



OR 99W South Corvallis Facility Plan

Stakeholder Advisory Group Meeting 5

July 7, 2021

Agenda

1. Welcome & Meeting Purpose
2. Existing and Planned Active Transportation Conditions Overview
3. Planned Motor Vehicle Conditions Analysis
4. Introduction to Concept Development Workshop
5. Other Deliverables
6. Next Steps & Adjourn

1. Welcome & Meeting Purpose



Present the existing and planned future active transportation conditions



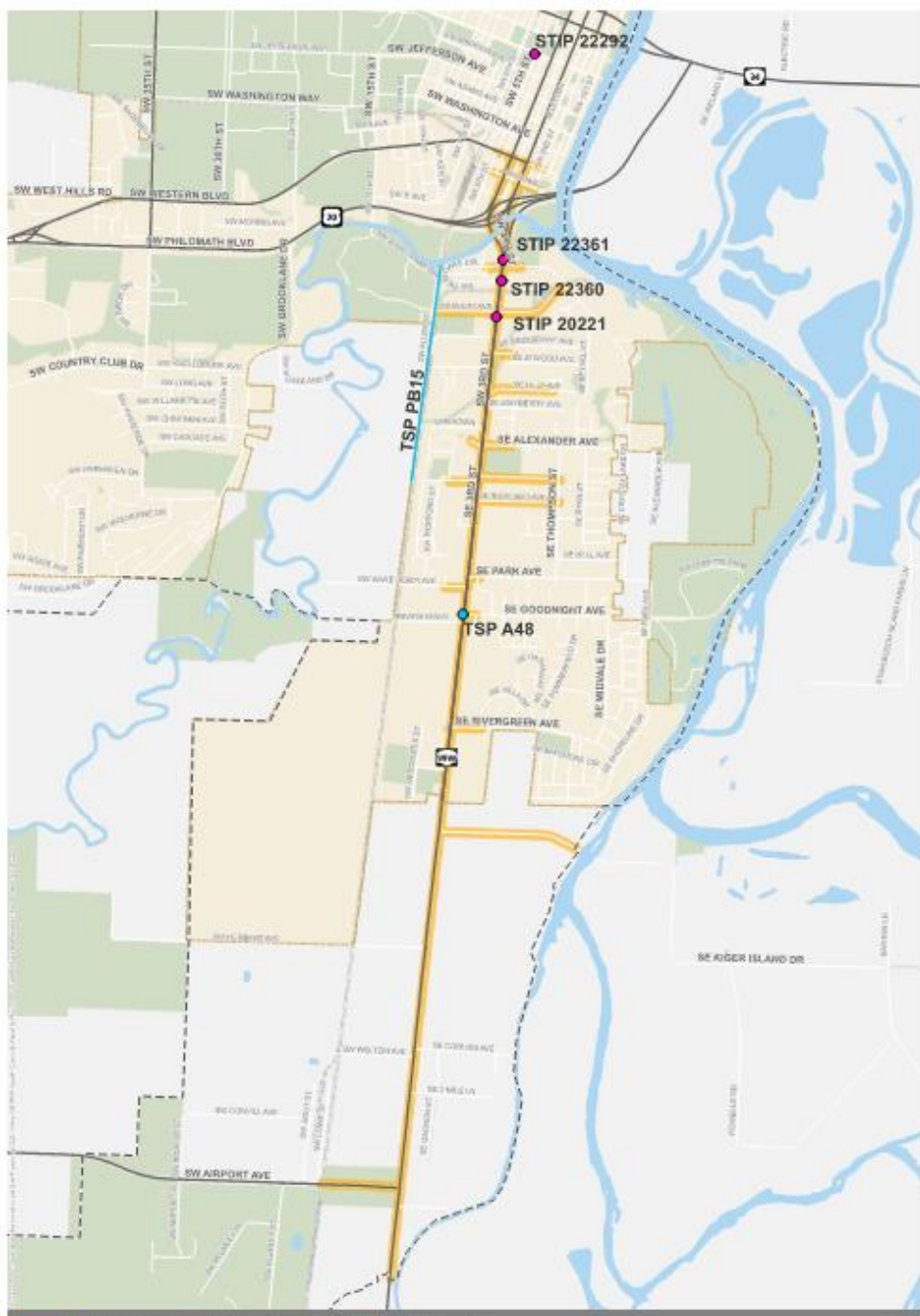
Present the findings of future motor vehicle conditions analysis



