd.	Poor	Poor	NA	Good	
OR 99 at Arnos Rd	Poor	Poor	NA	Good	
Arnos Rd. to Creel Rd.	Poor	Poor	NA	Good	
OR 99 at Creel Rd	Poor	Poor	NA	Good	
Creel Rd. to Talent Ave.	Poor	Poor	NA	Good	

Notes

Multimodal analysis uses available data from existing conditions analysis for all modes.

The existing conditions for the OR 99 corridor through Talent are generally good for the improved 5-lane section between Suncrest/Colver Road and Rapp Road. However, once south of Rapp Road, the roadway has urban amenities such as sidewalks or bike lanes and paved shoulders are limited to generally about 2 feet or less. This lack of facilities is reflected in the poor ratings for both bicycle and pedestrian modes.

# 3.1.5 Safety Analysis

A safety analysis was conducted to determine whether any significant, documented safety issues exist within the study area and to inform future measures or general strategies for improving overall safety. This analysis includes a review of crash records, critical crash rates, and ODOT Safety Priority Index System (SPIS) data.

# Crash History

The crash analysis included a review of crash history data supplied by the ODOT Crash Analysis and Reporting Unit for the period between January 1, 2007, and December 31, 2011, which

were the five most recent full years for which crash data were available at the time of the analysis. Table 3-6 summarizes data for study area roads and intersections. The reports are contained in Appendix C(available upon request).

Seventy-seven crashes reported within the study area during the 5-year analysis period. Forty-six of the reported crashes occurred at intersections, and 31 occurred along street segments. Of the reported crashes, 28 resulted in minor injury(s), and 49 resulted in property damage only; there were no crashes that resulted in a fatality or severe injury. Very few of the reported crashes were attributed to speed or alcohol.

The signalized intersection between W. Valley View Road and OR 99 experienced the highest percentage of total study are crashes with 17% (13). Of these 13 crashes, five were rear end collisions, three were angle, three were turning movement, and one was a fixed object crash. The three turning movement crashes all involved a vehicle turning left from the east approach. Currently the left-turn movements on W. Valley View Road do not have any protected signal phasing, which may be related to the turning collisions.

The intersection of Creel Road and OR 99 had five reported crashes, each classified as a turning movement collision. The overall frequency of crashes is relatively low here, but the repeated turning movement crash type indicates crashes due to vehicles turning on or off of the higher speed OR 99 facility.

Of non-study area intersections, the intersection of Arnos Road and OR 99 experienced the highest number of crashes (6). Four of these crashes were rear end collisions. The remaining study area and non-study area locations each experienced less than five total crashes over the 5-year analysis period, averaging less than one crash per year.

W. Valley View Road experienced the highest number of crashes with eight reported between study area intersections, mostly due to the number of driveways and intersections along W. Valley View Road.

# Network Screening

The Highway Safety Manual Part B describes the critical crash rate method as a means of identifying locations that warrant further investigation. The critical crash rate is based upon average crash rates at comparable sites, traffic volume, and a confidence interval.

Table 3-6. Crash History at Study Area Locations

Table 3-6. Crash History at Stu	.uy /	11 00				T					C	ority	
				Colli	sion	rype					Seve	erity	
Location	Rear End	Fixed Object	Angle	Backing	Turning	Sideswipe	Parked	Bicycle	Pedestrian	Total	Minor Injury Crashes	Property Damage Only	Crash Rate
Intersection Crashes													
Colver Rd & Front St	0	0	0	0	0	0	0	0	0	0	0	0	
Colver Rd & Talent Ave	0	0	0	0	0	0	0	0	0	0	0	0	
Colver Rd & OR 99	1	1	0	0	2	0	0	0	0	4	2	2	0.19
Main St & Front St	0	0	0	0	0	0	0	0	0	0	0	0	
Main St & Talent Ave	0	0	0	0	0	0	0	0	0	0	0	0	
W Valley View Rd & Talent Ave	1	0	0	0	0	0	0	1	0	2	1	1	0.16
W Valley View Rd & OR 99	5	1	3	0	3	1	0	0	0	13	5	8	0.46
W Valley View Rd & SB I-5 Ramps	1	0	0	0	1	0	0	0	0	2	1	1	0.13
Wagner St. & Wagner Creek Rd	0	0	0	0	0	0	0	0	0	0	0	0	
Wagner St & Wagner Creek Rd	0	0	0	0	0	0	0	0	0	0	0	0	0.24
Wagner St & Front St		0	_	0		0	0	0	0	0	0	0	0.24
Wagner St & Talent Ave Foss Rd & Wagner Creek Rd	0	0	0	0	0	0	0	0	0	0	0	0	
Rapp Rd & Wagner Creek Rd	0	0	0	0	1	1	0	0	0	2	0	2	0.40
Rapp Rd & Wagner creek Rd  Rapp Rd & Talent Ave	0	0	4	0	0	0	0	0	0	4	3	1	0.40
Rapp Rd & OR 99	1	0	0	0	1	0	0	0	0	2	2	0	0.10
Creel Rd & Talent Ave	0	0	0	0	1	0	0	0	0	1	0	1	0.36
Creel Rd & OR 99	0	0	0	0	5	0	0	0	0	5	1	4	0.31
Arnos Rd & OR 99	4	0	0	1	1	0	0	0	0	6	2	4	
Jessy Way & Clearview Dr	0	1	0	0	0	0	0	0	0	1	0	1	
Main St & 1st St	0	0	1	0	1	0	0	0	0	2	0	2	
Main St & West	0	0	0	0	1	0	0	0	0	1	0	1	
Subtotal Intersections	13	3	8	1	18	2	0	1	0	46	18	28	
Segment Crashes (not at Intersection	ns												
3rd St	1	0	0	0	0	1	0	0	0	2	0	2	
4th St	0	0	0	0	0	0	1	0	0	1	0	1	
Arnos Rd	0	1	0	1	0	0	0	0	0	2	0	2	
Hilltop Rd	0	1	0	0	0	0	0	0	0	1	0	1	
John St	0	0	0	1	0	0	0	0	0	1	0	1	
Lithia Way	0	0	0	0	0	1	0	0	0	1	0	1	
Main St	0	0	0	0	1	0	0	0	0	1	1	0	
Rapp Rd	0	4	0	0	0	0	0	0	0	4	1	3	
Talent Ave	0	2	0	0	3	0	2	0	0	3 8	4	2	
W. Valley View Rd Wagner S	0	0	0	0	0	1	0	0	0	1	0	1	
Wagner Creek Rd	1	0	0	0	0	0	0	0	0	1	1	0	
Logan Way	1	0	0	0	0	0	0	0	0	1	0	1	
OR 99	1	1	0	0	2	0	0	0	0	4	2	2	
Subtotal Segments	5	9	0	2	7	4	3	0	1	31	10	21	
Total	18	12	8	3	25	6	3	1_	1	77	28	49	
10tai	10	'-		5	20	0	J	<u> </u>	<u> </u>	, ,	20	7 7	

Notes: Crash rates could only be calculated for intersections where traffic count data has been collected. There were not a sufficient number of locations with common characteristics to perform an overall network screening analysis as outlined the Highway Safety Manual, Part B.

Critical crash rates were calculated for three-legged STOP-controlled intersections according to the HSM Part B Network Screening Critical Crash Rate method. As part of this method, each reference population, made up of locations with similar geometric and operational characteristics, must contain at least five sites for comparison. Within the study area, three-legged unsignalized intersections are the only reference population with sufficient size to utilize the network screening method. In general, the low number of crashes throughout the study area may indicate that the network screening methodology is not entirely appropriate for this safety analysis. For this reason, the signalized and four-legged unsignalized intersections were evaluated qualitatively while the three-legged unsignalized intersections reference HSM critical crash rates.

Based on critical crash rates determined by the HSM Part B Network Screening methodology, the intersection of Creel Road and OR 99 is the only three-legged unsignalized intersection with a crash rate exceeding the critical crash rate. The observed rate of 0.31 crashes per million entering vehicles just exceeds the critical rate of 0.27. This suggests that this intersection is identified for further review.

## Safety Priority Index System (SPIS)

The SPIS is a method used in Oregon to identify safety problem areas along state highways. Highways are evaluated in approximately one-tenth mile increments (often grouped into larger segments). Each year these segments are ranked by assigning a SPIS score based on the frequency and severity crashes observed, while taking traffic volume into account. When a segment is ranked in the top 10% of the index, a crash analysis is typically warranted and corrective actions are considered. There are no segments of Interstate 5 or OR 99 within the study area that are identified in the top 10% of the most recent (2012) SPIS rankings.

### 3.2 Future Baseline Traffic Conditions

The future baseline traffic analysis assesses conditions for the year 2038, which is consistent with regional forecasting for the Rogue Valley. The analysis examines conditions where the transportation system has been improved by projects with programmed funding sources and where traffic volumes continue to grow based on population and employment forecasts. The analysis identifies anticipated operational deficiencies and serves as the basis for later evaluation to compare project alternatives that address deficiencies.

### 3.2.1 Future Land Use

The Greater Bear Creek Valley Regional Plan established assumptions for overall population growth within Talent and all other jurisdictions in the region. The plan also identified urban reserve areas that would accommodate the anticipated population growth. As stated in the plan, the anticipated future population of Talent in 2040 is 9,817, and the population of Talent in 2060 is 11,294.

There are five urban reserve areas designated for Talent; they vary in size and in amount of unconstrained, buildable land. The urban reserves as described in the Regional Plan are:

- TA-1, approximately 43 gross acres, is located immediately to the south of Colver Road and to the west of the city limits. This growth area is intended to preserve land for future public use and is restricted to either school or park/open space/recreational use.
- TA-2, approximately 74 gross acres, is located adjacent to the existing urban growth boundary and located between Rapp Road and the Talent Canal. This area would accommodate future residential growth and all for the development and expansion of public facilities needed to accommodate growth within the existing UGB.
- TA-3 is the largest of the five urban reserve areas at approximately 124 gross acres. It is located to the southeast of the city limits and extends along Talent Avenue and Highway 99. Future development of this land would be predominantly residential with a small amount of commercial use consistent with a narrow strip of land immediately south of and adjacent to OR 99 that is designated Commercial by Jackson County.
- TA-4, approximately 27 gross acres, is located to the north of the city limits and west of OR 99. The area is flat and located at a hub of key transportation facilities (railroad and highway). The area is proposed to accommodate identified employment land needs for industrial uses that requiring rail and highway access.
- TA-5, approximately 28 gross acres, is located to the north of the city limits and east of OR 99. Identified uses for this area include about half residential and open space lands and half employment lands.

## 3.2.2 Future Traffic Volume Development

Future Baseline traffic volume forecasts were developed using the Rogue Valley Metropolitan Planning Organization (RVMPO) travel demand forecasting model, which is based on the regional long-range land use assumptions for the year 2038. The travel demand forecasting process and resulting traffic forecasts are briefly described below.

# <u>Travel Demand Forecasting Models</u>

The travel demand forecasting model for RVMPO is maintained by the Transportation Planning and Analysis Unit (TPAU) at ODOT. The model relies on socioeconomic data (e.g., households and employment) to determine travel demand and system attributes (e.g., roadway capacity, speeds, and distances) to represent the transportation supply. The long-range regional growth forecasts are consistent with current land use zoning.

The travel demand model for the RVMPO has a base year of 2006 and a future year of 2038. To better represent existing conditions along W. Valley View Road, the 2006 base year model was adjusted to reflect the large commercial parcel recently vacated west of the southbound ramp terminal. Employment numbers from this development were removed from the 2006 model, but remain in the 2038 model, assuming the lot will be commercially redeveloped. The scenario used in forecasting demand for this Transportation System Plan is known as 2038 RVMPO v3.1.

# **Future Transportation Network**

The network used in the forecasts for Talent is a future network that includes roadway projects that are expected to occur by year 2038. These projects have known funding sources or are programmed to be funded in the next 25 years. Only one noteworthy project is currently planned and funded within the study area. The reduction of OR 99 to three lanes south of Rapp Road until south of Creel Road is part of a road diet project resulting from the OR 99 Corridor Plan Road Diet Analysis. The existing cross sections with two through lanes in each direction will be reduced to one through lane in each direction with a center turn lane and urban amenities that include curb, sidewalks, and bike lanes. As part of this project, a southbound right-turn lane will be constructed at Creel Road. The future networks for analysis assume these improvements are complete.

## **Traffic Forecasts**

Traffic forecasts for the study area intersections were developed from the 2006 and 2038 forecasting models and the existing traffic data for the future baseline scenario. The process followed the procedures from ODOT's Analysis Procedures Manual (APM)<sup>2</sup>. The forecast year for this corridor study is 2038; thus, existing volumes were extrapolated to 2038.

Traffic volumes for the future baseline scenario are presented in Figure 3-3. The detailed volume development worksheets are presented in Appendix D

## 3.2.3 Future Traffic Operations

Table 3-7 summarizes the results of the traffic operations analysis and compares them to the Oregon Highway Plan (OHP) mobility targets and Jackson County standards. Figure 3-4 presents the v/c ratios and LOS performance by lane group for the area intersections. Traffic signal timing at the signalized intersections was modified to optimize traffic flow with future demands.

The analysis results show that under the 2038 future baseline conditions, all of the study area intersections would meet operational standards during the PM peak period. The intersection with the worst operations is W. Valley View Road at the I-5 northbound ramp terminal, though it would meet operational standards with LOS B and a V/C of 0.51, well below operational standards.

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<sup>&</sup>lt;sup>2</sup> Analysis Procedures Manual, Oregon Department of Transportation, Transportation Development Division Planning Section, Transportation Planning and Analysis Unit, Salem, Oregon, April, 2006, Section 4.3.

Table 3-7. Future (2038) Baseline Intersection Operations

Intersection	Critical Movement <sup>1</sup>	V/C Ratio <sup>2</sup>	LOS <sup>2</sup>	OHP Target <sup>3</sup>
1. Colver Rd. at Front St.	NB L/R	0.08	В	-
2. Colver Rd. at Talent Ave.	NB L/R	0.25	В	-
3. Colver Rd. at OR 99 (Signalized) <sup>5</sup>	Overall	0.34	А	0.95
4. Main St. at Front St.	SB L/T/R	0.08	В	-
5. Main St. at Talent Ave.	EB L/T/R	0.32	А	-
6. W. Valley View Rd. at Talent Ave.	NA	NA	NA	-
7. W. Valley View Rd. at OR 99 (Signalized) <sup>5</sup>	Overall	0.49	В	0.95
8. W. Valley View Rd. at I-5 SB Ramp Terminal	SB L/T/R	0.51	В	0.85
9. W. Valley View Rd. at I-5 NB Ramp Terminal	NB L/R	0.29	В	0.85
10. Wagner St. at Wagner Creek Rd.	WB L/R	0.07	В	-
11. Wagner St. at Front St.	SB L/R	0.03	А	-
12. Wagner St. at Talent Ave.	EB L/T/R	0.35	С	-
13. Foss Rd. at Wagner Creek Rd.	EB L/R	0.07	В	-
14. Rapp Rd. at Wagner Creek Rd.	EB L/T	0.12	А	-
15. Rapp Rd. at Talent Ave.	WB L/T/R	0.31	А	-
16. Rapp Rd. at OR 99 (Signalized) <sup>5</sup>	Overall	0.39	А	0.95
17. Creel Rd. at Talent Ave.	SB L/T/R	0.09	А	-
18. Creel Rd. at OR 99	EB L/R	0.19	С	0.95
19. W. Valley View Rd. Roundabout	WB R	0.35	А	-

Acronyms: EB = eastbound; WB = westbound; NB = northbound; and SB = southbound. L = left; T = through; and R = right.

Source: David Evans and Associates, Inc.

### 3.2.4 Multimodal Assessment

Table 3-8 presents and update of the multimodal analysis to reflect the planned and funded improvements on OR 99.

<sup>1.</sup> At signalized intersections, the overall results are reported along with all individual movements, while at unsignalized intersections the results are reported for all movements that must stop or yield the right of travel to other traffic flows.

<sup>2.</sup> The v/c ratios and LOS are based on the results of the macrosimulation analysis using Synchro, which cannot account for the influence of adjacent intersection operations.

<sup>3. 1999</sup> Oregon Highway Plan (OHP), Policy 1F applies to existing and no-build conditions through the planning horizon.

<sup>4.</sup> The Jackson County Transportation System Plan (TSP) designates traffic operational standards for county roadways inside the MPO as 0.95. No specific operational standards for the City of Talent are available; therefore, the county standard of 0.95 is reported for all non-state facilities.

<sup>5.</sup> Overall signalized intersection operations based on HCM 2000 methodology.

Table 3-8. OR 99 Future Multimodal Assessment

	Travel Mode					
Location	Bicycle	Pedestrian	Transit	Auto		
OR 99 at Colver/Suncrest Rd.	Good	Good	Good	Good		
Colver/Suncrest Rd. to W. Valley View Rd.	Good	Good	Good	Good		
OR 99 at W Valley View Rd.	Good	Good	Good	Good		
W. Valley View Rd. to Rapp Rd.	Good	Good	NA	Good		
OR 99 at Rapp Rd.	Good	Good	NA	Good		
Rapp Rd. to Arnos Rd.	Fair	Good	NA	Good		
OR 99 at Arnos Rd	Good	Good	NA	Good		
Arnos Rd. to Creel Rd.	Fair	Good	NA	Good		
OR 99 at Creel Rd	Good	Good	NA	Good		
Creel Rd. to Talent Ave.	Poor	Poor	NA	Good		

Notes:

Multimodal analysis uses available data from existing conditions analysis for all modes.

The reduction from five lanes to three lanes south of Rapp Road would result in several trade-offs for all modes. Because the traffic volumes adjacent to the bicycle lanes would be higher with the three-lane cross-section, the facilities were not rated quite as well as they might be for a five-lane cross-section but they would still be better than the existing condition. Conversely, the narrower cross-section would make crossings at intersections easier. Auto operations would meet operational standards but the reduced throughput would result in some additional delays. The safety benefits are assumed to offset these negative impacts.

# 3.3 Summary of Deficiencies

All of the study area intersections operate within operational standards for both the existing and future baseline scenarios.

#### Attachments:

Figure 3-1. Existing (2013) PM Peak Hour Volumes

Figure 3-2. Existing (2013) PM Peak Hour Traffic Operations

Figure 3-3. Future (2038) PM Peak Hour Traffic Volumes

Figure 3-4. Future (2038) PM Peak Hour Traffic Operations

Appendix A. Traffic Seasonal Factor

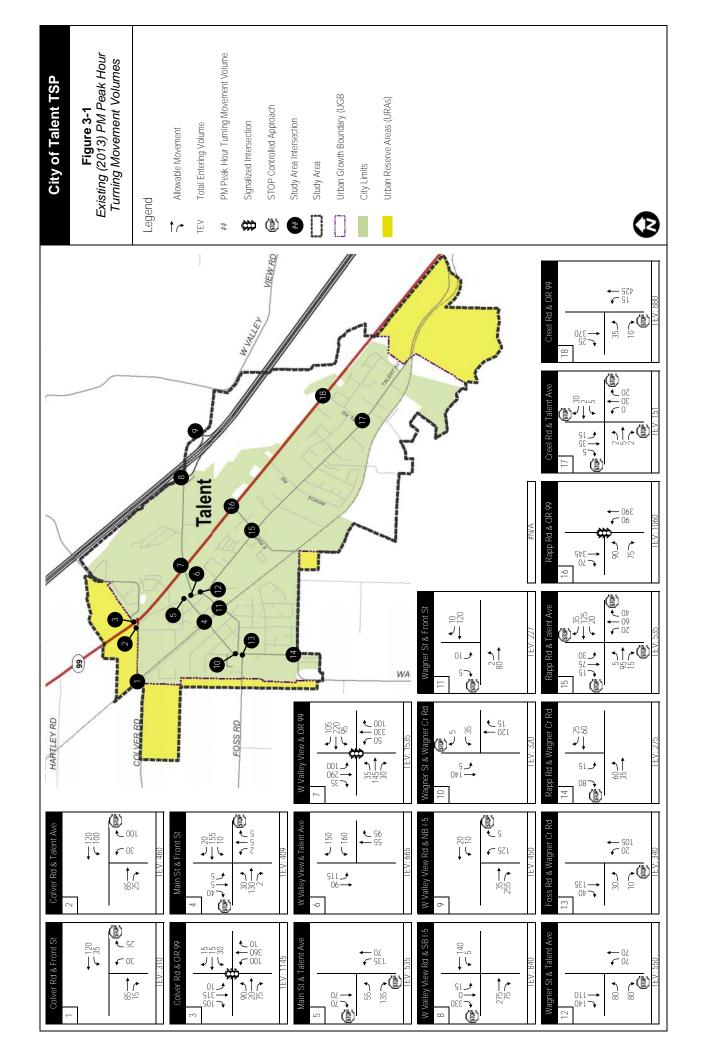
Appendix B. Existing Traffic Operations Worksheets

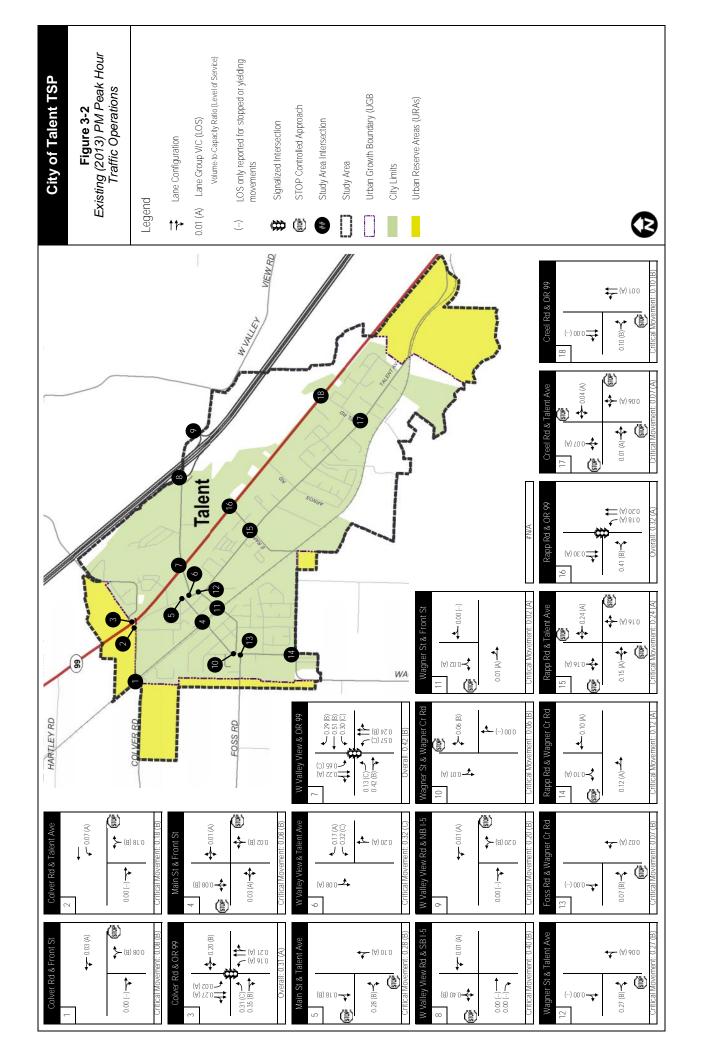
Appendix C. ODOT Crash Analysis Reports (January 1, 2007 through December 31, 2011)

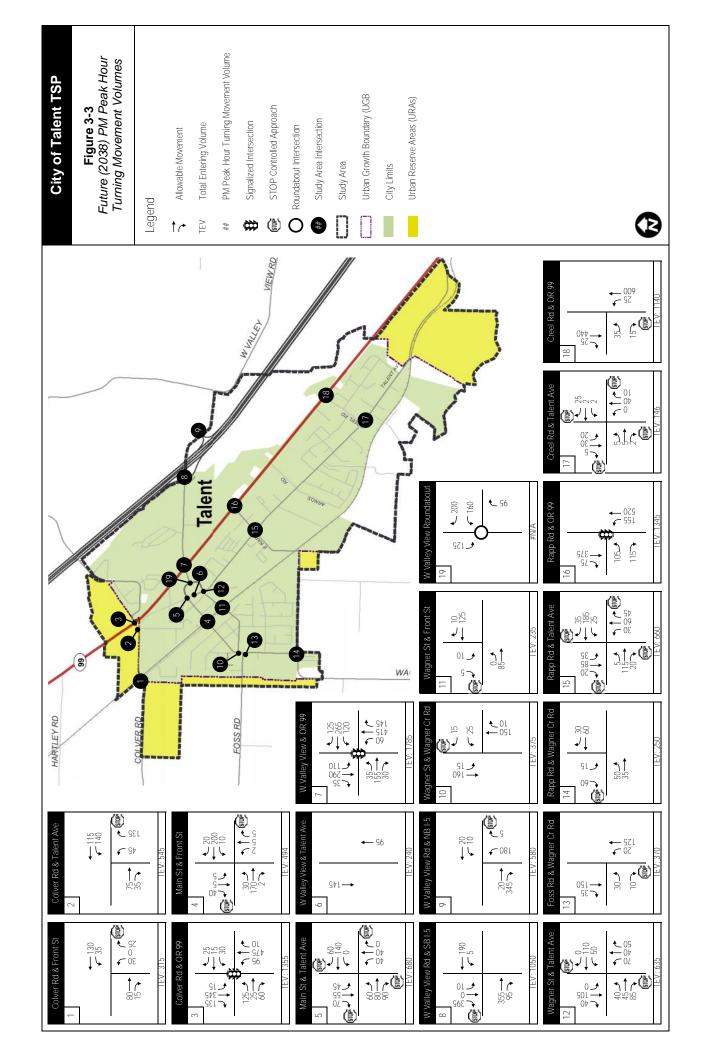
Appendix D. Future Traffic Volume Development

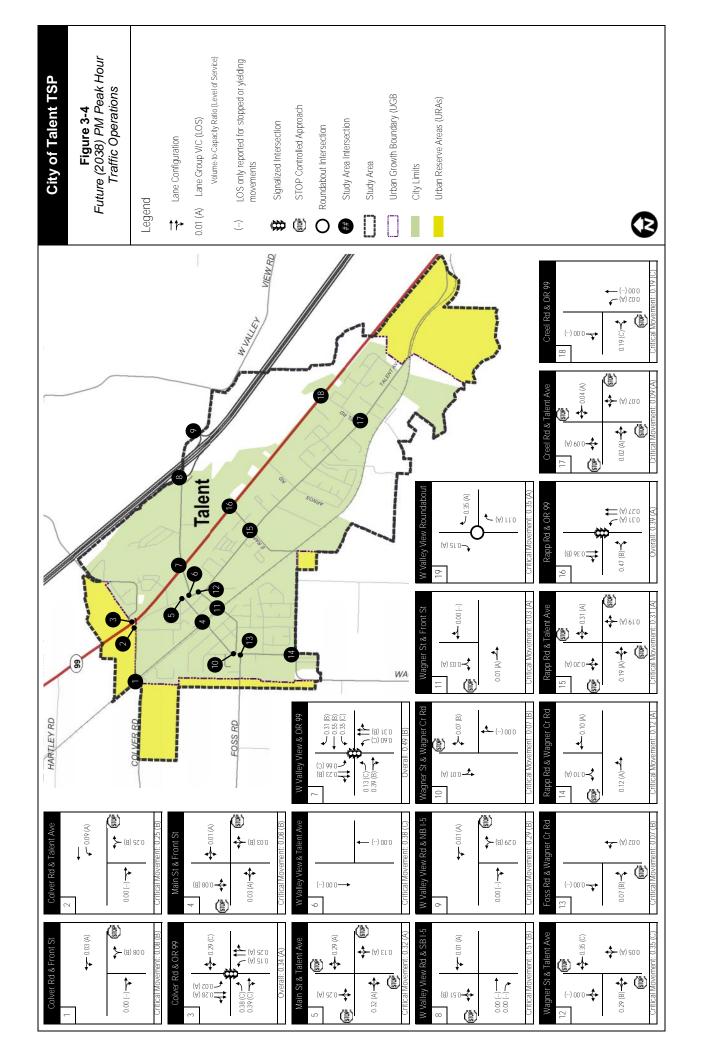
Appendix E. Future Traffic Operations Worksheets

Appendix F. HSM Part B Worksheets









Appendix A.	Traffic Seasonal	Factor
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### DEVELOPING EXISTING PEAK-HOUR VOLUMES

**ODOT's Transportation Planning Analysis Unit (TPAU) has developed procedures for calculating** current year traffic volumes. This procedure is outlined in the Analysis Procedure Manual (APM) and includes determining the 30<sup>th</sup> highest hour volumes. As outlined, the 30<sup>th</sup> highest hour traffic volumes were calculated by applying a seasonal factor to the peak hour volumes, based on the date that the count was conducted. The following sections provide project specific details for calculating these adjustment factors.

Existing Analysis – 30<sup>th</sup> Highest Hour

### Base Year Adjustment

The study area counts used for volume development consist of counts collected in 2010 and 2012. Due to negligible growth in the area since 2010, no base year adjustment was deemed necessary. However, the closing of the Wal-Mart along West Valley View Road in August of 2012 requires volume adjustments to subtract trips drawn into and out of the Wal-Mart site reflected in the available count data taken before the closing. These adjustments were made during volume balancing to better reflect existing conditions.

#### Seasonal Factors

Since traffic counts are taken during various times of the year, data from varying months may need to be converted to peak month equivalents using calculated seasonal adjustment factors. TPAU has three methods for developing seasonal factors: On-Site ATR Method, ATR Characteristic Table Method, and ATR Seasonal Trend Table Method. To accommodate the varying road types within the study area, different methods were used to develop seasonal factors for OR 99 intersections, I-5 Ramps, and local streets.

There is an ATR at the south end of the study area, ATR (15-014), on OR 99. Additionally, for local system traffic, the seasonal trend table was applied to identify a seasonal adjustment for the commuter trend.

Seasonal factors were calculated for the count months and applied to the existing count data according to the date of data collection (June, July, August and September). Traffic volumes were then multiplied by their appropriate seasonal factor to determine the 30<sup>th</sup> highest hour volumes.

#### OR 99

To develop seasonal factors for study area intersections on OR 99, the On-Site ATR Method was used. ATR 15-014 along OR 99 is located approximately a half-mile south of the intersection with Creel Road. There are no major intersections or volume draws along OR 99 between Creel Road and the ATR, and the study area ADTs along OR 99 have been within 10% of the ATR's ADT in recent years. For these reasons, the On-Site ATR Method was applied to all study area intersections with OR 99. The on-site ATR was out of service for large portions of 2007 and 2009; therefore, ATR data for 2008, 2010, and 2011 were used to develop seasonal factors for OR 99.

### 1-5 Ramp Terminals

There are no ATR locations along I-5 in close proximity to the study area. To develop seasonal factors appropriate for ramp volumes, the ATR Characteristic Table Method was used in combination with the seasonal trend factors identified for the commuter trend. Based on rural area type and AADTs within 10% of the study area I-5 volumes, I-5 ATRs 15-001 and 22-016 were selected. Seasonal factors for these ATRs were calculated and then averaged with commuter trend factors to develop seasonal factors for the study area ramp terminals.

### Local Traffic

The seasonal factors for traffic moving within the local street network was calculated based on count date using the ATR Seasonal Trend Method for a commuter route.

SEASONAL FACTORS	OR 99 On-Site ATR 15-014	I-5 Ramps ATR Characteristic Table/ Commuter Trend	Local Traffic ATR Seasonal Trend Table - Commuter
June	1.00	1.04	1.03
July	1.01	1.01	1.02
August	1.02	NA	NA
September	1.03	1.06	1.03

### Balancing

After the seasonal factors were applied, the volumes were input into Synchro and balanced accordingly. For conservative analysis, it is preferable to add traffic to the system instead of remove. This approach was taken whenever possible. Volume imbalances between intersections were managed to represent the volumes into and out of residential developments between study area intersections, whenever applicable.

Future Analysis – 30<sup>th</sup> Highest Hour

## Model Post Processing

The post-processing procedures followed APM and NCHRP Report 255 guidelines. To convert model volumes to design hour volumes, the two most commonly used methods are the growth method and the difference method.

Both methods were compared in a spreadsheet and if the difference in values between the two methods was greater than 10%, then the value from the difference method was used, otherwise the values from the methods were averaged. The forecasted link volumes were then input into the NCHRP Report 255 spreadsheet to determine the year 2038 turning movement volumes. These volumes were rounded to the nearest five vehicles and balanced in Synchro.

### **Talent TSP Update Seasonal Adjustment Factors**

Blue cells indicate seasonal factor used for volume development

#### OR 99 - On-Site ATR Method

Data from OR 99 On-Site ATR 15-014 was used to develop seasonal adjustment for volumes at intersections with OR 99. ATR 15-014 was out of service not functioning properly for 2007 and 2009 data so ATR data from 2008, 2010, and 2011 were used to develop seasonal factors.

#### OR 99 Seasonal Adjustment Factors

1.00
1.01
1.02
1.03

#### **Local Network - Seasonal Trend Table**

#### Commuter

Seasonal Peak Period Factor = 0.90 Seasonal Adjustment Factors:

Count Date Seasonal Factor (Sep 1) = 0.91501-Sep1.02Count Date Seasonal Factor (Sep 15) = 0.929615-Sep1.03Count Date Seasonal Factor (June 1) = 0.92341-Jun1.03Count Date Seasonal Factor (July 15) = 0.919315-Jul1.02

#### I-5 Ramps - ATR Characteristic Table/Seasonal Trend Table Hybrid

Historical data from four ATRs along I-5 was analyzed.

ATR 15-001: Gold Hill ATR 15-002: Neil Creek ATR 15-019: Medford Viaduct ATR 22-016: Lane Creek

ATR's 15-001, 15-002, 15-019 represent the local trends; however, only ATR 15-001 has ADT within 10% of the study area.

ATR 22-016 and ATR 15-001 were found in the Characteristic Table with rural land type and AADTs within 10% of the study area volumes. Factors from these ATRs were averaged with commuter trend factors to develop appropriate seasonal adjustments for ramp turning movement volumes.

I-5 Factors	ATR 15-001	ATR 22-016	Avg
June	1.04	1.06	1.05
July	1.00	1.00	1.00
September	1.09	1.11	1.10

#### Ramp Adjustment Factors (Average of I-5 and Commuter Trend)

June	1.04
July	1.01
September	1.06

Appendix B	. Existing	Traffic	<b>Operations</b>	Worksheets
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Intersection

Intersection Delay, s/veh	9							
Intersection LOS	A							
Intersection 200								
Movement	EBL		EBR	NBL	NBT	SBT	SBR	
Vol, veh/h	55		135	135	70	70	70	
Peak Hour Factor	0.93		0.93	0.93	0.93	0.93	0.93	
Heavy Vehicles, %	0		4	2	1	0	0	
Mvmt Flow	59		145	145	75	75	75	
Number of Lanes	1		0	0	1	1	0	
Approach	EB			NB		SB		
Opposing Approach				SB		NB		
Opposing Lanes	0			1		1		
Conflicting Approach Left	SB			EB		ı		
Conflicting Lanes Left	1			1		0		
Conflicting Approach Right	NB			•		EB		
Conflicting Lanes Right	1			0		1		
HCM Control Delay	8.9			9.6		8.3		
HCM LOS	Α.			Α		A		
TIOW LOO	7.			71		, , , , , , , , , , , , , , , , , , ,		
1		NIDL A	EDL 4	ODL 4				
Lane		NBLn1	EBLn1	SBLn1				
Vol Left, %		66%	29%	0%				
Vol Thru, %		34%	0%	50%				
Vol Right, %		0%	71%	50%				
Sign Control		Stop	Stop	Stop				
Traffic Vol by Lane		205	190	140				
LT Vol		70	0	70				
Through Vol		0	135	70				
RT Vol		135	55	0				
Lane Flow Rate		220	204	151				
Geometry Grp		1	1	1				
Degree of Util (X)		0.287	0.248	0.181				
Departure Headway (Hd)		4.694	4.377	4.323				
Convergence, Y/N		Yes	Yes	Yes				
Сар		765	819	828				
Service Time		2.726	2.407	2.356				
HCM Lane V/C Ratio		0.288	0.249	0.182				
HCM Control Delay		9.6	8.9	8.3				
HCM Lane LOS		Α	Α	Α				
HCM 95th-tile Q		1.2	1	0.7				
Notes								
						utation Not Defined		

<sup>~:</sup> Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error: Computation Not Defined

Intersection								
Intersection Delay, s/veh	6.1							
Movement	EBL		EBR	NBL	NBT		SBT	SBR
Vol, veh/h	55		135	135	70		70	
Conflicting Peds, #/hr	0		0	0	0		C	
Sign Control	Stop		Stop	Free	Free		Free	Free
RT Channelized	-		None	-	None		-	None
Storage Length	0		-	-	-		-	-
Veh in Median Storage, #	0		-	-	0		C	-
Grade, %	0		-	-	0		C	-
Peak Hour Factor	93		93	93	93		93	93
Heavy Vehicles, %	0		4	2	1		C	
Mvmt Flow	59		145	145	75		75	75
Major/Minor	Minor2			Major1			Major2	
Conflicting Flow All	479		113	151	0		-	0
Stage 1	113		-	-	-		-	-
Stage 2	366		-	-	-		-	-
Follow-up Headway	3.5		3.336	2.218	-		-	_
Pot Capacity-1 Maneuver	549		934	1430	-		-	-
Stage 1	917		-	-	-		-	-
Stage 2	706		-	-	-		-	-
Time blocked-Platoon, %					-		-	-
Mov Capacity-1 Maneuver	491		934	1430	-		-	-
Mov Capacity-2 Maneuver	491		-	-	-		-	-
Stage 1	917		-	-	-		-	-
Stage 2	631		-	-	-		-	-
Approach	EB			NB			SE	
HCM Control Delay, s	11.7			5.1			C	
HCM LOS	В							
Minor Lane / Major Mvmt		NBL	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)		1430	-	741	-	-		
HCM Lane V/C Ratio		0.102	-	0.276	-	-		
HCM Control Delay (s)		7.802	0	11.7		-		
HCM Lane LOS		Α	Α	В				
HCM 95th %tile Q(veh)		0.338	-	1.123	-	-		
Notes								
~ : Volume Exceeds Capacit	tv: \$ · Dolor	/ Exceeds 1	300 90	conde: Err	or · Comr	outation No	at Defined	
. Volume Exceeds Capaci	ty, φ . Delay	LXCEEUS	JUU SE	conus, En	or . Comp	Julation NC	it Delilleu	

Vol Thru, %         37%         0%         0%         44%           Vol Right, %         63%         0%         100%         0%           Sign Control         Stop         Stop         Stop         Stop           Traffic Vol by Lane         150         160         150         205           LT Vol         55         0         0         90           Through Vol         95         0         150         0           RT Vol         0         160         0         115           Lane Flow Rate         158         168         158         216           Geometry Grp         2         7         7         2           Degree of Util (X)         0.201         0.275         0.205         0.299           Departure Headway (Hd)         4.593         5.881         4.672         4.994           Convergence, Y/N         Yes         Yes         Yes         Yes           Cap         777         608         763         716           Service Time         2.648         3.644         2.435         3.044           HCM Control Delay         8.8         10.9         8.7         10.2									
Intersection Delay, s/veh   10tersection LOS	Intersection								
Intersection LOS		0.7							
Movement         WBL         WBR         NBT         NBR         SBL         SBT           Vol, veh/h         160         150         55         95         115         90           Peak Hour Factor         0.95 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
Vol, veh/Ih         160         150         55         95         115         90           Peak Hour Factor         0.95	Intersection LOS	А							
Peak Hour Factor         0.95	Movement	WBL		WBR		NBT	NBR	SBL	SBT
Peak Hour Factor         0.95	Vol. veh/h	160		150		55	95	115	90
Heavy Vehicles, %		0.95		0.95		0.95	0.95	0.95	0.95
Mvmt Flow         168         158         58         100         121         95           Number of Lanes         1         1         1         0         0         1           Approach         WB         NB         SB         NB           Opposing Approach         SB         NB         NB           Opposing Lanes         0         1         1         1           Conflicting Approach Left         NB         WB         WB         Conflicting Lanes Left         1         0         2         2           Conflicting Lanes Right         1         2         0         0         1         1         1         0         2         0         0         1         0         2         0         <									
Number of Lanes	,	168		158		58	100	121	95
Opposing Approach         SB         NB           Opposing Lanes         0         1         1           Conflicting Approach Left         NB         WB         WB           Conflicting Lanes Left         1         0         2           Conflicting Approach Right         SB         WB         WB           Conflicting Lanes Right         1         2         0           HCM Control Delay         9.8         8.8         10.2           HCM LOS         A         A         B           Lane         NBLn1         WBLn1         WBLn2         SBLn1           Vol Left, %         0%         100%         0%         56%           Vol Thru, %         37%         0%         0%         44%           Vol Right, %         63%         0%         100%         0%           Sign Control         Stop         Stop         Stop         Stop           Traffic Vol by Lane         150         160         150         205           LT Vol         55         0         0         90           Through Vol         95         0         150         0           RT Vol         0         160         0	Number of Lanes								
Opposing Approach         SB         NB           Opposing Lanes         0         1         1           Conflicting Approach Left         NB         WB         WB           Conflicting Lanes Left         1         0         2           Conflicting Approach Right         SB         WB         WB           Conflicting Lanes Right         1         2         0           HCM Control Delay         9.8         8.8         10.2           HCM LOS         A         A         B           Lane         NBLn1         WBLn1         WBLn2         SBLn1           Vol Left, %         0%         100%         0%         56%           Vol Thru, %         37%         0%         0%         44%           Vol Right, %         63%         0%         100%         0%           Sign Control         Stop         Stop         Stop         Stop           Traffic Vol by Lane         150         160         150         205           LT Vol         55         0         0         90           Through Vol         95         0         150         0           RT Vol         0         160         0									
Opposing Approach         SB         NB           Opposing Lanes         0         1         1           Conflicting Approach Left         NB         WB         WB           Conflicting Lanes Left         1         0         2           Conflicting Approach Right         SB         WB         WB           Conflicting Lanes Right         1         2         0           HCM Control Delay         9.8         8.8         10.2           HCM LOS         A         A         B           Lane         NBLn1         WBLn1         WBLn2         SBLn1           Vol Left, %         0%         100%         0%         56%           Vol Thru, %         37%         0%         0%         44%           Vol Right, %         63%         0%         100%         0%           Sign Control         Stop         Stop         Stop         Stop           Traffic Vol by Lane         150         160         150         205           LT Vol         55         0         0         90           Through Vol         95         0         150         0           RT Vol         0         160         0	Annroach	WR				NR		Q.R.	
Opposing Lanes         0         1         1           Conflicting Approach Left         NB         WB           Conflicting Lanes Left         1         0         2           Conflicting Approach Right         SB         WB         Conflicting Lanes Right         1         2         0           HCM Control Delay         9.8         8.8         10.2         HCM LOS         A         B           Lane         NBLn1         WBLn1         WBLn2         SBLn1         WBLn1         WBLn2         WBLn1           Vol Left, %         0%         100%         0%         56%         VBLn1         WBLn2         WBLn1         WBLn2		VVD							
Conflicting Approach Left         NB         WB           Conflicting Lanes Left         1         0         2           Conflicting Approach Right         SB         WB         Conflicting Lanes Right         1         2         0           HCM Control Delay         9.8         8.8         10.2           HCM LOS         A         A         B      Lane   NBLn1   WBLn1   WBLn2   SBLn1		Λ							
Conflicting Lanes Left         1         0         2           Conflicting Approach Right         SB         WB           Conflicting Lanes Right         1         2         0           HCM Control Delay         9.8         8.8         10.2           HCM LOS         A         A         B    Lane  NBLn1 WBLn1 WBLn2 SBLn1  Vol Left, %  OW 100% 0% 56%  Vol Thru, %  OW 100% 0% 56%  Vol Thru, %  OW 100% 0% 44%  Vol Right, %  Sign Control  Stop Stop Stop Stop  Traffic Vol by Lane  150 160 150 205  LT Vol  Traffic Vol by Lane  150 160 150 205  LT Vol  O 160 0 150 0  RT Vol  ATT Vol  O 160 0 115  Lane Flow Rate  158 168 158 216  Geometry Grp  O 2 7 7 2  Degree of Util (X)  O .201 0.275 0.205 0.299  Departure Headway (Hd)  4.593 5.881 4.672 4.994  Convergence, Y/N  Yes Yes Yes  Yes  Cap  777 608 763 716  Service Time  2.648 3.644 2.435 3.044  HCM Lane V/C Ratio  O.203 0.276 0.207 0.302  HCM Control Delay  8.8 10.9 8.7 10.2  HCM Control Delay  R B A  B  O  O  O  O  O  O  O  O  O  O  O  O									
Conflicting Approach Right         SB         WB           Conflicting Lanes Right         1         2         0           HCM Control Delay         9.8         8.8         10.2           HCM LOS         A         A         B           Lane         NBLn1         WBLn1         WBLn2         SBLn1           Vol Left, %         0%         100%         0%         56%           Vol Thru, %         37%         0%         0%         44%           Vol Right, %         63%         0%         100%         0%           Sign Control         Stop         Stop         Stop         Stop           Traffic Vol by Lane         150         160         150         205           LT Vol         55         0         0         90           Through Vol         95         0         150         0           RT Vol         0         160         0         115           Lane Flow Rate         158         168         158         216           Geometry Grp         2         7         7         2           Degree of Util (X)         0.201         0.275         0.205         0.299           Dep						0			
Conflicting Lanes Right         1         2         0           HCM Control Delay         9.8         8.8         10.2           HCM LOS         A         A         B           Lane         NBLn1         WBLn1         WBLn2         SBLn1           Vol Left, %         0%         100%         0%         56%           Vol Thru, %         37%         0%         0%         44%           Vol Right, %         63%         0%         100%         0%           Sign Control         Stop         Stop         Stop         Stop           Traffic Vol by Lane         150         160         150         205           LT Vol         55         0         0         90           Through Vol         95         0         150         0           RT Vol         0         160         0         115           Lane Flow Rate         158         168         158         216           Geometry Grp         2         7         7         2           Degree of Util (X)         0.201         0.275         0.205         0.299           Departure Headway (Hd)         4.593         5.881         4.672         <		· ·						Z	
HCM Control Delay   9.8   8.8   10.2								٥	
Lane									
Lane         NBLn1         WBLn1         WBLn2         SBLn1           Vol Left, %         0%         100%         0%         56%           Vol Thru, %         37%         0%         0%         44%           Vol Right, %         63%         0%         100%         0%           Sign Control         Stop         Stop         Stop         Stop           Traffic Vol by Lane         150         160         150         205           LT Vol         55         0         0         90           Through Vol         95         0         150         0           RT Vol         0         160         0         115           Lane Flow Rate         158         168         158         216           Geometry Grp         2         7         7         2           Degree of Util (X)         0.201         0.275         0.205         0.299           Departure Headway (Hd)         4.593         5.881         4.672         4.994           Convergence, Y/N         Yes         Yes         Yes         Yes           Cap         777         608         763         716           Service Time									
Vol Left, %         0%         100%         0%         56%           Vol Thru, %         37%         0%         0%         44%           Vol Right, %         63%         0%         100%         0%           Sign Control         Stop         Stop         Stop         Stop           Traffic Vol by Lane         150         160         150         205           LT Vol         55         0         0         90           Through Vol         95         0         150         0           RT Vol         0         160         0         115           Lane Flow Rate         158         168         158         216           Geometry Grp         2         7         7         2           Degree of Util (X)         0.201         0.275         0.205         0.299           Departure Headway (Hd)         4.593         5.881         4.672         4.994           Convergence, Y/N         Yes         Yes         Yes           Cap         777         608         763         716           Service Time         2.648         3.644         2.435         3.044           HCM Lane V/C Ratio         0.203 </td <td>TIOW LOS</td> <td>Λ</td> <td></td> <td></td> <td></td> <td>^</td> <td></td> <td>D</td> <td></td>	TIOW LOS	Λ				^		D	
Vol Left, %         0%         100%         0%         56%           Vol Thru, %         37%         0%         0%         44%           Vol Right, %         63%         0%         100%         0%           Sign Control         Stop         Stop         Stop         Stop           Traffic Vol by Lane         150         160         150         205           LT Vol         55         0         0         90           Through Vol         95         0         150         0           RT Vol         0         160         0         115           Lane Flow Rate         158         168         158         216           Geometry Grp         2         7         7         2           Degree of Util (X)         0.201         0.275         0.205         0.299           Departure Headway (Hd)         4.593         5.881         4.672         4.994           Convergence, Y/N         Yes         Yes         Yes           Cap         777         608         763         716           Service Time         2.648         3.644         2.435         3.044           HCM Lane V/C Ratio         0.203 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
Vol Thru, %         37%         0%         0%         44%           Vol Right, %         63%         0%         100%         0%           Sign Control         Stop         Stop         Stop         Stop           Traffic Vol by Lane         150         160         150         205           LT Vol         55         0         0         90           Through Vol         95         0         150         0           RT Vol         0         160         0         115           Lane Flow Rate         158         168         158         216           Geometry Grp         2         7         7         2           Degree of Util (X)         0.201         0.275         0.205         0.299           Departure Headway (Hd)         4.593         5.881         4.672         4.994           Convergence, Y/N         Yes         Yes         Yes         Yes           Cap         777         608         763         716           Service Time         2.648         3.644         2.435         3.044           HCM Lane V/C Ratio         0.203         0.276         0.207         0.302           HCM La	Lane	N	NBLn1	WBLn1	WBLn2				
Vol Right, %         63%         0%         100%         0%           Sign Control         Stop         Stop         Stop         Stop           Traffic Vol by Lane         150         160         150         205           LT Vol         55         0         0         90           Through Vol         95         0         150         0           RT Vol         0         160         0         115           Lane Flow Rate         158         168         158         216           Geometry Grp         2         7         7         2           Degree of Util (X)         0.201         0.275         0.205         0.299           Departure Headway (Hd)         4.593         5.881         4.672         4.994           Convergence, Y/N         Yes         Yes         Yes         Yes           Cap         777         608         763         716           Service Time         2.648         3.644         2.435         3.044           HCM Lane V/C Ratio         0.203         0.276         0.207         0.302           HCM Lane LOS         A         B         A         B	Vol Left, %		0%	100%	0%	56%			
Sign Control         Stop         Stop         Stop         Stop           Traffic Vol by Lane         150         160         150         205           LT Vol         55         0         0         90           Through Vol         95         0         150         0           RT Vol         0         160         0         115           Lane Flow Rate         158         168         158         216           Geometry Grp         2         7         7         2           Degree of Util (X)         0.201         0.275         0.205         0.299           Departure Headway (Hd)         4.593         5.881         4.672         4.994           Convergence, Y/N         Yes         Yes         Yes         Yes           Cap         777         608         763         716           Service Time         2.648         3.644         2.435         3.044           HCM Lane V/C Ratio         0.203         0.276         0.207         0.302           HCM Control Delay         8.8         10.9         8.7         10.2           HCM Lane LOS         A         B         A         B	Vol Thru, %		37%	0%	0%				
Traffic Vol by Lane       150       160       150       205         LT Vol       55       0       0       90         Through Vol       95       0       150       0         RT Vol       0       160       0       115         Lane Flow Rate       158       168       158       216         Geometry Grp       2       7       7       2         Degree of Util (X)       0.201       0.275       0.205       0.299         Departure Headway (Hd)       4.593       5.881       4.672       4.994         Convergence, Y/N       Yes       Yes       Yes       Yes         Cap       777       608       763       716         Service Time       2.648       3.644       2.435       3.044         HCM Lane V/C Ratio       0.203       0.276       0.207       0.302         HCM Control Delay       8.8       10.9       8.7       10.2         HCM Lane LOS       A       B       A       B	Vol Right, %		63%	0%	100%	0%			
LT Vol       55       0       0       90         Through Vol       95       0       150       0         RT Vol       0       160       0       115         Lane Flow Rate       158       168       158       216         Geometry Grp       2       7       7       2         Degree of Util (X)       0.201       0.275       0.205       0.299         Departure Headway (Hd)       4.593       5.881       4.672       4.994         Convergence, Y/N       Yes       Yes       Yes         Cap       777       608       763       716         Service Time       2.648       3.644       2.435       3.044         HCM Lane V/C Ratio       0.203       0.276       0.207       0.302         HCM Control Delay       8.8       10.9       8.7       10.2         HCM Lane LOS       A       B       A       B	Sign Control		Stop	Stop	Stop	Stop			
LT Vol       55       0       0       90         Through Vol       95       0       150       0         RT Vol       0       160       0       115         Lane Flow Rate       158       168       158       216         Geometry Grp       2       7       7       2         Degree of Util (X)       0.201       0.275       0.205       0.299         Departure Headway (Hd)       4.593       5.881       4.672       4.994         Convergence, Y/N       Yes       Yes       Yes         Cap       777       608       763       716         Service Time       2.648       3.644       2.435       3.044         HCM Lane V/C Ratio       0.203       0.276       0.207       0.302         HCM Control Delay       8.8       10.9       8.7       10.2         HCM Lane LOS       A       B       A       B			150	160	150				
RT Vol 0 160 0 115  Lane Flow Rate 158 168 158 216  Geometry Grp 2 7 7 2  Degree of Util (X) 0.201 0.275 0.205 0.299  Departure Headway (Hd) 4.593 5.881 4.672 4.994  Convergence, Y/N Yes Yes Yes Yes  Cap 777 608 763 716  Service Time 2.648 3.644 2.435 3.044  HCM Lane V/C Ratio 0.203 0.276 0.207 0.302  HCM Control Delay 8.8 10.9 8.7 10.2  HCM Lane LOS A B A B				0	0	90			
Lane Flow Rate       158       168       158       216         Geometry Grp       2       7       7       2         Degree of Util (X)       0.201       0.275       0.205       0.299         Departure Headway (Hd)       4.593       5.881       4.672       4.994         Convergence, Y/N       Yes       Yes       Yes         Cap       777       608       763       716         Service Time       2.648       3.644       2.435       3.044         HCM Lane V/C Ratio       0.203       0.276       0.207       0.302         HCM Control Delay       8.8       10.9       8.7       10.2         HCM Lane LOS       A       B       A       B			95		150				
Geometry Grp       2       7       7       2         Degree of Util (X)       0.201       0.275       0.205       0.299         Departure Headway (Hd)       4.593       5.881       4.672       4.994         Convergence, Y/N       Yes       Yes       Yes         Cap       777       608       763       716         Service Time       2.648       3.644       2.435       3.044         HCM Lane V/C Ratio       0.203       0.276       0.207       0.302         HCM Control Delay       8.8       10.9       8.7       10.2         HCM Lane LOS       A       B       A       B	RT Vol		0	160	0	115			
Degree of Util (X)       0.201       0.275       0.205       0.299         Departure Headway (Hd)       4.593       5.881       4.672       4.994         Convergence, Y/N       Yes       Yes       Yes         Cap       777       608       763       716         Service Time       2.648       3.644       2.435       3.044         HCM Lane V/C Ratio       0.203       0.276       0.207       0.302         HCM Control Delay       8.8       10.9       8.7       10.2         HCM Lane LOS       A       B       A       B	Lane Flow Rate		158	168	158	216			
Departure Headway (Hd)       4.593       5.881       4.672       4.994         Convergence, Y/N       Yes       Yes       Yes       Yes         Cap       777       608       763       716         Service Time       2.648       3.644       2.435       3.044         HCM Lane V/C Ratio       0.203       0.276       0.207       0.302         HCM Control Delay       8.8       10.9       8.7       10.2         HCM Lane LOS       A       B       A       B	Geometry Grp		2	7	7	2			
Convergence, Y/N         Yes         Yes         Yes         Yes           Cap         777         608         763         716           Service Time         2.648         3.644         2.435         3.044           HCM Lane V/C Ratio         0.203         0.276         0.207         0.302           HCM Control Delay         8.8         10.9         8.7         10.2           HCM Lane LOS         A         B         A         B	Degree of Util (X)		0.201	0.275	0.205	0.299			
Cap       777       608       763       716         Service Time       2.648       3.644       2.435       3.044         HCM Lane V/C Ratio       0.203       0.276       0.207       0.302         HCM Control Delay       8.8       10.9       8.7       10.2         HCM Lane LOS       A       B       A       B	Departure Headway (Hd)		4.593	5.881	4.672	4.994			
Service Time         2.648         3.644         2.435         3.044           HCM Lane V/C Ratio         0.203         0.276         0.207         0.302           HCM Control Delay         8.8         10.9         8.7         10.2           HCM Lane LOS         A         B         A         B	Convergence, Y/N		Yes	Yes	Yes	Yes			
HCM Lane V/C Ratio       0.203       0.276       0.207       0.302         HCM Control Delay       8.8       10.9       8.7       10.2         HCM Lane LOS       A       B       A       B	Сар		777	608	763	716			
HCM Control Delay 8.8 10.9 8.7 10.2 HCM Lane LOS A B A B	Service Time		2.648	3.644	2.435	3.044			
HCM Lane LOS A B A B	HCM Lane V/C Ratio		0.203	0.276	0.207	0.302			
HCM Lane LOS A B A B	HCM Control Delay		8.8	10.9	8.7	10.2			
HCM 95th-tile Q 0.7 1.1 0.8 1.3	HCM Lane LOS		Α	В	Α	В			
	HCM 95th-tile Q		0.7	1.1	0.8	1.3			

<sup>~:</sup> Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error: Computation Not Defined

Intersection								Į
Intersection Delay, s/veh	7.1							
, , , , , , , , , , , , , , , , , , ,								
Movement	WBL	WBI	)	NBT	NBR	SBL	SBT	
Vol, veh/h	160	15		55	95	115	90	
Conflicting Peds, #/hr	0		)	0	0	0	0	
Sign Control	Stop	Sto		Free	Free	Free	Free	
RT Channelized	- Otop	Non		-	None	-	None	
Storage Length	0	10		_	-	_	-	
Veh in Median Storage, #	0		_	0	_	_	0	
Grade, %	0		-	0	-	-	0	
Peak Hour Factor	95	9	5	95	95	95	95	
Heavy Vehicles, %	0		)	0	0	0	0	
Mvmt Flow	168	15	3	58	100	121	95	
Major/Minor	Minor1			Major1		Major2		
Conflicting Flow All	445	10	2 2	0	0	158	0	
Stage 1	108	10	, -	-	-	130	-	
Stage 2	337		_	_	_	_	_	
Follow-up Headway	3.5	3.	3	_	_	2.2	_	
Pot Capacity-1 Maneuver	574	95		_	_	1434	_	
Stage 1	921	00	• -	_	_	-	_	
Stage 2	728		-	-	-	-	-	
Time blocked-Platoon, %				-	-		-	
Mov Capacity-1 Maneuver	523	95	1	-	-	1434	-	
Mov Capacity-2 Maneuver	523		-	-	-	-	-	
Stage 1	921		-	-	-	-	-	
Stage 2	663		-	-	-	-	-	
Approach	WB			NB		SB		
HCM Control Delay, s	12.4			0		4.3		
HCM LOS	В			•		1.0		
	_							
Minor Lane / Major Mvmt		NBT NBI	R WBLn1	WBLn2	SBL	SBT		
Capacity (veh/h)		-	- 523	951	1434	-		
HCM Lane V/C Ratio		-	- 0.322	0.166	0.084	-		
HCM Control Delay (s)			- 15.1	9.5	7.742	0		
HCM Lane LOS			С	Α	Α	Α		
HCM 95th %tile Q(veh)		-	- 1.382	0.594	0.276	-		
Notes								
~ : Volume Exceeds Capacit	tv: \$ · Delay	Exceeds 300 9	Seconds: F	rror · Com	nutation I	Not Define	ed.	
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	<b>→</b>	•	•	<b>←</b>	•	~
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	4			4	W	
Volume (veh/h)	85	15	35	120	30	25
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	96	17	39	135	34	28
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			112		317	104
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			112		317	104
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		95	97
cM capacity (veh/h)			1490		662	956
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	112	174	62			
Volume Left	0	39	34			
Volume Right	17	0	28			
cSH	1700	1490	770			
Volume to Capacity	0.07	0.03	0.08			
Queue Length 95th (ft)	0.07	2	7			
Control Delay (s)	0.0	1.9	10.1			
Lane LOS	0.0	A	В			
Approach Delay (s)	0.0	1.9	10.1			
Approach LOS	0.0	1.0	В			
• •						
Intersection Summary						
Average Delay	·		2.7			
Intersection Capacity Utiliza	ation		26.6%	IC	CU Level o	f Service
Analysis Period (min)			15			

	*	Ì	<b>*</b>	×	ን	~	
Movement	SET	SER	NWL	NWT	NEL	NER	
Lane Configurations	<b>∱</b> 1>			414	W		
Volume (veh/h)	385	35	25	435	30	30	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	418	38	27	473	33	33	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume			457		728	228	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			457		728	228	
tC, single (s)			4.1		6.8	6.9	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			98		91	96	
cM capacity (veh/h)			1101		350	774	
Direction, Lane #	SE 1	SE 2	NW 1	NW 2	NE 1		
Volume Total	279	178	185	315	65		
Volume Left	0	0	27	0	33		
Volume Right	0	38	0	0	33		
cSH	1700	1700	1101	1700	482		
Volume to Capacity	0.16	0.10	0.02	0.19	0.14		
Queue Length 95th (ft)	0	0	2	0	12		
Control Delay (s)	0.0	0.0	1.4	0.0	13.6		
Lane LOS			Α		В		
Approach Delay (s)	0.0		0.5		13.6		
Approach LOS					В		
Intersection Summary							
Average Delay			1.1				
Intersection Capacity Utiliza	ation		41.7%	IC	U Level o	f Service	
Analysis Period (min)			15				
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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<u></u>	LDIN	ሻ	<u> </u>	¥	ADIX
Volume (veh/h)	85	25	100	120	30	100
Sign Control	Free	20	100	Free	Stop	100
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	93	27	110	132	33	110
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				217		
pX, platoon unblocked						
vC, conflicting volume			121		459	107
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			121		459	107
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			93		94	88
cM capacity (veh/h)			1479		522	950
· ` ` ` ` `	EB 1	WB 1	WB 2	NB 1		
Direction, Lane # Volume Total	121	110	132	143		
Volume Left		110		33		
	0 27	0	0	33 110		
Volume Right cSH	1700	1479	1700	799		
	0.07	0.07	0.08	0.18		
Volume to Capacity				16		
Queue Length 95th (ft)	0	6	0			
Control Delay (s)	0.0	7.6	0.0	10.5		
Lane LOS	0.0	A		10 F		
Approach Delay (s)	0.0	3.5		10.5		
Approach LOS				В		
Intersection Summary						
Average Delay			4.6			
Intersection Capacity Utiliza	ation		28.7%	IC	U Level o	f Service
Analysis Period (min)			15			
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	₽			4		ሻ	<b>∱</b> ∱		ሻ	<b>∱</b> β	
Volume (vph)	90	20	75	30	15	15	100	360	10	10	315	105
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.88			0.97		1.00	1.00		1.00	0.96	
Flt Protected	0.95	1.00			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1646	1508			1650		1662	3311		1662	3200	
Flt Permitted	0.72	1.00			0.80		0.42	1.00		0.52	1.00	
Satd. Flow (perm)	1239	1508			1344		727	3311		905	3200	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	97	22	81	32	16	16	108	387	11	11	339	113
RTOR Reduction (vph)	0	68	0	0	13	0	0	1	0	0	30	0
Lane Group Flow (vph)	97	35	0	0	51	0	108	397	0	11	422	0
Heavy Vehicles (%)	1%	0%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	7.0	7.0			7.0		30.3	25.2		21.9	21.0	
Effective Green, g (s)	8.0	8.0			8.0		32.1	26.2		23.9	22.0	
Actuated g/C Ratio	0.17	0.17			0.17		0.67	0.54		0.50	0.46	
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.5	2.5			2.5		2.5	4.7		2.5	4.7	
Lane Grp Cap (vph)	206	250			223		603	1803		479	1463	
v/s Ratio Prot		0.02					c0.02	0.12		0.00	c0.13	
v/s Ratio Perm	c0.08				0.04		0.10			0.01		
v/c Ratio	0.47	0.14			0.23		0.18	0.22		0.02	0.29	
Uniform Delay, d1	18.1	17.1			17.4		3.0	5.7		6.1	8.2	
Progression Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.2	0.2			0.4		0.1	0.1		0.0	0.2	
Delay (s)	19.4	17.3			17.8		3.1	5.8		6.1	8.4	
Level of Service	В	В			В		Α	Α		Α	Α	
Approach Delay (s)		18.3			17.8			5.2			8.3	
Approach LOS		В			В			Α			Α	
Intersection Summary												
HCM 2000 Control Delay			9.2	Н	CM 2000	Level of	Service		Α			
HCM 2000 Volume to Capa	city ratio		0.31									
Actuated Cycle Length (s)			48.1	S	um of lost	time (s)			12.0			
Intersection Capacity Utiliza	ation		39.4%	IC	U Level o	of Service	)		Α			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Volume (veh/h)	30	130	2	10	155	20	2	5	5	5	5	40
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	35	151	2	12	180	23	2	6	6	6	6	47
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	203			153			487	449	152	446	438	192
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	203			153			487	449	152	446	438	192
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			99			99	99	99	99	99	95
cM capacity (veh/h)	1380			1439			449	490	899	505	498	855
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	188	215	14	58								
Volume Left	35	12	2	6								
Volume Right	2	23	6	47								
cSH	1380	1439	593	749								
Volume to Capacity	0.03	0.01	0.02	80.0								
Queue Length 95th (ft)	2	1	2	6								
Control Delay (s)	1.6	0.5	11.2	10.2								
Lane LOS	Α	Α	В	В								
Approach Delay (s)	1.6	0.5	11.2	10.2								
Approach LOS			В	В								
Intersection Summary												
Average Delay			2.4									
Intersection Capacity Utilizati	ion		30.8%	IC	U Level c	of Service			Α			
Analysis Period (min)			15									

Existing Conditions (2010)
PM Peak

Intersection Sign configuration not allowed in HCM analysis.

Intersection Sign configuration not allowed in HCM analysis.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ĵ»		ሻ	<b>†</b>	7	ሻ	<b>∱</b> }		ሻ	<b>∱</b> }	
Volume (vph)	35	145	30	95	220	105	50	330	100	100	290	35
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1662	1705		1662	1750	1488	1662	3209		1646	3242	
Flt Permitted	0.52	1.00		0.61	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	918	1705		1070	1750	1488	1662	3209		1646	3242	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	38	156	32	102	237	113	54	355	108	108	312	38
RTOR Reduction (vph)	0	8	0	0	0	83	0	31	0	0	9	0
Lane Group Flow (vph)	38	180	0	102	237	30	54	432	0	108	341	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4		4						
Actuated Green, G (s)	13.0	13.0		13.0	13.0	13.0	4.2	18.5		7.0	21.3	
Effective Green, g (s)	14.0	14.0		14.0	14.0	14.0	5.2	19.5		8.0	22.3	
Actuated g/C Ratio	0.26	0.26		0.26	0.26	0.26	0.10	0.36		0.15	0.42	
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	4.7		2.5	4.7	
Lane Grp Cap (vph)	240	446		280	457	389	161	1169		246	1351	
v/s Ratio Prot		0.11			c0.14		0.03	c0.13		c0.07	c0.11	
v/s Ratio Perm	0.04			0.10		0.02						
v/c Ratio	0.16	0.40		0.36	0.52	0.08	0.34	0.37		0.44	0.25	
Uniform Delay, d1	15.2	16.3		16.1	16.9	14.9	22.5	12.5		20.7	10.2	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	0.4		0.6	0.7	0.1	0.9	0.4		0.9	0.2	
Delay (s)	15.4	16.7		16.7	17.6	14.9	23.4	12.9		21.6	10.4	
Level of Service	В	В		В	В	В	С	В		С	В	
Approach Delay (s)		16.5			16.7			14.0			13.0	
Approach LOS		В			В			В			В	
Intersection Summary												
HCM 2000 Control Delay			14.8	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capa	city ratio		0.42									
Actuated Cycle Length (s)	•		53.5	S	um of lost	t time (s)			12.0			
Intersection Capacity Utiliza	ition		52.0%			of Service			Α			
Analysis Period (min)			15									

Intersection Sign configuration not allowed in HCM analysis.

	<b>→</b>	•	•	<b>←</b>	•	~
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	4			4	W	
Volume (veh/h)	35	255	10	20	125	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	40	290	11	23	142	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			330		230	185
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			330		230	185
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		81	99
cM capacity (veh/h)			1241		753	863
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	330	34	148			
Volume Left	0	11	142			
Volume Right	290	0	6			
cSH	1700	1241	757			
Volume to Capacity	0.19	0.01	0.20			
Queue Length 95th (ft)	0	1	18			
Control Delay (s)	0.0	2.7	10.9			
Lane LOS		Α	В			
Approach Delay (s)	0.0	2.7	10.9			
Approach LOS			В			
Intersection Summary						
Average Delay			3.3			
Intersection Capacity Utiliza	ation		34.4%	IC	U Level o	f Service
Analysis Period (min)			15			
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Existing Conditions (2010)
PM Peak

Intersection Sign configuration not allowed in HCM analysis.

