## EUGENE CITY COUNCIL AGENDA ITEM SUMMARY



Work Session: West Eugene EmX Update

Meeting Date: June 23, 2010

Department: Public Works Engineering

www.eugene-or.gov

Agenda Item Number: A

Staff Contacts: Rob Inerfeld, PWE; Tom Schwetz, LTD

Contact Telephone Numbers: 541-682-5343; 541-682-6203

### **ISSUE STATEMENT**

At this City Council Work Session, Lane Transit District (LTD) staff will provide an update on the West Eugene EmX Extension (WEEE) with an emphasis on the change in the corridor selection process and the winnowing of the number of alternatives under consideration.

### **BACKGROUND**

### Process Change for West Eugene EmX Project – The Story of 58

Through the extensive outreach conducted in the refinement of the alternative alignments for the West Eugene EmX Extension (WEEE) project, 58 distinct alternatives have emerged for evaluation. Not only is this a large number for the community to sort out in the process of selecting a Locally Preferred Alternative (LPA), it is a large number to take into the currently defined federal process. This Agenda Item Summary (AIS) provides a summary of the following:

- A description of the change in process that will more easily facilitate the process of selecting a preferred alternative;
- An overview of the various public meetings held to discuss the process change;
- A review of the new information developed as part of the preliminary analysis completed to date for the project, the staff recommendations for an initial winnowing of alternatives, and the feedback received about this information during the public meetings; and
- A description of the process and general schedule from this point forward.

### **Summary of Process Change**

As in previous EmX development efforts, the general approach has been to balance the operational needs for EmX operations in a corridor with the intent to develop design options that avoid and minimize negative impacts where possible. This has resulted in a wide range of alternative permutations – 56 distinct build alternatives, in addition to the no-build and transportation system management alternatives – making 58 alternatives in all.

In discussions with LTD Board Members, City Councilors, members of various committees involved in the project, and members of the public, there is general agreement that it would be confusing and difficult for the community to try and sort out differences among 58 alternatives. Through discussion with Federal Transit Administration (FTA) staff, they have indicated that there is a way of working through a project development process that better fits our needs.

The process envisioned for the project to date has been a combined Alternatives Analysis (required by FTA) and Draft Environmental Impact Statement (required for use of federal capital funds). FTA also provides for a sequential process where the alternatives analysis can be prepared first, using the same analysis we are preparing for the original process. This analysis will be used to winnow the range of alternatives down to a more manageable number. The alternatives analysis will be followed by a process of selecting a preferred alternative to be taken into the preparation of the Draft Environmental Impact Statement.

This has the benefit of breaking the overall decision into more manageable pieces which will assist in facilitating the community's decision-making on the project. It also puts the first part – the selection of the locally preferred alternative – into this calendar year.

### **Public Outreach on Process Change**

At an open house on June 9, LTD was able to share the results of the preliminary analysis to date and made recommendations. Sixty-four people attended the open house and provided comments (summarized in the next section). In addition to this open house, other public meetings on this topic include:

- June 1 EmX Steering Committee
- June 2 WEEE Corridor Committee
- o June 3 WEEE Design Options Local Advisory Committee meeting
- June 3 WEEE Design Options Open House
- (June 9 Open House on Process Change)
- o June 15 WEEE Corridor Committee (Review of data and recommendations)
- June 17 MPO Citizen Advisory Committee

Out of 64 attendees at the June 9 open house, 29 comments were received which are summarized in the following table:

- Terminus Options -	Retain	Eliminate
Seneca Terminus Option	8	13
Commerce Terminus Option	15	6
Cone/Willow Creek Terminus		
Option	1	18
- Alignment Alternatives		
Amazon Alignment Alternative	1	27
7th Place Alignment Alternative	9	15

In the next section there is more information about the preliminary analysis of the alignment and terminus options.

### **Results from Preliminary Analysis**

Information from the technical analyses completed to date suggests that certain alternatives may no longer be viable. This information is detailed and summarized in the attached Key Preliminary Results and West Eugene EmX Extension Alternatives Analysis Refinement Evaluation.

The Alternatives Analysis Refinement Evaluation is a determination of whether or not the proposed alignment alternatives and terminus options selected for further study in March 2008 are reasonable or promising alternatives based on the initial technical findings and the project's evaluation criteria.

