

Proposed Investment Packages

Purpose: Select five Investment Packages that reflect varying levels of investments and are based on the technical analysis and community feedback.

Technical Analysis

The technical analysis that was completed for each corridor is detailed in the Alternatives Analysis Report and summarized in the Alternatives Analysis Executive Summary. The technical analysis recommended that the following mode options be considered for the Investment Packages.

Table 1: Recommendation on Corridor Alternatives to be Considered for Investment Packages Based on Technical Analysis

	Alternative						
Corridor	No-Build	Enhanced Corridor	EmX				
Highway 99		✓	✓				
River Road		✓	✓				
3oth Ave to LCC	✓	✓	✓				
Coburg Road	✓	✓	✓				
MLK, Jr. Boulevard	✓	✓					

No-Build Alternative: Under the No-Build option, LTD and the City would only make improvements that are already planned as part of other projects for the next ten years. No additional investments would be made as a part of the MovingAhead project A No-Build alternative is included and evaluated in the context of the federal environmental review. While the No-Build alternatives are shown to have no negative effects in the federal context, doing nothing now to enhance walking, biking, and transit use does not help achieve locally adopted policy goals. In the local context, the no-build alternative does have consequences. It should be noted corridors designated for No-Build in the MovingAhead investment packages would be considered for Enhanced Corridor or EmX investment in the future.

Enhanced Corridor: The Enhanced Corridor option is intended to improve safety, access, and transit service without requiring major capital investments. This alternative is very flexible and can range from limited improvements to a relatively high level of investments that approach an EmX treatment. Enhanced Corridor service may or may not be branded. While Enhanced Corridor investments have been

designated for each corridor as part of the MovingAhead planning process, those decisions can be revisited as part of the later more detailed planning that occurs during project development.

EmX: EmX is LTD's branded bus rapid transit (BRT) service and represents a higher level of investment than Enhanced Corridor. Features typically include transit lanes in key locations, enhanced stations with raised platforms and off-board fare collection, transit signal priority, specialized buses, and branding.

Evaluation Criteria

When considering investment packages that involve improvements to multiple corridors, the evaluation criteria need to be tailored to those that help assess the systemwide benefits of the packages. The criteria for the investment packages are listed below. Many of these were used for the corridor-level evaluation, and some are new criteria.

- Acquisitions: The number of properties potentially displaced as a result of the project.
- **Bicycle/Pedestrian Improvements**: The proposed investment in bicycle and pedestrian access and safety improvements in each corridor.
- Capital Cost: Capital cost includes estimated costs for vehicles, design, construction, right-ofway, and project management. Cost includes \$2.5 million for expansion of the LTD maintenance facility.
- Consistency with Local Plans and Policies: An assessment of the consistency of the investment
 package with comprehensive land use and transportation plans and policies and its support for
 local energy, sustainability and greenhouse gas policies and community safety programs,
 including Vision Zero.
- Investment in Corridors with Disadvantaged Populations: The percentage of the total investment in corridors with greater numbers of low-income and minority people. This is a new measure that only applies to the packages (not individual corridors), since it documents the percentage on the investment for a combination of corridors.
- Number/Acreage of Acquisitions: The number and total acreage of properties that would potentially need to be purchased.
- Operating Cost: Operating cost is the estimated annual cost to operate and maintain the service. This includes paying operators, vehicle maintenance and fuel, as well as administrative and overhead costs.
- Parking Impacts: The number of on-street and off-street parking spaces that may need to be removed.
- Potential Property Displacements: The number of properties potentially displaced as a result of the project.
- **Ridership**: Annual transit ridership as projected for the year 2040 using the regional transportation model.
- **Support for Corridor Development**: An assessment of how well the alternative supports corridor development and redevelopment and encourages transit-oriented development.
- **Support from the Public**: The level of public support for the package as determined through community feedback on the Alternatives Analysis.

- **Transit Travel Time**: Estimate of how long it would take for someone to travel from the end of the line to Eugene Station during the afternoon peak hour (in-vehicle time).
- Tree Impacts: The number of medium and large trees which may need to be removed.