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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	¥		1>			4
Volume (veh/h)	35	5	120	15	5	140
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	39	6	133	17	6	156
Pedestrians				•••	•	
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)			110110			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	308	142			150	
vC1, stage 1 conf vol	- 000				100	
vC2, stage 2 conf vol						
vCu, unblocked vol	308	142			150	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	<b>U.</b> 1	J.2				
tF (s)	3.5	3.3			2.2	
p0 queue free %	94	99			100	
cM capacity (veh/h)	685	911			1444	
			0.5		1777	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	44	150	161			
Volume Left	39	0	6			
Volume Right	6	17	0			
cSH	707	1700	1444			
Volume to Capacity	0.06	0.09	0.00			
Queue Length 95th (ft)	5	0	0			
Control Delay (s)	10.4	0.0	0.3			
Lane LOS	В		Α			
Approach Delay (s)	10.4	0.0	0.3			
Approach LOS	В					
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utiliza	ation		23.2%	IC	U Level of	Service
Analysis Period (min)			15			
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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		ર્ન	<b>f</b>		W		
Volume (veh/h)	2	80	120	10	10	5	
Sign Control		Free	Free		Stop		
Grade		0%	0%		0%		
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	
Hourly flow rate (vph)	2	96	145	12	12	6	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type		None	None				
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	157				252	151	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	157				252	151	
tC, single (s)	4.1				6.4	6.2	
tC, 2 stage (s)							
tF (s)	2.2				3.5	3.3	
p0 queue free %	100				98	99	
cM capacity (veh/h)	1436				740	901	
Direction, Lane #	EB 1	WB 1	SB 1				
Volume Total	99	157	18				
Volume Left	2	0	12				
Volume Right	0	12	6				
cSH	1436	1700	787				
Volume to Capacity	0.00	0.09	0.02				
Queue Length 95th (ft)	0.00	0.00	2				
Control Delay (s)	0.2	0.0	9.7				
Lane LOS	Α.Δ	0.0	Α				
Approach Delay (s)	0.2	0.0	9.7				
Approach LOS	0.2	0.0	A				
Intersection Summary							
Average Delay			0.7				
Intersection Capacity Utilizati	ion		18.3%	IC	illevel c	of Service	
Analysis Period (min)	1011		15.3 %	10	O LOVOI C	71 OCT VICE	
raidiyoio i oriod (iliili)			10				

	٠	•	4	<b>†</b>	<b>↓</b>	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W/			4	<b>1</b> >	
Volume (veh/h)	80	80	70	70	110	140
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	89	89	78	78	122	156
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	433	200	278			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	433	200	278			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	84	89	94			
cM capacity (veh/h)	548	846	1297			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	178	156	278			
Volume Left	89	78	0			
Volume Right	89	0	156			
cSH	665	1297	1700			
Volume to Capacity	0.27	0.06	0.16			
Queue Length 95th (ft)	27	5	0.10			
Control Delay (s)	12.4	4.2	0.0			
Lane LOS	В	Α	0.0			
Approach Delay (s)	12.4	4.2	0.0			
Approach LOS	В		0.0			
Intersection Summary						
Average Delay			4.7			
Intersection Capacity Utiliz	ation		45.2%	IC	CU Level of	Service
Analysis Period (min)			15			

	•	•	•	<b>†</b>	<b>†</b>	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥			4	1>	
Volume (veh/h)	30	10	20	105	135	40
Sign Control	Stop		-	Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	36	12	24	125	161	48
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	357	185	208			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	357	185	208			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	99	98			
cM capacity (veh/h)	634	863	1375			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	48	149	208			
Volume Left	36	24	200			
Volume Right	12	0	48			
cSH	679	1375	1700			
Volume to Capacity	0.07	0.02	0.12			
Queue Length 95th (ft)	6	1	0.12			
Control Delay (s)	10.7	1.3	0.0			
Lane LOS	10.7 B	1.3 A	0.0			
Approach Delay (s)	10.7	1.3	0.0			
Approach LOS	В	1.0	0.0			
••						
Intersection Summary						
Average Delay			1.8			•
Intersection Capacity Utiliza	ation		32.1%	IC	CU Level of	Service
Analysis Period (min)			15			

	•	<b>→</b>	←	•	<b>\</b>	1
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		ર્ન	<b>f</b> a		W	
Sign Control		Stop	Stop		Stop	
Volume (vph)	60	35	60	25	15	80
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	61	36	61	26	15	82
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total (vph)	97	87	97			
Volume Left (vph)	61	0	15			
Volume Right (vph)	0	26	82			
Hadj (s)	0.13	-0.18	-0.47			
Departure Headway (s)	4.3	4.0	3.8			
Degree Utilization, x	0.12	0.10	0.10			
Capacity (veh/h)	811	867	893			
Control Delay (s)	7.9	7.5	7.3			
Approach Delay (s)	7.9	7.5	7.3			
Approach LOS	Α	Α	Α			
Intersection Summary						
Delay			7.5			
Level of Service			Α			
Intersection Capacity Utilizat	tion		26.0%	IC	U Level c	of Service
Analysis Period (min)			15			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	95	15	20	125	35	20	60	40	30	75	15
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	5	98	15	21	129	36	21	62	41	31	77	15
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	119	186	124	124								
Volume Left (vph)	5	21	21	31								
Volume Right (vph)	15	36	41	15								
Hadj (s)	-0.01	-0.08	-0.17	-0.02								
Departure Headway (s)	4.7	4.6	4.6	4.8								
Degree Utilization, x	0.16	0.24	0.16	0.16								
Capacity (veh/h)	707	739	723	699								
Control Delay (s)	8.6	9.0	8.5	8.7								
Approach Delay (s)	8.6	9.0	8.5	8.7								
Approach LOS	Α	Α	Α	Α								
Intersection Summary												
Delay			8.7									
Level of Service			Α									
Intersection Capacity Utilizat	ion		35.9%	IC	U Level c	f Service			Α			
Analysis Period (min)			15									

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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	W		ሻ	<b>^</b>	<b>∱</b> }			
Volume (vph)	90	75	90	390	345	70		
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750		
Total Lost time (s)	4.0		4.0	4.0	4.0			
Lane Util. Factor	1.00		1.00	0.95	0.95			
Frt	0.94		1.00	1.00	0.97			
Flt Protected	0.97		0.95	1.00	1.00			
Satd. Flow (prot)	1599		1662	3325	3241			
Flt Permitted	0.97		0.41	1.00	1.00			
Satd. Flow (perm)	1599		718	3325	3241			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95		
Adj. Flow (vph)	95	79	95	411	363	74		
RTOR Reduction (vph)	40	0	0	0	20	0		
Lane Group Flow (vph)	134	0	95	411	417	0		
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%		
Turn Type	NA		pm+pt	NA	NA			
Protected Phases	8		1	6	2			
Permitted Phases			6					
Actuated Green, G (s)	8.5		26.6	26.6	17.7			
Effective Green, g (s)	9.5		27.6	28.6	19.7			
Actuated g/C Ratio	0.21		0.60	0.62	0.43			
Clearance Time (s)	5.0		5.0	6.0	6.0			
Vehicle Extension (s)	2.5		2.5	4.7	4.7			
Lane Grp Cap (vph)	329		530	2062	1384			
v/s Ratio Prot	c0.08		0.02	c0.12	c0.13			
v/s Ratio Perm			0.09					
v/c Ratio	0.41		0.18	0.20	0.30			
Uniform Delay, d1	15.9		4.1	3.8	8.7			
Progression Factor	1.00		1.00	1.00	1.00			
Incremental Delay, d2	0.6		0.1	0.1	0.2			
Delay (s)	16.5		4.3	3.9	8.9			
Level of Service	В		Α	Α	Α			
Approach Delay (s)	16.5			3.9	8.9			
Approach LOS	В			Α	Α			
Intersection Summary								
HCM 2000 Control Delay			7.8	Н	CM 2000	Level of Service	Α	
HCM 2000 Volume to Capac	city ratio		0.32					
Actuated Cycle Length (s)	•		46.1	S	um of lost	time (s)	12.0	
Intersection Capacity Utilizat	tion		38.6%		U Level c	` '	Α	
Analysis Period (min)			15					
c Critical Lane Group								

	•	<b>→</b>	•	<b>√</b>	+	•	•	<b>†</b>	<i>&gt;</i>	<b>/</b>	<b>+</b>	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	2	5	2	5	2	30	0	30	20	15	35	5
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	2	6	2	6	2	34	0	34	23	17	40	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	10	43	57	63								
Volume Left (vph)	2	6	0	17								
Volume Right (vph)	2	34	23	6								
Hadj (s)	-0.09	-0.46	-0.24	0.00								
Departure Headway (s)	4.1	3.7	3.8	4.1								
Degree Utilization, x	0.01	0.04	0.06	0.07								
Capacity (veh/h)	846	938	914	870								
Control Delay (s)	7.1	6.9	7.1	7.4								
Approach Delay (s)	7.1	6.9	7.1	7.4								
Approach LOS	Α	Α	Α	Α								
Intersection Summary												
Delay			7.1									
Level of Service			Α									
Intersection Capacity Utilizati	ion		20.7%	IC	U Level o	of Service			Α			
Analysis Period (min)			15									

	۶	•	4	<b>†</b>	ļ	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			414	<b>∱</b> }	
Volume (veh/h)	35	10	15	425	370	25
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	36	10	15	438	381	26
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	644	204	407			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	644	204	407			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	0.0	0.0				
tF (s)	3.5	3.3	2.2			
p0 queue free %	91	99	99			
cM capacity (veh/h)	404	809	1162			
· · · · · · · · ·						
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	46	162	292	254	153	
Volume Left	36	15	0	0	0	
Volume Right	10	0	0	0	26	
cSH	455	1162	1700	1700	1700	
Volume to Capacity	0.10	0.01	0.17	0.15	0.09	
Queue Length 95th (ft)	8	1	0	0	0	
Control Delay (s)	13.8	0.9	0.0	0.0	0.0	
Lane LOS	В	Α				
Approach Delay (s)	13.8	0.3		0.0		
Approach LOS	В					
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilizat	ion		35.4%	IC	CU Level c	of Service
Analysis Period (min)			15			

Intersection							
Intersection Delay, s/veh	2.6						
Movement	EBT	EBR	WBL	WBT	NB	L NBR	
Vol, veh/h	85	15	35	120	3		
Conflicting Peds, #/hr	0	0	0	0		0 0	
Sign Control	Free	Free	Free	Free	Sto		
RT Channelized	-	None	-	None	0.0	- None	
Storage Length	_	-	-	-		0 -	
Veh in Median Storage, #	0	-	-	0		0 -	
Grade, %	0	-	-	0		0 -	
Peak Hour Factor	89	89	89	89	8	9 89	
Heavy Vehicles, %	1	0	0	0		0 0	
Mvmt Flow	96	17	39	135	3	4 28	
Major/Minor	Major1		Major2		Minor	1	
Conflicting Flow All	0	0	112	0	31	7 104	
Stage 1	-	-	-	-	10	4 -	
Stage 2	-	-	-	-	21	3 -	
Follow-up Headway	-	-	2.2	-	3.	5 3.3	
Pot Capacity-1 Maneuver	-	-	1490	-	68	0 956	
Stage 1	-	-	-	-	92	5 -	
Stage 2	-	-	-	-	82	7 -	
Time blocked-Platoon, %	-	-		-			
Mov Capacity-1 Maneuver	-	-	1490	-	66		
Mov Capacity-2 Maneuver	-	-	-	-	66		
Stage 1	-	-	-	-	92		
Stage 2	-	-	-	-	80	4 -	
Approach	EB		WB		N	3	
HCM Control Delay, s	0		1.7		10.	1	
HCM LOS						В	
Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT		
Capacity (veh/h)	769	-	-	1490	-		
HCM Lane V/C Ratio	0.08	-	-	0.026	-		
HCM Control Delay (s)	10.1	-	-	7.482	0		
HCM Lane LOS	В			Α	Α		
HCM 95th %tile Q(veh)	0.261	-	-	0.081	-		
Notes							
~: Volume Exceeds Capacity;	\$ : Delay Exceeds	300 Sec	onds: Frr	or : Comr	outation Not Det	ined	
. Totalilo Excoodo Capacity,	T. Dolay Exocou	, 500 000	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	51 . OUTIN	ALALION NOL DO		

Intersection							
ntersection Delay, s/veh	1.1						
	257	055	<b>.</b>	h 11 A / <del>-</del>	NE.	NED.	
Movement	SET	SER	NWL	NWT	NEL	NER	
Vol, veh/h	385	35	25	435	30	30	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	-	-	-	0	-	
eh in Median Storage, #	0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	
//wmt Flow	418	38	27	473	33	33	
Major/Minor	Major1		Major2		Minor1		
Conflicting Flow All	0	0	457	0	729	228	
Stage 1	-	-	-	-	438	-	
Stage 2	-	-	-	-	291	-	
ollow-up Headway	-	-	2.22	-	3.52	3.32	
ot Capacity-1 Maneuver	-	-	1100	-	358	775	
Stage 1	-	-	-	-	618	-	
Stage 2	-	-	-	-	733	-	
ime blocked-Platoon, %	-	-		-			
lov Capacity-1 Maneuver	-	-	1100	-	346	775	
lov Capacity-2 Maneuver	-	-	-	-	346	-	
Stage 1	-	-	-	-	618	-	
Stage 2	-	-	-	-	709	-	
pproach	SE		NW		NE		
ICM Control Delay, s	0		0.5		13.7		
ICM LOS					В		
linor Lane / Major Mvmt	NELn1	NWL	NWT	SET	SER		
Capacity (veh/h)	478	1100	-	-	-		
CM Lane V/C Ratio	0.136	0.025	-	-	<u>-</u>		
CM Control Delay (s)	13.7	8.356	0.1	_	-		
CM Lane LOS	В	A	A				
CM 95th %tile Q(veh)	0.47	0.076	-	_	-		
` '							
otes	C. Dolov Ever-d	200.0-	ands: F:::	on I Commi	utation Net Defired		
: Volume Exceeds Capacity;	a : Delay Exceeds	300 500	conas; Err	or : Comp	utation not Defined		

Intersection										
Intersection Delay, s/veh	4.6									
Movement	EBT	EBR	WBL	WBT	NBL	NBR				
Vol, veh/h	85	25	100	120	30					
Conflicting Peds, #/hr	00	0	0	0	0					
Sign Control	Free	Free	Free	Free	Stop					
RT Channelized	-	None	riee -	None	Stop	None				
Storage Length	-	None -	0	-	0					
Veh in Median Storage, #	0	-	-	0	0					
Grade, %	0	_	_	0	0					
Peak Hour Factor	91	91	91	91	91					
Heavy Vehicles, %	1	0	0	0	0					
Mymt Flow	93	27	110	132	33					
IVIVIIIL I IOW	30	۷1	110	102	33	110				
N. 1. /N.P.					h.e. (					
Major/Minor	Major1		Major2		Minor1					
Conflicting Flow All	0	0	121	0	459					
Stage 1	-	-	-	-	107					
Stage 2	-	-	-	-	352					
Follow-up Headway	-	-	2.2	-	3.5					
Pot Capacity-1 Maneuver	-	-	1479	-	564					
Stage 1	-	-	-	-	922					
Stage 2	-	-	-	-	716	-				
Time blocked-Platoon, %	-	-		-						
Mov Capacity-1 Maneuver	-	-	1479	-	522					
Mov Capacity-2 Maneuver	-	-	-	-	522					
Stage 1	-	-	-	-	922					
Stage 2	-	-	-	-	663	-				
Approach	EB		WB		NB					
HCM Control Delay, s	0		3.5		10.5					
HCM LOS					В					
Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT					
Capacity (veh/h)	799	-	-	1479	-					
HCM Lane V/C Ratio	0.179	-	-	0.074	-					
HCM Control Delay (s)	10.5	-	-	7.629	-					
HCM Lane LOS	В			Α						
HCM 95th %tile Q(veh)	0.648	-	-	0.24	-					
` '										
Notes	C. Dolov Even de	200 0	onds: F	or i Com	utation Not Defi	and				
~: Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined										

	<u></u>	<b>→</b>	•	•	<b>—</b>	•	1	<b>†</b>	_	<b>/</b>	<b>↓</b>	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ř	ĵ.			4		*	<b>∱</b> }		*	<b>∱</b> }	
Volume (veh/h)	90	20	75	30	15	15	100	360	10	10	315	105
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	173.3	171.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0
Lanes	1	1	0	0	1	0	1	2	0	1	2	0
Cap, veh/h	318	62	228	190	97	62	665	1876	53	678	1285	421
Arrive On Green	0.19	0.19	0.17	0.17	0.19	0.17	0.07	0.55	0.53	0.03	0.51	0.48
Sat Flow, veh/h	1385	321	1181	458	502	320	1667	3387	96	1667	2526	828
Grp Volume(v), veh/h	97	0	103	64	0	0	108	200	198	11	233	219
Grp Sat Flow(s),veh/h/ln	1385	0	1501	1280	0	0	1667	1750	1733	1667	1750	1604
Q Serve(g_s), s	3.5	0.0	3.2	0.1	0.0	0.0	1.4	3.1	3.1	0.2	4.0	4.2
Cycle Q Clear(g_c), s	6.8	0.0	3.2	3.3	0.0	0.0	1.4	3.1	3.1	0.2	4.0	4.2
Prop In Lane	1.00		0.79	0.50		0.25	1.00		0.06	1.00		0.52
Lane Grp Cap(c), veh/h	318	0	290	313	0	0	665	969	960	678	890	816
V/C Ratio(X)	0.31	0.00	0.35	0.20	0.00	0.00	0.16	0.21	0.21	0.02	0.26	0.27
Avail Cap(c_a), veh/h	857	0	875	876	0	0	1046	1349	1336	1134	1349	1236
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.6	0.0	19.1	18.5	0.0	0.0	4.3	6.0	6.0	5.8	7.4	7.7
Incr Delay (d2), s/veh	0.4	0.0	0.5	0.2	0.0	0.0	0.1	0.2	0.2	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.1	0.0	1.1	0.7	0.0	0.0	0.3	0.9	0.9	0.0	1.2	1.2
Lane Grp Delay (d), s/veh	22.0	0.0	19.7	18.7	0.0	0.0	4.4	6.2	6.2	5.8	7.7	8.0
Lane Grp LOS	С		В	В			Α	Α	Α	Α	Α	A
Approach Vol, veh/h		200			64			506			463	
Approach Delay, s/veh		20.8			18.7			5.8			7.8	
Approach LOS		С			В			Α			Α	
Timer												
Assigned Phs		8			4		1	6		5	2	
Phs Duration (G+Y+Rc), s		14.3			14.3		7.8	33.5		5.5	31.1	
Change Period (Y+Rc), s		5.0			5.0		5.0	5.0		5.0	5.0	
Max Green Setting (Gmax), s		30.0			30.0		15.0	40.0		15.0	40.0	
Max Q Clear Time (g_c+l1), s		8.8			5.3		3.4	5.1		2.2	6.2	
Green Ext Time (p_c), s		1.0			1.0		0.2	20.3		0.0	19.8	
Intersection Summary												
HCM 2010 Ctrl Delay			9.7									
HCM 2010 LOS			Α									

Two Way Analysis cannot be performed on Signalized Intersection.

Intersection												
Intersection Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Vol, veh/h	30	130	2	10	155	20	2	5	5	5	5	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	C
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	1	0	2	1	0	0	0	0
Mvmt Flow	35	151	2	12	180	23	2	6	6	6	6	47
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	203	0	0	153	0	0	463	449	152	443	438	192
Stage 1	-	-	-	-	-	-	222	222	-	215	215	-
Stage 2	-	-	-	-	-	-	241	227	-	228	223	-
Follow-up Headway	2.2	-	-	2.2	-	-	3.518	4.009	3.3	3.5	4	3.3
Pot Capacity-1 Maneuver	1381	-	-	1440	-	-	509	507	900	528	515	855
Stage 1	-	-	-	-	-	-	780	722	-	792	729	-
Stage 2	-	-	-	-	-	-	762	718	-	779	723	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1381	-	-	1440	-	-	464	488	900	505	496	855
Mov Capacity-2 Maneuver	-	-	-	-	-	-	464	488	-	505	496	-
Stage 1	-	-	-	-	-	-	758	702	-	770	722	-
Stage 2	-	-	-	-	-	-	708	712	-	746	703	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			0.4			11.2			10.2		
HCM LOS							В			В		
Minor Lane / Major Mvmt		NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)		597	1381	-	-	1440	-	-	749			
HCM Lane V/C Ratio		0.023	0.025	-	-	0.008	-	-	0.078			
HCM Control Delay (s)		11.2	7.674	0	-	7.52	0	-	10.2			
HCM Lane LOS		В	Α	Α		Α	Α		В			
HCM 95th %tile Q(veh)		0.072	0.078	-	-	0.024	-	-	0.252			
Notes												
~ : Volume Exceeds Capacit	tv: \$ : Dela	v Exceed	s 300 Sec	conds: Frr	or : Com	outation N	Not Define	ed				
. Totallio Excedes Capaci	.,, φ . Dolo	.,	000 000	, ciido, Eli	J Join	Patation	.50 201110					

Intersection						
Intersection Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	55	135	135	70	70	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	4	2	1	0	0
Mvmt Flow	59	145	145	75	75	75
Major/Minor			Major1		Minor2	
Conflicting Flow All			0	0	366	0
Stage 1			-	U	0	-
Stage 2			-	-	366	-
Follow-up Headway			-	-	4	-
Pot Capacity-1 Maneuver			_	-	566	-
Stage 1			_	_	-	_
Stage 2			_		626	_
Time blocked-Platoon, %			_	_	020	_
Mov Capacity-1 Maneuver			_		# 0	_
Mov Capacity-1 Maneuver			_	_	#0	_
Stage 1			_	_	# 0	_
Stage 2			_	_	# 0	_
Olugo Z					# 0	
Approach			NB		SB	
HCM Control Delay, s			0		+	
HCM LOS					-	
Minor Lane / Major Mvmt		NBL NBT	SBLn1			
Capacity (veh/h)			+			
HCM Lane V/C Ratio			+			
HCM Control Delay (s)			+			
HCM Lane LOS			+			
HCM 95th %tile Q(veh)			+			

Intersection									
Intersection Delay, s/veh	0								
Movement	WBL		WBR		NBT	NBR	SBL	SBT	
Vol, veh/h	160		150		55	95	115	90	
Conflicting Peds, #/hr	0		0		0	0	0	0	
Sign Control	Stop		Stop		Stop	Stop	Free	Free	
RT Channelized	<u>-</u>		None		-	None	-	None	
Storage Length	0		100		-	-	-	-	
Veh in Median Storage, #	0		-		0	-	-	0	
Grade, %	0		-		0	-	-	0	
Peak Hour Factor	95		95		95	95	95	95	
Heavy Vehicles, %	0		0		0	0	0	0	
Mvmt Flow	168		158		58	100	121	95	
Major/Minor	Minor1				Minor2		Major2		
Conflicting Flow All	416		0		337	95	0	0	
Stage 1	0		-		337	-	_	-	
Stage 2	416		_		0	_	_	_	
Follow-up Headway	3.5		_		4	3.3	_	_	
Pot Capacity-1 Maneuver	597		-		587	967	-	-	
Stage 1	-		_		645	-	_	_	
Stage 2	670		-		-	-	-	-	
Time blocked-Platoon, %								-	
Mov Capacity-1 Maneuver	597		-		# 0	967	-	-	
Mov Capacity-2 Maneuver	597		-		# 0	-	-	-	
Stage 1	-		-		# 0	-	-	-	
Stage 2	670		-		# 0	-	-	-	
Approach	WB				NB		SB		
HCM Control Delay, s	+				+		0		
HCM LOS	-				-		-		
Minor Lane / Major Mvmt		NBLn1	WBLn1	WBLn2	SBL	SBT			
Capacity (veh/h)		+	597	+	-				
HCM Lane V/C Ratio		+	0.282	+	_	_			
HCM Control Delay (s)		+	13.4	+	-	_			
HCM Lane LOS		+	В	+					
HCM 95th %tile Q(veh)		+	1.154	+	-	-			
Notes									

Lane Configurations    1		•	<b>→</b>	•	•	<b>—</b>	•	•	<b>†</b>	_	<b>/</b>	<b></b>	1
Volume (vehih) 35 145 30 95 220 105 50 330 100 100 290 35 Number	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Volume (vehlh) 35 145 30 95 220 105 50 330 100 100 290 35 Number 3 3 8 18 7 4 14 1 1 6 16 5 2 12 10 Initial Q (Qb), veh 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Lane Configurations	Ť	ĥ		, j	<b>†</b>	7	*	<b>↑</b> ĵ₃		, j	<b>∱</b> }	
Initial Q (Qb), veh	Volume (veh/h)	35		30	95	220	105	50		100	100		35
Ped-Bike Adj(A_pbT)	Number	3	8	18	7	4	14	1	6	16	5	2	
Parking Bus Adj	Initial Q (Qb), veh	0	0		0	0			0	0	0	0	
Adj Sat Flow veh/h/ln	Ped-Bike Adj(A_pbT)												
Lanes	Parking Bus Adj												
Cap, veh/h	Adj Sat Flow veh/h/ln												
Arrive On Green	Lanes												
Sat Flow, veh/h  Sat Flow, veh/h  1047  1410  289  1214  1750  1487  1667  3500  0  1650  3038  367  Grp Volume(v), veh/h  38  0  188  102  237  113  54  355  0  108  177  173  679  Sat Flow(s), veh/h/ln  1047  0  1699  1214  1750  1487  1667  1750  0  1650  1750  0  1650  1750  1650  1750  1670  Q Serve(g, s), s  1.9  0.0  5.3  4.4  6.7  3.5  1.8  3.7  0.0  3.6  3.5  3.6  Cycle Q Clear(g, c), s  8.5  0.0  5.3  9.7  6.7  3.5  1.8  3.7  0.0  3.6  3.5  3.6  Cycle Q Clear(g, c), s  8.5  0.0  0.17  1.00  1.00  1.00  1.00  0.00	• •												
Grp Volume(v), veh/h  38  0  188  102  237  113  54  355  0  108  177  173  Grp Sat Flow(s), veh/h/ln  1047  0  1699  1214  1750  1487  1667  1750  0  0  0  0  0  0  0  0  0  0  0  0													
Grp Sat Flow(s), veh/h/ln 1047 0 1699 1214 1750 1487 1667 1750 0 1650 1735 1670 Q Serve(g. s), s 1.9 0.0 5.3 4.4 6.7 3.5 1.8 3.7 0.0 3.6 3.5 3.6 200 (Serve(g. c), s 8.5 0.0 5.3 9.7 6.7 3.5 1.8 3.7 0.0 3.6 3.5 3.6 200 (Serve(g. c), s 8.5 0.0 5.3 9.7 6.7 3.5 1.8 3.7 0.0 3.6 3.5 3.6 200 (Serve(g. c), s 8.5 0.0 5.3 9.7 6.7 3.5 1.8 3.7 0.0 3.6 3.5 3.6 200 (Serve(g. c), s 8.5 0.0 5.3 9.7 6.7 3.5 1.8 3.7 0.0 3.6 3.5 3.6 200 (Serve(g. c), s 9.7 6.7 3.5 1.8 3.7 0.0 3.6 3.5 3.6 200 (Serve(g. c), s 9.7 6.7 3.5 1.8 3.7 0.0 3.6 3.5 3.6 200 (Serve(g. c), s 9.7 6.7 3.5 1.8 3.7 0.0 3.6 3.5 3.6 200 (Serve(g. c), s 9.7 6.7 3.5 1.8 3.7 0.0 3.6 3.5 3.6 200 (Serve(g. c), s 9.7 6.7 3.5 1.8 3.7 0.0 3.6 3.5 3.6 200 (Serve(g. c), s 9.7 6.7 3.5 1.8 3.7 0.0 3.6 3.5 3.6 200 (Serve(g. c), s 9.7 6.7 3.5 1.8 3.7 0.0 3.6 3.5 3.6 200 (Serve(g. c), s 9.7 6.7 3.5 1.8 3.7 0.0 3.6 3.5 3.6 200 (Serve(g. c), s 9.7 6.7 3.5 1.8 3.7 0.0 3.6 3.5 3.6 200 (Serve(g. c), s 9.7 6.7 3.5 1.8 3.7 0.0 3.6 3.5 3.6 200 (Serve(g. c), s 9.7 6.7 3.5 1.8 3.7 0.0 3.6 3.5 3.6 200 (Serve(g. c), s 9.7 6.7 3.5 1.8 3.7 0.0 3.6 3.5 3.6 200 (Serve(g. c), s 9.4 1493 0.0 1.00 1.00 0.0 0.0 0.0 0.0 0.0 0.0 0	Sat Flow, veh/h		1410					1667	3500	0			
Q Serve(g_s), s	Grp Volume(v), veh/h												
Cycle Q Clear(g_c), s													
Prop In Lane	Q Serve(g_s), s												
Lane Grp Cap(c), veh/h	(0_ ):		0.0			6.7			3.7			3.5	
V/C Ratio(X)	•												
Avail Cap(c_a), veh/h 565 0 910 663 937 797 461 2479 0 456 1228 1183 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	<b>、</b> ,												
Upstream Filter(I)         1.00         0.00         1.00 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>													
Uniform Delay (d), s/veh 21.7 0.0 17.7 21.6 18.1 16.9 26.6 10.6 0.0 25.1 9.0 9.2 lncr Delay (d2), s/veh 0.2 0.0 0.5 0.4 0.6 0.3 4.0 0.2 0.0 3.2 0.2 0.3 lnitial Q Delay(d3),s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.													
Incr Delay (d2), s/veh													
Initial Q Delay(d3),s/veh													
%ile Back of Q (50%), veh/ln       0.5       0.0       2.2       1.3       2.8       0.0       0.8       1.4       0.0       1.6       1.2       1.2         Lane Grp Delay (d), s/veh       21.8       0.0       18.1       21.9       18.7       17.2       30.7       10.7       0.0       28.3       9.3       9.4         Lane Grp LOS       C       B       C       B       B       C       B       C       A       A         Approach Vol, veh/h       226       452       409       458         Approach Delay, s/veh       18.7       19.0       13.4       13.8         Approach LOS       B       B       B       B       B       B       B         Timer         Assigned Phs       B													
Lane Grp Delay (d), s/veh         21.8         0.0         18.1         21.9         18.7         17.2         30.7         10.7         0.0         28.3         9.3         9.4           Lane Grp LOS         C         B         C         B         B         C         A         A           Approach Vol, veh/h         226         452         409         458           Approach Delay, s/veh         18.7         19.0         13.4         13.8           Approach LOS         B         B         B         B         B         B           Timer           Assigned Phs         8         4         1         6         5         2           Phs Duration (G+Y+Rc), s         19.4         19.4         7.3         28.7         9.8         31.2           Change Period (Y+Rc), s         5.0         5.													
Lane Grp LOS         C         B         C         B         B         C         B         C         A         A           Approach Vol, veh/h         226         452         409         458           Approach Delay, s/veh         18.7         19.0         13.4         13.8           Approach LOS         B         B         B         B         B         B           Timer           Assigned Phs         8         4         1         6         5         2           Phs Duration (G+Y+Rc), s         19.4         19.4         7.3         28.7         9.8         31.2           Change Period (Y+Rc), s         5.0													
Approach Vol, veh/h 226 452 409 458 Approach Delay, s/veh 18.7 19.0 13.4 13.8 Approach LOS B B B B B  Timer  Assigned Phs 8 4 1 6 5 2 Phs Duration (G+Y+Rc), s 19.4 19.4 7.3 28.7 9.8 31.2 Change Period (Y+Rc), s 5.0 5.0 5.0 5.0 5.0 5.0 Max Green Setting (Gmax), s 30.0 30.0 15.0 40.0 15.0 40.0 Max Q Clear Time (g_c+I1), s 10.5 11.7 3.8 5.7 5.6 5.6 Green Ext Time (p_c), s 2.7 2.7 0.1 18.0 0.2 18.0  Intersection Summary  HCM 2010 Ctrl Delay 15.9 HCM 2010 LOS B	,		0.0							0.0			
Approach Delay, s/veh       18.7       19.0       13.4       13.8         Approach LOS       B       B       B       B         Timer         Assigned Phs       8       4       1       6       5       2         Phs Duration (G+Y+Rc), s       19.4       19.4       7.3       28.7       9.8       31.2         Change Period (Y+Rc), s       5.0       5.0       5.0       5.0       5.0       5.0         Max Green Setting (Gmax), s       30.0       30.0       15.0       40.0       15.0       40.0         Max Q Clear Time (g_c+I1), s       10.5       11.7       3.8       5.7       5.6       5.6         Green Ext Time (p_c), s       2.7       2.7       0.1       18.0       0.2       18.0         Intersection Summary         HCM 2010 LOS       B		<u> </u>	222	В	C		В	U			C		A
Approach LOS B B B B B B  Timer  Assigned Phs 8 4 1 6 5 2 Phs Duration (G+Y+Rc), s 19.4 19.4 7.3 28.7 9.8 31.2 Change Period (Y+Rc), s 5.0 5.0 5.0 5.0 5.0 5.0 Max Green Setting (Gmax), s 30.0 30.0 15.0 40.0 15.0 40.0 Max Q Clear Time (g_c+l1), s 10.5 11.7 3.8 5.7 5.6 5.6 Green Ext Time (p_c), s 2.7 2.7 0.1 18.0 0.2 18.0  Intersection Summary HCM 2010 Ctrl Delay 15.9 HCM 2010 LOS B	• •												
Timer  Assigned Phs 8 4 1 6 5 2  Phs Duration (G+Y+Rc), s 19.4 19.4 7.3 28.7 9.8 31.2  Change Period (Y+Rc), s 5.0 5.0 5.0 5.0 5.0 5.0  Max Green Setting (Gmax), s 30.0 30.0 15.0 40.0 15.0 40.0  Max Q Clear Time (g_c+l1), s 10.5 11.7 3.8 5.7 5.6 5.6  Green Ext Time (p_c), s 2.7 2.7 0.1 18.0 0.2 18.0  Intersection Summary  HCM 2010 Ctrl Delay 15.9  HCM 2010 LOS B													
Assigned Phs 8 4 1 6 5 2 Phs Duration (G+Y+Rc), s 19.4 19.4 7.3 28.7 9.8 31.2 Change Period (Y+Rc), s 5.0 5.0 5.0 5.0 5.0 5.0 Max Green Setting (Gmax), s 30.0 30.0 15.0 40.0 15.0 40.0 Max Q Clear Time (g_c+l1), s 10.5 11.7 3.8 5.7 5.6 5.6 Green Ext Time (p_c), s 2.7 2.7 0.1 18.0 0.2 18.0  Intersection Summary HCM 2010 Ctrl Delay 15.9 HCM 2010 LOS B	Approach LOS		В			В			В			В	
Phs Duration (G+Y+Rc), s 19.4 19.4 7.3 28.7 9.8 31.2 Change Period (Y+Rc), s 5.0 5.0 5.0 5.0 5.0 5.0 Max Green Setting (Gmax), s 30.0 30.0 15.0 40.0 15.0 40.0 Max Q Clear Time (g_c+l1), s 10.5 11.7 3.8 5.7 5.6 5.6 Green Ext Time (p_c), s 2.7 2.7 0.1 18.0 0.2 18.0  Intersection Summary HCM 2010 Ctrl Delay 15.9 HCM 2010 LOS B	Timer												
Change Period (Y+Rc), s       5.0       40.0       40.0       40.0       40.0       40.0       40.0       6.0       5.6       5.6       5.6       5.6       5.6       5.6       5.6       5.6       5.6       5.6       5.6       5.6       5.6       5.6       5.6       5.6       5.6       5.0       5.0       5.0       40.0 <td>Assigned Phs</td> <td></td>	Assigned Phs												
Max Green Setting (Gmax), s       30.0       30.0       15.0       40.0       15.0       40.0         Max Q Clear Time (g_c+l1), s       10.5       11.7       3.8       5.7       5.6       5.6         Green Ext Time (p_c), s       2.7       2.7       0.1       18.0       0.2       18.0         Intersection Summary         HCM 2010 Ctrl Delay       15.9         HCM 2010 LOS       B													
Max Q Clear Time (g_c+l1), s       10.5       11.7       3.8       5.7       5.6       5.6         Green Ext Time (p_c), s       2.7       2.7       0.1       18.0       0.2       18.0         Intersection Summary         HCM 2010 Ctrl Delay       15.9         HCM 2010 LOS       B													
Green Ext Time (p_c), s 2.7 2.7 0.1 18.0 0.2 18.0  Intersection Summary  HCM 2010 Ctrl Delay 15.9  HCM 2010 LOS B	J ( ).												
Intersection Summary HCM 2010 Ctrl Delay 15.9 HCM 2010 LOS B													
HCM 2010 Ctrl Delay 15.9 HCM 2010 LOS B	Green Ext Time (p_c), s		2.7			2.7		0.1	18.0		0.2	18.0	
HCM 2010 LOS B	Intersection Summary												
	HCM 2010 Ctrl Delay												
Notes .	HCM 2010 LOS			В									
	Notes												

Two Way Analysis cannot be performed on Signalized Intersection.

Intersection Delay, s/veh	4.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Vol, veh/h	0	275	75	5	140	0	0	0	0	15	0	330
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	(
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Yeild	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	1	4	0	2	0	0	0	0	0	0	2
Mvmt Flow	0	284	77	5	144	0	0	0	0	15	0	340
Major/Minor	Major1			Major2						Minor2		
Conflicting Flow All	144	0	0	284	0	0				439	439	144
Stage 1	-	-	-	-	-	-				155	155	_
Stage 2	-	-	-	-	-	-				284	284	-
Follow-up Headway	2.2	-	-	2.2	-	-				3.5	4	3.318
Pot Capacity-1 Maneuver	1451	-	-	1290	-	-				579	515	903
Stage 1	-	-	-	-	-	-				878	773	_
Stage 2	-	-	-	-	-	-				769	680	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1451	-	-	1290	-	-				577	0	903
Mov Capacity-2 Maneuver	-	-	-	-	-	-				577	0	-
Stage 1	-	-	-	-	-	-				874	0	-
Stage 2	-	-	-	-	-	-				769	0	-
Approach	EB			WB						SB		
HCM Control Delay, s	0			0.3						11.8		
HCM LOS										В		
Minor Lane / Major Mvmt		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)		1451	-	-	1290	-	-	881				
HCM Lane V/C Ratio		-	-	-	0.004	-	-	0.404				
HCM Control Delay (s)		0	-	-	7.802	0	-	11.8				
HCM Lane LOS		Α			Α	Α		В				
HCM 95th %tile Q(veh)		0	-	-	0.012	-	-	1.972				
Notes												

Intersection							
ntersection Delay, s/veh	3.3						
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Vol, veh/h	35	255	10	20	125	5	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None	Otop -	None	
Storage Length	<u>-</u>	-	_	INOITE	0	NOHE	
Veh in Median Storage, #	0	_	_	0	0		
Grade, %	0			0	0	<u>-</u>	
Peak Hour Factor	88	88	88	88	88	88	
Heavy Vehicles, %	3	2	0	5	1	0	
Mvmt Flow	40	290	11	23	142	6	
IVIVIIIL I IUW	40	230	11	23	142	U	
Major/Minor	Major1		Major2		Minor1		
Conflicting Flow All	0	0	330	0	230	185	
Stage 1	-	-	-	-	185	-	
Stage 2	-	-	-	-	45	-	
Follow-up Headway	-	-	2.2	-	3.509	3.3	
Pot Capacity-1 Maneuver	-	-	1241	-	760	862	
Stage 1	-	-	-	-	849	-	
Stage 2	-	-	-	-	980	-	
Time blocked-Platoon, %	-	-		-			
Mov Capacity-1 Maneuver	-	-	1241	-	753	862	
Mov Capacity-2 Maneuver	-	-	-	-	753	-	
Stage 1	-	-	-	-	849	-	
Stage 2	-	-	-	-	971	-	
Approach	EB		WB		NB		
HCM Control Delay, s	0		2.6		10.9		
HCM LOS					В		
Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT		
Capacity (veh/h)	757	-	-	1241	-		
HCM Lane V/C Ratio	0.195	_	_	0.009	<u>-</u>		
HCM Control Delay (s)	10.9	-	-	7.928	0		
HCM Lane LOS	В			Α	Ä		
HCM 95th %tile Q(veh)	0.721	_	-	0.028	-		
` '							
Notes	<b>.</b> D. L. E	200.0		0	L.C. N. ID.C.		
~: Volume Exceeds Capacity; \$	: Delay Exceeds	300 Sec	conds; Err	or : Comp	outation Not Defined		

HCM research expects at least one 'Stop' controlled approach at the intersection.

Intersection									ĺ
Intersection Delay, s/veh	1.4								_
<b>,</b>									
Movement	WBL	W	/BR		NBT	NBR	SBL	SBT	
Vol, veh/h	35	VV	5		120	15	5	140	
Conflicting Peds, #/hr	0		0		0	0	0	0	
Sign Control	Stop	Ş	Stop		Free	Free	Free	Free	
RT Channelized	-		one		-	None	-	None	
Storage Length	0	. •	-		_	-	_	-	
Veh in Median Storage, #	0		-		0	_	_	0	
Grade, %	0		-		0	-	-	0	
Peak Hour Factor	90		90		90	90	90	90	
Heavy Vehicles, %	0		0		0	0	0	1	
Mvmt Flow	39		6		133	17	6	156	
Major/Minor	Minor1				Major1		Major2		
	309		142		0	0	150	0	
Conflicting Flow All Stage 1	142		142		U	-	150	-	
Stage 2	167		-		-	-	-	-	
Follow-up Headway	3.5		3.3		-	-	2.2	-	
Pot Capacity-1 Maneuver	687		911			_	1444		
Stage 1	890	,	-		_	_	-	_	
Stage 2	867		_		_	_	_	_	
Time blocked-Platoon, %	001				_	_		_	
Mov Capacity-1 Maneuver	684		911		_	_	1444	_	
Mov Capacity-2 Maneuver	684	'	_		_	_	· · · · · -	_	
Stage 1	890		_		_	_	_	_	
Stage 2	863		-		_	_	_	_	
2 II. G 2									
A mana a a la	WD				ND		CD		
Approach	WB				NB		SB		
HCM Control Delay, s	10.4				0		0.3		
HCM LOS	В								
Minor Lane / Major Mvmt		NBT N	IBR	WBLn1	SBL	SBT			
Capacity (veh/h)		-	-	706	1444	-			
HCM Lane V/C Ratio		-	-	0.063	0.004	-			
HCM Control Delay (s)		-	-	10.4	7.503	0			
HCM Lane LOS				В	A	Α			
HCM 95th %tile Q(veh)		-	-	0.201	0.012	-			
Notes									
~: Volume Exceeds Capacit	v; \$ : Delav	Exceeds 30	0 Se	conds: Er	ror : Comi	putation I	Not Define	ed .	
. Volumo Excede e apacin	.,, φ. Βοιας	<u></u>	0 00	0011d0, <u>L</u> 1		patationi	tot Bonne	· <b>u</b>	

Intersection								
Intersection Delay, s/veh	0.7							
•								
Movement	EBL	EBT			WBT	WBR	SBL	SBR
Vol, veh/h	2	80			120	10	10	5
Conflicting Peds, #/hr	0	0			0	0	0	0
Sign Control	Free	Free			Free	Free	Stop	Stop
RT Channelized	-	None			_	None	-	None
Storage Length	-	-			-	-	0	-
Veh in Median Storage, #	-	0			0	-	0	-
Grade, %	-	0			0	-	0	-
Peak Hour Factor	83	83			83	83	83	83
Heavy Vehicles, %	0	0			0	0	0	0
Mvmt Flow	2	96			145	12	12	6
Major/Minor	Major1				Major2		Minor2	
Conflicting Flow All	157	0				0	252	151
Stage 1	-	-			_	-	151	-
Stage 2	-	-			-	-	101	-
Follow-up Headway	2.2	-			-	-	3.5	3.3
Pot Capacity-1 Maneuver	1435	-			-	-	741	901
Stage 1	-	-			_	-	882	-
Stage 2	-	-			-	-	928	-
Time blocked-Platoon, %		-			-	-		
Mov Capacity-1 Maneuver	1435	-			-	-	740	901
Mov Capacity-2 Maneuver	-	-			-	-	740	-
Stage 1	-	-			-	-	882	-
Stage 2	-	-			-	-	927	-
Approach	EB				WB		SB	
HCM Control Delay, s	0.2				0		9.7	
HCM LOS							Α	
Minor Lane / Major Mvmt		EBL	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)		1435	-	-	-	787		
HCM Lane V/C Ratio		0.002	-	-	-	0.023		
HCM Control Delay (s)		7.513	0	-	-	9.7		
HCM Lane LOS		Α	Α			Α		
HCM 95th %tile Q(veh)		0.005	-	-	-	0.07		
Notes								
~ : Volume Exceeds Capacit	tv: \$ · Delay	/ Exceeds	300 Sec	onds: Err	or · Com	nutation N	Not Define	d
. Volume Exceeds Capaci	ty, ψ . Dela	LACEEUS	300 360	onus, Ell	or . Colli	pulation	אטני הפוווופי	u

Intersection								
Intersection Delay, s/veh	4.6							
Movement	EBL		EBR	NBL	NBT		SBT	SBR
Vol, veh/h	80		80	70	70		110	140
Conflicting Peds, #/hr	0		0	0	0		0	0
Sign Control	Stop		Stop	Free	Free		Free	Free
RT Channelized	-		None	-	None		-	None
Storage Length	0		-	-	-		_	-
Veh in Median Storage, #	0		_	_	0		0	-
Grade, %	0		_	-	0		0	_
Peak Hour Factor	90		90	90	90		90	90
Heavy Vehicles, %	0		0	0	0		0	0
Mvmt Flow	89		89	78	78		122	156
Major/Minor	Minor2			Major1			Major2	
			200		0			0
Conflicting Flow All	433		200	278	0		-	0
Stage 1	200		-	-	-		-	-
Stage 2	233		2.2	2.2	-		-	-
Follow-up Headway	3.5 584		3.3 846	1296	-		-	-
Pot Capacity-1 Maneuver	584 838				-		-	-
Stage 1	838		-	-	-		-	-
Stage 2	810		-	-	-		-	-
Time blocked-Platoon, %	547		846	1296	-		-	-
Mov Capacity 2 Manager	54 <i>7</i> 547		846	1296	-		-	-
Mov Capacity-2 Maneuver	838		-		-		-	-
Stage 1	759		-	-	-		-	-
Stage 2	759		-	-	-		-	-
Approach	EB			NB			SB	
HCM Control Delay, s	12.4			4			0	
HCM LOS	В							
Minor Lane / Major Mvmt		NBL	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)		1296	-	664		-		
HCM Lane V/C Ratio		0.06	_	0.268	_	_		
HCM Control Delay (s)		7.955	0	12.4	_			
HCM Lane LOS		A	A	В				
HCM 95th %tile Q(veh)		0.191	-	1.078				
` ′		,,,,,						
Notes								

Intersection								
Intersection Delay, s/veh	1.7							
Movement	EBL		EBR	NBL	NBT		SBT	SBR
Vol, veh/h	30		10	20	105		135	40
Conflicting Peds, #/hr	0		0	0	0		0	0
Sign Control	Stop		Stop	Free	Free		Free	Free
RT Channelized	-		None	-	None		-	None
Storage Length	0		-	-	-		-	-
Veh in Median Storage, #	0		-	-	0		0	-
Grade, %	0		-	-	0		0	-
Peak Hour Factor	84		84	84	84		84	84
Heavy Vehicles, %	0		0	0	0		1	0
Mvmt Flow	36		12	24	125		161	48
Major/Minor	Minor2			Major1			Major2	
Conflicting Flow All	358		185	208	0		-	0
Stage 1	185		-	-	-		_	-
Stage 2	173		_	_	_		-	_
Follow-up Headway	3.5		3.3	2.2	_		_	_
Pot Capacity-1 Maneuver	644		862	1375	-		_	-
Stage 1	852		-	-	_		<u>-</u>	_
Stage 2	862		-	-	-		_	-
Time blocked-Platoon, %					_		-	_
Mov Capacity-1 Maneuver	632		862	1375	-		-	-
Mov Capacity-2 Maneuver	632		-	-	-		-	-
Stage 1	852		-	-	-		-	_
Stage 2	846		-	-	-		-	-
, and the second								
Approach	EB			NB			SB	
HCM Control Delay, s	10.7			1.2			0	
HCM LOS	В						•	
	_							
Minor Lane / Major Mvmt		NBL	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)		1375	-	677	-	_		
HCM Lane V/C Ratio		0.017	_	0.07	_	-		
HCM Control Delay (s)		7.664	0	10.7	-	-		
HCM Lane LOS		А	A	В				
HCM 95th %tile Q(veh)		0.053	-	0.226	-	-		
Notes								
VOIES								

Ersection         7.5           ersection LOS         A           vement         EBL         EBT         WBT         WBR         SBL         SBR           , veh/h         60         35         60         25         15         80           ak Hour Factor         0.98         0.98         0.98         0.98         0.98           avy Vehicles, %         0         0         0         0         0
Persection Delay, s/veh persection LOS         7.5           A         WBT         WBR         SBL         SBR           vement         EBL         EBT         WBT         WBR         SBL         SBR           , veh/h         60         35         60         25         15         80           ak Hour Factor         0.98         0.98         0.98         0.98         0.98
versection LOS         A           vement         EBL         EBT         WBT         WBR         SBL         SBR           , veh/h         60         35         60         25         15         80           ak Hour Factor         0.98         0.98         0.98         0.98         0.98
vement         EBL         EBT         WBT         WBR         SBL         SBR           , veh/h         60         35         60         25         15         80           ak Hour Factor         0.98         0.98         0.98         0.98         0.98         0.98
, veh/h 60 35 60 25 15 80 ak Hour Factor 0.98 0.98 0.98 0.98 0.98
ak Hour Factor 0.98 0.98 0.98 0.98 0.98 0.98
avy Vehicles, % 0 0 0 0 0 0
mt Flow 61 36 61 26 15 82
mber of Lanes 0 1 1 0 1 0
oroach EB WB SB
posing Approach WB EB
posing Lanes 1 1 0
nflicting Approach Left SB WB
nflicting Lanes Left 1 0 1
nflicting Approach Right SB EB
nflicting Lanes Right 0 1 1
M Control Delay 7.9 7.4 7.3
MLOS A A A
ne EBLn1 WBLn1 SBLn1
Left, % 63% 0% 16%
Left, % 63% 0% 16% Thru, % 37% 71% 0%
Left, % 63% 0% 16% Thru, % 37% 71% 0%
Left, %     63%     0%     16%       Thru, %     37%     71%     0%       Right, %     0%     29%     84%       n Control     Stop     Stop     Stop
Left, %     63%     0%     16%       Thru, %     37%     71%     0%       Right, %     0%     29%     84%       n Control     Stop     Stop     Stop       ffic Vol by Lane     95     85     95       Vol     35     60     0
Left, %     63%     0%     16%       Thru, %     37%     71%     0%       Right, %     0%     29%     84%       n Control     Stop     Stop     Stop       ffic Vol by Lane     95     85     95       Vol     35     60     0       rough Vol     0     25     80
Left, %     63%     0%     16%       Thru, %     37%     71%     0%       Right, %     0%     29%     84%       n Control     Stop     Stop     Stop       ffic Vol by Lane     95     85     95       Vol     35     60     0       ough Vol     0     25     80       Vol     60     0     15
Left, %     63%     0%     16%       Thru, %     37%     71%     0%       Right, %     0%     29%     84%       n Control     Stop     Stop     Stop       ffic Vol by Lane     95     85     95       Vol     35     60     0       rough Vol     0     25     80       Vol     60     0     15       ne Flow Rate     97     87     97
Left, %       63%       0%       16%         Thru, %       37%       71%       0%         Right, %       0%       29%       84%         n Control       Stop       Stop       Stop         ffic Vol by Lane       95       85       95         Vol       35       60       0         rough Vol       0       25       80         Vol       60       0       15         ne Flow Rate       97       87       97         ometry Grp       1       1       1
Left, %       63%       0%       16%         Thru, %       37%       71%       0%         Right, %       0%       29%       84%         n Control       Stop       Stop       Stop         ffic Vol by Lane       95       85       95         Vol       35       60       0         rough Vol       0       25       80         Vol       60       0       15         ne Flow Rate       97       87       97         ometry Grp       1       1       1         gree of Util (X)       0.115       0.096       0.101
Left, %       63%       0%       16%         Thru, %       37%       71%       0%         Right, %       0%       29%       84%         n Control       Stop       Stop       Stop         ffic Vol by Lane       95       85       95         Vol       35       60       0         rough Vol       0       25       80         Vol       60       0       15         ne Flow Rate       97       87       97         ometry Grp       1       1       1         gree of Util (X)       0.115       0.096       0.101         parture Headway (Hd)       4.263       3.967       3.739
Left, %       63%       0%       16%         Thru, %       37%       71%       0%         Right, %       0%       29%       84%         n Control       Stop       Stop       Stop         ffic Vol by Lane       95       85       95         Vol       35       60       0         rough Vol       0       25       80         Vol       60       0       15         ne Flow Rate       97       87       97         ometry Grp       1       1       1         gree of Util (X)       0.115       0.096       0.101         parture Headway (Hd)       4.263       3.967       3.739         nvergence, Y/N       Yes       Yes       Yes
Left, % 63% 0% 16% Thru, % 37% 71% 0% Right, % 0% 29% 84% n Control Stop Stop Stop  ffic Vol by Lane 95 85 95  Vol 35 60 0  rough Vol 0 25 80  Vol 60 0 15 ne Flow Rate 97 87 97 nometry Grp 1 1 1 gree of Util (X) 0.115 0.096 0.101 parture Headway (Hd) 4.263 3.967 3.739 nvergence, Y/N Yes Yes Yes p 837 896 941
Left, % 63% 0% 16% Thru, % 37% 71% 0% Right, % 0% 29% 84% n Control Stop Stop Stop  ffic Vol by Lane 95 85 95  Vol 35 60 0  rough Vol 0 25 80  Vol 60 0 15 ne Flow Rate 97 87 97 ometry Grp 1 1 1 gree of Util (X) 0.115 0.096 0.101 parture Headway (Hd) 4.263 3.967 3.739 nvergence, Y/N Yes Yes Yes p 837 896 941 rvice Time 2.31 2.023 1.829
Left, % 63% 0% 16% Thru, % 37% 71% 0% Right, % 0% 29% 84% n Control Stop Stop Stop  ffic Vol by Lane 95 85 95  Vol 35 60 0 rough Vol 0 25 80  Vol 60 0 15 ne Flow Rate 97 87 97 ometry Grp 1 1 1 gree of Util (X) 0.115 0.096 0.101 parture Headway (Hd) 4.263 3.967 3.739 nvergence, Y/N Yes Yes Yes p 837 896 941 rvice Time 2.31 2.023 1.829 M Lane V/C Ratio 0.116 0.097 0.103
Left, % 63% 0% 16% Thru, % 37% 71% 0% Right, % 0% 29% 84% In Control Stop Stop Stop Iffic Vol by Lane 95 85 95 Vol 35 60 0 Irough Vol 0 25 80 Vol 60 0 15 Ine Flow Rate 97 87 97 Indicate the stop of
Left, % 63% 0% 16% Thru, % 37% 71% 0% Right, % 0% 29% 84% n Control Stop Stop Stop  ffic Vol by Lane 95 85 95  Vol 35 60 0 rough Vol 0 25 80  Vol 60 0 15 ne Flow Rate 97 87 97 ometry Grp 1 1 1 gree of Util (X) 0.115 0.096 0.101 parture Headway (Hd) 4.263 3.967 3.739 nvergence, Y/N Yes Yes Yes p 837 896 941 rvice Time 2.31 2.023 1.829 M Lane V/C Ratio 0.116 0.097 0.103

<sup>~:</sup> Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error: Computation Not Defined

Two Way Analysis cannot be performed on an All Way Stop Intersection.

Intersection												
Intersection Delay, s/veh	8.7											
Intersection LOS	Α											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	95	15	20	125	35	20	60	40	30	75	15
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	3	8	0	1	0	0	0	0	0	0	0
Mvmt Flow	5	98	15	21	129	36	21	62	41	31	77	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	8.5			9			8.5			8.7		
HCM LOS	Α			Α			Α			Α		
Lane		NBLn1	EBLn1	WBLn1	SBLn1							
Vol Left, %		17%	4%	11%	25%							
Vol Thru, %		50%	83%	69%	62%							
Vol Right, %		33%	13%	19%	12%							
Sign Control		Stop	Stop	Stop	Stop							
Traffic Vol by Lane		120	115	180	120							
LT Vol		60	95	125	75							
Through Vol		40	15	35	15							
RT Vol		20	5	20	30							
Lane Flow Rate		124	119	186	124							
Geometry Grp		1	1	1	1							
Degree of Util (X)		0.158	0.153	0.234	0.162							
Departure Headway (Hd)		4.59	4.632	4.53	4.727							
Convergence, Y/N		Yes	Yes	Yes	Yes							
Cap		778	772	791	756							
Service Time		2.634	2.673	2.567	2.772							
HCM Lane V/C Ratio		0.159	0.154	0.235	0.164							
HCM Control Delay		8.5	8.5	9	8.7							
•												
HCM Lane LOS		Α	Α	Α	Α							
•		A 0.6	A 0.5	0.9	A 0.6							

<sup>~:</sup> Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error: Computation Not Defined

Two Way Analysis cannot be performed on an All Way Stop Intersection.

HCM 2010 Computation does not support turning movement with Shared and Exclusive lanes.

Two Way Analysis cannot be performed on Signalized Intersection.

Intersection												
Intersection Delay, s/veh	7.2											
Intersection LOS	Α											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	2	5	2	5	2	30	0	30	20	15	35	5
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	6	2	6	2	34	0	34	23	17	40	6
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB				NB		SB		
Opposing Approach	WB			EB				SB		NB		
Opposing Lanes	1			1				1		1		
Conflicting Approach Left	SB			NB				EB		WB		
Conflicting Lanes Left	1			1				1		1		
Conflicting Approach Right	NB			SB				WB		EB		
Conflicting Lanes Right	1			1				1		1		
HCM Control Delay	7.2			6.9				7.1		7.4		
HCM LOS	7.Z			0.9 A				7.1 A		7. <del>4</del> A		
HOW LOO	А			А				Λ.		А		
Lane		NBLn1	EBLn1	WBLn1	SBLn1							
Vol Left, %		0%	22%	14%	27%							
Vol Thru, %		60%	56%	5%	64%							
Vol Right, %		40%	22%	81%	9%							
Sign Control		Stop	Stop	Stop	Stop							
Traffic Vol by Lane		50	9	37	55							
LT Vol		30	5	2	35							
Through Vol		20	2	30	5							
RT Vol		0	2	5	15							
Lane Flow Rate		57	10	43	63							
Geometry Grp		1	1	1	1							
Degree of Util (X)		0.061	0.012	0.043	0.071							
Departure Headway (Hd)		3.799	4.052	3.655	4.035							
Convergence, Y/N		Yes	Yes	Yes	Yes							
Сар		941	877	972	888							
Service Time		1.828	2.105	1.706	2.06							
HCM Lane V/C Ratio		0.061	0.011	0.044	0.071							_
HCM Control Delay		7.1	7.2	6.9	7.4							
HCM Lane LOS		Α	Α	Α	Α							_
HCM 95th-tile Q		0.2	0	0.1	0.2							

<sup>~:</sup> Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error: Computation Not Defined

Two Way Analysis cannot be performed on an All Way Stop Intersection.

Intersection								
Intersection Delay, s/veh	0.9							
<b>,</b>								
Movement	EBL		EBR	NBL	NBT		SBT	SBR
Vol, veh/h	35		10	15	425		370	
Conflicting Peds, #/hr	0		0	0	0		(	
Sign Control	Stop		Stop	Free	Free		Free	Free
RT Channelized	-		None	-	None			None
Storage Length	0		-	-	-			
Veh in Median Storage, #	0		-	-	0		(	-
Grade, %	0		-	-	0		(	-
Peak Hour Factor	97		97	97	97		97	97
Heavy Vehicles, %	0		0	0	1		1	0
Mvmt Flow	36		10	15	438		381	26
Major/Minor	Minor2			Major1			Major2	)
Conflicting Flow All	644		204	407	0			. 0
Stage 1	394		-	-	-			
Stage 2	250		-	-	-			
Follow-up Headway	3.5		3.3	2.2	-			
Pot Capacity-1 Maneuver	410		809	1163	-			-
Stage 1	656		-	-	-			-
Stage 2	774		-	-	-			-
Time blocked-Platoon, %					-			-
Mov Capacity-1 Maneuver	403		809	1163	-		•	-
Mov Capacity-2 Maneuver	403		-	-	-		•	
Stage 1	656		-	-	-			-
Stage 2	761		-	-	-			. <u>-</u>
Approach	EB			NB			SE	B
HCM Control Delay, s	13.8			0.4			(	
HCM LOS	В							
Minor Lane / Major Mvmt		NBL	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)		1163	-	454	-	-		
HCM Lane V/C Ratio		0.013	-	0.102	-	-		
HCM Control Delay (s)		8.137	0.1	13.8	-	-		
HCM Lane LOS		Α	Α	В				
HCM 95th %tile Q(veh)		0.04	-	0.339	-	-		
Notes								
~ : Volume Exceeds Capacit	tv: \$ · Delay	/ Exceeds ?	300 Se	conds: Fr	or · Comr	outation No	t Defined	
. Volumo Exceeds Capaci	ιy, ψ. Delay	LACCEUS C	00000	oonus, Ell	or . Ouril	Jalation NO	Dominga	

Appendix C. ODOT Crash Analysis Reports (January 1, 2007 through December 31, 2011)

PAGE: 1

## OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT CRASH SUMMARIES BY YEAR BY COLLISION TYPE

CDS150 08/14/2013

City of Talent January 1, 2007 through December 31, 2011

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	2000	00	000	-0-4	00000	04000	000000	17
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	000	00	0000	0000	00000	00000	0000000	0
YEAR: 2011 ANGLE FIXED / OTHER OBJECT REAR-END	SIDESWIPE - OVERTAKING TURNING MOVEMENTS 2011 TOTAL	YEAR: 2010 ANGLE RACKING	FIXED / OTHER OBJECT PARKING MOVEMENTS PEDESTRIAN	REAR-END SIDESWIPE - OVERTAKING TURNING MOVEMENTS 2010 TOTAL	YEAR: 2009 BACKING PARKING MOVEMENTS REAR-END SIDESWIPE - OVERTAKING TURNING MOVEMENTS	YEAR: 2008 ANGLE FIXED / OTHER OBJECT REAR-END TURNING MOVEMENTS 2008 TOTAL	YEAR: 2007 ANGLE BACKING FIXED / OTHER OBJECT PARKING MOVEMENTS REAR-END SIDESWIPE - MEETING TURNING MOVEMENTS	FINAL TOTAL
	HEROBJECT 0 3 2 5 0 6 4 1 2 3 5 0 HEROBJECT 0 1 2 1 0 0 1 0 3 0 1 2 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0	HER OBJECT  0 3 2 5 0 5 0 4 1 2 3 5  0 1 0 3 0 1 2 1  E - OVERTAKING  0 0 0 1 1 2 3 5  MOVEMENTS  0 0 2 2 0 0 0 1 0 0 0 0  7 9 16 0 9 1 15 1 11 5 10	HEROBJECT 0 3 2 5 0 5 0 4 1 2 3 5 0 1 1 0 1 1 2 1 1 0 1 1 1 1 1 1 1 1 1 1	HER OBJECT  0 3 2 5 0 4 1 2 3 5 0  E - OVERTAKING  0 3 2 5 0 4 1 2 3 5 0  E - OVERTAKING  0 0 1 1 0 2 1 0  MOVEMENTS  0 0 1 1 1 1 0 0  HER OBJECT  0 0 0 1 1 1 1 0  HER OBJECT  AN	HEROBJECT 0 3 2 5 0 5 0 4 1 2 3 5 0 0 5 0 0 4 1 2 3 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	HER OBJECT  O	HER OBLECT  WOVEMENTS  WOVEMENTS  HER OBLECT  WOVEMENTS  WOVEMENTS  HER OBLECT  WOVEMENTS  WOVEMENT	HER OBJECT  OVERMENTS

Disclaimer: A higher number of crashes are reported for the 2011 data file compared to previous years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

## 8/14/2013 CDS390

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT STATE HIGHWAY SYSTEM CRASH LOCATIONS - DRIVER BEHAVIOR FORMAT

City of Talent January 1, 2007 through December 31, 2011

E	OPEOPLE	S ⊢	S M	U V VEHICLE I I A E	R E TYP/OWN L N L E	ERROR F H #1 #2 L J C D	051,021,047 DRY 2 015 041 0 0 N Y 026 DRY 2 011 011 0 1 N N
						CAUSE	33,03 07
					COLL	TYPE EVENT	TURN REAR
$\mathbb{W}$	CL	9 0	M	단 요	N Y	T P CRASH LOCATION	CN R HY 001, PACIFIC AT MP 19.02 CN R HY 001, PACIFIC AT MP 21.60
			T	I D	SERIAL M A *COUNTY OR	NO DATE E Y CITY NAME	01130 06/21/2011 5P TU Talent 01282 07/12/2011 11A TU Talent

## OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT STATE HIGHWAY SYSTEM CRASH LOCATIONS - DRIVER BEHAVIOR FORMAT

City of Talent January 1, 2007 through December 31, 2011

TPEOPLE S	2 004,028 DRY 2 011 011 0 0 N 7,32 043,052 DRY 2 011 011 0 1 N 6,05 081,039 DRY 1 011 01 0 1 N 6,05 081,039 DRY 2 011 011 0 1 N 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	028 DRX 2 011 011 0 DRX 2 011 011 0 DRX 2 011 011 0 DRY 2 011 011 0 O47,080 DRY 2 011 011 0 ICE 2 011 011 0 O28,052 DRX 2 011 011 0 DRX 2 011 011 0 O52 DRY 2 011 011 0 O54 DRY 2 011 011 0 DRY 2 011 011 0 DRY 2 011 011 0 DRY 2 011 011 0 DRY 2 011 011 0 DRY 2 011 011 0 DRY 2 011 011 0 DRY 2 011 011 0 DRY 2 011 011 0 DRY 2 011 011 0 DRY 2 011 011 0 DRY 2 011 011 0 DRY 2 011 011 0 DRY 2 011 011 0 DRY 2 011 011 0 DRY 2 011 011 0 DRY 2 011 011 0 DRY 2 011 011 0 DRY 2 011 011 0
COLL TYPE EVENT	044,05	SS-0 010,013 TURN TURN TURN FIX 044,013 TURN TURN TURN TURN 010,001 REAR REAR REAR REAR REAR REAR REAR TURN TURN TURN TURN TURN TURN TURN TUR
C L O G M T P T I P CRASH LOCATION	R HY 063, ROGUE VALLEY AT MP 13.8 R HY 063, ROGUE VALLEY AT MP 13.8 R HY 063, ROGUE VALLEY AT MP 13.9 R HY 063, ROGUE VALLEY AT MP 14.0 R HY 063, ROGUE VALLEY AT MP 14.2 R HY 063, ROGUE VALLEY AT MP 14.2 R HY 063, ROGUE VALLEY AT MP 14.2 R HY 063, ROGUE VALLEY AT MP 14.2 R HY 063, ROGUE VALLEY AT MP 14.2 R HY 063, ROGUE VALLEY AT MP 14.2 R HY 063, ROGUE VALLEY AT MP 14.2 R HY 063, ROGUE VALLEY AT MP 14.2 R HY 063, ROGUE VALLEY AT MP 14.2	MN R HY 063, ROGUE VALLEY AT MP 14.20 MN R HY 063, ROGUE VALLEY AT MP 14.20 MN R HY 063, ROGUE VALLEY AT MP 14.20 MN R HY 063, ROGUE VALLEY AT MP 14.20 MN R HY 063, ROGUE VALLEY AT MP 14.20 MN R HY 063, ROGUE VALLEY AT MP 14.34 MN R HY 063, ROGUE VALLEY AT MP 14.59 MN R HY 063, ROGUE VALLEY AT MP 14.59 MN R HY 063, ROGUE VALLEY AT MP 14.90 MN R HY 063, ROGUE VALLEY AT MP 14.90 MN R HY 063, ROGUE VALLEY AT MP 14.90 MN R HY 063, ROGUE VALLEY AT MP 14.90 MN R HY 063, ROGUE VALLEY AT MP 14.90 MN R HY 063, ROGUE VALLEY AT MP 15.00 MN R HY 063, ROGUE VALLEY AT MP 15.34 MN R HY 063, ROGUE VALLEY AT MP 15.34 MN R HY 063, ROGUE VALLEY AT MP 15.34 MN R HY 063, ROGUE VALLEY AT MP 15.34 MN R HY 063, ROGUE VALLEY AT MP 15.34 MN R HY 063, ROGUE VALLEY AT MP 15.34 MN R HY 063, ROGUE VALLEY AT MP 15.34
T I D SERIAL M A *COUNTY OR NO DATE E Y CITY NAME	10/13/2007 6P SA 08/25/2008 8A MO 02/15/2008 10A FR 08/17/2008 1A SU 07/08/2009 1A WE 05/05/2007 11A SA 02/27/2011 12P SU 03/13/2011 5P SU 10/30/2007 12P TU 03/23/2009 10A MO	01282 07/13/2010 9A TU Talent 01532 09/14/2008 8P SU Talent 02571 12/30/2010 10A TH Talent 02571 12/30/2010 10A TH Talent 01962 11/05/2008 11A WE Talent 02579 12/17/2007 7A MO Talent 02559 12/17/2009 1P TU Talent 01554 09/06/2008 12A SA Talent 01554 09/06/2008 12A SA Talent 0135 06/09/2007 2P SA Talent 01080 06/03/2010 8P TH Talent 00721 04/25/2008 4P FR Talent 00721 10/09/2007 3P TU Talent 00721 10/09/2007 3P TU Talent 00731 04/25/2008 4P FR Talent 001840 04/15/2007 3P TU Talent 00168 04/15/2007 3P TU Talent 01683 04/15/2007 3P TU Talent 01683 04/15/2007 3P TU Talent 01683 04/15/2007 3P TU Talent 01683 04/15/2007 3P TU Talent 01683 04/15/2007 3P TU Talent 01683 04/15/2007 3P TU Talent 01683 06/04/2009 1P TH Talent 01033 01/25/2010 05 TH TALENT 01034 01/25/2010 05 TH TALENT 0104 01/25/2010 05 TH TALENT 01/25/2010 05 TH TALENT 01/25/2010 05 TH TALENT 01/25/2010 05 TH TALENT 01/25/2010 05 TH TALENT 01/25/2010 05 TH TALENT 01/25/

PEOPLE

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OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT CITY STREET LOCATIONS BY COUNTY - DRIVER BEHAVIOR FORMAT

City of Talent January 1, 2007 through December 31, 2011

JACKSON COUNTY						ч О E1 С	A C C C C C C C C C C C C C C C C C C C	
SERIAL	*COUNTY OR		COLL			U V VEHICLE R E TYP/OWN	E L H A E E	
DATE	TIME DAY CITY NAME	CRASH LOCATION	TYPE EVENT	CAUSE	ERROR	н #1	L C	
0	FR	ST 20 FT W OF WEST		10		2 011	1 0 0 N N	
	SA		SS-0 030	27	80	2 011	Z :	
0219/ 11/16/2010	12 TO Talent	4TH ST 200 FT WOF WEST ST	PARK	7 0	018,028	DRY 2 102 011		
03/08/2010	S G		BACK FIV 015 070	1 F	011	7 OII		
05/27/2009	i H	ARNOS ST 360 FT SW OF TALENT AVE	· () () () () () () () () () () () () ()	0 1 0	5 6	H (\		
12/28/2007	F. F.	CREEL RD AT TALENT AVE	TURN	0 0	]	2 011	Z 0 0	
	12P MO Talent	FRONT ST AT WAGNER AVE	TURN	08,02	006,028	DRY 1 011	0 1 N N	
12/12/2008	FR	HILLTOP RD 500 FT SW OF TALENT AVE	053	01	080,081	$\vdash$	0 0 N X	
02/20/2010	SA		FIX 053,095	01	047	1 011	0 0 N X	
07/30/2007	MO	JOHN ST 300 FT SE OF MAIN ST		10	011	2 041	_	
	SU		SS-0 030	10	080	2 011	_	
01/10/2011	MO	LOGAN WY 132 FT SW OF TALENT AVE	REAR	32	052,080	2 011		
09/21/2010	D.I.	ST AT 1ST	ANGL	02		DRY 2 011	Z :	
	표 :	ST AT IST ST	(	06,08	032,034,001,	, ORY 2 011	Z ;	
	C C	S C	TUKN 083	0.7.00	0	Z 011	Z ;	
01991 10/18/2011	/A TO Talent	MAIN ST AT WEST ST	TOKN	/ O <b>,</b> / / r	016,026	DRY 2 011 01		
10/02/2002	4 E	A S 13 FI SW OF GRANAME		010	047 021	- C		
	E Q	RD AT TALENT	ANGT, 082	32,03	0.52.028	2 011		
	SU	N D		02	028	2 011		
	DI	RD	ANGL	32,02	052,028	2 011	1 0 1 N N	
	8P TH Talent	RAPP RD 750 FT W OF TALENT AVE	FIX 114,052	10	080,081	DRY 1 011	0 0 X N	
02/02/2010	TU	RD		01,32	080,081	$\vdash$	0 0 N X	
08/16/2008	SA	RAPP RD 1225 FT SW OF TALENT AVE	015,	01	047,081	1 011	0 1 N Y	
10/03/2008	F R		TURN	03	021	2 013	1 0 0 N N	
03/27/2010	SA	AVE	,	90	33	2 011	1 0 2 N	
03/20/2007	TO	AVE 50	PARK 013	02	018,028	3 011	1 0 0 N	
05/13/2010	TH.	E A F	REAR	07,27	016,043	2 011		
0/22/20 1/2/00/2000	IVA SA TAIENT	TALENT AVE AT W VALLEY VIEW KD	TOKN	7 0	078	110 110 2 VATA		
	E	THE OUT OF THE	FARR	1 0	1	2 011		
	DI.	RD 300 FT E OF MOUNTAINVIEW	SS-M 022,023	10	017	2 011	1 0 0 U	
	5P TU Talent	W VALLEY VIEW RD 350 FT E OF MOUNTAINVIEW DR	TURN	02	028	DRY 2 011 011	1 0 0 N N	
	9A MO Talent	RD 500 FT E OF MOUNTAINVIEW	TURN	0.8	004	2 011	1 0 1 N N	
	TU	VALLEY VIEW RD 600 FT E	$\overline{}$	02	028	0	1 0 0 N N	
	SU	VALLEY VIEW RD 1160 FT	FIX 046,124	10		1 011	0 1 N N	
	ΤH	VALLEY VIEW RD 50 FT W OF ROGUE VALLEY !	REAR	32	052,026	2 011	_	
	ΤH	100 FT E OF ROGUE VALLEY	r.	10		Ο,		
	ME	W VALLEY VIEW RD 300 FT E OF ROGUE VALLEY HY		02,12	29	DRY 1	N 1 0	
	Q S	E OF	FIX 088	21,11	017,080,081	DRY 1 011		
	O K	AVE 150 FT NE OF F	0 20 0	TO DE	080	2 011		
02530 12/01/200/ 00913 05/20/2011	4F SA Talent 72 FR Telent	WAGNER CREEK RD 20 F"I W OF RAPP RD Wagner creek rd 483 ff n of badd rd	SS - S	32 27	039	ICE 2 011 01		
0 T 0	۲ ۲	CREEN RU 403 FIN	Nean		0101010	URI 2 OLL	3 3 4 5	

Appendix D. Future	e Traffic Volume	Development
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Project: Talent TSP Update Job #: ODOT0000-0799 Subject: PM Turning Movem