Following are the project's eight primary evaluation criteria and measures:

- 1. Improve customer convenience by reducing travel time, increasing service reliability, and making other service improvements.
- 2. Improve operating and other efficiencies to maximize the use of scarce resources.
- 3. Support development that is consistent with planned land use documents and serve as a catalyst for planned transit-oriented development.
- 4. Help accommodate future growth in travel by increasing public transportation's share of trips.
- 5. Consider the mobility and safety needs of pedestrians, bicyclists, and motorists.
- 6. Provide for a fiscally stable public transportation system.
- 7. Design the project in a way that protects resources in the natural and built environment.
- 8. Support LTD's sustainability policy and the City of Eugene's efforts to reduce greenhouse gas emissions.

Based on the project's evaluation criteria and the results of the preliminary analysis, LTD staff is recommending eliminating two of the three terminus options:

- Both full-length terminus options at Ed Cone and Ed Cone/Willow Creek.
  - Stormwater runoff from either of these full-length options could result in impacts to protected plant species and Bureau of Land Management (BLM) wetlands west of Beltline Road.
  - The additional costs to construct these options are projected to exceed available funding.
  - The incremental additional ridership gains from extending the terminus to Ed Cone or both Ed Cone and Willow Creek is projected to be below levels that would merit seeking the required additional construction funding, or justify the long-term additional operational costs to extend service to these points.
- The Seneca Terminus option.
  - Cost and ridership projections indicate the Commerce Terminus would provide better service for the corridor.

Based on the project's evaluation criteria and the results of the preliminary analysis, LTD staff is also recommending eliminating two alternatives connecting either West 6<sup>th</sup>/7<sup>th</sup> Avenues or West 13<sup>th</sup> Avenue to West 11<sup>th</sup> Avenue:

- Both Amazon alignments. (These would have connected West 13<sup>th</sup> Avenue to West 11<sup>th</sup> Avenue via either a route on the north side of the Amazon channel or through a relocation and restoration of the existing channel.)
  - O Both Amazon design options could result in impacts to endangered plant species, historic resources (the channel), low income housing, and park land.
  - The Amazon restoration design option would require eight residential displacements and relocations.
- West 7<sup>th</sup> Place. (This would have connected the West 6<sup>th</sup>/7<sup>th</sup> alternative to West 11<sup>th</sup> Avenue via West 7<sup>th</sup> Place at Seneca Road.)

- o Projected boardings along West 7<sup>th</sup> Place are extremely low.
- O This alternative would result in numerous strip commercial property acquisitions as a result of required right-of-way widening; thereby not serving as a feasible alternative to avoid similar acquisitions along the more direct alterative routing along West 11<sup>th</sup> Avenue.

In addition to the No-Build and Transportation System Management (TSM) alternatives, LTD staff is recommending further consideration of the remaining build alternative alignments. These alternatives include:

- West 13th Avenue between the Downtown Eugene Station to West 11th Avenue via Chambers Street (this alternative includes two design options: a two-lane transitway or a frontage alley design option on West 13th between Polk and Tyler Streets),
- West 6th/7th Avenues between the Downtown Eugene Station to West 11th Avenue via Garfield (this alternative includes four design options: a Lincoln/Charnelton couplet or a two-way bus lane on Charnelton; and either adding or reassigning an existing lane on West 6th and West 7th Streets between Blair and Fillmore Streets), and
- West 11th Avenue (Between Garfield Street and the Commerce Street terminus).

### **Process and Schedule from this Point**

Based on the analysis described above, the LTD Board is scheduled on June 23 to take action to winnow the 58 alternatives down to eight, including No-Build and TSM. These eight alternatives will be incorporated into an Alternatives Analysis Report which, following review by FTA, is scheduled to be released for public review and comment in mid-September 2010. At that time, the Locally Preferred Alternative (LPA) decision-making process would begin. This process will include a variety of public outreach efforts, the work of several advisory committees (EmX Steering Committee, MPO Citizen Advisory Committee, and WEEE Corridor Committee), and meetings of the Joint LPA Committee. The Joint LPA Committee will develop a recommendation to the three deciding bodies – LTD Board, Eugene Council and Metropolitan Policy Committee (MPC) based on the analysis and public input. The members of the Joint LPA Committee are Mayor Piercy and Councilors Ortiz and Pryor from the Eugene City Council; Mike Eyster, Greg Evans, and Dean Kortge from the LTD Board; and Rob Handy and Sonny Chickering representing the MPC. The three deciding bodies will then work on reaching a common LPA to move into the environmental process.