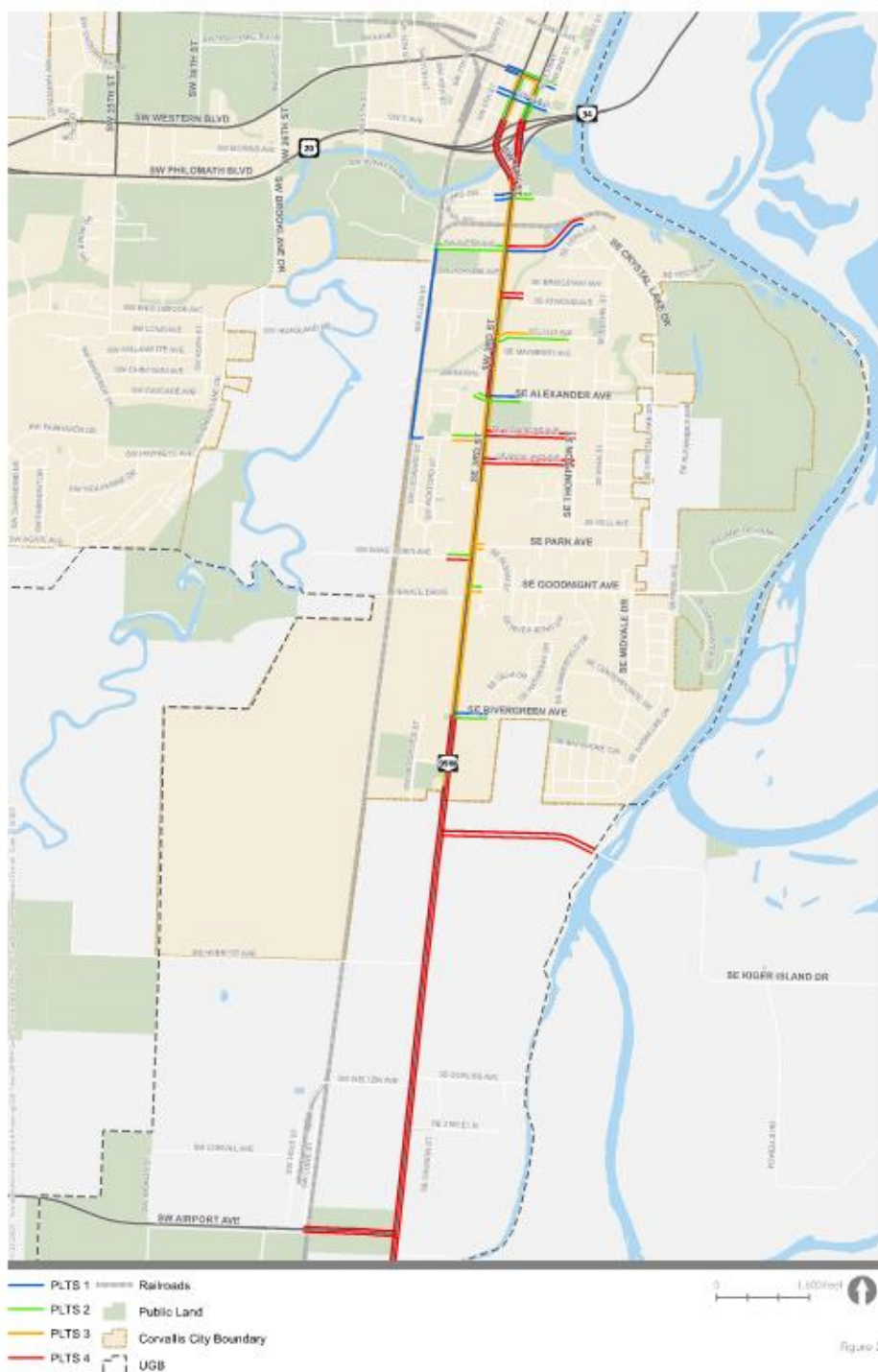
Introduction to Concept Development Workshop



Discuss other deliverables, issues and concerns



Planned Improvements Within Study Corridor



Pedestrian Network Improvements and Forecast

- ▶ Multi-Use Path Planning - Tunison to Avery Park Drive (South Corvallis Multi-Use Path)
- ▶ OR99: Chapman Crossing Advanced Warning Light
- ▶ OR99: Chapman Crossing Illumination

Bicycle Network Improvements and Forecast

- ▶ Multi-Use Path Planning - Tunison to Avery Park Drive (South Corvallis Multi-Use Path)
- ▶ Albany and Corvallis Signal Improvements (Crystal Lake Drive)



