



# **DRAFT FINAL Section 4(f) Technical Report**

Lane Transit District  
City of Eugene

In cooperation with  
Lane Council of Governments  
Lane County  
Oregon Department of Transportation

**July 7, 2017**

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# **DRAFT FINAL Section 4(f) Technical Report**

## *MovingAhead Project*

Prepared in accordance with the  
National Environmental Policy Act of 1969, as amended 42 U.S.C. 4322  
and the  
Federal Transit Act of 1964, as amended 49 U.S.C. 1601 eq. seq.

***July 7, 2017***

*Prepared for*  
Federal Transit Administration  
Lane Transit District  
City of Eugene

*Prepared by*  
CH2M HILL, Inc.

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## Acronyms, Abbreviations, and Terms

Acronyms and Abbreviations	Definitions
AA	Alternatives Analysis
ADA	Americans with Disabilities Act
BAT	business access and transit
BRT	bus rapid transit
c	circa
CFR	Code of Federal Regulations
CH2M	CH2M HILL, Inc.
DOE	Determination of Eligibility
Draft Eugene 2035 TSP	<i>DRAFT Eugene 2035 Transportation System Plan</i> (City of Eugene, 2016)
EC	eligible contributing
EmX	Emerald Express, Lane Transit District's Bus Rapid Transit System
ES	eligible significant
ES NR	eligible significant National Register of Historic Places
FOE	Finding of Effect
FTA	Federal Transit Administration
FTN	Frequent Transit Network
GIS	geographic information system
I-105	Interstate 105
I-5	Interstate 5
LCC	Lane Community College
LCOG	Lane Council of Governments
LOS	level of service
LPA	Locally Preferred Alternative
LTD	Lane Transit District
MPO	Metropolitan Planning Organization
NEPA	National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321-4347
NRHP	National Register of Historic Places
ODOT	Oregon Department of Transportation

Acronyms and Abbreviations	Definitions
ROW	right of way
RTP	<i>Central Lane Metropolitan Planning Organization Regional Transportation Plan</i> (LCOG, adopted 2007, November; 2011, December). (The RTP includes the Financially Constrained Roadway Projects List)
Section 106	Section 106 of the National Historic Preservation Act of 1966 (36 CFR 800.5)
SHPO	Oregon State Historic Preservation Office
U.S.C.	United States Code
USDOT	U.S. Department of Transportation
WEEE	West Eugene EmX Extension

Terms	Definitions
Accessibility	The extent to which facilities are barrier free and useable for all persons with or without disabilities.
Alignment	Alignment is the street or corridor that the transit project would be located within.
Alternatives Analysis	The process of evaluating the costs, benefits and impacts of a range of transportation alternatives designed to address mobility problems and other locally-defined objectives in a defined transportation corridor, and for determining which particular investment strategy should be advanced for more focused study and development. The Alternatives Analysis (AA) process provides a foundation for effective decision making.
Area of Potential Effect	A term used in Section 106 to describe the area in which historic resources may be affected by a federal undertaking.
Base Period	The period between the morning and evening peak periods when transit service is generally scheduled on a constant interval. Also known as "off-peak period."
Boarding	Boarding is a term used in transit to account for passengers of public transit systems. One person getting on a transit vehicle equals one boarding. In many cases individuals will have to transfer to an additional transit vehicle to reach their destination and may well use transit for the return trip. Therefore, a single rider may account for several transit boardings in one day.
Bus Rapid Transit (BRT)	A transit mode that combines the quality of rail transit and the flexibility of buses. It can operate on bus lanes, HOV lanes, expressways, or ordinary streets. The vehicles are designed to allow rapid passenger loading and unloading, with more doors than ordinary buses.
Business Access and Transit Lane (BAT)	In general, a BAT lane is a concrete lane, separated from general-purpose lanes by a paint stripe and signage. A BAT lane provides BRT priority operations, but general-purpose traffic is allowed to travel within the lane to make a turn into or out of a driveway or at an intersecting street. However, only the BRT vehicle is allowed to use the lane to cross an intersecting street.