### RELATED CITY POLICIES

From Eugene-Springfield Transportation System Plan (TransPlan):

### TSI Transit Policy #2: Bus Rapid Transit

Establish a Bus Rapid Transit (BRT) system composed of frequent, fast transit service along major corridors and neighborhood feeder service that connects with the corridor service and with activity centers, if the system is shown to increase transit mode split along BRT corridors, if local governments demonstrate support, and if financing for the system is feasible.

From Adopted Growth Management Policies:

### **Growth Management Policy 11**

Increase the use of alternative modes of transportation by improving the capacity, design, safety, and convenience of the transit, bicycle, and pedestrian transportation systems.

### **COUNCIL OPTIONS**

Provide feedback to LTD and City staff.

### CITY MANAGER'S RECOMMENDATION

This item is for discussion only.

### SUGGESTED MOTION

None.

### **ATTACHMENTS**

A. West Eugene EmX Extension Alternatives Analysis Refinement Evaluation

B. Key Preliminary Results (summary table)

### FOR MORE INFORMATION

Staff Contact: Rob Inerfeld, Public Works Engineering

Telephone: 541-682-5343

Staff E-Mail: rob.inerfeld@ci.eugene.or.us

Staff Contact: Tom Schwetz, Lane Transit District

Telephone: 541-682-6203

Staff E-Mail: tom.schwetz@ltd.org

# West Eugene EmX Extension Alternatives Analysis Refinement Evaluation



### **Evaluation Framework for Refinement of Alternatives**

The West Eugene EmX Extension project's evaluation framework consists of the project's Purpose and Need Statement and the project's Goal and Objectives (provided as a separate handout). The same evaluation criteria and measures used during the project's screening evaluation phase are being used during the project's Alternatives Analysis phase.

The Alternatives Analysis is a determination of whether or not the alignment alternatives are reasonable or promising alternatives based on the project's evaluation measures. Following is a summary of the evaluation criteria and measures:

- 1. Improve customer convenience by reducing travel time, increasing service reliability, and making other service improvements.
  - Round-trip transit travel time between select origins and destinations
  - Ridership information
- 2. Improve operating and other efficiencies to maximize the use of scarce resources.
  - Operating service hours (round-trip travel time proposed service frequency)
  - Operating hours of regular service replaced by EmX within the corridor
- 3. Support development that is consistent with planned land use documents and serve as a catalyst for planned transit-oriented development.
  - Vacant and redevelopable land value near the alignment
  - Number of mixed-use centers (land-use nodes) served by the alignment
- 4. Help accommodate future growth in travel by increasing public transportation's share of trips.
  - Population and employment density near alignment
  - Transportation mode shift
- 5. Consider the mobility and safety needs of pedestrians, bicyclists, and motorists.
  - General assessment of alternative's interface with pedestrian, bicycle, and vehicle facilities
- 6. Provide for a fiscally stable public transportation system.
  - General assessment of alternatives affect on the fiscal stability of the public transportation system
- 7. Design the project in a way that protects resources in the natural and built environment.
  - Potential for acquisitions and/or displacement of residents, businesses and parking
  - Potential impacts to street, landscape, and charter trees
  - Likelihood of adverse impact to environmentally-sensitive natural resources (i.e., wetlands, parklands, historic resources, critical habitat, endangered species)
- 8. Support LTD's sustainability policy and the City of Eugene's efforts to reduce greenhouse gas emissions.
  - General assessment on the alternative's ability to support LTD's sustainability policy
  - Potential for alternative to attract an increase in public transportation's share of trips and the concurrent reduction in vehicle miles traveled and/or single occupancy vehicle use.

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### **Summary of Evaluation Results**

This section summarizes the evaluation results, which is a determination of whether or not the proposed alignment alternatives and terminus options selected for further study in March 2008 are reasonable or promising alternatives based on the initial technical findings and the project's evaluation measures. Key findings from the preliminary draft technical reports related to project's evaluation measures are summarized in Tables 1A through 1D below. Additional data from the preliminary draft technical reports are provided in two tables provided separately ("Potential significant Adverse and Beneficial Effects by Mode and Length" and "Alternatives Analysis: Key Preliminary Results"). The technical reports will be available upon request from LTD as they become finalized, and they will be posted to the project website at http://weemx.ltd.org.