Subject: PM	Subject: PM Turning Movement Volumes												Updated 10/15/2013		
					Existing Counts	Fxisting	Existing	Base		30th Highest Hour			2035	2035	2035
ć					de ilovati	1	7	3	Seasonal	Adjusted	Woluma Balancing	2012 Ralanced Wollimes	NCHRP 255-Base	NCHRP 255-Base	NCHRP 255-Base
N-S ID	synchro ID Intersection	Direction	Direction Movement		Int ID PM Peak				Factor	PM Peak	Adjustments	PM Peak	Future Baseline	Future Baseline	Future Baseline
1	10 Colver Rd & Front St		EBL	EBL			%0	1.00	1.02	0	0	0	0	0	0
	10	EB	EBT	EBT	10 81	-	1%	1.00	1.02	85	0	85	79	08	80
	10 Count Date: 9/13/2012		EBR	EBR		0	%0	1.00	1.02	15	0	15	13	15	15
	10	-	WBL	WBL		0	%0	1.00	1.02	35	0	35	37	35	35
	10	WB	WBT	WBT	10 117	0	% %	9. 1.	1.02	120	0 0	120	131	130	130
	10 PM Peak Hour 4:15 PM-5:15 PM		NBI	NBI		C	% %	001	1.02	30	0	30	29	30	33
		NB	NBT	NBT	10 0	,	%0	1.00	1.02	0	0	0	0	0	0
			NBR	NBR		0	%0	1.00	1.02	25	0	25	25	25	25
	10		SBL	SBL			%0	1.00	1.02	0	0	0	0	0	0
	10 PHF:	SB	SBT	SBT	10 0		%0	1.00	1.02	0	0	0	0	0	0
	10 0.89		SBR	SBR			%0	1.00	1.02	0	0	0	0	0	0
		TEV	TEV		301					310	0	310	313	315	315
c	DO Coluce Date Tolerat Aug	_	ā	i di			/00	100	1 00	c	c	C		C	C
		g	LDL	EBL			0%0	8 8	1.02	0 8	0 0	0 8	o #	0 %	o #
	20 20 Count Date: 0/11/12	8	EB	- 22	20 82	- <	% %	8. 5	1.02	37 33	0 0	35	75	/5 25	75
			TOP	L DAY			%0	9. 6	1.02	23	0	23	140	33	33
	02	W/R	WBL	WBL	20 100	0 0	% %	8. 6	1.02	130	0 0	120	116	115	130
	23		WBR	WBR		>	% %	8 6	102	0 0	» c	0	2 0	<u> </u>	071
	20 PM Peak Hour: 4:30 PM-5:30 PM		NBL	TBN		0	%0	1.00	1.02	30	0	30	43	45	45
		R	NBT	NBT			%0	1.00	1.02	0	0	0	0	0	0
			NBR	NBR		-	1%	1.00	1.02	110	-10	100	135	135	135
	20		SBL	SBL			%0	1.00	1.02	0	0	0	0	0	0
		88	SBT	SBT			%0	1.00	1.02	0	0	0	0	0	0
	20 0.91		SBR	SBR			%0	1.00	1.02	0	0	0	0	0	0
		TEV	TEV		463					470	-10	460	543	545	540
		-													
m	30 Colver Rd & OR 99		EBE	EBI	30 91	<b>←</b> <	% %	00.1	1.01	96 %	0 (	8 8	126	125	125
	30 Count Date: 7/15/10	3	EBR	ER ER		5 0	% %	8 8	101	75	» o	75	62	ç 99	67 99
			WBL	WBL		0	%0	1.00	1.01	30	0	30	28	30	30
	30 Signalized	WB	WBT	WBT		0	%0	1.00	1.01	15	0	15	17	15	15
			WBR	WBR		0	%0	1.00	1.01	15	0	15	24	25	25
			NBL	NBL		0	%0	1.00	1.01	100	0	100	93	962	100
	30 PM Peak Hour Used: 4:00 PM-5:00 PM	9g	NBT	NBT		- 0	% %	1.00	1.01	360	0	360	474	475	475
	30		NBK	NBK		0	%0	1.00	1.01	10	0	10	_ ;	10	10
	30 DHE:	g	SPL	SBL		0 -	% %	8 8	10.1	100	2	10	24.5	13	13
		5	Jan V	- CBD		- <	% %	8. 5	1.01	303	2 14	313	343	343 125	343 135
		TFV	TFV	Ś			200		-	1130	15	1145	1351	1355	1360
	Calibrated to Pk Hr of IC 19	1													
4	40 Main St & Front St		EBL	EBL		0	%0	1.00	1.02	30	0	30	31	30	30
		8	EBT	EBT	40 129	0	%0	1.00	1.02	130	0	130	169	170	170
	40 Count Date: 9/10/12		EBR	EBR		0	%0	1.00	1.02	2	0	2	2	2	2
	40		WBL	WBL		0	%0	1.00	1.02	10	0	10	6	10	15
	40	WB	WBT	WBT	40 154	- (	1%	1.00	1.02	155	0	155	200	200	195
			WBR	WBR		0	%0	1.00	1.02	20	0	20	20	20	20
	40 PM Peak Hour: 4:45 PM-5:45 PM	_	JBN	NBL	40	0	%0	1.00	1.02	2	0	2			

Project: Talent TSP Update Job #: ODOT0000-0799 Subject: PM Turning Movemi

Subject: F	PM Turn.	Subject: PM Turning Movement Volumes				L									Updated 10/15/2013		
						· ·		:	:	ú					10000		Legis
							Existing Counts	Existing	Existing	Base	Seasonal	30th Highest Hour Adjusted		2012	2035 NCHRP 255-Base	2035 NCHRP 255-Base	2035 NCHRP 255-Base
QI S-N	Synchro	Intersection	Direction	Direction Movement		Int ID	1-Hr Volume PM Peak	Heavy Vehicle Count	Heavy Vehicle Percentage	Adjustment Factor	Adjustment Factor	1-Hr Volume PM Peak	Volume Balancing Adiustments	Balanced Volumes PM Peak	Unbalanced Future Baseline	Rounded Future Baseline	Balanced Future Baseline
	3		9	1000	┨┖							ı				ı	t
	40	PM Peak Hour Used: 4:00 PM-5:00 PM	SI N	NBT	NBT	0 40	- 2	0 0	% %	0.1	1.02	2	0 "	יו ח	4 п	n n	വവ
	2 5			io.		ę ę	7	0	000	00.1	1.02	4 п	6	о п	ο α	Э Ц	о ш
	40 40	PAF.	SB	SBT	SBT	04	~ LS	0 0	%0	1.00	1.02	വറ	0	വറ	D 4	വര	വ
	40	0.86		SBR	SBR	40	37	0	%0	1.00	1.02	40	0	40	41	40	40
			TEV	TEV			397					406	3	409	493	494	494
Ŀ	20	Main St & Talent Ave		FBI	FBI	20	54	0	%0	1.00	1.02	55	Ü	22	59	09	60
	20		EB	EBT	EBT	20	0		%0	1.00	1.02	0	0	0	0	0	0
	20	Count Date: 9/12/2012		EBR	EBR	90	133	5	4%	1.00	1.02	135	0	135	170	170	170
	20			WBL	WBL	20	0		%0	1.00	1.02	0	0	0	0	0	0
	2 20		MB MB	WBT	WBT	20 22	0 0		% %	1:00	1.02	0 0	0 0	0 0	0 0	0 0	0 0
	202	PM Peak Hour: 4:15 PM-5:15 PM		NBI NBI	NBI NBI	20	135	c	2%	100	1.02	140	ې د	135	182	180	180
	2 2	PM Peak Hour Used: 4:00 PM-5:00 PM	NB	NBT TAN	NBT	2 2	67	· -	% ~	1.00	1.02	70	° 0	70	112	110	001
	20			NBR	NBR	20	0		%0	1.00	1.02	. 0	0	. 0	0	0	0
	20			SBL	SBL	20	0		%0	1.00	1.02	0	0	0	0	0	0
	20	PHF:	SB	SBT	SBT	20	78	0	%0	1.00	1.02	80	-10	70	66	100	100
	20	0.93		SBR	SBR	20	76	0	%0	1.00	1.02	80	-10	70	70	70	70
			TEV	TEV			543					260	-25	535	692	069	089
9	09	Valley View Rd & Talent Ave		EBL	EBL	09	0		%0	1.00	1.03	0	0	0	0	0	0
	09		EB	EBT	EBT	09	0		%0	1.00	1.03	0	0	0	0	0	0
	99	Count Date: 9/19/2012		EBR	EBR	09	0		%0	1.00	1.03	0	0	0	0	0	0
	99			WBL	WBL	09	161	0	%0	1.00	1.03	165	ď.	160	158	160	160
	9 9		WB	WBT	WBT	9 9	0	c	% %	1.00	1.03	0	0	0 120	0 0	0	0 %
	00 9	DM Dook Hours 2.45 DM 4.45 DM		MDIN	NOW I	00	001	0	0%	1.00	1.03	103	cl-	061	200	607	7007
	3 %	PM Peak Hour Used: 4:00 PM-5:00 PM	R	NBT NBT	NBT	3 9	23	0	% %	1.00	1.03	25	0	22	o %	95	9 8
	09			NBR	NBR	09	92	0	%0	1.00	1.03	95	0	95	83	85	95
	09	!	ć	TBS	SBL	09	111	0	%0	1.00	1.03	115	0	115	127	125	125
	9 9	0.95	25	SBP	SBI SBI	3 5	\$ ○	0	% %	9 1	103	ςς, C	ý, C	S C	145 0	145	145
			TEV	TEV		3	671					069	-25	999	815	815	805
													,	;	:	1	
_	5 5	valley view Rd & UR 99	H	EBL	EBL	2 2	35	0 0	% %	97.1	10.1	35 155	0 %	35	33	35	35 155
	2 2	Count Date: 7/15/2010		EBR	EBR	0, 0,	28	0	%0	1.00	1.01	30	2 0	30	30	30	30
	70			WBL	WBL	70	139	0	%0	1.00	1.01	140	-45	95	122	120	120
	20	Signalized	WB	WBT	WBT	70	225	-	%0	1.00	1.01	225	ις·	220	263	265	265
	70			WBR	WBR	70	157	0	%0	1.00	1.01	160	-55	105	126	125	125
	2 5	PM Peak Hour: 4:30 PM-5:30 PM	QIV	N P	NBL I	2 2	49	0 +	% 8	1.00	1.01	50	0 ,	50	62	09	09
	2 2	TWI TEAN TIOUI OSEO: 4:00 TWI-3:00 TWI	2	NBR	NBR	2 2	344 164	- 0	%%	1.00	10.1	165	-15	100	145	145	145
	70			SBL	SBL	70	153	2	1%	1.00	1.01	155	-55	100	108	110	110
	20 2	PHF:	SB	SBT	SBT	02 52	287	2	2%	1.00	1.01	290	0 (	290	290	290	290
	70	0.93	TEV	SBK	SBK	2/	30	0	0%	T:00	10.1	35	0 000	35	33	302	35
			١٢٨	ıEv		1	1700					1703	067-	1999	1703	1703	1,03

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Project: Talent TSP Update Job #: ODOT0000-0799 Subject: PM Turning Movem

Subject:	PM Turn.	Subject: PM Turning Movement Volumes				1	•		-			•	•		Updated 10/15/2013	•	
						â	Existing Counts	Existing	Existing	Base	Seasonal	30th Highest Hour Adjusted		2012	2035 NCHRP 255-Base	2035 NCHRP 255-Base	2035 NCHRP 255-Base
N-S ID	Synchro	D	Direction	Direction Movement		Int D	1-Hr Volume PM Peak	Heavy Vehicle Count	Heavy Vehicle Percentage	Adjustment	Adjustment	1-Hr Volume PM Peak	Volume Balancing Adiustments	Balanced Volumes PM Peak	Unbalanced Future Baseline	Rounded Future Baseline	Balanced Future Baseline
													,				
∞	8 8	Valley View Rd & SB I-5 Ramps	۵	EBL	EBI	8 8	0	c	%	1.80	1.06	0 %	0 ";	0 0	0	0 0	0
	8 8	Count Date: 9/11/2012	3	EBR	EBR	8 8	243	n m	° 4 8 %	8.1	90:1	75	0	273 75	94	95	95
	80			WBL	WBL	08	4	0	%0	1.00	1.06	5	0	S	4	5	10
	80		WB	WBT	WBT	80	123	3	2%	1.00	1.06	130	10	140	191	190	190
	80			WBR	WBR	88	0		%0	1.00	1.06	0	0	0	0	0	0
	80	PM Peak Hour: 3:15 PM-4:15 PM		NBL	NBL	90	0		%0	1.00	1.06	0	0	0	0	0	0
	80	PM Peak Hour Used: 4:00 PM-5:00 PM	NB	NBT	NBT	80	0		%0	1.00	1.06	0	0	0	0	0	0
	80			NBR	NBR	80	0		%0	1.00	1.06	0	0	0	0	0	0
	80			SBL	SBL	90	11	0	%0	1.00	1.06	10	2	15	11	10	15
	80	PHF:	SB	SBT	SBT	80	0	0	%0	1.00	1.06	0	0	0	0	0	0
	80	0.97		SBR	SBR	80	311	5	2%	1.00	1.06	330	0	330	393	395	395
			TEV	TEV			766					810	30	840	1046	1050	1060
c	8	Vollou Mau, Dd 9 MD 1 E Domes		ē	la la	50	C		/00	100	102	c	c	c	C	C	c
^	3 8	valley view Kd & NB I-5 Kamps	8	EBL	EBL	3 8	0 %	r	% 0%	9 6	1.06	0 %	0 0	0 1	o (;	o %	0 2
	2 8	Count Date: 0/11/2012	9	193	_ EB _	2 8	34		3%	8.5	10,0	35	0 %	35	777	20 24E	35 22E
	⊋ 8	Count Date: WITZUIZ		YOU I	L DK	2 8	240	4 0	0.77	1.00	1.00	702	01-	200	347	343	333
	2 8		W/R	WDL	WBL	2 8	7 %	0 -	8 8 9	8.5	1.06	50 00	ņ c	2 6	2 0	2 %	0 %
	2 6		:	WBR	WBR	2 6	0 0	-	% %	8 1	8 6	07	o c	07	2 €	O <sub>2</sub> C	0 0
	06	PM Peak Hour: 3:15 PM-4:15 PM		NBI	NBI	06	122	1	1%	1.00	1.06	130	rc,	125	178	180	180
	06	PM Peak Hour Used: 4:00 PM-5:00 PM	NB	NBT	NBT	06	0		%0	1.00	1.06	0	0	0	0	0	0
	06			NBR	NBR	06	2	0	%0	1.00	1.06	22	0	ca.	4	22	Э
	06			SBL	SBL	06	0		%0	1.00	1.06	0	0	0	0	0	0
	06	PHF:	SB	SBT	SBT	06	0		%0	1.00	1.06	0	0	0	0	0	0
	06	0.88		SBR	SBR	06	0		%0	1.00	1.06	0	0	0	0	0	0
			TEV	TEV			441					470	-20	450	579	580	585
		Calibrated to Pk Hr of IC 19,															
10	100	Wagner St & Wagner Creek Rd	8	EBL	EBL	100	0		%0 %0	1.00	1.03	0 0	0 (	0 0	0 (	0 0	0 0
	8 5	Count Date: 6/11/2012	9	EBP	FBP	8 5	0 0		% %	9.1	1.03	0 0	0 0	0 0	0 0	0 0	0 0
	3 5			WDI	WDI	100	22	C	%0	8:1	1.03	35	0 0	35	35	JE	35
	9 6		WB	WBT	WBT	8 2	8 0	>	% %	1.00	1.03	3 0	0	?; o	0	0	? o
	100			WBR	WBR	100	3	0	%0	1.00	1.03	22	0	22	17	15	15
	100	PM Peak Hour: 4:45 PM:5:45 PM		TBN	NBL	100	0		%0	1.00	1.03	0	0	0	0	0	0
	100	PM Peak Hour Used: 4:00 PM-5:00 PM	SB.	NBT	NBT	100	116	0	%0	1.00	1.03	120	0	120	151	150	140
	100			NBR	NBR	100	14	0	%0	1.00	1.03	15	0	15	6	10	10
	100			SBL	SBL	100	က	0	%0	1.00	1.03	2	0	2	13	15	15
	100	PHF:	SB	SBT	SBT	100	136	-	1%	1.00	1.03	140	0	140	162	160	150
	100	0.90		SBR	SBR	100	0		%0	1.00	1.03	0	0	0	0	0	0
			TEV	TEV			305					320	0	320	378	375	365
Ξ	110	Wagner St & Front St		EBL	EBL	110	-	0	%0	1.00	1.02	2	0	2	2	0	0
	110	)	EB	EBT	EBT	110	29	0	%0	1.00	1.02	70	10	80	87	82	85
	110	Count Date: 9/13/2012		EBR	EBR	110	0		%0	1.00	1.02	0	0	0	0	0	0
	110			TB/M	WBL	110	0		%0	1.00	1.02	0	0	0	0	0	0
	110		WB	WBT	WBT	110	112	0	%0	1.00	1.02	115	ın ı	120	126	125	125
	110			WBK	WBK	110	4	0	%0	1.00	1.02	2	2	01	01.0	01	01.
_	110	PM Peak Hour: 4:45 PM-5:45 PM	_	Jan	Jan	110	0		%0	1.00	1.02	0	0	0	0	0	0

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Project: Talent TSP Update Job #: ODOT0000-0799 Subject: PM Turning Moveme

eubject:	PM Turn	subject: PM Turning Movement Volumes				L						•		Ī	Updated 10/15/2013	•	
							Existing Counts	Existing	Existing	Base	Spaconal	30th Highest Hour		2012	2035 NCHRP 255-Base	2035 NCHRP 255-Rase	2035 NCHRP 255.Base
	Synchro						1-Hr Volume	Heavy Vehicle	Heavy Vehicle	Adjustment	Adjustment	1-Hr Volume	Volume Balancing	Balanced Volumes	Unbalanced	Rounded	Balanced
N-S ID	۵	Intersection	Direction	Movement		Int ID	PM Peak	Count	Percentage	Factor	Factor	PM Peak	Adjustments	PM Peak	Future Baseline	Future Baseline	Future Baseline
	110	PM Peak Hour Used: 4:00 PM-5:00 PM	NB	NBT	NBT	110	0		%0	1.00	1.02	0	0	0	0	0	0
	110			NBR	NBR	110	0		%0	1.00	1.02	0	0	0	0	0	0
	110			SBL	SBL	110	10	0	%0	1.00	1.02	10	0	10	10	10	10
	110	PHF. 0.83	88	SBT	SBT	110	0 %	0	% %	8 6	1.02	0 15	0 0	0 10	0 12	0 15	0 01
			TEV	TEV			197					207	20	227	240	235	240
9				i	i		C		200				c			i.	L C
12	120	Wagner St & Lalent Ave	£	EBL	EBL	120	6/ 0	0	% %	00.1	1.03	8 0	00	8 0	/8	8 0	£ 0
	120	Count Date: 6/11/2012	3	EBR	EBR	120	76	0	%%	0.1	1.03	08	0	08	83	85	85
	120			WBL	WBL	120	0		%0	1.00	1.03	0	0	0	0	0	0
	120		WB	WBT	WBT	120	0 0		% %	1.00	1.03	0 0	0 0	0 0	0 0	0 0	0 0
	120	PM Peak Hour 4:15 PM-5:15 PM		MBI	NE NE	120	99	0	%	100	103	02	0	0,2	89	02	02
	120	PM Peak Hour Used: 4:00 PM-5:00 PM	NB	NBT	NBT	120	82	0	%0	1.00	1.03	82	-15	70	3 %	06	2 8
	120			NBR	NBR	120	0		%0	1.00	1.03	0	0	0	0	0	0
	120		ć	SBL	SBL	120	0	,	%0	1.00	1.03	0	0	0	0	0	0
	120	0.80	73	SBT	SBT	120	106	0 0	% %	8 8	1.03	110	o rċ	110	150	150	155 150
			TEV	TEV			550					570	-20	550	629	630	635
				i	i			,								0	
13	130	Foss Rd & Wagner Creek Rd	6	EBL	EBL	130	29	0	%0%	00.1	1.03	99	0	30	32	œ °	30
	05 05	Count Date: 6/12/2012	9	FBR	FBR	130	0 [	0	% %	8. 6	103	0 9	0 0	0 (2	0 11	0 9	0 01
	130			WBL	WBI	130	0		%0	1.00	1.03	0	û 0	0	0	0	0
	130		WB	WBT	WBT	130	0		%0	1.00	1.03	0	0	0	0	0	0
	130			WBR	WBR	130	0		%0	1.00	1.03	0	0	0	0	0	0
	130	PM Peak Hour: 4:45 PM-5:45 PM		78N	TBN	130	19	0	%0	1.00	1.03	20	0	20	19	20	20
	130	PM Peak Hour Used: 4:00 PM-5:00 PM	2	NBT	NBT	130	101	0	% %	1:00	1.03	105	0 0	105	124	125	120
	130			SBL	SBL	130	ô		%0	1.00	1.03	o O	0	o O	0	o O	ô
	130	PHF:	SB	SBT	SBT	130	131	-	1%	1.00	1.03	135	0	135	149	150	150
	130	0.84		SBR	SBR	130	39	0	%0	1.00	1.03	40	0	40	35	35	35
			TEV	TEV			330					340	0	340	369	370	365
14	140	Rapp Rd & Wagner Creek Rd		TB3	EBL	140	09		%0	1.00	1.03	09	0	09	50	90	99
	140	0,000	8	EBT	EBT	140	32		%0	1.00	1.03	35	0 0	35	35	35	35
	140	Count Date: 6/11/2012		HBI	WBI	140	0		%0	1.00	1.03	0	0	0	0	0	0
	140		WB	WBL	WBL	140	> &		% % C	9.1	1.03	> 5	o c	> %	> %	> 5	> %
	140		!	WBR	WBR	140	23		%0	1.00	1.03	25	0	25	28	30 8	30
	140	PM Peak Hour: 3:15 PM-4:15 PM		NBL	NBL	140	0		%0	1.00	1.03	0	0	0	0	0	0
	140	PM Peak Hour Used: 4:00 PM-5:00 PM	NB	NBT	NBT	140	0		%0	1.00	1.03	0	0	0	0	0	0
	140			NBR	NBR	140	0		%0	1.00	1.03	0	0	0	0	0	0
	140		E	SBL	SBL	140	15		% %	1.00	1.03	15	0 0	15	15	15	15
	140	0.98	n n	SBR	SBR	140	> %		8 8	8 2	1.03	> 8	> 0	> 8	9	> %	> &
		2	TFV	TFV			270					275	Û	275	247	250	285

Project: Talent TSP Update Job #: ODOT0000-0799 Subject: PM Turning Movem

Subje	ct: PM1	Subject: PM Turning Movement Volumes													Updated 10/15/2013			
						Existing Counts		Existing	Existing	Вясь		30th Highest Hour			2035	2035	2035	
										Year	Seasonal	Adjusted	o do	2012	NCHRP 255-Base	NCHRP 255-Base	NCHRP 255-Base	
N-S ID		Synchro ID Intersection	Direction	Direction Movement		Int ID PM Peak		Heavy venicle	Heavy venicle Percentage	Adjustment Factor	Adjustment Factor	I-Hr Volume PM Peak	volume Balancing Adjustments	Baranced volumes PM Peak	Unbalanced Future Baseline	Rounded Future Baseline	Balanced Future Baseline	
15		150 Rapo Rd & Talent Ave		EBL	EBL			0	%0	1.00	1.02	22	0	LC.	LC.	LC.	LO	
			EB	EBT	EBT	150 10	74	cr.	3%	1.00	1.02	105	-10	95	116	115	115	
	1	150 Count Date: 9/10/2012		EBR	EBR		3	1	8%	1.00	1.02	15	0	15	18	20	20	
	Ĩ	150		WBL	NBL	150 24	4	0	%0	1.00	1.02	25	-5	20	24	25	25	
	- ₹	150	WB	WBT	WBT		119	<b>←</b> 0	% %	1.00	1.02	120	ഗ	125	185	185	170	
	- ;			WBK	WBR		2	0	%0	1.00	1.02	35	0	35	37	35	35	
	- 1	150 PM Peak Hour: 4:00 PM-5:00 PM	2	NBL	JBF	150	_	0 0	%0	1:00	1.02	15	2	20	28	30	30	
	1 1	150 PM PEAK HOUL USED: 4:00 PM-5:00 PM	9	Jan Jan	ISI		0 -	0 0	% %	8 5	1.02	00	0 0	90	99	90	90	
	- 1	150		NGN Ido	NGN Ido		- 6		%0	1.00	1.02	30	0	30	45 2E	43	4-3	
	- =	130 150 PHE:	87	SRT	SRT		K 45	0 0	% %	8.1	1.02	30	0 0	30	33	% %	25.00	
	- =		3	SBR	SBR	150	. 4	0 0	%0	1.00	1.02	15	0	15	55	50 20	50	
			TEV	TEV			34					540	-5	535	999	099	645	
		Calibrated to Pk Hr of IC 19,																
16		160 Rapp Rd & OR 99		EBL	TBH		6	0	%0	1.00	1.02	80	10	06	901	105	105	
	1,	160	B	EBT	EBT				%0	1.00	1.02	0	0	0	0	0	0	
	Ţ	160 Count Date: 8/2/2010		EBR	EBR		2	0	%0	1.00	1.02	75	0	75	113	115	115	
	Ĭ			MBL	TBM				%0	1.00	1.02	0	0	0	0	0	0	
	Ţ	160 Signalized	WB	WBT	WBT		0		%0	1.00	1.02	0	0	0	0	0	0	
	Ţ			WBR	WBR		0		%0	1.00	1.02	0	0	0	0	0	0	
	<u></u>			NBL	NBL	160 8:	7	0	%0	1.00	1.02	06	0	06	153	155	155	
	€ 3	160 PM Peak Hour Used: 4:00 PM-5:00 PM	2	NBT	NBT		369	0	%0	1.00	1.02	375	15	390	519	520	515	
		160		NBK	NBK				%0	1.00	1.02	0	0	0	0	0	0	
		180 140 DHE:	7	SBL	SBL		,	C	% %	8.5	1.02	350	O 14	345	376	0 375	.0 365	
	- ~	160 0.95	3	SBR	SBR	160	7	0 0	%0	1.00	1.02	70	? 0	70	76	7.5	75	
			TEV	TEV			17					1040	20	1060	1344	1345	1330	
																-	1	
17		170 Creel Rd & Talent Ave		EBL	EBL	170		0 0	% %	0.0	1.03	2 5	0 %	2	. a	u u	n un	
		170 Count Date: 9/24/2012	3	EBR	EBR		7	0 0	% %	8. 1.	1.03	2 2	n 0	5 2	+ <del>-</del>	n 6	5 2	
		170		WBL	WBL		1.0	0	%0	1.00	1.03	5	0	5	1	2	5	
	-	170	WB	WBT	WBT		_	0	%0	1.00	1.03	2	0	2	-	2	D.	
				WBR	WBR		26	0	%0	1.00	1.03	25	5	30	23	25	25	
	_			NBL	NBL			0	%0	1.00	1.03	0	0	0	0	0	0	
	- :	170 PM Peak Hour Used: 4:00 PM:5:00 PM	9E	MBT :	NBT			0	%	1:00	1.03	30	0	30	39	40	40	
	- '	1/0		NBK	NBK		9	0	%0	1.00	1.03	15	5	20	10	10	20	
	-		(	SBL	SBL		9	0	%0	1:00	1.03	15	0	15	20	20	25	
	- 1	1/0 PHF:	200	188	188	1/0	32	0 0	%0	00:1	1.03	35	0 6	35	78	30	40	
	_	1/0 0.8/		NBC TIP	SBK			0	0%0	N.I.	1.03	7	, o	0	/	2	0 [	
			IEV	IEV			671					135	9	ISI	140	140	1/1	
18		180 Creel Rd & OR 99		EBL	EBL		6	0	%0	1.00	1.01	30	22	35	37	35	35	
	1,	180	EB	EBT	EBT		0		%0	1.00	1.01	0	0	0	0	0	0	
	1,	180 Count Date: 7/6/2010		EBR	EBR		2	0	%0	1.00	1.01	10	0	10	14	15	15	
	Ť.	180		TBM	TBM	180 0	0		%0	1.00	1.01	0	0	0	0	0	0	
	- ~	180 180	WB	WBT	WBT		0		%0 0	1.00	1.01	0 0	0 0	0 0	0 0	0 0	0 0	
	- ~	180 PM Peak Hour; 3:30 PM-4:30 PM		MBL	WBK		15	0	%0	1.00	1.01	15	0	15	25	25	25	
_				-	-													

Project: Talent TSP Update Job #: ODOT0000-0799 Subject: PM Turning Movemi

Subject: PIM Lurning Movement volumes													Updated 10/15/2013		
				Ex.	Existing Counts	Existing	Existing	Base		30th Highest Hour			2035	2035	2035
								Year	Seasonal	Adjusted		2012	NCHRP 255-Base	NCHRP 255-Base	NCHRP 255-Base
Synchro					1-Hr Volume	Heavy Vehicle	Heavy Vehicle	Adjustment	Adjustment	1-Hr Volume	Volume Balancing	Balanced Volumes	Unbalanced	Rounded	Balanced
N-S ID ID Intersection	Direction	Direction Movement		Int ID	PM Peak	Count	Percentage	Factor	Factor	PM Peak	Adjustments	PM Peak	Future Baseline	Future Baseline	Future Baseline
180 PM Peak Hour Used: 4:00 PM-5:00 PM	NB	NBT	NBT	180	413	5	1%	1.00	1.01	415	10	425	109	009	610
180		NBR	NBR	180	0		%0	1.00	1.01	0	0	0	0	0	0
180		SBL	SBL	180	0		%0	1.00	1.01	0	0	0	0	0	0
180 PHF:	SB	SBT	SBT	180	340	2	1%	1.00	1.01	345	25	370	439	440	440
180 0.97		SBR	SBR	180	26	0	%0	1.00	1.01	25	0	25	26	25	25
	TEV	TEV			835					840	40	088	1143	1140	1150

Appendix E. Future	Traffic	<b>Operations</b>	Worksheets
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Intersection									
Int Delay, s/veh	2.6								
<b>3</b> .									
Movement		EBT	EBR	WE	a W	/BT	NBL	NBR	
Vol, veh/h		80	15			130	30	25	
Conflicting Peds, #/hr		0	0	`	0	0	0	0	
Sign Control		Free	Free	Fre		ree	Stop	Stop	
RT Channelized		-	None			one	-	None	
Storage Length		_	-		_	-	0	-	
Veh in Median Storage, #	ŧ	0	-		-	0	0	-	
Grade, %		0	-		-	0	0	=	
Peak Hour Factor		90	90	(	90	90	90	90	
Heavy Vehicles, %		1	0		0	0	0	0	
Mvmt Flow		89	17	;	39 1	144	33	28	
Major/Minor	Ma	ajor1		Majo	2		Minor1		
Conflicting Flow All	IVIC	0	0	1/10/10/10/10/10/10/10/10/10/10/10/10/10		0	319	97	
Stage 1		U	-	10	-	-	97	91	
Stage 2		-			-	-	222	-	
Critical Hdwy		_	-	1	- .1	-	6.4	6.2	
Critical Hdwy Stg 1			_	7	. I _	_	5.4	-	
Critical Hdwy Stg 2		_	_		_	_	5.4	<u>-</u>	
Follow-up Hdwy		_	_	2	.2	_	3.5	3.3	
Pot Cap-1 Maneuver		_	_	149		_	678	965	
Stage 1		_	_		-	_	932	-	
Stage 2		_	-		-	-	820	<u>-</u>	
Platoon blocked, %		_	-			-			
Mov Cap-1 Maneuver		-	-	149	8	-	659	965	
Mov Cap-2 Maneuver		-	-		-	-	659	-	
Stage 1		-	-		-	-	932	-	
Stage 2		-	-		-	-	797	-	
Approach		EB		W	'R		NB		
HCM Control Delay, s		0			.6		10.1		
HCM LOS		U		ı	.0		В		
1101111 200							5		
Minor Long/Major Mussel	NIDI1	EDT	EDD	\\/DI_\\/I	т				
Minor Lane/Major Mvmt		EBT	EBR						
Capacity (veh/h) HCM Lane V/C Ratio	770 0.079	-		1498 0.026	-				
HCM Control Delay (s)	10.1	-	-	7.5	0				
HCM Lane LOS	10.1	-	-		A				
HCM 95th %tile Q(veh)	0.3	-	-	0.1	A -				
TION JOHN MINE W(VEII)	0.5	-	-	0.1	-				

Intersection								
Int Delay, s/veh	5.6							
<b>,</b> ,								
Movement		EBT	EBR		WBL	WBT	NBL	NBR
Vol, veh/h		75	35		130	120	45	135
Conflicting Peds, #/hr		0	0		0	0	0	0
Sign Control		Free	Free		Free	Free	Stop	Stop
RT Channelized		-	None		-	None	-	None
Storage Length		_	-		0	-	0	-
Veh in Median Storage, #	ŧ	0	-		-	0	0	<u>-</u>
Grade, %		0	-		-	0	0	-
Peak Hour Factor		95	95		95	95	95	95
Heavy Vehicles, %		1	0		0	0	0	1
Mvmt Flow		79	37		137	126	47	142
Major/Minor	N.	1ajor1		NA.	ajor2		Minor1	
Conflicting Flow All	i iv	0	0	IVI	116	0	497	97
Stage 1		U	-		-	-	49 <i>1</i> 97	91
Stage 1		-	_		_	-	400	-
Critical Hdwy			-		4.1	-	6.4	6.21
Critical Hdwy Stg 1		_	_		4.1	_	5.4	0.21
Critical Hdwy Stg 2					_	-	5.4	_
Follow-up Hdwy		_	_		2.2	-	3.5	3.309
Pot Cap-1 Maneuver					1485	_	536	962
Stage 1					-		932	302
Stage 2			_		_		681	
Platoon blocked, %		_	_			_	001	
Mov Cap-1 Maneuver		_	_		1485	_	487	962
Mov Cap-2 Maneuver		_	_		-	-	487	-
Stage 1		_	_		_	-	932	_
Stage 2		_	_		_	-	618	_
Jugo L							310	
Approach		EB			WB		NB	
HCM Control Delay, s		0			4		11.2	
HCM LOS		U			4		11.2 B	
HOW LOO								
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL '	WBT			
Capacity (veh/h)	773			1485	-			
HCM Lane V/C Ratio	0.245	-		0.092				
	11.2	-		7.7	-			
HCM Control Delay (s) HCM Lane LOS		-	-		-			
	B 1	-	-	A A	-			
HCM 95th %tile Q(veh)	1	-	-	0.3	-			

	•	<b>→</b>	•	•	<b>←</b>	•	•	<b>†</b>	/	<b>&gt;</b>	ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ħ	f)			4		Ť	<b>∱</b> β		ħ	<b>∱</b> β	
Volume (vph)	125	25	60	30	15	25	100	475	10	15	345	135
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.89			0.95		1.00	1.00		1.00	0.96	
Flt Protected	0.95	1.00			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1646	1532			1632		1662	3314		1662	3185	
Flt Permitted	0.86	1.00			0.84		0.39	1.00		0.46	1.00	
Satd. Flow (perm)	1497	1532			1396		676	3314		811	3185	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	132	26	63	32	16	26	105	500	11	16	363	142
RTOR Reduction (vph)	0	51	0	0	21	0	0	1	0	0	39	0
Lane Group Flow (vph)	132	38	0	0	53	0	105	510	0	16	466	0
Heavy Vehicles (%)	1%	0%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	8.4	8.4			8.4		32.1	27.0		23.5	22.7	
Effective Green, g (s)	9.4	9.4			9.4		33.8	28.0		25.5	23.7	
Actuated g/C Ratio	0.18	0.18			0.18		0.66	0.55		0.50	0.46	
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.5	2.5			2.5		2.5	4.7		2.5	4.7	
Lane Grp Cap (vph)	274	281			256		563	1812		433	1474	
v/s Ratio Prot		0.02					c0.02	0.15		0.00	c0.15	
v/s Ratio Perm	c0.09				0.04		0.10			0.02		
v/c Ratio	0.48	0.13			0.21		0.19	0.28		0.04	0.32	
Uniform Delay, d1	18.7	17.5			17.7		3.4	6.2		6.5	8.7	
Progression Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.0	0.2			0.3		0.1	0.2		0.0	0.2	
Delay (s)	19.7	17.7			18.0		3.5	6.4		6.5	8.9	
Level of Service	В	В			В		Α	Α		Α	Α	
Approach Delay (s)		18.9			18.0			5.9			8.8	
Approach LOS		В			В			Α			Α	
Intersection Summary												
HCM 2000 Control Delay			9.6	H	CM 2000	Level of	Service		Α			
HCM 2000 Volume to Capa	city ratio		0.34									
Actuated Cycle Length (s)			51.2	Sı	um of lost	time (s)			12.0			
Intersection Capacity Utiliza	ation		45.2%	IC	U Level o	of Service	)		Α			
Analysis Period (min)			15									

Analysis Period (min)
c Critical Lane Group

	۶	<b>→</b>	•	•	<b>←</b>	•	•	<b>†</b>	~	<b>/</b>	Ţ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	f)			4		Ţ	ħβ		7	ħβ	
Volume (veh/h)	125	25	60	30	15	25	100	475	10	15	345	135
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1733	1714	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Adj Flow Rate, veh/h	132	26	63	32	16	26	105	500	11	16	363	142
Adj No. of Lanes	1	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	349	66	161	145	78	71	683	2017	44	663	1335	514
Arrive On Green	0.15	0.15	0.12	0.12	0.15	0.12	0.07	0.61	0.58	0.03	0.57	0.54
Sat Flow, veh/h	1373	445	1078	354	523	475	1667	3326	73	1667	2348	905
Grp Volume(v), veh/h	132	0	89	74	0	0	105	250	261	16	255	250
Grp Sat Flow(s),veh/h/ln	1373	0	1523	1352	0	0	1667	1663	1737	1667	1663	1590
Q Serve(g_s), s	1.2	0.0	3.0	0.1	0.0	0.0	1.4	3.9	3.9	0.2	4.4	4.6
Cycle Q Clear(g_c), s	4.4	0.0	3.0	3.1	0.0	0.0	1.4	3.9	3.9	0.2	4.4	4.6
Prop In Lane	1.00		0.71	0.43		0.35	1.00		0.04	1.00		0.57
Lane Grp Cap(c), veh/h	349	0	227	257	0	0	683	1008	1053	663	945	904
V/C Ratio(X)	0.38	0.00	0.39	0.29	0.00	0.00	0.15	0.25	0.25	0.02	0.27	0.28
Avail Cap(c_a), veh/h	1030	0	982	981	0	0	839	1370	1432	793	1281	1225
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	22.0	21.8	0.0	0.0	4.1	5.1	5.1	4.6	6.1	6.4
Incr Delay (d2), s/veh	0.5	0.0	8.0	0.5	0.0	0.0	0.1	0.2	0.2	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/lr		0.0	1.3	1.1	0.0	0.0	0.6	1.8	1.9	0.1	2.1	2.1
LnGrp Delay(d),s/veh	22.5	0.0	22.8	22.2	0.0	0.0	4.2	5.3	5.3	4.6	6.4	6.7
LnGrp LOS	С		С	С			Α	Α	А	Α	Α	Α
Approach Vol, veh/h		221			74			616			521	
Approach Delay, s/veh		22.6			22.2			5.1			6.5	
Approach LOS		С			С			Α			Α	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.8	35.7		12.3	5.7	37.8		12.3				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	42.0		35.0	5.0	45.0		35.0				
Max Q Clear Time (g_c+l1), s	3.4	6.6		5.1	2.2	5.9		6.4				
Green Ext Time (p_c), s	0.1	24.1		1.2	0.0	25.9		1.2				
Intersection Summary												
HCM 2010 Ctrl Delay			9.2									
HCM 2010 LOS			Α									

Intersection	
Int Delay, s/veh 2.1	
The Delay, Siveri	
Movement EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL S	BT SBR
Vol, veh/h 30 170 2 15 195 20 2 5 5 5	5 40
Conflicting Peds, #/hr 0 0 0 0 0 0 0 0 0 0	0 0
<b>o</b> ,	op Stop
RT Channelized None None - None -	- None
Storage Length	
Veh in Median Storage, # - 0 0 0	0 -
Grade, % - 0 0 0 -	0 -
Peak Hour Factor 90 90 90 90 90 90 90 90 90	90 90
Heavy Vehicles, % 0 0 0 0 1 0 2 1 0 0	0 0
Mvmt Flow 33 189 2 17 217 22 2 6 6 6	6 44
Major/Minor Major1 Major2 Minor1 Minor2	
, ,	19 228
•	61 -
<b>V</b>	58 -
	6.5 6.2
,	5.5 -
, ,	5.5 -
Follow-up Hdwy 2.2 2.2 3.518 4.009 3.3 3.5	4 3.3
	64 816
·	96 -
Stage 2 721 686 - 747 6	98 -
Platoon blocked, %	
Mov Cap-1 Maneuver 1340 1395 409 438 857 446 4	45 816
Mov Cap-2 Maneuver 409 438 - 446 4	45 -
Stage 1 727 677 - 727 6	86 -
Stage 2 667 676 - 715 6	78 -
Approach EB WB NB SB	
HCM Control Delay, s 1.2 0.5 11.8 10.6	
HCM LOS B B B	
TION LOS	
Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1	
Capacity (veh/h) 542 1340 1395 700	
HCM Lane V/C Ratio 0.025 0.025 0.012 0.079	
HCM Control Delay (s) 11.8 7.8 0 - 7.6 0 - 10.6	
HCM Lane LOS B A A - A A - B	
HCM 95th %tile Q(veh) 0.1 0.1 0 0.3	

Intersection

Intersection Delay, s/veh	9.7										
Intersection LOS	Α										
Movement	EBU E	BL EE	T EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3 06	30 90	0	0	140	60	0	40	40	0
Peak Hour Factor	0.92 0.9	95 0.9	0.95	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.92
Heavy Vehicles, %	2	0	2 4	2	2	2	2	2	2	1	2
Mvmt Flow	0	33 8	37 95	0	0	152	65	0	42	42	0
Number of Lanes	0	0	1 0	0	0	1	0	0	0	1	0
Approach	E	В				WB			NB		
Opposing Approach	V	/B				EB			SB		
Opposing Lanes		1				1			1		
Conflicting Approach Left	9	SB				NB			EB		
Conflicting Lanes Left		1				1			1		
Conflicting Approach Right	N	ΙB				SB			WB		
Conflicting Lanes Right		1				1			1		
HCM Control Delay	g	.9				9.7			9.2		
HCM LOS		Α				Α			Α		
Lane	NBL	n1 EBLr	1 WBLn1	SBLn1							
Vol Left, %	50	% 26	% 0%	26%							
Vol Thru, %	50	% 35	% 70%	32%							
Vol Right, %	0	% 39	% 30%	41%							
Sign Control	St	op Sto	p Stop	Stop							
Traffic Vol by Lane		30 23									
LT Vol	•	10 6	0 0	45							
Through Vol			30 140								
RT Vol			00 60								
Lane Flow Rate		34 24	5 217	180							
Geometry Grp		1	1 1								
Degree of Util (X)	0.13										
Departure Headway (Hd)	5.3			4.919							
Convergence, Y/N		es Ye									
Can	C	20 70	·C 757	700							

722

0.249

9.6

Α

1

3

663

3.441

0.127

9.2

Α

0.4

766

2.714

0.32

9.9

1.4

Α

757

2.784

0.287

9.7

Α

1.2

Сар

Service Time

HCM Lane V/C Ratio

**HCM Control Delay** 

**HCM Lane LOS** 

HCM 95th-tile Q

Intersection								
Int Delay, s/veh	0							
Movement	WBL	WBI	2	N	ВТ	NBR	SBL	SBT
Vol, veh/h	0		0		80	0	0	145
Conflicting Peds, #/hr	0		0		0	0	0	0
Sign Control	Stop	Sto		Fr	ee	Free	Free	Free
RT Channelized	-	Non			-	None	-	None
Storage Length	0	10			-	-	-	-
Veh in Median Storage, #	0		-		0	-	-	0
Grade, %	0		-		0	-	-	0
Peak Hour Factor	95	9	5		95	95	95	95
Heavy Vehicles, %	0		0		0	0	0	0
Mvmt Flow	0		0		84	0	0	153
Major/Minor	Minor1			Majo	or1		Major2	
Conflicting Flow All	237	8	4	iviaje	0	0	84	0
Stage 1	84	U	<del>-</del>		-	-	-	-
Stage 2	153		_		_	_	_	_
Critical Hdwy	6.4	6.			_	_	4.1	_
Critical Hdwy Stg 1	5.4	<b>.</b>	-		_	-	-	-
Critical Hdwy Stg 2	5.4		_		_	-	_	-
Follow-up Hdwy	3.5	3.	3		-	-	2.2	-
Pot Cap-1 Maneuver	756	98			-	-	1526	-
Stage 1	944		-		-	-	-	-
Stage 2	880		-		-	-	-	-
Platoon blocked, %					-	-		-
Mov Cap-1 Maneuver	756	98	1		-	-	1526	-
Mov Cap-2 Maneuver	756		-		-	-	-	-
Stage 1	944		-		-	-	-	-
Stage 2	880		-		-	-	-	-
Approach	WB				NB		SB	
HCM Control Delay, s	0				0		0	
HCM LOS	A				J		0	
Minor Long (Marin Marin	NDT	NDDWD	4) A/D! - C	ODI O	DΤ			
Minor Lane/Major Mvmt	NBT	NBRWBLn			BT			
Capacity (veh/h)	-	-		1526	-			
HCM Cantrol Dalay (a)	-	-		-	-			
HCM Control Delay (s)	-		0 0	0	-			
HCM Lane LOS	-		A A	A	-			
HCM 95th %tile Q(veh)	-	-		0	-			

Intersection				
Intersection Delay, s/veh	6.1			
Intersection LOS	Α			
Approach	EB	WB	NB	SB
Entry Lanes	0	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	391	103	136
Demand Flow Rate, veh/h	0	398	105	139
Vehicles Circulating, veh/h	316	0	139	177
Vehicles Exiting, veh/h	0	244	177	221
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	6.8	4.7	5.3
Approach LOS	-	А	А	A
Lane		Left	Left	Left
Designated Moves		LTR	LTR	LTR
Assumed Moves		LTR	LTR	LTR
RT Channelized				
Lane Util		1.000	1.000	1.000
Critical Headway, s		5.193	5.193	5.193
Entry Flow, veh/h		398	105	139
Cap Entry Lane, veh/h		1130	983	947
Entry HV Adj Factor		0.982	0.981	0.978
Flow Entry, veh/h		391	103	136
Cap Entry, veh/h		1110	965	926
V/C Ratio		0.352	0.107	0.147
Control Delay, s/veh		6.8	4.7	5.3
LOS		А	Α	Α
95th %tile Queue, veh		2	0	1

	۶	<b>→</b>	•	•	•	•	•	<b>†</b>	<b>/</b>	-	ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ĵ»		ř	<b>†</b>	7	ሻ	<b>∱</b> }		ሻ	<b>∱</b> }	
Volume (vph)	35	155	30	120	265	125	60	415	145	110	290	35
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	1.00	0.85	1.00	0.96		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1662	1707		1662	1750	1488	1662	3196		1646	3242	
Flt Permitted	0.44	1.00		0.58	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	761	1707		1010	1750	1488	1662	3196		1646	3242	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	37	163	32	126	279	132	63	437	153	116	305	37
RTOR Reduction (vph)	0	8	0	0	0	97	0	31	0	0	9	0
Lane Group Flow (vph)	37	187	0	126	279	35	63	559	0	116	333	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4		4						
Actuated Green, G (s)	15.7	15.7		15.7	15.7	15.7	4.6	23.7		7.8	26.9	
Effective Green, g (s)	16.7	16.7		16.7	16.7	16.7	5.6	24.7		8.8	27.9	
Actuated g/C Ratio	0.27	0.27		0.27	0.27	0.27	0.09	0.40		0.14	0.45	
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	4.7		2.5	4.7	
Lane Grp Cap (vph)	204	458		271	469	399	149	1269		232	1454	
v/s Ratio Prot		0.11			c0.16		0.04	c0.17		c0.07	c0.10	
v/s Ratio Perm	0.05			0.12		0.02						
v/c Ratio	0.18	0.41		0.46	0.59	0.09	0.42	0.44		0.50	0.23	
Uniform Delay, d1	17.5	18.7		19.0	19.8	17.0	26.8	13.7		24.7	10.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	0.4		0.9	1.7	0.1	1.4	0.5		1.2	0.2	
Delay (s)	17.8	19.1		19.9	21.5	17.1	28.2	14.2		25.9	10.7	
Level of Service	В	В		В	С	В	С	В		С	В	
Approach Delay (s)		18.9			20.1			15.5			14.5	
Approach LOS		В			С			В			В	
Intersection Summary												
HCM 2000 Control Delay			17.0	Н	CM 2000	Level of S	Service		В			
HCM 2000 Volume to Capac	city ratio		0.49									
Actuated Cycle Length (s)			62.2	S	um of los	t time (s)			12.0			
Intersection Capacity Utiliza	tion		59.2%			of Service			В			
Analysis Period (min)			15									

c Critical Lane Group

٦	<b>→</b>	•	•	<b>←</b>	•	1	†	<u> </u>	/	ļ	4	
Movement EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	f)		Ť	<b>†</b>	7	Ť	ħβ		Ť	ħβ		
Volume (veh/h) 35	155	30	120	265	125	60	415	145	110	290	35	
Number 3	8	18	7	4	14	1	6	16	5	2	12	
Initial Q (Qb), veh 0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT) 1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Parking Bus, Adj 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj Sat Flow, veh/h/ln 1750	1750	1750	1750	1750	1750	1750	1750	1750	1733	1735	1750	
Adj Flow Rate, veh/h 37	163	32	126	279	132	63	437	0	116	305	37	
Adj No. of Lanes 1	1	0	1	1	1	1	2	0	1	2	0	
Peak Hour Factor 0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, % 0	0	0	0	0	0	0	0	0	1	1	1	
Cap, veh/h 276	415	81	361	511	434	105	1336	0	176	1320	159	
Arrive On Green 0.29	0.29	0.27	0.29	0.29	0.29	0.06	0.40	0.00	0.11	0.45	0.42	
Sat Flow, veh/h 990	1422	279	1207	1750	1487	1667	3413	0	1650	2963	356	
Grp Volume(v), veh/h 37	0	195	126	279	132	63	437	0	116	168	174	
Grp Sat Flow(s), veh/h/ln 990	0	1701	1207	1750	1487	1667	1663	0	1650	1648	1672	
Q Serve(g_s), s 2.0	0.0	5.5	5.6	8.1	4.1	2.2	5.4	0.0	4.1	3.8	3.9	
Cycle Q Clear(g_c), s 10.0	0.0	5.5	11.1	8.1	4.1	2.2	5.4	0.0	4.1	3.8	3.9	
Prop In Lane 1.00	0.0	0.16	1.00	0.1	1.00	1.00	0.7	0.00	1.00	0.0	0.21	
Lane Grp Cap(c), veh/h 276	0	497	361	511	434	105	1336	0.00	176	734	745	
V/C Ratio(X) 0.13	0.00	0.39	0.35	0.55	0.30	0.60	0.33	0.00	0.66	0.23	0.23	
Avail Cap(c_a), veh/h 580	0.00	1019	731	1048	891	333	1825	0.00	522	1096	1112	
HCM Platoon Ratio 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I) 1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh 22.2	0.00	17.1	21.5	17.9	16.5	27.4	12.4	0.0	25.8	10.3	10.4	
Incr Delay (d2), s/veh 0.2	0.0	0.4	0.4	0.7	0.3	4.0	0.3	0.0	3.1	0.3	0.3	
Initial Q Delay(d3),s/veh 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(-26165%),v <b>e</b> lf/		2.7	1.9	4.0	1.7	1.1	2.5	0.0	2.0	1.8	1.9	
LnGrp Delay(d),s/veh 22.3	0.0	17.5	21.9	18.6	16.8	31.5	12.6	0.0	28.9	10.6	10.7	
LnGrp LOS C	0.0	17.3 B	21.9 C	В	В	31.5 C	12.0 B	0.0	20.9 C	В	В	
Approach Vol, veh/h	232	ט	U	537	ט	U	500		U	458	ט	
• •	18.3			18.9			15.0			15.3		
Approach Delay, s/veh Approach LOS	10.3 B			10.9 B			15.0 B			15.3 B		
••		•			_	-				D		
Timer 1	2	3	4	5	6	7	8					
Assigned Phs 1	2		4	5	6		8					
Phs Duration (G+Y+Rc), s7.8	30.8		21.6	10.4	28.2		21.6					
Change Period (Y+Rc), s 5.0	5.0		5.0	5.0	5.0		5.0					
Max Green Setting (Gmax),.9	39.0		35.0	18.0	32.0		35.0					
Max Q Clear Time (g_c+l14,2			13.1	6.1	7.4		12.0					
Green Ext Time (p_c), s 0.1	19.4		3.4	0.2	15.7		3.4					
Intersection Summary												
HCM 2010 Ctrl Delay		16.7										
HCM 2010 LOS		В										

Intersection														
Int Delay, s/veh	5.5													
in Bolay, or von	0.0													
Movement	EBL	EBT	EBR	١	WBL	WBT	WBR	N	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	355	95		10	190	0		0	0	0	15	0	395
Conflicting Peds, #/hr	0	0	0		0	0	0		0	0	0	0	0	0
Sign Control	Free	Free	Free		Free	Free	Free	F	ree	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Yield		-	-	None		-	-	None	·-	-	None
Storage Length	-	-	0		-	-	-		-	-	-	-	-	-
Veh in Median Storage, #	<u>-</u>	0	-		-	0	-		-	0	-	-	0	-
Grade, %	-	0	-		-	0	-		-	0	-	-	0	-
Peak Hour Factor	97	97	97		97	97	97		97	97	97	97	97	97
Heavy Vehicles, %	0	1	4		0	2	0		0	0	0	0	0	2
Mvmt Flow	0	366	98		10	196	0		0	0	0	15	0	407
Major/Minor	Major1			Ma	ajor2							Minor2		
Conflicting Flow All	196	0	0		366	0	0					582	582	196
Stage 1	-	-	-		-	-	-					216	216	-
Stage 2	-	-	-		-	-	-					366	366	-
Critical Hdwy	4.1	_	-		4.1	-	-					6.4	6.5	6.22
Critical Hdwy Stg 1	-	-	-		-	-	-					5.4	5.5	-
Critical Hdwy Stg 2	-	-	-		-	-	-					5.4	5.5	-
Follow-up Hdwy	2.2	-	-		2.2	-	-					3.5	4	3.318
Pot Cap-1 Maneuver	1389	-	-	1	1204	-	-					479	427	845
Stage 1	-	-	-		-	-	-					825	728	-
Stage 2	-	-	-		-	-	-					706	626	-
Platoon blocked, %		-	-			-	-							
Mov Cap-1 Maneuver	1389	-	-	1	1204	-	-					475	0	845
Mov Cap-2 Maneuver	-	-	-		-	-	-					475	0	-
Stage 1	-	-	-		-	-	-					818	0	-
Stage 2	-	-	-		-	-	-					706	0	-
Approach	EB				WB							SB		
HCM Control Delay, s	0				0.4							13.9		
HCM LOS					0.1							В.		
Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL V	NBT	WBR	SBLn1							
Capacity (veh/h)	1389	-	-	1204	-	-	822							
HCM Lane V/C Ratio	-	-	-	0.009	-	-	0.514							
HCM Control Delay (s)	0	-	-	8	0	-	13.9							
HCM Lane LOS	Α	-	-	Α	Α	-	В							
HCM 95th %tile Q(veh)	0	-	-	0	-	-	3							

Intersection								
Int Delay, s/veh	3.9							
Movement		EBT	EBR	W	BL	WBT	NBL	NBR
Vol, veh/h		35	335		10	20	180	5
Conflicting Peds, #/hr		0	0		0	0	0	0
Sign Control		Free	Free	Fr	ee	Free	Stop	Stop
RT Channelized		-	None		-	None	<u>-</u>	None
Storage Length		-	-		-	-	0	-
Veh in Median Storage, #	#	0	-		-	0	0	-
Grade, %		0	-		-	0	0	-
Peak Hour Factor		90	90		90	90	90	90
Heavy Vehicles, %		3	2		0	5	1	0
Mvmt Flow		39	372		11	22	200	6
Major/Minor	M	lajor1		Majo	or2		Minor1	
Conflicting Flow All		0	0		11	0	269	225
Stage 1		-	-		-	-	225	-
Stage 2		-	-		-	-	44	-
Critical Hdwy		_	-	4	1.1	-	6.41	6.2
Critical Hdwy Stg 1		-	-		-	-	5.41	-
Critical Hdwy Stg 2		-	-		-	-	5.41	-
Follow-up Hdwy		-	-	2	2.2	-	3.509	3.3
Pot Cap-1 Maneuver		-	-	11	59	-	722	819
Stage 1		-	-		-	-	815	-
Stage 2		-	-		-	-	981	-
Platoon blocked, %		-	-			-		
Mov Cap-1 Maneuver		-	-	11	59	-	715	819
Mov Cap-2 Maneuver		-	-		-	-	715	-
Stage 1		-	-		-	-	815	-
Stage 2		-	-		-	-	971	-
Approach		EB		V	VB		NB	
HCM Control Delay, s		0			2.7		12	
HCM LOS				_			В	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL WI	DT			
				1159				
Capacity (veh/h) HCM Lane V/C Ratio	717 0.287	-	-	0.01	-			
HCM Control Delay (s)	12	- -	-	8.1	0			
HCM Lane LOS	12 B	_	_	ο. ι	A			
HCM 95th %tile Q(veh)	1.2	-	-	0	- -			
HOW BOUT MUR W(VEIT)	1.2	-	-	U	-			

Intersection							
	1.8						
2014), 0/10/1							
Movement	WBL	WBR		NBT	NBR	SBL	SBT
Vol, veh/h	35	15		140	10	15	150
Conflicting Peds, #/hr	0	0		0	0	0	0
Sign Control	Stop	Stop		Free	Free	Free	Free
RT Channelized	-	None		-	None	-	None
Storage Length	0	-		-	-	-	-
Veh in Median Storage, #	0	-		0	-	-	0
Grade, %	0	-		0	-	-	0
Peak Hour Factor	95	95		95	95	95	95
Heavy Vehicles, %	0	0		0	0	0	1
Mvmt Flow	37	16		147	11	16	158
Major/Minor	Minor1			Major1		Major2	
Conflicting Flow All	342	153		0	0	158	0
Stage 1	153	-		-	-	-	-
Stage 2	189	-		-	-	-	-
Critical Hdwy	6.4	6.2		-	-	4.1	-
Critical Hdwy Stg 1	5.4	-		-	-	-	-
Critical Hdwy Stg 2	5.4	-		-	-	-	-
Follow-up Hdwy	3.5	3.3		-	-	2.2	-
Pot Cap-1 Maneuver	658	898		-	-	1434	-
Stage 1	880	-		-	-	-	-
Stage 2	848	-		-	-	-	-
Platoon blocked, %				-	-		-
Mov Cap-1 Maneuver	650	898		-	-	1434	-
Mov Cap-2 Maneuver	650	-		-	-	-	-
Stage 1	880	-		-	-	-	-
Stage 2	838	-		-	-	-	-
Approach	WB			NB		SB	
HCM Control Delay, s	10.5			0		0.7	
HCM LOS	В					<b></b>	
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT			
Capacity (veh/h)	-		1434	-			
HCM Lane V/C Ratio	-	- 0.074		-			
HCM Control Delay (s)	-	- 10.5	7.5	0			
HCM Lane LOS	-	- B	Α	A			
HCM 95th %tile Q(veh)	-	- 0.2	0	-			

Intersection								
Int Delay, s/veh	0.8							
Movement	EBL	EBT			WBT	WBR	SBL	SBR
Vol, veh/h	0	85			125	10	10	10
Conflicting Peds, #/hr	0	0			0	0	0	0
Sign Control	Free	Free			Free	Free	Stop	Stop
RT Channelized	-	None			-	None	-	None
Storage Length	-	-			-	-	0	-
Veh in Median Storage,	# -	0			0	-	0	-
Grade, %	-	0			0	-	0	-
Peak Hour Factor	85	85			85	85	85	85
Heavy Vehicles, %	0	0			0	0	0	0
Mvmt Flow	0	100			147	12	12	12
Major/Minor	Major1				Major2		Minor2	
Conflicting Flow All	159	0			-	0	253	153
Stage 1	-	-			_	-	153	-
Stage 2	_	_			_	_	100	-
Critical Hdwy	4.1	_			_	_	6.4	6.2
Critical Hdwy Stg 1	- '.'	-			-	-	5.4	-
Critical Hdwy Stg 2	-	_			_	_	5.4	-
Follow-up Hdwy	2.2	-			-	-	3.5	3.3
Pot Cap-1 Maneuver	1433	_			-	_	740	898
Stage 1	-	-			-	-	880	-
Stage 2	-	-			-	-	929	-
Platoon blocked, %		-			-	-		
Mov Cap-1 Maneuver	1433	-			-	-	740	898
Mov Cap-2 Maneuver	-	-			-	-	740	-
Stage 1	-	-			-	-	880	-
Stage 2	-	-			-	-	929	-
Approach	EB				WB		SB	
HCM Control Delay, s	0				0		9.6	
HCM LOS							А	
NAC 1 /54 54	ED:	EST	MOT	WDD OD:	4			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR SBLr				
Capacity (veh/h)	1433	-	-	- 81				
HCM Lane V/C Ratio	-	-	-	- 0.02				
HCM Control Delay (s)	0	-	-	- 9				
HCM Lane LOS	A	-	-		A			
HCM 95th %tile Q(veh)	0	-	-	- 0	.Ί			

Intersection												
Int Delay, s/veh	8.4											
int Boldy, orven	0.4											
Movement	EBL	EBT	EBR	WE	L WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	40	45	85		0 110		70	40	50	0	105	40
Conflicting Peds, #/hr	0	0	0		0 0		0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Sto	p Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	·-	None			None	-	-	None	-	-	None
Storage Length	-	-	-			-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-		- (	-	-	0	-	-	0	_
Grade, %	-	0	-		- (	-	-	0	-	-	0	-
Peak Hour Factor	95	92	95	Ć	2 92		95	95	92	92	95	95
Heavy Vehicles, %	0	2	0		2 2	2	0	0	2	2	0	0
Mvmt Flow	42	49	89	į	4 120	0	74	42	54	0	111	42
Major/Minor	Minor2			Mino	1		Major1			Major2		
Conflicting Flow All	408	376	132	4	8 370	69	153	0	0	96	0	0
Stage 1	132	132	-	2			-	-	-	-	-	_
Stage 2	276	244	-	20	153	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.52	6.2	7.1	2 6.52	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.52	-	6.1	2 5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.52	-	6.1	2 5.52		-	-	-	-	-	-
Follow-up Hdwy	3.5	4.018	3.3	3.5	8 4.018	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	557	555	923	54	5 560	994	1440	-	-	1498	-	-
Stage 1	876	787	-	78			-	-	-	-	-	-
Stage 2	735	704	-	80	1 771	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	441	524	923	43			1440	-	-	1498	-	-
Mov Cap-2 Maneuver	441	524	-	43			-	-	-	-	-	-
Stage 1	828	787	-	74			-	-	-	-	-	-
Stage 2	573	665	-	67	'8 771	-	-	-	-	-	-	-
Approach	EB			V	В		NB			SB		
HCM Control Delay, s	13			16			3.3			0		
HCM LOS	В				C		0.0					
					-							
Minor Lane/Major Mvmt	NBL	NBT	NBR I	EBLn1WBLr	1 SBL	SBT	SBR					
Capacity (veh/h)	1440	-	-	632 49			-					
HCM Lane V/C Ratio	0.051	-	-	0.286 0.3		-						
HCM Control Delay (s)	7.6	0	-	13 16		-	-					
HCM Lane LOS	Α	Α	-	В	C A	_	-					
HCM 95th %tile Q(veh)	0.2	-	-	1.2 1	.6 (	-	-					

| Intersection   Int Delay, s/veh   1.6     SBT   SBR   |---|
| Movement         EBL         EBR         NBL         NBT         SBT         SBR           Vol, veh/h         30         10         20         120         150         35           Conflicting Peds, #/hr         0         0         0         0         0         0         0         0           Sign Control         Stop         Stop         Free         Free         Free         Free         Free         Free         RT Channelized         -         None         -         None         -         None         -         None         -         None         -         None         -  |
| Vol, veh/h         30         10         20         120         150         35           Conflicting Peds, #/hr         0         -   |
| Vol, veh/h         30         10         20         120         150         35           Conflicting Peds, #/hr         0         0         0         0         0         0         0         0           Sign Control         Stop         Stop         Free  |
| Vol, veh/h         30         10         20         120         150         35           Conflicting Peds, #/hr         0         0         0         0         0         0         0         0           Sign Control         Stop         Stop         Free  |
| Conflicting Peds, #/hr         0         0         0         0         0         0           Sign Control         Stop         Stop         Free  |
| Sign Control         Stop         Stop         Free   |
| Storage Length       0       -       -       -       -       -         Veh in Median Storage, #       0       -       -       0       0       -         Grade, %       0       -       -       0       0       -  |
| Veh in Median Storage, #       0       -       -       0       -         Grade, %       0       -       -       0       -   |
| Grade, % 0 0 0 -  |
| , and the second second second second second second second second second second second second second second se  |
|   |
| Peak Hour Factor         85         85         85         85         85   |
| Heavy Vehicles, % 0 0 0 0 1 0   |
| Mvmt Flow 35 12 24 141 176 41   |
|   |
| Major/Minor Minor2 Major1 Major2  |
| Conflicting Flow All 385 197 218 0 - 0  |
| Stage 1 197   |
| Stage 2 188   |
| Critical Hdwy 6.4 6.2 4.1   |
| Critical Hdwy Stg 1 5.4   |
| Critical Hdwy Stg 2 5.4   |
| Follow-up Hdwy 3.5 3.3 2.2  |
| Pot Cap-1 Maneuver 622 849 1364   |
| Stage 1 841   |
| Stage 2 849   |
| Platoon blocked, %  |
| Mov Cap-1 Maneuver 610 849 1364   |
| Mov Cap-2 Maneuver 610  |
| Stage 1 841   |
| Stage 2 833   |
|   |
| Approach EB NB SB   |
| HCM Control Delay, s 10.9 1.1 0   |
| HCM LOS B   |
|   |
| Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR   |
| Capacity (veh/h) 1364 - 656   |
| HCM Lane V/C Ratio 0.017 - 0.072  |
| HCM Control Delay (s) 7.7 0 10.9  |
| HCM Lane LOS A A B  |
| HCM 95th %tile Q(veh) 0.1 - 0.2   |

7.6								
Α								
EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
0	65	35	0	60	30	0	15	80
0.92	0.98	0.98	0.92	0.98	0.98	0.92	0.98	0.98
2	0	0	2	0	0	2	0	0
0	66	36	0	61	31	0	15	82
0	0	1	0	1	0	0	1	0
	EB			WB			SB	
	A EBU 0 0.92 2 0	A EBU EBL 0 65 0.92 0.98 2 0 0 66 0 0	A  EBU EBL EBT  0 65 35  0.92 0.98 0.98  2 0 0  0 66 36  0 0 1	A  EBU EBL EBT WBU  0 65 35 0 0.92 0.98 0.98 0.92 2 0 0 2 0 66 36 0 0 0 1 0	A  EBU EBL EBT WBU WBT  0 65 35 0 60 0.92 0.98 0.98 0.92 0.98 2 0 0 2 0 0 66 36 0 61 0 0 1 0 1	A  EBU EBL EBT WBU WBT WBR  0 65 35 0 60 30  0.92 0.98 0.98 0.92 0.98 0.98  2 0 0 2 0.98 0.98  0 66 36 0 61 31  0 0 1 0 1 0	A  EBU EBL EBT WBU WBT WBR SBU  0 65 35 0 60 30 0  0.92 0.98 0.98 0.92 0.98 0.98 0.92  2 0 0 2 0 0 2  0 66 36 0 61 31 0  0 0 1 0 1 0 0	A  EBU EBL EBT WBU WBT WBR SBU SBL  0 65 35 0 60 30 0 15  0.92 0.98 0.98 0.92 0.98 0.98 0.92 0.98  2 0 0 2 0 0 2 0 0 2 0  0 66 36 0 61 31 0 15  0 0 1 0 1 0 1 0 0 1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	7.9	7.5	7.3
HCM LOS	Α	А	Α

Lane	EBLn1	WBLn1	SBLn1	
Vol Left, %	65%	0%	16%	_
Vol Thru, %	35%	67%	0%	
Vol Right, %	0%	33%	84%	
Sign Control	Stop	Stop	Stop	
Traffic Vol by Lane	100	90	95	
LT Vol	65	0	15	
Through Vol	35	60	0	
RT Vol	0	30	80	
Lane Flow Rate	102	92	97	
Geometry Grp	1	1	1	
Degree of Util (X)	0.121	0.101	0.101	
Departure Headway (Hd)	4.271	3.948	3.758	
Convergence, Y/N	Yes	Yes	Yes	
Cap	836	900	936	
Service Time	2.318	2.005	1.85	
HCM Lane V/C Ratio	0.122	0.102	0.104	
HCM Control Delay	7.9	7.5	7.3	
HCM Lane LOS	Α	Α	Α	
HCM 95th-tile Q	0.4	0.3	0.3	

Intersection																
Intersection Delay, s/v	eh 9.4															
Intersection LOS	Α															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	5	115	20	0	25	170	35	0	30	60	45	0	35	85	20
Peak Hour Factor	0.92	0.97	0.97	0.97	0.92	0.97	0.97	0.97	0.92	0.97	0.97	0.97	0.92	0.97	0.97	0.97
Heavy Vehicles, %	2	0	3	8	2	0	1	0	2	0	0	0	2	0	0	0
Mvmt Flow	0	5	119	21	0	26	175	36	0	31	62	46	0	36	88	21
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9	9.9	9	9.3
HCM LOS	Α	Α	Α	Α

Lane	NBLn1	EBLn1V	VBLn1	SBLn1
Vol Left, %	22%	4%	11%	25%
Vol Thru, %	44%	82%	74%	61%
Vol Right, %	33%	14%	15%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	135	140	230	140
LT Vol	30	5	25	35
Through Vol	60	115	170	85
RT Vol	45	20	35	20
Lane Flow Rate	139	144	237	144
Geometry Grp	1	1	1	1
Degree of Util (X)	0.187	0.193	0.31	0.198
Departure Headway (Hd)	4.836	4.804	4.7	4.945
Convergence, Y/N	Yes	Yes	Yes	Yes
Сар	736	742	761	720
Service Time	2.907	2.871	2.759	3.016
HCM Lane V/C Ratio	0.189	0.194	0.311	0.2
HCM Control Delay	9	9	9.9	9.3
HCM Lane LOS	Α	Α	Α	Α
HCM 95th-tile Q	0.7	0.7	1.3	0.7

	•	$\rightarrow$	•	<b>†</b>	ļ	✓		
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	¥		ሻ	<b>^</b>	<b>↑</b> ↑			
Volume (vph)	105	115	155	515	365	75		
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750		
Total Lost time (s)	4.0		4.0	4.0	4.0			
Lane Util. Factor	1.00		1.00	0.95	0.95			
Frt	0.93		1.00	1.00	0.97			
Flt Protected	0.98		0.95	1.00	1.00			
Satd. Flow (prot)	1589		1662	3325	3240			
Flt Permitted	0.98		0.38	1.00	1.00			
Satd. Flow (perm)	1589		660	3325	3240			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95		
Adj. Flow (vph)	111	121	163	542	384	79		
RTOR Reduction (vph)	52	0	0	0	19	0		
Lane Group Flow (vph)	180	0	163	542	444	0		
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%		
Turn Type	Prot		pm+pt	NA	NA			
Protected Phases	8		1	6	2			
Permitted Phases			6					
Actuated Green, G (s)	10.8		27.2	27.2	16.4			
Effective Green, g (s)	11.8		28.2	29.2	18.4			
Actuated g/C Ratio	0.24		0.58	0.60	0.38			
Clearance Time (s)	5.0		5.0	6.0	6.0			
Vehicle Extension (s)	2.5		2.5	4.7	4.7			
Lane Grp Cap (vph)	382		518	1981	1216			
v/s Ratio Prot	c0.11		c0.04	0.16	c0.14			
v/s Ratio Perm			0.14					
v/c Ratio	0.47		0.31	0.27	0.36			
Uniform Delay, d1	15.9		5.2	4.8	11.1			
Progression Factor	1.00		1.00	1.00	1.00			
Incremental Delay, d2	0.7		0.3	0.1	0.3			
Delay (s)	16.6		5.4	4.9	11.4			
Level of Service	В		Α	Α	В			
Approach Delay (s)	16.6			5.0	11.4			
Approach LOS	В			Α	В			
Intersection Summary								
HCM 2000 Control Delay			9.1	Н	CM 2000	Level of Service	Α	
HCM 2000 Volume to Capa	acity ratio		0.39					
Actuated Cycle Length (s)			49.0	S	um of lost	time (s)	12.0	
Intersection Capacity Utiliza	ation		46.8%	IC	CU Level o	of Service	Α	
Analysis Period (min)			15					

Analysis Period (min)
c Critical Lane Group

Intersection																
Intersection Delay, s/ve	h 7.3															
Intersection LOS	Α															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol. veh/h	0	5	5	2	0	5	5	25	0	0	40	20	0	25	40	5
Peak Hour Factor	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	0.00	0.00	0.00	2	0.00	0.00	0.00	2	0.00	0.00	0.00	2	0.00	0.00	0.00
Mymt Flow	0	6	6	2	0	6	6	28	0	0	44	22	0	28	44	6
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0
Approach		EB				WB					NB			SB		Ī
Opposing Approach		WB				EB					SB			NB		
Opposing Lanes		1				1					1			1		
Conflicting Approach Le	eft	SB				NB					EB			WB		
Conflicting Lanes Left	,,,	1				1					1			1		
Conflicting Approach Ri	aht	NB				SB					WB			EB		
Conflicting Lanes Right		1				1					1			1		
HCM Control Delay		7.3				7					7.2			7.5		
HCM LOS		Α				Α					Α			A		
Lane	N	NBLn1	EBLn1\	WBLn1	SBLn1											
Vol Left, %		0%	42%	14%	36%											
Vol Thru, %		67%	42%	14%	57%											
Vol Right, %		33%	17%	71%	7%											
Sign Control		Stop	Stop	Stop	Stop											
Traffic Vol by Lane		60	12	35	70											
LT Vol		0	5	5	25											
Through Vol		40	5	5	40											
RT Vol		20	2	25	5											
Lane Flow Rate		67	13	39	78											
Geometry Grp		1	1	1	1											
Degree of Util (X)		0.071	0.015	0.041	0.088											
Departure Headway (Ho	d)	3.85	4.163	3.758	4.071											
Convergence, Y/N		Yes	Yes	Yes	Yes											
Сар		928	852	943	880											
Service Time		1.884	2.228	1.82	2.099											
HCM Lane V/C Ratio		0.072	0.015	0.041	0.089											
HOMO ( ID.)		7.0	7.0	_	7.5											

HCM Control Delay

HCM Lane LOS

HCM 95th-tile Q

7.2

Α

0.2

7.3

Α

0

7

Α

0.1

7.5

0.3

Α

Int Delay, s/veh	Intersection						
Movement		1.1					
Vol. veh/h         35         15         25         610         440         25           Conflicting Peds, #/hr         0	, ,						
Vol. veh/h         35         15         25         610         440         25           Conflicting Peds, #/hr         0	Movement	FRI	FRR	NRI	NRT	SRT	SBR
Conflicting Peds, #/hr         0         0         0         0         0         0           Sign Control         Stop         Stop         Free         Pace         2         2         Free         Free         Free         Free         Free							
Sign Control         Stop         Stop         Free         Rone           Vommed Look         0         0         -         -         0         0         0         -         -         125         Veh         0         0         -         -         0         0         -							
RT Channelized							
Storage Length		-					
Veh in Median Storage, #         0         -         -         0         0         -         Grade, %         0         -         -         0         0         -         -         0         0         -         -         0         0         -         -         0         0         -         -         0         0         -         -         0         0         -         -         0         0         -         -         0         0         1         1         1         0           Meay Vehicles, %         0         0         0         0         1         1         1         0           Mimm Flow         36         15         26         629         454         26           Major/Minor         Minor         2         62         629         454         26           Mimm Flow         41         454         454         454         0         -         0         0           Stage 1         454         454         454         0         -         -         -         -         -         -         -         -         -         -         -         -         -         -		0		275		-	
Grade, %         0         -         -         0         0         -         Peak Hour Factor         97         96         454         26         26         26         20         4.1         4.2         4.2         4.2         4.2         4.2         4.2         4			-		0	0	
Peak Hour Factor         97		0	-	-	0		-
Mymt Flow         36         15         26         629         454         26           Major/Minor         Minor2         Major1         Major2           Conflicting Flow All         1134         454         454         0         -         0           Stage 1         454         -			97	97			97
Mymt Flow         36         15         26         629         454         26           Major/Minor         Minor2         Major1         Major2           Conflicting Flow All         1134         454         454         0         -         0           Stage 1         454         -	Heavy Vehicles, %		0				
Conflicting Flow All		36	15	26	629	454	26
Conflicting Flow All							
Conflicting Flow All	Major/Minor	Minor2		Major1		Major?	
Stage 1       454       -			151		0		0
Stage 2       680       -			404	404		-	
Critical Hdwy       6.4       6.2       4.1       -       -       -         Critical Hdwy Stg 1       5.4       -       -       -       -       -         Critical Hdwy Stg 2       5.4       -       -       -       -       -       -         Follow-up Hdwy       3.5       3.3       2.2       -			<u>-</u>	-		<u>-</u>	_
Critical Hdwy Stg 1       5.4       -				<u>/</u> 1		_	
Critical Hdwy Stg 2       5.4       -							_
Follow-up Hdwy 3.5 3.3 2.2 Pot Cap-1 Maneuver 226 610 1117 Stage 1 644			_			-	_
Pot Cap-1 Maneuver   226   610   1117   -   -   -   -       Stage 1   644   -   -   -   -   -   -   -       Stage 2   507   -   -   -   -   -   -   -     Platoon blocked, %   -   -   -   -   -     Mov Cap-1 Maneuver   221   610   1117   -   -   -     Mov Cap-2 Maneuver   221   -   -   -   -   -   -     Stage 1   644   -   -   -   -   -   -   -     Stage 2   495   -   -   -   -   -   -      Approach   EB   NB   SB			3.3				_
Stage 1       644       -						-	_
Stage 2       507       -						_	-
Platoon blocked, %			-	-	_	-	_
Mov Cap-1 Maneuver         221         610         1117         -         -         -           Mov Cap-2 Maneuver         221         - <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>-</td> <td>-</td>					-	-	-
Mov Cap-2 Maneuver         221         -		221	610	1117	-	-	-
Stage 1         644         -					-	-	-
Stage 2         495         -			-	-	-	-	-
Approach         EB         NB         SB           HCM Control Delay, s         21.2         0.3         0           HCM LOS         C         C         O    Minor Lane/Major Mvmt  NBL  NBT EBLn1  SBT  SBR  Capacity (veh/h)  1117  - 273   HCM Lane V/C Ratio  0.023  - 0.189   HCM Control Delay (s)  8.3  - 21.2   HCM Lane LOS  A  - C			-	-	-	-	-
HCM Control Delay, s   21.2   0.3   0     HCM LOS							
HCM Control Delay, s   21.2   0.3   0     HCM LOS	Annroach	ED		ND		CD	
Minor Lane/Major Mvmt         NBL         NBT EBLn1         SBT         SBR           Capacity (veh/h)         1117         - 273            HCM Lane V/C Ratio         0.023         - 0.189            HCM Control Delay (s)         8.3         - 21.2            HCM Lane LOS         A         - C							
Minor Lane/Major Mvmt         NBL         NBT EBLn1         SBT         SBR           Capacity (veh/h)         1117         - 273            HCM Lane V/C Ratio         0.023         - 0.189            HCM Control Delay (s)         8.3         - 21.2            HCM Lane LOS         A         - C				0.3		U	
Capacity (veh/h)       1117       -       273       -       -         HCM Lane V/C Ratio       0.023       -       0.189       -       -         HCM Control Delay (s)       8.3       -       21.2       -       -         HCM Lane LOS       A       -       C       -       -	HOW LOS	U					
Capacity (veh/h)       1117       -       273       -       -         HCM Lane V/C Ratio       0.023       -       0.189       -       -         HCM Control Delay (s)       8.3       -       21.2       -       -         HCM Lane LOS       A       -       C       -       -	Minor Lane/Major Mymt	NRI	NBT FBI n1	SBT_SBR			
HCM Lane V/C Ratio       0.023       - 0.189          HCM Control Delay (s)       8.3       - 21.2          HCM Lane LOS       A       - C							
HCM Control Delay (s) 8.3 - 21.2 HCM Lane LOS A - C							
HCM Lane LOS A - C							
	HCM 95th %tile Q(veh)	0.1	- 0.7				

Appendix F.	HSM	Part B	Worksh	eets
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Source: ODOT Crash Analysis and Reporting Unit, January 1, 2007 through December 31, 2011.