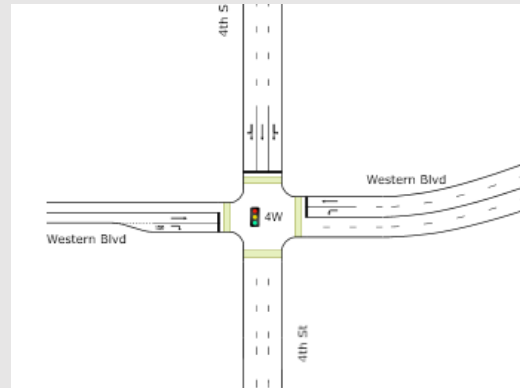
Transit Network Improvements and Forecast

- ▶ Project Administration for Battery Electric Bus Projects
- ▶ Purchase Equipment and Construct Bus Charging Facilities (Corvallis)
- ▶ Purchase Battery Electric Buses
- ▶ Corvallis Transit System (CTS) Camera System

OVERVIEW OF 2040 FUTURE MOTOR VEHICLE CONDITIONS



Volume Development



Analysis Results



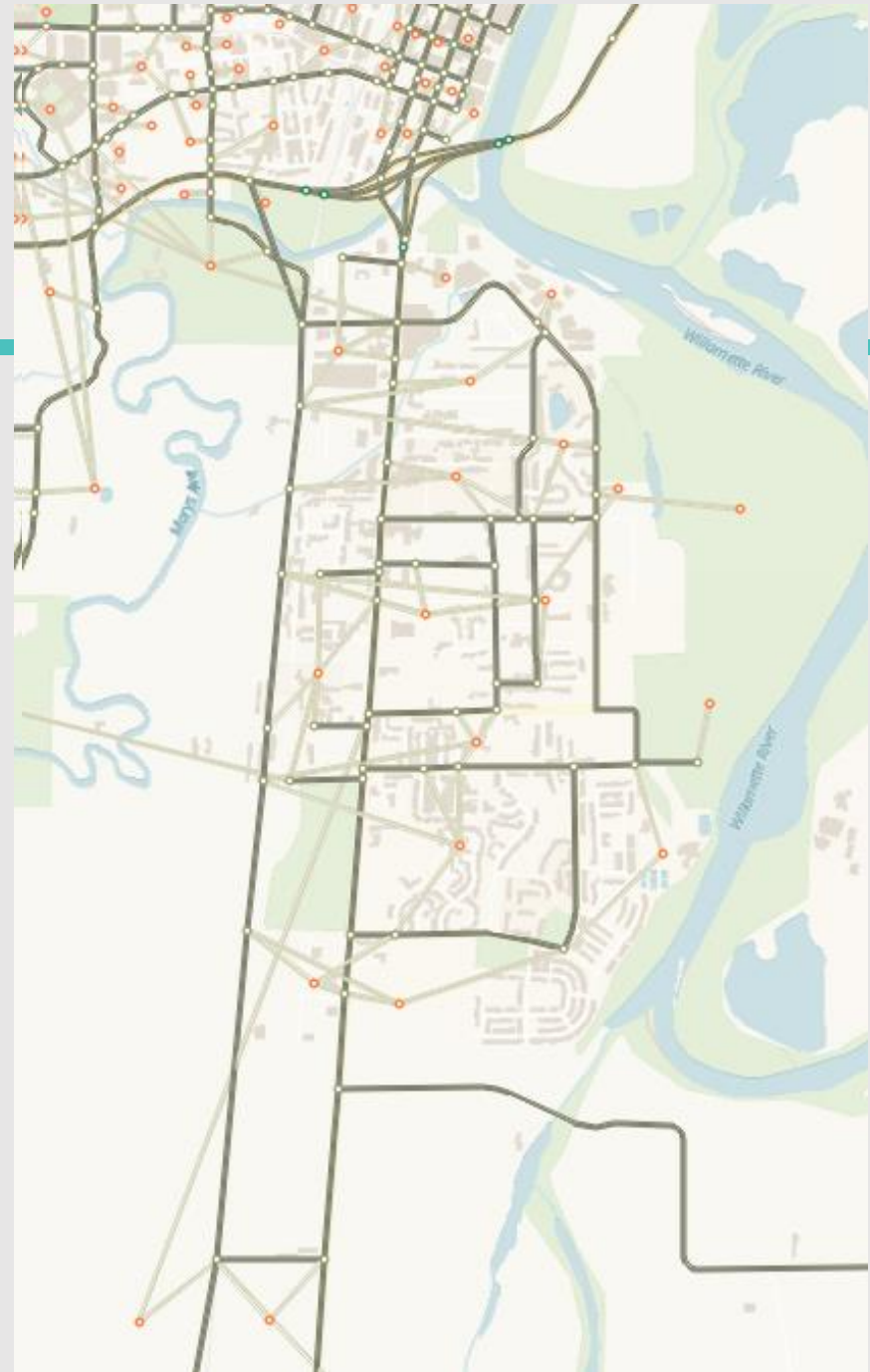
Queuing Overview



Deficiencies

Volume Development

- Version 3.001 RTP Corvallis-Albany-Lebanon Model -- CALM
- NCHRP Report 255/765 post- processing techniques
- Bicycle & Pedestrian Volumes
 - PSU's Population Research Center population forecasts
 - ~12,000 over next 20 years
 - 0.97% yearly rate



Project ID	Description	Source
PB15	New Multi-Use Path: Construct a portion of <u>3.5-mile</u> multi-use path parallel to the railroad in Southeast Corvallis, between <u>Marys River south to Airport Avenue</u> .	CIP/Corvallis TSP
PB17	Ped/Bike Crossing: Construct a bicycle/pedestrian <u>bridge over Marys River</u> and connect with project PB15 on the south side.	CIP
PB27	Study feasibility of new bicycle/pedestrian bridge over Marys River along the Goodnight Avenue – Brooklane Place alignment.	Corvallis TSP
PB49	New Multi-Use Path: Develop new multi-use path <u>connecting Goodnight Avenue and Brooklane Drive</u> , via Caldwell Natural Area.	Corvallis TSP
A10	OR 99W/ Goodnight Ave Traffic Control: roundabout or <u>traffic signal</u> , may be dependent on the construction of Project A11.	Corvallis TSP
A11	OR 99W/Rivergreen Ave Traffic Control: roundabout or <u>traffic signal</u> , may be dependent on the construction of Project A10.	Corvallis TSP