### Summary of Mode and Length Alternatives by Evaluation Criteria

### **Evaluation Criteria**

•	Still meets WEEE Project's Purpose and Need for that Evaluation Criteria
•	Probably will meet WEEE Project's Purpose and Need and Evaluation Criteria with modifications and / or mitigation
	Probably will not meet WEEE Project's Purpose and Need and Evaluation Criteria with modifications and / or mitigation
0	Does not meet WEEE Project's Purpose and Need for that Evaluation Criteria
NA	Not Applicable
⚠	Relatively higher number of significant adverse impacts identified

Table 1A. Summary of Mode and Length Alternatives by Evaluation Criteria: Bus Alternatives

				Ev	aluatio	n Crite	ria			
		1	2	3	4	5	6	7	8	R/E
Alt#	Alternative / Design Option / Terminus Option	Improve customer convenience	Improve operating and other efficiencies	Support planned land use / catalyst for planned transit-oriented development	Accommodate future growth in travel	Consider mobility and safety needs	Provide for fiscally stable system	Sensitive to natural and built resources	Support sustainability and efforts to reduce GHG	Recommendation to Retain or Eliminate the Alternative or Design Option
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		ous A	Iterna	uves						
	N	lo-Buil	d Alter	native						T.
1	Full Length Alternatives	NA	NA	NA	NA	NA	NA	NA	NA	R
		TSM	Alterna	tive						20
2	Full Length Alternatives	NA	NA	NA	NA	NA	NA	NA	NA	R

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Table 1B. Summary of Mode and Length Alternatives by Evaluation Criteria: Seneca Road Terminus Alternatives

										1
				Ev	aluatio	n Crite	ria			
		1	2	3	4	5	6	7	8	R/E
Alt#	Alternative / Design Option / Terminus Option	Improve customer convenience	Improve operating and other efficiencies	Support planned land use / catalyst for planned transit-oriented development	Accommodate future growth in travel	Consider mobility and safety needs	Provide for fiscally stable system	Sensitive to natural and built resources	Support sustainability and efforts to reduce GHG	Recommendation to Retain or Eliminate the Alternative or Design Option
		BRT A	lterna	tives						
	With	Senec	a Road	Termin	us					
	W 13 <sup>th</sup> Avenue – Am	azon vi	a North	of Ama	zon De	sign O	ption			
3	- Frontage Alley Design Option	•	1	•	•	•	•	⚠	•	E
4	- Two-Lane Transitway Design Option	•	•	•	•	•	•	⚠	•	E
	W 13 <sup>th</sup> Avenue – Amaz	zon via	Amazor	Restor	ration [	Design	Option	)		
5	- Frontage Alley Design Option	1	•	•	(	•	•	⚠	•	E
6	<ul> <li>Two-Lane Transitway Design</li> <li>Option</li> </ul>		•	•	•	•	•	⚠	•	E
	W 13 <sup>th</sup>	Avenu	ie – W 1	11 <sup>th</sup> Ave	nue					
7	- Frontage Alley Design Option	1	1	•	0	•	•	•	•	E
8	– Two-Lane Transitway Design Option	•	•		•	•	•	0	•	E
	W 6 <sup>th</sup> / 7 <sup>th</sup> Avenues – W 11 <sup>th</sup> Ave	nue via	a Lincol	n / Chai	nelton	Couple	et Desi	ign Opt	ion	
9	– Add-A-Lane Design Option			•	•	•	0	•	(	Е
10	<ul> <li>Reassign-A-Lane Design</li> <li>Option</li> </ul>				0	•	0	4	4	Е
	W 6 <sup>th</sup> / 7 <sup>th</sup> Avenues – W 11 <sup>th</sup>	Avenu	e via Ch		2000	Way D		Option		
11	- Add-A-Lane Design Option		1.4 01		0	•	O	•	(	Е
12	– Reassign-A-Lane Design Option			4	0	•	0	4	4	Е
12	W 6 <sup>th</sup> / 7 <sup>th</sup> Avenues – W 7 <sup>th</sup> Pla	ice via	Lincoln	<u> </u>		ouplet		n Option	1	
13	- Add-A-Lane Design Option	O	0	O	•	•	O	(	•	Е
14	Reassign-A-Lane Design Option	0	0	0	4		0	•	ă.	E
14	W 6 <sup>th</sup> / 7 <sup>th</sup> Avenues – W 7 <sup>th</sup>					av Dec	11.0000		(A.)	
15	- Add-A-Lane Design Option	O	O	O	- 00-00	ay Des	O		•	Е
	<ul> <li>Reassign-A-Lane Design</li> </ul>			100			20			
16	Option	0	0	0			0			E