Community feedback during the comment period for the Alternatives Analysis indicated that the "Number of Jobs and Population Served" was an important criterion. That measure assumed that the catchment area for jobs and people is ¼ mile from a stop/station for conventional bus service (No-Build) and Enhanced Corridor service, and ½ mile from a station for EmX service. That measure is not included as one of the Investment Package criteria because it does not provide significant differentiation between the different packages. Since the No-Build and Enhanced Corridor options use the same catchment area assumptions, Investment Packages A, B, and C, as described later in this memorandum, would have virtually the same totals for numbers of jobs and population served.

Return on Investment: ROI Return on Investment (ROI) is a financial/economic measure that is intended to determine the benefit of an investment relative to its cost, and is often calculated as a ratio or percentage that compares net gains to net costs. ROI has been included as a criterion because it is important to understand and communicate the relationship of benefits and costs of the investments that would be implemented as part of MovingAhead. Furthermore, as MovingAhead advances, it is important to consider how the investments included in MovingAhead can help meet multiple objectives, including enhancing the safety of the transportation system (Vision Zero), advancing sustainability and environmental goals, promoting equity, and supporting economic development, and continuously coordinate with partner agencies to achieve our community's goals.

The MovingAhead project does not lend itself to a typical ROI financial metric. Many of the benefits and costs of the corridor investments, such as bicycle and pedestrian safety improvements, support for economic development, and tree impacts are difficult to quantify in dollars. However, the benefits and costs of the MovingAhead investment packages are significant and should be carefully considered when choosing a package and deciding whether to move ahead with the investments.

All the investment packages will create short-term construction jobs, with more than 100 direct and induced jobs created for every \$10 million of construction. In addition, local and state funds may leverage an equivalent amount of discretionary federal funding which would not otherwise come to this community. Perhaps more importantly, the investments associated with MovingAhead will enhance safety for all modes and provide improved mobility, with more frequent transit service, reduced transit travel time, and new bicycle and pedestrian facilities.

Specific to each investment package, the following indicators of some aspects of ROI are included in each package description:

- The operating cost per added person trip
- The estimated overall travel time saved by riders from the transit improvements (assumes that the average trip length is half the one-way bus route length)
- Improvements in transit system reliability
- Number of corridors with motor vehicle, bicycle, and pedestrian safety improvements.
- Acres of vacant transit supportive lands (zoned mixed-use or multifamily residential) within corridor APIs

Community Feedback

Feedback on Criteria

Open House attendees were asked to indicate their top five most important criteria. The following figure reflects the number of responses received by each criterion.

Open House Attendees: Most Important Criteria Bike/Ped Investments Ridership **Transit Travel Time Annual Operating Cost** Jobs and Population Served Support for Development **Investment in Disadvantaged Corridors Property Displacement** Tree Removal Capital Cost Acquistions/Displacements Parking Removal 20 30 40 50 70 80

Figure 1: Most Important Criteria Based on Responses from Open House Attendees

Participants on the Online Open House were asked to allocate a limited number of points to the evaluation criteria based on what they perceive to be the most important. Figure 2 indicates the number of responses for each criterion.

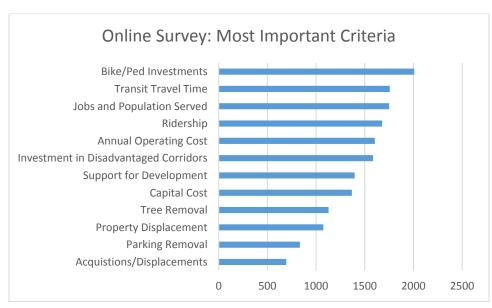


Figure 2: Most Important Criteria Based on Responses from Online Survey

There is considerable agreement regarding the criteria between the online respondents and the open house attendees. The top five rated criteria as rated by the two groups are the same, although the order varies. For both groups, the criteria which consider potential benefits, such as bike/pedestrian investments, transit travel time savings, and ridership, were generally rated as more important than the criteria which consider potential adverse impacts, such as acquisitions, property impacts, or parking and tree loss. Operating cost was deemed to be a more important criterion than capital cost by both online and open house survey respondents.