K20221	Install a Bicycle signal head with <u>protected bicycle signal phase</u> at the signalized intersection of <u>OR 99W and Crystal Lake Drive</u> .	STIP

Analysis Results

PM Peak Hour

Ratio of demand volume to available capacity

Style	from (\geq)	to ($<$)
A	0.00	0.90
A	0.90	1.10
A	1.10	12.00

Green = below capacity

Blue = at capacity

Red = over capacity



Origin-Destination Travel Time and Trip Length

			PM Peak	
Origin	Destination	Direction	Travel Time (minutes)	Trip Length (miles)
Western	Southern UGB	SB	7.5	3.6
Southern UGB	Western	NB	6.7	
Western	Chapman	SB	1.6	0.4
Chapman	Western	NB	1.2	
Western	Hopkins	SB	2.3	0.6
Hopkins	Western	NB	1.7	
Western	Richland	SB	3.7	1.2
Richland	Western	NB	3.0	
Western	300' south of Goodnight	SB	4.6	1.6
300' south of Goodnight	Western	NB	3.8	
Hospital	Southern UGB	SB	14.4	6.7
Southern UGB	Hospital	NB	13.6	

Total Trips by Mode

	System Wide		Study Area	
Mode	Daily	PM Peak	Daily	PM Peak
Auto	205,094	17,718	13,350	1,298
Transit	6,617	N/A	85	N/A
Bike	32,379	N/A	851	N/A
Walk	89,153	N/A	2,191	N/A

State, City, & County v/c Targets & Standards

Roadway	v/c Targets
	OHP
Freight Route on a regional or District Highway (MPO)	0.90
District/Local Interest Roads (MPO)	0.95



Roadway	v/c Standard
City of Corvallis	
SW Western Blvd	0.85
SW B Ave	
SW Twin Oaks Cir/SE Chapman Pl	
SW Avery Ave/Crystal Lake Dr	
SE Alexander Ave	
SE Viewmont Ave	
SW Tunison Ave	
SE Richland Ave	
SE Park Ave	
SW Wake Robin Ave	
SE Goodnight Ave	
SW Goodnight Ave	
SE Rivergreen Ave	
Benton County	
OR 99W at Kiger Island Dr	0.90
OR 99W at Airport Ave	