Note: Crashes listed in this table include all reported collisions within 265' of the listed facility along sidestreets.

## **City of Talent**

## **Transportation System Plan Update**

# **Technical Memorandum #4: Improvement Concepts Evaluation**

Prepared for

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and

Oregon Department of Transportation Region 3 3500 NW Stewart Parkway Roseburg, Oregon 97470 Prepared by

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#### June 2015

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#### 4. IMPROVEMENT CONCEPTS EVALUATION

This memorandum presents the concepts analysis of projects for consideration in the Talent Transportation System Plan (TSP) update. The memorandum is divided into three sections:

- 1. <u>A review of the projects in existing plans (Section 4.1)</u>. This includes the 2007 TSP Update as well as other local and regional plans. The review includes recommendations for 2014 TSP Update project lists such as which projects should be included and which should be deleted because of significant barriers to implementation.
- 2. An analysis of improvements that could be considered as additions to the plan (Section 4.2. These may be alternatives to existing recommendations or new projects that address concerns not previously addressed. These potential projects are listed by mode.
- 3. <u>Two evaluation matrices</u>. The first matrix presents goals and a qualitative evaluation scale. The second matrix lists each project and states the criterion applied.

## 4.1. Existing Plan Projects

The review of the projects in existing plans includes:

- Projects from the 2007 TSP Update
  - o Transportation Facility Improvements Chapter 7
  - o Local Street System Enhancements Chapter 5
- Projects from Other Planning Documents
  - o Railroad District Master Plan (2005)
  - o W. Valley View Vision Master Plan (2006)
  - o Parks Master Plan (2006)
  - o Wagner Creek Greenway Connection Plan (2007)
  - 2013-2038 Rogue Valley Metropolitan Planning Organization Regional Transportation Plan
  - o Oregon 99 Corridor Plan
  - o Rogue Valley Transit District Ten-Year Long-Term Plan
- Projects in Capital Plans
  - o 2008-2013 Capital Improvement Plan
  - o 2012-2015 Rogue Valley MPO Metropolitan Transportation Improvement Program
  - o 2012-2015 Oregon Statewide Transportation Improvement Program

## 4.1.1. Projects from the 2007 TSP Update

The 2007 TSP Update includes two specific project lists, located in Chapters 7 and 5. A list of transportation facility improvements is contained in Chapter 7. While this is the primary list of projects that is considered in the funding and financing plan, Chapter 5 also contains a list of potential public street connections that are primarily focused on the local roadway system. Both of these project lists are discussed below.

## <u>Transportation Facility Improvements – Chapter 7</u>

Chapter 7 of the 2007 TSP Update includes a section summarizing the transportation facility improvements with a specific list of projects "that provide facilities for motorists, bicyclists, pedestrians, and those who ride public transportation." Tables 7-5 through 7-7 of the 2007 TSP list the short, medium, and long range improvements intended to meet the area's "needs for mobility and accessibility based upon anticipated growth."

Table 4-1 in this memo lists the projects contained in the 2007 TSP Update and Figure 4-1 illustrates the location of these projects. Each project in the list was assessed to determine consistency with other planning documents (local, regional, and state), and recommends an action for the 2014 Update.

Table 4-1. Transportation Facility Projects List from the 2007 TSP Update (Chapter 7)

				Mode				
Project ID	Location	Description	Vehicle	Bike	Ped	Freight	Consistent with Other Plans	Recommended Action for 2014 TSP Update
SHORT	RANGE (2007-2012)							
S.01	Rapp Road—Railroad crossing to Wagner Creek Rd	Rebuild and upgrade to (major) collector standard	✓	<b>√</b>	<b>√</b>		RTP #717 (Medium Term)	Include in 2014 TSP update but include unimproved section east of rail crossing
S.02	Multimodal Pathways							
а	Connect to Bear Creek Greenway near Creel Rd	Construct new 10-foot-wide multimodal path.		✓	✓		PMP	Include in 2014 TSP update
b	Connect to Bear Creek Greenway near Suncrest Rd	Construct new 10-foot-wide multimodal path.		<b>✓</b>	<b>✓</b>		NA	Include but examine options (See Section 4.2.2)
С	Near RR tracks from north UGB to south UGB	Construct new 10-foot-wide multimodal path.		<b>√</b>	<b>√</b>		NA	Include in 2014 TSP update
S.03	Wagner St RR Crossing	Upgrade crossing and provide for pedestrians and bicyclists. Upgrade warning devices	✓	✓	✓		NA	Include in 2014 TSP update
S.04	Downtown circulation and redevelopment	Phased downtown improvements	✓	✓	✓	✓	WVVP	Partially completed - Include remaining projects in TSP after 2014 construction
S.05	OR 99—Rapp Rd to South City Limits	Add center turn lane and medians, bike lanes, sidewalks, curb & gutter	✓	✓	✓	✓	STIP OR 99 CP	Include in 2014 TSP update
S.06	Wagner Creek Greenway Path—Talent Ave to Bear Creek Greenway	Construct new 10-foot-wide multimodal path near Wagner Creek connecting to Bear Creek Greenway.		<b>√</b>	✓		PMP WCGP	Include in 2014 TSP update but consider splitting in two projects
S.07	Rapp Rd RR Crossing	Upgrade crossing and provide for pedestrians and bicyclists; upgrade warning devices.	✓	✓	✓		RDMP	Include but consider alternatives first (see Section 4.2.1)

Table 4-1. Transportation Facility Projects List from the 2007 TSP Update (Chapter 7)

				Mo	ode			
Project ID	Location	Description	Vehicle	Bike	Ped	Freight	Consistent with Other Plans	Recommended Action for 2014 TSP Update
S.08	Talent Ave—Creel Rd to Alpine Way	Upgrade to collector standard	✓	✓	✓		NA	Include in 2014 TSP update
S.09	Talent Ave—Colver Rd to Lapree St	Upgrade to minor arterial standard	✓	✓	✓		NA	Project completed
S.10	Wagner Creek Rd— Christian Ave to Rapp Rd	Upgrade to major collector standard	✓	✓	✓	✓	NA	Include in 2014 TSP update
S.11	Nerton St—complete connection	Construct gap segment between Crimson Court and Kamerin Springs subdivisions	<b>✓</b>	✓	✓		NA	Project completed
S.ni	Local Street Network Improvements	Upgrade local streets with curb, gutter and sidewalks	✓		✓		NA	Include a local connections map but
S.ne	Local Street Network Expansion	Construct new local streets as part of subdivisions and development	✓		✓		NA	do not include specific projects in Project List
MEDIL	JM RANGE (2010-2017)							
M.01	Railroad District collector—Belmont Rd to Rapp Rd	Construct new collector street to serve UGB area south and west of RR tracks	<b>✓</b>	✓	<b>✓</b>		RTP #720 (Long Term) RDMP	Include in 2014 TSP update
M.02	Belmont Rd—Talent Ave to RR Crossing	Upgrade to collector standard	✓	✓	✓		RDMP	Include in 2014 TSP update
M.03	Front St—Colver Rd to Urban Renewal Boundary	Upgrade to minor collector standard	✓	✓	✓		NA	Include in 2014 TSP update
M.04	Wagner Creek Greenway Path—Rapp Rd to Talent Ave	Construct new 10-foot-wide multimodal path near Wagner Creek		✓	✓		PMP	Include in 2014 TSP update
M.05	OR 99 & Creel Rd intersection	Install traffic signal and turn lanes.	✓	✓	✓		STIP OR 99 CP	Addressed in Project S.05
M.06	Belmont Rd RR Crossing	Construct new railroad crossing with gates	✓	✓	✓		RDMP RTP #723 (Unfunded)	Include in 2014 TSP update
M.07	Rogue River Pkwy—Talent Ave to OR 99	Construct new street connection with the highway Rapp Rd and Arnos St	✓			✓	RTP #722 (Long Term)	Include in 2014 TSP update
M.ni	Local Street Network Improvements	Upgrade local streets with curb, gutter and sidewalks	✓		✓		NA	Include a local connections map but
M.ne	Local Street Network Expansion	Construct new local streets as part of subdivisions and development	<b>✓</b>		✓		NA	do not include specific projects in Project List

Table 4-1. Transportation Facility Projects List from the 2007 TSP Update (Chapter 7)

				Mo	ode			
Project ID	Location	Description	Vehicle	Bike	Ped	Freight	Consistent with Other Plans	Recommended Action for 2014 TSP Update
LONG I	RANGE (2015-2020)							
L.01	Westside Bypass— Wagner Creek Rd/Rapp Rd to Colver Rd	Construct new collector street west of city	<b>✓</b>	<b>✓</b>	✓	✓	PMP	Must note project outside UGB will need county coordination
L.02	Suncrest Rd realignment	Redirect Suncrest Rd along N side of Autumn Ridge subdivision between OR 99 and I-5 overpass.	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	NA	Suncrest Rd connection east of OR 99 unlikely because of existing development – Remove project
L.03	Main St & Talent Ave signalization	Install traffic signals	<b>✓</b>	<b>✓</b>	✓		NA	Consider removing from TSP – Adequate demand not expected
L.ni	Local Street Network Improvements	Upgrade local streets with curb, gutter and sidewalks	✓		✓		NA	Include a local connections map but
L.ne	Local Street Network Expansion	Construct new local streets as part of subdivisions and development	<b>✓</b>		✓		NA	do not include specific projects in Project List

Acronyms: OR 99 CP = Corridor Plan, PMP = Parks Master Plan, RDMP = Railroad District Master Plan, RTP = Regional Transportation Plan, STIP = Statewide Transportation Improvement Program, WCGP = Wagner Creek Greenway Plan, WVVP = W. Valley View Road Plan Source: Transportation System Plan Update Adopted March 2007, Table 7-5.

Three short-range projects have been completed or partially completed since the 2007 update. These projects include:

- S.04, Downtown Circulation and Redevelopment, Construct phased improvements in the W. Valley View Plan
- S.09, Talent Avenue from Colver Road to Lapree Road, Upgrade to minor arterial standard
- S.11, Nerton Street, Complete connection between Crimson Court and Kamerin Springs subdivisions

Three projects are not recommended for the 2014 Update:

- M.05, OR 99 & Creel Road intersection, Install traffic signal and turn lanes this
  intersection is included in the project (S.05) that will improve OR 99 from Rapp Road to
  the south city limits. The highway project is currently funded in the Statewide
  Transportation Improvement Program (STIP). It does include turn lanes but neither
  existing nor forecast traffic volumes would meet warrants for a traffic signal.
- L.02, Main Street & Talent Avenue, install traffic signals neither existing nor forecast traffic volumes would meet warrants for a traffic signal.

• L.03, Suncrest Road Realignment, Redirect Suncrest Road along the side of the Autumn Ridge subdivision between OR 99 and I-5 overpass – planned development east of the traffic signal would make the realignment very unlikely.

Two projects have alternatives that will be discussed in Section 4.3 of this memorandum but an improvement at these locations is still recommended:

- S.02b, Multimodal pathway, Connect to Bear Creek Greenway near Suncrest Road several alternative treatments of the Suncrest Road connection with the Greenway are evaluated.
- S.07, Rapp Road Railroad Crossing, Upgrade crossing an alternative alignment for the railroad crossing is evaluated.

The other arterial and collector and multimodal projects in Table 4-1 are still justified and are recommended for inclusion in the 2014 TSP Update. However, the local references are not necessary since no specific projects are called out.

## <u>Local Street System Enhancements – Chapter 5</u>

Chapter 5 of the 2007 TSP Update discusses enhancing the local street system to provide attractive alternative routes to OR 99. Table 5-1 and Maps 5-1 through 5-8 (2007 TSP) identify proposed and possible extensions of the existing street system.

Table 4-2 in this memo lists the projects contained in the 2007 TSP Update and Figure 4-2 illustrates the location of these projects. Each project in the list was assessed to determine consistency with the TSP Facility Projects List (Chapter 7) and recommends an action for the 2014 Update.

Table 4-2. Transportation Facility Projects List from the 2007 TSP Update (Chapter 5)

			Mode				
Project ID	Location/Description	Vehicle	Bike	Ped		Facility Projects List	Recommended Action for 2014 TSP Update
0	New Street extension (under construction, 2006) (Proposed)	✓		<b>✓</b>			Street completed
11	Westside Bypass (Wagner Creek Rd to Colver Rd (Proposed)	✓	✓	✓		TSP L.01	Not local but include with Facility Project ID
12	First St connection to Bypass (Possible)	✓		✓			Unlikely because of
13	Second St connection to Bypass (Possible)	✓		✓			existing development –
14	First-to-Front St connection (Possible)	✓		✓			Remove project
21	Suncrest Rd bypass (Proposed)	✓	✓	<b>✓</b>		TSP L.02	Unlikely because of existing development – Remove project

Table 4-2. Transportation Facility Projects List from the 2007 TSP Update (Chapter 5)

					TSP			
Project ID	Location/Description	Vehicle	Bike	Ped	Freight	Facility Projects List	Recommended Action for 2014 TSP Update	
22	Alley serving Suncrest Rd bypass (Proposed)	✓					Unlikely because of existing development – Remove project	
23	Autumn Ridge connection to Suncrest bypass (Possible)	✓		✓			Unlikely because of existing development – Remove project	
24	Suncrest Park access (Proposed)	✓	✓	✓			Include as local network	
25	Suncrest Rd bypass connection segment (Proposed)	✓		<b>✓</b>			Include but note project outside UGB will need county coordination	
31	S. Oak Valley Dr extension 01 (W. Valley View to OR 99) with adjacent bike path (Proposed)	✓	✓	✓			Include as local network	
32	S. Oak Valley Dr extension 02 (W. Valley View to OR 99) with adjacent bike path (Proposed)	✓	✓	✓			Include as local network	
41	Gangnes extension 01 (Possible)	✓		<b>✓</b>			Unlikely because of	
42	Gangnes extension 02 (Possible)	✓		✓			existing development –  Remove project	
44	Gangnes extension 03 (Possible)	✓		✓				
46	Alley extension from Logan Way to serve Talent Avefacing homes (Proposed)	✓					Include as local network	
51	Industrial circulator 01 (Proposed)	✓		✓	✓		Include as local network	
52	Industrial circulator 02 (Proposed)	✓		✓	✓		Include as local network	
61	Commercial access road (Proposed)	✓		✓			Include as local network	
62	Rogue River Pkwy extension (Proposed)	✓	✓	✓			Include as local network	
63	Rogue River Pkwy extension to OR 99 (Possible)	✓	✓	✓			Include as local network	
64	Alley to commercial access road (Possible)	<b>✓</b>					Alley completed – not suitable for commercial access	
65	New local street (Possible)	✓		✓			Include as local network	
66	Camus Court (under construction, 2006) (Proposed)	✓		✓			Street completed	
71	Lithia Way extension from Lani Way to Arnos St (Proposed)	✓		✓			Unlikely because of	
72	Lani Way extension to OR 99 (Possible)	✓		✓			existing development – Remove project	
73	Widening of Lithia Way segment (David Way to Lani Way) (Proposed)	✓		✓				
81	Nerton St extension to Joy Dr stub at Mariah Ct (Proposed)	✓		✓			Include as local network	

Table 4-2. Transportation Facility Projects List from the 2007 TSP Update (Chapter 5)

			Мс	ode		TSP	
Project ID	Location/Description	Vehicle	Bike	Ped	Freight	Facility Projects List	Recommended Action for 2014 TSP Update
82	Mariah extension to RR tracks (poss. emergency crossing loc.) (Proposed)	✓					Include as local network
91	Lithia Way extension to Talent Ave (Proposed)	✓		✓			Include as local network
92	New local street (Possible)	✓		✓			Include as local network
93	New local street (Possible)	✓		✓			Include as local network
94	Access for Alpine Way properties (Proposed)	✓		✓			Include as local network
101	Southwest collector street (Belmont Rd to Rapp Rd) (Proposed)	✓		✓		TSP M.01	Not local but include with Facility Project ID
102	Belmont Rd extension and improvements (Proposed)	✓		<b>√</b>		TSP M.06	Not local but include with Facility Project ID
111	Extension from New St to E. Main St extension (Proposed)	✓		✓			
112	Redirected extension of E. Main St (Proposed)	✓	✓	✓			Remove completed
113	Redirected extension of E. Wagner St (Proposed)	✓	✓	✓			elements and include
114	New alley (Alley)	✓		✓		TSP S.04	remaining projects in TSP after 2014
115	Conversion of segment of W. Valley View Rd to service lane/pedestrian way (Alley)		✓	<b>√</b>			construction with Facility Project ID
116	Roundabout at intersection of E. Main St, E. Wagner St and W. Valley View Rd (Possible)	✓	✓	✓			
117	From terminus of Gangnes St to Talent Ave (Alley)	✓					Include as local network
118	Connection from new Gangnes St alley to E. Wagner extension (Alley)	✓					Include as local network

## 4.1.1. Projects from Other Planning Documents

Seven other planning documents were reviewed to identify projects related to the transportation system in Talent.

## Railroad District Master Plan (2005)

The *Railroad District Master Plan* (RDMP) suggests several new street and path connections within the proposed Railroad District, located in an undeveloped part of Talent south and west of the CORP railroad line. Table 4-3 lists the transportation-related projects in the RDMP, whether the project is included in the 2007 TSP Facility Projects List, and recommends an action for the 2014 Update.

Table 4-3. Project from the Railroad District Master Plan

		Mode		2007 TSP		
Project Location/Description	Vehicle	Bike	Ped	Freight	,	Recommended Action for 2014 TSP Update
Railroad District collector street from Belmont Rd to Rapp Rd	✓	✓	✓		TSP M.01	Include in 2014 TSP update
Improve and realign existing Rapp Rd railroad crossing and intersection with Helms Rd	✓	✓	✓		HSPSOI	Include in 2014 TSP update
Create emergency public railroad crossing at Pleasant View (convert from private crossing)	✓					Include in 2014 TSP update
Close private railroad crossing at Hilltop Rd						Include in 2014 TSP update
Create public railroad crossing at Belmont Rd (convert from private crossing)	✓	✓	✓		TSP M.06	Include in 2014 TSP update
Close existing public crossing south of Railroad District						Include in 2014 TSP update

#### W. Valley View Vision Master Plan (2006)

The *W. Valley View Vision Master Plan* (WVVVMP) creates a new traffic pattern for the downtown area by placing a roundabout on W. Valley View Road between Talent Avenue and OR 99. The roundabout will connect to Main Street and Wagner Street, both of which are to be extended east from Talent Avenue. Ultimately, this project will eliminate the offset intersections on Talent Avenue at Main Street and at W. Valley View Road. All three legs of this roundabout will include sidewalks and bike lanes. West of the roundabout, W. Valley View will be vacated and converted to a public plaza and parking spaces.

All of these projects are currently identified in the 2007 TSP Update. Some elements of this improvement are scheduled for construction in 2014. Construction will include:

- Installation of the roundabout on W. Valley View Road
- Extension of Main Street from Talent Avenue to the new roundabout
- Closure of W. Valley View between Talent Avenue and the new roundabout

Construction of the connection to Wagner Street extension to the new roundabout is not scheduled at this time. This project will be included in the 2014 TSP update.

## Parks Master Plan (2006)

The 2006 Parks Master Plan (PMP) includes both trail projects and street projects inside and outside the Talent UGB. Some of the projects are currently included in the 2007 TSP update as specific Facility Improvement Projects or as part of Bicycle and Sidewalk Plan maps. Table 4-4 lists the transportation-related projects in the PMP, whether the project is included in the 2007 TSP Facility Projects List or the modal plans, and recommends an action for the 2014 Update.

Table 4-4. Projects from the Parks Master Plan

				ode		TSP	
Project ID	Location/Description	Vehicle	Bike	Ped	Freight	Facility Projects List	Recommended Action for 2014 TSP Update
T-1	Wagner Creek Trail: 9,091 feet, from Quail Run Rd to Valley View Rd. Off-street trail.		>	>		TSP S.06 & M.04	Include 2014 TSP update
T-2	Quail Run Road Trail: 2,520 feet, from Rapp Ln to Wagner Creek Rd. On-street trail		<b>✓</b>	<b>✓</b>			Outside UGB
T-3	Ridgeline Trail: 13,979 feet, from Rapp Ln to Talent Ave. Off-street trail.		<b>√</b>	✓			Outside UGB
T-4	Alpine Trail: 545 feet, connecting Alpine Way to the Bear Creek Greenway. On-street and off-street trail.		✓	✓			Consider in 2014 TSP update
T-5	Creel Trail: 552 feet, connecting Creel Rd to the Bear Creek Greenway. On-street and off-street trail with highway crossings.		✓	✓		Bikeway & Sidewalk Plans	Consider in 2014 TSP update
T-6	Arnos Trail: 797 feet, connecting Arnos St to the Bear Creek Greenway. On-street and off-street trail with highway crossings.		<b>✓</b>	✓		Bikeway & Sidewalk Plans	Consider in 2014 TSP update
T-7	2 <sup>nd</sup> St/Schoolhouse Trail: 1,541 feet, connecting Wagner Creek Rd and Rapp Rd through 2 <sup>nd</sup> St and Schoolhouse Rd. On-street trail.		✓	✓		Bikeway & Sidewalk Plans	Sidewalks exist – add trail/sidewalks on 2 <sup>nd</sup> St and Schoolhouse Rd along field in
T-8	Colver Trail: 3,040 feet connecting Colver Fields and Wagner Creek Rd through Foss Rd and a new path system. On-street and off-street trail.		✓	✓			Outside UGB – would likely be part of Westside Bypass project
T-9	<b>Whacker's</b> Hollow/DeYoung Loop: 2,683 feet, connecting <b>Whacker's</b> Hollow and the DeYoung property pond area. Off-street trail.		<b>✓</b>	<b>✓</b>			Park project not part of TSP
T-10	Front Trail: 2,825 feet, on Front St, connecting Colver Rd and Wagner St. On-street trail.		<b>✓</b>	<b>✓</b>			Include segment from Colver Rd to Main St in 2014 TSP update

## Wagner Creek Greenway Connection Plan (2007)

The Wagner Creek Greenway Connection Plan provides a recreational trail concept between Talent Avenue and the Bear Creek Greenway, including short-term and long-term recommendations for greenway alignment and crossing of major barriers at W. Valley View Road and OR 99. The Greenway is included in the 2007 TSP Update in the pedestrian and bicycle modal plans as well as the Transportation Facility Project List (S.06 and M.04). This project will be included in the 2014 TSP Update as well.

## <u>2013-2038 Rogue Valley Metropolitan Planning Organization Regional</u> Transportation Plan

The 2013-2038 Rogue Valley Regional Transportation Plan (RTP) is a 25-year plan that addresses transportation needs within the Rogue Valley Metropolitan Planning Organization

(RVMPO) planning area boundary. The RTP is a multi-jurisdictional document that is consistent with local plans. However, it does not include all projects in these local plans; rather it aggregates those projects that contribute to the regional transportation system.

The RTP includes two tiers of projects. Tier 1 projects are likely to be funded in the 25-year planning horizon. Tier 2 projects have no identified funding. The following Tier 1 projects from the 2007 TSP update have been included in the RTP:

- RTP 717 Rapp Road, Railroad Crossing to Wagner Creek, Medium Range (TSP S.01)
- RTP 720 Helms/Hilltop, Rapp Road to Belmont Street, Long Range (TSP M.01)
- RTP 722 Rogue River Parkway, OR 99 to Talent Avenue, Long Range (TSP M.07)

The following Tier 2 projects from the 2007 TSP update have been included in the RTP:

• RTP 723 – Belmont Road, Railroad Crossing (TSP M.06)

#### Oregon 99 Corridor Plan

The *Oregon 99 Corridor Plan* is currently in progress but includes planned improvements to OR 99 sidewalk and bicycle infrastructure throughout the corridor's length in Talent.

#### Roque Valley Transit District Ten-Year Long-Term Plan

The Rogue Valley Transit District (RVTD) has adopted a Ten-Year Long-Term Plan. It contains proposed improvements for transit in Talent listed below in Table 4-5. The transit section of the Talent TSP will reference all of these planned improvements by RVTD.

Table 4-5. Projects from the RVTD Ten-Year Long-Term Plan

Proposed Improvement	Status
TIER 1 PROJECTS	
Expand service hours to 4 AM – 10 PM on existing Route 10 Increase service frequencies from 6:00 AM to 7:00 PM to 30 minutes and 1 hour frequencies all other times	Mostly implemented, though only funded through 2015
Saturday service from 7:00 AM – 10:00 PM on existing Route 10	Mostly implemented, though only funded through 2015
TIER 2 PROJECTS	
4-hour peak service on existing Route 10	
Ashland-Talent-Phoenix circulator, operating west of OR 99 in Talent	RVTD has begun to explore routes
Establish a feeder service or circulator routes in the neighborhoods west of OR 99 (partially addressed by the proposed circulator in Tier 2 above)	
Provide service to Jackson County work release facility located on OR 99 outside city limits	
Establish peak hour service for commuters (addressed above by the peak service improvements proposed in Tier 2)	

Table 4-5. Projects from the RVTD Ten-Year Long-Term Plan

Proposed Improvement	Status
Coordinate transit service with the Urban Renewal Agency (URA). The URA is planning for extensive mixed-use development in the W. Valley View area, but the W. Valley View Vision Master Plan does not directly address transit service to the area.	
REGIONAL EXPECTATIONS FOR TRANSIT	
Service on Wagner St. – Rapp Rd. to Belmont St.	Rapp Rd. cannot presently accommodate busses
There is potential for a school to be developed on a site west of the main city, but within the city limits along Colver Rd	

#### 4.1.2. Projects in Capital Plans

Capital plans are documents identifying short-range projects that have secured funding for construction. Three plans identify capital projects in the city.

#### <u>2008-2013 Capital Improvement Plan</u>

The *Capital Improvement Plan* (CIP) contains 18 projects that would improve the transportation network. The CIP primarily includes roadway retrofit projects (including bike lanes and sidewalks), most of which were also in the TSP. Many have already been completed. A newer CIP identifying future projects is not currently available.

## <u>2012-2015 Rogue Valley MPO Metropolitan Transportation Improvement Program</u>

The Rogue Valley MPO Metropolitan Transportation Improvement Program (MTIP) included one reconstruction project along the Bear Creek Greenway between Talent and Ashland. The 3.5-mile section between S. Valley View Road and Suncrest Road was repaired in 2012.

## 2012-2015 Oregon Statewide Transportation Improvement Program

The 2012-2015 Oregon Statewide Transportation Improvement Program (STIP) only contains one project within the city of Talent, which is being managed by the Oregon Department of Transportation (ODOT). This project would add sidewalks and other improvements to the OR 99/Creel Road intersection.

## 4.2. New Transportation Projects for Consideration

The concept evaluation considers new street, bicycle and pedestrian, and transit projects which could be incorporated into the 2014 TSP Update.

#### 4.2.1. New Street Improvement Concepts for Consideration

Many of the street improvement projects in the 2007 TSP Update are recommended for the 2014 TSP Update but there are a few potential new street projects for consideration. These projects are described below and summarized in the Evaluation Matrix.

#### S-1: Add Center Refuge Lane by Widening W. Valley View Road

W. Valley View Road is a four-lane roadway with two travel lanes in each direction between OR 99 and Mountain View Drive. Several existing developments have access to W. Valley View Road along the section and there are several vacant parcels that would likely take access in the future.

Under current conditions, traffic turning left into driveways/access roads must stop in the travel lane and wait for a gap in oncoming traffic. While common, this lane configuration does have some safety and operational concerns. Because the left-turning traffic stops in a through travel lane, there is potential for either rear end collisions (when a following vehicle fails to stop behind the left-turning vehicle) or sideswipe collisions (when sudden lane changes are made to avoid the left-turning vehicle). At busier times of day, the capacity of the lane used for left turns can be significantly reduced by the turning vehicles leaving only one lane that most of the through traffic uses.

While congestion is not currently an issue in the corridor and there have not been many documented crashes associated with turning vehicles on this segment of roadway, the addition of a dedicated center two-way left-turn lane should be considered. The center lane would serve vehicles turning left from W. Valley View Road into a driveway/access. It would also provide a refuge lane which vehicles turning left from a driveway/access onto W. Valley View Road could use to make a two-stage left-turn movement (i.e., first pull into the center lane from the access, then merge with through traffic lanes).

One option considered for this segment of roadway is widening W. Valley View Road to a add center refuge lane. The merits of widening the roadway are presented below and illustrated in Figure 4-3. Concept S-2 provides an alternative to the widening discussed below. The Evaluation Matrix in Section 4.3 summarizes this discussion. (Note: This concept is consistent with some of the improvements suggested in Concept U-1, Five-Lane West Valley View Road Facility from Technical Memorandum 6 prepared for the Interchange Area Management Plan [IAMP] for I-5 Exit 21.)

Widening W. Valley View Road would allow four through travel lanes (two in each direction) to be maintained while adding a center two-way left-turn lane. Bike lanes would be included on each side of the roadway as well as sidewalks.

This improvement would address existing safety concerns for vehicular traffic by separating left-turning traffic from the through travel lanes. Widening the roadway could allow an increase in bike lane width from 5 feet to 6 feet. It would not specifically address an existing safety concern about the conflict between the westbound bike lane and the right-turn lane at

the intersection of OR 99 (see Section 4.2.2 for potential solutions) but it would not make the conflict worse.

Although the roadway would be wider between intersections, it would not be wider at any of the existing signals (OR 99 and Hinkley Road) where five lanes are already present. This would create a longer distance for pedestrians trying to cross W. Valley View Road in the middle of the block but the refuge lane could also serve those pedestrians who choose to cross midblock.

Although current forecasts do not indicate congested conditions in the future, the center refuge lane would add turning capacity that would serve development on the adjacent vacant lands. Freight movement between I-5 and OR 99 would see no change with this improvement.

Widening W. Valley View Road would require additional right of way, impacting adjacent properties. According to the Jackson County tax lot mapping, right of way on this section of roadway is irregular, varying from 50 feet to 70 feet. The existing paved surface is 55 to 56 feet (except at OR 99) with 6-foot sidewalks on both sides of the street for a total infrastructure width of 67 to 68 feet. Since the roadway is already wider than some of the right of way, widening to provide an additional 14 to 16 feet of paved surface would impact properties along W. Valley View Road between OR 99 and Mountain View Drive. Impacts could be constrained to just the south side where only one parcel is currently developed with a permanent structure. This structure would be impacted by widening W. Valley View Road.

Although W. Valley View Road crosses Wagner Creek just west of Mountain View Drive, it is already five lanes wide at the crossing and would not require any additional widening. Widening the roadway would increase the impervious surface and would require additional treatment of the run off.

The estimated cost of widening W. Valley View Road between OR 99 and Mountain View Drive is \$500,000 to \$600,000 excluding right of way acquisition, utilities relocation, and potential hazardous materials issues.

## S-2: W. Valley View Road Multimodal Access and Safety Enhancements

W. Valley View Road is a four- to five-lane major arterial directly connecting downtown Talent and OR 99 to I-5. It is the major east-west facility in Talent and one of only two east-west routes that extend east of OR 99. Currently, it terminates at Talent Avenue but in the future, it will terminate at a roundabout with an extended Main Street and Wagner Street as part of the W. Valley View Plan. Two 5-foot bicycle lanes are striped from just west of OR 99 to the I-5 interchange. At the Bear Creek Greenway, a direct ramp connection is available on the south side of W. Valley View Road while on the north side, there is only a stairwell with a tire channel for walking up or down with bicycles. The bridge over Bear Creek was completed in 2007 and features a 10-foot path on the south side and a 5-foot path on the north side.

W. Valley View Road is one of the few connections between downtown Talent and the Bear Creek Greenway. However, the facility is currently not conducive to cycling for families,

children, or the elderly because the speed limit in this section is 40 mph and both bike lanes and the adjacent travel lanes are slightly narrower than standard striping. A high-quality, eastwest connection along W. Valley View Road would help make bicycling a more inviting travel option that could increase actual and perceived safety and comfort for vulnerable road users. Additionally, an improved facility would have the potential to strengthen the connection between downtown and Bear Creek Greenway, facilitate trips by bicycle between Talent and other Rogue Valley destinations and support the local economy through increased bicycle tourism opportunities.

This concept considers modifications to W. Valley View Road corridor west of I-5 to address a variety of safety and access concerns. It examines cross-section options for the entire roadway as well as improvements for the connections at either end of the corridor. (Note: This concept is consistent with some of the improvements suggested in Concept U-2, Three-Lane West Valley View Road Facility from Technical Memorandum 6 prepared for the IAMP for I-5 Exit 21.)

#### *S-2 – Corridor Improvements*

To address the safety concern for the four-lane segment of W. Valley View described for Concept 1 and improve the bicycling environment for all users, this concept would reallocate the existing curb-to-curb paved surface. Two potential cross sections (see Figure 4-4) have been developed: one for the four-lane segment between OR 99 and Mountain View Drive and one for the five-lane segment between Mountain View Drive and just east of the Bear Creek Bridge at the entrance to Lynn Newbry Park.

West Section - Between OR 99 and Mountain View Drive: W. Valley View Road would be restriped to provide two through travel lanes (one in each direction) and one center refuge lane. The bike lanes would be widened to a minimum 6-foot width and a 2- to 4-foot buffer area would be added between the travel lane and the bike lane.

East Section - Between Mountain View Drive and the Bear Creek Bridge: W. Valley View Road would be restriped to provide two through travel lanes (one in each direction) and one center refuge lane. The bike lanes would be widened to a minimum 6-foot width and a 7- to 9-foot buffer area would be added between the travel lane and the bike lane.

Widening the bike lane and adding a buffer area between the bicyclist and the adjacent travel lane can improve both the comfort and safety of the bicyclist. The buffered bike lane treatment increases the distance between the bicyclist and motorized vehicles traveling at 40 mph. The wider bike lane allows the bicyclist more space to avoid road debris. It also allows more space for one bicyclist to pass another bicyclist moving more slowly. Additionally, if a bicyclist should fall, the buffer reduces the likelihood that he/she would fall into the path of motorized vehicles.

A variety of options for the buffered area can be considered. The most basic is a painted buffer that, depending on buffer width, may also include chevrons or colored treatments to clearly indicate to both motorists and bicyclist that the area is not a travelway. This treatment could be augmented with plastic candlestick bollards, planters, modular curbs, and raised traffic

separators. However, because W. Valley View Road is a key connection between I-5 and OR 99, any barriers must not interfere with the roadway's ability to accommodate oversize loads.

In addition to improving conditions for active transportation users, this concept would add a continuous center left-turn lane west of Mountain View Drive where none exists currently. By providing a refuge for turning motorists, this center turn lane would help improve driveway ingress/egress and reduce both turning and rear-end crash risk. Enhancing access to local businesses would also contribute to the area's neighborhood context and development potential, as the corridor currently has multiple adjacent vacant or underutilized parcels between I-5 and OR 99.

The buffered area could have added benefits for pedestrians as well. The buffer would increase the distance between the sidewalk and the through travel lanes. The reduced roadway width would make it safer for pedestrians to cross at unsignalized intersections, as buffered areas would serve as refuge islands and improve pedestrian visibility to motorists.

The change in the number of through travel lanes on W. Valley View Road would reduce the available roadway capacity. Traffic operations analysis indicates that the 3-lane cross section could accommodate the year 2038 forecasts of travel demand which are consistent with regional growth. Queues at the traffic signal at Hinkley Road would be longer with only one through travel lane rather that two. Furthermore, the Bear Creek Bridge has some of the highest volumes on W. Valley View Road and the bridge currently has only one westbound travel lane. It should also be noted that this concept would not change the curb-to-curb dimensions of the roadway. If the W. Valley View Road corridor were to develop more intensively than assumed in the regional forecast, the roadway could be returned to the four-and five-lane configuration.

Because this concept would not involve changing the roadway width, no environmental impacts are anticipated.

The estimated cost of restriping W. Valley View Road between OR 99 and I-5 depends on the bike lane buffer treatments and changes at the traffic signal. Costs could be as low \$200,000 and range up to \$500,000.

## S-2 - Bear Creek Greenway Access

The Bear Creek Greenway currently connects to W. Valley View Road with a ramp on the south side of the street and a staircase on the north side. This configuration provides easy access to the trail for bicyclists traveling eastbound on W. Valley View but requires bicyclists to dismount and use the stairs to access the westbound bike lane. A bicyclist can also use the ramp on the south side and then cross W. Valley View Drive to the westbound bike lane; however, the close proximity of the I-5 ramp and the Lynn Newbry Park entrance precludes the possibility of installing a marked crosswalk at that location

Two options are considered for the north side connection between the Bear Greenway and W. Valley View Road:

- Option A would create a ramp connection on the north side between the Bear Creek Greenway and W. Valley View Road. This improvement would require ROW from the RV Park that currently abuts the trail and would likely impact two to four RV pads in the Park. Should this parcel redevelop, it may be possible to negotiate an easement or dedication of ROW for creation of a ramp connection to the Greenway.
- Option B would enhance the south sidewalk between the Hinkley Road signal and Bear Creek to bring bicyclists to a signalized crossing of W. Valley View Road. As shown in Figure 4-4, the sidewalk would be widened to meet statewide multi-use path standards (10 to 12 feet), in conjunction with closing the right-in/right-out entrance to the Brammo parking lot to eliminate a conflict point. At the signal, the east crosswalk would be widened to accommodate bicyclists transitioning to westbound W. Valley View Road, possibly including a new bicycle signal or signage directing bicyclists to use the pedestrian signal crossing.

Both of these concepts would have land use impacts. Option A would impact the property currently used as an RV Park. Option B would impact the Brammo parking lot access and could require some additional right of way from the adjacent property.

Both options would have environmental impacts. Option A would increase impervious surface in the vicinity of Bear Creek. Option B would also increase impervious surface although the additional run-off could potentially be captured in the roadway's stormwater treatment system. Option B may also impact the street trees on the south side of the street.

No cost estimates have been prepared for either of these options at this time.

## S-2 - W. Valley View Road at OR 99

The W. Valley View Road/OR 99 intersection presents a challenge to bicyclists. The intersection has wide curb radii designed to accommodate freight but, consequently, these corners also allow higher-speed turning movements by cars and increase the crossing distance for pedestrians and bicyclists. Another concern is the placement of the westbound bicycle lane on the outside of the right-turn lane which can lead to conflicts between bicyclists riding through and motorized vehicles turning right.

Two lane configuration options are considered for the westbound approach of W. Valley View Road at OR 99:

 Option A would keep the existing three-lane approach at the intersection but would reposition the westbound bicycle lane to be to the left of the right-turn-only lane, which is a safer and more standard configuration than the current curbside lane. A minimum 6-foot bicycle lane width is recommended since the bike lane would be located between two travel lanes. In addition to this basic improvement, the travel lanes west of the intersection could be narrowed to allow slightly wider bicycle lanes. Leading bicycle intervals could be installed to provide a five-second head start to bicyclists and pedestrians before motorists can proceed through the intersection. Protected-permitted left turns, as recommended in the OR 99 Corridor Plan, would be installed both east and westbound to decrease crash risk to motorists and pedestrians. (See Figure 4-4)

• Option B would eliminate the westbound right-turn lane so that only two lanes (left-turn and through-right) would approach the intersection. Combining the through and right-turn movements into a single lane would allow continuation of the buffered curbside bike lane treatment through the intersection. This lane change could also allow the buffer for the eastbound bike lane configuration to be extended closer to the intersection. The travel lanes west of the intersection could be narrowed to allow slightly wider bicycle lanes with physical barriers such as candlestick bollards installed to provide a degree of protection. Leading bicycle intervals could be installed to provide a five-second head start to bicyclists and pedestrians before motorists can proceed through the intersection. Protected-permitted left turns, as recommended in the OR 99 Corridor Plan, would be installed both east and westbound to decrease crash risk to motorists and pedestrians. (See Figure 4-4)

As noted with both Options A and B, a leading bicycle interval signal could be considered to give bicyclists and pedestrians a five-second head start on motor vehicles in one or both directions going east-west. This improves their visibility to motorists and allows travelers on bicycles to potentially clear the intersection before motorist traffic gets a green phase. To implement a leading bicycle interval, right turns on red would need to be prohibited for the conflicting right-turn movement. At this time, a leading bicycle interval is not permitted in the 2009 Manual on Uniform Traffic Control Devices (MUTCD) and would require a Request for Experimentation approval from the Federal Highway Administration (FHWA).

Another improvement that could be included with either option is some treatment to increase awareness of the pedestrian crossing and possibly reduce the travel speed of vehicles rounding the corner of the northbound OR 99 right-turn lane to W. Valley View Road. The crosswalk could be modified to a "ladder" pattern which is often used at an unsignalized crossing (see Figure 4-4, Option A). Another treatment would reduce the appearance of the travelway by striping a shoulder or bike lane on the right side and striping a shoulder on the left side with possible crosshatching (see Figure 4-4, Option B).

Left-turn bicycle boxes to facilitate two-stage left turns could also be considered at the intersection. However, implementing bicycle boxes could require repositioning the crosswalks which can have significant cost. It could require rebuilding the corner sidewalk to relocate the ADA ramps and likely relocating the walk signs. It could possibly require separating the walk signs for each direction to meet standards for push buttons and visibility. While the turning boxes clearly designate a space for bicyclists to wait if they want to make a two-stage left turn, a bicyclist can still execute this maneuver with the either of the configurations shown in Options A and B.

Because this concept would not involve changing the roadway width, no environmental impacts are anticipated.

No cost estimates have been prepared for either of these options at this time. Improvement costs for Option A would be captured in the cost estimated for the overall restriping plan. Because Option B would require changes to the traffic signal at OR 99, additional costs would be incurred.

#### S-2 - W. Valley View Road west of OR 99

West of OR 99, the bicycle lanes would continue at their current width, or slightly wider, with the possibility of a moderate physical barrier such as candlestick bollards. At the new roundabout intersection with Main and Wagner Streets, the bicycle lanes terminate and users will be forced to merge into traffic to negotiate the roundabout. This can be a workable solution for confident, experienced riders, as vehicle speeds are projected to be slower in this section (between 15-20 mph). However, for the "interested but concerned" demographic, there may be benefit in accommodating bicycle riders on paths to separate them from traffic around the roundabout. This may involve widening sidewalks and crosswalks, and modifying sidewalk curb aprons or constructing new purpose-built ramps to allow for bicyclists to transition between bicycle lanes and sidewalks near the roundabout. At this time, these features are not part of the proposed W. Valley View Plan.

#### S-3: Improve Rapp Road Railroad Crossing

Rapp Road crosses the Central Oregon and Pacific (CORP) Railroad tracks at a skewed angle which makes it harder for drivers to see trains coming from one direction. Furthermore, W. Rapp Road has limited sight distance on the western approach to the crossing. The configuration of the crossing is further complicated by an access road connection approximately 60 feet south of the tracks and 90-degree turn in the roadway that begins at the same location. The crossing currently includes an active warning system with flashing lights and gates. Where sight distance is limited, the warning system also includes advance signage with flashing lights.

While the crossing has had no documented crashes during a five-year analysis period (2007-2011), the rail line has been inactive with no trains currently running on the section of CORP track south of Medford due to significant repair work needed on the line across Siskiyou Pass. In May, 2013, Oregon and CORP were awarded a \$7 million TIGER grant from USDOT to repair the line between Medford and Montague, California. Once repairs are made, it is likely that freight service will resume on the rail line within Talent.

At the same time, traffic volumes are anticipated to increase in the future, particularly when development of the Railroad District occurs. The railroad district master plan calls for a new collector roadway that would run parallel to the railroad tracks and connect at its northern terminus with Rapp Road. The exact location of the new intersection is undetermined but

proximity to the rail crossing and sight distance will be factors that are considered in the alignment.

Four potential solutions are considered. All of the options realign the railroad crossing to provide better sight distance for the western approach and remove the 90-degree turn prior to the railroad crossing. The relative merits of each option are presented below and illustrated in Figure 4-5. The Evaluation Matrix summarizes this discussion and compares the four options in Section 4.3.

S-3 Option A: Realign Crossing to Connect with New Industrial Road

Option A would realign the railroad crossing so that W. Rapp Road crosses close to perpendicular to the railroad tracks. W. Rapp Road would then connect to a new industrial street that extends to Talent Avenue (see Figure 4-3, Option A). E. Rapp Road would end at a cul-de-sac north of the railroad tracks.

This improvement would address existing safety concerns at the railroad crossing. First, it would eliminate the skew between Rapp Road and the railroad tracks, making it easier for drivers to see oncoming trains from both directions. Second, it would eliminate the 90-degree turn that currently blocks the view of the crossing for traffic approaching westbound on W. Rapp Road.

The creation of a new industrial street would have both pluses and minuses. On the plus side, the roadway would be designed to accommodate the traffic needs of the surrounding industrially-zoned lands. The new roadway could be situated to minimize the right of way impacts to the adjacent tax lots. However, the lands northeast of Talent Avenue are currently zoned for high density residential, and some of these lands have already begun to develop with housing. Continuing an industrial street through to OR 99 from the alignment shown in Figure 4-5, Option A would be difficult. Everett Way, the street opposite the illustrated connection, was constructed with a 24-foot paved surface (in 50 feet of right of way) and is not suitable for industrial traffic. Other alignments for the industrial street are possible but could impact the utility of the surrounding industrial lands.

Another concern with Option A is access to OR 99. Without a through connection, traffic from the industrial street and from W. Rapp Road would need to turn onto Talent Avenue and then turn onto E. Rapp Road. Even with a through connection, traffic may still "zigzag" using Talent Avenue to get to the traffic signal at E. Rapp Road and OR 99. Thus, this alignment may be considered inconvenient to many drivers.

The cost of the realignment of the Rapp Road railroad crossing shown in Option A is estimated at \$1.5 to \$2.0 million. The estimate is for a complete street that includes bike lanes, curbs, and sidewalks but excludes right of way acquisition, utilities relocation, and potential hazardous materials issues. This estimate includes approximately \$500,000 for a new activated railroad crossing equipment with the rest of the costs for new roadway construction for the segments shown in Figure 4-5. The rail crossing modifications and new connection would need to be constructed simultaneously for this option.

#### S-3 Option B: Realign Crossing and E. Rapp Road

Option B would realign the railroad crossing so that W. Rapp Road crosses close to perpendicular to the railroad tracks. W. Rapp Road would then intersect with a realigned E. Rapp Road and a new industrial street that extends to Talent Avenue (see Figure 4-5, Option B).

As with Option A, this improvement would address existing safety concerns at the railroad crossing. It would eliminate the skew between Rapp Road and the railroad tracks and the sight distance limitations on W. Rapp Road.

One concern about Option B is the proximity of the new intersection just north of the tracks. Traffic control (i.e., STOP signs) would need to allow the continuous flow of traffic from W. Rapp Road so there is minimal chance of traffic stopped on the railroad tracks. Clearance distance from the tracks while minimizing impacts to adjacent properties would need to be considered in the design as well.

This option would provide traffic from W. Rapp Road with a relatively direct route to the traffic signal at OR 99 compared with Option A. Otherwise, the benefits and impacts of the industrial street are similar between Option B and Option A.

The cost of the realignment of the Rapp Road railroad crossing shown in Option B is estimated at \$2.0 to \$2.5 million. The estimate is for a complete street that includes bike lanes, curbs, and sidewalks but excludes right of way acquisition, utilities relocation, and potential hazardous materials issues. This estimate includes approximately \$500,000 for a new activated railroad crossing equipment with the rest of the costs for new roadway construction for the segments shown in Figure 4-5. The rail crossing modifications and a revised alignment for E. Rapp Road in this option could be constructed without extending the new industrial street to Talent Avenue.

#### S-3 Option C: Realign Crossing and W. Rapp Road

Option C presents an alignment similar to that identified in the Railroad District Master Plan. It would relocate the Rapp Road railroad crossing slightly further to the south to create a perpendicular crossing. As shown in Figure 4-5, Option C, W. Rapp Road would connect into the new Railroad District collector and E. Rapp Road would cross the tracks and connect at a new intersection.

As with Options A and B, this improvement would address existing safety concerns at the railroad crossing. It would eliminate the skew between Rapp Road and the railroad tracks and the sight distance limitations on W. Rapp Road.

Like Option B, proximity of the new intersection south of the tracks must be taken into consideration. Traffic control would need to allow the continuous flow of traffic across the track so there is minimal chance of traffic stopping on the tracks. Clearance distance from the tracks while minimizing impacts to adjacent properties must be aspects of the design as well.

Other alignments of W. Rapp Road could also be considered with this Option. These could include a three way intersection (with possible roundabout traffic control) or continuous flow into E. Rapp Road with the new collector street forming a "T" intersection. Whatever alignment option is selected, improving sight lines from W. Rapp Road to the railroad tracks should be part of the design.

The cost of the realignment of the Rapp Road railroad crossing shown in Figure 4-5, Option C is estimated at \$1.5 to \$2.0 million. The estimate is for a complete street that includes bike lanes, curbs, and sidewalks but excludes right of way acquisition, utilities relocation, and potential hazardous materials issues. This estimate includes approximately \$500,000 for a new activated railroad crossing equipment with the rest of the costs for new roadway construction for the segments shown in Figure 4-5. The rail crossing modifications and a revised alignment for E. Rapp Road in this option could be constructed without extending the new collector street into the Railroad District.

#### S-3 Option D: Maintain Existing Crossing but Realign W. Rapp Road

Option D differs from the options presented because it does not relocate or realign the existing railroad track crossing. It maintains the existing crossing with E. Rapp Road extending into the new Railroad District collector. W. Rapp Road would be realigned to connect at a "T" intersection further south of the railroad crossing, as shown in Figure 4-5, Option D.

Unlike the other options, Option D would not eliminate the safety concerns associated with the skew between Rapp Road and the railroad tracks. However, it would address the sight distance limitations on W. Rapp Road.

Proximity of the new intersection south of the tracks must be taken into consideration. Traffic control would need to allow the continuous flow of traffic across the track so there is minimal chance of traffic stopping on the tracks. Clearance distance from the tracks while minimizing impacts to adjacent properties must be aspects of the design as well.

The estimated cost of the realignment of the Rapp Road railroad crossing shown in Option D is conservatively estimated at \$1.0 to \$1.4 million. The estimate is for a complete street that includes bike lanes, curbs, and sidewalks but excludes right of way acquisition, utilities relocation, and potential hazardous materials issues. This estimate includes minimal improvements to the existing railroad crossing equipment with the rest of the costs for new roadway construction for the segments shown in Figure 4-5. The rail crossing modifications and a revised alignment for W. Rapp Road in this option could be constructed without extending the new industrial street to Talent Avenue.

## S-4: Identify Conceptual Street Network for Urban Reserve Area TA-4

The Greater Bear Creek Valley Regional Plan established five urban reserve areas that would accommodate anticipated population and employment growth in Talent. TA-4, approximately 27 gross acres, is located to the north of the city limits and west of OR 99. The area is flat and located at a hub of key transportation facilities (railroad and highway). The area is proposed to

accommodate identified employment land needs for industrial uses requiring rail and highway access.

Although this area currently lies outside of the Talent UGB, general planning for a transportation network to serve TA-4 can be included in the 2014 TSP Update. Identifying a conceptual network allows the City of Talent to plan for connections into its existing transportation network. The network can also inform land use decisions for properties within TA-4. At the same time, the network can be coordinated with Jackson County planning efforts.

Two conceptual networks have been developed for TA-4. The relative merits of each option are presented below and the locations and illustrated in Figure 4-6. The Evaluation Matrix summarizes this discussion in Section 4.3.

S-4 Option A: One New East-West Connection to OR 99

Option A (see Figure 4-6) creates a conceptual network for TA-4 that includes one new eastwest street that intersects OR 99 and traverses the URA. This spine road could have up to three new street connections to Colver Road.

The conceptual network suggests the intersection with OR 99 be located approximately 500 feet from the signalized intersection with Colver/Suncrest Road. This location maximizes the distance from the traffic signal and approximates the border between tax lots. The Oregon Highway Plan (OHP) specifies an access spacing standard of 500 feet for district highways with a posted speed of 40 to 45 mph. Although the posted speed for this section of OR 99 is currently 55 mph, should TA-4 become part of the City of Talent, reduction of posted speed within the city limits is likely. A speed of 40 mph would be consistent with the existing speed on OR 99 within the existing city limits. There would be some private driveway accesses that would be closer than 500 feet but over time, as parcels redevelop, it could be possible to reduce the number of driveways in the area by connecting with the new street network.

A full access connection to OR 99 approximately 500 feet from the traffic signal at Colver/Suncrest Road would require modifications to the raised median control on OR 99. The median ends at this location but a turn lane would be desirable for northbound left-turn movements accessing the new street. Adding a northbound left-turn lane would require shortening the storage available for the southbound left-turn onto Suncrest Road.

A limited access connection could also be considered. One option for turning limitations could include prohibiting all left-turn movements in and out of the new collector street while permitting all right-turn movements. Another option would prohibit the left-turn movement from OR 99 to the new street while still permitting the left-turn movement from the new street to OR 99.

On Colver Road, the first potential connection is shown approximately 400 feet from the traffic signal at OR 99. This location would keep turning traffic clear of any congestion associated with the signal. The other connections are shown at 400-foot intervals along Colver Road. Aligning

the connections opposite streets on the south side of Colver Road would concentrate turning activity at discrete locations with fewer opportunities for turning conflicts.

Although this network concept does not specifically call for upgrading Colver Road to a major collector standard, adding a two-way left-turn lane should be considered between OR 99 and the railroad tracks. The development of TA-4 would increase traffic demand on Colver Road, particularly if turn restrictions on OR 99 are imposed.

No costs estimates have been prepared for this option. All of the improvements are assumed to occur with development. Even half-street improvements along Colver Road could be part of developing the urban reserve area.

#### S-4 Option B: One North-South Connection to OR 99

Option B (see Figure 4-6) creates a conceptual network for TA-4 that includes one new north-south street that intersects OR 99 and traverses the URA to connect with Colver Road. An east-west street would traverse the URA but would not connect with OR 99. This option shows only two connections to Colver Road but another could be possible.

The full access connection to OR 99 is shown near the northern boundary of the URA, approximately 900 feet from the traffic signal at Colver/Suncrest Road and 250 feet northwest of the access to the fire station. Widening OR 99 to include a left-turn lane into the URA would separate the left-turning traffic from the through traffic on the highway but would require widening the roadway. A two-way center left-turn lane at this location could result in a potential conflict with southbound traffic turning left into the fire station.

Relocating the connection to align opposite the fire station access would address the potential conflict but would impact existing uses in the URA. Adding a northbound left-turn lane at this location could require some widening on OR 99 and could require shortening the storage available for the southbound left-turn onto Suncrest Road.

At 900 feet from the signalized intersection, the spacing between public streets would meet the OHP access spacing standard of 500 feet for district highways with a posted speed of 40 to 45 mph. However, there would be some more closely spaced private driveway accesses. Over time, as parcels redevelop, it could be possible to reduce the number of driveways in the area by connecting with the new street network.

The conceptual network suggests the north-south street connect to Colver Road approximately 600 feet from the traffic signal at OR 99. This location would keep turning traffic clear of any congestion associated with the signal. An additional connection is shown at 400 feet west of the primary north-south route. Aligning the connections opposite streets on the south side of Colver Road would concentrate turning activity at discrete locations with fewer opportunities for turning conflicts.

The Option B network concept would be more likely to attract "cut-through" traffic in the URA than Option A. With this street layout, some southbound traffic may turn off of OR 99 and travel through the URA to Colver Road to avoid the traffic signal on OR 99.

As with Option A, this network concept does not specifically call for upgrading Colver Road to a major collector standard; however, adding a two-way left-turn lane should be considered between OR 99 and the railroad tracks. The development of TA-4 would increase traffic demand on Colver Road, particularly if turn restrictions on OR 99 are imposed.

No costs estimates have been prepared for this option. All of the improvements are assumed to occur with development. Even half-street improvements along Colver Road could be part of developing the urban reserve area.

#### S-5: Identify Conceptual Street Network for Urban Reserve Area TA-5

The urban reserve area, TA-5, is located to the north of the city limits and east of OR 99. Identified uses for these 28 gross acres include about half residential and open space lands and half employment lands. Like TA-4, this area currently lies outside of the Talent UGB, but general planning for a transportation network to serve TA-5 can be included in the 2014 TSP Update.

Two conceptual networks have been developed for TA-5. The relative merits of each option are presented below and the locations and illustrated in Figure 4-7. The Evaluation Matrix summarizes this discussion and compares the two options in Section 4.3.

S-5 Option A: Non-Continuous Street Network

Option A (see Figure 4-7) creates a conceptual network for TA-5 that access from OR 99 for the western portion of the site and access from Suncrest Road for the eastern portion of the site. This configuration would potentially reduce the traffic demand at the OR 99 access by reducing the land area served by the street. Land on the east side of the URA would be served by the connection with Suncrest Road.

At approximately 500 feet from the signalized intersection with Colver/Suncrest Road, the access to OR 99 is suggested at a similar location to that shown for Option A for TA-4 (see Figure 4-6). This location would meet the OHP access spacing standard for a district highway assuming that the posted speed on OR 99 is reduced to 40 or 45 mph when TA-5 is incorporated into the city limits. There would be some private driveway accesses that would be closer than 500 feet but over time, as parcels redevelop, it could be possible to reduce the number of driveways in the area by connecting with the new street network.

A full access connection of TA-5 to OR 99 approximately 500 feet from the traffic signal at Colver/Suncrest Road would not require modifications to the raised median control. Southbound left-turns could potentially be made from a center left-turn lane north of the existing median with little to no widening of the highway. Because this area of TA-5 would not have connections to other streets, limiting turn movements to/from OR 99 is not desirable.

Although the connection is shown at 500 feet, this same concept could be modified to connect at the western corner of the TA-5, as illustrated in Option B.

The land in the eastern portion of TA-5 would be served by a street connection to Suncrest Road. The connection point is shown aligning opposite Willow Springs Drive. This route is a variation on the proposed local road connection already identified in the 2007 TSP update.

No cost estimates have been prepared for this option. All of the improvements are assumed to occur with development.

S-5 Option B: Through Street Connection to OR 99

Option B (see Figure 4-7) creates a through street connecting from OR 99 to Suncrest Road. Internal access would be taken from this main street that would traverse TA-5.

The OR 99 connection for this option is shown approximately 900 feet from the signalized intersection with Colver/Suncrest Road. This location would potentially align opposite the Option B network for TA-4 (see Figure 4-6). Widening OR 99 to include a left-turn lane into the URA would separate the left-turning traffic from the through traffic on the highway but would require widening the roadway. A two-way center left turn lane at this location would not have any potential conflict with traffic turning left into the fire station.

At approximately 900 feet from the signalized intersection, the access to OR 99 is suggested at similar location to that shown for Option B for TA-4 (see Figure 4-6). This location would meet the OHP access spacing standard for a district highway assuming that the posted speed on OR 99 is reduced to 40 or 45 mph when TA-5 is incorporated into the city limits. There would be some private driveway accesses that would be closer than 500 feet but over time, as parcels redevelop, it could be possible to reduce the number of driveways in the area by connecting with the new street network.

A limited access connection could also be considered. Turning limitations could include prohibiting all left-turn movements in and out of the new collector street while permitting all right-turn movements or only limiting one of the left-turn movements and permitting the other. The biggest concern with limiting turn movements to/from OR 99 is that the only other access into the URA would come from Suncrest Road. The alternate route for restricted movements could involve substantial out-of-direction travel.

Although the connection is shown at 900 feet, this same concept could be modified to connect midway along the URA boundary with OR 99 at 500 feet, as illustrated in Option A.

The connection to Suncrest Road is shown connection midway between the two Willow Springs Drive intersections. A street connection at this location is already identified in the 2007 TSP update.

No costs estimates have been prepared for this option. All of the improvements are assumed to occur with development. Even half-street improvements along Colver Road could be part of developing the urban reserve area.

#### 4.2.2. New Bicycle & Pedestrian Improvement Concepts for Consideration

Many of the facility improvement projects recommended for the 2014 TSP Update include bicycle and pedestrian elements as well. Additional projects for consideration are described below and summarized in the Evaluation Matrix.

#### BP-1: Bikeway Priority Network

A bikeway priority network is a system of interconnected bicycle routes that would enable people to satisfy their daily travel needs within the city or surrounding region by bicycle. As illustrated in Figure 4-8, the priority network would be designed to provide connections to key local destinations, including schools, parks, the library, downtown Talent, and other identified activity centers. The classification system would set up a hierarchy of bikeways in Talent based on the facility's type and designed trip purpose, and would be accompanied by bicycle directional and wayfinding signage that indicates to bicyclists the direction of travel, location of nearby destinations, and travel time and distance to those destinations. In addition to increasing bicycling comfort and ease of use of the network, wayfinding tools, such as sharrows, provide a visual cue to motorists that they are travelling along a bicycle route and should proceed with caution.

A comprehensive signage plan would identify the location of signage, the type of signage (destinations highlighted) and key design features. Signage would typically be placed at key locations leading to and along bicycle routes, including the intersection of multiple routes. Signage would be designed to reflect a consistent image or branding for Talent and potentially for individual routes relating to network hierarchy or specific route designation. As part of this network, missing gaps in the bikeway network, such as Wagner Street between the CORP tracks and Market Street or Rapp Road west of Graham Way, would be prioritized for completion.

Type 1 Bikeways. These regional facilities would form the spine of the network, consisting of high-quality, high-priority routes that provide direct, relatively unimpeded access between local and regional area destinations. The existing Bear Creek Greenway presently performs this function, as it connects Talent with major regional destinations in Ashland and Medford. Type 1 Bikeways would prioritize bicycle traffic on separated or buffered facilities, primarily multi-use paths. Major barriers such as natural features and high-traffic roadways would be grade-separated wherever possible.

Potential Type 1 Bikeways in Talent may include the Bear Creek Greenway and potential future connections to OR 99, proposed Wagner Creek Greenway south of W. Valley View Road, and a possible separated bikeway along W. Valley View Road, connecting the Bear Creek Greenway with downtown Talent.

Currently, the Bear Creek Greenway north of W. Valley View Road is constrained by Bear Creek to the west and a mobile home park to the east, and therefore does not meet minimum statewide trail standards. Opportunities to expand the trail from 7 feet to 10-12 feet should be explored in the future as adjacent properties are redeveloped.

- Type 2 Bikeways. These local routes would facilitate circulation within Talent using bike lanes with a minimum width of 5 feet and ideally up to 7 feet. Type 2 facilities would provide relatively quick access between residential neighborhoods and local destinations such as downtown Talent, schools, transit stops and parks.
  - Potential Type 2 Bikeways in Talent include OR 99, Talent Avenue, Main Street, Wagner Street, Rapp Road, Suncrest/Colver Road, Wagner Creek Road, Arnos Road, and Creel Road. All of these arterials and collectors have bike lanes either existing or proposed along their entire length. In addition, future collector streets proposed near the Railroad District and in north and west Talent would be classified as Type 2 routes. As part of this effort, the entire length of OR 99 within Talent city limits could receive a buffered bicycle lane treatment in an effort to improve the quality of the facility.
- Type 3 Bikeways. These neighborhood routes would be located mostly on calm residential streets with low traffic volumes and speeds. They are designed to provide safe, comfortable, low-stress access to short-distance destinations within neighborhoods and are designed for individuals of all bicycling confidence levels and families of all ages. Bicycle-specific infrastructure would consist of painted sharrow markings and signage to provide wayfinding. Sharrows can also help suggest proper placement for bicyclists along the street and alert motorists that bicycling traffic may be present. Where necessary, Type 3 bikeways would include traffic calming devices such as speed humps, curb extensions, chicanes and traffic calming circles.

Potential Type 3 Bikeways in Talent include most continuous neighborhood streets, such as 2<sup>nd</sup> Street and Schoolhouse Road in west Talent, Lithia Way in south Talent, and Gibson Avenue/Lapree Street/Market Street in north Talent. Future neighborhood street connections in the Railroad District and between Talent Avenue and OR 99 south of Rapp Road could also be designated as Type 3 routes.