Feedback on Alternatives

Feedback on the corridor alternatives was solicited from both the open house attendees and those participating in the online survey. Figure 3 indicates the total positive responses for each alternative less the total negative responses (ignoring "neutral" and "not sure" responses). This data is combined for both the online (245 responses) and open house (112 attendees) surveys.

Figure 3: Total Positive Less Negative Responses to Corridor Alternatives from Open House and Online Respondents.

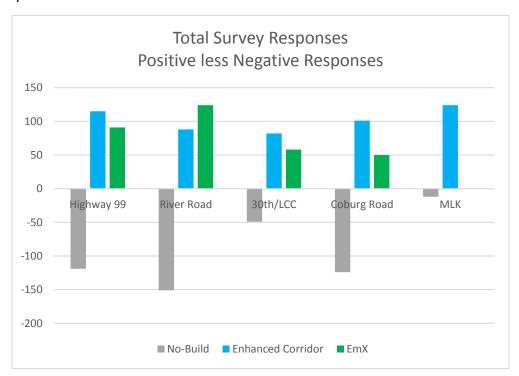


Figure 4 below provides the average rating for each corridor using the combined responses from the open houses and the online survey.

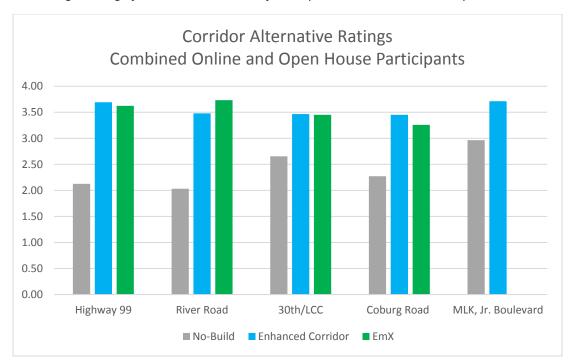


Figure 4: Average Rating of Corridor Alternatives from Open House and Online Respondents

Highway 99: There is strong support for the build alternatives, with the Enhanced Corridor Alternative rated most favorable. The rating for No-Build was the second lowest for all the corridors.

River Road: River Road is the only corridor with EmX rated as the most preferred options. In addition, the No-Build Alternatives was the lowest rated among all the corridors.

30th **Avenue to LCC**: This corridor had the greatest balance between the three alternatives, with Enhanced Corridor rated singly better than EmX. The No-Build Alternative is rated relatively high compared to the other corridors.

Coburg Road: The Enhanced Corridor Alternative was the highest rated option for Coburg Road, although both build alternatives were generally rated lower than on other corridors.

MLK, Jr. Boulevard: The Enhanced Corridor Alternative was rated more highly than the No-Build Alternative (this corridor does not have an EmX alternative). There is a possibility that the City of Eugene will proceed with the installation of Business Access Transit (BAT) lanes on MLK, Jr. Boulevard, which is a key element of the planned Enhanced Corridor Transit improvements. Additional improvements as part of the Enhanced Corridor Alternative could be minimal.

Investment Packages

Of the five proposed Investment Packages, two packages – an all Enhanced Corridor package and an all EmX package (except MLK, which doesn't have an EmX option) – are intended to provide low and high investment options. These two packages "bookend" three other alternatives, designated as Packages A, B, and C, which are a combination of No-Build, Enhanced Corridor, and EmX alternatives. The proposed investment packages are shown in Table 2.