Unsignalized Intersection v/c, LOS, & Delay

2040

Intersection ¹	v/c ^{2,3}	LOS	Delay (sec)	Estimated/COVID Impacted
B Ave & 4th St	0.34 / 0.61	A / E	3 / 25	●
B Ave & 3rd St	0.25 / 0.38	A / E	3 / 40	●
OR 99W &				
Twin Oaks/Chapman Pl	1.07 / >2.0	F / F	66 / >120	●
SE Viewmont Ave	0.34 / >2.0	A / F	8 / >120	●
SW Tunison Ave	0.35 / >2.0	A / F	8 / >120	●
SE Richland Ave	0.37 / 1.60	A / F	8 / >120	●
SE Park Ave	0.34 / 0.37	A / F	8 / 75	
SW Wake Robin Ave	0.30 / 1.60	A / F	6 / >120	
SE Goodnight Ave	Signalized in 2040			
SW Goodnight Ave	0.61 / 0.53	A / F	6 / 86	
SE Rivergreen Ave	Signalized in 2040			
SE Kiger Island Dr	0.32 / 0.07	A / C	5 / 19	●
SW Airport Ave	0.21 / 0.40	A / C	2 / 20	●

¹Values for intersection are listed by MAJOR movement / MINOR movement.

²OHP mobility target for all MAJOR movements is 0.90; for all MINOR movements it is 0.95. The City of Corvallis mobility standard for these MINOR movements is 0.85

³Black-shaded cells indicate that the OHP v/c target or the City or County standard has been exceeded

Signalized Intersection v/c, LOS, & Delay

2040

Intersection	v/c ¹	LOS	Delay (sec)
Western Blvd & 4 th St	1.23	F	>120
Western Blvd & 3 rd St	0.60	C	24
OR 99W & SW Avery Dr/Crystal Lake Dr	1.13	F	>120
OR 99W & SE Alexander Dr	0.54	C	20
OR 99W & SE Goodnight Ave	0.53	C	21
OR 99W & SE Rivergreen Ave	0.45	C	26

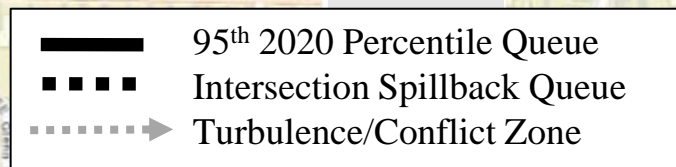
¹Black-shaded cells indicate that the OHP v/c target of 0.90 highway or 0.95 local road or the City standard of v/c 0.85 has been exceeded. The most restrictive target or standard is applied to the intersection.

Queuing Overview

2020



2040



2020

SW Goodnight Ave

SE Goodnight Ave

SE Rivergreen Ave

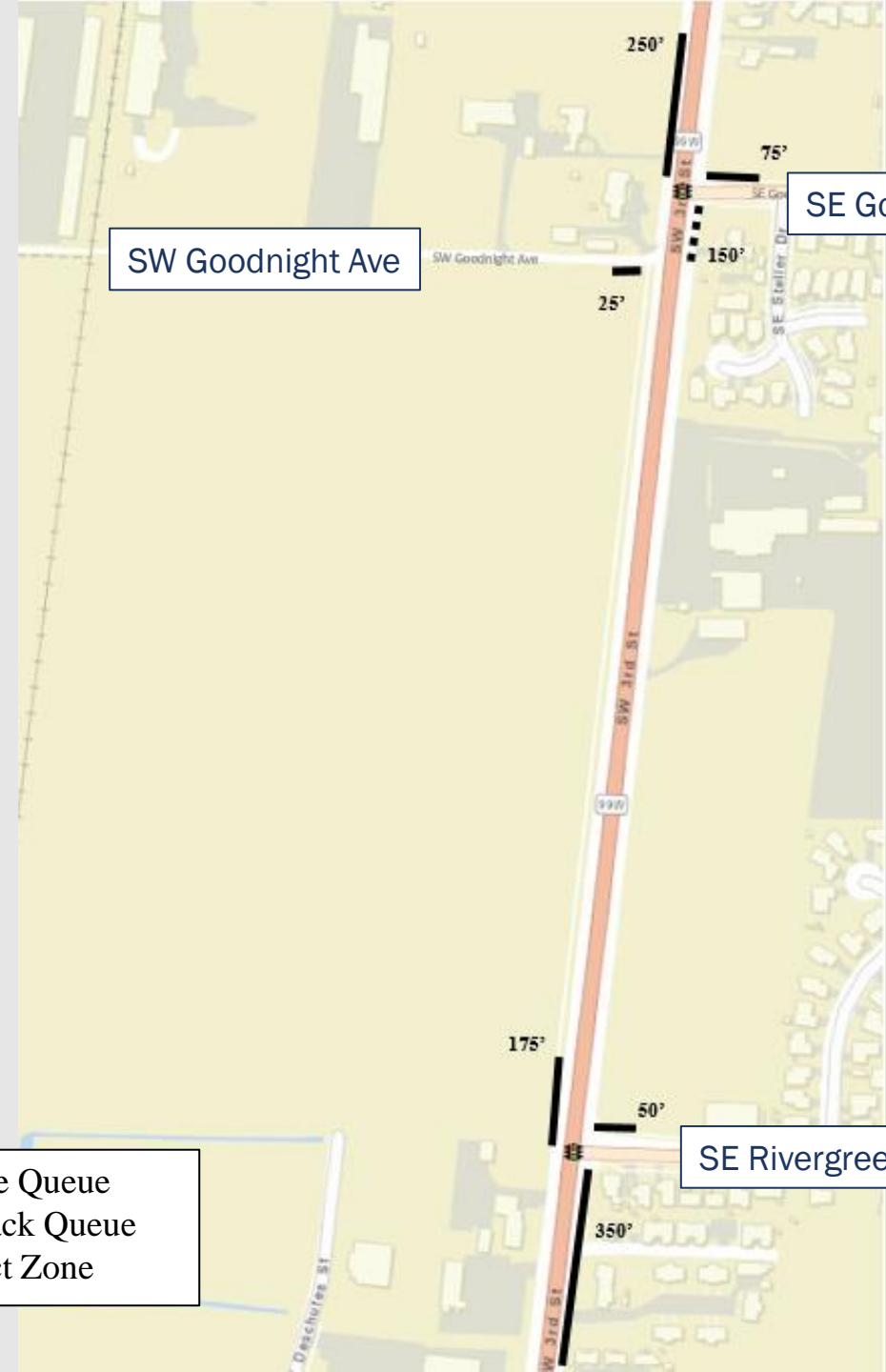
- 95th 2020 Percentile Queue
- ■ ■ ■ Intersection Spillback Queue
- ➔ Turbulence/Conflict Zone