Terms	Definitions
Capital Improvements Program	A Capital Improvement Plan or Program (CIP) is a short-range plan, usually four to 10 years, which identifies capital projects and equipment purchases, provides a planning schedule and identifies options for funding projects in the program.
Categorical Exclusion	A Categorical Exclusion (CE) means a category of actions which do not individually or cumulatively have a significant effect on the human environment and for which, therefore, neither an environmental assessment nor an environmental impact statement is required.
Collector Streets	Collector streets provide a balance of both access and circulation within and between residential and commercial/industrial areas. Collectors differ from arterials in that they provide more of a citywide circulation function, do not require as extensive control of access and are located in residential neighborhoods, distributing trips from the neighborhood and local street system.
Corridor	A broad geographical band that follows a general directional flow connecting major sources of trips that may contain a number of streets, highways and transit route alignments.
Documented Categorical Exclusion (DCE)	<p>A Documented Categorical Exclusion (DCE) means a group of actions that may also qualify as CEs if it can be demonstrated that the context in which the action is taken warrants a CE exclusion; i.e., that no significant environmental impact will occur. Thus, these actions are referred to as Documented Categorical Exclusions. Such actions require some NEPA documentation, but not an Environmental Assessment or a full-scale Environmental Impact Statement.</p> <p>DCEs documentation must demonstrate that in the context(s) in which these actions are to be performed, they will have no significant environmental impact or that such impacts will be mitigated.</p>
Effects	Effects include ecological, aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions that may have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial. Effects include: (1) direct effects that are caused by the action and occur at the same time and place, and (2) indirect effects that are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use; population density or growth rate; and related effects on air and water and other natural systems, including ecosystems (40 CFR 1508.8).
EmX	Lane Transit District’s Bus Rapid Transit System, pronounced “MX”, short for Emerald Express.

Terms	Definitions
Environmental Justice	<p>A formal federal policy on environmental justice was established in February 1994, with Executive Order 12898 (EO 12898), "Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations." There are three fundamental environmental justice principles:</p> <p>To 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.</p> <p>To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.</p> <p>To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.</p>
Envision Eugene	<p>The City of Eugene’s Comprehensive Plan (latest draft or as adopted). Envision Eugene includes a determination of the best way to accommodate the community’s projected needs over the next 20 years.</p>
Evaluation Criteria	<p>Evaluation criteria are the factors used to determine how well each of the proposed multimodal alternatives would meet the project’s Goals and Objectives. The Evaluation Criteria require a mix of quantitative data and qualitative assessment. The resulting data are used to measure the effectiveness of proposed multimodal alternatives and to assist in comparing and contrasting each of the alternatives to select a preferred alternative.</p>
Fatal Flaw Screening	<p>The purpose of a Fatal Flaw Screening is to identify alternatives that will not work for one reason or another (e.g., environmental, economic, community) By using a Fatal Flaw Screening process to eliminate alternatives that are not likely to be viable, a project can avoid wasting time or money studying options that are not viable and focus on alternatives and solutions that have the greatest probability of meeting the community’s needs (e.g., environmentally acceptable, economically efficient, implementable).</p>
Fixed Route	<p>Service provided on a repetitive, fixed-schedule basis along a specific route with vehicles stopping to pick up and deliver passengers at set stops and stations; each fixed-route trip serves the same origins and destinations, unlike demand responsive and taxicabs.</p>
Geographic Information System (GIS)	<p>Data management software tool that enables data to be displayed geographically (i.e., as maps).</p>
Goals and Objectives	<p>Goals and objectives define the project’s desired outcome and reflect community values. Goals and objectives build from the project’s Purpose and Need Statement.</p> <p>Goals are overarching principles that guide decision making. Goals are broad statements.</p> <p>Objectives define strategies or implementation steps to attain the goals. Unlike goals, objectives are specific and measurable.</p>
Guideway	<p>A transit right of way separated from general purpose vehicles.</p>
Headway	<p>Time interval between vehicles passing the same point while moving in the same direction on a particular route.</p>
Hydrology	<p>Refers to the flow of water including its volume, where it drains and how quickly it flows.</p>