Table 2: Proposed Investment Packages

	Corridor							
Investment Package	Highway 99	River Road	30th Avenue to LCC	Coburg Road	MLK, Junior Boulevard			
Enhanced Corridor Package	Enhanced Corridor	Enhanced Corridor	Enhanced Corridor	Enhanced Corridor	Enhanced Corridor			
Package A	Enhanced Corridor	EmX	No-Build	No-Build	No-Build			
Package B	Enhanced Corridor	EmX	No-Build	Enhanced Corridor	Enhanced Corridor			
Package C	Enhanced Corridor	EmX	Enhanced Corridor	Enhanced Corridor	Enhanced Corridor			
EmX Package	EmX	EmX	EmX	EmX	Enhanced Corridor			

The selection of the three "mix and match" packages (Packages A, B, and C) was based on a combination of the technical analysis and community feedback. Packages A, B, and C are listed in order from the lowest investment to the highest investment.

A summary evaluation of these packages is provided in the following sections. The green highlighted items in the evaluation summaries for each corridor indicate the evaluation criteria rated most important based on community feedback.

ENHANCED CORRIDOR PACKAGE

	Enhanc	Enhanced Corridor Package						
Corridor	No-Build	Enhanced Corridor	EmX					
Highway 99		✓						
River Road		✓						
30th Ave to LCC		✓						
Coburg Road		✓						
MLK, Jr. Boulevard		✓						

Enhanced Corridor Package Evaluation	n Summary	,					
	Package S		Highway 99	River Road	30th Avenue to LCC	Coburg Road	MLK, Jr. Parkway
Measure	Total	Average	Enhanced Corridor	Enhanced Corridor	Enhanced Corridor	Enhanced Corridor	Enhanced Corridor
Bicycle/Pedestrian Access and Safety Investments (1-5 rating)		3.0	4	2.5	3	3	2.5
Capital Cost (millions)	\$148		\$38	\$24	\$21	\$41	\$21
Consistency with Local Plans and Policies		3.2	4	4	2	3	3
Investment in Corridors with Higher Level of Disadvantaged Population	56%						
Number/Acreage of Acquisitions	115 / 4.1		44 / 1.3	5 / 1.3	13 / 0.4	47 / 1	6 / 0.1
Operating Cost Change from No-Build (annual, in millions)	-\$0.1		(\$0.1)	(\$0.6)	(\$0.5)	\$0.0	\$1.1
Parking Impacts: Corridor On-Street and Off- Street Parking Impacts (number of spaces)	188		50	2	69	67	0
Potential Property Displacements	4		0	4	0	0	0
Ridership Increase Compared to No-Build (annual)	389,000		111,000	33,000	(30,000)	63,000	186,000
Support for Corridor Development and Redevelopment (1-5 rating)		3.0	3	3	3	3	3
Support from the Public (1-5 rating)		3.56	3.69	3.48	3.47	3.45	3.71
Transit Travel Time Improvement (percent)		21%	34%	19%	6%	28%	15%
Tree Impacts: Number of Medium and Large Trees Impacted	103		14	13	58	9	9

The Enhanced Corridor package rates well for having low capital cost and operating cost (no annual operating cost increase) and relatively low impact on property, trees, and parking. However, relative to other packages, the Enhanced Corridor Package has a small ridership increase, low travel time savings, and a low rating for bicycle and pedestrian safety and access investments, all of which were deemed important criteria from community opinion surveys. This package is moderately consistent with local plans and policies, showing slight decreases in energy consumption and greenhouse gas emissions, and some safety improvements.

Return on Investment

As noted, due to the qualitative aspect of many of the benefits, MovingAhead does not lend itself to a typical Return on Investment (ROI) assessment. The Enhanced Corridor Package, like every investment package, will create jobs associated with construction, may leverage discretionary federal funding, and improve safety and mobility. In addition, this package is characterized by the following:

- The Enhanced Corridor Package would add an estimated 389,000 riders without increasing operating cost.
- Total travel time savings for both existing and new riders as a result of travel time savings associated with the Enhanced Corridor Package are estimated at 575,900 hours per year.