2040

SW Goodnight Ave

SE Goodnight Ave

SE Rivergreen Ave



2040



Deficiencies

- Some intersections over capacity
 - 4th & Western Blvd; Chapman Pl; Crystal Lake Dr
- Extensive queuing southbound through interchange
- Long delays on side streets turning left onto highway
 - 9 of 11 unsignalized intersections are near failing (LOS E on A-F scale)
- Diagonal bicycle phase at Crystal Lake reduces green time on highway
- Safety concern on highway at Tunison Avenue
 - Southbound slowdown on north leg
 - Close proximity of Viewmont Ave and Tunison Ave

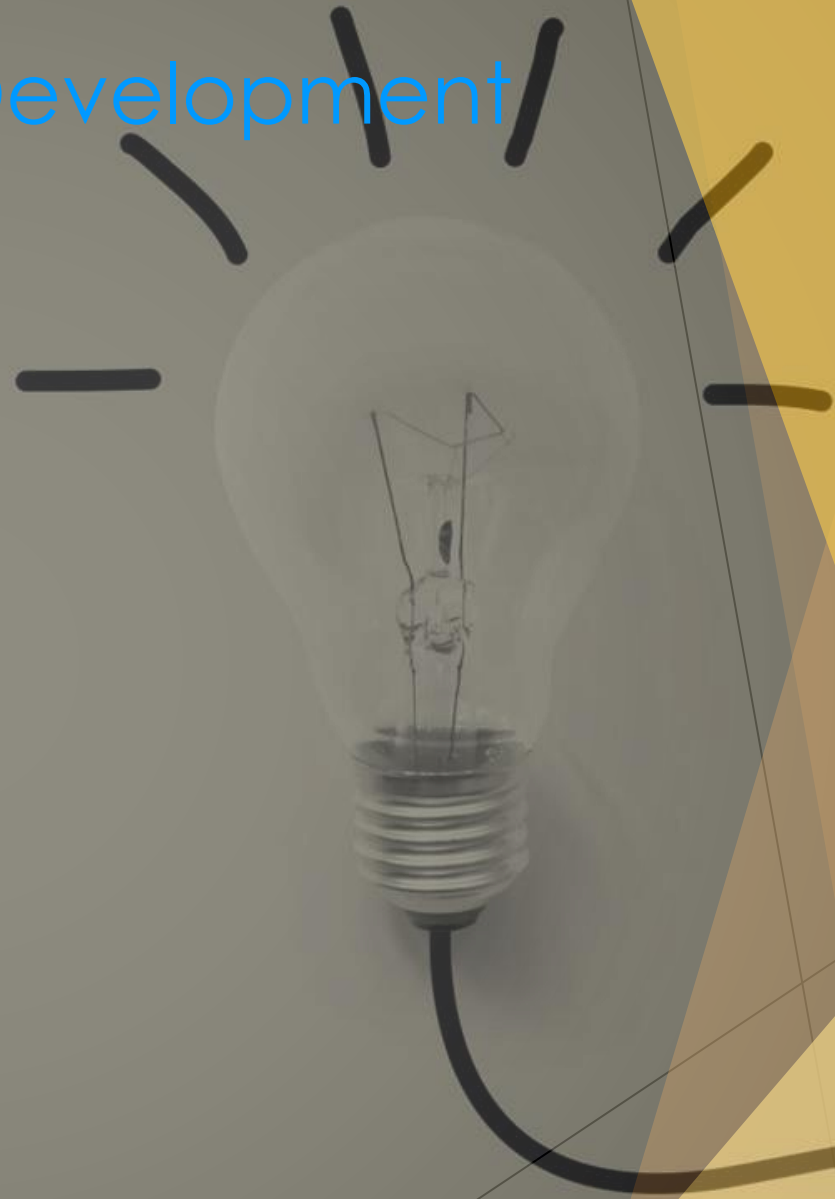
4. Introduction to Concept Development Workshop