Terms	Definitions
Impacts	A term to describe the positive or negative effects upon the natural or built environments as a result of an action (i.e., project).
Independent Utility	A project or section of a larger project that would be a usable and reasonable expenditure even if no other projects or sections of a larger project were built and/or improved.
Key Transit Corridors	Key Transit Corridors are mapped in Envision Eugene and are anticipated to be significant transit corridors for the City and the region
Level of Service (LOS)	Level of service (LOS) is a measure used by traffic engineers to determine the effectiveness of elements of transportation infrastructure. LOS is most commonly used to analyze highways, but the concept has also been applied to intersections, transit, and water supply.
Local Streets	Local streets have the sole function of providing direct access to adjacent land. Local streets are deliberately designed to discourage through traffic movements.
Locally Preferred Alternative (LPA)	The Locally Preferred Alternative is the alternative selected through the Alternatives Analysis process completed prior to or concurrent with NEPA analysis. This term is also used to describe the proposed action that is being considered for New Starts or Small Starts funds.
Maintenance facility	A facility along a corridor used to clean, inspect, repair and maintain bus vehicles, as well as to store them when they are not in use.
Metropolitan Planning Organization (MPO)	The organization designated by local elected officials as being responsible for carrying out the urban transportation and other planning processes for an area.
Mitigation	A means to avoid, minimize, rectify, or reduce an impact, and in some cases, to compensate for an impact.
Mode	A particular form or method of travel distinguished by vehicle type, operation technology and right of way separation from other traffic.
MovingAhead Project	<p>The City of Eugene and LTD are working with regional partners and the community to determine which improvements are needed on some of our most important transportation corridors for people using transit, and facilities for people walking and biking. MovingAhead will prioritize transit, walking and biking projects along these corridors so that they can be funded and built in the near-term.</p> <p>The project will focus on creating active, vibrant places that serve the community and accommodate future growth. During Phase 1, currently underway, the community will weigh in on preferred transportation solutions for each corridor and help prioritize corridors for implementation. When thinking about these important streets, LTD and the City of Eugene refer to them as corridors because several streets may work as a system to serve transportation needs.</p>
Multimodal	Multimodal refers to various modes. For the MovingAhead project, multimodal refers to Corridors that support various transportation modes including vehicles, buses, walking and cycling.
National Environmental Policy Act of 1969 (NEPA)	A comprehensive federal law requiring analysis of the environmental impacts of federal actions such as the approval of grants; also requiring preparation of an Environmental Impact Statement (EIS) for every major federal action significantly affecting the quality of the human environment.

Terms	Definitions
New Starts	Federal funding granted under Section 3(i) of the Federal Transit Act. These discretionary funds are made available for construction of a new fixed guideway system or extension of any existing fixed guideway system, based on cost-effectiveness, alternatives analysis results and the degree of local financial commitment.
No Action or No-Build Alternative	An alternative that is used as the basis to measure the impacts and benefits of the other alternative(s) in an environmental assessment or other National Environmental Policy Act (NEPA) action. The No-Build alternative consists of the existing conditions, plus any improvements which have been identified in the Statewide Transportation Improvement Program (STIP).
Off-Peak Period	Non-rush periods of the day when travel activity is generally lower and less transit service is scheduled. Also called "base period."
Park and Ride	Designated parking areas for automobile drivers who then board transit vehicles from these locations.
Participating Agency	A federal or non-federal agency that may have an interest in the project. These agencies are identified and contacted early-on in the project with an invitation to participate in the process. This is a broader category than "cooperating agency" (see cooperating agency).
Peak Hour	The hour of the day in which the maximum demand for transportation service is experienced (refers to private automobiles and transit vehicles).
Peak Period	Morning and afternoon time periods when transit riding is heaviest.
Preferred Alternative	An alternative that includes a major capital improvement project to address the problem under investigation. As part of the decision making process, the Preferred Alternative is compared against the No Action or No-Build Alternative from the standpoints of transportation performance, environmental consequences, cost-effectiveness, and funding considerations.
Purpose and Need	The project Purpose and Need provides a framework for developing and screening alternatives. The purpose is a broad statement of the project's transportation objectives. The need is a detailed explanation of existing conditions that need to be changed or problems that need to be fixed.
Record of Decision (ROD)	A decision made by FTA as to whether the project sponsor receives federal funding for a project. The Record of Decision follows the Draft EIS and Final EIS.
Regulatory Agency	An agency empowered to issue or deny permits.
Resource Agency	A Federal or State agency or commission that has jurisdictional responsibilities for the management of a resource such as plants, animals, water or historic sites.
Ridership	The number of rides taken by people using a public transportation system in a given time period.
Right of Way	Publicly owned land that can be acquired and used for transportation purposes.
Scoping	A formal coordination process used to determine the scope of the project and the major issues likely to be related to the proposed action (i.e., project).
Screening Criteria	Criteria used to compare alternatives.
Section 106	Section 106 of the National Historic Preservation Act of 1966 requires that federal agencies take into account the effect of government-funded construction projects on property that is included in, or eligible for inclusion in, the NRHP.