## BP-2: Talent Avenue Downtown Connectivity Improvements

Talent Avenue is an important north-south bicycling route within the city, with 5- to 6-foot bike lanes in both directions for the majority of the street's distance between Colver Road and Creel Way. The one exception is a short stretch (approximately 850 feet) between Lapree Street and a point south of Wagner Street where the bike lanes end, as the street is too narrow to provide bike lanes in addition to two travel lanes and on-street parking. However, this transition can be disconcerting and uncomfortable for bicyclists, who must share the road with motorists who are traveling at around 25 miles per hour. It can be difficult for all but the most confident bicyclists riding downtown along Talent Avenue to assume a safe position in the roadway. The safest position would be to travel closer to the center rather than weaving in the parking lane or riding in hazardous areas immediately adjacent to parked cars, curb or even on the sidewalk.

Many steps can be taken to improve the bicycling experience in this section and to help reinforce bicyclists' **right to the road in a manner** that is safe and predictable for motorists. Most of these potential solutions would reduce vehicle speeds, producing a more inviting environment for bicycling. Three treatment options are discussed below.

#### BP-2 Option A: Modifications to On-Street Parking

From a technical design standpoint, the least expensive and most straightforward option would be to remove on-street parking stalls on one side of the street in targeted locations to provide enough roadway width to stripe bike lanes where currently none exist. This treatment is the most familiar for roadway users and would provide dedicated space for bicycling without impeding vehicular traffic.

If the parking were removed on just the west side of Talent Avenue from Lapree Street to Wagner Street, it appears that bike lanes could be striped on both sides of the roadway. At its narrowest point between Lapree and Main Streets, Talent Avenue is 28 feet wide with no parking. The pavement would allow for 10- to 11-foot travel lanes and 3- to 4-foot bike lanes. South of Main Street, the roadway is at least 40 feet wide with parking on both sides. Removal of parking on the west side of the street would allow for 11-foot travel lanes, 5-foot bike lanes and a parking lane of 8 feet.

The removal of parking to accommodate bicycles would result in the loss of 9 existing on-street spaces.

#### BP-2 Option B: Lane Striping Modifications

If removing parking is not desired by affected stakeholders, another strategy is to design the roadway towards reducing vehicle speeds to enable a shared roadway environment that is safe for all users. The most fundamental change that could be made in this regard is to completely remove the roadway centerline along this section of the roadway.

Centerlines reinforce staying the course and, in an effort to avoid crossing the centerline, may encourage hazardous motorist behaviors such as failing to maintain proper following distance or provide a safe distance when passing (defined in state law as "a distance that is sufficient to prevent contact with the person operating the bicycle if the person were to fall into the driver's lane of traffic"). Actions such as these can increase anxiety among bicycle riders, reducing their perceived level of safety. However, removing the centerlines will likely promote safer passing maneuvers for motorists overtaking bicyclists riding at a comfortable pace.

Pavement markings such as sharrows and "Bicycles May Use Full Lane" regulatory signage would also be added to encourage bicyclists to "take the lane" during this section and further reduce the likelihood of being passed at an unsafe distance. If needed, higher-investment traffic calming devices such as curb extensions, speed humps, speed tables, raised crosswalks, traffic circles, chicanes, and pedestrian refuge islands could assist in slowing down motor vehicle traffic on Talent Avenue.

#### BP-2 Option C: Advisory Bike Lanes

Beyond these intermediate steps, a more innovative approach would be to install "advisory bike lanes" These lanes are used on low-volume (below 4,000 vehicles per day) and low-speed (25 mph maximum) roadways. Advisory bike lanes have seen limited use in the United States on an experimental basis (would likely need federal approval) but are popular in the Netherlands in locations where streets are too narrow to accommodate mandatory striped bike lanes. Talent Avenue in downtown is potentially well-suited for this treatment, as its average daily traffic volume is estimated at around 3,000 vehicles per day and has a 25 mph speed limit in this section, which is approximately 40 feet wide from curb to curb.

These lanes are bicycle priority areas delineated by dotted lines to the left and solid lines to the right, giving bicyclists a 5- to 7-foot wide demarcated space to ride but also allowing motorists to pass oncoming traffic with caution due to the potential presence of bicyclists. The two-way vehicle zone should be configured narrowly enough (minimum width 13 feet) to prevent two motorists from passing each other without crossing the advisory lane line. There are no centerlines in this section. While motorists may enter the bicycle zone, they must first yield to bicyclists in the bike lane if any are present. A public awareness campaign would be essential to teach motorists and bicyclists proper user technique around advisory bike lanes.

#### BP-3: W. Valley View Road Multi-Use Path

W. Valley View Road is a four- to five-lane major arterial directly connecting downtown Talent and OR 99 to I-5. It is an ideal connection between downtown Talent and the Bear Creek Greenway. However, as noted under Concept S-2, the facility is currently not conducive to bicycling for families, children or the elderly, as the speed limit in this section is 40 mph and bike lanes are generally 5 feet wide.

A long-term option and alternative to Concept S-2 that would improve bicycle and pedestrian connectivity along W. Valley View Road is to install a 12- to 15-foot multi-use path along the south side, either as a standalone facility or as an extension of the south sidewalk. The path would be constructed from the west end of the Bear Creek Bridge to the location of the new roundabout in downtown Talent, allowing for a convenient, stair-free connection between the path and the grade-separated Bear Creek Greenway.

There are several conflict points along the south side of the roadway that would need to be addressed: one is at the signalized intersection at Hinkley Road while another is located at the entrance to the Mountain View Estates manufactured home community. Access consolidations at certain driveways may be beneficial to reduce vehicle conflicts, particularly near Hinkley Road. Future access permits would need to provide for interaction between the path and proposed driveways.

W. Valley View Road crosses Wagner Creek on a culvert west of Mountain View Drive. The addition of a multi-use path would require widening the existing culvert or creating a separate structure for the path. Either option would have natural resource impacts that would need to

be addressed. The multiuse path would also interact with the planned Wagner Creek Trail at this location.

Right of way acquisition or easements from adjacent property owners would likely be necessary to construct the multi-use path. There is one structure on the south side of the roadway that would be impacted by the path if it ties back into the W. Valley View Road/OR 99 intersection.

Multiple options exist for continuing the path past OR 99 towards downtown Talent. Constructing a grade-separated overcrossing or undercrossing of OR 99 engenders the least conflict between modes is also the most expensive due to the cost of necessary infrastructure and securing right of way at the southwest and southeast corners of the intersection where there are existing commercial properties.

An overcrossing would require spiral ramps connecting to a structure that crosses over the highway with sufficient clearance for all traffic using OR 99. Spiral ramps built as part of an overcrossing would be required to meet Americans with Disabilities Act (ADA) grade regulations, which may discourage use of the facility. The facility would also need to interface with the planned roundabout at the west end of W. Valley View Road where path users would transition to on-street bike lanes on Main and Wagner Streets.

An undercrossing would be the preferred grade-separated option here because it would require less of grade change than the overcrossing. However, an undercrossing would need to have sufficient horizontal and vertical clearance to avoid creating a perceived safety/security issue with a long "tunnel" effect under the roadway.

Another, less expensive alternative to grade separation would be to install a two-way, at-grade crossing along the south crosswalk with bicycle signals that would temporally segregate path users from conflicting movements. This option would also require some right of way acquisition but to a lesser extent than a separated grade crossing.

West of OR 99, the path would terminate at the roundabout, where bicyclists and pedestrians would transition to bike lanes and/or sidewalks.

## BP-4: W. Valley View/OR 99 Intersection At-Grade Improvements

The W. Valley View/OR 99 intersection presents a challenge for bicyclists. The intersection has wide curb radii to accommodate freight movements and allow higher-speed turning movements for other vehicles. The westbound bike lane on W. Valley View Road is striped so that bicyclists wishing to travel through on W. Valley View Road are trapped to the right of the exclusive right-turn lane.

When a channelized right-turn lane is added to a roadway, the bicycle lane is transition across the traffic lane to allow the through bike movement without interference from the right-turning vehicles. This transition is not recommended with the configuration on W. Valley View Road where one through travel lane becomes an exclusive right-turn lane at the intersection.

Concept S-2 presented options for improving the crossing in conjunction with other access and safety improvements on W. Valley View Road. However, Option A (see Figure 4-4), which would reposition the bike lane between the through lane and the right-turn lane is not recommended if W. Valley View Road were to retain the existing four-lane cross-section or be widened to five lanes. Something similar to Option B (see Figure 4-4) could be feasible with a four- or five-lane cross-section but would result in a capacity reduction at the OR 99/W. Valley View Road intersection.

Therefore, two additional options were developed to address the "right-hook" risk to bicyclists associated with the westbound lane configuration if no approach lane changes were made to the intersection. Both options are illustrated in Figure 4-9.

#### BP-4 Option A: Bicycle Signal

The existing traffic signal could be modified to include a bicycle signal phase for westbound traffic. The bicycle signal would be tied to the existing signal, similar to a pedestrian phase, and could be activated with sensors in the pavement, by pushbutton, or video detection. Prior to activation, the signal would appear in the stop mode (red). Once activated, the westbound right-turn traffic would be stopped to allow the cyclists to safely continue through the intersection.

Some impacts to intersection operations would occur when the bicycle signal is activated. Additional delay would be experienced for the westbound right-turn traffic and other movements might be affected by signal timing adjustments as well. Prohibiting right-turn-on-red movements may also be required for the westbound movement onto northbound OR 99. Based on the future traffic operations presented in Technical Memorandum #3, the intersection appears to have adequate capacity to accommodate the additional bicycle phase.

The bicycle signal currently has experimental status but has been implemented in Oregon, including in Ashland on OR 66 (Ashland Street) at the intersection with the southbound ramps.

The cost estimate for a bicycle signal phase is about \$25,000. This improvement would require new signal heads for the westbound right-turn traffic and the bicycle lane and ideally some type of automated bicycle detection. Additional signage would be needed as well.

#### BP-4 Option B: Bike Box

Another option to address the conflict would be locating a bike box at front of the right-turn lane. Bicyclists would be provided with a 10- to 16-foot deep painted box with stop lines used to indicate where motor vehicles must stop. Prohibiting right-turn-on-red movements must also be required for the westbound movement. Bike boxes are still considered experimental and would likely require federal approval.

The bike box could be paired with a leading bicycle interval that would allow the bicycles to begin their through movement before other east-west traffic movements begin. The leading

interval is also has experimental status and has been used more commonly with pedestrian crossings than bicycle crossings.

Some impacts to intersection operations would occur with a bike box because the westbound right-turn traffic may require additional signal timing because of right-turn-on-red movements would be prohibited. The addition of a leading bike interval would have further impacts to operations. Based on the future traffic operations (*Technical Memorandum #3: Transportation System Operations*), the intersection appears to have adequate capacity to accommodate the additional bicycle phase.

The cost estimate for a bike box is estimated at \$10,000 to \$15,000. A leading bicycle interval would have an estimated cost similar to a bicycle signal (\$25,000). This improvement would require new signal heads for the westbound right-turn traffic and the bicycle lane and ideally some type of automated bicycle detection. Additional signage would be needed as well.

#### BP-5: Complete Priority Sidewalk Network

Since its most recent TSP was adopted in 2007, the City of Talent has made large strides in completing its sidewalk network along arterial and collector roadways. Recent additions include Talent Avenue (from Rapp Road to Creel Road and from Colver Road to Lapree Drive), Arnos Road (from Talent Avenue to OR 99) and Creel Road (from Talent Avenue to OR 99).

However, the sidewalk network still contains notable coverage gaps, particularly on OR 99 south of Rapp Road and on Rapp Road west of the CORP tracks, where no sidewalks are built on either side of the roadway. In other locations, such as OR 99, gaps in existing sidewalk on the east side of the highway and substandard widths between Suncrest Road and Rapp Road are present. The following new or improved connections are recommended to improve pedestrian mobility and access to local destinations such as schools, parks, and downtown destinations. Some are already identified in the facility improvements list but others are not. Most are along arterial or collector roadways, with the exception of the last street that is adjacent to Talent Elementary School.

Sidewalk network improvements are illustrated in Figure 4-10 and include:

- OR 99 Improve East Sidewalk (Suncrest Road to Rapp Road) in locations where newer developments have not installed sidewalks to code
- OR 99 Construct Both Sidewalks (Rapp Road to south UGB)
- W. Valley View Road Construct North Sidewalk (Main Street/Wagner Street roundabout to OR 99)
- Creel Road Construct North Sidewalk (Talent Avenue to OR 99)
- Talent Avenue Construct East Sidewalk (Rapp Road to Creel Road)
- Talent Avenue Construct Both Sidewalks (Creel Road to south UGB)
- Rapp Road Construct South Sidewalk (Graham Way to OR 99) in locations where newer developments have not installed sidewalks to code

- Wagner Creek Road/Rapp Road Construct Both Sidewalks (West UGB to Graham Way)
- Wagner Creek Road Construct West Sidewalk (Rapp Road to West Street/Main Street)
- Wagner Street Construct North Sidewalk (Wagner Creek Road to 1st Street)
- Wagner Street Construct South Sidewalk (CORP RR to John Street)
- Front Street Construct/Improve East Sidewalk/Path and West Sidewalk (Colver Road to Wagner Street)
- Main Street Construct South Sidewalk (Wagner Street/West Street to Front Street)
- Belmont Road Construct Both Sidewalks (west of Talent Avenue)
- 2<sup>nd</sup> Street Construct West Sidewalk (Wagner Street to Schoolhouse Road)
- Schoolhouse Road Construct North Sidewalk (Wagner Creek Road to 2<sup>nd</sup> Street)
- Colver Road Construct North Sidewalk (West UGB to OR 99)
- Suncrest Road Construct North Sidewalk (Autumn Ridge Road [east] to East UGB)

Most of these improvements can be constructed within existing right of way. Some may be constructed with new development while others will require street upgrades as part of the City's Capital Improvement Program. The sidewalks on Colver Road and Suncrest Road are currently outside of the City's UGB but would be brought into the UGB with the additions of the URAs (TA-4 and TA-5).

### BP-6: Bear Creek Greenway Upgrade to Statewide MUP Standards

Currently, the Bear Creek Greenway is only 7 feet wide for approximately 800 feet north of W. Valley View Road, due to topography and right of way constraints. The state of Oregon recommends a minimum 10 foot width for trails with a preferred width of 12 feet. The lack of lateral clearance compromises safety and comfort as it makes it difficult for trail users going in opposite directions to pass each other, or for faster users to overtake slower users travelling in the same direction. However, expanding the trail would require purchasing right of way or acquiring an easement from the adjacent RV Park to the east.

### BP-7: W. Valley View Paved Shoulder East of I-5

The existing W. Valley View bike lanes end at the entrance to Lynn Newbry Park at the Talent city limits just prior to the I-5 interchange. This concept extends bicycle facilities across I-5 to a point approximately 1,000 feet east of Suncrest Road, at the eastern edge of the UGB.

This project would involve collaboration between ODOT, the City and Jackson County. The freeway overcrossing is too narrow to accommodate any viable shoulder facility. The type of facility (rural versus urban) would also need to be identified. Rural facilities would include providing a 6-foot paved shoulder. The section of W. Valley View that abuts the Talent UGB could possibly be considered an urban roadway requiring sidewalks and bike lanes but that would only be on the south side of the roadway.

This concept is consistent with some of the improvements suggested in concept analysis from Technical Memorandum 6 prepared for the IAMP for I-5 Exit 21. The IAMP analysis includes two concepts (I-1 and I-2) to add bike lanes on W. Valley View Road between the interchange ramps and one concept (R-1) for the rural section southeast of the interchange. The recommendations from that plan will eventually become an element of the TSP.

### BP-8: Bear Creek Greenway Realignment at Suncrest Road

Just north of the Talent city limits, the Bear Creek Greenway meets Suncrest Road at two offset "T" intersections. The south leg intersection is 375 feet east of the north leg intersection. Between those two junctions, trail users are required to use Suncrest Road on a narrow bridge across Bear Creek with two 12-foot travel lanes and no bike lanes or sidewalks. This high-stress connection can deter many trail users who are uncomfortable sharing the road with vehicles.

Suncrest Road at Bear Creek is a rural collector and a Basic Speed Rule (BSR) facility with a statutory speed limit of 55 mph. Jackson County recently go approval for a speed reduction to 35 mph for this section of roadway. Just west of the trail crossing at the city limits, the road enters a residential neighborhood with a 25 mph speed limit. Although roadway geometry and visual cues compel motorists on Suncrest Road to decelerate after crossing I-5, average speeds in both directions along this section are between 32-34 mph, according to a recent speed study.

To improve the quality of this connection and increase active transportation use along this corridor, three options are being considered. All three of these options lie outside of the existing UGB and would need to be coordinated with Jackson County.

### BP-8 Option A: Suncrest Road Traffic Calming Improvements

Option A would install warning signage, pavements markings such as sharrows, and possibly user-activated traffic safety warning devices to alert motorists to the presence of trail traffic. Due to the location outside of the city UGB and the speed transition, traffic calming devices such as speed tables are not appropriate.

Without specifically developing a planned set of improvements for these improvements, the cost for activated warning system is estimated to range between \$50,000 and \$100,000.

Although these elements would improve this regional trail connection, additional long-term improvements should be considered for the substandard facilities on Suncrest Road. Therefore, this option may be considered temporary until funding for a more permanent solution can be secured.

### BP-8 Option B: Bridge Widening and Enhanced At-Grade Crossing

Option B would construct a new multi-use path, possibly cantilevered on the south side of the existing bridge across Bear Creek. This path would be 10 to 12 feet wide and would include a new consolidated bicycle/pedestrian crossing where the existing trail connects on the north side of Suncrest Road. The crossing can include traffic safety warning devices such as a rectangular rapid flash beacon (RRFB) to alert motorists when trail users are crossing. With this

improvement, pedestrians and bicyclists on the greenway would use a safer, more comfortable at-grade crossing at Suncrest Road while no longer having to travel on the roadway itself.

By its very nature, implementation of this improvement across Bear Creek would have many cultural and natural resource concerns that would need to be addressed.

This concept is purely conceptual at this time. The existing bridge plans have not been examined to determine whether or not it is feasible to construct the path as a cantilevered extension of the existing structure or if a separate structure would be required. Costs for this type of improvement are estimated in the range of \$1.5 to \$2.0 million.

### BP-8 Option C: Grade-Separated Crossing

Option C realigns the Bear Creek Greenway under the existing Suncrest Road overcrossing at Bear Creek combined with a new trail-only Bear Creek crossing north of Suncrest Road. With this grade separation, the Greenway would be completely segregated from roadway traffic, providing a safe and direct through route for trail users while also maintaining the existing access points to Suncrest Road.

The potential for cultural and natural resources issues are even greater with Option C than Option B because the undercrossing would be so close to Bear Creek itself.

As with Option B, this option is purely conceptual. The undercrossing needs additional investigation for clearance and flooding issues to determine feasibility. If the undercrossing is possible, then actual locations for siting for the multi-use path bridge would need to be investigated. Costs for this type of improvement are estimated in the range of \$2.0 to \$2.5 million.

### BP-9: Wagner Creek Trail Crossing at W. Valley View Road

The planned Wagner Creek Trail is a 1.5-mile multimodal connection between Talent residential areas on the west side of OR 99 and the Bear Creek Greenway. The alignment follows Wagner Creek which crosses W. Valley View Road approximately 1,000 feet east of the traffic signal at OR 99 and 500 feet west of the traffic signal at Hinkley Road. This crossing location is between Oak Valley Drive, which intersects W. Valley View Road from the north, and Mountain View Drive, which intersection W. Valley View Road from the south.

This improvement concept considers a future midblock crossing with pedestrian activated devices at the point where the trail would cross W. Valley View Road. It would install a pedestrian-activated crossing device such as the Rectangular Rapid Flashing Beacon (RRFB) in addition to the crosswalk striping and a potential center median. This device is activated by the pedestrian via a pushbutton. The location of this concept is illustrated in Figure 4-12.

The use of an RRFB increases driver awareness of when pedestrians are present at a crossing location. While there are other means to accomplish a similar level of awareness (flashing beacons or hybrid beacons), RRFBs have a higher compliance with vehicles stopping for

pedestrians than a striped crosswalk alone or no crosswalk at all, which may result in a negligible reduction in vehicular capacity.

The location of the crossing between Oak Valley Drive and Mountain View Drive is well suited to the installation of a raised crossing median. These two off-set "T" intersections would not need a center refuge median for left turns. Therefore, a raised median at the crossing would not restrict turning movements into these roadways.

This improvement concept could be implemented with either of the street concepts (S-1 for five lanes and S-2 for three lanes) for W. Valley View Road. With Concept S-1, W. Valley View Road would be five lanes but the pavement width would is not anticipated to change significantly at this location next to the Wagner Creek Bridge. With Concept S-2, W. Valley View Road would be three lanes but the pavement width would be the same as today. However, with this concept, pedestrians would be exposed to motor vehicle traffic for a shorter distance.

Providing marked crosswalks as well as installation of an RRFB requires meeting/exceeding minimum pedestrian thresholds along a facility. Since the trail has not been constructed there is no pedestrian volume data available to evaluate this criteria.

The estimated cost of Concept BP-9 is approximately \$25,000 dollars per pair of RRFBs. Assuming two pairs with striping and a raised median, the total cost would be under \$100,000.

### 4.2.3. New Transit System Improvement Concepts for Consideration

The following concepts have been developed to address observed system deficiencies.

### T-1: Route 10 Service Adjustments

Route 10, the only routed bus service in Talent, currently experiences on-time performance issues. The route is long (over 13 miles) and the current route cycle is approximately one hour and 45 minutes, making schedule adherence difficult. RVTD is reviewing options to improve ontime performance, which may include eliminating or combining some stops along the route. The time required (50 minutes) to travel from Medford to Ashland on Route 10 is likely a deterrent to transit use for potential riders (driving between Medford and Ashland takes approximately 30 minutes).

RVTD is also evaluating the possibility of splitting Route 10 into two separate routes with a transfer in Talent. Splitting the route would improve on-time performance and better serve the relatively high demand for transit travel between Talent and Ashland. The Talent Depot building has been identified as a potential transfer location.<sup>1</sup>

Though Route 10 reaches a majority of the households in Talent, residents west of Front Street, north of Rapp Road and south of Colver Road are beyond a ¼-mile walk to the nearest transit

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<sup>&</sup>lt;sup>1</sup> Talent Depot construction was partially funded with grant monies from RVTD. The grant stipulates that RVTD have access to the property and building for potential transit use.

stop. The current bus route cannot be easily changed to serve these residents without reducing transit accessibility for residents along Talent Avenue. Additionally, buses cannot use Rapp Road in this area because of poor road subgrade conditions, though Rapp Road may be improved in the future to handle heavier loads. The alternative alignment is shown in Figure 4-13 and should be considered in light of the restraints outlined above.

### T-2: City Circulator

RVTD includes circulator service in its long range transit plan. A city-wide circulator service could connect riders to routed bus service and provide access to community destinations within Talent. RVTD is presently evaluating potential route options for the circulator service. The circulator could serve residential areas identified in Figure 4-13 to the west of Talent Ave.

### T-3: High Capacity Transit (HCT)

The existing Route 10 service is unlikely to attract many "choice" riders (those riders who could drive or get to their destination by some other means) unless it becomes more time-competitive with driving. RVTD's Ten-Year Plan includes discussion of bus rapid transit (BRT) and potential light rail between Medford and Ashland, but notes that it is very difficult to forecast the demand for such a service.

BRT service along OR 99 between Medford and Ashland may be the most likely HCT improvement in Talent, given the prohibitive costs of rail. One stop downtown near Main Street and Talent Avenue may be sufficient, with local service feeding to the BRT stop. RVTD has indicated that BRT is a long-range possibility, with interim express service available by 2020.

### T-4: Feeder Service

Deviated fixed-route and/or feeder service could connect riders who live too far from an existing RVTD stop to routed service. RVTD is considering a "Valley Feeder" service that would make use of unused capacity in the paratransit system; the Feeder service would be available to residents within ¾ mile of an existing RVTD line. Riders could call and reserve a ride on an available paratransit vehicle to their nearest bus stop or final destination (dependent on location).

### T-5: Transportation Demand Management (TDM) strategies

Talent currently has one park-and-ride with two parking stalls. The demand for additional park-and-ride lots is difficult to forecast, given that potential park-and-ride users are likely to be "choice" riders who have the option of driving to their destination. The former Wal-Mart (now headquarters of Brammo, Inc.) has a large parking lot and presents a good opportunity to work with the property owner to provide additional park-and-ride capacity.

The TSP contains policies that support workplace TDM programs in the community and at the City of Talent itself. Other TDM strategies, like working directly with employers to implement TDM programs could be considered. Large employers in town, like the new Oregon Shakespeare Festival set construction site, could be targeted with specific TDM programs.

### T-6: City of Talent Public Transportation Service

The City acquired a van from RVTD in 2013. The City does not currently have plans for its use, but the van could be used to provide public transportation to Talent residents. The van could be used to enhance public transportation in many possible ways:

- The van could provide supplemental service to disadvantaged populations identified in RVTD's Coordinated Human Services Transportation Plan. For instance, the van could provide trips to elderly or disabled citizens within Talent to supplement RVTD's paratransit service.
- The van could be employed within the City as routed circulator or feeder service, potentially utilizing existing RVTD stops on Talent Avenue in addition to other stops on a defined route.

### T-7: Amenities

None of the bus stops in Talent have printed schedule information available. As indicated by the rider survey, many transit riders likely rely on printed schedule information. Schedule information could be provided at all stops in Talent at relatively low cost.

According to the 2011 ridership survey, over 90 percent of transit riders on the RVTD system traveled to/from bus stops on foot. Sidewalks are present on at least one side of Talent Avenue, but sidewalks are lacking in many places adjacent to existing stops. Concept BP-5 includes a project to construct missing sidewalks along Talent Avenue.

### 4.3. Fyaluation Matrix

A broad set of evaluation criteria that represent the proposed set of goals for the Talent TSP update are used to evaluate proposed projects and alternatives. Table 4-6 describes the criteria and provides a qualitative scale that is used to evaluate projects. Table 4-7 lists each project discussed in the previous sections of this memo and applies the criterion to each one.

### Attachments:

Figure 4-1. Transportation Facility Improvements from Chapter 7 of the 2007 TSP Update

Figure 4-2. Street Extensions and Improvements from Chapter 5 of the 2007 TSP Update

Figure 4-3. S-1: Widen West Valley View Road

Figure 4-4. S-2: West Valley View Road Multimodal Access and Safety

Figure 4-5. S-3: Improve Rapp Road Railroad Crossing

Figure 4-6. S-4: Conceptual Street Network for Urban Reserve Area TA-4

Figure 4-7. S-5: Conceptual Street Network for Urban Reserve Area TA-5

Figure 4-8. BP-1: Bike Priority Network

Figure 4-9. BP-4: West Valley View Road/OR 99 Intersection At-Grade Improvements

Figure 4-10. BP-5: Complete Priority Sidewalk Network

Figure 4-11. BP-8: Bear Creek Greenway Realignment at Suncrest Road

Figure 4-12. BP-9: Wagner Creek Trail Crossing at W. Valley View Road

Figure 4-13. T-1 and T-2: Potential Reroute or Local Circulator

Table 4-6. Evaluation Criteria for Talent Transportation System Plan

Goal	Criteria	Rating	
	Safety: Addresses known safety issues for all modes	•	Fully addresses a known safety issue or has high potential to greatly increase transportation safety
Safety		(a)	Addresses a known safety issue of moderate concern or the proposed project will provide moderate transportation safety benefits
5	<ul> <li>Project addresses bicycle and pedestrian safety.</li> <li>Project addresses known safety or user comfort issues within ½ mile of an existing or planned school</li> </ul>	0	Project reduces transportation safety
	or a designated safe route to school.	N/A F	Project does not address a known safety issue or transportation safety
		•	Provides clarity or otherwise improves emergency access routes
Connectivity	Emergency Access: Provides easy, clear and redundant access for emergency service  Project anhances or provides an emergency service route	•	Provides moderate clarity or improvement to emergency access routes
collifectivity	<ul> <li>ringest entrances or provides an entre gency service route.</li> <li>Project provides network redundancy, which is helpful for emergency response.</li> </ul>	0	Project reduces emergency access or increases emergency response delay
		N/A	Project has no effect on emergency access routes or response time
	Bicycle & Pedestrian: Promotes safe and convenient bicycle and pedestrian circulation within, to, and	•	Fully addresses a known gap in the pedestrian or bicycle network
Connectivity	from Talent  Project addresses a birwrle and /or neclestrian nan within the network	•	Partially addresses a known gap in the pedestrian or bicycle network, or provides an alternative bicycle or pedestrian route
compound	<ul> <li>Project provides a new, safer alternative to an existing bicycle or pedestrian route.</li> </ul>	0	Does not promote safe or convenient bicycle and pedestrian circulation or decreases pedestrian and bicycle safety
		N/A F	Project does not address bicycle or pedestrian circulation
	General Connectivity: Increases network connectivity for all modes	•	Increases connectivity for pedestrians, bicyclists, automobiles, freight and transit
Connectivity	<ul> <li>Project increases network density of pedestrian, bicyclist, automobiles, freight and transit</li> </ul>	•	Does not increase connectivity
	<ul> <li>Project anticipates planned development in developing street patterns.</li> </ul>	0	Decreases connectivity for one or more modes
		N/A F	Project has no effect on connectivity for any mode
	Transit: Improves transit service or accessibility to transit	•	Increases the availability of transit service or improves access to existing service
Connectivity	Project increases connections to transit for all modes	•	Indirectly improves the availability of, or access to transit service
(managed and a second	<ul> <li>Project improves transit service.</li> </ul>	0	Project adversely impacts access to transit and/or adversely impacts transit service
		N/A F	Project has no effect on transit access or service
	Traffic Operations: Addresses Traffic Congestion	•	Addresses known congestion issues by improving v/c ratio or increasing LOS at intersections and/or roadway segments
Traffic	<ul> <li>Project meets volume-to-capacity (v/c) ratio criteria for study area intersections and roadway segments.</li> </ul>	<b>●</b>	Provides minimal or modest improvement to known congestion issues by improving v/c ratio or increasing LOS at intersections and/or roadway segments
Operations	<ul> <li>Project provides adequate level of service (LOS) at intersections and roadway segments.</li> </ul>	0	Project will worsen congestion in terms of v/c ratio or LOS
	<ul> <li>Project does not create unsafe queuing that could lead to safety concerns.</li> </ul>	N/A F	Project has no effect on traffic congestion
		•	Project focuses enhancements on freight mobility regionally and to industrial and/or commercial areas
Economic	Freight: Facilitate economic growth by considering the needs of freight  Project provides freight access where local or regional freight mobility is needed		Project moderately enhances freight mobility regionally and to industrial and/or commercial areas
Development	Project supports local industrial development.	0	Project decreases freight mobility regionally or to industrial and/or commercial areas
		N/A	Project has no effect on freight mobility regionally or to industrial and/or commercial areas
L	Parking: Provide adequate parking to support a vibrant community	•	Project includes parking elements that support broader land use goals
Development	<ul> <li>Project increases on-street parking in the central business district to accommodate existing and</li> </ul>	0	Project increases or decreases parking in a way that is inconsistent with land use goals
-	future demand	N/A F	Parking is not relevant to the project

Table 4-6. Evaluation Criteria for Talent Transportation System Plan

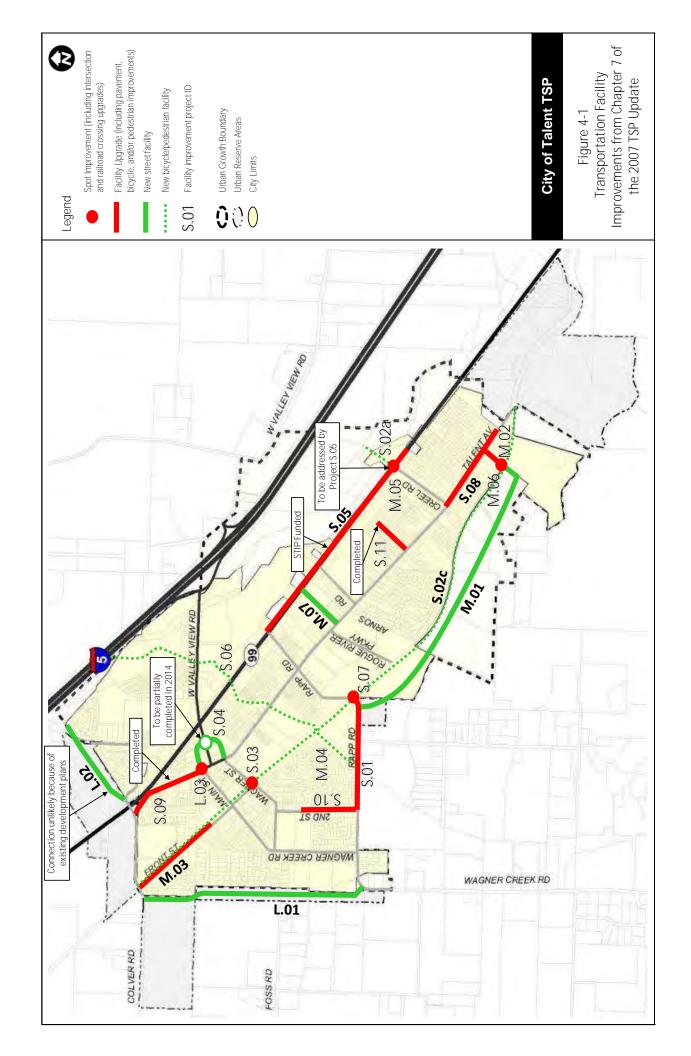
Goal	Criteria	Rating	
Livability	Equity: Promotes fair distribution of benefits and adverse impacts to different populations  • Project minimizes harm to low income and minority populations or benefits these populations by	•	Promotes the fair distribution of project benefits and/or impacts, directly benefits disadvantaged populations or otherwise promotes transportation equity
	providing better transportation access or mobility	0	Project disproportionately and adversely impacts disadvantaged populations or does not promote transportation equity
	Land Use: Minimizes land use impacts	•	Project can be accomplished within existing right-of-way, has minimal impacts to existing or planned development, minimal adverse land use impacts and no or minimal impacts to structures
Livability	<ul> <li>Project minimizes right of way acquisition and if acquisition is required, acquisitions would result in usable remainder property.</li> </ul>	•	Right-of-way is needed, but acquisitions would result in usable remainder property; project has minimal impacts to existing or planned development, minimal adverse land use impacts and minimal impacts to structures
	<ul> <li>Project preserves open space and minimizes impacts to existing and planned development.</li> </ul>	0	Requires significant right-of-way acquisition: project has significant impacts to existing or planned development and/or has significant adverse impacts on land use and/or structures
Livability	Natural Resources: Minimizes impacts to natural resources, environmentally sensitive habitats and threatened or endangered species	•	Project has no effect or minimal potential on natural resources, environmentally sensitive habitats or threatened or endangered species
	<ul> <li>Project minimizes potential impact to environmentally sensitive habitats and threatened and endangered species.</li> </ul>	•	Project potentially has some adverse impacts to natural resources, environmentally sensitive habitats or threatened or endangered species
		0	Project potentially has moderate to significant impacts on natural resources, environmentally sensitive habitats or threatened or endangered species
Cost	Be	•	Project cost is low and/or project is cost effective given potential alternatives
רווברוואפוופא	<ul> <li>Project considers flow-cost attendances</li> <li>Project costs over its life cycle are acceptable given a qualitative assessment of benefits provided by</li> </ul>	•	Project cost is moderately and/or project is more cost effective than some alternatives
	the project	0	Project cost is high and/or project is not cost effective or effectiveness is difficult to determine
Cost		•	Project is eligible for funding from one or more sources and would be a strong funding candidate
FILECTIVELIESS	<ul> <li>Projectis potentiality engine for runding morn known reuera, state, regional or runding criteria</li> </ul>	•	Project is eligible for funding from one or more sources
		0	Project is unlikely to be funded
Community	Community Support: Aligns with community goals	•	Addresses an important community concern
Toddho	• Froject addresses documented community concerns	•	Addresses a less important community concern
	Note: This criterion will take into account feedback received during community outreach efforts	0	Does not address a documented community concern

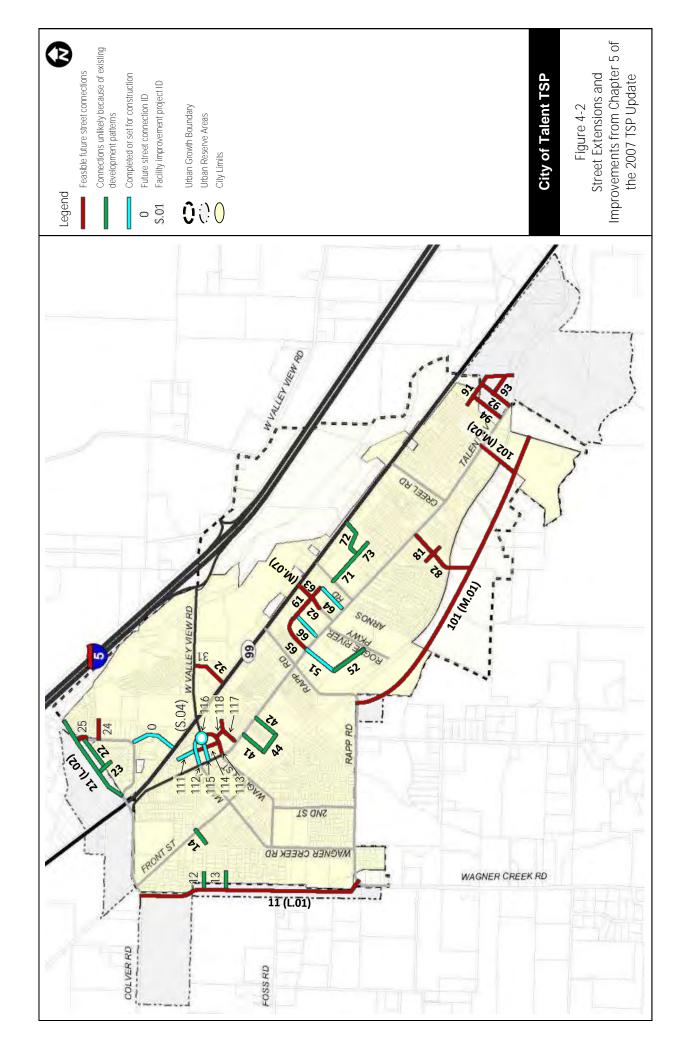
Table 4-7. Project Evaluation Matrix

			c	:			-			:				
			Con	Connectivity			Economic Development	velopment		Livability		Cost Effectiveness		
Potential Improvement	Safety	Emergency Access	Bicycle & Pedestrian	General	Transit	Traffic Operations	Freight	Parking	Equity	Land Use	Natural Resources	Benefits vs. Costs	Fundability	Community Support
BICYCLE & PEDESTRIAN														
S-1: Add Center Refuge Lane on W. Valley View Road	•	•	•	•	N/A	•	•	N/A	•	•	•	•	•	•
S-2: W. Valley View Road Multimodal Access & Safety Enhancements														
Corridor Improvements	•	•	•	•	N/A	•	•	N/A	•	•	•	•	•	•
Bear Creek Greenway Access - Option A: Add Ramp Connection	•	N/A	•	•	N/A			N/A	•	•	•	•	•	•
Bear Creek Greenway Access – Option B:Widen Sidewalk	•	N/A	•	•	N/A			N/A	•	•	•	•	•	•
W. Valley View Road at OR 99 – Option A – Relocate Bike Lane	•	•	•	•	N/A	•	•	N/A	•	•	•	•	•	•
W. Valley View Road at OR 99 – Option B – Reduce WB Lanes	•	•	•	•	N/A	•	•	N/A	•	•	•	•	•	•
S-3: Improve Rapp Road Railroad Crossing														
Option A: Realign Crossing to Connect with New Industrial Road	•	•	•	•	N/A	•	•	N/A	•	0	•	0	0	0
Option B: Realign Crossing and E. Rapp Road	•	•	•	•	N/A	•	•	N/A	•	0	•	0	0	0
Option C: Realign Crossing and W. Rapp Road	•	•	•	•	N/A	•	•	N/A	•	•	•	•	•	•
Option D: Maintain Existing Crossing but Realign W. Rapp Road	•	•	•	•	N/A	•	•	N/A	•	•	•	•	•	•
S-4: Identify Conceptual Street Network for Urban Reserve Area TA-4														
Option A: One New East-West Connection to OR 99	•	•	•	•	N/A	•	•	N/A	•	0	•	•	•	•
Option B: One New North-South Connection to OR 99	•	•	•	•	N/A	•	•	N/A	•	0	•	•	•	•
S-5: Identify Conceptual Street Network for Urban Reserve Area TA-5														
Option A: Non-Continuous Street Network	•	•	•	•	N/A	•	•	N/A	•	0	•	•	•	•
Option B: Through Street Connection to OR 99	•	•	•	•	N/A	•	•	N/A	•	0	•	•	•	•
BICYCLE & PEDESTRIAN			-	-				-			-		-	
BP-1: Bikeway Priority Network	•		•	•	•	N/A	N/A	N/A	•	•	•	•	•	•
BP-2: Talent Avenue Downtown Connectivity Improvements														
Option A: Modifications to On-Street Parking	•	N/A	•	•	N/A	•	N/A	0	•	•	•	•	•	0
Option B: Lane Striping Modifications	•	A/N	•	•	N/A	0	N/A	•	•	•	•	•	•	•
Option C: Advisory Bike Lanes	•	N/A	•	•	N/A	0	N/A	•	•	•	•	•	•	•
BP-3:W. Valley View South Side Multi-Use Path														
With Grade-Separated Crossing at OR 99	•	N/A	•	•	N/A	N/A	N/A	N/A	•	0	•	0	0	•
With At-Grade Crossing at OR 99	•	N/A	•	•	N/A	•	N/A	N/A	•	•	•	•	•	•

Table 4-7. Project Evaluation Matrix

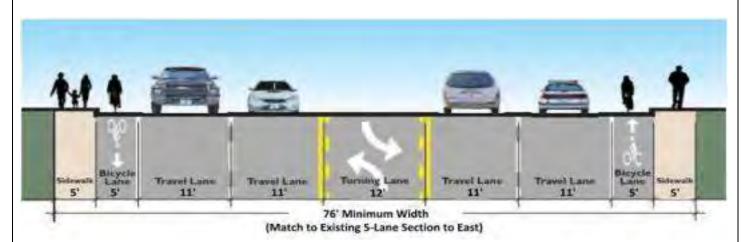
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			COIII	ectivity			Economic Development	everoprinerii		LIVability		COST EITE	cliveriess	
		Emergency	Bicycle &	General		Traffic					Natural	Benefits		Community
Potential Improvement	Safety	Access	Pedestrian	Connectivity	Transit	Operations	Freight	Parking	Equity	Land Use	Resources	vs. Costs	Fundability	Support
BP-4: W. Valley View/OR Intersection At-Grade Improvements														
Option A: Bicycle Signal	•	N/A	•	•	N/A	•	N/A	N/A	•	•	•	•	•	•
Option B: Bike Boxes	•	N/A	•	•	N/A	•	N/A	N/A	•	•	•	•	•	•
BP-5: Complete Priority Sidewalk Network	•	N/A	•	•	•	N/A	N/A	N/A	•	•	•	0	•	•
BP-6: Bear Creek Greenway Upgrade to Statewide MUP Standards	N/A	N/A	•	•	N/A	N/A	N/A	N/A	•	•	•	•	•	•
BP-7: W. Valley View Road Paved Shoulder East of I-5	•	N/A	•	•	N/A	N/A	N/A	N/A	•	0	•	0	0	•
BP-8: Bear Creek Greenway Realignment at Suncrest Road														
Option A: Suncrest Road Traffic Calming Improvements	•	N/A	•	•	N/A	N/A	N/A	N/A	•	•	•	•	•	•
Option B: Bridge Widening and Enhanced At-Grade Crossing	•	N/A	•	•	N/A	N/A	N/A	N/A	•	•	0	•	0	•
Option C: Grade-Separated Crossing	•	N/A	•	•	N/A	N/A	N/A	N/A	•	•	0	0	0	•
BP-9: Wagner Creek Trail Crossing at W. Valley View Road	•	N/A	•	•	N/A	•	N/A	N/A	•	•	•	•	•	•
TRANSIT														
T-1: Route 10 Service Adjustments							_							
Split into Two Routes with Talent as Transfer Point	N/A	N/A	N/A	N/A	•	N/A	N/A	A/N	•	•	•	•	•	•
Local Reroute	N/A	N/A	N/A	N/A	•	N/A	N/A	N/A	0	•	•	•	•	•
T-2: City Circulator	N/A	N/A	N/A	N/A	•	N/A	N/A	A/N	•	•	•	•	•	•
T-3: High Capacity Transit (HCT)	N/A	N/A	N/A	N/A	•	N/A	N/A	N/A	•	•	•	0	0	•
T-4: Feeder Service	N/A	N/A	N/A	N/A	•	N/A	N/A	A/N	•	•	•	•	•	•
T-5: Transportation Demand Management (TDM) Strategies	N/A	N/A	N/A	N/A	•	N/A	N/A	•	•	•	•	•	•	•
T-6: City of Talent Public Transportation Service	N/A	N/A	N/A	N/A	•	N/A	N/A	N/A	•	•	•	•	•	•
T-7: Amenities	N/A	N/A	N/A	N/A	•	N/A	N/A	N/A	•	•	•	•	•	•
						=		-						

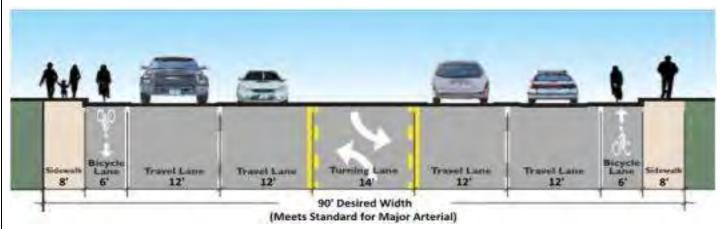






Affected Area





Potential Cross Sections

Legend Affected Area City of Talent TSP



Figure 4-3 S-1: Widen West Valley View Road

## **EXISTING CONDITION - WEST SEGMENT**



## POTENTIAL MODIFICATIONS - WEST SEGMENT



## **EXISTING CONDITION - EAST SEGMENT**



## POTENTIAL MODIFICATIONS - EAST SEGMENT





# POTENTIAL MODIFICATIONS - OR 99 INTERSECTION - OPTION A



# POTENTIAL MODIFICATIONS - OR 99 INTERSECTION - OPTION B



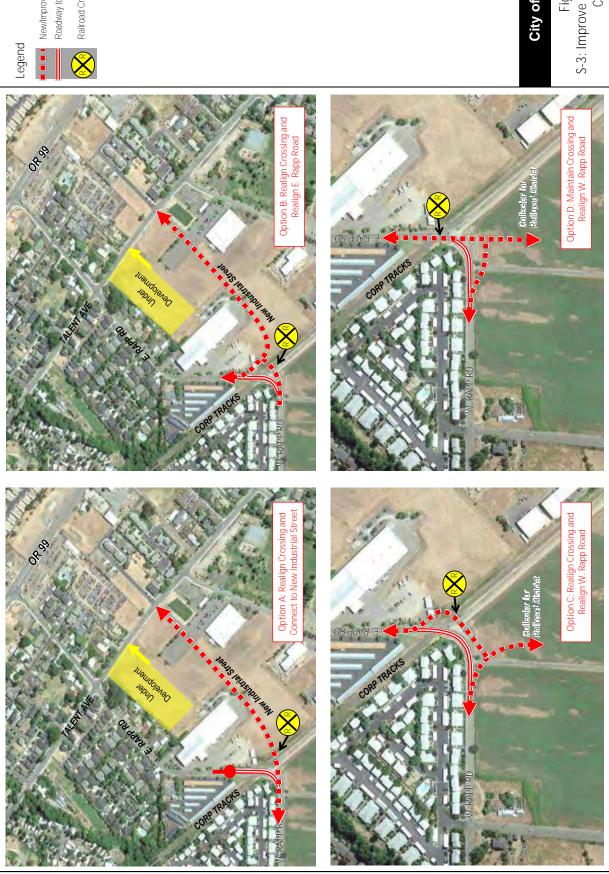
## POTENTIAL MODIFICATIONS FOR GREENWAY ACCESS





### City of Talent TSP

Figure 4-West Valley View Road Multimodal Access and Safety Enhancements



New/Improved Roadway Roadway to be Vacated

B

Railroad Crossing

### City of Talent TSP

Figure 4-5 S-3: Improve Rapp Road Railroad Crossing





Legend



Urban Reserve Area Boundary Potential Street



### **City of Talent TSP**

Figure 4-6 S-4: Conceptual Street Network for Urban Reserve Area TA-4





Legend

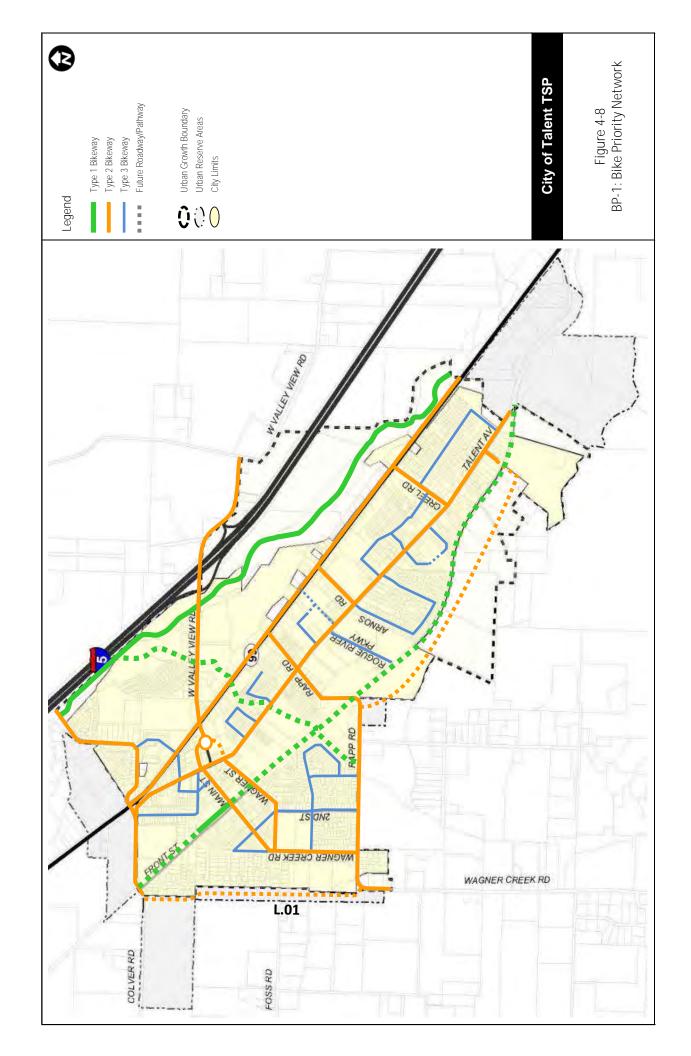


Urban Reserve Area Boundary Potential Street



### **City of Talent TSP**

Figure 4-7 S-5: Conceptual Street Network for Urban Reserve Area TA-5



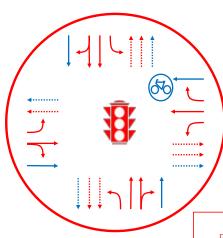




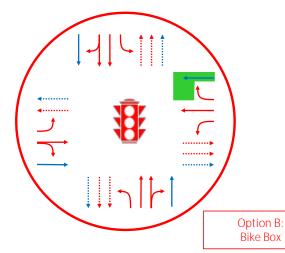
Existing Bicycle Signal in Portland



Existing Bicycle Box in Portland



Option A: Bicycle Signal



Legend

 $\longrightarrow$ 

Motor Vehicle Travel Lane Bike Lane

Traffic Signal



Bicycle Signal Head



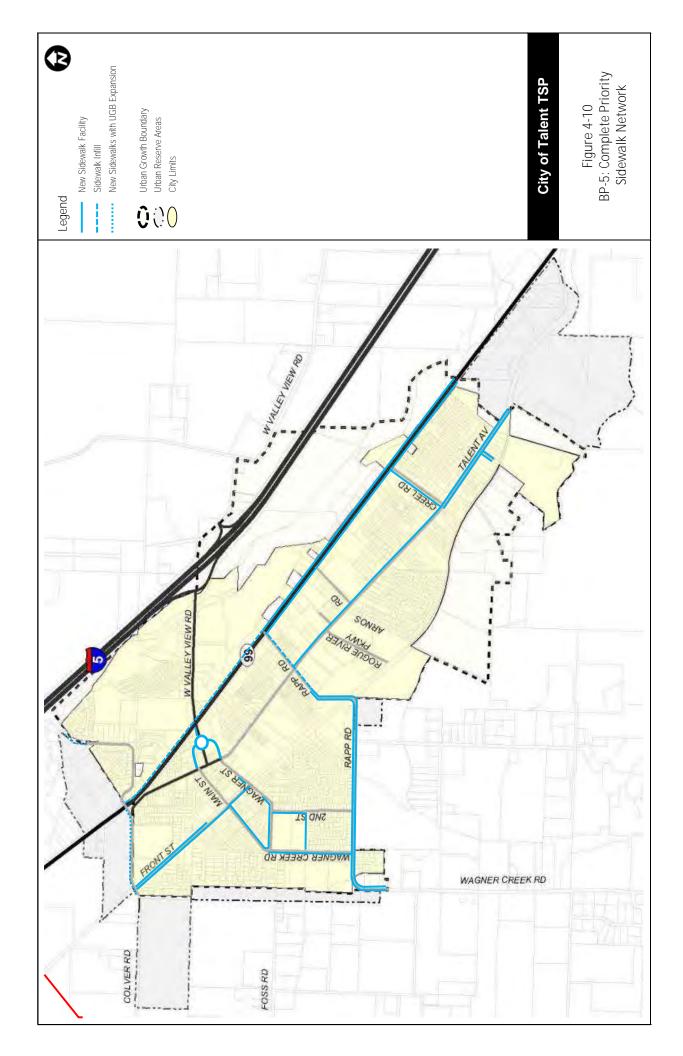
Bike Box

### **City of Talent TSP**

Figure 4-9

BP-4: W. Valley View/OR Intersection At-Grade Improvements











Low-End Option Medium-End Option High-End Option



Potential Enhanced At-Grade Crossing Location (Medium)

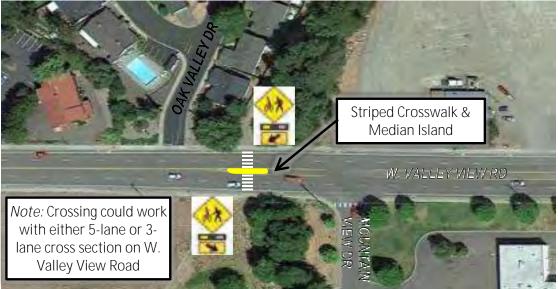
Bear Creek Greenway

### **City of Talent TSP**

Figure 4-11 BP-8: Bear Creek Greenway Relignment at Suncrest Road









Pedestrian-Activiated Crossing in Ashland (Flashing Beacon)



Rectangular Rapid Flashing Beacon

Legend



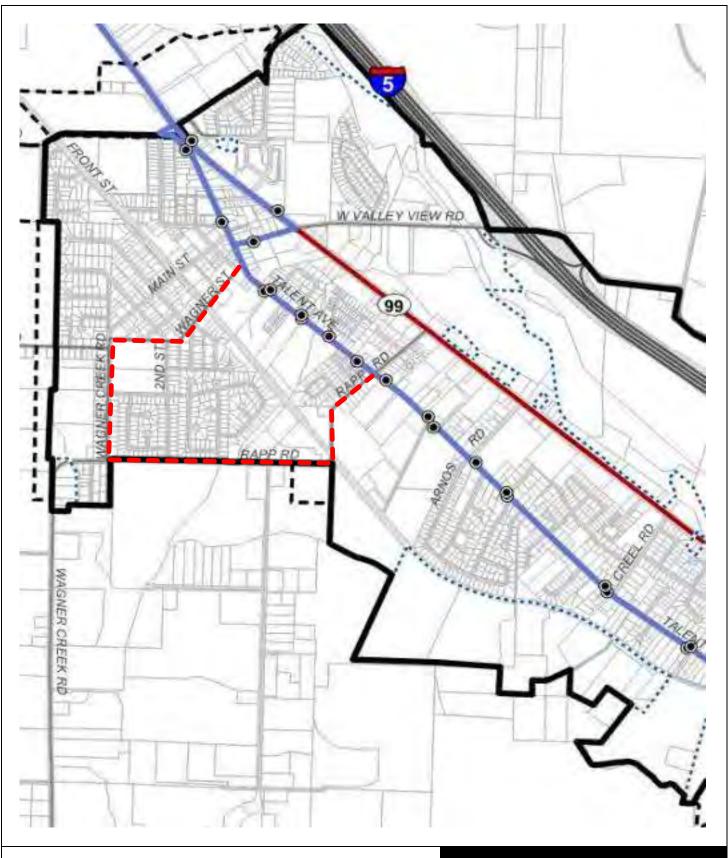
Striped Crosswalk

Raised Median



### **City of Talent TSP**

Figure 4-12 BP-9: Wagner Creek Trail Crossing at West Valley View Road







Existing RVTD Bus Stop Existing RVTD Bus Route #10 Potential Reroute



Urban Growth Boundary Urban Reserve Areas City Limits

### **City of Talent TSP**

Figure 4-13 T-1 and T-2: Potential Reroute or Local Circulator

### **City of Talent**

### **Transportation System Plan Update**

### **Technical Memorandum #5:**

### **Preferred System Plan**

Prepared for

City of Talent, Oregon 110 East Main Street Talent, Oregon 97540

and

Oregon Department of Transportation Region 3 3500 NW Stewart Parkway Roseburg, Oregon 97470 Prepared by

David Evans and Associates, Inc. 2100 SW River Parkway Portland, Oregon

and

CH2MHILL 2020 SW 4<sup>th</sup> Ave, Suite 300 Portland, OR 97201

June 2015

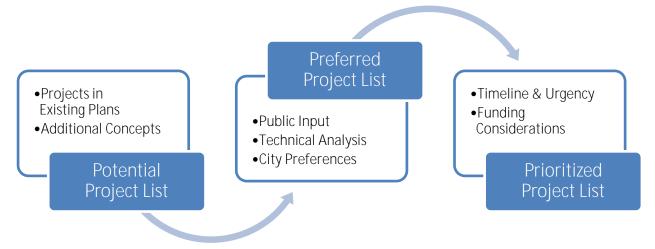
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### 5. PREFERRED SYSTEM PLAN

This technical memorandum summarizes the recommendations for the prioritization of improvements that would constitute the preferred system plan for the City of Talent Transportation System Plan (TSP) Update. These recommendations are based on feedback from the Technical and Citizen Advisory Committees (TAC and CAC), comments received at the Public Open Houses, other community review, and input from other agency staff.

The general steps taken to move from the potential project list identified in Technical Memorandum #4 to a prioritized list of projects are illustrated below.



Since the advancement of any project is contingent upon the availability of future funding, it is important to establish a flexible program of prioritized projects that meet diverse stakeholders needs while leveraging current and future funding opportunities. Ultimately, this refined and prioritized list is intended to serve as a menu of projects, with multiple factors that can be used together to assess the highest priority projects that can be completed within the available budget.

### 5.1. Funding Summary

Although a financing plan is not required by the TPR (OAR 660-12-040), developing an understanding of how projected funding needs compare with available revenues is important. This memorandum summarizes existing City of Talent transportation budgets followed by an analysis of needs versus revenues. Potential funding sources available from the federal, state and local levels of government are then discussed along with the appropriateness of the available sources to fund projects.

### 5.1.1. Existing Revenue

The City of Talent collects revenue from a variety of sources that can be used to fund roadway, pedestrian, bicycle, and transit maintenance and improvement projects. These revenue sources, including street utility fees, permit fees, storm drain utility fees, street sweeping feeds and state gas tax apportionments comprise the City's Street Fund which allocates monetary

resources toward general transportation system operations, maintenance, and minor improvement projects. Spending priorities for the Street Fund have been placed on right-of-way maintenance, street repairs, striping, and other maintenance actions necessary to keep the transportation system in stable, usable condition. A smaller source of revenue are System Development Charges (SDCs), which are fees assessed on new building permits at the time development occurs to mitigate the impact of new developments on existing public infrastructure. Street projects are funded by the Transportation SDC fund, which collects fees from new development based on the expected level of traffic generation for a given land use.

Table 5-1 summarizes net total revenues after dedicated expenses between fiscal years (FY) 2011 and 2015 available to the City for transportation projects, including the carryover funding balance from year to year. Figures from FY2011 through FY2013 are actual revenues and expenditures, while FY2014 and FY2015 are adopted amounts.

			_		
Revenue Source	FY2011 (Actual)	FY2012 (Actual)	FY2013 (Actual)	FY2014 (Adopted)	FY2015 (Adopted)
Street Fund	\$520,310	\$554,360	\$547,041	\$540,000	\$538,000
Funding Balance	\$413,693	\$483,481	\$573,326	\$400,000	\$273,000
Transportation SDC Fund	\$24,838	\$56,125	\$167,103	\$55,950	\$60,000
Funding Balance	\$255,483	\$151,066	\$207,950	\$220,350	\$226,000
Total Dedicated Annual Revenues (Gross)	\$545,148	\$610,485	\$714,144	\$595,950	\$598,000
Total Expenses <sup>1</sup>	\$292,789	\$311,505	\$311,099	\$399,450	\$461,100
Total Dedicated Annual Revenues (Net)	\$252,359	\$298,980	\$403,045	\$196,500	\$136,900

Table 5-1. Overview of Local Transportation Funding Sources and Expenditures

### Notes:

Source: City of Talent Adopted City Budgets, FY 2011-15

### 5.1.2. Revenue Expectations

Based on a review of previous City budgets, an estimated \$615,000 of revenue is available annually from the Street and Transportation SDC funds, the two main sources of revenue for transportation projects. Over 20 years, the City is expected to earn \$12.3 million in transportation revenue (2014 dollars) assuming that existing funding sources remain stable and no new revenue streams are established. In addition, the City spends an average of \$355,000 annually on expenses related to personnel, materials and services. Assuming that expenses continue at approximately 58 percent of total revenue, the City can expect \$5.2 million in net revenue over the 20-year planning horizon of the TSP.

### 5.1.3. Additional Revenue Resources

In addition, there are various funding sources which the City could leverage to finance transportation improvements. However, most of these opportunities would involve applying for

<sup>1.</sup> Expenditures include Personnel, Materials & Services, and Capital Outlay.

competitive grants that require interagency cooperation with regional and state partners. Any projects in Talent entered into the Statewide Transportation Improvement Program (STIP) are eligible for federal funding from the Surface Transportation Program (STP). Talent is also located in the Rogue Valley Metropolitan Planning Organization (RVMPO), which maintains a list of projects in its Regional Transportation Plan (RTP) that are eligible for discretionary funds paid through the federal STP and Congestion Management/Air Quality (CMAQ) programs. Other potential funding mechanisms include a citywide gas tax, local improvement districts (LID), downtown parking fees, revenue bonds and statewide grant and loan funding opportunities which include the ConnectOregon, Oregon Transportation Infrastructure Bank, Immediate Opportunity Fund and Special City Allotment programs. Transit improvements to local bus service in collaboration with the Rogue Valley Transit District (RVTD) can be financed through formula funds from the Federal Transit Administration.

Appendix A provides a complete overview of funding for transportation system projects in the Talent TSP. It identifies potential local, state, regional, and federal funding sources that could be used for the implementation of projects recommended as part of the preferred transportation system. Transportation system revenue forecast assumptions that incorporate these funding sources are also included.

### 5.2. Project Selection Process

The preferred project list for this TSP update was developed in steps, as illustrated below. The first two steps are described in detail in Technical Memorandum #4.

### Review Projects in Existing Plans

- Review projects in 2007 TSP Update and other Local and Regional Plans
- Identify which should be included in the 2015 TSP Update
- Identify which should be deleted because of significant barriers to implementation

### Identify Additional Improvements

- Develop alternatives to existing recommendations
- Develop new projects for concerns not previously addressed
- developed from the TSP goals and objectives

### Develop Preferred Project List

- Present recommended existing projects and potential new projects to Technical and Citizen Advisory Committees
- Hold a Community Open House to solicit feedback on potential projects
- Use outreach input and technical evaluations to identify a preferred list

The initial project list was refined and then presented to the Technical and Citizen Advisory Committees and a Community Open House was held to solicit feedback. Using the outreach input and the technical evaluations, City staff reviewed the project list and developed the preferred list of projects. Several local street projects were also added that were noted to be important to the community. Once the project list was established, it then moved into the prioritization process.

### 5.3. Project Prioritization

Projects for the TSP are prioritized based on community priorities, urgency of the need, funding availability and complexity of the project. Two factors were considered in the prioritization process 1) need (high, medium, and low priority), and 2) by time frame for implementation (short, medium, long, and development driven).

### 5.3.1. Prioritization Criteria

Clearly defined but flexible prioritization criteria can serve a variety of purposes (e.g., funding plans, grant applications, etc.). The factors below were used for prioritizing projects, while Appendix B includes more detailed guidelines provided to help with the prioritization process.

### Priority

- High priority with significant benefits to the community
- Medium importance with moderate benefits to the community
- Low importance with limited localized benefits

### Time Frame

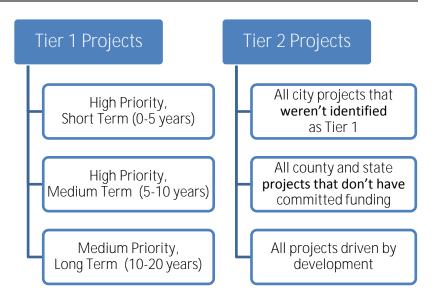
- Short Term Projects addressing existing transportation issues which should be prioritized for funding
- Medium Term Projects are generally larger and more complex in nature (possibly needing planning or environmental analysis) but still requiring near-term funding consideration
- Long Term Projects with unmet "triggers" or other dependence on interim projects; with the least urgent need for funding
- Development Driven Projects that would only occur with future development

Using the outreach input, technical evaluations, and suggested guidelines for prioritizing projects, City staff reviewed the preferred project list and identified a priority (high, medium, low) and timeline (short, medium, long, development driven) for each project.

### 5.3.2. Funding Considerations

The preferred project list was developed with an unconstrained budget to identify a comprehensive list that focuses on filling gaps and meeting needs. However, the total cost of the project list is greater than the City's ability to raise transportation funds. Projects that would be funded with the City as the primary funding source total nearly \$17 million and an additional \$2 million in projects could require some city contributions. As identified in the Funding Summary, net revenue for transportation projects is estimated at \$5.2 million in net revenue over the 20-year planning horizon of the TSP. The difference is a gap of more the \$11 million.

To acknowledge the gap in funding, the project list was further divided into Tier 1 projects, which have a reasonable likelihood of being funded with existing sources, and Tier 2 projects, which would require new funding sources for implementation. For the draft project list, a simple process was used to suggest a funding tier for City projects, as shown to the right.

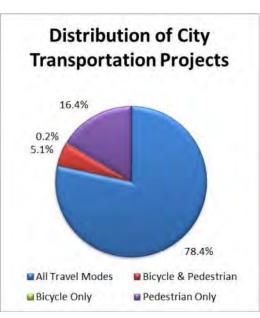


Using these criteria, 18 projects

were identified as Tier 1, including one project on OR 99 that is currently included in the STIP. The total comes to nearly \$8 million in city-funded projects which is greater than the forecast of city revenue for transportation projects based on recent trends. Additional refinement to the project list may be necessary unless higher local revenues for transportation can be secured.

### 5.3.3. Recommended Project List

The preferred project list resulting from the selection and prioritization process is summarized in Table 5-2. The list consists of 50 "complete streets" and trails projects. The complete streets projects include all improvements that upgrade streets to better serve all travel modes. These projects may be as simple as adding a sidewalk to one side of the street or may involve a complete upgrade to improve the quality of the facility for vehicles, bicyclists, and pedestrians. All new street construction for development would meet the city standard for complete streets. The trails projects are off-street facilities that connect and expand trail network and also connect to or cross the street network.



A breakdown of how city revenue would be invested in the transportation system is illustrated to the right. This estimate includes both Tier 1 and Tier 2 projects that would be implemented by the City.