- The Enhanced Corridor Package would improve system reliability by constructing additional bus priority/exclusivity. In total, 7.1% (3.59 miles) of package corridors lengths would feature bus priority/exclusivity.
- The Enhanced Corridor Package would implement moderate safety improvements for motor vehicles, bicycles, and pedestrians on five corridors.
- Transit investments support transit oriented development. There are 152 acres of vacant, transit supportive lands within the corridors with investments.

PACKAGE A

		Package A					
Corridor	No-Build	Enhanced Corridor	EmX				
Highway 99		✓					
River Road			✓				
30th Ave to LCC	✓						
Coburg Road	✓						
MLK, Jr. Boulevard	✓						

Package A Evaluation Summary							
,	Package S	Summary	Highway 99	River Road	30th Avenue to LCC	Coburg Road	MLK, Jr. Parkway
Measure	Total	Average	Enhanced Corridor	EmX	No-Build	No-Build	No-Build
Bicycle/Pedestrian Access and Safety Investments (1-5 rating)		2.4	4	5	1	1	1
Capital Cost (millions)	\$119		\$38	\$78	\$0	\$0	\$0
Consistency with Local Plans and Policies		2.4	4	5	1	1	1
Investment in Corridors with Higher Level of Disadvantaged Population	98%						
Number/Acreage of Acquisitions	84 / 3.5		44 / 1.3	40 / 2.2	0 / 0	0 / 0	0 / 0
Operating Cost Change from No-Build (annual, in millions)	\$1.9		(\$0.1)	\$2.0	\$0.0	\$0.0	\$0.0
Parking Impacts: Corridor On-Street and Off- Street Parking Impacts (number of spaces)	81		50	31	0	0	0
Potential Property Displacements	6		0	6	0	0	0
Ridership Increase Compared to No-Build (annual)	385,000		111,000	246,000	0	0	0
Support for Corridor Development and Redevelopment (1-5 rating)		2.2	3	5	1	1	1
Support from the Public (1-5 rating)		3.06	3.69	3.73	2.65	2.27	2.96
Transit Travel Time Improvement (percent)		13%	34%	31%	0%	0%	0%
Tree Impacts: Number of Medium and Large Trees Impacted	146		14	132	0	0	0

Package A represents a minimal investment option, with investment only on the Highway 99 (Enhanced Corridor) and River Road (EmX) corridors. Those two corridors had the strongest support for the build options in the community surveys. Corresponding to the low investment approach, this package also has the lowest impacts among Packages A, B, and C on property, trees, and parking. All investments are in corridors with relatively high levels of low-income and minority population. Due to the three No-Build corridors, which had low support from the public, this package rates relatively poorly for public support.

This package is rated low for consistently with local plans and policies, primarily because investments are only made on two corridors.

Return on Investment

As noted, due to the qualitative aspect of many of the benefits, MovingAhead does not lend itself to a typical Return on Investment (ROI) assessment. Package A, like every investment package, will create jobs associated with construction, may leverage discretionary federal funding, and improve safety and mobility. In addition, this package is characterized by the following:

- An estimated \$1.9 million annual increase in operating cost would result in an estimated 385,000, for a cost of \$4.94 per added trip.
- Total travel time savings for both existing and new riders as a result of travel time savings associated with Package A are estimated at 557,400 hours per year.
- Package A would improve system reliability by constructing additional bus priority/exclusivity. In total, 12.6% (6.39 miles) of package corridor lengths would feature bus priority/exclusivity.
- Package A would implement moderate safety improvements for motor vehicles, bicycles, and pedestrians on one corridor and greater safety improvements on one corridor, for a total of two corridors.
- Transit investments support transit oriented development. There are 116 acres of vacant, transit supportive lands within the corridors with investments.