Terms	Definitions
Section 4(f) resources	(i) any publicly owned land in a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or (ii) any land from a historic site of national, state, or local significance
Study Area	The area within which evaluation of impacts is conducted. The study area for particular resources will vary based on the decisions being made and the type of resource(s) being evaluated.
Title VI	This title declares it to be the policy of the United States that discrimination on the ground of race, color, or national origin shall not occur in connection with programs and activities receiving Federal financial assistance and authorizes and directs the appropriate Federal departments and agencies to take action to carry out this policy.
Transit System	An organization (public or private) providing local or regional multi-occupancy-vehicle passenger service. Organizations that provide service under contract to another agency are generally not counted as separate systems.
Water Quality	Refers to the characteristics of the water, such as its temperature and oxygen levels, how clear it is, and whether it contains pollutants.

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## Draft Section 4(f) Evaluation Summary

This technical report documents the findings of the Section 4(f) assessment for the Lane Transit District (LTD) and the City of Eugene's MovingAhead Project in Eugene, Oregon. The purpose of the MovingAhead Project is to determine which high-capacity transit corridors identified in the adopted Emerald Express (EmX) System Plan, *Lane Transit District Long-Range Transit Plan* (LTD, 2014) and the Frequent Transit Network (FTN) are ready to advance to capital improvements programming in the near term. LTD and the City of Eugene (City) initiated the MovingAhead Project in 2014 to identify and examine alternatives for improving multimodal safety, mobility, and accessibility in key transit corridors in the City. A main theme of the City's vision is to concentrate new growth along and near the City's key transit corridors and core commercial areas while protecting neighborhoods and increasing access to services for everyone. LTD and the City are jointly conducting the project to facilitate a more streamlined and cost-efficient process through concurrent planning, environmental review, and design and construction of multiple corridors.

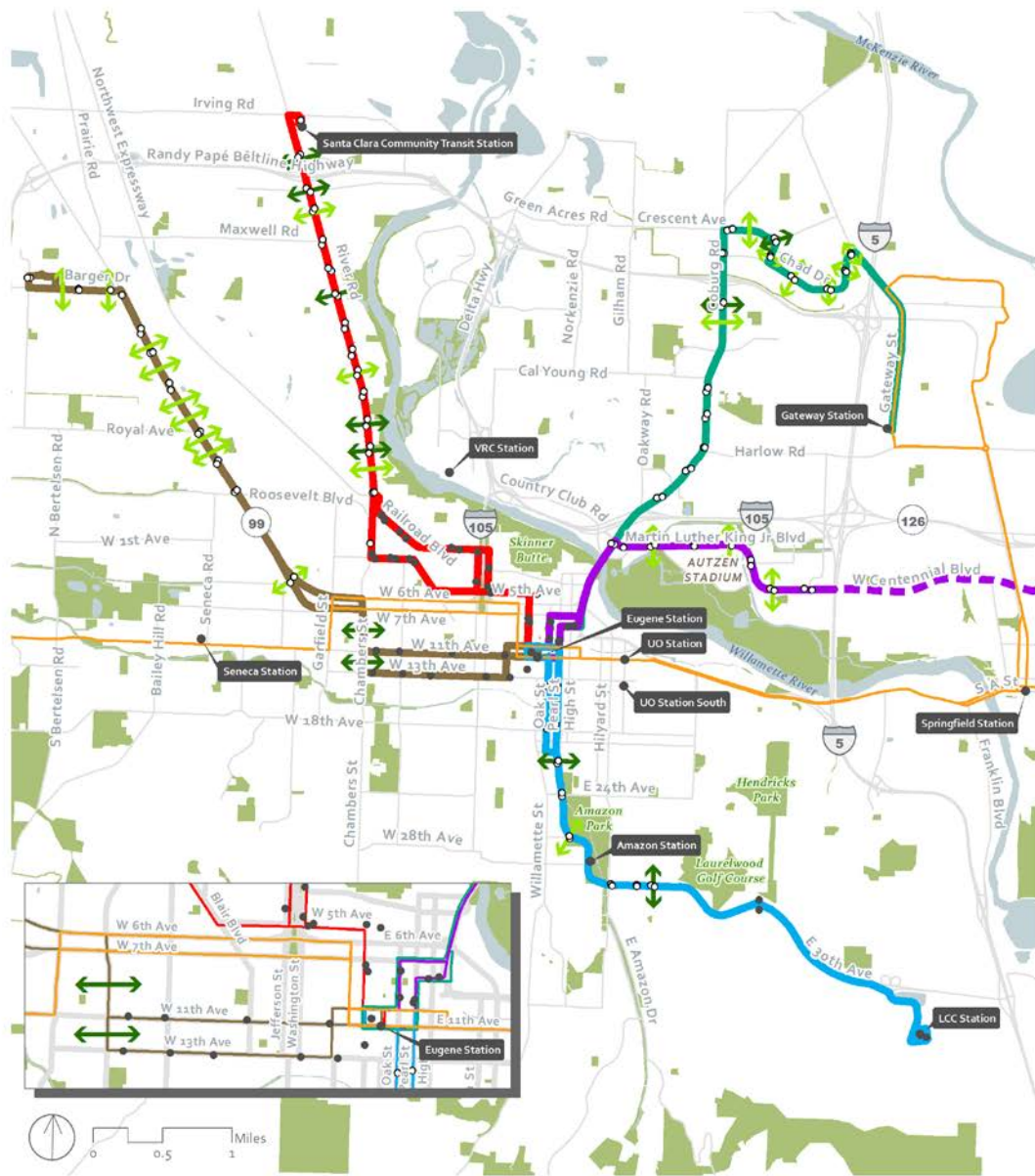
LTD and the City of Eugene examined multimodal transit alternatives in five key transit corridors identified in the *Draft Envision Eugene Comprehensive Plan* (Envision Eugene, 2016, July) and the *DRAFT Eugene 2035 Transportation System Plan* (City of Eugene, 2016a; Draft Eugene 2035 TSP), the region's highest growth centers, and downtown Eugene: Highway 99 Corridor

