

## Preliminary: Summary of Evaluation Measures

<b>Summary of Evaluation Measures</b>								
<b>Goal 1 (Multimodal): Ensure solution provides for safe Alternative modes of transportation</b>								
<b>Objectives/Measures</b>	<b>Alternative and Design Option</b>							<b>Comments</b>
	No Build	Bypass with a Split Diamond Interchange at I-5			Bypass with a Directional Interchange at OR 62			
		Design Option A	Design Option B	Design Option C	Design Option A	Design Option B	Design Option C	
<i>Improve/increase safe bike and pedestrian facilities in the corridor</i>								
Percentage of new transportation facilities that include bicycle facilities	n/a	100% (City) 0% (County)	100% (City) 0% (County)	100% (City) 0% (County)	100% (City) 0% (County)	100% (City) 0% (County)	100% (City) 0% (County)	Based on City and County road design standards. Bicycles allowed on shoulder of bypass.
Percentage of new transportation facilities that include pedestrian facilities	n/a	100% (City) 0% (County)	100% (City) 0% (County)	100% (City) 0% (County)	100% (City) 0% (County)	100% (City) 0% (County)	100% (City) 0% (County)	Based on City and County road design standards.
Number of potential bicycle/pedestrian/motorized vehicle conflict points		2	2	2	3	3	3	Conflict points at all directional interchanges
<i>Improve bike and pedestrian connectivity in the corridor</i>								
Number of new bike or pedestrian connections	0	0	0	0	1	1	1	New bike connection for the DI alternative at the Skypark extension.
<i>Provide opportunities for increased transit utilization</i>								
Are there opportunities for transit improvements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Transit study will develop a range of potential improvements

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<b>Goal 2 (Environmental): Avoid, minimize, and mitigate impacts to the natural environment</b>								
<b>Objectives/Measures</b>	<b>Alternative and Design Option</b>							<b>Comments</b>
	No Build	Bypass with a Split Diamond Interchange at I-5			Bypass with a Directional Interchange at OR 62			
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<i>Minimize air quality impacts</i>								
Violations of Air Quality Standards (Particulate and Carbon Monoxide)	N/A	0	0	0	0	0	0	All alternatives are considered to be in compliance with conformity requirements per the Statewide Air Quality Report.
<i>Avoid or minimize impacts to native fish and wildlife habitat and movement corridors</i>								
Number of stream crossings fish bearing (current or historic) vs. non-fish bearing	6 vs. 5	13 vs. 12	13 vs. 12	13 vs. 12	11 vs. 12	11 vs. 12	11 vs. 12	
Number of stream crossings with approved fish passage designs.	3	25	25	25	23	23	23	
Additional linear feet and total area (ft <sup>2</sup> ) of additional riparian habitat impacted	0	3,328 LF 161,172 ft <sup>2</sup>	3,292 LF 164,051 ft <sup>2</sup>	3,327 LF 151,992 ft <sup>2</sup>	2,882 LF 133,374 ft <sup>2</sup>	2,846 LF 136,253 ft <sup>2</sup>	2,881 LF 124,194 ft <sup>2</sup>	
Number of wildlife highway crossing opportunities (i.e.: dry culverts & highway overcrossings for wildlife passage)	0	0	0	0	0	0	0	New stream crossings may provide crossing opportunities for small animals. However, no crossings are currently designed specifically for this purpose.
<i>Avoidance or minimization impacts to ESA listed species and their habitats</i>								