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Table 1C. Summary of Mode and Length Alternatives by Evaluation Criteria:

\*Commerce Street Terminus Alternatives\*\*

				— les	-14:-	. 0.:4-				]
		<u> </u>			aluatio					
		1	2	3	4	5	6	7	8	R/E
Alt#	Alternative / Design Option / Terminus Option	Improve customer convenience	Improve operating and other efficiencies	Support planned land use / catalyst for planned transit-oriented development	Accommodate future growth in travel	Consider mobility and safety needs	Provide for fiscally stable system	Sensitive to natural and built resources	Support sustainability and efforts to reduce GHG	Recommendation to Retain or Eliminate the Alternative or Design Option
		BRT A	Alternat	ives						
	With Co	ommer	ce Stre	et Term	ninus					
ar and a second	W 13 <sup>th</sup> Avenue – Am	azon vi	a North	of Ama	zon De	sign O	ption			
17	<ul> <li>Frontage Alley Design Option</li> </ul>	•	1	1	•	•	•	⚠	•	Е
18	<ul> <li>Two-Lane Transitway Design Option</li> </ul>	•	•	•	•	•	•	Δ	•	Е
	W 13 <sup>th</sup> Avenue – Amaz	zon via	Amazoı	n Restor	ration [	esign	Option			
19	<ul> <li>Frontage Alley Design Option</li> </ul>	•	•	•	•	•	1	⚠	•	E
20	<ul> <li>Two-Lane Transitway Design Option</li> </ul>	•	•	•	•	•	•	Δ	•	E
	W 13 <sup>th</sup>	Avenu	ie – W 1	11 <sup>th</sup> Ave	nue					
21	<ul> <li>Frontage Alley Design Option</li> </ul>	•	•	•	•	•	•	•	•	R
22	– Two-Lane Transitway Design Option	•	•	•	•	•	•	0	•	?
	W 6 <sup>th</sup> / 7 <sup>th</sup> Avenues – W 11 <sup>th</sup> Ave	nue via	a Lincol	n / Char	rnelton	Couple	et Desi	ign Opt	ion	
23	<ul> <li>Add-A-Lane Design Option</li> </ul>			•	•	•		•	•	R
24	<ul> <li>Reassign-A-Lane Design</li> <li>Option</li> </ul>			•	•	•		•	•	R
	W 6 <sup>th</sup> / 7 <sup>th</sup> Avenues – W 11 <sup>th</sup>	Avenu	e via Ch	arneltor	n Two-\	Nay D	esign (	Option		
25	<ul> <li>Add-A-Lane Design Option</li> </ul>			•	•	•		•	•	R
26	<ul> <li>Reassign-A-Lane Design</li> <li>Option</li> </ul>			•	•	•		•	•	R
	W 6 <sup>th</sup> / 7 <sup>th</sup> Avenues – W 7 <sup>th</sup> Pla	ice via	Lincoln	/ Charne	elton C	ouplet	Design	n Option	1	
27	<ul> <li>Add-A-Lane Design Option</li> </ul>	0	0	0	•	•	0		•	Е
28	<ul> <li>Reassign-A-Lane Design</li> <li>Option</li> </ul>	0	0	0	•	•	0	•	•	Е
	W 6 <sup>th</sup> / 7 <sup>th</sup> Avenues – W 7 <sup>th</sup>			4.8	Two-W	ay Des		otion		
29	– Add-A-Lane Design Option	0	0	0	•	•	0		(	E
30	– Reassign-A-Lane Design Option	0	0	0	•	•	0	•	•	E

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Table 1D. Summary of Mode and Length Alternatives by Evaluation Criteria: Full-Length Cone Terminus Alternatives