PACKAGE B

	Package B					
Corridor	No-Build	Enhanced Corridor	EmX			
Highway 99		✓				
River Road			✓			
30th Ave to LCC	✓					
Coburg Road		✓				
MLK, Jr. Boulevard	-	✓				

Package B Evaluation Summary							
,	Package S	Summary	Highway 99	River Road	30th Avenue to LCC	Coburg Road	MLK, Jr. Parkway
Measure	Total	Average	Enhanced Corridor	EmX	No-Build	Enhanced Corridor	Enhanced Corridor
Bicycle/Pedestrian Access and Safety Investments (1-5 rating)		3.1	4	5	1	3	2.5
Capital Cost (millions)	\$181		\$38	\$78	\$0	\$41	\$21
Consistency with Local Plans and Policies		3.2	4	5	1	3	3
Investment in Corridors with Higher Level of Disadvantaged Population	76%						
Number/Acreage of Acquisitions	137 / 4.6		44 / 1.3	40 / 2.2	0 / 0	47 / 1	6 / 0.1
Operating Cost Change from No-Build (annual, in millions)	\$3.0		(\$0.1)	\$2.0	\$0.0	\$0.0	\$1.1
Parking Impacts: Corridor On-Street and Off- Street Parking Impacts (number of spaces)	148		50	31	0	67	0
Potential Property Displacements	6		0	6	0	0	0
Ridership Increase Compared to No-Build (annual)	576,000		111,000	246,000	0	63,000	186,000
Support for Corridor Development and Redevelopment (1-5 rating)		3.0	3	5	1	3	3
Support from the Public (1-5 rating)		3.45	3.69	3.73	2.65	3.45	3.71
Transit Travel Time Improvement (percent)		22%	34%	31%	0%	28%	15%
Tree Impacts: Number of Medium and Large Trees Impacted	164		14	132	0	9	9

Package B provides for a moderate level of investment, with build options on four of the five corridors. The only EmX Alternative is on the River Road Corridor. All corridors use the preferred option based on community feedback, except the 30th Avenue to LCC corridor. This package provides moderate ratings on most criteria. The package rates well on investments focused in corridors with higher levels of low-income and minority populations, and has an average level of public support. This package is moderately

consistent with local plans and policies, showing slight decreases in energy consumption and greenhouse gas emissions, and some safety improvements.

Return on Investment

As noted, due to the qualitative aspect of many of the benefits, MovingAhead does not lend itself to a typical Return on Investment (ROI) assessment. Package B, like every investment package, will create jobs associated with construction, may leverage discretionary federal funding, and improve safety and mobility. In addition, this package is characterized by the following:

- An estimated \$3.0 million annual increase in operating cost would result in an estimated 576,000, for a cost of \$5.21 per added trip.
- Total travel time savings for both existing and new riders as a result of travel time savings associated with Package B are estimated at 640,900 hours per year.
- Package B would improve system reliability by constructing additional bus priority/exclusivity. In total, 18.3% (9.29 miles) of package corridor lengths would feature bus priority/exclusivity.
- Package B would implement moderate safety improvements for motor vehicles, bicycles, and pedestrians on three corridors and greater safety improvements on one corridor, for a total of four corridors.
- Transit investments support transit oriented development. There are 193 acres of vacant, transit supportive lands within the corridors with investments.

PACKAGE C

		Package C					
Corridor	No-Build	Enhanced Corridor	EmX				
Highway 99		✓					
River Road			✓				
30th Ave to LCC		✓					
Coburg Road	-	✓					
MLK, Jr. Boulevard		✓					

Package C Evaluation Summary							
,	Package S	Summary	Highway 99	River Road	30th Avenue to LCC	Coburg Road	MLK, Jr. Parkway
Measure	Total	Average	Enhanced Corridor	EmX	Enhanced Corridor	Enhanced Corridor	Enhanced Corridor
Bicycle/Pedestrian Access and Safety Investments (1-5 rating)		3.5	4	5	3	3	2.5
Capital Cost (millions)	\$202		\$38	\$78	\$21	\$41	\$21
Consistency with Local Plans and Policies		3.4	4	5	2	3	3
Investment in Corridors with Higher Level of Disadvantaged Population	68%						
Number/Acreage of Acquisitions	150 / 5.0		44 / 1.3	40 / 2.2	13 / 0.4	47 / 1	6 / 0.1
Operating Cost Change from No-Build (annual, in millions)	\$2.5		(\$0.1)	\$2.0	(\$0.5)	\$0.0	\$1.1
Parking Impacts: Corridor On-Street and Off- Street Parking Impacts (number of spaces)	217		50	31	69	67	0
Potential Property Displacements	6		0	6	0	0	0
Ridership Increase Compared to No-Build (annual)	521,000		111,000	246,000	(30,000)	63,000	186,000
Support for Corridor Development and Redevelopment (1-5 rating)		3.4	3	5	3	3	3
Support from the Public (1-5 rating)		3.61	3.69	3.73	3.47	3.45	3.71
Transit Travel Time Improvement (percent)		23%	34%	31%	6%	28%	15%
Tree Impacts: Number of Medium and Large Trees Impacted	222		14	132	58	9	9