- River Road Corridor
- 30th Avenue to Lane Community College (LCC) Corridor
- Coburg Road Corridor
- Martin Luther King, Jr. Boulevard Corridor

No-Build, Enhanced Corridor, and EmX Alternatives were developed for each corridor, except the Martin Luther King, Jr. Boulevard Corridor, for which only No-Build and Enhanced Corridor Alternatives were developed. Each proposed corridor location is shown on Figures S.1-1 and S.1-2 for the Enhanced Corridor Alternatives and the EmX Alternatives, respectively. The *MovingAhead Level 2 Definition of Alternatives* (CH2M HILL, Inc. [CH2M] et al., 2016) contains a detailed description of the project alternatives. The following is a summary of the project alternatives evaluated.

- The **No-Build Alternatives** serve as a reference point to gauge the benefits, costs, and effects of the Enhanced Corridor and EmX Alternatives in each corridor. Each No-Build Alternative is based on the projected conditions in 2035. Capital projects are derived from the financially constrained project lists in the Draft Eugene 2035 TSP, the *Lane County Transportation System Plan* (Lane County Public Works, Engineering Division Transportation Planning, 2004, update in progress), the *Lane Transit District Capital Improvement Plan* (LTD, 2015), and the *Lane Transit District Long-Range Transit Plan* (LTD, 2014).
- **Enhanced Corridor Alternatives** are intended to address the project's Purpose, Need, Goals, and Objectives without major transit capital investments, instead focusing on lower-cost capital improvements, operational improvements, and transit service refinements, including 15-minute service frequency. Features can include transit queue jumps (lanes for buses that allow the bus to "jump" ahead of other traffic at intersections using a separate signal phase), stop consolidation, and enhanced shelters. These features can improve reliability, reduce transit travel time, and increase passenger comfort, making transit service along the corridor more attractive.

**Figure S.1-1. Enhanced Corridor Alternatives Overview**



**Locator Map**



**Legend**

- 30th Avenue to Lane Community College Corridor
- Coburg Road Corridor
- Highway 99 Corridor
- River Road Corridor
- Martin Luther King Jr Blvd Corridor
- Martin Luther King, Jr Blvd Corridor continues east of I-5 as existing route #13
- 2035 No-Build EmX
- Road
- Park
- Water
- Stop/Station Locations**
- Existing Without Improvements
- Proposed or Existing with Improvements
- ↔ New Pedestrian Crossing
- ↔ Enhanced Existing Pedestrian Crossing

**Enhanced Corridor Alternatives Overview**



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**Figure S.1-2. EmX Alternatives Overview**



Locator Map



Legend

- 30th Avenue to Lane Community College Corridor
  - Coburg Road Corridor
  - Highway 99 Corridor
  - River Road Corridor
  - Road
  - Park
  - Water
- Stop/Station Locations**
- Existing Without Improvements
  - Proposed or Existing with Improvements
  - ↔ New Pedestrian Crossing
  - ↔ Enhanced Existing Pedestrian Crossing
  - 2035 No-Build EmX

EmX Alternatives Overview



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- **EmX Alternatives** are characterized by sections of exclusive guideway, branded multi-door 60-foot-long Bus Rapid Transit vehicles, and enhanced stations with level boarding platforms instead of bus stops; off-board fare collection; transit signal priority; wider stop spacing; and 10-minute service frequencies. In general, EmX is a transit j positioned between fixed-route bus service operating in mixed traffic and urban rail service operating in a separate right of way. EmX service is intended to improve transit speed, reliability, and ridership.