Attachments:

Appendix A. Funding for Transportation System Projects Appendix B. Prioritization Guidelines

Table 5-2. Summary of Complete Street & Trail Projects

				Mode	<u>e</u>						
₽	Location	Description	ələidəV	Bicycle	nsintsəbə9	Jdgi⊖1∃	Preliminary Estimated Cost	Priority	Timeline	Likely Funding Source	Fundin g Tier
shor	short Term				ł						
<b>—</b>	West Valley View Rd - OR 99 to I-5	Restripe roadway to three lanes with buffered bike lanes and address bike lane transition at OR 99	>	>	>	>	\$250,000	High	Short	City	Tier 1
7	First St - Main St to 850 feet north	Upgrade to local street standards	>	>	>		\$380,000	High	Short	City	Tier 1
3	Second St - Main St to West St.	Upgrade to local street standards	>	>	>		\$210,000	High	Short	City	Tier 1
4	Front St - Colver Rd to Urban Renewal Boundary	Add curbs and sidewalks to both sides of street	>	>	>		\$450,000	High	Short	City	Tier 1
2	Citywide Network	Create a bike priority network with hierarchy of bicycle routes throughout the city		>			\$20,000	High	Short	City	Tier 1
9	OR 99 - Rapp Rd to Creel Rd (Talent City Limits)	Add curbs and sidewalks and restripe existing roadway to provide a center turn lane, two through travel lanes (one in each direction), and bike lanes (STIP Key Number 17478)	>	>	>	>	\$3,300,000	High	Short	State	Tier 1
7	Second St - Wagner St to Schoolhouse Rd	Add curb and sidewalk to west side of street			>		\$150,000	High	Short	City	Tier 1
8	Schoolhouse Road – Wagner Creek Road to 2nd Street	Add curb and sidewalk to north side of street			>		\$160,000	High	Short	City	Tier 1
6	Bear Creek Greenway at Suncrest Rd	Install traffic calming improvements on Suncrest Rd		>	>		\$100,000	High	Short	County	Tier 2

Table 5-2. Summary of Complete Street & Trail Projects

				Mode	a)					
	Location	Description	ələidə/	elcycle	edestrian Freight	Preliminary Estimated Cost	Priority	Timeline	Likely Funding Source	Fundin a Tier
10	Wagner St RR Crossing	Upgrade crossing and provide for pedestrians and bicyclists and upgrade warning devices	>			\$500,000	Medium	Short	City	Tier 2
<del></del>	Talent Ave - Creel Rd to Alpine Way	Upgrade to collector standard	>	`	>	000'096\$	Medium	Short	City	Tier 2
12	Wagner St - Wagner Creek Road to 1st Street	Add curb and sidewalk to north side of street			<b>&gt;</b>	\$200,000	Medium	Short	City	Tier 2
13	Wagner St - Railroad Crossing to John Street	Add curb and sidewalk to south side of street		•	<i>&gt;</i>	\$70,000	Medium	Short	City	Tier 2
14	Main St - West St to Front St	Add curb and sidewalk to south side of street		•	<i>&gt;</i>	\$240,000	Medium	Short	City	Tier 2
Med	Medium Term									
15	West Valley View Rd - OR 99 to I-5	Add hardscaping (landscaped islands and/or raised barrier) in bike lane buffers	>	`	<i>&gt;</i>	\$250,000	High	Medium	City	Tier 1
16	Rapp Rd - 150' south of Graham Way to Wagner Creek Bridge	Rebuild and upgrade to (major) collector standard	>	`	<i>&gt;</i>	\$1,080,000	High	Medium	City	Tier 1
17	Foss Rd - Wagner St to City Limits	Upgrade to collector standard	>	` <u>`</u>	>	\$400,000	High	Medium	City	Tier 1
18	Creel Rd – 75 feet east of Lithia Way to OR 99	Add curb and sidewalk to north side of street		•	<b>&gt;</b>	\$120,000	High	Medium	City	Tier 1
19	West Valley View Rd @ Wagner Creek Greenway Trail	Create a mid-block crossing with pedestrian-activated device		>	>	\$100,000	High	Medium	City	Tier 1
20	OR 99 - Creel Rd to Bear Creek Greenway connection	Construct a 10-foot-wide multi-use path along the east side of the highway		>	>	\$450,000	High	Medium	State	Tier 2

Table 5-2. Summary of Complete Street & Trail Projects

				Mode							
	location	Description	ehicle elavei	sicycle	neistrian reight	Preliminary Estimated	ary od	Priority	Timeline	Likely Funding Source	Fundin a Tier
	First St - Main St to Wagner St	Upgrade to local street standards				\$2		Medium	Medium	City	Tier 2
22	Second St Main St to Wagner St.	Upgrade to local street standards	>		>	\$240,000		Medium	Medium	City	Tier 2
23	OR 99 – Creel Rd (Talent City) Limits to S Valley View	Restripe roadway to include a center turn lane, two through travel lanes (one in each direction), and shoulder	>	>	>	000'002\$		Medium	Medium	State	Tier 2
24	Talent Ave - 200' south of Wagner St to Main St	Remove parking on one side of street (west) and stripe bike lanes through downtown Talent	•	>		\$10,000		Medium	Medium	City	Tier 2
25	Front St - Urban Renewal Boundary to Wagner St	Add curb and sidewalk to west side of street		•	>	\$320,000		Medium	Medium	City	Tier 2
26	OR 99 @ Wagner Creek Create a mid-block cr Greenway Trail pedestrian-activated	Create a mid-block crossing with pedestrian-activated device		>	>	\$100,000		Medium	Medium	City/State	Tier 2
27	Wagner Creek Greenway Path OR 99 to 225 feet west of OR 99	Construct new 10-foot-wide multimodal path near Wagner Creek connecting to Bear Creek Greenway	,	`		\$25,000		Medium	Medium	City	Tier 2
28	Wagner Creek Greenway Path OR 99 to West Valley View Rd	Construct new 10-foot-wide multimodal path near Wagner Creek connecting to Bear Creek Greenway	,	`		\$60,000		Medium	Medium	Other	Tier 2
29	Wagner Creek Greenway Path West Valley View Rd to Bear Creek Greenway	Construct new 10-foot-wide multimodal path near Wagner Creek connecting to Bear Creek Greenway	•	`		\$880,000		Medium	Medium	City	Tier 2
30	Bear Creek Greenway	Enhance connections to OR 99 throughout OR 99 corridor with wayfinding signage and other amenities		` <u>`</u>		\$450,000		Medium	Medium	Other	Tier 2

Table 5-2. Summary of Complete Street & Trail Projects

ID Location Long Term Rapp Rd Creek Bri				Mode	<u>e</u>						
ong Ter 31 Rapp Cree			ələidə	icycle	nsintsəbə	thgiə: —	Preliminary Estimated	0.17	; ; ;	Likely Funding	Fundin
31 Rapp Cree			•/\	B!		]-	1500	PHOHIS	ש ש ש ש ש	an inoc	<u>ш</u> Б
	Rapp Rd - Wagner Creek Bridge	Rebuild and upgrade to (major) collector standard	>	>	`	<u> </u>	000'009\$	Medium	Long	City	Tier 1
Rapp 32 Cree Cree	Rapp Rd - Wagner Creek Bridge to Wagner Creek Rd	Rebuild and upgrade to (major) collector standard	>	>	`	>	\$950,000	Medium	Long	City	Tier 1
33 Wag	Wagner Creek Rd - West St to Rapp Rd	Upgrade to major collector standard	>	>	>		000'096\$	Medium	Long	City	Tier 1
34 Taler Roac	Talent Avenue - Rapp Road to Creel Road	Add curb and sidewalk to east side of street			>		\$920,000	Medium	Long	City	Tier 1
35 Rapp to Ol	Rapp Rd – Graham Way to OR 99	Rapp Rd – Graham Way Add curb and sidewalk to south side of to OR 99			>		\$70,000	Medium	Long	City	Tier 1
Wag 36 Gree Rd to	Wagner Creek Greenway Path—Rapp Rd to Talent Ave	Construct new 10-foot-wide multimodal path near Wagner Creek		>	<b>&gt;</b>		\$200,000	Medium	Long	City	Tier 2
37 Bear Cr Access	Bear Creek Greenway Access	Create ramp connection to north side of West Valley View Rd		>	>		\$250,000	Medium	Long	Other	Tier 2
Wag 38 Taler Valle	Wagner St Extension - Talent Ave to West Valley View Rd	Construct new collector street (50 ft) to complete downtown improvements	>	>	<b>&gt;</b>		\$730,000	Medium	Long	City	Tier 2
39 Bain Wag	Bain St - First St to Wagner St	Upgrade to local street standards	>	>	>		\$230,000	Low	Long	City	Tier 2
Wes 40 Wag Rd to	Westside Bypass - Wagner Creek Rd/Rapp Rd to Colver Rd	Westside Bypass - Wagner Creek Rd/Rapp Construct new collector street west of city Rd to Colver Rd	>	>	· ·	>	\$2,730,000	Low	Long	City	Tier 2
41 Wesi west	West Valley View Rd west of I-5	Widen shoulders		>	>	0,	\$1,500,000 <sup>1</sup>	Low	Long	City/Coun ty	Tier 2

Table 5-2. Summary of Complete Street & Trail Projects

				Mode	a)						
	Location	Description	9lɔidəV	Bicycle	Pedestrian Freight		Preliminary Estimated Cost	Priority	Timeline	Likely Funding Source	Fundin g Tier
42	West Valley View Road I-5 Overcrossing	Widen shoulders		>		↔	\$8,000,000,1	Low	Long	State	Tier 2
43	Bear Creek Greenway	Upgrade 800 feet of path north of West Valley View Road to statewide multi-use path standards (minimum 10 feet, desired 12 feet)		>			\$305,000	Low	Long	Other	Tier 2
44	Arnos Trail	Connect Arnos St to the Bear Creek Greenway		`			n/a	Low	Long	Other	Tier 2
Deve	Development Driven Projects	jects									
45	Railroad District Collector—Belmont Rd to Rapp Rd	Construct new collector street to serve UGB area south and west of Railroad tracks	>	>	>	07	\$4,100,000	Low	Undetermined	Other	Tier 2
46	Rapp Rd Railroad Crossing	Realign street and upgrade crossing	>	`	<i>&gt;</i>		\$800,000	Low	Undetermined	City	Tier 2
47	Belmont Rd - Talent Ave to Railroad District Collector	Upgrade to collector standard and upgrade railroad crossing & restrict other crossings (Pleasant View, Hilltop, public to south)	>	>	>		\$800,000	Low	Undetermined	City	Tier 2
48	Suncrest Road Connector	Construct new collector street through Urban Reserve Area TA-5 from east of signal at OR 99 to Willow Springs Dr	>	>	>	07	\$1,500,000	Low	Undetermined	Other	Tier 2
49	Colver Road – West UGB to OR 99	Add sidewalk to north side of street		·	`		\$260,000	Low	Undetermined	City	Tier 2
20	Suncrest Road – Autumn Ridge Road [east] to East UGB	Add curb and sidewalk to north side of street		·	>		\$160,000	Low	Undetermined	City	Tier 2

Notes: 1. Project cost estimates from I-5 Exit 21 Interchange Area Management Plan

### **City of Talent**

### **Transportation System Plan Update**

**Technical Memorandum #5** 

**Appendix A:** 

**Funding for Transportation System Projects** 

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#### 1. FUNDING FOR TRANSPORTATION SYSTEM PROJECTS

This appendix reviews existing and potential funding sources for projects in the Talent Transportation System Plan (TSP). It identifies potential local, state, regional, and federal funding sources that could be used for the implementation of projects recommended as part of the preferred transportation system. Transportation system revenue forecast assumptions that incorporate these funding sources are also included.

#### 1.1. Overview of Local Funds

The City of Talent (City) collects revenue from a variety of sources that can be used to fund roadway, pedestrian, bicycle, and transit maintenance and improvement projects. Local funds dedicated to the transportation system are described in the following sections. Table 1-1 summarizes net total revenues after dedicated expenses between fiscal years (FY) 2011 and 2015 available to the City for transportation Projects, including the carryover funding balance from year to year. Figures from FY2011 through FY2013 are actual revenues and expenditures, while FY2014 and FY2015 are adopted amounts.

Table 1-1. (	Overview	of Revenues	and Expe	enditures
--------------	----------	-------------	----------	-----------

Revenue Source	FY2011 (Actual)	FY2012 (Actual)	FY2013 (Actual)	FY2014 (Adopted)	FY2015 (Adopted)
Street Fund	\$520,310	\$554,360	\$547,041	\$540,000	\$538,000
Funding Balance	\$413,693	\$483,481	\$573,326	\$400,000	\$273,000
Transportation SDC Fund	\$24,838	\$56,125	\$167,103	\$55,950	\$60,000
Funding Balance	\$255,483	\$151,066	\$207,950	\$220,350	\$226,000
Total Dedicated Annual Revenues (Gross)	\$545,148	\$610,485	\$714,144	\$595,950	\$598,000
Total Expenses <sup>1</sup>	\$292,789	\$311,505	\$311,099	\$399,450	\$461,100
Total Dedicated Annual Revenues (Net)	\$252,359	\$298,980	\$403,045	\$196,500	\$136,900

#### Notes:

Source: City of Talent Adopted City Budgets, FY 2011-15

Gross revenue subtotals for Street and Transportation SDC funds were calculated by subtracting fund balances from total revenues. Although fund balances are an important part of the City's financing mechanism for transportation projects, they were not included as part of the revenue subtotals because fund balances do not represent inbound revenue from the City's revenue-generating programs (licenses, permits, fees, state gas tax revenue, charges for services, etc.), thereby also making them hard to predict. Net revenue for the Street Fund was calculated by subtracting mandatory transportation expenses (including personnel and materials) from gross revenue. This total is the amount of money the City can spend on discretionary projects for transportation. There are no mandatory expenses within the SDC Fund. The totals for net revenue do not include interest or existing fund balances.

<sup>1.</sup> Expenditures include Personnel, Materials & Services, and Capital Outlay.

#### 1.1.1. Street Fund

The City Street Fund is a special revenue fund which allocates monetary resources toward general transportation system operations, maintenance, and minor improvement projects. Spending priorities for the Street Fund have been placed on right-of-way maintenance, street repairs, striping, and other maintenance actions necessary to keep the transportation system in stable, usable condition for general transport and heavy truck loading. The Street Fund is comprised of both local and state-derived funding channels, including street utility fees, permit fees, storm drain utility fees, street sweeping feeds and state gas tax apportionments.

# 1.1.2. Transportation System Development Charge (SDC) Fund

System development charges (SDCs) are fees assessed on new building permits at the time development occurs, and are meant to mitigate the impact of new developments on existing public infrastructure. These fees are designed to finance the construction, extension, or enlargement of a street, community water supply, storm sewer or sewerage or disposal system, or public park. Street projects are funded by the Transportation SDC fund, which collects fees from new development based on the expected level of traffic generation for a given land use.

In the last five years of budgetary activity, the City has exercised Street and Street SDC Funds simultaneously in order to fund certain transportation system projects. Future income from system development charges is difficult to predict, and highly dependent on the economy and the scope and scale of future development in Talent.

# 1.1.3. Capital Improvement Projects Fund

The revenues for this fund are budgeted as transfers from various other funds or intergovernmental grants, to be used towards capital expenditures to be incurred each year over a fixed period of several years as part of the Capital Improvement Program. This plan identifies the expected beginning and ending date for each project, the amount to be expended in each year, and the method of paying for those expenditures. Transportation projects are primarily paid through interfund transfers from the Street and Transportation SDC Funds.

Based on a review of Adopted City Budgets, net total revenues that can be spent on the transportation system (Street and Transportation SDC funds) averaged \$257,557 annually after dedicated expenses, and experienced negative growth at a rate of 45.7 percent between FY2010-11 and FY2014-15, mostly due to the rising cost of mandatory expenses. SDC Fund revenues

Street Fund gross revenues grew slightly between FY2010-11 and FY2014-15, averaging \$539,942 per year on average, yet grew at a slower rate than the SDC Fund during the same period, with each experiencing average revenue growth rates of 3.3 and 141.5 percent, respectively. SDC gross revenues averaged \$72,803 over the 5-year period, with FY2013 a significant outlier. Because SDC revenues are derived from fees assessed to new development, this revenue is less stable over time than the Street Fund.

Table 1-2 provides an overview of the Capital Improvement Project fund, which is the City's budgetary vehicle for financing capital improvement projects. Both General and Special Revenue (Parks, Street, SDC, etc.) Funds are incorporated into the Capital Improvement Projects Fund through the City's interfund transfer process. These funds are typically earmarked for specific transportation projects and may be comprised of both Street and Transportation SDC revenues. With the exception of intergovernmental grants, generally no new revenue is earned within the Capital Improvement Project Fund.

Table 1-2. Overview of Capital Improvement Fund

Revenue Source	FY2011 (Actual)	FY2012 (Actual)	FY2013 (Actual)	FY2014 (Adopted)	FY2015 (Adopted)
Transfers to Capital Improvement Fund from Street/SDC Funds	\$287,685	\$155,000	\$472,515	\$661,353	\$484,650
Grant Revenues for Transportation Projects	\$535,918	\$0	\$0	\$0	\$0
Amount Spent on Transportation Projects	\$643,049	\$354,309	\$464,277	\$540,620	\$1,084,045

Source: City of Talent Adopted City Budgets, FY 2011-15

## 1.1.4. Funding Forecast

This section provides a 20-year forecast for local transportation funds (Street and Transportation SDC) based on a five year fiscal analysis of Talent Adopted City Budgets (FY 2010-11 through FY 2014-15). The forecast has been calculated in 2014 dollars -- therefore, inflation from the base year (FY 2010-11) is not considered. This analysis assumes that Talent will have roughly \$5.2 million to spend on transportation projects over the next 20 years without additional revenue, either from new citywide funding sources or outside grants (see Table 1-3).

Table 1-3. 20-Year Local Funding Forecast (2014 Dollars)

Source	Annual <sup>1</sup>	20-Year Forecast <sup>2</sup>
Average Revenue	\$612,745	\$12,254,908
Average Expenditures	\$355,189	\$7,103,772
Net Total Revenues	\$257,556	\$5,151,120

#### Notes:

1. Actual FY 2014-15

Approximate values forecasted to 2035.

Source: City of Talent Budget Documents FY 2013-14 and FY 2014-15

# 1.2. Funding and Finance Sources

In addition to the local funds dedicated to the City transportation system, a variety of established funding sources from federal, state, regional, and local sources are also available to fund future transportation projects in the City of Talent. Table 1-4 provides an overview of each

funding source, eligible projects, funding dollar amount, funding restrictions, and other considerations.

It is important to emphasize the distinction between *funding* and *financing* within the context of implementing transportation projects. Funding refers to the revenue for the costs of providing transportation facilities and services. This revenue originates from households and businesses that pay taxes and fees that give the local government money to build and maintain the surface transportation system. Examples of funding mechanisms are tolls, fuel taxes, registration fees, and property taxes. Funding can also come in the form of federal, state, or regional grants that are awarded to individual projects.

In contrast, financing is when the funds for transportation costs are borrowed and paid back over time. Public agencies use financing mechanisms to fund projects in order to reduce the current out-of-pocket costs and spread out payments over time, at the cost of the interest charged to borrow the funds. A popular form of financing is through the selling of bonds, which are a form of debt instrument used to fund municipal projects and backed either by a variety of revenue sources (General Obligation bonds) or through income generated from the specific project (Revenue bonds). The ultimate source of funding for financed costs is not the financing instrument itself but rather the revenue sources used to repay the borrowed funds.

Table 1-4. Overview: Funding and Finance Sources

Revenue Source	Funding \$ Available <sup>1</sup>	Eligibility/Restrictions	Public Support/Other Considerations
Street Fund	\$959,067 per fiscal year <sup>2</sup>	Already implemented in Talent; used as stable funding for ongoing street repair, maintenance, and capital improvement projects.	Between 2009 and 2014, the Street Fund expenditures have grown by 12.6%; it's reasonable to assume that future Street Fund allocations could be higher.
Street Utility Fee	\$159,000 per fiscal year	Already implemented in Talent, used for ongoing street repair, maintenance, and capital project funding.	Street Utility Fee revenues have decreased by about 1% between FY2010-11 and FY2014-15.
System Development Charges	\$190,665; potential revenue dependent on level of development.	Already implemented in Talent; used for capital improvement projects and associated "improvement fees", "reimbursement fees", and matching funds. A budget amendment process is required before reserved funds can be transferred to the CIP Fund.	Unpredictable; highly regulated by the State and monitored carefully by the development community.
Storm Drain Utility Fee	\$51,299 per fiscal year	Already implemented in Talent; A budget amendment process is required before reserved funds can be transferred to the CIP Fund.	Funds not dedicated to the transportation system; Specific projects are required before allocation.
State Gas Tax Revenues	\$328,997 per fiscal year	A State of Oregon fuel tax rate for gasoline is \$0.30 per gallon.	2% increase in revenue between FY2010-11 and FY2014-15.

Table 1-4. Overview: Funding and Finance Sources

Revenue Source	Funding \$ Available <sup>1</sup>	Eligibility/Restrictions	Public Support/Other Considerations
Local Gas Tax	Revenues can range from \$0.01 to \$0.03 per gallon	Any city in Oregon can levy a gas tax; street projects are typically eligible for revenue	Local gas taxes may be controversial. Revenues dependent on market pricing and sales.
Parking fees	Potential revenue dependent on parking fee rate and amount of parking charged	Not implemented in Talent; Downtown is the area most likely suited to charging for parking; no limit on projects eligible for revenue	Stakeholder concerns; downtown parking fees may be controversial
Local Improvement Districts (LID)	Dependent on size of LID and levy rate	Wide variety of projects could be funded in specific neighborhoods; no restriction on projects eligible for revenue except that they must be located within the LID	LIDs are established by City Council resolution with the intention of implementing desired public improvements, either initiated by Council or in response to petition of a majority of local property owners
Bonds	Varies	Form of debt instrument used to fund municipal projects and backed either by a variety of revenue sources (General Obligation bonds) or through income generated from the specific project (Revenue bonds); no limit on projects eligible for financing	
Tax Increment Financing/ Urban Renewal Area (URA)	Potential revenue depends on size of URA	Already implemented in Talent, which can declare up to 25% of its land area as an URA; no restriction on projects eligible for TIF except that they must be located within the URA	
State highway fund	Depends on apportionment of funds based on city population; cities receive 16 percent of all funds	Eligible projects include construction and maintenance of state and local highways, bridges and roadside rest areas	
Statewide Transportation Improvement Plan (STIP) "Fix It"	Varies	Must be "repair" projects that maintain or fix the transportation system)	Projects must generally take place on streets with a federal functional classification of collector or higher
Statewide Transportation Plan (STIP) "Enhance"	Varies	Eligible projects include roadway, bridge, bike/ped and transit capital; projects must be programmed through the Metropolitan Transportation Improvement Program (MTIP) and STIP	Projects must generally take place on streets with a federal functional classification of collector or higher
Recreational trails program	About \$1.5 million statewide (per year)	Must be a trail project; preference given to "non-transportation" trails	

Table 1-4. Overview: Funding and Finance Sources

Revenue Source	Funding \$ Available <sup>1</sup>	Eligibility/Restrictions	Public Support/Other Considerations
Transportation Alternatives- Oregon Bicycle and Pedestrian Program	Approximately \$9 million available every 2 years	Eligible projects include bicycle/pedestrian facilities, scenic beautification, historic preservation, and environmental mitigation	
All Roads Transportation Safety Program	\$166 million statewide over 4-year grant cycle	Eligible projects include safety improvements at crash hotspots and along high risk corridors	Local match of 7.78 percent is required
Connect Oregon	\$42 million available statewide in most recent biennium	Projects must be non-highway related (cannot be eligible for State Highway Fund revenue)	
Oregon Immediate Opportunity Fund	Between \$250k and \$2 million, depending on project type	Primarily focused on road projects that provide economic development benefits	
Oregon Transportation Infrastructure Bank	Loan amounts vary	Eligible projects include highway, transit capital, or bikeway/pedestrian access projects on highway right-of- way	Loans may be controversial, in that their repayment may require city financial resources that could be spent elsewhere
Highway Trust Fund	Varies; hundreds of millions available statewide	Eligible projects include roadway, bridge, bike/ped and transit capital; projects must be programmed through the MTIP and STIP	Projects must generally take place on streets with a federal functional classification of collector or higher
Federal Transit Administration formula funding grants	Varies; Rogue Valley metro is eligible for formula funding towards planning, transit capital projects, bus-related improvements	Projects must be transit or transit- related and require cooperation with RVTD and RVMPO	
FTA Section 5310 grants	Varies; requires a non- federal match of 20 percent	Discretionary grants are eligible for transit capital projects that enhance accessibility of older adults and those with disabilities	
Non-Point Source Implementation Grants	Varies	Eligible projects include transportation projects that integrate stormwater treatment	

#### Notes:

- 1. All values are approximate.
- 2. Based on FY 2012-14 Revenues (pre-expenses).

# 1.2.1. Local Funding Sources

This section describes existing and possible future local funding sources for the City of Talent. Major local funding sources include Street Fund revenues, local gas tax revenue, system

development charges, Capital Improvement Project Fund revenues, and the City's share of State Highway Fund revenue.

#### Street Fund

The Street Fund is a special revenue fund which allocates monetary resources toward general transportation system operations, maintenance, and minor improvement projects. The Street Fund accounts for the City's share of the State of Oregon's special gas tax revenues and for transportation and storm drain utility fees. More specifically, the Street Fund is composed of committed balances, encroachment permits, special gas tax revenues, storm drain utility fees, street utility fees, asset sales, miscellaneous refunds, insurance claim proceeds, and interest earnings. This revenue is restricted to street related maintenance and repair, including sidewalks and storm drains. Funding from special assessments, intergovernmental and miscellaneous revenues also support street related activities. Between FY2014 and FY2015, the Street Fund has experienced a 30 percent reduction in revenues, mostly due to decreased committed fund balances (-62 percent), decreased interest earnings (-83 percent), and a loss of miscellaneous refunds and insurance claim proceeds (-100 percent).

#### Street Utility Fees

The Street Utility Fee was increased in July 2007. This has provided stable funding for ongoing street repair and maintenance and capital project funding. The City should see a slight increase in state funding in FY2014-15. Management of the Street Fund has allowed the City to set aside funding to complete street projects on the interior streets of Talent and to provide the matching funds needed to complete capital improvements.

Most city residents pay water and sewer utility fees. Street utility fees apply the same concepts to city streets. A fee is assessed to all businesses and households in the city for use of streets based on the amount of traffic typically generated by a particular use. Street utility fees differ from water and sewer fees because usage cannot be easily monitored. The fees are typically used to pay for maintenance projects. Street utility fees are currently collected by the cities of Ashland, Medford, Phoenix and Talent.

# System Development Charge Fund

System Development Charges (SDCs) are fees imposed on new development that create or increase the demand for transportation services and facilities. These fees can be used for a wide variety of transportation capital improvements, which refers to facilities or assets including but not limited to streets, sidewalks, bike paths, street lights, street trees, public transit, vehicle parking, and bridges. SDC revenue is highly dependent on the type and amount of development occurring in Talent. These fees are based on land use, building size and the number of peak hour trips generated and must be regularly adjusted based on the infrastructure needs of the City and the projects proposed by the Talent TSP.

SDCs are collected when a building permit is issued. All SDC Fees collected by the City go into a separate fund and cannot be used for operating expenses. There are specific rules for

allocating SDC funds to construction projects, which have been established by State Law and are closely monitored by external organizations. In addition to establishing the fee based on the anticipated future projects, a determination has to be made as to what portion of that fee can be used as "improvement fees" (fees/costs associated with capital improvements to be constructed that will increase the capacity of a system) and what portion is designated "reimbursement fees" (costs associated with capital improvements already constructed or under construction).

The City has been able to accumulate and spend substantial reserves within the SDC Fund, due to the growth that has taken place since 2002. Between FY2010-11 and FY2014-15, SDC revenues outpaced Street Fund revenues by 12 percent, on average. The SDC Fund is a highly viable local resource for implementing capital outlay as part of the preferred transportation system plan.

Capital improvement projects are currently funded with existing SDC fund balances and not projected revenues. Funds that remain in the SDC Fund are accounted for as "reserved for Future Improvements". Before any of these reserved funds can be transferred to the CIP Fund and actually spent they would have to go through a budget amendment process. While the use of SDCs is a tremendous tool for the City in dealing with the impact of new development, the use of these fees is heavily regulated by the State and monitored carefully by the development community.

#### Capital Improvement Program Fund

The Capital Improvement Program Fund (CIP) is utilized to manage capital projects in the coming year, and also to allow funds to be set aside for capital projects beyond the current budget year. Revenue sources for the CIP for specific projects can come internally from the General, Street, Parks, Water, or SDC Funds, or externally from grants, loans, and other agencies, including the Talent Urban Renewable Agency (TURA).

Projects included in the CIP are generally over \$5,000 in cost and have a useful life of more than one year. A CIP has been developed for all capital projects identified as important to be completed in the next five years. While the CIP identifies the projects, sets the priorities and assigns costs in today's dollars, the customary accounting mechanism to manage these projects is to establish a separate accounting fund specific for this purpose that does not close out until the project is complete or cancelled. Each year the funds and projects are re-evaluated to determine if priorities have changed due to the availability of funds, or if a particular project or problem can be solved in another manner.

The CIP has been applied to a variety of street and transportation system improvements. Street projects planned for FY2015 include improvements to North Front Street, sidewalk improvements on Second Street and Schoolhouse, Community Hall Alley improvements, and miscellaneous other improvements. The FY2014-15 Adopted Budget also indicates that the City is setting aside additional funding for future projects on Lithia Way and Rapp Road. A summary

of transportation projects funded by the Capital Improvements Projects Fund over the last five years is provided below in Table 1-5.

Table 1-5. Capital Improvements Projects Fund Expenditures on Transportation Projects, FY2010-11 to FY2014-15

Project	FY11	FY12	FY13	FY14	FY15
CIP Unallocated Street Funding	-	-	-	\$405	\$5,425
Misc. Sidewalk Improvements	-	-	-	\$10,000	\$15,000
Misc. Alley Pavement	-	\$103,097	-	=	-
Gibson Improvement	-	\$3,208	\$449,644	\$37,000	-
North Front Street Improvements	-	-	\$3,269	\$229,065	\$254,470
OR 99 Street Improvements	-	-	-	-	\$400,000
Lithia Way Improvements	-	-	-	\$160,600	\$160,600
Rapp Road Improvements	-	-	-	\$103,550	\$128,550
Sidewalk Second & Schoolhouse	-	-	-	-	\$30,000
Community Hall Alley Improvements	-	-	-	-	\$90,000
Arnos Street Improvements	\$18,868	\$248,004	\$11,364	-	-
West Valley View Downtown	\$572,679	-	-	-	-
Dog Park Talent Avenue	\$808	-	-	-	-
Talent Avenue Curb & Sidewalk to Rapp Rd.	\$50,695	=	=	-	-
Total Transportation Expenditures	\$643,050	\$354,309	\$464,277	\$540,620	\$1,084,045
Average Expenditures Per Year	\$617,260				
Average Change	25.8%				

Source: City of Talent Budget Documents FY 2013-14 and FY 2014-15

# Other Local Sources

Other potential local sources for funding are described below.

# Interfund Transfers

The City of Talent can reserve non-dedicated funds for transportation projects via the Interfund Transfer process. This allows the City to transfer General and Special Revenue funds into the Capital Improvement Program Fund for specific transportation system projects. Eligible funds include General, Street, Park, SDC, and Water Funds. Funding transportation projects via Interfund Transfers requires a budget amendment process, with expense proposals linked to specific planned projects (including TSP projects). Table 1-6 summarizes transfers to the Capital Improvement Projects Fund over the last five years from the Street and SDC Funds. Although revenues from other sources such as the Parks and Water Funds were also transferred to the Capital Improvement Projects Fund during the same timeframe, only select Street and SDC revenues were included because they were directly associated with the capital construction of the transportation project. Parks and Water transfers typically supported ancillary services to the capital construction of the transportation project, such as drainage work and environmental services.

Table 1-6. Transfers to the Capital Improvement Projects Fund Dedicated to the Capital Construction of Transportation Projects, FY2010-11 to FY2014-15

Transfer Source	FY11	FY12	FY13	FY14	FY15
Street Fund	\$157,732	\$248,097	\$393,600	\$385,083	\$198,650
Gibson Street Improvements	-	\$150,000	-	\$85,233	-
Arnos Street Improvements	\$136,982	\$5,000	-	-	-
North Front Street Improvements	-	-	\$83,600	\$36,500	\$60,000
Lithia Way Improvements	-	-	-	\$59,800	\$23,650
Rapp Road Improvements	-	-	-	\$103,550	\$25,000
OR 99 Street Improvements	-	-	\$300,000	\$100,000	-
Sidewalk @ Second and Schoolhouse	-	-	-	-	\$30,000
Community Hall Alley Improvements	-	-	-	-	\$45,000
Talent Ave. Curb & Sidewalk Improvements	\$20,750	-	-	-	-
Miscellaneous Sidewalk Improvements	-	-	\$10,000	-	\$15,000
Unallocated	-	\$93,097	-	-	-
SDC Transportation Fund	\$129,953	-	\$78,915	\$130,850	-
North Front Street Improvements	-	-	\$78,915	\$30,050	-
Lithia Way Improvements	-	-	-	\$100,800	-
Arnos Street Improvements	\$129,953	-	-	-	-
Total Transportation Transfers to CIPF	\$287,685	\$248,097	\$472,515	\$515,933	\$198,650

Source: City of Talent Budget Documents FY 2013-14 and FY 2014-15

# Local Gas Tax

Local fuel tax revenues offer a potential funding source for Talent TSP projects. Based on gasoline sales and current revenues, a \$0.01 local gas tax could yield approximately \$10,000 - \$20,000 in additional annual transportation revenue (depending on volume of gasoline sales within the City). Not every city in Oregon levies a local gas tax; of those that do, the local tax rate ranges from \$0.01 to \$0.03 per gallon. Talent does not currently charge a local gas tax. Many cities in Oregon charge a local diesel fuel tax in addition to gasoline taxes. Of those cities that levy a diesel fuel tax, the local tax rate ranges from \$0.01 to \$0.05 per gallon of diesel fuel.

# Local Parking Fees

Local parking fees are a common means of generating revenue for public parking maintenance and development. Most cities have some public parking and many charge nominal fees for use of public parking. Cities also generate revenues from parking citations. These fees are generally used for parking-related maintenance and improvements. Parking fees are not currently collected in the Rogue Valley Metropolitan Planning Organization (RVMPO) area.

The City does not currently charge for parking. Income generated by charging parking fees could be used to implement a variety of transportation projects. The collection system would require purchase of parking meter infrastructure, careful study of where to install meters, and

analysis of the appropriate fee amount to charge drivers. However, relatively low demand and abundant free parking availability on nearby neighborhood streets may mean that charging for parking is infeasible.

#### Revenue Bonds

Revenue bonds are financed by user charges, such as service charges, tolls, admissions fees and rents. If revenues from user charges are not sufficient to meet the debt service payments, the bond issuer generally is not legally obligated to levy taxes to avoid default, unless they are also backed by the full faith and credit of the issuing governmental unit. In that case, they are called Indirect General Obligation Bonds. Revenue bonds can be secured by a local gas tax, street utility fee or other transportation-related stable revenue stream.

# Tax Increment Financing (Urban Renewal Districts)

The Talent Urban Renewal Agency was formed in 1991 as a long term investment strategy by the City to eliminate blight and deterioration and improve assessed values within a defined area in downtown Talent. The Agency designs and builds streets, sidewalks and parks; replaces old water lines; puts some power lines underground; installs street lights and trees; builds parks and civic spaces; assists economic development; and provides facade improvement grants for commercial and historic structures.

The Agency receives a portion of local property taxes, calculated each year according to changes in assessed value within the urban renewal boundary. Funding for projects comes from the private sale of bonds, which are repaid with a portion of property tax revenue over the life of the Agency, or through short term borrowing. Currently, the Agency plans to have all projects completed and bonds paid off by December 2016.

# Special Assessments

Special assessments are charges levied on property owners for neighborhood public facilities and services, with each property assessed a portion of total project cost. They are commonly used for such public works projects as street paving, drainage, parking facilities and sewer lines. The justification for such levies is that many of these public works activities provide services to or directly enhance the value of nearby land, thereby providing direct financial benefits to its owners. Urban renewal agencies are essentially a form of a special assessment district.

# Local Improvement Districts (LIDs)

Local Improvement Districts are legal entities established by local government to levy special assessments designed to fund improvements that have local benefits. Through an LID, streets or other transportation improvements are constructed and a fee is assessed to adjacent property owners. LIDs are currently being used by RVMPO jurisdictions.

Local Improvement Districts can be created by property owners within a district to raise revenues for infrastructure improvements within district boundaries. Typically, property owners work together to form an LID. An LID could potentially fund specific improvements in

certain neighborhoods; they are often formed to make sidewalk improvements. LIDs can be difficult to establish and rely on the cooperation of property owners.

#### Property Taxes

Local property taxes are used to fund public transportation and could be used to fund other transportation projects. Within the Rogue Valley Transportation District, a portion of the property tax revenue (18 cents per \$1000 assessed valuation) collected by the state goes to Rogue Valley Transit District.

#### General Obligation Bonds

All taxpayers of the issuing governmental unit, which must pay the interest and principal on the debt as they come due, finance general Obligation (GO) bonds. Municipal bonds are GO bonds issued by a local governmental subdivision, such as a city, and are secured by the full faith and credit of the issuing municipality. Oregon law requires GO bonds to be authorized by popular vote.

# Revenue Bonds

Revenue or general obligation bonds can help finance construction of capital improvement projects by borrowing money and paying it back over time in smaller installments. Bonds are typically backed by new revenue, like an additional property tax levy.

#### 1.2.2. Federal Funding Sources

Federal grant programs account for a significant portion of transportation infrastructure funds for the City of Talent. Most federal grant monies are distributed by the Oregon Department of Transportation (ODOT) through the Statewide Transportation Improvement Program (STIP). The application process for federal funds is described below in the Statewide Transportation Improvement Program section. The following sub-sections describe federal revenue sources that contribute to City of Talent transportation improvement and development funds.

# Federal Highway Administration (FHWA) Funding

Federal surface transportation legislation is the primary federal revenue source for highway projects in the region. The current federal legislation on surface transportation, Moving Ahead for Progress in the 21st Century (MAP-21), was passed on July 6, 2012. It created a streamlined and performance-based transportation program. The current legislation is set to expire on May 31, 2015. At the time of this update, the status of surface transportation legislation is unclear.

# Highway Trust Fund

Revenues to the federal Highway Trust Fund (HTF) are comprised of motor vehicle fuel taxes, sales taxes on heavy trucks and trailers, tire taxes and annual heavy truck use fees. HTF funds are split into two accounts – the highway account and transit account. Funds are appropriated

to the states annually, based on allocation formulas in the current legislation governing the HTF.

MAP-21 kept federal funding for transportation at the same rate as the prior legislation (the Safe, Accountable, Flexible and Efficient Transportation Equity Act – A Legacy for Users, known as SAFETEA-LU). MAP-21 consolidated the 90 different programs in SAFETEA-LU into 30, eliminated transportation earmarks, and reduced funding for pedestrian, bicycle and similar projects by one third. Despite these changes and modest reduction in Transportation Enhancement (now Transportation Alternatives) funds, MAP-21 largely continues federal transportation funding and policy enacted under SAFETEA-LU. Matching funds are generally required; the current matching ratio is 10.27 percent for projects in Oregon. The state received an estimated \$487 million in federal-aid highway apportionments in FY 2014.

#### Surface Transportation Program (STP)

The HTF funds the Surface Transportation Program (STP), among other formula programs, which is the primary program that funds local government and non-highway projects. This intermodal block-grant-type program provides funds for a broad range of transportation uses including highway and transit capital projects, carpool projects, bicycle and pedestrian facilities, planning, and research and development. The Federal surface transportation program provides funding for roads functionally classified as rural major collector and above. The program is largely the same as under SAFETEA-LU with the exception that STP funds can be used on certain bridge projects.

STP funds are allocated to the State of Oregon and sub-allocated to MPOs, cities (outside of an MPO), and counties on a formula basis by the Oregon Transportation Commission. Under MAP-21, rehabilitation and replacement projects for bridges not on the NHS (and therefore within the jurisdiction of local municipalities) will be funded out of the STP. Projects that receive federal funding must be included in the four-year STIP and are usually required to be matched with state or local funding. The Rogue Valley Area Commission on Transportation (RVACT) is responsible for allocating funding to local governments under its jurisdiction and will play a central role in prioritizing projects for funding through the Enhance-It STIP. See the STIP funding section below for more information.

It is important to note that actions at the federal level have left state and local governments lacking financial certainty for several years, as Congress has delayed passing comprehensive transportation authorization bills in favor of stop-gap measures such as general fund transfers or small extensions of the current transportation authorization — a situation which is expected to continue for the foreseeable future. The STP funding level is currently \$15 billion greater than existing revenues, and that gap is increasing as the 18.4-cent-per-gallon federal gas tax has not been raised (or indexed to inflation) since 1993 while vehicles become ever more fuel-efficient. In lieu of new revenues, federal surface transportation funding would need to be cut by 30 percent, reducing Oregon's annual federal highway program funding by \$150 million and its annual transit funding by \$30 million. These cuts would have significant impact on the

amount of funding allocated to the RVMPO, and by extension the amount that is available to Talent for transportation projects.

#### <u>Transportation Alternatives Program (TAP)</u>

A new program within MAP-21, the Transportation Alternatives Program (TAP) replaces the previous Recreational Trails, Safe Routes to School (SRTS), and Transportation Enhancements (TE) programs, and accounts for about 2 percent of total highway funds nationally. This is a significant reduction in funding compared to the level of funding received from the previous programs under SAFETEA-LU; the state of Oregon saw active transportation funds cut by 38 percent. However, the state has the flexibility to continue funding at SAFETEA-LU levels for bicycle/pedestrian programs through at least 2015. Around \$9 million statewide is available from the TAP for these projects; those located within the Rogue Valley metro area will be administered by ODOT. TAP funding is used to partially fund Transportation Alternatives-Oregon Bicycle and Pedestrian Program funding grants, awarded on a 2 year cycle from ODOT.

TAP funds can be used for SRTS and recreational trails projects, as well as most types of projects previously eligible for TE funding, including complete streets, bicycle and pedestrian facilities, scenic or historic highway programs, historic preservation for transportation facilities, rails to trails projects and environmental mitigation activities. While there is no requirement for TAP projects to be located along NHS routes, SRTS projects must be within approximately two miles of a school for kindergarten through eighth grade.

## Highway Safety Improvement Program (HSIP)

Highway Safety Improvement Program (HSIP) funds pays for infrastructure projects that improve highway safety. The High Risk Rural Roads Program is eliminated as a set aside; though, HSIP funding can be spent on high risk rural road projects. States that see increased crashes on high risk rural roads face a requirement to obligate a set amount for these projects. With Oregon's funding under the HSIP increased significantly and direction in MAP-21 to address safety challenges on all public roads, ODOT will increase the amount of funding available for safety projects on local roads. Through a process that is still under development, safety funding will be distributed to each ODOT region, which will collaborate with local governments to select projects that can reduce fatalities and serious injuries regardless of whether they lie on a local road or a state highway. This program is used to fund the All Roads Transportation Safety (ARTS) program which addresses safety issues for all public roads in Oregon and is administered by ODOT.

# Congestion Mitigation & Air Quality Improvement Program (CMAQ)

The Intermodal Surface Transportation Efficiency Act created the CMAQ program to deal with transportation related air pollution. The program is continued under MAP-21. States with areas that are designated as non-attainment for ozone or carbon monoxide (CO) must use their CMAQ funds in those non-attainment areas. A state may use its CMAQ funds in any of its particulate matter (PM10) non-attainment areas, if certain requirements are met. Funds are directed to projects and programs in certain non-attainment areas that meet standards

contained in the Clean Air Act Amendments of 1990 (CAAA). The projects and programs must either be included in the air quality State Implementation Plan (SIP) or be good candidates to contribute to attainment of the National Ambient Air Quality Standards (NAAQS). If a state has no non-attainment areas, the allocated funds may be used for STP or CMAQ projects. The standard local match required for CMAQ is 20 percent. Oregon's required match is 10.27 percent because of Oregon's large share of publicly owned lands.

The City of Talent successfully obtained \$349,500 from the CMAQ Improvement Program in FY2013-14 to implement the Chuck Roberts Parking Lot project. The funds were transferred into the City Capital Improvement Projects Fund.

# National Highway Performance Program (NHPP)

Under Map-21, the majority of highway funding will be focused on preserving and improving the NHS under the National Highway Performance Program (NHPP), which combines the Interstate Maintenance and National Highway System programs and a portion of Bridge funding (those bridges on the NHS).

#### <u>Section 319 Non-Point Source Implementation Grants</u>

Transportation projects that integrate stormwater treatment may be eligible to receive federal funding through Section 319 grants. This program, administered by the Oregon Department of Environmental Quality (DEQ), provides federal funds to address non-point pollution, including stormwater improvement projects. Funding is very competitive, with less than \$500,000 available statewide in the most recent grant cycle. Projects that could be eligible for funding include applying pervious pavements, stormwater detention and retention, and other low impact stormwater development tactics. Funds can be used for all or a portion of a project, but require a minimum 40 percent match.

# Community Block Grant Development (CDBG) Program

The Community Development Block Grant (CDBG) program is a flexible program that provides communities with resources to address a wide range of unique community development needs. The CDBG program provides annual grants on a formula basis to general units of local government and States. The CDBG program is comprised of several program areas, including Entitlement Communities, Small Cities, and State Administered CDBG. Although CDBG is a HUD-administered program dealing largely with stabilizing housing, neighborhoods, and communities via real property acquisition, public services, and special economic development activities, funds can also be used for public facilities and improvements. Public improvements may include elements of the transportation system such as streets and sidewalks. Since FY2010, the City of Talent has successfully obtained over \$3,670,000 of CDBG funding for waterline and community center projects. These grants have averaged over \$910,500 annually, presenting a viable opportunity for securing future funding for transportation projects.

#### Federal Transit Administration Formula Grants

The Federal Transit Administration (FTA) carries out the federal mandate to improve urban mass transportation. It is the principal source of federal assistance to help urban areas (and, to some extent, nonurban areas) plan, develop, and improve comprehensive mass transportation systems. The transit formula and discretionary program requirements and program structure for FY 15-FY18 have changed from previous legislation.

MAP-21 will provide assistance to transit providers under the following formula grant programs:

- Urbanized Areas
- Rural Areas
- Enhanced Mobility for Seniors and Individuals with Disabilities
- Bus and Bus Facilities
- State of Good Repair
- Transportation Planning

#### <u>Urbanized Area Program (Section 5307 and 5340) Funds</u>

Providers serving urbanized areas of 50,000 or more will continue to receive funding directly from FTA under the Section 5307 Urbanized Area program. The Job Access and Reverse Commute (JARC) program is eliminated as a standalone program, but urbanized areas are required to spend a portion of their FTA resources on these activities. The federal share for capital assistance is 80 percent. The federal share for operating assistance is 50 percent. The federal share for ADA non-fixed route paratransit service is 80 percent and can use up to 10 percent of a recipient's apportionment.

# Rural Area Program (Section 5311) Funds

The Rural Area program (Section 5311) provides funding to states to distribute to transit providers in small towns and rural areas (defined as areas outside urbanized areas of 50,000 or more).

# Enhanced Mobility for Seniors & Individuals with Disabilities (Section 5310) Funds

The New Freedom (Section 5317) program is consolidated into the Enhanced Mobility for Seniors and Individuals with Disabilities Program (Section 5310) to create a single program that will fund activities designed to enhance the mobility of seniors and individuals with disabilities. MAP-21 makes this program subject to the standard non-federal match rate of 20 percent. Operating assistance is now an eligible expense with a 50 percent non-federal match rate. Funds are distributed by formula.

## Bus and Bus Facilities (Section 5339) Funds

The Bus and Bus Facilities Program provides capital funding to replace, rehabilitate, and purchase buses and related equipment and to construct bus-related facilities. This program replaced the Section 5309 Bus and Bus Facilities Program. It is a formula grant program and requires a 20 percent match.

#### State of Good Repair (Section 5337) Funds

The State of Good Repair program is a formula based program that is dedicated to repairing and upgrading the nation's rail transit system along with high-intensity motor bus systems that use high-occupancy vehicle lanes. This program replaces the Fixed Guideway Modernization program. RVMPO does not receive 5337 funds.

## <u> Metropolitan Statewide Transportation Planning (Section 5303) Funds</u>

Provides funding and procedural requirements for multimodal transportation planning in metropolitan areas and states that is cooperative, continuous, and comprehensive resulting in long-range plans and short-range programs of transportation investment priorities. The planning programs are jointly administered by FTA and the Federal Highway Administration (FHWA), which provides additional funding.

The Federal Transit Administration (FTA) manages a number of grants available to transit agencies nationwide for the purpose of funding transit or transit-related projects. The Rogue Valley metro area is eligible for Section 5307 Urbanized Area and Section 5339 Bus and Bus Facilities formula funding under MAP-21. Section 5307 funds are available for transit capital assistance and for transportation planning. Section 5339 provides capital funding to replace, rehabilitate, and purchase buses and related equipment and to construct bus-related facilities. The City of Talent and RVTD should continue to coordinate and fund transit improvements in Talent. Specific improvements called out in the RTP include enhanced transit stops, and potential access improvements to northbound bus stops in downtown Talent, including improved crosswalks.

# Enhanced Mobility for Seniors and Individuals with Disabilities (5310)

Section 5310 discretionary funds support transit capital projects that enhance the accessibility of older adults and those with disabilities. Under MAP-21, FTA will appropriate these funds directly to RVMPO to distribute within the urbanized area. This program requires a non-federal match of 20 percent.

# 1.2.3. State Funding Sources

# Statewide Transportation Improvement Program

The STIP<sup>1</sup> is the 4-year capital improvement program for the state of Oregon. It provides a schedule and identifies funding for projects throughout the state. Projects included in the STIP are generally "regionally significant" and are prioritized by MPOs. The relevant MPO for Talent is the Rogue Valley MPO. All regionally significant state and local projects, as well as all federally-funded projects and programs, must be included in the MPO's metropolitan transportation improvement program (MTIP) and subsequently included in the STIP. ODOT estimates that \$98 million in Enhance funds will be available to RVMPO from 2013-2038.

About 80 percent of STIP projects use federal funds, most of which originate from MAP-21 programs. In addition, Regional Flexible Funds competitive grants awarded every two years towards bicycle, pedestrian, transit and Transportation Demand Management (TDM) projects are now included in the STIP. The STIP is the major transportation funding program for most state and federal transportation funds.

The draft 2015-2018 STIP has been developed. Previous STIPs had six program categories: modernization, safety, preservation, bridge, operations, and special programs. Starting with the 2015-2018 STIP, ODOT divided the funding pools into two broad categories: "Fix it" and "Enhance." "Fix it" projects are those that preserve and maintain the current transportation system. The Fix-It project selection process is similar to prior STIPs as these projects are developed mainly from management systems that help identify needs based on technical information for things like pavement and bridges. "Enhance" projects are those that enhance, expand or improve the transportation system. The Enhance process is the significant change for the future and reflects ODOT's goal to become a more multimodal agency and make investment decisions based on the system as a whole, not for each mode or project type separately.

The main purpose behind this reorganization is to allow maximum flexibility to fund projects that reflect community and state values and needs, rather than those that fit best into prescriptive program definitions. Other benefits include:

- Local governments and ODOT Regions can submit one type of application for a variety of Enhance projects.
- ACTs and others can more fully participate in the STIP development process by helping to select all Enhance projects.
- The same information is now available for all kinds of Enhance projects including anticipated benefits.
- Different investments and modes can be compared and considered altogether.
- ACTs can prioritize all Enhance projects important to the area.

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 $<sup>^{1} \ \</sup>text{More information on the STIP can be found at:} \\ \underline{\text{http://www.oregon.gov/ODOT/TD/STIP/Pages/default.aspx}}.$ 

## **ODOT STIP Funds**

In the RVMPO area, STIP funds allocated to the State of Oregon through ODOT are primarily used to fund improvements to state highways in the region. STIP-funded projects generally require a 10.27 percent non-federal match. Bridges not on the NHS are funded using STP flexible funds. The OTC and ODOT began a new program with the development of the 2015-2018 STIP. Previously, there were several smaller programs with a separate funding pool and project selection process for each. The primary objective of the change is to enable ODOT to take care of the existing transportation assets while still providing a measure of funding to enhance the state and local transportation system in a multimodal way.

#### **Eligibility**

In general, STIP Enhance funds can be used to fund roadway, bridge, bicycle/pedestrian and transit capital projects. STIP Fix-It funds are eligible for projects that maintain repair ODOT's portion of the transportation system. Only certain streets are eligible to receive federal funds – generally those streets with federal functional classification of "major collector" and higher classification streets. A number of streets in Talent have this classification, including OR 99, West Valley View Road, Talent Avenue, Colver Road and others. However, STIP projects are also funded by other sources, meaning many streets in Talent are likely eligible under either the "Fix it" or "Enhance" categories described below in Table 1-7.

Table 1-7. Draft 2015-18 STIP Funding Pool Activities

Applicable "Fix-it" activities include:	Applicable "Enhance" activities include:
<ul> <li>Bridges and culverts (state owned)</li> <li>High-risk rural roads</li> <li>Illumination, signs, and signals</li> <li>Safety</li> </ul>	<ul> <li>Bicycle and/or pedestrian facilities on or off the highway right-of-way</li> <li>Most projects previously eligible for Transportation Enhancement funds</li> </ul>
<ul> <li>Pavement preservation</li> <li>Repairs to bicycle/pedestrian facilities on stateowned routes</li> <li>Rail-highway crossings</li> </ul>	<ul> <li>Bicycle/Pedestrian, Transit (capital only), TDM projects eligible for Flexible Funds (using federal STP and CMAQ funds)</li> <li>Safe Routes to School (infrastructure projects)</li> <li>Transportation Alternatives (new with MAP-21)</li> </ul>

There is now one application for "Enhance" projects – ODOT will determine which funding mechanism is most appropriate for individual projects.

# Application Process

The application process for projects on the 2015-2018 STIP is complete as of this writing, but future STIPs will continue to use this new funding arrangement. "Fix it" projects will be selected through a collaborative process between ODOT and ACTs, while ODOT will determine which funding mechanism is most appropriate for individual "Enhance" projects. It should be noted that this reorganization of funding programs does not represent a fundamental change in the types of projects that will be funded through the STIP.

An additional step the City or local school district could take to improve the likelihood of funding through "Enhance" STIP projects is to complete a *Safe Routes to School Action Plan*. These plans detail specific programmatic actions as well as capital improvements that improve the walking and cycling environment around and between schools. Completing an Action Plan(s) will help those projects near or adjacent to schools receive "Enhance" funding.<sup>2</sup>

#### Oregon State Highway Funds

The major source of funding for transportation capital improvements and activities statewide is the State Highway Fund. The Highway Fund derives its revenue through fuel taxes, weight-mile taxes, and licensing and registration fees. Approximately 40 percent of this Highway Fund is distributed to cities and counties for developing and maintaining transportation facilities. ODOT retains the remaining 60 percent for improving and maintaining the state system. County shares of the Fund are based on the number of vehicle registrations, while the allocations to the cities are based on population. The majority of the funds received by cities and counties are used for maintenance projects.

State funds are distributed by the Oregon Transportation Commission (OTC). Revenues to the fund are comprised of fuel taxes, vehicle registration and title fees, driver's license fees, and the truck weight-mile tax. Of these revenues, approximately 59 percent are retained by the state, 25 percent are distributed to counties and 16 percent are distributed to cities. State funds may be used for construction and maintenance of state and local highways, bridges and roadside rest areas. State law requires that a minimum of 1 percent of all highway funds be used for pedestrian and bicycle projects in any given fiscal year. However, cities and counties receiving state funds may "bank" their pedestrian and bicycle allotment for larger projects.

# Oregon Special Transportation Funds (STF)

ODOT's Public Transit section administers a discretionary grant program (Community Transportation Program) derived from state cigarette tax revenues that provides supplementary support for selected transit-related projects.

# Oregon House Bill 2001 Funds

In 2009, the Oregon Legislature passed a bill (HB 2001) that increased gas taxes and registration fees for the purposes of increasing revenues for transportation projects throughout the state. Included in HB 2001 were specific projects within each ODOT Region; future efforts could be made to include specific transportation projects in Talent.

# Increased State Highway Fund revenues

Gas tax revenue to the State Highway Fund has not kept pace with inflation or demands of the state's transportation system. ODOT is exploring new revenue models to meet state transportation needs, such as a vehicle miles travelled (VMT) tax, which may result in increased

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<sup>&</sup>lt;sup>2</sup> More information about the Safe Routes program and Action Plans can be found at: http://oregonsaferoutes.org/.

funds for state transportation programs in coming years. However, full implementation of any VMT program is expected to take up to 20 years.

#### Other State Sources

# Recreational Trails Program (RTP)

This program is administered by the Oregon Parks and Recreation Department. RTP funding is intended for recreational trail projects, and can be used for acquiring land and easement and building new trails. Grant funds pay up to 80 percent of project costs while project sponsors must match project costs by at least 20 percent. Funding varies greatly from year to year, with about \$1.3 million awarded state-wide in 2011 and \$2.1 million in 2010. Approximately \$1.5 million in state-wide funds are available in 2014.

## ConnectOregon Program

ConnectOregon provides grants and loans for non-highway transportation projects, backed by bonds on state lottery proceeds. \$42 million in bonds were authorized for the most recent biennium. The program funds rail, port/marine, aviation, and transit projects. In addition, the Legislature in 2013 made bicycle and pedestrian projects that are not eligible for State Highway Funds eligible to compete for ConnectOregon funding. If the state legislature makes further authorizations, a number of Talent's transportation projects may be eligible based on funding criteria.<sup>4</sup>

#### Oregon Immediate Opportunity Fund

The Oregon Immediate Opportunity Fund supports economic development in Oregon through construction and improvements of streets and roads. Funds are discretionary and may only be used when other sources of financial support are unavailable or insufficient. The objectives of the Opportunity Fund are providing street or road improvements to influence the location, relocation, or retention of a firm in Oregon, providing procedures and funds for the OTC to respond quickly to economic development opportunities, and providing criteria and procedures for the Oregon Economic and Community Development Department (OECDD), other agencies, local government and the private sector to work with ODOT in providing road improvements needed to ensure specific job development opportunities for Oregon, or to revitalize business or industrial centers.<sup>5</sup>

<sup>&</sup>lt;sup>3</sup> More information about the Recreational Trails Program can be found at http://www.oregon.gov/oprd/grants/Pages/trails.aspx.

<sup>&</sup>lt;sup>4</sup> More information about the ConnectOregon Program can be found at <a href="http://www.oregon.gov/ODOT/TD/TP/pages/connector.aspx">http://www.oregon.gov/ODOT/TD/TP/pages/connector.aspx</a>.

<sup>&</sup>lt;sup>5</sup> More information about the Oregon Immediate Opportunity Fund can be found at <a href="http://www.oregon.gov/ODOT/TD/TP/Plans/IOF.pdf">http://www.oregon.gov/ODOT/TD/TP/Plans/IOF.pdf</a>.

# Oregon Transportation Infrastructure Bank (OTIB)

OTIB is a statewide revolving loan fund available for highway projects on major collectors or higher classifications and bicycle or pedestrian access projects on highway right-of-way. Applications are accepted at any time.<sup>6</sup>

#### Transportation Alternatives-Oregon Bicycle and Pedestrian Program

The Transportation Alternatives-Oregon Bicycle and Pedestrian Program is a combined funding grant supported by federal TAP funds and state Bicycle/Pedestrian grant funds and administered by ODOT on a 2-year funding cycle. In conjunction with MAP-21, ODOT combined these formerly separate solicitations in 2012 as part of the STIP Enhance process. Projects and activities that are eligible for this program include bicycle/pedestrian facilities, scenic beautification, historic preservation, and environmental mitigation.<sup>7</sup>

#### All Roads Transportation Safety Program

The All Roads Transportation Safety Program (ARTS) is a new funding program beginning in 2017 that intends to reduce the instance of fatalities and serious injuries on all public roads statewide. ARTS grant funds are paid by federal HSIP dollars and will be awarded by ODOT on a 4 year cycle. At least half of the funding will be required to be spent on safety improvements to systemically reduce risks along a roadway or corridor. The ARTS program consists of three areas for systemic improvements: Roadway Departure, Intersection, and Pedestrian and Bicycle. Some funding may also be used on safety mitigation measures at locations where there are documented crash risks.

A total of \$166 million is available statewide for the program during this time period, with regional allocations based on the proportion of fatalities and serious injuries occurred within the ODOT Region during the previous five years. Of this amount, a total of \$25.8 million will be available to Region 3 for safety projects, which will follow the STIP Enhance process. A local match of 7.78 percent will be required for projects that spend HSIP funds.<sup>8</sup>

# 1.2.4. Regional Funding Sources

RVMPO, the elected regional government, coordinates the Flexible Funds transportation grant programs, which is distributed to local jurisdictions to help fund transportation projects.

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<sup>&</sup>lt;sup>6</sup> More information about the Oregon Transportation Infrastructure Bank can be found at <a href="http://www.oregon.gov/ODOT/cs/fs/Pages/otib.aspx">http://www.oregon.gov/ODOT/cs/fs/Pages/otib.aspx</a>.

<sup>&</sup>lt;sup>7</sup> For more information about the Transportation Alternatives-Oregon Bicycle and Pedestrian Program, see <a href="http://www.oregon.gov/ODOT/TD/AT/Pages/TE\_OBPAC.aspx">http://www.oregon.gov/ODOT/TD/AT/Pages/TE\_OBPAC.aspx</a>.

<sup>&</sup>lt;sup>8</sup> For more information about the All Roads Transportation Safety Program, see <a href="http://www.oregon.gov/ODOT/HWY/TRAFFIC-ROADWAY/Pages/ARTS.aspx">http://www.oregon.gov/ODOT/HWY/TRAFFIC-ROADWAY/Pages/ARTS.aspx</a>.

#### Flexible Funds

RVMPO manages the allocation of regional flexible funds. These discretionary funds come from two federal funding sources: STP and the Congestion Mitigation/Air Quality program (CMAQ). RVMPO can use these funds for a wide variety of projects, including transit oriented development, active transportation, high capacity transit, transportation system management, and regional planning projects. These projects must include a 10.27 percent non-federal match. The City of Talent did not receive any funds in the latest round of grant awards. Funding is allocated through a competitive process at the MPO level. An estimated \$133 million in STP funds and \$117 million in CMAQ funds will be available to the RVMPO for the duration of the current RTP (2013-2038).

The MPO's Metropolitan Transportation Improvement Program (MTIP) is a 4-year program for highway and transit improvements and is the formal programming mechanism by which funds are committed to specific transportation projects. Included in the MTIP is \$1.7 million a year in STP funds (with half dedicated towards enhancing RVTD service) and \$2.6 million in CMAQ funds awarded annually by RVMPO.

The City of Talent currently has four (4) projects proposed in the 2013-2038 Regional Transportation Plan (RTP) without a committed funding source. Projects are scheduled across short (2013 – 2018), medium (2019 – 2027), and long (2028 – 2038) ranges. Table 1-8 (below) summarize the proposed projects in the 2013 – 2028 RTP.

Table 1-8. Talent Proposed Transportat	tion Projects: 2013-2038 RTP
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Project Number	Location	Description	Timing	Cost <sup>1</sup>
208	Chuck Roberts Park Improvements	Project combined with #208, renamed Central Point & Talent Parking Lot Improvements	Short	TBD
717	Rapp Rd. R/R X-ing to Wagner Creek Rd.	Rebuild and upgrade to urban major collector standard (widen lanes, add bicycle lanes, sidewalks)	Medium	\$2,602,269
720	Helms/Hilltop, Rapp Rd. to Belmont St.	Construct new railroad district collector street	Long	\$5,135,993
722	Rogue River Parkway, OR 99 to Talent Ave.	Construct new street or upgrade existing street to major collector	Long	\$3,851,994

Notes:

Project numbers shown in the left hand column are internal tracking numbers for project identification within the RVMPO. As projects are implemented they are added to the RVMPO programming document, the Metropolitan Transportation Improvement Program (MTIP) and forwarded into ODOT's Statewide Transportation Improvement Program (STIP) for authorization to proceed. At the MTIP-STIP stage, projects receive a programming Key Number,

<sup>1.</sup> These project have been identified as part of the Tier 1 financially-constrained list of projects; however, specific funding is not committed. Source: 2013-2018 Rogue Valley Regional Transportation Plan

which differs from RTP numbers. The key number is useful for tracking projects through implementation.

#### **RVMPO STP-L Funds**

MAP-21 states that 50 percent of the STP funds are to be distributed to areas based on population. The amount RVMPO receives can vary, but since 2005 the amount has been between \$1.2 million and \$1.8 million annually in federal STP-L funds. The RVMPO Policy Committee has the most discretion of these funds within the TIP. A variety of multi-modal projects can be funded with STP funds. Projects must include a 10.27 percent non-federal match.

# Rogue Valley Transportation District

The Rogue Valley Transportation District receives transportation revenues from property taxes, fare box revenues, and bus pass revenues. Nearly all sources of federal and state public transit revenue require a local match, with some grants requiring a 50 percent local match.

# Other Regional Sources

In April 2002 the Land Conservation and Development Commission (LCDC) approved seven Alternative Measures to bring the RVMPO's 2000 Regional Transportation Plan interim update into compliance with the state's Transportation Planning Rule (TPR). The RVMPO developed these measures because modeling of the 2000 RTP showed that the region could expect a 2.5 percent per capita VMT reduction over the 20-year planning period, falling short of the TPR's 5 percent per capita VMT reduction requirement. The Alternative Measures meet requirements for an alternative measure of reduced reliance on the automobile.

Measure 7 is related to project funding, in order to demonstrate the RVMPO's commitment to implementing the alternative transportation projects upon which many of the proposed measures rely. Funds made available to the RVMPO through the Surface Transportation Program (STP) are the only funds over which the RVMPO has complete discretion. RVMPO jurisdictions agreed to direct 50 percent of this revenue stream, historically used for vehicular capacity expansion projects towards alternative transportation projects. STP funds would be used to expand transit service, or, if RVTD is successful with a local funding package, to fund bicycle/pedestrian and TOD-supportive projects. While STP funds cannot be used to directly fund transit operations, the effect of this increased funding will be to free up funding for transit operations.

LCDC required the RVMPO to demonstrate compliance of these measures, in the form of adopted 5-year benchmarks and 20-year targets. RVMPO established benchmarks of \$2.5 million of funding committed to transit or bicycle/pedestrian/TOD projects in 2010 and \$4.3 million in 2015, representing half of the MPO's estimated accumulation of discretionary funding through the STP. The 20-year target is \$6.4 million of funding in 2020.

## Vehicle Registration Fees

Counties can implement a local vehicle registration fee. The fee would be similar to the state vehicle registration fee. A portion of a county's fee could be allocated to local jurisdictions. Jackson County does not currently have a vehicle registration fee.

#### Fare Box Revenues & Bus Pass Revenues

Portions of RVTD's operating funds are received from fare box revenues and bus pass revenues.

# 1.2.5. Alternative Funding Sources

Alternative funding sources for transportation projects made available by non-profit, non-governmental, and the private sector were also reviewed. Table 1-9 below summarizes these alternative funding sources.

Table 1-9.	Alternative	<b>Funding</b>	Sources	Summary

Organization	Program	Description	Award Amount	Eligibility
People For Bikes (NPO)	Community Grants	Provides funding for federally funded projects that build momentum for bicycling in communities across the U.S.	Up to \$10,000	Bike paths, rail trails, mountain bike trails, bike parks, end-of-trip facilities
Cycle Oregon	Community Grants & Signature Grants	Provides funding for environmental conservation, historic preservation, bicycle safety & tourism, and community projects.	Varies; up to \$180,000 per year	Must be a 501(c) 3 or a government agency in Oregon.
Advocacy Alliance	Rapid Response Grants	Provides funding to state and local advocacy organizations to win, increase, or preserve public funding for biking and walking.	Varies; \$1,000 - \$3,000	Eligibility for funding may require additional partnerships

# PeopleForBikes Community Grants Program

The PeopleForBikes (PFB) Community Grant Program provides funding for projects that leverage federal funding that encourage bicycling in communities across the U.S. Eligible projects include bike paths and rail-to-trails projects, as well as a variety of recreational projects, such as mountain bike trails, bike parks, BMX facilities, and large-scale bicycle advocacy initiatives. End-of-tip facilities such as bike racks, bike parking, and bike storage are also eligible projects.

Since 1999, PFB have awarded 272 grants to non-profit organizations and local governments in 49 states and the District of Columbia. Investments total nearly \$2.5 million and have leveraged \$650 million in public and private funding.

PFB accepts grant applications from non-profit organizations with a focus on bicycling, active transportation, or community development, from city or county agencies or departments, and

from state or federal agencies working locally. PFB only funds projects in the United States. Requests must support a specific project or program; grants cannot fund general operating costs. PeopleForBikes focuses most grant funds on bicycle infrastructure projects such as:

PFB will fund engineering and design work, construction costs including materials, labor, and equipment rental, and reasonable volunteer support costs. For advocacy projects, PFB will fund staffing that is directly related to accomplishing the goals of the initiative.

#### **Application Process**

PFB accepts requests for funding of up to \$10,000. A specific percentage match is not required, but agency leverage and funding partnerships are scrutinized very carefully. Grant requests in which Community Grant funding amounts to 50 percent or more of the project budget will not be considered.

The PFB Community Grants Fund places several restrictions on the types of activities that can be funded. Generally speaking, Community Grants Funds are reserved for capital construction costs and cannot be used for planning, outreach, or operational expenses. Certain facilities which are ancillary to actual travel facilities are also restricted, including trailheads, information kiosks, benches, and restroom facilities. Any project in which PBF is the sole or primary funder (constituting greater than 50 percent of the project funding) is strictly prohibited.

PFB generally holds 1-2 open grant cycles every year which are accessible via their online grant application system. A summary of open grant cycles for spring and fall 2015 are provided below in Table 1-10.9

#### **Evaluation Process**

Parties interesting receiving a PBF Community Grant must submit a formal letter of interest and full application to be considered for selection. Interested applicants can submit an online letter of interest through the PFB website. Letters of interest must include basic information about the applying organization, as well as an overview of the project proposed for funding. The PBF Grant Committee will evaluate each application based on the general criteria: project quality, benefits to the community, the applicant's ability to conduct measurement, reasons for project prioritization, and how the project supports diversity (whether geographic or otherwise).

Table 1-10. PeopleForBikes Community Grant Program

Spring 2015 Grant Cycle	
Online application opens:	December 15, 2014
Online Letter of Interest due:	January 30, 2015
Notification of LOI status:	February 27, 2015
Full Application due:	April 3, 2015
Grant award notifications:	by May 31, 2015
Fall 2015 Grant Cycle	
Online application opens:	June 15, 2015
Online Letter of Interest due:	July 31, 2015
Notification of LOI status:	September 4, 2015
Full Application due:	October 9, 2015
Grant award notifications:	by December 4, 2015

Source: PeopleForBikes

<sup>&</sup>lt;sup>9</sup> For additional information about the PeopleForBikes Community Grants Program, visit: http://www.peopleforbikes.org/pages/community-grants.

PFB will subsequently request a full project application from a short list of qualified applicants. Invited organizations will receive access to the online application. Due to a fairly competitive process, PFB are typically only able to fund 10-15 percent of the proposals they receive.

#### Cycle Oregon Fund

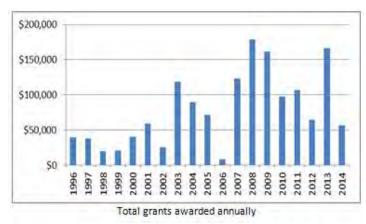
Cycle Oregon is an organized bicycle riding event that raises funds for the Cycle Oregon Fund. The fund was seeded in 1996 by the Oregon Community Foundation, who donated \$300,000 to kick-start the Cycle Oregon Fund.

In 2013 the Cycle Oregon Fund reaching \$2 million. To date, Cycle Oregon has awarded 176 grants totaling \$1,484,064 to various recipients throughout Oregon. Cycle Oregon has two main grant programs: community grants and signature grants. 10

## Community Grants Program

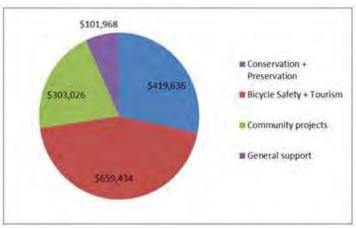
Cycle Oregon's community grants program helps provide support for the communities selected for Cycle Oregon events. Projects fit into one of three categories: environmental conservation and historic preservation, bicycle safety and tourism and community projects.

Figure 1-1. Cycle Oregon Grants Awarded Annually, 1996 -2014



Source: Cycle Oregon (2015)

Figure 1-2. Cycle Oregon Grants Awarded by Category, 1996 -2014



Source: Cycle Oregon (2015)

 $<sup>6. \ ^{10}</sup> For additional information about the Cycle Oregon Fund, visit: \\ \underline{http://cycleoregon.com/cycle-oregon-fund/}$ 

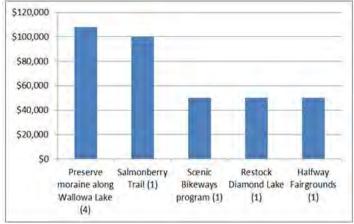
# Signature Grants Program

Cycle Oregon's signature grants are determined by Cycle Oregon's board of directors. Signature grants provide funding to catalyze or conclude community projects with statewide impact.

# Application & Eligibility

To be eligible for a grant, the organization must be a 501(c)3 or a government agency in Oregon. Projects that most fully address community building projects, bicycle tourism and safety, environmental conservation, and historic preservation will be prioritized. Cycle

Figure 1-3. Signature Grants Awarded by Project, 1996 -2014



Source: Cycle Oregon (2015)

Oregon will begin accepting 2015 applications in the fall. 11

#### Advocacy Advance Rapid Response Grants

Advocacy Advance emerged through a partnership between the Alliance for Biking and Walking (ABW) and the League of American Bicyclists (LAB). The Rapid Response Grants program was created through private funders REI and SRAM.

Rapid Response Grants help state and local advocacy organizations take advantage of unexpected opportunities to win, increase, or preserve public funding for biking and walking. These grants, accepted on a rolling basis, are for short-term campaigns that will increase or preserve investments in active transportation in communities where program choices are being made on how to spend federal, state, and local funding. Grants range from \$1,000 to \$3,000. In special cases, staff can decide to give more than the requested maximum of \$3,000 and/or give more money during the campaign to further assist the organization. <sup>12</sup>

# **Eligibility**

Organizations are eligible to apply for a Rapid Response Grant under several conditions. Organizations must be members of the Alliance for Biking & Walking and the League of American Bicyclists (unless the applicant is a walking-only organization) and must be incorporated as a U.S.-based 501(c)(3) or 501(c)(4) organization. Organizations must also be facing an opportunity that is immediate and has a specific timeframe. Campaign proposals must aim to raise additional federal, state, or local funding for biking and walking infrastructure

<sup>&</sup>lt;sup>11</sup> Additional information is available at: <a href="http://cycleoregon.com/cycle-oregon-fund/granting-procedures/">http://cycleoregon.com/cycle-oregon-fund/granting-procedures/</a>

<sup>&</sup>lt;sup>12</sup> For more information about Advocacy Advance grant programs, visit: www.AdvocacyAdvance.org.

and/or programs. Lastly, proposals must comprise a feasible and replicable campaign with measurable results. Based on these eligibility criteria, obtaining funding for City TSP projects may require additional partnerships with local, state, or regional transit authorities and/or bicycle-pedestrian advocacy organizations. Although local governments are not explicitly cited as eligible grant recipients, Rapid Response Grants have been used in the past to fulfill MAP-21 implementation, state transportation funding, and city funding. Other potential proposals can address improvement programs, plans, or campaigns to win funding for facility maintenance.

#### **Application Process**

Organizations whose primary purpose is not advocacy will not be funded. Furthermore, campaigns such as rides, fundraising, or membership programs that are not directed to winning additional public funds for biking and walking projects will not be considered.

Within six weeks of completing the campaign, grantees are required to submit a final report (form will be provided) highlighting the results of the campaign, the amount of funding won, the effectiveness of the grant, best practices learned by the organization, and public relations materials.<sup>13</sup>

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<sup>&</sup>lt;sup>13</sup> To submit a proposal, complete and submit the proposal form (<a href="http://www.advocacyadvance.org/site\_images/content/Rapid\_Response\_Proposal\_Form\_2014.docx">http://www.advocacyadvance.org/site\_images/content/Rapid\_Response\_Proposal\_Form\_2014.docx</a>). Proposals will be reviewed by staff representatives of the Alliance for Biking & Walking and the League of American Bicyclists.