										1
			1	Ev	aluatio	n Crite	ria 			
		1	2	3	4	5	6	7	8	R/E
Alt#	Alternative / Design Option / Terminus Option	Improve customer convenience	Improve operating and other efficiencies	Support planned land use / catalyst for planned transit-oriented development	Accommodate future growth in travel	Consider mobility and safety needs	Provide for fiscally stable system	Sensitive to natural and built resources	Support sustainability and efforts to reduce GHG	Recommendation to Retain or Eliminate the Alternative or Design Option
	With Full-Len		Alternat		o Torm	inue				
	W 13 <sup>th</sup> Avenue – Amazon via						V 11 <sup>th</sup>	Avenue		
31	- Frontage Alley Design Option	•	1741142	<b>4</b>		•	•	Δ	•	Е
32	– Two-Lane Transitway Design Option	•	4	4	•		•	Δ	•	Е
J	W 13 <sup>th</sup> Avenue – Amazon via A	mazon	Restora	ation De	sign O	ption –	W 11 <sup>t</sup>		ıe	
33	- Frontage Alley Design Option	•	1	1	1	•	•	Δ	•	Е
34	– Two-Lane Transitway Design Option	•	1	•	•	•	•	Δ	•	E
	W 13 <sup>th</sup>	Avenu	ie – W 1	1 <sup>th</sup> Ave	nue					
35	- Frontage Alley Design Option	•	•	1	•	•	•	Δ	•	Е
36	- Two-Lane Transitway Design Option	•	•	•	•	•	•	Δ	•	E
	W 6 <sup>th</sup> / 7 <sup>th</sup> Avenues – W 11 <sup>th</sup> Ave	nue via	Lincol	n / Chai	nelton	Couple	et Desi	gn Opt	ion	
37	- Add-A-Lane Design Option			1	•	•		Δ	1	E
38	– Reassign-A-Lane Design Option			•	•	•		Δ	1	E
	W 6 <sup>th</sup> / 7 <sup>th</sup> Avenues – W 11 <sup>th</sup>	Avenu	e via Ch	arnelto	Two-\	Way D	esign (	Option		
39	Add-A-Lane Design Option     Reassign-A-Lane Design			1	•	•		Δ	1	E
40	Option			•	•	•		⚠	1	E
V	V 6 <sup>th</sup> / 7 <sup>th</sup> Avenues – W 7 <sup>th</sup> Place – W 1	11 <sup>th</sup> Ave	enue via	Lincoln	/ Char	nelton	Coupl	et Desi	gn Optio	n
41	- Add-A-Lane Design Option	0	0	0	•	•	0	Δ	•	E
42	– Reassign-A-Lane Design Option	0	0	0	•	•	0	Δ	1	E
	W 6 <sup>th</sup> / 7 <sup>th</sup> Avenues – W 7 <sup>th</sup> Place –	W 11 <sup>th</sup>	Avenue	via Ch	arnelto	n Two-	Way D	esign (	Option	
43	– Add-A-Lane Design Option	0	0	0	1	•	0	⚠	1	E

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				Ev	aluatio	n Crite	ria			
		1	2	3	4	5	6	7	8	R/E
Alt#	Alternative / Design Option / Terminus Option	Improve customer convenience	Improve operating and other efficiencies	Support planned land use / catalyst for planned transit-oriented development	Accommodate future growth in travel	Consider mobility and safety needs	Provide for fiscally stable system	Sensitive to natural and built resources	Support sustainability and efforts to reduce GHG	Recommendation to Retain or Eliminate the Alternative or Design Option
44	<ul><li>Reassign-A-Lane Design</li><li>Option</li></ul>	0	0	0	1	•	0	Δ	•	E

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Table 1E. Summary of Mode and Length Alternatives by Evaluation Criteria: Full-Length Cone / Willow Creek Terminus Alternatives