▶ Dates:

- ▶ July 27th: you're invited!
- ▶ July 28th 2: Public, planning commission, and city council open house and presentation

▶ Purpose:

- ▶ Provide ideas for solutions to address issues along OR 99W
- ▶ Develop concepts for OR 99W corridor alternatives



Potential Solutions

Potential Treatments: Medians

Source: patternpaving.com



Source: Google Maps



Source: Streetsblog

Potential Treatments: Roundabouts



Source: Kitsap Daily News

Potential Treatments: Traffic Signal



Source: [blogspot.com](https://www.blogspot.com)

Potential Treatment: Buffered Bike Lanes



Source: corvallisoregon.gov



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Potential Treatment: Green Paint



Source: uctsrts.com



Brainstorm Potential Treatments: Bicycle Boxes



Source: City of Tuscon DOT



Source: smgov.net

Potential Treatment: Separated Bike Facilities



Source: altago.com



Source: cambridgema.gov

Potential Treatment: Shared Use Path/Sidepath



Potential Treatment: Rectangular Rapid Flashing Beacon (RRFB)



Potential Treatment: Pedestrian Hybrid Beacons



Source: tapinto.net

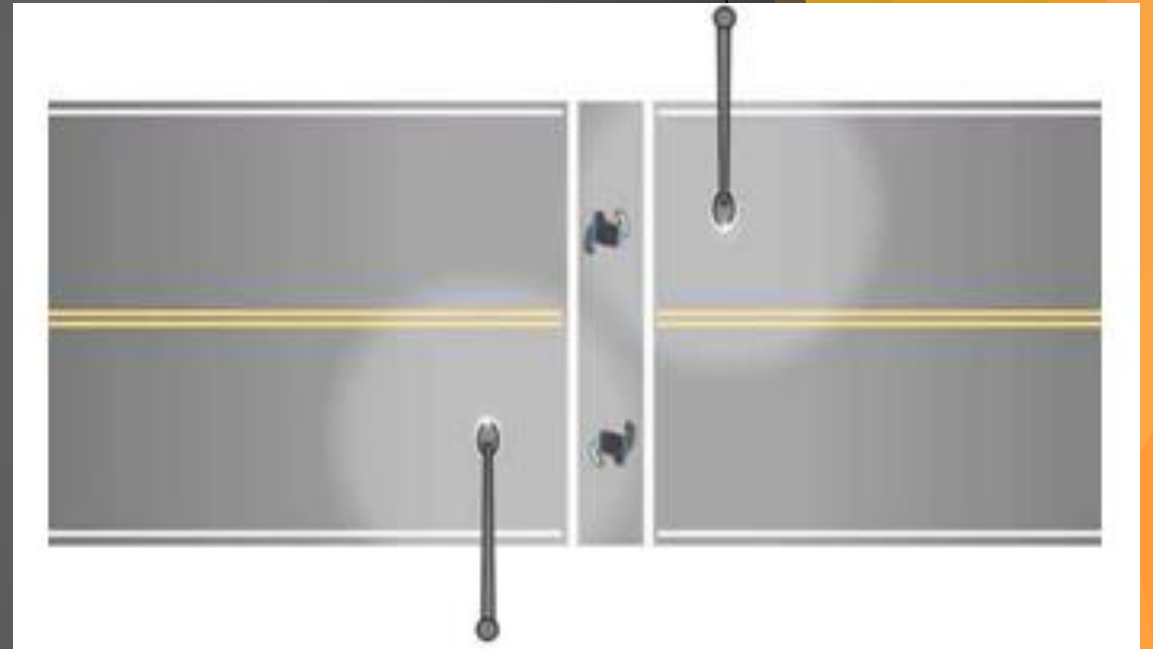
Potential Treatment: Grade Separated Crossing