Appendix	В.	<b>Prioritization</b>	Guidelines
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#### **TALENT TSP UPDATE**

#### **Advisory Committee Prioritization Exercise**

- Purpose is to receive your input on the timeframe in which projects will be built and their priority within those timeframes.
- Ultimately, we will develop a prioritized list of projects that categorizes projects into timeframes (short, medium, long), and within each timeframe a relative priority (low, medium, high).
- To guide our discussion, we've developed a list of critical factors. These factors have been developed to relate back to the project goals and evaluation framework developed earlier.

#### Exercise:

- 1. Are the critical factors the right questions we should be asking? Are there any missing? Are there any we should eliminate?
- 2. Use the project list, sorted by mode, and apply the critical factors to each project to sort into 1) timeframe, and 2) priority. Track how much our lists of projects cost as we go.
- 3. Did we get it right? Are there too many projects in the short-term? Too many that are a high priority? Do we want to reshuffle?

Critical factors to guide our prioritization (sorted by higher priority to lower priority): Short-Range (0-5 years):

High

- Is the project designed to correct an existing deficiency, particularly a safety problem? Other deficiencies could be maintenance or operational problems (long traffic queues).
- Does the project benefit a relatively high number of system users (benefits more people)? Projects that are valuable to a small set of land uses at a very local level would be a lower priority than projects that are of value to a greater number of land uses and have more city-wide benefits.
- Is the project needed to provide system continuity and addresses an existing gap or serves a developing area where other urban services are or soon will be provided?
- Is the project relatively low in cost, but high in value?

LOW

 Is the project needed to upgrade to urban standards those collector and arterial streets in already developed areas or in areas expected to develop within five years? Medium-Range (6-15 years):

High

- Is the project designed to correct an existing deficiency, but funding has not yet been identified and is unlikely to be available within the short-term?
- Would the project address a known safety problem, which would result in minor increases in traffic/user volumes?
- Would the project require purchase of right-of-way or would need to complete an environmental assessment? An environmental assessment could be triggered if negative impacts to the built or natural environment are anticipated, or if a lot of controversy exists around the project.
- Does the project support economic development goals?

Low

• Is the project needed to upgrade to urban standards those collector and arterial streets in already developed areas or in areas expected to develop within six to fifteen years?

Long-Range (15+ years)

High

- Is this a project that is aspirational or is a "vision project," and is grand in scope?
- Does the project have a high capital cost for which funding will be unlikely until the later years of the Plan?

Low

• Is this project needed to ensure that urban standards are provided on all the remaining collector and arterial streets within the urban growth boundary?

#### Next Steps:

Your input will be reconciled with the other advisory committee's input, and the PMT's professional judgment. We will seek feedback from the public (in an abbreviated way) during the next public open house. The prioritized list will be part of the draft TSP. Once the TSP is adopted, this list will be re-visited and updated every four years.

# **City of Talent**

# **Transportation System Plan Update**

# **Technical Memorandum #6: Public Outreach Summary**

Prepared for

City of Talent, Oregon 110 East Main Street Talent, Oregon 97540

and

Oregon Department of Transportation Region 3 3500 NW Stewart Parkway Roseburg, Oregon 97470 Prepared by

David Evans and Associates, Inc. 2100 SW River Parkway Portland, Oregon

and

CH2MHILL 2020 SW 4<sup>th</sup> Ave, Suite 300 Portland, OR 97201

June 2015

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Appendix A. Technical Advisory Committee Meeting Materials

Appendix B. Citizen Advisory Committee Meeting Materials

Appendix C. Public Open House Materials

Appendix D. Planning Commission Presentation

#### 6. PUBLIC OUTREACH SUMMARY

The public involvement process for the Talent TSP Update included a technical advisory committee (TAC), a citizen advisory committee (CAC), and general public outreach.

#### 6.1. Technical Advisory Committee

The TAC provided technical and policy guidance and will serve as the primary body making recommendations about the project. The committee was composed of staff from the City of Talent, the Oregon Department of Transportation (ODOT), Jackson County, the Rogue Valley Council of Governments (RVCOG), the Rogue Valley Transit District (RVTD), and the Department of Land Conservation and Development (DLCD).

Four TAC meetings were held during development of the Talent TSP Update. Meetings were held on the following dates:

- 1. November 19, 2013 Topics: Introduction, Goals and Objectives, Transportation System Inventory, Existing and Future Conditions, and Ideas for the Alternatives Analysis
- 2. April 2, 2014 Topics: Alternatives Evaluation
- 3. January 21, 2015 Topics: Additional Alternatives Evaluation, Recommendations, and Prioritization
- 4. May 29, 2015 Topic: Draft TSP

Meeting materials, including agendas and summaries (with presentations) are attached in Appendix A.

# 6.2. Citizen Advisory Committee

The CAC provided stakeholder input and offer recommendations to the TAC. The committee was composed of interested citizens, property owners, business representatives, and other stakeholders as identified by City of Talent staff.

One standalone CAC meeting was held during development of the Talent TSP Update. Members of the CAC were invited to attend the TAC meetings, open houses, and Planning Commission presentation for other input opportunities. The one standalone meeting was held on April 1, 2014 to address the Alternatives Evaluation.

Meeting materials, including the agenda and summary (with presentation) are attached in Appendix B.

#### 6.3. General Public Outreach

General public outreach included web-accessible materials, two public open houses, and presentation before the planning commission.

### 6.3.1. Website

Project documents (technical memoranda and reports) were posted on the City of Talent website on the current planning page (<a href="http://www.cityoftalent.org/Page.asp?NavID=52">http://www.cityoftalent.org/Page.asp?NavID=52</a>) for public access.

### 6.3.2. Public Open Houses

Public open houses were held as informational exchanges where staff and consultant present and explain project information and the general public could provide input and comment on issues and concerns of importance to them.

Two public open houses were held during development of the IAMP 33 Management Plan. Open houses were held on the following dates:

- 1. November 20, 2013 Topics: Introduction, Goals and Objectives, Transportation System Inventory, Existing and Future Conditions, and Ideas for the Alternatives Analysis
- 2. January 21, 2015 Topics: Alternatives Evaluation

Meeting materials, including agendas and summaries (with presentations) are attached in Appendix C.

### 6.3.3. Planning Commission Presentation

The draft TSP was also presented before the Planning Commission on May 28, 2015. Following the presentation, Planning Commissioners asked questions and made comments. The presentation is attached in Appendix D.

### Attachments:

Appendix A. Technical Advisory Committee Meeting Materials

Appendix B. Citizen Advisory Committee Meeting Materials

Appendix C. Public Open House Materials

Appendix D. Planning Commission Presentation

### City of Talent TSP Update Technical & Citizen Advisory Committee

Joint Meeting #1
1:00 PM to 3:00 PM
November 19, 2013

Fire District 5 Training Room 5811 South Pacific Highway Phoenix

### **AGENDA**

Introductions
 Don Morehouse, ODOT
 Zac Moody, City of Talent

- 2. Work Completed
  - Goals and Objectives
  - Transportation System Inventory
  - Existing and Future Conditions

3. Discussion All

- Upcoming Alternatives Analysis
- 4. Next Steps
  - Schedule
  - Upcoming meetings

Jennifer Danziger, DEA Kate Lyman, CH2M HILL

Jennifer Danziger, DEA Kate Lyman, CH2M HILL

Filename: TalentTSP TAC1 Agenda 111913.docx

### Talent TSP Update

Technical Advisory Committee and Citizen Advisory Committee Joint Meeting #1

November 19, 2013 1:00 PM – 2:30 PM Jackson County Fire District #5 (5811 South Pacific Highway, Phoenix)

### ATTENDEES:

Technical Advisory	Citizen's Advisory Committee	Consultant Staff
Committee		
Dan Moore, RVCOG	Sherman Lamb	Jennifer Danziger, DEA
Josh Lebombard, DLCD	Charlie Hamilton	Kate Lyman, CH2M HILL
William Fitzgerald, ODOT	Eric Heesacker	Jordan Henderson, DEA
Mike Kuntz, Jackson County		Reza Farhoodi, CH2M HILL
Paige Townsend, RVTD		
Don Morehouse, ODOT		
Ian Horlacher, ODOT		
Zac Moody, City of Talent		

### **ACTION ITEMS**

- ✓ TAC and CAC members will submit comments on Technical Memos 1, 2, and 3 to Zac or Don by Friday, December 6, 2013.
- ✓ William will send crash data to Jennifer.

### SUMMARY OF DISCUSSION BY AGENDA ITEM

### Purpose

 Jennifer explained the purpose of the project and described a flow chart of the planning process including public involvement. She explained that the planning area for the TSP update includes land within the UGB, but that connections to the urban reserve areas (particularly TA 4 and 5) would also be considered.

### Goals, Objectives, and Policies

- Kate explained that because this is a TSP update, the only revisions to the goals, objectives, and policies that are proposed are there because of the need to comply with regional and state policies that have been adopted since 2007.
- Comments on the goals, objectives, and policies:
  - o Change the term "performance goals" to "performance measures"
  - o Add a reference to the Regional Freight Plan

### System Inventory Update

- Jennifer and Kate presented an overview of existing roadways, bicycle and pedestrian facilities, and transit services and facilities.
- Comments/questions on the system inventory update:
  - o The urban renewal project to reconstruct Valley View Road should be included on the map or at least included in the future conditions analysis.
  - o Do the urban standards include landscaping?
  - o We will address the City's street standards as we develop the streets modal plan for the TSP.
  - o The OR 99 Corridor Study has already addressed the need for bicycle facilities along OR 99.
  - o There is one park-and-ride in Talent. It is located at City Hall and has 2 or 3 spaces.
  - o RVTD is currently pursuing two separate studies for high capacity transit in the Rogue Valley. One study is focused on a potential alignment for Bus Rapid Transit. Another study is focused on the feasibility of developing commuter rail along the existing rail corridor.
  - o The Talent Depot was upgraded using Federal Transit Administration funds and is expected to be a hub for future high capacity transit in Talent.
  - o RVTD has a Long-Range Plan that was followed up by a Strategic Business Plan. It includes two tiers of transit improvements for Talent. Tier 2 includes a circulator.
  - o Due to requirements in the Americans with Disabilities Act, RVTD cannot improve transit stops without sidewalks being installed. RVTD would be very supportive of additional sidewalks being installed in Talent, and would be willing to move transit stops a short distance if they could be placed on a sidewalk.
  - o RVTD's Route #10 will be detoured for 2-3 years while the Valley View Road project is being constructed.
  - o The Central Oregon and Pacific (CORP) rail line has received a TIGER grant to upgrade the tunnel that travels through the Siskiyous.

### Transportation System Operations

- Jennifer described existing traffic and safety conditions in Talent.
  - o TAC and CAC members agreed with the results of the assessment there is little perceivable traffic congestion in Talent.
- Comments/questions on the system operations analysis:
  - o What was the assumption for the Wal-Mart property?
    - Development on the site was removed from the base year (2006) land use assumptions, but retained as retail or service employment for the future conditions analysis as a stand-in for another land use. Retail land uses typically generate more trips than other types of employment, so

- this was a way to perform a conservative estimate of future traffic conditions.
- o Does the RVMPO forecasting model need to be revised to consider the capacity reduction with the Rapp to Creel Road diet?
  - DEA requested model runs with the reduced capacity and the volume forecasts were more or less unchanged. OR 99 is not capacityconstrained under future conditions, even with the lane reductions; therefore, none of the traffic diverted over to I-5.
- o Will the multi-modal level of service (MMLOS) be conducted on Talent Avenue?
  - The consultant scope of work is limited to OR 99 only.
- o In the MMLOS assessment, what is the minimum width of bike lanes that is considered acceptable?
  - There isn't a set minimum but the desirable width is 6 feet (unless other buffers are present). Bike lanes as narrow as 4 feet can be functional but anything less than 4 feet cannot really be considered a bike lane.
- There are many obstructions, such as power poles, in the middle of existing sidewalks – this decreases their usability.
- o William will send crash data to Jennifer; he did not think the safety analysis included all available information.
- o The speed limit on OR 99 south of Rapp Road changed from 45 mph to 40 mph.
  - Consultant will check with ODOT regarding current speeds on OR 99.
- o How will the safety analysis inform the development of the TSP?
  - We will look at the types of crashes that have been happening to see if there are any patterns. If the types of crashes are such that they can be lessened with geometric changes or signal timing changes, we will include those in the TSP.
- o The forecast population for Talent (~9000 in 2038) seems optimistic.
- o The project needs to include the West Valley View improvements in the future conditions analysis.
- o Will we look at cycle tracks or protected bicycle lanes here?
  - We could do so; that will be part of the project's next steps.

### Discussion of Next Steps

- Paige stated that RVTD would like the city of Talent to develop a concept of the transit circulator route and stop locations. It is assumed to serve the neighborhoods.
- The next TAC and CAC meetings will be in February.
  - o The TAC will continue to meet at the fire district.
  - o The CAC will likely meet at City Hall. CAC members were okay with a meeting tie that is later in the day.

• CAC and TAC members are asked to submit comments on Technical Memos 1, 2, and 3 to Don or Zac by Friday, December 6<sup>th</sup>.

Attachments: Sign-In Sheet PowerPoint Presentation

### Talent TSP Update Joint TACE CAC Meeting November 19, 2013

Name Organization Kafe Lyman Reza Farhood: CHIM HILL City of Talert ZACMOODU RUCOG JOSH LEBOMBARD Duco Cherre HAMILTON ERIC HEEGELER THEFAIT PLAN COMM. Jackson County WILLIAM FITZGERAUD opot Don Moretouse Jordan Henderson DEA Ian Horlacher ODOT Paige Townsend RUTD Jennifer Danziger DEA





### City of Talent

# Fransportation System Plan (TSP) Update

Technical & Citizen Advisory Committees Joint Meeting #1 – November 19, 2013





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### Project Purpose



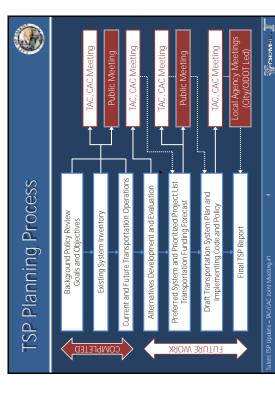
- Achieve consistency with the recently-adopted 2013-Organization's 2013-2038 Regional Transportation 2038 Rogue Valley Metropolitan Planning Plan (RTP)
- Administrative Rule 660-012, which is also known as Continue to fulfill requirements in Oregon the Transportation Planning Rule (TPR)

## Presentation Topics



- 1. Project Overview
  - Purpose
- Goals & Objectives
- 2. Work Completed
- Transportation System Inventory
  - Existing and Future Conditions
- 3. Next Steps

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# Fublic Involvement Process Fechnical Advisory Committee (TAC): Provides bething and policy guidance and will serve as the primary body making from the project commendations and personal and explain project informational and explain project commendations and the general public and comment on issues and comment on issues and composed primary of local jurisdiction Talent TSP Update Local Agency Meetings: Provides additional three (CAC): Provides salesholder input and offer additional opportunities for clusen and business representatives, and other stakeholders. Local Agency Meetings: Provides additional process (These will be led by local jurisdiction salf and 0001)







## Proposed Revisions to Existing Goals



Category	Proposed changes
Transportation system management	Transportation -New policy #1 to focus on integrating technology with existing system infrastructure consistent with regional ITS plan management
Parking	- New Policy #4 for creation of a parking management plan
Bicycle/ Pedestrian	- Augment existing policies to reference human health
alent TSP Update - TAC/CAC Joint Meeting #1	Loint Meeting #1 9 9 Meeting #1









- Pedestrian
- Public Transportation

- Pipeline
- Additional Resources
- Environmental and Land Use Reconnaissance
  - Socioeconomic and Environmental Justice



### Proposed New Goal



## Proposed new Goal for freight

transportation system to facilitate economic development in the Objective: The City of Talent will build and maintain the

- prioritizing projects.
- Policy 2: The City supports projects serving commercial, industrial, and network impedes freight-generating development.
- Policy 3: The City plans for enhanced train-truck-transit interface for the movement of goods and people.



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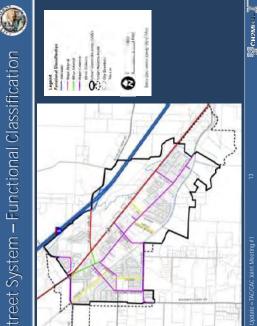
### Street System

- Block-by-block review of facilities
- Focus on major roadways based on functional classification from existing TSP
- Major Collector (gather traffic from neighborhoods but also serve abutting lands, particularly commercial uses)
- neighborhoods)
- Some additional data collected for local streets





# Street System - Functional Classification



## Pedestrian System

Pedestrian facilities include:

- Most newer subdivisions have complete sidewalk systems System varies around city
  - Older neighborhoods often lack adequate facilities
- New sidewalks as part of arterial/collector street projects

Actively building sidewalks since the 2007 TSP

- Sidewalks added along street segments where none existed Second sidewalk constructed where only one side
  - previously

## Roadway Deficiencies



- Identifies roadways with "Poor" or "Very Poor" conditions
  - Only one major collector (Belmont Road) on list
- Everything else is local
- Only identified for arterial and
  - Grouped by type of deficiency.
    - No pavementNo curb and gutterNo sidewalk
- Many streets are improved on one side but not the other







## Pedestrian System Needs



**Bicycle System** 

## Major Street segments without ANY sidewalks

Street Name	From	To
Arterial Streets		
OR 99	Rapp Rd.	UGB
Collector Streets		
Belmont Rd.	Talent Ave.	End
Colver Rd.	Front St.	UGB
Front St.	900 ft. north of Main St.	Colver Rd.
Main St.	Front St.	Wagner Creek Rd.
Rapp Rd.	Graham Way	Wagner Creek Rd.
Rogue River Pkwy.	Talent Ave.	North End
Rogue River Pkwy.	Talent Ave.	South End
Talent Ave.	Creel Rd.	UGB

- On-street bicycle facilities are present in many centrally-

located areas

Actively adding bike lanes since the 2007 TSP

Bicycle facilities include:

Bike lanes

- Continuing to create a more cohesive bicycle network in

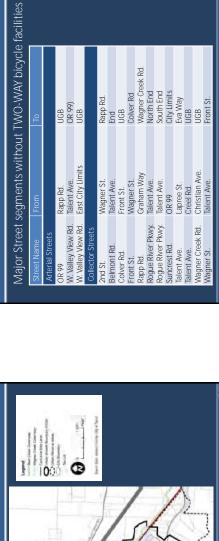


### **Е**СН2МНІІ

**Bicycle System** 

Bicycle System Needs





Wagner Creek Rd. North End

South End City Limits Eva Way UGB UGB Front St.

Rapp Rd. End UGB Colver Rd

UGB OR 99) UGB

## Public Transportation



- Rogue Valley Transportation District (RVTD) Route 10 passes through Talent along Talent Avenue
- ervice is provided Monday through Friday with limited Saturday servic
- Vallev Lift
- RVTD provides curb-to-curb service for people who are unable to use regular lift equipped bus because of a disability.
- Vranci int
- Non-emergency medical transportatio
- Taxi Service
- Available to the Talent area
- Intercity Bus Service
- No commercial bus service available in Talent
- ne closest Greyhound stop is located at OR 99/South Valley View Ro

ISP Update - TAC/CAC Joint Meeting #1

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## Transit System Deficiencies

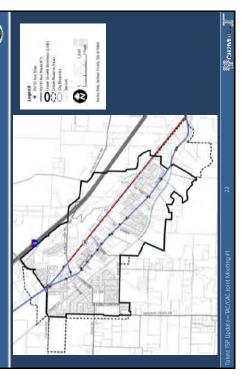
- More frequent Saturday service
- Sunday service
- Bus stop amenities

Amenity	Number of stops with amenity	% of stops with amenity (total # of bus stops = 24)
Shelter	9	25%
Sidewalks	13	54%
Lighting	00	33%
Schedule Information	0	%0
Seating	വ	21%
Loading Pad	13	54%
Bike Parking	24	100%

SP Update - TAC/CAC Joint Meeting #1

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### Transit System



### Other Travel Modes

- Air: Update since 2007
- 300,000 passengers at Medford Airport in 2010
  - Forecast to grow to up to 600,000 by 2030
- Rail: Update since 2007
- No trains running south of Medford on the Central
   Oregon and Pacific line
- Water & Pipeline: No updates since 2007

alent TSP Update – TAC/CAC Joint Meeting #1

Пснамн

# Transportation System Operations

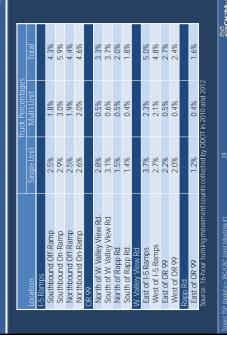


- Traffic Volumes
- Freight Demand
- Intersection Operations
- Multimodal Analysis
- Safety
- Future Conditions (Year 2038)
- Traffic Volumes
- Intersection Operations
- Multimodal Analysis



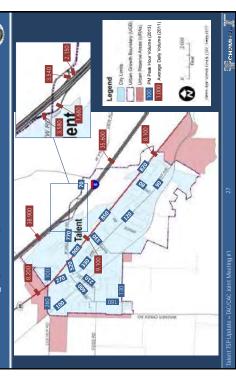






## Existing (2013) Traffic Volumes

Truck Traffic



### Traffic Volumes



- Available for state highways (OR 99, 1-5)

Turning movement counts

Collected at 18 intersections

• 4 intersections on OR 99 in 2010

12 local intersections in 2012

Volumes adjusted for seasonal variation

- 2010 volumes adjusted for Walmart closure

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## Intersection Operations

Existing (2013) Intersection Operations



- Volume/Capacity Ratio
- Volume = Traffic Demand
   Capacity = Maximum Throughput
- Level of Service A through F based on delay

PM Peak Hour Overall V/C
Rato at Signalized Intersection
PM Peak Hour Critical V/C Rat
at Unsignalized Intersections

City Limits

Level of Service A, B, C Level of Service D

Level of Service E, F Level of Service D

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- Performance Standards
- State mobility targets:
- V/C Ratio <= 0.95 for OR 99</li>
   V/C Ratio <= 0.85 for I-5</li>





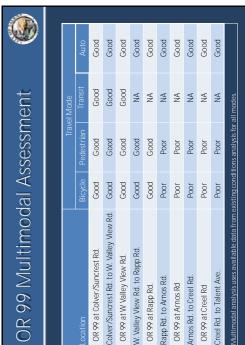


## Multimodal Analysis

- Qualitative assessment of all modes accounting for the impact
- routes and frequencies, general conditions, and other factors vehicular travel speeds, volumes, operations, access, transit Rankings based on available facilities and their widths, that influence level of service for each mode
- Bicycle, pedestrian, and transit conditions are largely influenced by adjacent modes
- Vehicular performance is primarily rated based on vehicular-



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### Safety Analysis

- Crash History
- 5-year Period (1/1/2007 12/31/2011)
  - - 46 at intersections
- 31 along roadway segments
  0 resulted in fatalities or serious injuries
- Highest number of crashes
- OR 99 at West Valley View Rd (13 crashes)
  - OR 99 at Arnos Rd (6 crashes)
    OR 99 at Creel Rd (5 crashes)

- OR 99 at Rapp Rd (4 crashes)
   OR 99 at Colver/Suncrest Rd (4 crashes)
- Safety Priority Index System
- No locations identified in worst 10%



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## Future Traffic Volumes

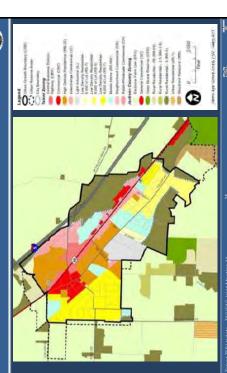


- **Future Land Use**
- Year 2060 estimated at 11,300

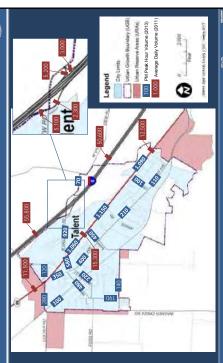
- Based on Rogue Valley Metropolitan Planning Organization (RVMPO)
- Long-range growth forecasts are consistent with current land use zoning

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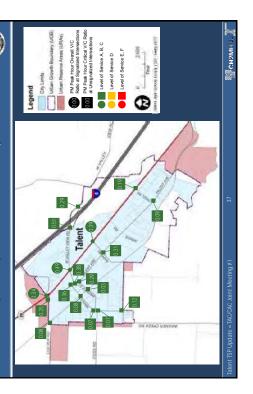
## Zoning Designations



## Future (2038) Traffic Volumes



# Future (2038) Intersection Operations







- Alternatives Analysis

- Improvements to address deficiencies
   Continue to upgade to urban standards
   Improve sidewalk and bicycle system
   Network extensions to serve future development
   Key connections within the existing Urban Growth Boundary
   Future extensions to serve Urban Reserve Areas

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## OR 99 Future Multimodal Conditions

Location	Bicycle	Pedestrian	Transit	Auto
OR 99 at Colver/Suncrest Rd.	Cood	Good	Good	Cood
Colver/Suncrest Rd. to W. Valley View Rd.	Cood	Good	000d	Cood
OR 99 at W Valley View Rd.	Cood	Good	Good	Cood
W. Valley View Rd. to Rapp Rd.	Cood	Cood	NA	Cood
OR 99 at Rapp Rd.	Cood	Good	NA	Cood
Rapp Rd. to Arnos Rd.	Fair	Good	NA	Cood
OR 99 at Arnos Rd	Cood	Cood	NA	Good
Arnos Rd. to Creel Rd.	Fair	Cood	NA	Cood
OR 99 at Creel Rd	Cood	Cood	NA	Cood
Creel Rd. to Talent Ave.	Poor	Poor	NA	Cood
Multimodal analysis uses available data from existing conditions analysis for all modes.	istina condi	tions analysis for	all modes.	

**Песнична** 

### **City of Talent TSP Update Technical Advisory Committee**

Meeting #2
9:30 AM to 11:30 AM
April 2, 2014
Medford Public Library

### **AGENDA**

Filename: TalentTSP TAC2 Agenda 040214

• Upcoming meetings

### Talent TSP Update

Technical Advisory Committee #2

April 14, 2014 9:30 AM – 11:30 AM Medford Public Library

### ATTENDEES:

Technical Advisory Committee	Consultant Staff
Dan Moore, RVCOG	Jennifer Danziger, DEA
Josh Lebombard, DLCD	Sumi Malik, CH2M HILL
William Fitzgerald, ODOT	
Mike Kuntz, Jackson County	
Paige Townsend, RVTD	
Don Morehouse, ODOT	
Zac Moody, City of Talent	

### **ACTION ITEMS**

- ✓ The TAC requested seeing a 3-lane cross-section for West Valley View.
- ✓ The project team asked the TAC to review transit alternatives in the memo and provide feedback.

### SUMMARY OF DISCUSSION BY AGENDA ITEM

### Purpose

• Jennifer explained that we are presenting proposed projects, both carried over from the existing TSP and new proposed projects. Projects and alternatives for each project were also put through an evaluation framework, which will also be presented. Proposed projects include roadway, bicycle, pedestrian, and transit. The purpose of the meeting is to seek feedback on the proposed projects. These meeting notes focus on documenting feedback received.

### Proposed Roadway Projects

- Jennifer explained those projects from the prior TSP that would carry over and new proposed projects. She then presented potential new or revised projects for the TSP update.
- Comments on the projects related to West Valley View Road:
  - o What is the annual daily traffic (ADT) is? Response: About 9,000 vehicles based on RVCOG's data. The IAMP process will propose modifications to the land uses, and anticipates and intensification of land uses.
  - o Why would ODOT recommend encourage more access, which is typically not what they do (by assuming intensification of land uses)? Response: The IAMP analysis includes a build-out analysis with existing zoning as part of the scope. It does not include any changes to zoning, only an examination of what type of traffic volumes could be

TAC Meeting #2

- developed if some of the vacant or underutilized lands were fully developed beyond what is already assumed for growth in the forecasting model.
- o **It doesn't seem like a 5-**lane cross section is needed given the ADT, and a 3-lane cross-section seems adequate.
- o How would such a 5-lane cross section be funded? Right-of-way, would need to be acquired, and no funding is allocated at this point.
- o The IAMP project is assuming West Valley View would have a 3-lane cross section, why isn't the TSP Update? Response: This idea was initially considered for the TSP alternatives analysis but ODOT had expressed extreme concern about presenting any lane reduction as part of the TSP. Since the draft tech memo was published, ODOT has acknowledged that West Valley View Road is a city facility and that options that include a 3-lane cross section would be up to the City of Talent to pursue.
- o TAC would like to see a 3-lane cross section concept developed for West Valley View Road for safety reasons. Response: The project team will revisit the 3-lane cross-section that would add a center turn lane as a safety improvement and have improvements for bicycles and pedestrians.
- o Why would "hole in the air" for freight apply to a City facility? Response: While the roadway is not ODOT jurisdiction, it is between two state facilities. It is possible that West Valley View may be subject to hole in the air requirements and freight clearances.
- Comments on the projects related to other street improvement projects:
  - S-2 Improve Rapp Road Railroad Crossing: Consider elevating Rapp Road to a collector standard. Response: Rapp Road is a collector street and the city has projects to upgrade the road to standard.
  - o S-3: Conceptual Street Network for Urban Reserve Area TA-4, Option B: consider a road north of the fire station with full access.
  - o A TGM grant will address TA-4; find out what is being considered as part of that process.
  - Consider eliminating the collector option and building something that is sufficient for industrial uses, without on-street parking. Collectors do require sidewalks and bike lanes, but are not mandated to provide on-street parking.
  - o S-4: Conceptual Street Network for Urban Reserve Areas TA-5: TAC commented consider a trail for bike/ped connections, and maybe not a road.

### Bicycle and Pedestrian

- Sumi Malik provided an overview of proposed bicycle and pedestrian projects, including those that carried over from the prior TSP.
- Talent Avenue:
  - o Talent Avenue currently has a 5-foot bike lane, but a gap where the bike lane does not continue. Talent Avenue has on-street parking. One option is to continue bike-lanes in each direction, but that would require the removal of on-street parking. For context, the Central Business District (CBD) does not require off-street parking in conjunction with development, so this shifts the burden of accommodating parking to the street system. A parking minimum and maximum already exists, and parking cannot exceed the

TAC Meeting #2 2 of 3

maximum by 10% without a variance. Parking will be a component of the TSP, but we will not have a full parking study. City staff observed that Talent Avenue parking is full, and it would be difficult to remove parking because adjacent businesses could see that as a loss. The Transportation Planning Rule does require a 10% reduction in parking in the Metro area. Removing parking and putting in full bike lanes would be preferable, but the experimental advisory lanes may be worth looking into further. Could a bike lane be striped on one side only, and parking removed on one side only?

o Wagner Creek Trail has been envisioned as a natural, unpaved trail, but City staff also see a need for a bicycle connection. Paved trail should be planned as a connection to the Bear Creek Greenway.

### Transit

• The team ran out of time to present transit alternatives, and requested the TAC to read through the memo and provide feedback.

Attachments
PowerPoint Presentation

TAC Meeting #2 3 of 3



### City of Talent

Fransportation System Plan (TSP) Update

Technical Advisory Committee Meeting #2 - April 2, 2014





Megon Department of Transportation

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### Project Purpose



- Achieve consistency with the recently-adopted 2013-Organization's 2013-2038 Regional Transportation 2038 Rogue Valley Metropolitan Planning Plan (RTP)
- Administrative Rule 660-012, which is also known as Continue to fulfill requirements in Oregon the Transportation Planning Rule (TPR)

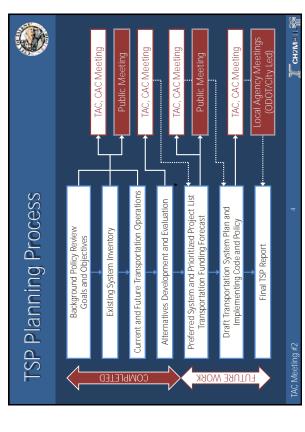
## Presentation Topics



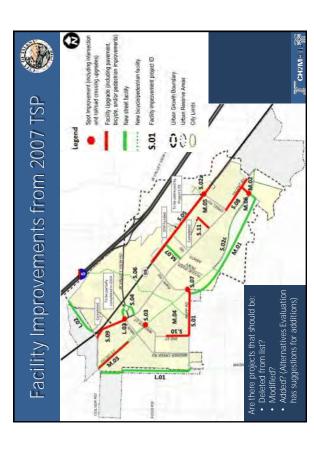
- 1. Process
- Project Purpose

## 2. Alternatives Evaluation

- Review of Existing Plan Projects Project Alternatives by Mode
  - - Evaluation of the Projects
- 3. Next Steps







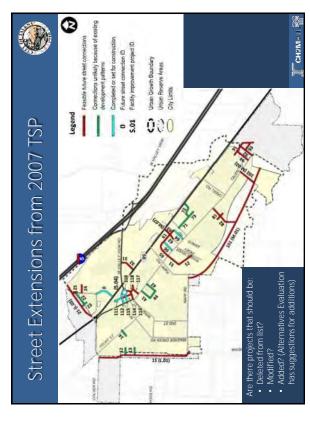
## Existing Plan Projects



- Projects from the 2007 TSP Update
- Transportation Facility Improvements Chapter 7
  - ocal Street System Enhancements Chapte
- Projects from Other Planning Documents
  - Railroad District Master Plan (2005)
- West Valley View Vision Master Plan (2006)
  - arks Master Plan (2006)
- Wagner Creek Greenway Connection Plan (2007)2013-2038 RVMPO Regional Transportation Plan
- gon 99 Corridor Plaı
- Rogue Valley Transit District Ten-Year Long-Term Plan
- Project in Capital Plans
- 008-2013 Capital Improvement Pla
- 2012-2015 RVMPO Metropolitan Transportation Improvement Progr
- 2012-2015 Oregon Statewide Transportation Improvement Program

TAC Meeting #2

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### Other Plans



- Some include projects we may want to consider adding to TSP:
- Alpine Trail: 545 feet, connecting Alpine Way to the Bear Creek Greenway. On-street and off-street trail.
- Creel Trail: 552 feet, connecting Creel Rd. to the Bear Creek Greenway. On-street and off-street trail with highway crossings.
- Arnos Trail: 797 feet, connecting Arnos St. to the Bear Creek Greenway. On-street and off-street trail with highway crossings.

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## Evaluation Criteria



- Safety
- Connectivity
- Traffic OperationsEconomic Development
- Livability
- Cost Effectiveness
- Community Support
- Criteria are relative and not absolute

leeting #2

## Alternatives Evaluation



- New Transportation Projects for Consideration
  - Street Facility Projects
- Bicycle and/or Pedestrian Facility Projects
- Iransit

## Projects identified to meet TSP Goals

General Transportation Goal: To provide a <u>safe and efficient</u> transportation system that reduces energy requirements, regional air contaminants and public costs and <u>provides for the</u> needs of those not able or wishing to drive automobiles.



## **Evaluation Framework**



Addresses known safety issues for all modes

- Project addresses known safety source for all modes

- Project addresses known safety concerns such as a high crash area, potential area of high conflict, or an area of community concern.

- Project addresses bicycle and pedestrian safety
- Project addresses known safety or user comfort issues within ½ mile of an existing or planned school or a designated safe route to school.

- Project provides and redundant access for emergency service ornectivity
- Project provides network redundancy, which is helpful for emergency response.
- Promotes safe and convenient bicycle and pedestrian reduation within, to, and from Talent ornectivity
- Project provides a new, safer alternative to an existing bicycle or pedestrian route.
- Project provides a new, safer alternative to an existing bicycle or pedestrian route.
- Project provides a new, safer alternative to an existing bicycle or pedestrian route.
- Project movides a new, safer alternative to an existing bicycles, freight and transit connectivity
- Project increases network connectivity for all modes
- Project increases network connectivity for all modes
- Project increases network connectivity for all modes
- Project increases or accessibility to transit
- Project increases connections to transit for all modes
- Project increases connections to transit for all modes
- Project increases connections to transit for all modes

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## Evaluation Framework



Goal	Criteria	ia
	Addre	Addresses Traffic Congestion
Traffin	•	Project meets volume-to-capacity (v/c) ratio criteria for study area intersections and roadway
all lc		segments.
Operations		Project provides adequate level of service (LOS) at intersections and roadway segments.
	•	Project does not create unsafe queuing that could lead to safety concerns.
Economic		Facilitate economic growth by considering the needs of freight
		Project provides freight access where local or regional freight mobility is needed.
Developine		Project supports local industrial development.
Fromomic		Provide adequate parking to support a vibrant community
Development		Project increases on-street parking in the central business district to accommodate existing
		and future demand
	Minin	Minimizes land use impacts
Livability		Project minimizes right-of-way acquisition and if acquisition is required, acquisitions would
		lesuit iii usabie remaindel property.
	•	Project preserves open space and minimizes impacts to existing and planned development.
Livability		Promotes fair distribution of benefits and adverse impacts to different populations
	•	Project minimizes harm to low income and minority populations or benefits these
	0	populations by providing better transportation access or mobility
Livability		Minimizes impacts to natural resources, environmentally sensitive habitats and threatened or
	endar	endangered species
	•	Project minimizes potential impact to environmentally sensitive habitats and threatened and
	Ф	endangered species.
TAC Maeting #2	C# DI	13

# New Street Alternatives for Consideration



S-1: Add Center Refuge Lane on W. Valley View Road

S-2: Improve Rapp Road Railroad Crossing

Option A: Realign Crossing to Connect with New Industrial Road
Option B: Realign Crossing and E. Rapp Road
Option C: Realign Crossing and W. Rapp Road

- Option D. Maintain Existing Crossing but Realign W. Rapp Road

S-3: Identify Conceptual Street Network for Urban Reserve

Option A: One New Connection to OR 99

- Option B: No New Connection to OR 99

S-4: Identify Conceptual Street Network for Urban Reserve

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## **Evaluation Framework**



CH2M+II 💒 Project aligns with current funding opportunities
 Project is potentially eligible for funding from known federal, state, regional or local sources based on funding criteria Note: This criterion will take into account feedback received during community outreach efforts Addresses a known safety issue of moderate concern or the proposed project will provide moderate Fully addresses a known safety issue or has high potential to greatly increase transportation safety Project costs over its life cycle are acceptable given a qualitative assessment of benefits Project does not address a known safety issue or transportation safety Project addresses documented community concerns Maximizes benefits for project cost

 Project considers low-cost alternatives Project reduces transportation safety Aligns with community goals provided by the project Sample Rating Criteria - Safety transportation safety benefits • •

# S-1: Add Center Lane on W. Valley View Road



- Widen on south side where existing development is limited
- Estimated cost \$500,000-\$600,000 excluding ROW acquisition



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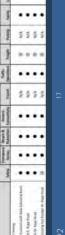
## S-2: Improve Rapp Road Railroad Crossing



- Adds new industrial street
- Reduces traffic for
- Difficult to fully extend to OR 99 which limits benefit







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## S-2: Improve Rapp Road Railroad Crossing



- \$500,000 for new rail crossing acquisition



### Keeps E. Rapp Rd. open to Adds new industrial street S-2: Improve Rapp Road Railroad Crossing







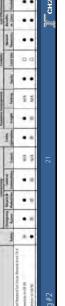
Traffic control options could include a roundabout but must allow continuous flow across the railroad



## S-3: Identify Conceptual Street Network



- intersecting OR 99
- Would need to modify
- Reduced speed on OR 99 desirable with development (40-45 mph)
- - Could connsider adding center lane on Colver Rd



### S-4: Identify Conceptual Street Network for Urban Reserve Area T-5



- Builds on Suncrest Rd.
- desirable with development (40-45 mph)
- Adds local connection to Willow Springs Dr.
- Adds one local street
  - ij 0.0 • • W 40 . 6 . 3.5 . 6

.





Could consider adding



### S-4: Identify Conceptual Street Network for Urban Reserve Area T-5



- Builds on Suncrest Rd. direct Adds local street parallel to alignment from 2007 TSP
- but others are possible
- Could extend local street to permitted



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### New Bicycle and Pedestrian Alternatives for Consideration



- 3P-2: Talent Avenue Downtown Connectivity Improvements
- BP-3: W. Valley View Road Multi-Use Path
- BP-4: W. Valley View/OR 99 Intersection At-Grade Improvements
- BP-5: Complete Priority Sidewalk Network
- BP-6: Bear Creek Greenway Upgrade to Statewide MUP Standards
- BP-7: W. Valley View Paved Shoulder East of I-5
- BP-8: Bear Creek Greenway Realignment at Suncrest Road

Meeting #2

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# BP-1: Bikeway Priority Network



- Potential Type 2 Bikeways in Talent include OR 99, Talent
  Avenue, Main Street, Wagner Street, Rapp Road, Suncrest
  Road/Colver Road, Wagner Creek Road, Arnos Road, and Creel
  Road. All of these arterials and collectors have bike lanes either
  existing or proposed along their entire length
- Future collector streets proposed near the Railroad District and in north and west Talent would be classified as Type 2 routes

2 27 Z7 ZH

# BP-1: Bikeway Priority Network



- Type 1 Bikeways. These regional facilities would form the spine of the network, consisting of high-quality, high-priority routes that provide direct, relatively unimpeded access between local and regional area destinations.
- Potential Type 1 Bikeways in Talent may include the Bear Creek Greenway and potential future connections to OR 99, proposed Wagner Creek Greenway south of W. Valley View Road, and a possible multi-use path on W. Valley View Road, connecting the Bear Creek Greenway with downtown Talent.

IAC Meeting #2

26



# BP-1: Bikeway Priority Network



- Type 3 Bikeways. These neighborhood routes would be located mostly on calm residential streets with low traffic volumes and speeds.
- Provide safe, comfortable, low-stress access to short-distance destinations, in neighborhoods, individuals of all bicycling confidence levels and families of all ages.
- Bicycle-specific infrastructure would consist of painted sharrow markings and signage to provide wayfinding.
   Sharrows can also help suggest proper placement for bicyclists along the street and alert motorists that bicycling traffic may be present.

: Meetina #2

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# BP-1: Bikeway Priority Network



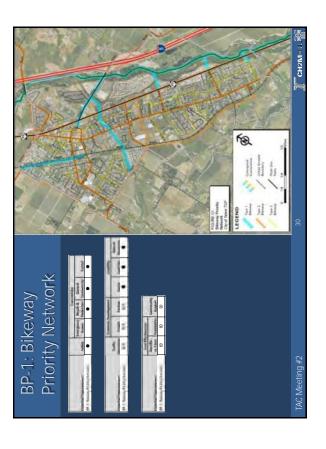
Potential Type 3 Bikeways in Talent include most continuous neighborhood streets, such as 2nd Street and Schoolhouse Road in west Talent, Lithia Way in south Talent, and Gibson Avenue/Lapree Street/Market Street in north Talent. Future neighborhood street connections in the Railroad District and between Talent Avenue and OR 99 south of Rapp Road could also be designated as Type 3 routes.

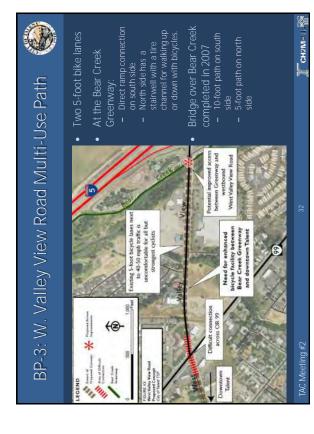
### BP-2: Talent Avenue Downtown Connectivity Improvements

- Option A: Modifications to On-Street Parking
- Option B: Lane Striping Modifications
- Option C:
  Advisory Bike
  Lanes



CHZM+II





# BP-3: W. Valley View Road Multi-Use Path



- Located along south side of W. Valley View Rd. either as a standalone facility or as an extension of the south sidewalk
- Path would be constructed from the west end of the Bear Creek Bridge to the location of the new roundabout in downtown Talent, allowing for convenient, stair-free connection between the path and the grade-separated Bear Creek Greenway.

Veeting#2 33 **∭\_cH2M+**L1.**∰** 

### BP-4: W. Valley View/OR 99 Intersection At-Grade Improvements

- Option A: Bicycle Signal
- The bicycle signal would be tied to the existing signal, similar to a pedestrian phase
- Once activated the westbound right-turn traffic would be stopped to



# BP-3: W. Valley View Road Multi-Use Path



## Three crossing options at OR 99:

- Overcrossing
- Spiral ramps connecting to a structure that crosses over the highway with sufficient clearance for all traffic on OR 99.
  - Spiral ramps may discourage use of the facility
- Jndercrossing
- Preferred grade-separated option here because it would require less of grade change than the overcrossing
- At-grade crossing:
- Two-way crossing along the south crosswalk with bicycle signals that would temporally segregate path users from conflicting movements.



### BP-4: W. Valley View/OR 99 Intersection At-Grade Improvements



- Ontion R. Rika Rox
- Bike box at front of the right-turn lane
- Westbound right-turn-on-red movements would be prohibited
- Only addresses conflict when traffic is stopped at red light; conflict would still be present after light turns green



# BP-5: Complete Priority Sidewalk Network



- OR 99 Construct Both Sidewalks (Rapp Rd. to south UGB)
- W. Valley View Rd. Construct North Sidewalk (Main/Wagner St. roundahout to OR 99)
- Creel Rd. Construct North Sidewalk (Talent Ave. to OR 99)
- Talent Ave. Construct East Sidewalk (Rapp Rd. to Creel Rd.)
- Talent Ave. Construct Both Sidewalks (Creel Rd. to south UGB)
- Rapp Rd. Construct South Sidewalk (Graham Way to OR 99) in locations where newer developments have not installed sidewalks to pode.
- Wagner Creek Rd./Rapp Rd. Construct Both Sidewalks (West UGB to Graham Way)

TAC Meeting #2

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# BP-5: Complete Priority Sidewalk Network

### Continued ...

- Rogue River Pkwy. Construct Both Sidewalks (Entire Length of Sidewalk) in locations where there is no sidewalk existing
- Belmont Rd. Construct Both Sidewalks (West UGB to Talent Ave.)
- 2nd St. Construct West Sidewalk (Wagner St. to Schoolhouse Rd.)
- Schoolhouse Rd. Construct North Sidewalk (Wagner Creek Rd. to 2nd St.)



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# BP-5: Complete Priority Sidewalk Network



### Continued ...

- Wagner Creek Rd. Construct West Sidewalk (Rapp Rd. to West St./Main St.)
- Wagner St. Construct North Sidewalk (Wagner Creek Rd. to 1st St.)
- Wagner St. Construct South Sidewalk (CORP RR to John St.)
- Front St. Construct/Improve East Sidewalk/Path and West Sidewalk (Colver Rd. to Wagner St.)
- Main St. Construct South Sidewalk (Wagner St./West S. to Front
- Colver Rd. Construct North Sidewalk (West UGB to OR 99)
- Suncrest Rd. Construct North Sidewalk (Autumn Ridge Rd. [east] It East UGB)

TAC Meeting #2 38 **TCH2M**+1. **PS** 

# BP-6: Bear Creek Greenway Upgrade to Statewide MUP Standards



- 7 feet wide for approximately 800 feet north of W. Valley View Road, due to topography and ROW constraints
- State: 10 foot width for trails with a preferred width of 12 feet



### BP-7; W. Valley View Paved Shoulder East of I-5



- This alternative extends bicycle facilities across I-5 to a point approximately 1,000 feet east of Suncrest Road, at the eastern edge of the UGB
- Rural vs. Urban would need to be determined
- Coordination between multiple agencies required (ODOT, Jackson County, Talent)
- Coordination with Interchange Area Management Plan (IAMP) for I-5
   Exit 21



BP-8: Bear Creek Greenway Realignment at Suncrest Road



# BP-8: Bear Creek Greenway Realignment at Suncrest Road





Between those two junctions, trail users are required to use Suncrest Road on a narrow bridge across Bear Creek with two 12' travel lanes and no bike lanes or sidewalks



Meeting #2

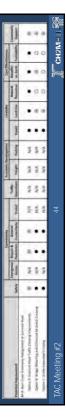
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### BP-8: Bear Creek Greenway Realignment at Suncrest Road



- Low-End Option A: Suncrest Road Traffic Calming Improvements: install warning signage, pavements markings such as sharrows, and possibly user-activated traffic safety warning devices (\$50,000-\$100,000)
- Medium End Option B: Bridge Widening and Enhanced At-Grade Crossing: new multi-use path, possibly cantilevered on the south side of the existing bridge across Bear Creek; 10 to 12 feet wide a new consolidated bicycle/Dedestrian (\$1.5-\$2.0 million)
- High End Option C: Grade-Separated Crossing: realigns Bear Creek Greenway under the existing Suncrest Road overcrossing at Bear Creek combined with a new trail-only Bear Creek crossing north of Suncrest Road (\$2.0-\$2.5 million)



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# New Transit Alternatives for Consideration



- T-2: City Circulator
- 7-3: High Capacity Transit (HCT)
- T-4: Feeder Service
- T-5: Transportation Demand Management (TDM) strategies
- T-6: City of Talent Public Transportation Service
- T-7: Amenities

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## T-2: City Circulator

- RVTD includes circulator service in its long range transit plan. A city-wide circulator service could connect riders to routed bus service and provide access to community destinations within Talent.
- RVTD is presently evaluating potential route options for the circulator service. The circulator could serve residential areas to the west of Talent Ave.

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# T-1: Route 10 Service Adjustments







 Considering possibility of splitting the Route 10 into two separate routes with a transfer in Talent

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## T-3: High Capacity Transit (HCT)

- The existing Route 10 service is unlikely to attract many "choice" riders (those riders who could drive or get to their destination by some other means) unless it becomes more time competitive with driving.
- RVTD's Ten-Year Plan includes discussion of bus rapid transit (BRT) and potential light rail between Medford and Ashland, but notes that it is very difficult to forecast the demand for such a service.

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## T-4: Feeder Service



- Deviated fixed-route and/or feeder service could connect riders who live too far from an existing RVTD stop to routed service.
- RVTD is considering a "Valley Feeder" service that would make use of unused capacity in the paratransit system
- The Feeder service would be available to residents within % mile of an existing RVTD line.
- Riders could call and reserve a ride on an available paratransit vehicle to their nearest bus stop or final destination (dependent on location).

TAC Meeting #2



### T-6: City of Talent Public Transportation Service



- The van could provide supplemental service to disadvantaged populations identified in RVTD's Coordinated Human Services Transportation Plan.
   For instance, the van could provide trips to elderly or disabled citizens within Talent to supplement RVTD's paratransit service.
- The van could be employed within the City as routed circulator or feeder service, potentially utilizing existing RVTD stops on Talent Ave. in addition to other stops on a defined route.

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# T-5: Transportation Demand Management (TDM) strategies



- The demand for additional park-and-ride lots is difficult to forecast, given that potential park-andride users are likely to be "choice" riders who have the option of driving to their destination.
- The former Wal-Mart (now headquarters of Brammo, Inc.) has a large parking lot and presents a good opportunity to work with the property owner to provide additional park-and-ride capacity.

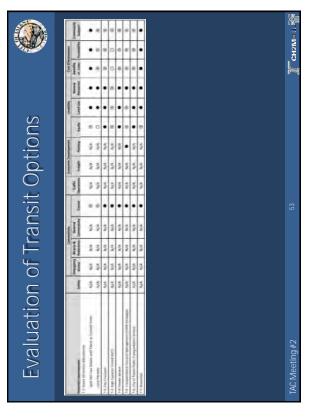


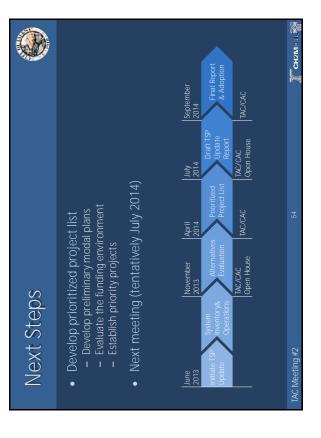
### T-7: Amenities



- None of the bus stops in Talent have printed schedule information available.
- As indicated by the rider survey, many transit riders likely rely on printed schedule information.
- Schedule information could be provided at all stops in Talent at relatively low cost.

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### **City of Talent TSP Update Technical Advisory Committee**

Meeting #3

1:00 PM to 3:00 PM

January 21, 2015

ODOT White City Offices

### **AGENDA**

1. Introductions Don Morehouse, ODOT Zac Moody, City of Talent 2. Project Update Jennifer Danziger, DEA Jennifer Danziger, DEA 3. Additional Alternatives Evaluation Sumi Malik, CH2M HILL • West Valley View Road Concepts • Urban Reserve Area Concepts 4. Project Selection and Prioritization Jennifer Danziger, DEA Sumi Malik, CH2M HILL • Overview of Process Workshop ΑII 5. Next Steps Jennifer Danziger, DEA Schedule Development of TSP

Filename: TalentTSP TAC3 Agenda 012115

### Talent TSP Update

Technical Advisory Committee #3

January 21, 2015 1:00 PM – 3:00 PM ODOT White City Offices

### ATTENDEES:

Technical Advisory Committee	Consultant Staff
Josh Lebombard, DLCD	Jennifer Danziger, DEA
William Fitzgerald, ODOT	Sumi Malik, CH2M HILL
Paige Townsend, RVTD	Reza Farhoodi, CH2M HILL
Don Morehouse, ODOT	
Zac Moody, City of Talent	
Jenna Stanke, Jackson County	
Mike Kuntz, Jackson County	

### **ACTION ITEMS**

- ✓ Comments back to Don by February 6.
- ✓ The City will review the proposed project list and develop prioritization.

### SUMMARY OF DISCUSSION BY AGENDA ITEM

### Purpose

Update project progress, review additional alternatives, identify preferred projects and begin project prioritization.

### **Functional Classification**

- Jennifer presented three classifications changes: Talent Avenue, West Valley View Road, and Rogue River Parkway
- TAC had no comments on proposed changes

### Projects from 2007 TSP

- Jennifer noted some changes to the projects recommended from the 2007 TSP.
- Will there be a railroad crossing at Rogue River Parkway? Response: No, crossings would be at Rapp Road and the Belmont Road crossing would be upgraded. Others would be closed or private.
- Opening a new crossing would likely require closure of another crossing. Mike Koonce said a railroad crossing south of Talent is a potential for closure. Response: Closing this crossing has been discussed in the Railroad District Master Plan.

TAC Meeting #3

### West Valley View Road

- At the IAMP TAC meeting yesterday, they presented almost no cost difference between 5 and 3 lanes. Why? Discussion: The IAMP cost estimate assumed that WVV would be narrower with the 3 lane cross section and would need to be rebuilt. Costs will be revisited. Try to come up with a unified concept for WVV.
- At the IAMP TAC meeting yesterday, roundabouts at the southbound ramps and possibly the Brammo entrance were suggested as a solution that would support access control. Discussion: What if City were to pay? Roundabout may not be politically feasible. City could not afford a roundabout. RVs coming out of the trailer park, need to be able to turn around and roundabout would be needed at both ends.
- Questions have been raised about the signal at the Brammo driveway since it looks like they will
  not stay in business. Could just do a flashing yellow instead of getting rid of. Community waits
  at the light.
- Seems like the road is narrower than data shows.
- Physical barrier with ventilated strip in the buffered section would be desirable. Low impact development stormwater benefits.
- Would there be adequate space to meet "hole in the air" for freight? Two 12' travel lanes and center median lane would allow 24 feet in either direction for over-dimensional freight that should be enough room.
- Could do vertical growing trees that don't bush out in buffered areas.
- Analysis does show that 3-lane section results in more queues at Hinkley (Walmart traffic light) but that the queues would impede ramps and intersection wouldn't fail, just longer queues.
- Unprotected left on West Valley View Road signal with OR 99 right now. Would it be possible to have protected lefts? ODOT response: \$4-5K to install for 2 signal heads.
- 5 lanes on West Valley View Road Car speeds don't pass the 10 year old test.
- 5 lanes Opt. A Separate, protected bike phase would make for a longer signal and more vehicle queuing and add 15 seconds delay just for a bike. LOS D-LOS E may result. Bike signal rear side signal and bike oriented push button.
- 5 lanes Opt. B Bike box is good when traffic is stopped but not helpful when its moving.
- Free right from northbound OR what about a stop sign?
- Bear Creek Greenway. Opt A, would need to acquire land but is preferred long term.

### Wagner Creek Crossing

- Helps justify removal of Walmart signal.
- Z-Treatment on 99

### Other

• Colver Rd connection to Talent Ave – consider restriping to give priority to travel between Colver and Talent – much easier for buses.

TAC Meeting #3 2 of 3

### Project Prioritization

• Meeting ran long and did not have time for prioritization discussion. Provided information to City who will take lead on prioritizing project.

Attachments: PowerPoint Presentation

TAC Meeting #3 3 of 3



### City of Talent

Fransportation System Plan (TSP) Update

Review of Project Alternatives

Prioritization Éxercise

3. Next Steps

2. Alternatives Evaluation

Process & Schedule Update

1. Process

**Presentation Topics** 

Technical Advisory Committee Meeting #3 - January 21, 2015



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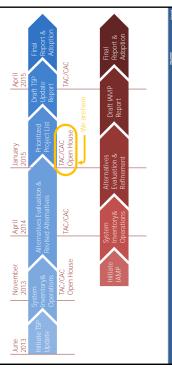
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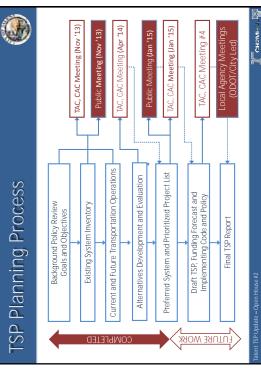






Schedule has been revised to bring TSP & IAMP projects into alignment for coordinated decision making





# Revised & New Alternatives

- Changes to Functional Classification
- Projects from 2007 TSP
- West Valley View Road Improvement Options
- Conceptual Street Network for Urban Reserve Area T-4
- Conceptual Street Network for Urban Reserve Area T-5
- Wagner Creek Trail Crossing at West Valley View Road



### volumes and roadway characteristics Previous classification Minor Collector: West of Talent Ave Recommended classification Local: West of Talent Ave Rogue River Parkway Proposed Changes Street System - Functional Classification 0

# West Valley View Road Improvement Options 🏈

### Identified Deficiencies

- No separate lane for left turns between OR 99 and Mountain View Drive
- Drivers turning left into streets or driveways may need to stop in the through travel lane to wait for
  - a gap in oncoming traffic

    Creates potential for rear-end and sideswipe collisions
- 5-foot bike lanes next to vehicles driving 40 mph areas and the Bear Creek Greenway

Bike lanes are narrower that desirable for this important connection between residential

- May be okay with contraent preyclass out can be come and the right-turn lane
   At OR 99, bicyclists are trapped between the curb and the right-turn lane

### Potential Improvements

- Two overall multimodal and safety improvement alternatives in the TSP:
- Cross section widened to 5 lanes and combined with bicycling/pedestrian amenities
   Cross section modified to 3 lanes and combined with bicycling/pedestrian amenities
- IAMP 21 considers concepts that are similar ideas but different ways of building the projects
  - Final recommendation can include elements from different concepts

# West Valley View Road - 5-Lane Combined Concept



OR 99 Intersection
Option A – Bkycle Signal
Bioycle signal would be ited to the exit similar to a pedestrian phase.

- Corridor Improvements Add Center Lane Improve safety by separating left-turning moveme from through traffic
- Consistent with cross section to the east
   Wilden on south side where existing development is Accommodate future development
  - Estimated cost \$500,000-\$600,000 excluding ROW acquisition for match to existing section (Note:doss not include costs for intersection or path improvements)

prontibiled - Only addresses conflict when traffic is stopper red light, conflict still present after light turns

Option B – Bike Box
 Becox afron of the right tun lane
 Becox afron of the right tun lane
 prohibited

MATCH TO EXISTING 5-LANE SECTION TO EAST



 Three crossing options considered at OR 99: •12-15 foot wide Multi-Use Path

CH2MH multi-use path located along south side ther as a standalone facility or extension of the south-ar Creek Bridge across OR 99 to new roundabout

### 5-2: Corridor Improvements Bellocate existing or the Gourth pared surface - 2 frompt in rare larse with context uning larse - What a falle larse with buffer between larse - Buffer would be surfaced but could include physical barriers boo • Advantages: also benefits pedestrians - Buffer allows bicyclists to safely avoid road debris or pass other slower-movingriders. CH2MH S-2: Bear Creek Greenway Access West Valley View Road - 3-Lane Combined Concept - Accommodates future demand but would no traffic light at Hinkley Rd/Brammodriveway - Estimated Cost \$200,000 - \$500,000 Option B Disadvantages S-2: OR 99 Intersection • Option A conflict points 四年二 DTENTIAL MODIFICATIONS - EAST SEGMENT 明明日本一 Option B WEST SEGMENT - EAST SEGMENT 6 MI ME SHA AT MAKE MI 衛 田 田 田 II ENTIAL MODIFICATIONS - WEST SEGME 0

# Wagner Creek Trail Crossing at West Valley View Road

The planned Wagner Creek Trail is a 1.5 mile multimodal connection between Talent resbellial areas on the wast side of 10.6 % and the Bear Creek Geenway. The alignment follow Wagner Creek with crosses West Valley Welw Poda approximately. Took dee dast of the traffic signal at 10.8 % and 10.8 % an

This improvement concept considers a future midthock crossing with pedestrain and bolob-eachwised devices at the point where the trail would cross Viket Villey View Road II would install a crossing device, such as Alectanguler Rapid Flashing Beacon (RRB) in addition to the crosswalk striping and a potential center median. This device is activated by trail uses via a pushfution convenient for poor pedestrians and bicycle riders.









Note: A rectangular rapid flashing beacon (RRFB) is

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# Conceptual Street Network for Urban Reserve Area T-4

S-4: Option A

 Complies one east-west street connection to OR 99
 Softed from traffic spell and reset to make the many reset of model week to make the model week to make the model week to make the model week that the make the model one of 80 or 45 mph)
 Consists three connections to Colver Rd =-400-foot intervals --Could consider adding center lane on Colver Rd

S-4: Option B
 Creates one north-south street connection to OR 99

-Connection shown 900 leaf from fraffic signal
- Could widen OR 910 and a center at thir then bout this wou create a conflict with left turns limit of the station
- Could connect opposite fire station
- Could widen a starting topperly use
- Would affect asking properly use
- Reduced speed on OR 90 startable with development (40 or 45 in
- Creates ask avest street crossing the URA
- Creates woo commerciforms to Cooker RQ
- Creates woo commerciforms to Cooker RQ
- Creates woo commerciforms to Cooker RQ

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# Conceptual Street Network for Urban Reserve Area T-5





• Creates access to eastern part of URA with connection to Suncrest Rd

–Alignment shown is opposite a Willow Springs Dr which is a variation on a proposed connection in the 2007 TSP

connection to OR 99 shown 900 feet from traffic signal conflict with fire could widen OR 99 to add a center left-turn lane with no conflict with fire • Creates a through street serving entire URA • Creates connection to OR 99

—Reduced speed on OR 99 desirable with development (40 or 45 mph)
—Could align opposite Option B for TA-4 to create a single intersection
—Could be modified to align opposite Option A for TA-4 to create a single

een the two Willow Springs Dr with monosed connection in the 2007 TSP Creates connection to Suncrest Rd

## Prioritization Exercise

lower priority in the short, middle, and long-Sort the critical factors by highest priority to range project sections.



### HIGHER

house. The prioritized list will be part of the draft TSP. Once the TSP is adopted Your input will be reconciled with the other input, and the PMT's professional judgment. We will seek feedback from the public during the next public open this list will be re-visited and updated every four years



## Prioritization Exercise



Purpose is to receive your input on the timeframe in which projects will be built and their priority within those timeframes,

### Exercise:

- We've developed a list of critical factors to relate back to the project goals and evaluation framework. Are these the right questions we should be asking? Are there any missing? Are there any we should eliminate?
- project to sort into 1) timeframe, and 2) priority. Track how much our lists Use the project list, sorted by mode, and apply the critical factors to each of projects cost as we go.
- Did we get it right? Are there too many projects in the short-term? Too many that are a high priority? Do we want to reshuffle?

### **City of Talent TSP Update Technical Advisory Committee**

Meeting #4 10:00 AM to 12:00 PM May 29, 2015 Medford Library

### **AGENDA**

1. Draft TSPOverviewJennifer Danziger, DEAAll

Discussion

2. Next Steps Jennifer Danziger, DEA

• Schedule

Filename: TalentTSP TAC4 Agenda 052915

### Talent TSP Update

Technical Advisory Committee #4

May 29, 2015 10:00 AM – 12:00 PM Medford Library

### ATTENDEES:

Technical Advisory Committee	Consultant Staff	
Zac Moody, City of Talent	Jennifer Danziger, DEA	
Jenna Stanke, Jackson County	Andy Mortensen, DEA	
Mike Kuntz, Jackson County		

### **ACTION ITEMS**

✓ Final comments due by June 3.

### SUMMARY OF DISCUSSION

Purpose of the meeting is to discuss draft TSP report. DEA has received some comments from TAC members who could not attend the meeting.

City had DEA present the draft plan before the Planning Commission last night (May 28). Comments and questions included:

- What is happening with the traffic signal at Creel Road?
- Document looks good and is pretty easy to read, I have a few minor comments/corrections.
- How did the functional classification changes come about and why were they made?
- CORP has received a TIGER grant and will be making improvements to the Wagner Street crossing as part of the project.
- Can you provide a summary of the Open House?

### Comments/Discussion

- City has a Planning Commission hearing on the TSP scheduled for June 25.
- Current plan is to adopt the TSP and then come back and do a Comprehensive Plan amendment.
- ODOT has indicated that STIP funding for the OR 99: Rapp to Creel project may not be adequate for current design, though the original project was reduced from 5- to 3-lanes. ODOT has suggested excluding sidewalks on the east side of the highway to fit the current project within the STIP budget. City and County seek sidewalks on both sides of the highway.
- Although no signal is planned at Creel intersection with STIP project, City is hoping that multiuse path connection to Bear Creek Greenway will get funded through ARTS and that will help support need for a signal.
- Like that projects are integrated into a single list and shown on multiple maps.

TAC Meeting #4

- Please add discussion about how OR 99 is a barrier to bicycle and pedestrian activity and how improvements at signalized crossings to make them more user-friendly to all types of bicyclists and pedestrians are very important.
- Need to clarify what types of improvements are associated with Type 3 bikeways in bike priority network. Note: Text already indicates sharrows and signage.
- There's a gap on Talent Avenue in the map in Figure 4.
- Hoping that multiuse path on OR 99 from Creel to Bear Creek Greenway will get ARTS funding. It's a key connection between city and greenway.

Attachments: PowerPoint Presentation

TAC Meeting #4 2 of 2



## City of Talent

Transportation System Plan (TSP) Update

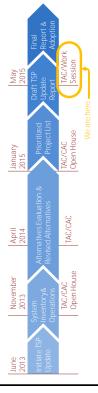
Technical Advisory Committee May 29, 2015



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# Project Process and Timeline



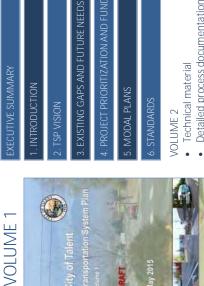
- Next Steps
- Draft Report Review (May 11 June 5)
  - Finalize Report in June 2015
- Begin Local Agency Adoption Process (June 25)

### Agenda



- 1. Overview of Transportation Planning
  - Why, What, How
- 2. Project Process and Timeline
- 3. Draft Plan
- Organization Planning Area
- Projects Modal Plans
  - Standards

## Draft Plan Organization



- Technical material
- Detailed process documentation
   Summary of public outreach

### **TSP Project List**



## 50 Complete Streets & Trails Projects

- Complete streets projects include all improvements that upgrade streets to better serve all travel modes (vehicle, pedestrian, bicycle, transit)
- Trails projects are off-street facilities that connect and expand the trail network
- Each project was assigned a priority and a time frame

- High importance with significant benefits to the community
- Medium importance with moderate benefits to the community Low importance with limited localized benefits

- Short Term Projects addressing existing transportation issues which should be prioritized for funding
   Medium Term Projects are generally larger and more complex in nature but still requiring near-term funding consideration
   Long Term Projects with unmet "triggers" or other dependence on interin projects; with the least urgent need for funding

  - Development Driven Projects that would only occur with future development

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## Constrained Project List



Distribution of City Transportation **Project Funding** 

- 1 funded project for state (OR 99)
- 18 projects identified for city only
- \$7 million project costs for city → still need to increase funding revenue

0.2% 5.1%

- new funding sources for implementation Tier 2 - projects which would require
  - 32 projects identified

78,4% Ilicycle & Pedestr

# All Travel Modes

· Bicycle Only

- Includes city projects not identified as Tier 1 All county and state projects without
  - committed funding
- All development driven projects

CHZMI



## Funding Considerations



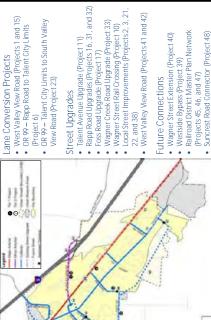
- 50 projects totaling over \$36 million
- \$16.3 million with City of Talent as primary funding source
- Other projects could require City contribution

# Current 20-Year Funding Outlook

- \$12.3 million in total transportation revenue
- \$7.1 million in expenses
- \$5.2 million available to fund new projects

## →Need to constrain project list

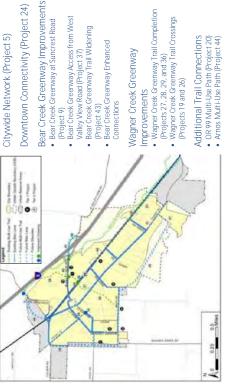
## Street System Plan



### Future Connections

- Wagner Street Extension (Project 40)
   Westside Bypass (Project 39) Railroad District Master Plan Network
- (Projects 45, 46, and 47)
- Suncrest Road Connector (Project 48)
- CHZMH

## Bicycle System Plan



### Citywide Network (Project 5)

Downtown Connectivity (Project 24)

(Project 9)

• Bear Creek Greenway Access from West Bear Creek Greenway at Suncrest Roac

Valley View Road (Project 37)

• Bear Creek Greenway Trail Widening (Project 43)

Bear Creek Greenway Enhanced

### Wagner Creek Greenway

Wagner Creek Greenway Trail Completion (Projects 27, 28, 29, and 36)
 Wagner Creek Greenway Trail Crossings

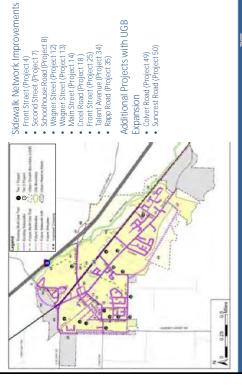
(Projects 19 and 26)

Additional Trail Connections

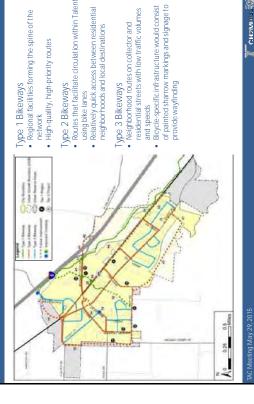
OR 99 Multi-Use Path (Project 20)
 Arnos Multi-Use Path (Project 44)

CHZMH

# Pedestrian System Plan



## Bicycle Priority Network



## Transit System Plan



- Existing Route 10 Enhancements Route Service Adjustments
- City Circulator
- Feeder Service
- Schedule Information

## High Capacity Transit (HCT)

- RVTD exploring options between Central Point & Ashland Options could include:
  - Express BusBus Rapid Transit (BRT)Commuter Rail

## Other Travel Modes



- Talent relies on airports in the region for air service

### Rail Transportation

- Central Oregon and Pacific (CORP) Railroad has grant funding to repair and reopen line south of Medford
- Train service may resume
- Rail crossing upgrades identified in the TSP
  Wagner Street (Project 10)
  Rapp Road (Project 46)
  Belmont Road (Project 47)
- Pipeline Transportation No changes planned
- Water Transportation

•

No changes planned

CHZMH



### Design Standards

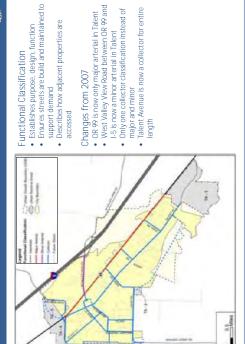
### Complete Street Standards

- Address vehicle, bicycle, and pedestrian modes (always have)
  - Apply to new development
- City upgrades will strive for standard but will design the upgrade within obtainable right of way (ROW)

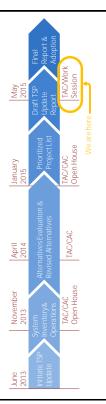
### Changes from 2007

- Simplified fewer options, more consistency for ROW requirements
- Will include additional clarification for how to apply standards and conditions for exceptions

## Functional Classification



# Project Process and Timeline



### Next Steps

- Draft Report Review (May 11 June 5)
- Finalize Report in June 2015
- Begin Local Agency Adoption Process (June 25)

Appendix B. Citizen Advisor	y Committee	Meeting	<b>Materials</b>
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### **City of Talent TSP Update Citizen Advisory Committee**

Meeting #2 2:00 PM to 4:00 PM April 1, 2014 Talent City Hall

### **AGENDA**

Introductions

 Don Morehouse, ODOT Zac Moody, City of Talent

 Project Update

 Jennifer Danziger, DEA

 Alternatives Evaluation

 Jennifer Danziger, DEA
 Sumi Malik, CH2M HILL
 Discussion
 All

5. Next Steps Jennifer Danziger, DEA

Schedule

Upcoming meetings

Filename: TalentTSP CAC2 Agenda 040114

### Talent TSP Update

Citizen Advisory Committee Meeting #2

April 1, 2013 2:00 PM – 4:30 PM Talent City Hall

### ATTENDEES:

Citizen's Advisory Committee	Consultant Staff
Steve Juul	Jennifer Danziger, DEA
Charlie Hamilton	Sumi Malik, CH2M HILL
Zac Moody, City of Talent	
Don Morehouse, ODOT	

### **ACTION ITEMS**

✓ Provide any additional feedback to Zac.