				Ev	aluatio	n Crita	rio			
		1	2	3	4	5	6	7	8	R/E
				d: 0						
Alt	Alternative / Design Option / # Terminus Option	mprove customer convenience	mprove operating and other efficiencies	Support planned land use / catalyst for planned transit-oriented development	Accommodate future growth in ravel	Consider mobility and safety needs	Provide for fiscally stable system	Sensitive to natural and built resources	Support sustainability and efforts to reduce GHG	Recommendation to Retain or Eliminate the Alternative or Design Option
7 (10	· · · · · · · · · · · · · · · · · · ·	BRT A	Alternati		- <del>-</del> -			U)	_ U) <u>L</u>	шшо
	With Full-Length Alter				w Cre	ek Ter	minus			
	W 13 <sup>th</sup> Avenue – Amazon via N	North o	f Amazo	n Desig	gn Opti	on -V	V 11 <sup>th</sup> .	Avenue		
45		•	1	1	1	•	•	Δ	•	E
46	Two-Lane Transitway Design     Option	•	1	1	1	•	•	Δ	•	Е
	W 13 <sup>th</sup> Avenue – Amazon via Ar	mazon	Restora	tion De	sign O	otion –	W 11 <sup>tt</sup>	Avenu	ie	
47		•	(	1	(	•	•	Δ	•	E
48	Two-Lane Transitway Design     Option	•	•	•	•	•	•	Δ	•	E
	W 13 <sup>th</sup>	Avenu	ie – W 1	1 <sup>th</sup> Ave	nue					I
49	<ul> <li>Frontage Alley Design Option</li> <li>Two-Lane Transitway Design</li> <li>Option</li> <li>■ ■ ● ●</li> <li>● ■ ●</li> <li>● ■ ●</li> </ul>	•	Е							
50		•	Е							
	W 6 <sup>th</sup> / 7 <sup>th</sup> Avenues – W 11 <sup>th</sup> Ave	enue via Lincoln / Charnelton Couplet Design Option			on					
51		Add-A-Lane Design Option	1	Е						
52	- Reassign-A-Lane Design Option				•	E				
	W 6 <sup>th</sup> / 7 <sup>th</sup> Avenues – W 11 <sup>th</sup>	Avenue	e via Ch	arneltor	Two-\	Nay D	esign (	Option		
53	– Add-A-Lane Design Option – Reassign-A-Lane Design			1	1	•		Δ	1	E
54				1	•	•		Δ	1	Е
	W 6 <sup>th</sup> / 7 <sup>th</sup> Avenues – W 7 <sup>th</sup> Place – W 1	1 <sup>th</sup> Ave	enue via	Lincoln	/ Char	nelton	Coupl	et Desi	gn Optio	n
55	– Add-A-Lane Design Option – Reassign-A-Lane Design	0	0	0	1	•	0	Δ	1	Е
56		0	0	0	•	•	0	Δ	1	Е
	W 6 <sup>th</sup> / 7 <sup>th</sup> Avenues – W 7 <sup>th</sup> Place – V	N 11 <sup>th</sup>	Avenue	via Cha	arnelto	n Two-	Way D	esign (	Option	
57	– Add-A-Lane Design Option – Reassign-A-Lane Design	0	0	0	•	•	0	Δ	1	E
58		0	0	0	•	•	0	Δ	1	Е

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# West Eugene EmX Extension Alternatives Analysis: Key Preliminary Results (1)