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Number of ESA listed plant / Fish /Invertebrate species impacted	2/1/1	2/1/1	2/1/1	2/1/1	2/1/1	2/1/1	2/1/1	Woolly Meadowfoam and Desert Lomatium
Acres of habitat with direct / indirect impacts classified by USFWS as “vernal pool critical habitat”	0/0	0/19.36	0/19.36	0/19.36	0/19.36	0/19.36	0/19.36	Preliminary Calculations
Acres of “Woolly Meadow Foam” (ESA listed plant species) habitat direct / indirect impacts	0	13.7 / 28.8	13.7 / 28.8	13.7 / 28.8	13.7 / 28.8	13.7 / 28.8	13.7 / 28.8	Preliminary Calculations
Acres of “Desert Lomatium” (ESA listed plant species) habitat direct / indirect impacts	0	5.05 /16.7	5.05 /16.7	5.05 /16.7	5.05 /16.7	5.05 /16.7	5.05 /16.7	Preliminary Calculations
<i>Avoidance or minimization of impacts to wetlands and vernal pools</i>								
Acres of high quality wetlands impacted	0	2.9	2.55	2.70	2.91	2.55	2.70	
Acres of medium quality wetlands impacted	0	3.62	3.22	4.13	3.05	2.66	3.56	
Acres of low quality wetlands impacted	0	15.62	14.54	16.51	15.62	14.54	16.52	
Acres of high quality vernal pool habitat	0	0.20	0.20	0.20	0.20	0.20	0.20	Preliminary Calculations. Includes direct and indirect impacts
Acres of medium quality vernal pool habitat	0	12.5	12.5	12.5	12.6	12.6	12.6	Preliminary Calculations. Includes direct and indirect impacts

Comment [TK1]:

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Acres of low quality vernal pool habitat	0	1.73	1.73	1.73	1.73	1.73	1.73	
<i>Avoid or minimize impacts to aquatic resources</i>								
Estimated volume (yd <sup>3</sup> ) of fill below OHW	0	No net rise	No net rise	No net rise	No net rise	No net rise	No net rise	
<i>Minimize impacts to water quality</i>								
Preliminary estimate of area (acres) of new impervious surface	0	104.9	103.5	105.7	106.1	104.7	106.9	
Preliminary estimate of area (acres) of contributing impervious surface	31.5	222.06	231.77	223.21	189.29	199	190.47	
Impacts to 303(d) listed waterways	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Bear Creek (TMDL) and Lone Pine Creek drainage basins currently impacted by untreated runoff; Build Alts. would increase impervious surfacing.
<i>Minimize noise impacts</i>								
Number of noise impacts, with abatement and without abatement	0	38	40	41	49	51	52	Preliminary findings. Abatement analysis ongoing.

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<i>Avoid or minimize impacts to the visual/aesthetic landscape</i>								
Change in visual quality 1) Bear Creek Greenway 2) Justice Road area 3) VA SORCC	1) Low 2) Low 3) Low	1) Low 2) Low 3) Mid/High	1) Low 2) High 3) Mid/High	1) Moderate 2) High 3) Mid/High	1) Low 2) Low 3) Mid/High	1) Low 2) Low 3) Mid/High	1) Low 2) High 3) Mid/High	Areas listed have the corridor's highest visual sensitivity
<i>Avoid or minimize impacts to cultural resources</i>								
Number of archaeological resources in project area	0	0	0	0	0	0	0	Results are preliminary.
Number of adverse impacts to archaeological resources	0	0	0	0	0	0	0	
Number of historic resources adjacent to alignment	2	2	2	2	2	2	2	
Number of adverse impacts to historic resources	0	0	0	0	0	0	0	
<i>Minimize impacts to farmland (EFU) and forestland</i>								
Acres of farmland (EFU) impacts	0	51.8	35.9	33.4	51.8	35.9	33.4	Represents the EFU land converted to roadway use plus the land remaining east of the bypass under Design Options A and B.
Acres of forestland impact	0	37.7	42.1	42.2	37.7	42.1	42.2	Represents the land zoned Open Space Reserve converted to roadway use.

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<b>Goal 3 (Economic): Maintain economic vitality in the corridor</b>								
<b>Objectives/Measures</b>	<b>Alternative and Design Option</b>							<b>Comments</b>
	No Build	Bypass with a Split Diamond Interchange at I-5			Bypass with a Directional Interchange at OR 62			
		Design Option A	Design Option B	Design Option C	Design Option A	Design Option B	Design Option C	
<i>Provide efficient movement of freight through the corridor as well as within the corridor</i>								
Number of changed access points to industrial/commercial areas	0	4	4	4	5	5	5	
Travel time through the corridor for the design year (minutes)	28	14	14	14	14	14	14	Forecasted afternoon peak travel time estimated from I-5 to Dutton Road.
<i>Minimize impacts to businesses and residents</i>								
Number of commercial displacements	0	39	48	39	45	54	45	. Preliminary results.
Number of residential displacements	0	19	19	21	44	44	47	Residential displacements Include both tenants and homeowners. Preliminary results.
Number of partial residential or commercial acquisitions	0	161	155	154	168	162	160	Preliminary results.
<i>Provide accessibility for businesses</i>								
Number of existing accesses that would be changed (closed, consolidated, or moved)	0	50	50	47	66	66	63	Reasonable access would be provided to each property, or else damages, if compensable, would be determined by the appraisal process.