### SUMMARY OF DISCUSSION BY AGENDA ITEM

### Purpose

• Jennifer explained that we are presenting proposed projects, both carried over from the existing TSP and new proposed projects. Projects and alternatives for each project were also put through an evaluation framework, which will also be presented. Proposed projects include roadway, bicycle, pedestrian, and transit. The purpose of the meeting is to seek feedback on the proposed projects. These meeting notes focus on documenting feedback received.

### Roadway

- A CAC member would like to see a connection of Joy Drive back to Talent Avenue.
- West Valley View 5-lane cross-section: currently there isn't too much congestion; however Steve said the sidewalks get a lot of bicycle use by families.
- S-2 Improve Rapp Road Railroad Crossing:
  - o Option A, a new connection to Talent seems like it would not be that cost-effective since most people would still travel to the new traffic signal to make a left turn.
  - o Option C seems to make the most sense because it directs traffic towards the existing signal.
  - Option D: Option D would improve sight distance around the curve. Is it a safety issue?
     Need to investigate it more because CAC members don't recall it being a safety issue.
     Additional sight-distance would help people slowdown to anticipate crossing the tracks.
  - o Belmont could be another crossing location, but that is expensive.
- S-3: Conceptual Street Network for Urban Reserve Area TA-4
  - o Why are we creating a street network for TA-4; isn't that the developer's responsibility? The street network is conceptual and gives the City leverage to say what the City desires

CAC Meeting #2

- for the area. System Development Charges (SDCs) would be used to help build collectors and arterials.
- o How do bikeways get developed? Bikeways would make a lot of sense. With road reconstruction projects.
- o Option A: Is a collector needed? Beyond TA-4 there isn't any more development. There is another collector 300-400 ft away. The City may get challenged with demands for collectors, and whether collectors are needed. Developers may have a financial concern with collectors desired. It may be costly for development.
- o Option B: Should Colver Road be improved too? Should it be brought up to urban standards?
- S4: Conceptual Street Network for Urban Reserve Area TA-5:
  - o Option A: Should all traffic into the development be accessed via Suncrest? What about intersection spacing? A home has already been built on one of the parcels that would be split by the proposed connection to Suncrest (blue line). Access by the fire department would be better.

### Bicycle and Pedestrian

- Sumi Malik gave an overview of proposed bicycle and pedestrian projects, and their evaluation results
- Wagner Creek Greenway can become a path. The CAC would like to see it brought up to multiuse path standards.
- Talent Avenue:
  - o Option A: On-street parking is needed.
  - o Option B: The CAC was in support of advisory bike lanes, but thinks inexperienced cyclists would still probably use the sidewalk.
  - o In general this brought up the issue of parking in the downtown, and that no off-street parking is required with development. A lack of parking will be a future issue, and the lack of off-street parking required needs to be rethought.
  - o What about an alternative that keeps parking on one side of the street?

### Transit

• Sumi Malik gave an overview of proposed transit projects, and their evaluation results. CAC members had no comments.

### Discussion of Next Steps

- Jennifer and Sumi told CAC members they were welcome to provide more feedback.
- The next CAC meeting, to be held over the summer, will focus on a refined list of projects.
- CAC members were asked to also think about attending a future project open house that would be held over the summer.

CAC Meeting #2 2 of 2



### City of Talent

Fransportation System Plan (TSP) Update

Citizen Advisory Committee Meeting #2 - April 1, 2014





Megon Department of Transportation

CH2MHILL

### Project Purpose



- Achieve consistency with the recently-adopted 2013-Organization's 2013-2038 Regional Transportation 2038 Rogue Valley Metropolitan Planning Plan (RTP)
- Administrative Rule 660-012, which is also known as Continue to fulfill requirements in Oregon the Transportation Planning Rule (TPR)

## Presentation Topics

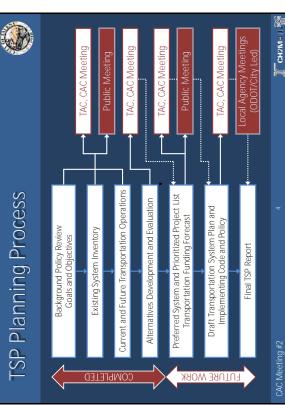


- 1. Process
- Project Purpose

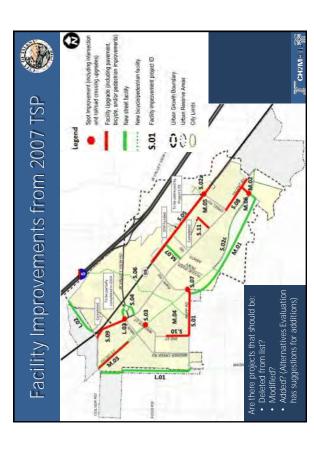
## 2. Alternatives Evaluation

- Review of Existing Plan Projects Project Alternatives by Mode
  - - Evaluation of the Projects
- 3. Next Steps







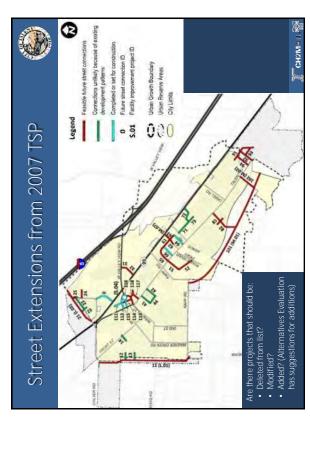


## **Existing Plan Projects**



- Projects from the 2007 TSP Update
- Transportation Facility Improvements Chapter 7
- Projects from Other Planning Documents
  - Railroad District Master Plan (2005)
- West Valley View Vision Master Plan (2006)
- 2013-2038 RVMPO Regional Transportation Plan Wagner Creek Greenway Connection Plan (2007)
- Rogue Valley Transit District Ten-Year Long-Term Plan
- Project in Capital Plans

- - 2012-2015 Oregon Statewide Transportation Improvement Program



### Other Plans



- Some include projects we may want to consider adding to TSP:
- Alpine Trail: 545 feet, connecting Alpine Way to the Bear Creek Greenway. On-street and off-street trail.
- Creel Trail: 552 feet, connecting Creel Rd. to the Bear Creek Greenway. On-street and off-street trail with highway crossings.
- Arnos Trail: 797 feet, connecting Arnos St. to the Bear Creek Greenway, On-street and off-street trail with highway crossings.



## Evaluation Criteria



- Safety
- saicty Secondarium
- ConnectivityTraffic Operations
- Economic Development
- Livability
- Cost Effectiveness
- Community Support
- · Criteria are relative and not absolute

## Alternatives Evaluation



- New Transportation Projects for Consideration
  - Street Facility Projects
- Bicycle and/or Pedestrian Facility Projects
- Iransit

# Projects identified to meet TSP Goals

General Transportation Goal: To provide a <u>safe and efficient</u> transportation system that reduces energy requirements, regional air contaminants and public costs and <u>provides for the</u> needs of those not able or wishing to drive automobiles.



## **Evaluation Framework**



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## **Evaluation Framework**



Goal	Criteria
	Addresses Traffic Congestion
Traffic	<ul> <li>Project meets volume-to-capacity (v/c) ratio criteria for study area intersections and roadway segments.</li> </ul>
Operations	<ul> <li>Project provides adequate level of service (LOS) at intersections and roadway segments.</li> </ul>
	<ul> <li>Project does not create unsafe queuing that could lead to safety concerns.</li> </ul>
Fronomir	Facilitate economic growth by considering the needs of freight
Development	<ul> <li>Project provides freight access where local or regional freight mobility is needed.</li> </ul>
Developinent	<ul> <li>Project supports local industrial development.</li> </ul>
Frommir	Provide adequate parking to support a vibrant community
Description on the	<ul> <li>Project increases on-street parking in the central business district to accommodate existing</li> </ul>
Developinem	and future demand
	Minimizes land use impacts
Livability	<ul> <li>Project minimizes right-of-way acquisition and if acquisition is required, acquisitions would</li> </ul>
,	result in usable remainder propertly.
	<ul> <li>Project preserves open space and minimizes impacts to existing and planned development.</li> </ul>
Livability	Promotes fair distribution of benefits and adverse impacts to different populations
	<ul> <li>Project minimizes harm to low income and minority populations or benefits these</li> </ul>
	populations by providing better transportation access or mobility
Livability	Minimizes impacts to natural resources, environmentally sensitive habitats and threatened or
	endangered species
	<ul> <li>Project minimizes potential impact to environmentally sensitive habitats and threatened and endangered species.</li> </ul>
	13



# S-1: Add Center Refuge Lane on W. Valley View Road

- S-2: Improve Rapp Road Railroad Crossing
- Option A: Realign Crossing to Connect with New Industrial Road
  Option B: Realign Crossing and E. Rapp Road
  Option C: Realign Crossing and W. Rapp Road
- Option D. Maintain Existing Crossing but Realign W. Rapp Road

# S-3: Identify Conceptual Street Network for Urban Reserve

- Option B: No New Connection to OR 99

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## **Evaluation Framework**



### CH2M+II 💒 Project aligns with current funding opportunities Project is potentially eligible for funding from known federal, state, regional or local sources based on funding criteria Note: This criterion will take into account feedback received during community outreach efforts Addresses a known safety issue of moderate concern or the proposed project will provide moderate Fully addresses a known safety issue or has high potential to greatly increase transportation safety Project costs over its life cycle are acceptable given a qualitative assessment of benefits Project does not address a known safety issue or transportation safety Project addresses documented community concerns Maximizes benefits for project cost Project considers low-cost alternatives Project reduces transportation safety Aligns with community goals provided by the project Sample Rating Criteria - Safety transportation safety benefits • •

# S-1: Add Center Lane on W. Valley View Road



- Widen on south side where existing development is limited
- Estimated cost \$500,000-\$600,000 excluding ROW acquisition



# S-2: Improve Rapp Road Railroad Crossing



- Adds new industrial street
- Difficult to fully extend to OR 99 which limits benefit Reduces traffic for



\$500,000 for new rail crossing acquisition



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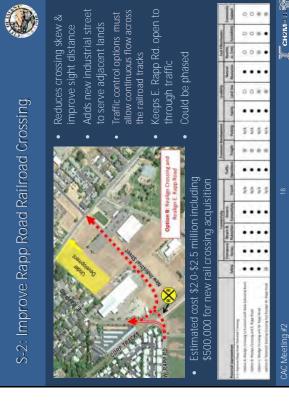
# S-2: Improve Rapp Road Railroad Crossing



- Reduces crossing skew & improve sight

- \$500,000 for new rail crossing acquisition









- Improves sight distance but doesn't change
- Traffic control options could include a roundabout but must allow continuous flow across the railroad



## S-3: Identify Conceptual Street Network



- intersecting OR 99
- Would need to modify
- Reduced speed on OR 99 desirable with development (40-45 mph)
- Could connsider adding center lane on Colver Rd
- Balance Security •• 1 1 . . . 6 ¥ 8

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### S-4: Identify Conceptual Street Network for Urban Reserve Area T-5



desirable with development (40-45 mph)

Adds local connection to Willow Springs Dr.

Adds one local street

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### S-3: Identify Conceptual Street Network for Urban Reserve Area T-4







Builds on Suncrest Rd. direct Adds local street parallel to alignment from 2007 TSP Suncrest Rd. alignment

but others are possible

Could extend local street to permitted



### New Bicycle and Pedestrian Alternatives for Consideration



- 3P-2; Talent Avenue Downtown Connectivity Improvements
- BP-3: W. Valley View Road Multi-Use Path
- BP-4: W. Valley View/OR 99 Intersection At-Grade Improvements
- BP-5: Complete Priority Sidewalk Network
- BP-6: Bear Creek Greenway Upgrade to Statewide MUP Standards
- BP-7: W. Valley View Paved Shoulder East of I-5
- BP-8: Bear Creek Greenway Realignment at Suncrest Road

: Meeting #2

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# BP-1: Bikeway Priority Network



- Potential Type 2 Bikeways in Talent include OR 99, Talent
  Avenue, Main Street, Wagner Street, Rapp Road, Suncrest
  Road/Colver Road, Wagner Creek Road, Arnos Road, and Creel
  Road. All of these arterials and collectors have bike lanes either
  existing or proposed along their entire length
- Future collector streets proposed near the Railroad District and in north and west Talent would be classified as Type 2 routes

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# BP-1: Bikeway Priority Network



- Type 1 Bikeways. These regional facilities would form the spine of the network, consisting of high-quality, high-priority routes that provide direct, relatively unimpeded access between local and regional area destinations.
- Potential Type 1 Bikeways in Talent may include the Bear Creek Greenway and potential future connections to OR 99, proposed Wagner Creek Greenway south of W. Valley View Road, and a possible multi-use path on W. Valley View Road, connecting the Bear Creek Greenway with downtown Talent.

AC Meeting #2





# BP-1: Bikeway Priority Network



- Type 3 Bikeways. These neighborhood routes would be located mostly on calm residential streets with low traffic volumes and speeds.
- Provide safe, comfortable, low-stress access to short-distance destinations, in neighborhoods, individuals of all bicycling confidence levels and families of all ages.
- Bicycle-specific infrastructure would consist of painted sharrow markings and signage to provide wayfinding.
   Sharrows can also help suggest proper placement for bicyclists along the street and alert motorists that bicycling traffic may be present.

Meetina #2





# BP-1: Bikeway Priority Network

- Where necessary, Type 3 bikeways would include traffic calming devices such as speed humps, curb extensions, chicanes and traffic calming circles.
- Potential Type 3 Bikeways in Talent include most continuous Avenue/Lapree Street/Market Street in north Talent. Future neighborhood street connections in the Railroad District and Road in west Talent, Lithia Way in south Talent, and Gibson neighborhood streets, such as 2nd Street and Schoolhouse also be designated as Type 3 routes.

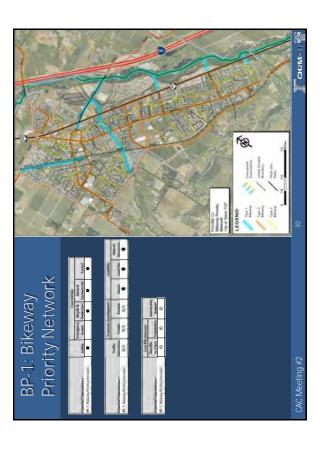
between Talent Avenue and OR 99 south of Rapp Road could

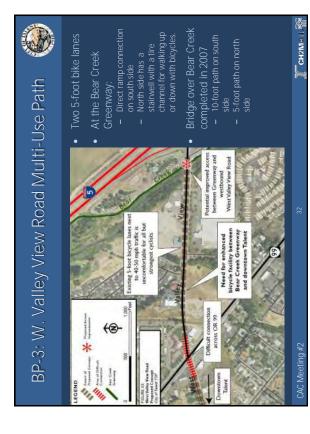


### BP-2: Talent Avenue Downtown Connectivity Improvements

- Modifications Option A: Parking
- Modifications Lane Striping Option B:
- Advisory Bike Option C: Lanes







# BP-3: W. Valley View Road Multi-Use Path



- Located along south side of W. Valley View Rd. either as a standalone facility or as an extension of the south sidewalk
- Path would be constructed from the west end of the Bear Creek Bridge to the location of the new roundabout in downtown Talent, allowing for convenient, stair-free connection between the path and the grade-separated Bear Creek Greenway.

CAC Meeting #2 33 **€CH-7NI** 

# BP-4: W. Valley View/OR 99 Intersection At-Grade Improvements

- Option A: Bicycle Signal
- The bicycle signal would be tied to the existing signal, similar to a
  pedestrian phase
- Second an prince of the westbound right-turn traffic would be stopped to allow the calculate to enfolt continue the cardiate to the cardiate



# BP-3: W. Valley View Road Multi-Use Path



### Three crossing options at OR 99:

- Overcrossing
- I Spiral ramps connecting to a structure that crosses over the highway with sufficient clearance for all traffic on OR 99.
  - Spiral ramps may discourage use of the facility
- Jndercrossing
- Preferred grade-separated option here because it would require less of grade change than the overcrossing
- At-grade crossing:
- Two-way crossing along the south crosswalk with bicycle signals that would temporally segregate path users from conflicting movements.



### BP-4: W. Valley View/OR 99 Intersection At-Grade Improvements



- Option B: Bike Box
- Bike box at front of the right-turn lane
- Westbound right-turn-on-red movements would be prohibited
- Only addresses conflict when traffic is stopped at red light; conflict would still be present after light turns green



# BP-5: Complete Priority Sidewalk Network



- OR 99 Construct Both Sidewalks (Rapp Rd. to south UGB)
- W. Valley View Rd. Construct North Sidewalk (Main/Wagner St. roundahout to OR 99)
- Creel Rd. Construct North Sidewalk (Talent Ave. to OR 99)
- Talent Ave. Construct East Sidewalk (Rapp Rd. to Creel Rd.)
- Talent Ave. Construct Both Sidewalks (Creel Rd. to south UGB)
- Rapp Rd. Construct South Sidewalk (Graham Way to OR 99) in locations where newer developments have not installed sidewalks to pode.
- Wagner Creek Rd./Rapp Rd. Construct Both Sidewalks (West UGB to Graham Way)

CAC Meeting #2



# BP-5: Complete Priority Sidewalk Network

### Continued ...

- Rogue River Pkwy. Construct Both Sidewalks (Entire Length of Sidewalk) in locations where there is no sidewalk existing
- Belmont Rd. Construct Both Sidewalks (West UGB to Talent Ave.)
- 2nd St. Construct West Sidewalk (Wagner St. to Schoolhouse Rd.)
- Schoolhouse Rd. Construct North Sidewalk (Wagner Creek Rd. to 2nd St.)



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# BP-5: Complete Priority Sidewalk Network



### Continued ...

- Wagner Greek Rd. Construct West Sidewalk (Rapp Rd. to West St./Main St.)
- Wagner St. Construct North Sidewalk (Wagner Creek Rd. to 1st St.)
- Wagner St. Construct South Sidewalk (CORP RR to John St.)
- Front St. Construct/Improve East Sidewalk/Path and West Sidewalk (Colver Rd. to Wagner St.)
- Main St. Construct South Sidewalk (Wagner St./West S. to Front
- Colver Rd. Construct North Sidewalk (West UGB to OR 99)
- Suncrest Rd. Construct North Sidewalk (Autumn Ridge Rd. Least) to East UGB)

CAC Meeting #2 38 Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetranii | Tetr



# BP-6: Bear Creek Greenway Upgrade to Statewide MUP Standards



- 7 feet wide for approximately 800 feet north of W. Valley View Road, due to topography and ROW constraints
- State: 10 foot width for trails with a preferred width of 12 feet



### BP-7: W. Valley View Paved Shoulder East of I-5



- This alternative extends bicycle facilities across I-5 to a point approximately 1,000 feet east of Suncrest Road, at the eastern edge of the LIGB
- Rural vs. Urban would need to be determined
- Coordination between multiple agencies required (ODOT, Jackson County, Talent)
- Coordination with Interchange Area Management Plan (IAMP) for I-5 Exit 21



### BP-8: Bear Creek Greenway Realignment at Suncrest Road



# BP-8: Bear Creek Greenway Realignment at Suncrest Road





 Between those two junctions, trail users are required to use Suncrest Road on a narrow bridge across Bear Creek with two
 12' travel lanes and no bike lanes or sidewalks



3 Meeting #2

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CHZM+II

### BP-8: Bear Creek Greenway Realignment at Suncrest Road



- Low-End Option A: Suncrest Road Traffic Calming Improvements: install warning signage, pavements markings such as sharrows, and possibly user-activated traffic safety warning devices (\$50,000-\$100,000)
- Medium End Option B: Bridge Widening and Enhanced At-Grade Crossing: new multi-use path, possibly cantilevered on the south side of the existing bridge across Bear Creek; 10 to 12 feet wide a new consolidated bicycle/pedestrian (\$1.5-\$2.0 million)
- High End Option C: Grade-Separated Crossing: realigns Bear Creek Greenway under the existing Suncrest Road overcrossing at Bear Creek combined with a new trail-only Bear Creek crossing north of Suncrest Road (\$2.0-\$2.5 million)



# New Transit Alternatives for Consideration



- T-5: Transportation Demand Management (TDM) strategies
- T-6: City of Talent Public Transportation Service



### T-2: City Circulator

- connect riders to routed bus service and provide RVTD includes circulator service in its long range access to community destinations within Talent. transit plan. A city-wide circulator service could
- RVTD is presently evaluating potential route options for the circulator service. The circulator could serve residential areas to the west of Talent Ave.



# T-1: Route 10 Service Adjustments







two separate routes with a splitting the Route 10 into Considering possibility of transfer in Talent



# T-3: High Capacity Transit (HCT)



rapid transit (BRT) and potential light rail between difficult to forecast the demand for such a service. RVTD's Ten-Year Plan includes discussion of bus Medford and Ashland, but notes that it is very

## T-4: Feeder Service



- Deviated fixed-route and/or feeder service could connect riders who live too far from an existing RVTD stop to routed service.
- RVTD is considering a "Valley Feeder" service that would make use of unused capacity in the paratransit system
- The Feeder service would be available to residents within % mile of an existing RVTD line.
- Riders could call and reserve a ride on an available paratransit vehicle to their nearest bus stop or final destination (dependent on location).

CAC Meeting #2



### T-6: City of Talent Public Transportation Service

- The City acquired a van from RVTD in 2013.
- The van could provide supplemental service to disadvantaged populations identified in RVTD's Coordinated Human Services Transportation Plan. For instance, the van could provide trips to elderly or disabled citizens within Talent to supplement RVTD's paratransit service.
- The van could be employed within the City as routed circulator or feeder service, potentially utilizing existing RVTD stops on Talent Ave. in addition to other stops on a defined route.

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# T-5: Transportation Demand Management (TDM) strategies



- The demand for additional park-and-ride lots is difficult to forecast, given that potential park-andride users are likely to be "choice" riders who have the option of driving to their destination.
- The former Wal-Mart (now headquarters of Brammo, Inc.) has a large parking lot and presents a good opportunity to work with the property owner to provide additional park-and-ride capacity.



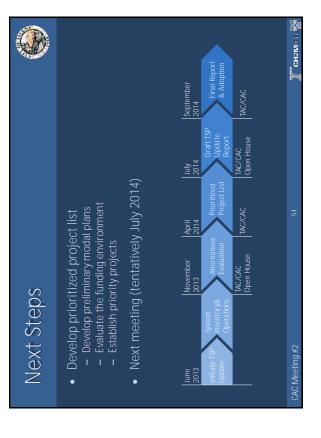
### T-7: Amenities



- None of the bus stops in Talent have printed schedule information available.
- As indicated by the rider survey, many transit riders likely rely on printed schedule information.
- Schedule information could be provided at all stops in Talent at relatively low cost.

Weeting #2 52 TCH2MH.I. 89

# EVAIUATION Of Transit Options | EVAIUATION | Column | Co



Appendix	C. F	Public	Open	House	<b>Materials</b>
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### Talent TSP Update

Open House Meeting #1

November 20, 2013 4:00 PM – 7:00 PM

Talent City Hall foyer; 110 E Main St, Talent, OR

### **OPEN HOUSE PURPOSE**

The purpose of the open house was to solicit public feedback on the inventory of existing transportation facilities, the list of deficiencies for each mode, the analysis of existing traffic congestion and safety, and the analysis of projected future traffic congestion.

### OPEN HOUSE NOTIFICATION

The open house was advertised in through posting on the city's website and through posting of a flyer in the local grocery store (Ray's Food Place).

### **OPEN HOUSE FORMAT**

The open house included 19 display boards (see attached). Also available in the atrium of City Hall were a sign-in sheet, a comment form, and a refreshments table. At any given time during the open house between 4-8 project staff people (both consultants and agency staff) were available to answer questions.



Display boards for the Talent TSP Open House

### COMMENTS COLLECTED

Four people attended the open house, and one person filled out the comment form. The comments received are listed below:

1. **Did we capture community's needs for relieving traffic congestion and improving traffic** safety?

- No. At the corner where the fashion place is, it should be a four way stop, not three.
- No crosswalk between bank and main highway on street by bank.
- 2. Did we capture all of the community's needs for improving biking, walking, and transit?
- No. We need public transit to set up those little shelter style houses.
- Sidewalk across from post office is buckling wheelchairs and walkers won't work.
- 3. Is there anything else you would like us to keep in mind as we go forward in this planning process?
- More education of us the public about what public transportation can do for us and a map of where all the stops are so more of us will ride buses like me.
- A few more crosswalk signs, brick crossings would be nice between doctor's office and Suncrest.

Attachments: Sign-In Sheet Comment Card Presentation Boards

#### Would you like to get updates on the project?

#### ¿Te gustaría obtener información actualizada sobre el proyecto?

Name/ Normbne	Mailing Address/ Dirección	City /Cludad	State/Estado	ZIP	Email
Jeanne Smith	P.O. Box 858-233 EVa Way	Talent DIZ	OR		
JOSH CEBMISAMI	S .				josh. lebontourde state or us
TONY ABSHICE		TALENT	01	97540	Josh lebontourde state or us TSABBY CHARTER KET
THAN KEAYS					,

#### Talent Transportation System Plan (TSP) Update

The Talent TSP was last adopted in 2007 and things have changed since then! Please let us know your thoughts on the community's needs for relieving traffic congestion, improving transportation safety, making biking and walking in Talent easier, and improving transit service. Your input will help inform the development of the plan! For more information, contact Zac Moody, Talent Community Development Director at 541-535-7401 ex.1010 or zmoody@cityoftalent.org.

Optional Contact Information:  Name/Affiliation (if applicable): TEANNE SMITH  Address: 1.0.BOX 858-233 Fraway Apt 3  Phone: 541-892-0430 Email:
1. Did we capture community's needs for relieving traffic congestion and improving traffic safety?  — Yes & No, please explain: Atha. Corner whose the factories, et should loca.  — Sould we capture community's needs for relieving traffic congestion and improving traffic safety?  — Local Corner whose explains are stated as a second congestion and improving traffic safety?
No crowd and moon results  2. Did we capture all of the community's needs for improving biking, walking, and transit? Itsept  Yes No, please exploin: We need Public TRANSIT TO S  Set of hose Little Shelter style bay  Sidewalk across pad office is buckling - wheelchaired walkers  won't work,
3. Is there anything else you would like us to keep in mind as we go forward in this planning process?  \[ \begin{align*} \text{No} & \text{Ves, please explain:} & MOLE AUCATION OF US THE PUBLIC AUCATION CAN DEFORM AND ON UNLESS AUCATION STORY AND ON UNLESS AUCATION STORY AUCATION STORY AND ON UNLESS AUCATION STORY AUCATION STOR

Open House November 21, 2013



WELCOME

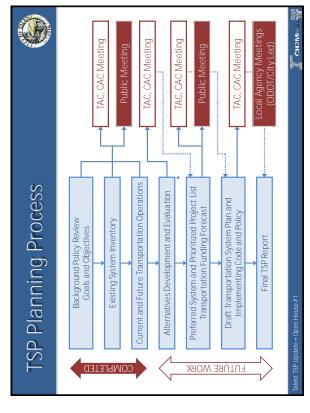
Open House #1 - November 20, 2013

CHZMHILL





Oregon
Department
of Transports

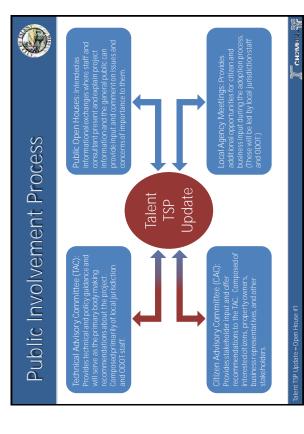


## Project Purpose



- Achieve consistency with the recently-adopted 2013-Organization's 2013-2038 Regional Transportation 2038 Rogue Valley Metropolitan Planning Plan (RTP)
- Administrative Rule 660-012, which is also known as Continue to fulfill requirements in Oregon the Transportation Planning Rule (TPR)





CH2MHI T

## City Limits Urban Growth Boun . 0 TSP Planning Area Talent

# Transportation System Inventory Update



## Inventory Review

- Block-by-block review of facilities
- Focuses on major roadways based on functional classification
   Identifies system deficiencies (pavement and urban design)
  - Pedestrian
- Identifies location of sidewalks and pathways and system deficiencies
- Bikeway
- Identifies location of bike lanes and pathways and system deficiencies
- Identifies Bus Route and stop amenities and other public transit services Public Transportation - Other

General inventory of Rail, Air, Water, and Pipeline facilities

- Additional Resources
- Environmental and Land Use Reconnaissance
  - Socioeconomic and Environmental Justice

alent TSP Update - Open House

## Existing TSP Goals



## Categories of Goals:

General transportation policies

Parking

- Finance
- Land use
- Transportation system

Pedestrian

Bicycle

Streets

- management
- Access management
- Transportation demand management

Aviation

**Transit** 

- Freight

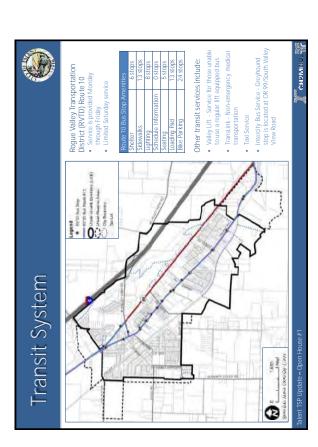
# Each goal includes objectives and supporting policies

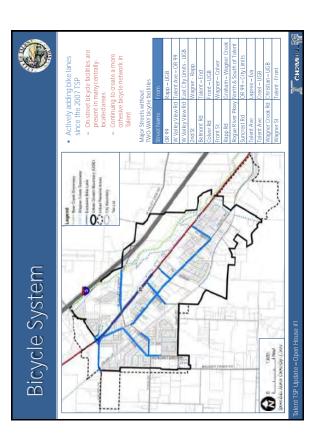
Categories in red are proposed for revisions; other categories are proposed to remain the same as the 2007 TSP.

CHZMH

### Roadways with "Poor" or "Very Poor" pavement conditions Only ore major collector (Behnont Road) on list Everything else is local Street also inventory identifies: Urban Design Deficiencies Only identified for arterial an collector streets Grouped by type of deficier No pavement No curb and gutter No sidewalk Street System - Functional Classification 1800 Œ





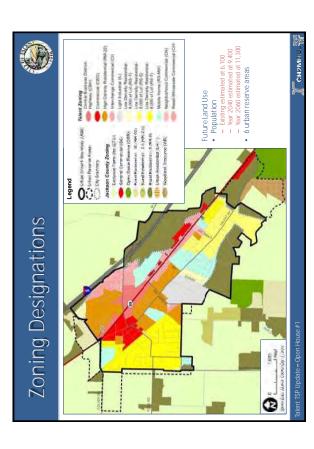


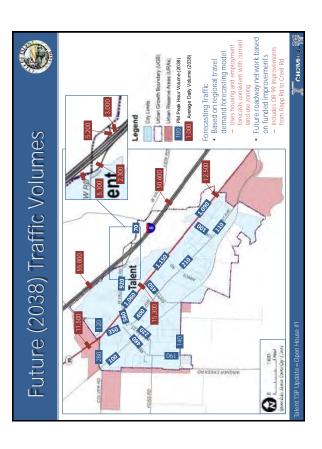
# Other Travel Modes

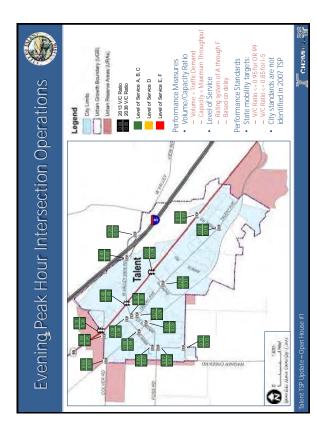
- Air: Update since 2007
- 300,000 passengers at Medford Airport in 2010Forecast to grow to up to 600,000 by 2030
- Rail: Update since 2007
- No trains running south of Medford on the Central Oregon and Pacific line
- Water & Pipeline: No updates since 2007

ant T9. Update – Open House 위

# Existing (2013) Traffic Volumes Existing (2013) Traffic Volumes Exist State







## Safety Analysis



- 5-year Analysis Period (1/1/2007 - 12/31/2011)

- 77 crashes within the city

46 at intersections

31 along roadway segments

None resulted in fatalities or serious injuries

28 resulted in minor injuries

- Highest number of crashes

OR 99 at West Valley View Rd (13 crashes)
OR 99 at Arnos Rd (6 crashes)
OR 99 at Creel Rd (5 crashes)
OR 99 at Rapp Rd (4 crashes)
OR 99 at Colver/Suncrest Rd (4 crashes)

Safety Priority Index System

•

No locations identified in worst 10%

## Next Steps



## Review Meeting Input

Discussions with citizens and Comment cards

## Alternatives Analysis

Improvements to address deficiencies
Continue to upgrade to urban standards
Improve sidewalk and bicycle system
Network extensions to serve future development

Key connections within the existing Urban Growth Boundary
 Future extensions to serve Urban Reserve Areas

July 2014	Final Report & Adoption	TAC/CAC	
May 2014	Draft TSP Update Report	TAC/CAC Open House	
February 2014	Prioritized Project List	TAC/CAC	
November 2013	Alternatives	TAC/CAC Open House	
June 2013	Initiate TSP System Update Operations		Talent T. P. Hodate - Open House #1

#### Talent TSP Update

Open House Meeting #2

January 20, 2015 4:00 PM – 7:00 PM Talent Community Hall; 208 E Main St, Talent, OR

#### OPEN HOUSE PURPOSE

The purpose of the open house was to solicit public feedback on a range of transportation system improvement alternatives for the TSP. This open house was set up as a joint meeting with the I-5 Exit 21 Interchange Area Management Plan (IAMP) since the projects are both at a similar point the plan development process.

#### OPEN HOUSE NOTIFICATION

The open house was advertised in the following ways:

- 1. ODOT Press Release on January 16, 2015
- 2. Mail Tribune Article on January 16, 2015
- 3. Mail Tribune Announcement on January 19, 2015

Additionally, meeting date and time was listed on the City and ODOT websites.

#### **OPEN HOUSE FORMAT**

The open house included 24 display boards for the TSP (see attached) as well as 4 display boards for the IAMP. The boards were set up on easels around the room to allow people to circulate and ask questions.

Meeting attenders were greeted at the door and encouraged to sign in on one of the attendance sheets on the entry table. The sign-in sheets include 30 entries. The meeting was attended by more than 30 people as some entries did include more than one person and some people chose not to sign in.

The entry table also included the following display placard along with strips of colored dots that were available to provide another method of providing feedback on the information presented in the displays. Many people took advantage of this opportunity and the attached presentation materials include the placement of these stickers to indicate support.

#### Do you have some favorite concepts?

Take as trip of dots and place one next to each of your favorite ideas.

Please limit dots to one per concept.

Open House #2

Lastly, the entry table included comment cards and pens. These were also distributed at other tables in the Community Hall. The comment cards did not include specific questions but provide an opportunity to submit written feedback on the information presented at the open house for either project.

#### **COMMENTS COLLECTED**

Nine comment cards were collected. Comments are listed below.

#### Card 1:

- I would like to see walking generally given highest priority, followed by nonmotorized, with motorized transport third. We are all pedestrians first and last.
- Walkers and bikers are more vulnerable, need protection from autos, etc. but also can often have their needs met in more modest, less expensive ways.
- A pedestrian rich city scape is inviting for shoppers, attractive for livability.
- In the long term, aren't we transitioning away from fossil fuels
- Those of us who are most at risk children, the disabled, the elderly are the most likely to depend primarily on walking in some form.

#### Card 2:

- Need left turn signal on West Valley View at 99. Drivers waiting to turn onto 99 are
  often oblivious to pedestrians. When I first moved here one almost ran me over. This
  happened again but I was watching and avoided the vehicle. Both times I had to jump
  out of the way, and both times the drivers continued to accelerate and drove on never
  knowing I was there. On another occasion, I met another pedestrian who was visibly
  upset and who told me she had also been almost hit.
- Bicycle lanes in Talent make room by using angle parking on one side of street, no parking on the other side?

#### Card 3:

- Improve access to Bear Creek Path from Creel Rd., this great resource is so close but so dangerous to access (need to walk several blocks south and cross 4 lanes of high speed traffic.
- Private bus transportation from Talent to Ashland late in the evening. Wonderful
  entertainment/restaurants. It would be nice to enjoy without working about late nigh
  driving.
- Perhaps totally unrelated but will the traffic noise from I-5 ever be reduced? Most of us live at least ½ mile from I-5 but the roar of traffic at times is deafening. Road resurfacing?

#### Card 4:

Would like to see upgrade of pedestrian and bikeways, Rapp Road from Talent Avenue to Wagner Street. Rehab bridge over Wagner Creek to accommodate pedestrians.

Open House #2 2 of 3

#### Card 5:

- Need easy access to Bear Creek Greenway from 99 for pedestrians and bike riders south
  of Creel Road. Now we have to walk on roadway quite a ways to get entry. Sidewalks
  will help.
- Could there be weekend nite bus schedules to Ashland to take advantage of dinner restaurants and nite events?

#### Card 6:

- Could the south end of Talent at Creel get direct paved access to the greenway bike path?
- Please pave the existing connection from 99 to greenway.

#### Card 7:

- My biggest concern is pedestrian traffic crossing Wagner Creek at Rapp Road. Anything that can be done to make this creek crossing safer would be a really good idea.
- I'd also like to see the speed limit on Rapp Rd. reduced from 40 to 35 (or less). I think the 40 mph limit just encourages some drivers to do unsafe things.

#### Card 8:

- The options for T-4 and T-5 seem well aligned with future growth being accommodated without negative impact on existing routes.
- Future planning should focus on maintaining existing routes and improving. Reducing capacity, speed, # lanes on 99 seems like a drastic move in wrong direction. W Valley View should be maintained with current footprint. Seek alternative routing to provide greenway access. Bring them into town via Suncrest.
- Thanks for sharing these ideas with the public. I appreciate the work you're doing.

#### Card 9:

- Unhappy with the thought of money it will cost to solve non-existent problems. Why are we so enamored of bottle-necking the major artery (99) through town? Is West Valley View so very dangerous with its already-existing sidewalks and bike lanes? Focus money on building sidewalks where there are only soft shoulders,
- The road diet in Ashland has seen no pedestrian or bike traffic increase. Let's stop trying to be Ashland.

Attachments: Sign-In Sheet Comment Cards Presentation Boards

Open House #2 3 of 3

## Open House Talent Transportation System Plan Update and 1-5 Exit 21 Interchange Area Management Plan January 20, 2015

Name Nombre	Address Dirección	City Ciudad	State Estado	ZIP	Email
MARSHALL COL	E P.O B 0 4 4	Asklad	OR	97523	marshalleoleonegen &
Wich Benez	1695 Summer P1	Todat	OR	47540	nicles one abotanil
John Morrison		Talent		1-	
Marian Lelerski	321 Talent Sue_	Talent	OR	97540	utelerse a
RONA ROBAK	TALENT, OR	TALONT			RON-ROBAIL & NOTH ALL. CON
Lyn Robale	N .		ĸ	•	mlynnbenson@hotmail.
Edem Gomez		Ashkad	OR		egomezerutd.org
DATEMY GRICKER	JALENT OR	TALEST		97540	MAYOR@city of talent, 03
Juan Dean	231 Christopher way	4	OR	N	
Gurry Hood	211 Christophery	Talent	002	97540	noodinbox@grail.com

Open House
Talent Transportation System Plan Update and
I-5 Exit 21 Interchange Area Management Plan
January 20, 2015

	2	20		1-1							
Email	OR 97540 helgamot @mindonet	OR 97540 Pigtail 480 amail. com	OR 97540 d-hastings@june.com	OR TX40 TEUREISAN @ CITACOT.	OR 7798 Scg.nds 2 gmail, com	ASALIANO ORZ CASOS ENPO-LARICO POR CAMPILLOSMA	Joigest Pagmail. com	Someoclotano			
dıZ	grsyp	97840	97540	7×16	11818	07870					
State Estado	TR	OR	OR	210		92					
City	Talent	Talent	Talent	TALENT	Talent	CHAMBE	Jakent	一种	talent	Talent	
Address Dirección	, 124 Lani Way Talent	, 6	100 N. Pacific Huy	Po Box 4 yet The First Seel TALENT	Found (Fandyna 552 Louis ) As 87840 Tolert	EVAN PRICHED PO BOY 699	1706 Lithia W/		690. S. Pacific Huy	690, S Reific Huy	
Name Nombre	Helga Mothey	John - Judulasan	DORING HASTINGS	TOM CORPIGM PO BUY YY	Conrad Gardner	EVAN PRICHER	ibi Riley	Steve Jul	Lennifor Miles	Ryan Mes	

## Open House Talent Transportation System Plan Update and I-5 Exit 21 Interchange Area Management Plan January 20, 2015

Name Nombre	Address Dirección	City Ciudad	State Estado	ZIP	Email
Michel Zwick	233 Eva Way \$47	talent	OR	97540	michal. Zwick @gmail.com
Elizabeth Zwik	k 233 Eva Way#47	Talent	OR	97540	lizzwick@yahoo.com
	300 Mackberry at	U	tc	U	
SHARON ANDERS	ON 166 AUTUMN RIDGE CT				SCANDER SONI QUHARTE
Felicia Hazel	1370 Lithia Way	Talent			feliciahaz@msn.com
Jim Robert	526 Wagner	Talent			
Steve Parks	300 BLACKBERRY CT	TALENT	OR	97540	
Tom Attchcode	129. N. Front	Telent			
Laun Watson		Talent	OR	97540	dawnpallyeyahoo.co
Tom Hozel	1370 Lithia Way	Talent	or	97540	hodaky 10 e yahoo. com

### COMMENT CARD Open House

## Talent Transportation System Plan Update and I-5 Exit 21 Interchange Area Management Plan January 20, 2015

Name (Optional): Elizabeth Zwick	
Company/Affiliation (if applicable): Together for Talent - Trails Co	muitte
Address: 233 Eva Way #47 Talent  Phone: 541 499-2264 Email: lizzwick@yahoo.com	1

#### **COMMENTS**

I would like to see walking generally given highest priority, followed by nonmotorized with motorized Continue on reverse of this card transport third. We are all pedestrians first + last

#### **COMMENTS** (cont.)

Walkers + bikers are more vulnerable need protection
Walkers + bikers are more vulnerable, need protection from autos, etc. but also camp have their needs met in
more modest, less expensive ways.
A pedestrian rich city scape is inviting for shappers,
attractive for livability
In the long term, aren't we transitioning away
from fossil fuels?
Those of us who are most at risk - children,
the duabled, the elderly- are the most likely to
depend primarily on walking in some form.

#### T

### COMMENT CARD Open House

### Talent Transportation System Plan Update and I-5 Exit 21 Interchange Area Management Plan

January 20, 2015

Name (Optional): Garry Hood
Company/Affiliation (if applicable):
Address: 211 Christopher Way
Phone: 541-326-5539 Email: hoodinbox@gmail.com
COMMENTS

O Need left turn signal on west Valley View at 99,

privers waiting to turn onto 99 are often oblinous

to pedestrians, when I first moved here one of the continue on reverse of this card

#### **COMMENTS** (cont.)

almost ran me over, This happened again but

I was watching and avoided the vehicle. Both

times I had to jump out of the way, and hoth

times the drivers continued to accellerate

and drove on never knowing I was there, on another

occassion I met another pedestrian who

was visibly aupset and who told me she

had also been almost hit.

2) Bicycle lanes in talent - make room by using angle parting on one side of street, no parking on the other side?

### Open House

### Talent Transportation System Plan Update and I-5 Exit 21 Interchange Area Management Plan

Name (Optional): ROBAK
Company/Affiliation (if applicable):
Address: 1364 LITHIA WAY
Phone: 541-414-7608 Email: RON_ROBAK@ HOTMAIL.COM
COMMENTS
1. I MAKOVE ACCESS TO BEAR CREEK PATH FROM CREEK RD. THIS GLEAT RESOURCE IS  SO CLOSE BUT SO DANGEROUS TO ACCESS (NEED TO WALK SEVERAL BLOCKS SOUTH  CROSS & LANGES OF HIGH SPEED TRAFFIC.  2. PROVIDE BUS TRANSPORTATION FROM TALENT Continue on reverse of this card  TO ASHLAND LATE DO THEE EVENING. WONDERFUL ENTERSANDMENT/RESTAURANTS.  IT LOODED BE VILETO ENDY BITHOUT WORKYING ABOUT LATENIT REVINES. (ONE,
COMMENTS (cont.)
3. PERHAPS TOTALY UNRELATED BUT WILL THE TRAFFIC NOISE
FROM IS EVER BE REDUCED? MOST OF IS LIVE
AT LEAST 1/2 MILE FROM IS BUT THE ROAR OF
TRAFFIC AT TIMES IS DEAFENING. ROAD RESURFACING?
<del></del>

#### T

#### **COMMENT CARD**

#### **Open House**

### Talent Transportation System Plan Update and I-5 Exit 21 Interchange Area Management Plan

January 20, 2015
Name (Optional): Maria (Oler See)
Company/Affiliation (if applicable):
Address 32/ Talent See Talent
Phone: 335, 5/66 Email:
COMMENTS
would like to see upgrade of fede Fra phike ways, Rapp Rdefr. Twenthere the wagner rehab, bridge over wagner Continue on reverse of this card accom. pede France.
COMMENTS (cont.)

### COMMENT CARD Open House

### Talent Transportation System Plan Update and I-5 Exit 21 Interchange Area Management Plan

Name (Optional): Woo Robote
Company/Affiliation (if applicable):
Address: 1346 Lithia Way Talent OR
Phone: Email: mlynnbenson@hotmail.com
COMMENTS
UNeed acress to Bear Creek Green way from 99-for
pedestrions and bikeriders south of Cred Road. Now we have towalk on readwarding on reverse of this card. There a ways to get to entry. Sidewalks will help.
COMMENTS (cont.)
2) Could there be weekend rite bus schedules to
Ashland-to-take advantage of dinner Restaurants and nite events?

#### 1

### Open House

### Talent Transportation System Plan Update and I-5 Exit 21 Interchange Area Management Plan

Name (Optional): A)ick Bony						
Company/Affiliation (if applicable):						
Address: 1695 Summer Place						
Phone: 676-6730 Email: nicleoncy a hotmanil con						
COMMENTS .						
Could the south end of Talent at Creek						
get direct paved access to the bike path?  Place nowe the connection from 38 to access of this card						
COMMENTS (cont.)						

### COMMENT CARD Open House

### Talent Transportation System Plan Update and I-5 Exit 21 Interchange Area Management Plan

Name (Optional): 5. Conrad Gardner
Company/Affiliation (if applicable): Segwww Dymail. Com
Address: 552 Louis J Ave Talent
Phone: 541-778-7100 Email: Scgwww agmail.com
COMMENTS
My biggest concern is pedestrian traffic
Crossing Wagner Creek & Rapp Road Continue on reverse of this card
Continue on reverse of this card
Anything that can be done to make this
comments (cont.)  Creek crossing safer would be a really good idea.
I'd also like to see the speed limit on Rapp Rd reduced from 40 to 35
on Rapo Rd reduced from 40 to 35
(or less). I think the 40 mph limit
just encourages some drivers to do unsafe
things,
1 - 11

#### **COMMENT CARD**

#### **Open House**

### Talent Transportation System Plan Update and I-5 Exit 21 Interchange Area Management Plan

Name (Optional):					
Company/Affiliation (if applicable):					
Address:					
Phone: Email:					
COMMENTS					
THE OPTIONS FOR T-4 + T-5 MESEEN WELL ALIGNED WITH					
FUTURE GROWTH BEING ACCOMDENTED W/OUT NEGATIVE IMPACT ON					
Continue on reverse of this card					
EXISTING ROUTES.					
FUTURE PLANNING SHOLD FOUS ON MAINTAINING EXISTING					
ROTES + IMPROVING REDUCING CAPACITY, SPEED, HLANES OF					
99 SEEMS LIKE DRASTIC MOVE IN DRONG DIRECTION. W MANEY VIEW					
SHOULD BE MAINTAINED WIN WARENT FOR PRINT, SEEK ALTERNATIVE					
ROUTING TO PROVIDE GREENLAY ACESS. BRING THEM INTO TOWN VIA					
GUNCREST.					
THANK YOU FOR SHARING THESE IDEAS HITHE PLALIC.					
I Appreciate The Hork You're Dong.					

#### COMMENT CARD

#### **Open House**

### Talent Transportation System Plan Update and I-5 Exit 21 Interchange Area Management Plan

Name (Optional): Talent resident						
Company/Affiliation (if applicable):						
Address:						
Phone: Email:						
COMMENTS						
Unhappy with the thought of the money it						
Will cost to solve non-existent problems. Why Continue on reverse of this card						
COMMENTS (cont.)						
major artery (99) through town? Is West Valley View so very dangerous with its already-						
major artery (99) through town? Is West						
Valley View so very damerous with its already-						
existing sidewalks and like lanes? Focus						
money on building sidewalks where there are						
only soft street strontders.						
The road diet in Ashland has seen						
no pedestrian or like traffic increase.						
The road diet in Ashbud has seen no pedestrian or like traffic increase. Let's stop trying to be Ashland.						



## City of Talent

Fransportation System Plan (TSP) Update

# WELCOME

Open House #2 - January 20, 2015

CHZMHILL



Oregon
Department
of Transport

# **TSP Project Purpose & Timeline**



- Create a new vision for the City's future transportation needs
- Address population growth and changes in employment
- Update data sources (inventories, traffic and safety, future growth)
- Prioritize TSP projects within the city for funding
- Achieve consistency with and fulfill requirements for state and regional plans and laws

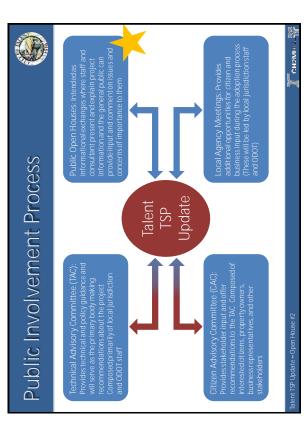


# What can you do at the Open House today?



- and how you can get involved in the process Learn about the next steps for the projects
- Talk to a staff member and ask questions
- Submit a comment form





## Elements of a TSP



# Plans for each mode of transportation

- Street, Bicycle, and Pedestrian Networks (standards, projects to complete network, address safety or accommodate growth)
- Transit Network (improvements that coordinate with RVTD short and long-term plans)
  - Air, Rail, Water, Pipeline (existing facilities and any changes planned by managing agencies)

## List of planned improvements

- Prioritized (high, medium, low)
  - Funded project lists

### Financing summary •

- Understanding of existing funding sources
- List of potential new funding sources that could be pursued





Street System - Functional Classification

### Roadways with "Poor" or "Very Poor" pavement conditions Street inventory identifies:

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- Only one major collector
   (Belmont Road) on list
   Everything else is local
- Urban Design Deficiencies
   Only identified for arterial and collector streets

- Grouped by type of deficiency:
  No pavement
  No curb and gutter
  No sidewalk
- Many streets are improved on one side but not the other

# Transportation System Inventory Update



- Block-by-block review of facilities Focuses on major roadways
  - based on functional classification Identifies system deficiencies

(pavement and urban design)

 Identifies location of sidewalks and pathways and system deficiencies Pedestrian

### Bikeway

Identifies location of bike lanes and

pathways and system deficiencies

Identifies Bus Route and stop amenities and other public

transit services

Public Transportation

 General inventory of Rail, Air, Water, and Pipeline facilities



CHZIMIH

## Projects from 2007 TSP

The 2007 TSP includes a list of planned projects for the transportation system. Some of these projects have been or will be constructed and some are no longer feasible. The other projects will be included in the TSP Update.

- S. O.1: Rapp Road Rebuild and upgrade to major collector standard a -So.2. Multimodis plant connections:
   al Connect to Bear Creek Genemy area Creel Rid Connect to Bear Creek Genemy mars Aucrear Rid Connect to Bear Creek Genemy mars Aucrear Rid Connect to Bear Creek Genemy mars Aucrear Rid Connect to St. G. Wapper St. Rid Crossing Upgrade crossing and provide for pedestriens and bip-cliss.
   \*S. G.\* Pinsagd downlown circulation and releve bigment.
   \*S. G.\* Pinsagd downlown circulation and releve bigment.
  - S.05; OR 99 Add center turn lane and medians, bike sidewalks, curb & gutter
- S.06: Wagner Creek Greenway Path Construct new path fr Talent Ave to Bear Creek Greenway
- S.07: Rapp Rd RR Crossing Upgrade crossing and provide for pedestrians and bicyclists S. OB: Talent Ave - Upgrade to collector standard
   S. OB: Talent Ave - Upgrade to minor arterial standard
   S. IO: Wagner Creek Ref. Upgrade to major collector standard
   S. III: Werton St. - complete connection
- mont Rito Rapp Rid 22. Bermont Rid. Liggrade to collector standard 02. Bermont Rid. Liggrade to collector standard 03. Front St. Liggrade to minor collector standard 1. """. """. Liggrade to minor collector standard - Construct new collector street from
  - 05: OR 99 & Creel Rd Install traffic signal and turn lanes

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# West Valley View Road Improvement Options 🏈

West Valley View Road - 5-Lane Combined Concept

## Identified Deficiencies:

- Drivers turning left into streets or driveways may need to stop in the through travel lane to wait for No separate lane for left turns between OR 99 and Mountain View Drive
  - a gap in oncoming traffic Creates potential for rear-end and sideswipe collisions
- Bike lanes are narrower that desirable for this important connection between residential areas and the Bear Creek Greenway

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Accommodate future development
 Consistent with cross section to the east
 Widen on south side where existing development is

Corridor Improvements – Add Center Lane
Improve safety by separating left-turning moveme

from through traf

AFFECTED AREA

Estimated cost \$500,000-\$600,000 excluding ROW acquisition for match to existing section (Note: does not include costs for intersection or path improvements)

MATCH TO EXISTING 5-LANE SECTION TO EAST

Option A – Bicycle Signal
 Bicycle signal would be tied to a

the last

multi-use path located along south side

Multi-Use Path •12-15 foot wide

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West end of the Bear Creek Bridge across OR 99 to new re
 Three crossing options considered at OR 99:

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MEET STANDARD FOR MAJOR ARTERIAL

- 5-foot bike lanes next to vehicles driving 40 mph
  May be okay with confident bicyclists but can be scary to many riders
  At OR 99, bicyclists are trapped between the curb and the right-turn lane

## Potential Improvements

- Two overall multimodal and safety improvement alternatives in the TSP:
- Cross section widened to 5 lanes and combined with bicycling/pedestrian amenities
- Cross section modified to 3 lanes and combined with blcycling/pedestrian amenities
- IAMP 21 considers concepts that are similar ideas but different ways of building the projects Final recommendation can include elements from different concepts shown today so please

comment on your preferences



# West Valley View Road - 3-Lane Combined Concept











additional right of way
Option B

S-2: Bear Creek Greenway AccessOption A

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# Wagner Creek Trail Crossing at West Valley View Road

The planned Wagner Creek Trail is a 1.5-mile multimodal connection between Talent residential areas on the west side of 104 99 and the Bear Creek Generawy. The alignment itolious Wagner Creek which crosses West Melby Univer Red algorimetrially 10.0 feet east of the traffic signal at 0.8 9 and 500 feet west of the raffic signal at 0.8 9 and 500 feet west of the raffic signal at 10.8 9 and 500 feet was of the raffic signal at Hinkey Road. This crossing ordarin is between 0.8 k Jelley Dive. Within Intersect West Valley View Road from the north and Mountain View Dire, which intersects West Valley View Road from the south.

This improvement concept considers a future midblock crossing with predectina and belge-activated devices at the point where the trail would cross West Nalley View Road. It would install a crossing device such as a Rectangular Rapid Flashing Beacon (RRFB), in addition to the accessive striping and a potential center median. This device is activated by trail users via a pushbutton convenient for both pedestrians and biogle indis.



Note: A rectangular rapid flashing beacon (RRFB) is illustrated above but other pedestrian-activated devices, such as a signal or hybrid beacon, could also be considered.

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Conceptual Street Network for Urban Reserve Area T-5



-Comection to OR 99 shown 900 feet from traffic signal -Could widen OR 99 to add a center left-turn lane with no conflict with fire •Creates a through street serving entire URA •Creates connection to OR 99

station
– Reduced speed on OR 99 desirable with development (40 or 45 mph)
– Could align opposite Option B for TA-4 to create a single intersection
– Could be modified to align opposite Option A for TA-4 to create a single

Creates connection to Suncrest Rd

CHZMHII T en the two Willow Springs Dr ith proposed connection in the 2007 TSP

# Conceptual Street Network for Urban Reserve Area T-4



S-4: Option A

-Creates one east-west street connection to OR 99

-Creates from traffic signal

- Would need to modify meden or restrict left turns

- Would need to modify meden or restrict left turns

- Reduced speed on 00 R99 desirable with development (40 or 45 mph)

- Creates three connections to Colver Rd

- 400 foot intervals

- Could consider adding center lane

cond consider adding center lane

S-4: Option B

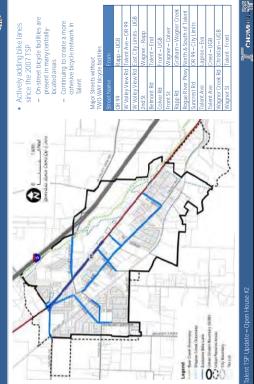
Conractions shown 999
 Connection shown 900 feet from traffic signal
 Could widen 08 99 to add a center left-turn lare but this would create a conflict with left turns into fire station.

– Could cornect opposite fire station
 – Would affort existing property use
 • Would allow for center left-turn lane but could require shorter left-turn lane at traffic signal

Reduced speed on OR 99 desirable with develop
 Creates east-west street crossing the URA
 Creates two connections to Colver Rd

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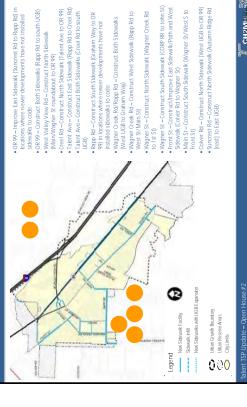
# Existing Bicycle System Inventory

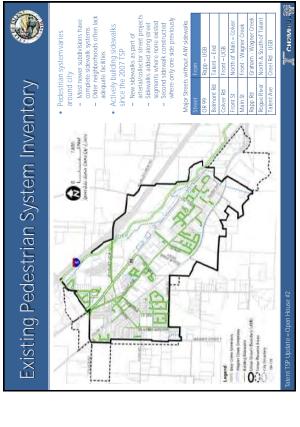


#### Concept BP-1: A bisway priority network is a system of inferometical blogical coursis that would enable people to safety their daily travel needs which the city as artinounting people to would provide connections to key local would provide connections to key local would provide connections to key local destinations, including schools, basts, the illarary, downthown Talent, and other identified activity Type 2 Bikeways: These local routes would facilitate circulation within Tabert using tike lanes with a minimum width of 5 feet and feesily up to 7 feet frype 2 facilities would provibe relatively quick cacess between residential neighborhroods and local destinations such as downtown Talent, schools, transit stops and parks Type 3 Bleavags: These neighborhood routes a would be because the size of the Type 1 Bikeways: These regional facilities would form the spine of the network, consisting of high-quality, high-priority routes that provide direct, relatively unimpeded access between local and New Bikeway Priority Network Type 1 Bikeway Type 2 Bikeway Type 3 Bikeway Fubre Roadway/Paftway Urban Growth Boundary Urban Reserve Areas City Limits Legend 000

# Sidewalk Network Improvements

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# Talent Avenue Downtown Bike Connectivity



Existing Conditions

## Talent Avenue is the main commercial contribor in Talent and has standard bike lanes in both directions with one notable gap in downtown between Lapree Street and a point south of Wagner Street due to a lack of necessary space. This section has two through lanes and two lanes of on-street parking. Lane Striping Modifications Option B

Option A

Advisory Bike Lanes

pavement markings and signage along this section, establishing a shared-use environment. Other taffic calming enhancements could also be installed to reduce speeds as necessary. All on-street This option would eliminate the double yellow centerline and install sharrow This option would modify the existing on-street partity to provide enough spaces to strip to wo bicycle lanes through this gap. The parking spaces on the west side of the street would be fellimeted. The northbound bicycle lane would have a buffer to minimize dooring hazards. Modifications to On-Street Parking



Source: City of Minneapolis

allowed to drive in them after yielding to bicycle riders. Motorists must share the center lane between the dashed lines with oncoming vehicles. All on-street parking spaces would be retained. This option would install dashed advisory blocycle lanes, which are different from standard bike lanes in that motorists are

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# Bear Creek Greenway Realignment at Suncrest Road



There is a gap in the Bear Creek Greenway trail at Suncrest Road just north of Talent city limits. The south leg intersection is 375 feet east of the north leg mescachon, and trail users are required to use Surcrest Road on a narrow bridge across Bear Creek with two travel lanes and no bike lanes or sidewalks.

Option A would install warning signage, pavements markings such as sternows, and possibly user-activated traffic sitely warning devices to are in notorists to the presence of trail traffic. Due to the location outside of the city UGB and the speed transflon, traffic calming devices such as speed tables are not appropriate. Option A - Suncrest Road Traffic Calming Improvements

Option B – Lane Striping Modifications
Option B would construct area vil 0.2 floot wide multi-use path on the south side of the existing bridge across Bear Creek. It would include a new consolidated bicycle-pedestrian crossing where the existing trail connects on the north side of Surrorest Read, with traffic safety warming devices such as a rectangular rapid flash beacon (RRFB) to alert motorists when trail users are crossing.

Option C – Grade-Separated Crossing Option C – Grade-Separated Crossing Option C realigns the Bear Creek Greenway under the existing Suncret Road overcrosing at Bear Creek combined with a new trail-only Bear Creek crossing north of Surcrest Road With this grade separation, the greenway would be completely segregated from roadway traffic.

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# Other Multimodal Improvements



The following projects would address deficiencies in the current bicycle network. Some projects may require minor right of way acquisition or easements.

## Bear Creek Greenway Upgrade to Statewide Multi-use Path Standards

This project would widen the Bear Creek Greenway trail to statewide multi-use path standards where it is currently substandard north of the Bear Creek bridge. Currently, the trail is constrained due to the adjacent creek and encroaching development. Additional right of way would be needed from adjacent property for implementation.

Bicycle facilities need to continue from the urban area into the rural areas. The TSP has identified this deficiency with recommendation for shoulder widening. The projects in IAMP 21 more fully investigates options for improvements.

West Valley View Road Bicycle Facilities over I-5 and East to UGB



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B

**Transit System** 

## Route 10 Service Adjustments City Circulator

circulator could serve residential areas to the west of Talent Ave. High Capacity Transit (HCT)

destination). RVTD's Ten-Year Plan includes (transit (BRT) and potential light rall between The existing Route 10 service is unlikely to attract many "choice" riders (that is, those riders who or

Feeder service could connect riders who live too far from an existing stop to routed service. RVTD is considering a "Valley Feeder" service Feeder Service

## Transportation Demand Management (TDM) strategies

Talent does not currently have park and ride facilities. The demand for park-ander lots is difficult to forecast, given that potential park-and-ride users are likely to be "choider". The City could consider working with provide the property owners to establish park and ride salls in inseas where parking is undeptry owners to establish park and ride salls in inseas where parking is undeptry owners to establish park may be proper and the parking is undeptry owners to establish park may be proper and the parking is undeptry owners to establish park may be proper and the parking is a parking to the parking of the parking of the parking is a parking of the parki

City of Talent Public Transportation Service The city acquired avan from RVID in 2013. The city does not currently have plans for its use, but the van could be used to provide public transportation to faint residents. The van could be used to enhance public transportation.

The van could provide supplemental service to disarbantaged populations identified in RVTD's Coordinated Human Services Transportation Plan. For Instance, the van could provide tips to elderly or disabled citizens within Talent to supplement RVTD's parafarant service. as routed circulator or feeder ops on Talent Avenue in

**Bus Stop Amenities** 

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#### Intercity Bus Service - Greyhound stop is located at OR 99/South Valley View Road Valley Lift - Service for those unable to use a regular lift equipped bus TransLink - Non-emergency medica Other transit services include: Rogue Valley Transportation District (RVTD) Route 10 through Friday Limited Saturday service

# New Transit Projects

Taxi Service

Logend

• In/TO has there

• In/TO has there

• The Committee in the committee of the commi

sed capacity in the paratransit system.

VTD line could call and reserve a ride on nearest bus stop or final destination.

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Appendix D. Pla	inning Cor	nmission	Presentation
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## City of Talent

Fransportation System Plan (TSP) Update

Work Session May 28, 2015



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# Why plan for transportation?



- Transportation affects community livability - residents benefit
- Transportation supports a healthy economy - businesses benefit
- Oregon requires governing agencies to coordinate transportation with urban development
- Projects need to be identified in a plan to be eligible for many types of funding





- 1. Overview of Transportation Planning
  - Why, What, How
- 2. Project Process and Timeline
- 3. Draft Plan
- Organization Planning Area
- Projects
- Modal Plans
  - Standards

# What is a Transportation System Plan (TSP)?



- Long-term guide for investment in the transportation network
- Upgrades and improves existing facilities
  Identifies what will be needed for future growth
  - Looks at all travel modes
- Source of projects for the Capital
- Supports coordination between projects Improvement Program
- Provides guidelines for development

  - Locations of future facilitiesStreet and access standards

# How was the TSP developed?



Collaborative process involving public agencies and the community

Project Management Team

City of TalentOregon Department of Transportation

Consultant Team

Outreach

Technical Advisory CommitteeCitizen Advisory Committee

Public Open Houses

Coordinated with other projects

OR 99 Corridor Plan
I-5 Exit 21 Interchange Area Management Plan

Urban Reserve Area Planning (TA-4 and TA-5)

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# Draft Plan Organization



**VOLUME 1** 

**EXISTING GAPS AND FUTURE NEEDS** 

5. MODAL PLANS

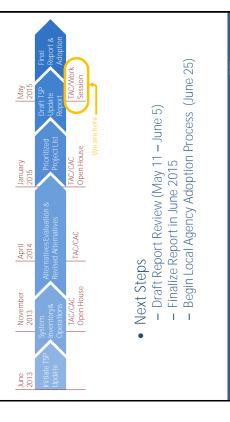
**VOLUME 2** 

Detailed process documentation

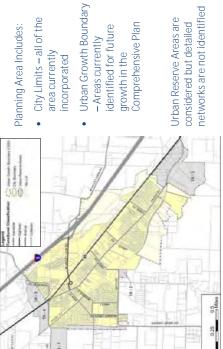
Summary of public outreach

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# Project Process and Timeline



## Planning Area TSP



networks are not identified Urban Reserve Areas are considered but detailed

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#### CHZMH Prioritized Vision TSP Project Selection Process **Evaluation Criteria** Technical Analysis Goals and Objectives Public Input Improvement Concepts Existing plans Improvements projects from Additional

# Funding Considerations



- \$16.3 million with City of Talent as primary 50 projects totaling over \$36 million funding source
- Other projects could require City contribution
- Current 20-Year Funding Outlook
- \$12.3 million in total transportation revenue
  - \$7.1 million in expenses
- \$5.2 million available to fund new projects
- →Need to constrain project list

## TSP Project List



- 50 Complete Streets & Trails Projects
- Complete streets projects include all improvements that upgrade streets to better serve all travel modes (vehicle, pedestrian, bicycle, transit)
- Trails projects are off-street facilities that connect and expand the trail network
- Each project was assigned a priority and a time frame

- Medium importance with moderate benefits to the community High importance with significant benefits to the community
  - Low importance with limited localized benefits
- Short Term Projects addressing existing transportation issues which should be priorilized for funding
   Medium Term Projects are generally larger and more complex in nature but still requiring near-term funding consideration
   Long Term Projects with unnet 'triggers' or other dependence on interim projects; with the least urgent need for funding

  - Development Driven Projects that would only occur with future development

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# Constrained Project List



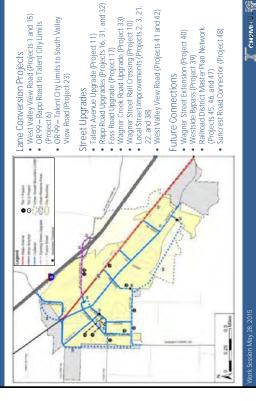
Distribution of City **Project Funding** Transportation

- 1 funded project for state (OR 99)
- \$7 million project costs for city → still need 18 projects identified for city only to increase funding revenue
- new funding sources for implementation Tier 2 – projects which would require 32 projects identified
- Includes city projects not identified as Tier 1 All county and state projects without
- All development driven projects
- committed funding

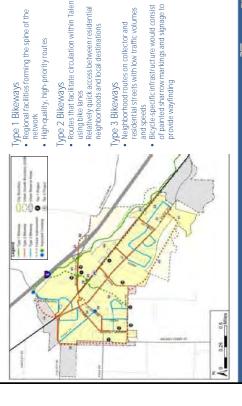
 Ilitycle & Pedestrian
 Pedestrian Only 78,4% # All Travel Modes · Bicycle Only 0.2% 5.1%

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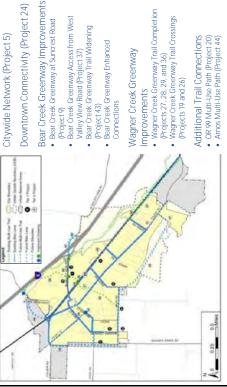
# Street System Plan



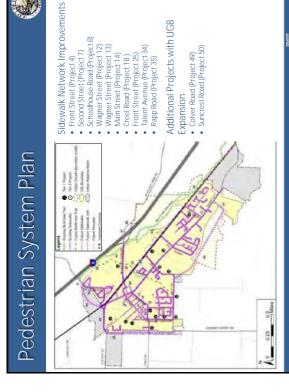
# **Bicycle Priority Network**



# Bicycle System Plan



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## Transit System Plan



- Route Service Adjustments
  - City Circulator
- Feeder Service
- Schedule Information

# High Capacity Transit (HCT)

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- RVTD exploring options between Central Point & Ashland
- Options could include:
  - Express Bus
- Bus Rapid Transit (BRT)
   Commuter Rail

# Functional Classifi<u>cation</u>



## Changes from 2007

- Establishes purpose, design, function
   Ensures streets are build and maintained to
  - Describes how adjacent properties are accessed support demand

- OR 99 is only major arterial in Talent
   West Valley View Road between OR 99 and
   E5 is only minor arterial in Talent
   Only one collector classification instead of
  - major and minor

## Other Travel Modes



## Air Transportation

Talent relies on airports in the region for air service

## Rail Transportation

- Central Oregon and Pacific (CORP) Railroad has grant funding to repair and reopen line south of Medford
- Train service may resume
- Rail crossing upgrades identified in the TSP
  Wagner Street (Project 10)
  Rapp Road (Project 46)
  Belmont Road (Project 47)
- Pipeline Transportation No changes planned
- Water Transportation No changes planned



## Design Standards



# Complete Street Standards

- Address vehicle, bicycle, and pedestrian modes (always have)
  - Apply to new development
- City upgrades will strive for standard but will design the upgrade within obtainable right of way (ROW)

## Changes from 2007

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- Simplified fewer options, more consistency for ROW requirements
- Will include additional clarification for how to apply standards and conditions for exceptions