			Annual Ridership		Average				Potential Property Acquisitions	roperty	Route Length		Trees Potentially Removed	tentially wed				Potential
:		Corridor Ridership	EmX System	1	Transit Travel Times (in minutes) from		em G	Systemwide			by EmX Lane Type Total/BAT/ Transitway/	On-Street	-		Potential Impacts to Endangered	Potential	Potential	Impacts to Low Income/
Alternative Number(s)	Alternative(s) Name	(without downtown)	FmX Routes	Systemwide Ridership	Eugene <sup>(2)</sup>	Capital Cost (in millions)	Dollars (in millions)	Operating Cost per Trip	Partial	Full	(in miles)	Parking Displaced	Onder 8 Diameter	Over 8 Diameter	Plants & Animals	Parkland Impacts	Wetlands	Minority
1	No-Build (full length)	3,028,200	4,898,700	14,392,200	17.5	\$0.0	\$39.07	\$2.71	0	0		0	0	0				
2	TSM (full length)	3,081,300	4,918,800	14,520,000	16.4	\$22.2	\$40.47	\$2.79	40	2		0	68	2	^		^	
	Seneca Terminus																	
3-6	W 13th to Amazon Alternative (4)	3,285,300	6,299,100	14,744,100	15.5	\$63.0-\$65.1	\$40.46	\$2.74	39-45	4-14	5.4/1.3/2.9/1.2	129	599-854	308-494	>	>	>	>
7-8	W 13th Avenue to W 11th Avenue <sup>(5)</sup>	3,277,200	5,979,000	14,732,400	15.5	\$66.1-\$66.5	\$40.13	\$2.72	77-81	4-8	5.5/3.0/1.5/0.9	101	65	73				
9-12	W 6th/7th Avenue to W 11th Avenue <sup>(6)</sup>	3,303,900	6,246,300	14,738,700	18.8	\$76.3-\$84.0	\$40.76	\$2.77	111-174	6-9	6.1/5.1/0.0/1.0	11-39	46-56	102-213				
13-16	W 6th/7th Avenue to W 7th Place <sup>(7)</sup>	3,213,000	5,971,500	14,639,400	18.8	\$62.4-\$70.1	\$40.83	\$2.79	87-150	3-6	5.7/5.2/0.0/0.5	11-39	18-28	91-202			1	
	Commerce Terminus																	
17-20	W 13th to Amazon Alternative (4)	3,408,600	6,477,600	14,922,600	14.4	\$92.0-\$94.0	\$40.27	\$2.70	74-80	5-15	8.2/4.1/2.9/1.2	147	611-866	328-504	~	`	~	>
21-22	W 13th Avenue to W 11th Avenue <sup>(5)</sup>	3,400,500	6,422,700	14,910,900	14.5	\$95.0-\$95.4	\$39.95	\$2.68	112-116	6-5	8.3/5.9/1.5/0.9	119	71	93			1	
23-26	W 6th/7th Avenue to W 11th Avenue <sup>(6)</sup>	3,427,200	6,424,800	14,917,200	17.8	\$105.2-\$113.0	\$40.57	\$2.72	146-209	7-10	8.8/7.8/0.0/1.0	29-57	28-68	122-233			1	
27-30	W 6th/7th Avenue to W 7th Place <sup>(7)</sup>	3,336,300	6,150,000	14,817,900	17.8	\$102.1-\$109.8	\$40.65	\$2.74	124-187	4-7	8.7/8.0/0.0/0.7	29-57	30-40	111-222			>	
31-34	Full Length Terminus (Cone & Cone + Willow) W 13th to Amazon Alternative (4)	3,464,700	6,572,400	15,017,400	14.4	\$113.6-\$119.1	\$40.33	\$2.69	88-08	5-15	13.0/5.9/2.9/4.2	147-161	596-802	335-511	<i>&gt;</i>	<b>&gt;</b>	<i>&gt;</i>	>
39-42 & 44-50	W 13th Avenue to W 11th Avenue <sup>(5)</sup>	3,456,600	6,538,500	15,005,700	14.5	\$120.9-\$124.5	\$40.00	\$2.67	118-124	5-9	13.1/7.7/1.5/3.9/	119-133	168	100	>		`	
43-50 & 51-54	W 6th/7th Avenue to W 11th Avenue (6)	3,483,300	6,519,600	15,012,000	17.8	\$131.1-\$142.1	\$40.63	\$2.71	154-217	7-10	13.6/9.6/0.0/4.0	29-71	155-165	129-240	1		1	
50-58 & 55-58	W 6th/7th Avenue to W 7th Place <sup>(7)</sup>	3,392,400	6,244,800	14,912,700	17.8	\$128.0-\$138.9	\$40.70	\$2.73	132-195	4-7	13.5/9.8/0.0/3.7	29-71	127-137	118-229	<i>&gt;</i>		<i>&gt;</i>	
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(1) These data represent information summarized from preliminary draft technical subject reports on the West Eugene EmX Extension project as of June 8th, 2010 and are subject to final verification and revision. Individual technical subject reports will be available on the project website (http://weemx.ltd.org) as the reports are finalized.

(2) Average of total travel time for transit trips from downtown Eugene to 16 locations between the Eugene Downtown Station and the Commerce Terminus. Time includes both in-vehicle and walking/waiting time.

(3) Route lenghts and type: Total Length of alternative/length in miles of BAT lane, lenght in miles of exclusive transitway/ lenght in miles of exclusive transitway/ lenght in miles of bat lane, separated from general purpose lanes by a paint stripe and signage, shared with right or left-turning general purpose vehicle traffic.

BAT Lane= Bus and Business Access: An EmX priority lane; generally a concrete lane, separated from general purpose vehicles at signalized intersections only. Sections of transitway on W 13th are additionally separated by a curb with various traversable curb breaks at Iransitway.

intersections. Mixed Traffic: EmX or bus travels with other vehicles in normal traffic lanes

(4) Design options for the W. 13th Avenue to Amazon Alignment are: Frontage Alley or Two-Way Transitway on 13th east of Polk and the North Amazon and Amazon Restoration for the Amazon Channel section.

(5) Design option for the W. 13th Avenue to W. 11th Avenue Alignment is: Frontage Alley or Two-Way Transitway on 13th east of Polk.

(6) Design options for the W. 6th/7th Avenues to W. 11th Avenue Alignment are: Charnelton/Lincoln Couplet and Charnelton Two-Way in the downtown Eugene area and Add-A-Lane and Reassign-A-Lane on 6th and 7th Avenues.

(7) Design options for the W. 6th/7th Avenues to W. 7th Place Alignment are: Charnelton/Lincoln Couplet and Charnelton Two-Way in the downtown Eugene area and Add-A-Lane and Reassign-A-Lane on 6th and 7th Avenues.