Package C represents a relatively high level of investment, with build alternatives on all five corridors. In this package, the preferred mode alternative, as determined through community feedback, has been selected for each of the five corridors. This package is rated higher than the other packages except the EmX Package for consistency with local plans and policies, showing slight decreases in energy consumption and greenhouse gas emissions, and significant safety improvements.

Return on Investment

As noted, due to the qualitative aspect of many of the benefits, MovingAhead does not lend itself to a typical Return on Investment (ROI) assessment. Package C, like every investment package, will create jobs associated with construction, may leverage discretionary federal funding, and improve safety and mobility. In addition, this package is characterized by the following:

- An estimated \$2.5 million annual increase in operating cost would result in an estimated 521,000, for a cost of \$4.80 per added trip.
- Total travel time savings for both existing and new riders as a result of travel time savings associated with Package C are estimated at 667,700 hours per year.
- Package C would improve system reliability by constructing additional bus priority/exclusivity. In total, 18.3% (9.29 miles) of package corridor lengths would feature bus priority/exclusivity.
- Package C would implement moderate safety improvements for motor vehicles, bicycles, and pedestrians on four corridors and greater safety improvements on one corridor, for a total of five corridors.
- Transit investments support transit oriented development. There are 197 acres of vacant, transit supportive lands within the corridors with investments.

EMX PACKAGE

		EmX Package	
Corridor	No-Build	Enhanced Corridor	EmX
Highway 99			✓
River Road			✓
30th Ave to LCC			✓
Coburg Road			✓
MLK, Jr. Boulevard		✓	

EmX Corridor Package Evaluation Summary							
J	Package S	Summary	Highway 99	River Road	30th Avenue to LCC	Coburg Road	MLK, Jr. Parkway Enhanced
Measure	Total	Average	EmX	EmX	EmX	EmX	Corridor
Bicycle/Pedestrian Access and Safety Investments (1-5 rating)		4.4	5	5	4.5	5	2.5
Capital Cost (millions)	\$335		\$67	\$78	\$53	\$113	\$21
Consistency with Local Plans and Policies		4.4	5	5	5	4	3
Investment in Corridors with Higher Level of Disadvantaged Population	50%						
Number/Acreage of Acquisitions	177 / 8.4		38 / 1.6	40 / 2.2	20 / 0.5	73 / 4	6 / 0.1
Operating Cost Change from No-Build (annual, in millions)	\$8.2		\$2.8	\$2.0	\$0.5	\$1.8	\$1.1
Parking Impacts: Corridor On-Street and Off- Street Parking Impacts (number of spaces)	375		53	31	156	135	0
Potential Property Displacements	8		0	6	0	2	0
Ridership Increase Compared to No-Build (annual)	1,327,000		267,000	246,000	198,000	258,000	186,000
Support for Corridor Development and Redevelopment (1-5 rating)		4.6	5	5	5	5	3
Support from the Public (1-5 rating)		3.55	3.62	3.73	3.45	3.26	3.71
Transit Travel Time Improvement (percent)		25%	41%	31%	12%	28%	15%
Tree Impacts: Number of Medium and Large Trees Impacted	432		40	132	102	149	9

EmX Package Summary

The EmX includes the highest investment options for each corridor. The package rates well for the criteria that address package benefits, such as travel time savings, ridership, and pedestrian and bicycle safety and access investments. However, it has high capital and operating cost and a high level of impacts to property, trees, and parking. This package had a relatively high level of support based on

community opinion surveys of the corridor alternatives include in the package. This package is rated highest for consistency with local plans and policies, due to the high level of investment in enhancements that contribute to improved safety and higher ridership.