Potential Treatment: Lighting



Illumination (in advance of pedestrian crossing)



Potential Treatment: Signage and Wayfinding

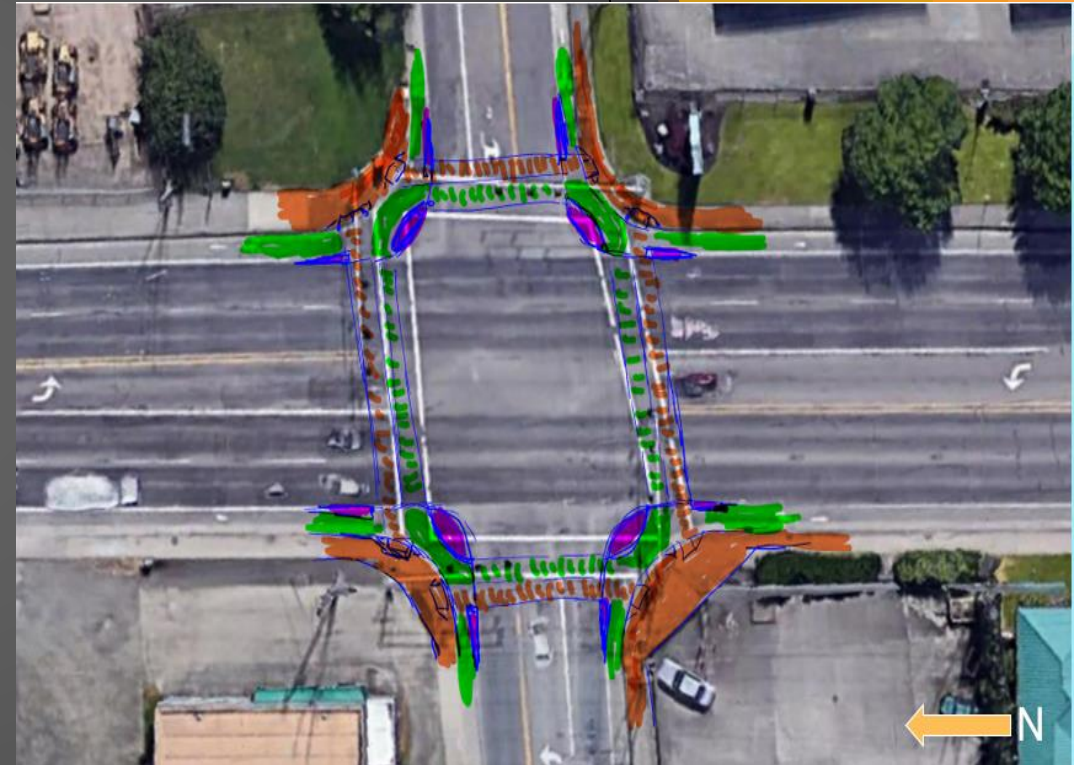


Potential Treatment: Protected Intersection

Proposed Protected Intersection at SW Avery Avenue (Crystal Lake Drive)



Source: blogspot.com



5. Recent Deliverables

- ▶ Summary of Corridor Issues, Opportunities and Constraints: Complete
- ▶ Plans/Policy Review: Complete
- ▶ Analysis Methodology and Assumptions: Complete
- ▶ Land Use and Roadway and Transit System Inventory: Complete
- ▶ Local Access Survey Summary: Complete
- ▶ Draft Access Management Methodology: Complete
- ▶ Existing Motor Vehicle Conditions: Complete
- ▶ Existing Safety and Active Transportation Inventory and Conditions: Complete
- ▶ Existing Needs, Planned Improvements, Alternatives and Recommendations:
In Progress
- ▶ Planned Future Motor Vehicle Conditions: In Progress
- ▶ Planned Future Active Transportation Conditions: In Progress

6. Next Steps & Adjourn

- ▶ Next –September SAG Meeting #6
 - Alternatives Development
 - In-Person vs Virtual
- ▶ In the next couple of months, we will:
 - Be developing and evaluating corridor design alternatives
 - Host a concept development workshop
 - Host Public Open house #2
 - Location suggestions? Community events?
 - Consider preferred concept

Questions/Comments?

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Thank You!