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<b>Summary of Evaluation Measures</b>								
<b>Goal 4 (Safety): Ensure the solution is safe for all modes of transportation</b>								
<b>Objectives/Measures</b>	<b>Alternative and Design Option</b>							<b>Comments</b>
	No Build	Bypass with a Split Diamond Interchange at I-5			Bypass with a Directional Interchange at OR 62			
		Design Option A	Design Option B	Design Option C	Design Option A	Design Option B	Design Option C	
<i>Follow applicable design standards</i>								
Number of design exceptions required	0	0	0	0	0	0	0	
<i>Apply access management standards within the corridor</i>								
Number of access spacing deviations required	18	TBD	TBD	TBD	TBD	TBD	TBD	TBD= To be Determined
<i>Accommodate emergency vehicles</i>								
Emergency response time (minutes):	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Some emergency routes may experience faster/slower response time with the Build Alternatives. With the No-Build Alternative, travel time in the corridor is expected to double to 28 minutes in the year 2035, that in turn could cause slower travel times.

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<b>Goal 5 (Transportation): Provide a solution that addresses capacity and connectivity needs</b>								
<b>Objectives/Measures</b>	<b>Alternative and Design Option</b>							<b>Comments</b>
	No Build	Bypass with a Split Diamond Interchange at I-5			Bypass with a Directional Interchange at OR 62			
		Design Option A	Design Option B	Design Option C	Design Option A	Design Option B	Design Option C	
<i>Meet design year capacity needs (v/c)</i>								
Number of intersections in the design year(2035) that do not meet mobility standards (v/c)	21	1	1	1	2	2	2	"Design year" is 2035.
<i>Provide facilities that meet user expectations (signage, visibility, etc.)</i>								
Number of logical major modal connections (i.e.: OR 140 to Bypass)	NA	7	7	7	6	6	6	
<i>Provide efficient connectivity within the corridor</i>								
Number of connections that are not consistent with roadway hierarchy designations	16	0	0	0	0	0	0	OR 62 is designated a Statewide Expressway; existing intersections with local streets are not consistent with this designation. The designation would be moved to the Bypass under the Build Alternatives.
<i>Find a balance between different users (through vs. local) needs</i>								
Provides separation between local and regional travel (Y/N)	N	Y	Y	Y	Y	Y	Y	

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<b>Goal 6 (Social): Enhance community livability and quality of life</b>								
<b>Objectives/Measures</b>	<b>Alternative and Design Option</b>							<b>Comments</b>
	No Build	Bypass with a Split Diamond Interchange at I-5			Bypass with a Directional Interchange at OR 62			
		Design Option A	Design Option B	Design Option C	Design Option A	Design Option B	Design Option C	
<i>Minimize impacts to neighborhoods (i.e.: Justice Road and Peace Lane area ) within and adjacent to the project area</i>								
Potential Environmental Justice (low income/minority) impacts are significant (yes/no)	No	No	No	No	No	No	No	
Neighborhood connectivity impacts	No	Yes	Yes	Yes	Yes	Yes	Yes	Build Alts: new roadway connecting Justice and Gregory Rd would bisect rural community. Detours up to one mile would occur for residences served by Gregory Rd and Gramercy Dr.
Number of through streets that would end in a cul-de-sac	0	5	5	5	6	6	6	
Direct/indirect impacts to neighborhoods (i.e.: noise impacts and community cohesion)	Yes – increase in travel times.	Yes	Yes	Yes	Yes	Yes	Yes	Build Alts: The bypass would be an urban feature in rural areas; associated cul-de-sac streets would reduce community connectivity.