Return on Investment

As noted, due to the qualitative aspect of many of the benefits, MovingAhead does not lend itself to a typical Return on Investment (ROI) assessment. The EmX Package, like every investment package, will create jobs associated with construction, may leverage discretionary federal funding, and improve safety and mobility. In addition, this package is characterized by the following:

- An estimated \$8.2 million annual increase in operating cost would result in an estimated 1,327000 for a cost of \$6.18 per added trip.
- Total travel time savings for both existing and new riders as a result of travel time savings associated with the EmX Package are estimated at 776,400 hours per year.
- The EmX Package would improve system reliability by constructing additional bus priority/exclusivity. In total, 28.4% (14.27 miles) of package corridor lengths would feature bus priority/exclusivity.
- The EmX Package would implement moderate safety improvements for motor vehicles, bicycles, and pedestrians on one corridor and greater safety improvements on four corridors, for a total of five corridors.
- Transit investments support transit oriented development. There are 287 acres of vacant, transit supportive lands within the corridors with investments.

Investment Package Summaries

The following two tables summarize the evaluation of the five investment package. The first table shows the scores for the criteria for each investment package. The second table converts these scores into ratings.

Scores for Each Investment Package								
Evaluation Measure	Enhanced Corridor Package	Package A	Package B	Package C	EmX Package			
Bike/Ped Access and Safety Investments (1-5 rating)	3.0	2.4	3.1	3.5	4.4			
Capital Cost (millions)	\$148	\$119	\$181	\$202	\$335			
Consistency with Local Plans and Policies	3.2	2.4	3.2	3.4	4.4			
Investment in Corridors with Higher Level of Low Income and Minority Population (Percent)	56%	98%	76%	68%	50%			
Number/Acreage of Acquisitions	115 / 4.1	84 / 3.5	137 / 4.6	150 / 5.0	177 / 8.4			
Operating Cost: Systemwide Change from No- Build (millions)	-\$0.1	\$1.9	\$3.0	\$2.5	\$8.2			
Parking Impacts: Corridor On-Street and Off- Street Parking Impacts (number of spaces)	188	81	148	217	375			
Potential Property Displacements	4	6	6	6	8			
Ridership: Annual Systemwide Increase Compared to No-Build	389,000	385,000	576,000	521,000	1,327,000			
Support Corridor Development and Redevelopment (1-5 rating)	3.0	2.2	3.0	3.4	4.6			
Support from the Public (1-5 rating)	3.6	3.1	3.4	3.6	3.6			
Transit Travel Time Improvement	21%	13%	22%	23%	25%			
Trees: Number of Medium and Large Trees Impacted	103	146	164	222	432			

Ratings for Each Investment Package								
Evaluation Measure	Enhanced Corridor	Package A	Package B	Package C	EmX Package			
Bike/Ped Access and Safety Investments	2	1	2	3	5			
Capital Cost	4	5	3	3	1			
Consistency with Local Plans and Policies	3	1	3	3	5			
Investment in Corridors with Higher Level of Low Income and Minority Population	2	5	4	3	1			
Number/Acreage of Acquisitions	4	5	3	2	1			
Operating Cost	5	4	3	4	1			
Parking Impacts	3	5	4	2	1			
Potential Property Displacements	5	3	3	3	1			
Ridership	1	1	2	3	5			
Support Corridor Development and Redevelopment	3	2	3	3	5			
Support from the Public	4	3	3	4	4			
Transit Travel Time Improvement	3	1	3	3	4			
Trees Impacted	5	4	4	3	1			