Figure S.1-1 shows the proposed corridors for the Enhanced Corridor Alternatives and Figure S.1-2 shows the proposed corridors for the EmX Alternatives.

This report, prepared to support the MovingAhead Project Alternatives Analysis (AA), addresses potential adverse and beneficial effects that the project alternatives would have on Section 4(f) resources. It describes how the proposed project alternatives would change the Section 4(f) conditions of the five study corridors. It bases the assessments on how the alternatives would have potential adverse impacts to Section 4(f) resources in the area of potential impact (API); how adverse impacts to Section 4(f) resources and introduced project components would impact the existing Section 4(f) character of areas along the corridors; identifies potential mitigation measures to reduce impacts to Section 4(f) resources; and describes beneficial effects to the Section 4(f) conditions found along the corridors.

Section 4(f) of the U.S. Department of Transportation Act of 1966, 49 United States Code 303(c), is a federal law that protects publicly owned, significant parks, recreation areas, wildlife and / or waterfowl refuges, as well as significant historic sites, whether publicly or privately owned. Section 4(f) requirements apply to all transportation projects that require funding or other approvals by the U.S. Department of Transportation (USDOT). As a USDOT agency, the Federal Transit Administration (FTA) must comply with Section 4(f).

This report provides descriptions of potential effects to all potential Section 4(f) parks and recreation resources and provides associated preliminary use assessments for affected parks and recreation resources.

This report was prepared in compliance with the National Environmental Policy Act (NEPA) and applicable state environmental policy legislation, as well as local and state planning and land use policies and design standards.

## **S.1. Affected Environment**

The MovingAhead Project's five corridors are primarily located within the City of Eugene, with a portion of the River Road and 30th Avenue to LCC Corridors located within unincorporated Lane County, and a portion of the Coburg Road Corridor located in the City of Springfield. There are no wildlife or waterfowl refuges within 350 feet of the project corridors.

### **S.1.1. Section 4(f) Parks and Recreation Resources**

#### **S.1.1.1. Highway 99 Corridor**

Within the Highway 99 Corridor area of potential impact (API), there are two community parks, seven neighborhood parks, two urban plazas, a special use facility, and the Amazon Active Transportation Corridor. Of the parks and recreation resources within 0.25 mile of the Highway 99 Corridor, only three are within 350 feet of the Highway 99 Corridor for the Enhanced Corridor Alternative: McNail-Riley



House, Lincoln School Park, and Trainsong Park, and there are two within the 350 feet of the EmX Alternative: Washington Jefferson Park and Trainsong Park.

#### **S.1.1.2. River Road Corridor**

Within the River Road Corridor API, there are two community / metropolitan parks, three neighborhood parks, two urban plazas, and multiple public open space properties that are part of the Willamette River Natural Area. Of the parks and recreation resources within 0.25 mile of the River Road Corridor, only 5 are within 350 feet of the corridor: Washington Jefferson Park, Scobert Gardens, West Bank Park, Razor Park, and the River Road Park Annex.

#### **S.1.1.3. 30th Avenue to LCC Corridor**

Within the 30th Avenue to LCC Corridor API, there is one community park, one neighborhood park, two urban plazas, and two special facilities. Of the parks and recreation resources within 0.25 mile of the 30th Avenue to LCC Corridor, only 3 are within 350 feet of the corridor: Amazon Park, Bloomberg Ribbon Trail, and Laurelwood Golf Course.

#### **S.1.1.4. Coburg Road Corridor**

Within the Coburg Road Corridor API, there are two metropolitan parks, one community park, two neighborhood parks, two urban plazas (Broadway Plaza and Park Blocks), and one natural area. Of the parks and recreation resources within 0.25 mile of the Coburg Corridor, only 3 are within 350 feet of the corridor: Park Blocks, Skinner Butte Park, and Alton Baker Park.

#### **S.1.1.5. Martin Luther King, Jr. Boulevard Corridor**

Within the Martin Luther King, Jr. Boulevard Corridor API, there are two metropolitan parks, two urban plazas, and one natural area. Of the parks and recreation resources within 0.25 mile of the Martin Luther King, Jr. Boulevard Corridor, only 3 are within 350 feet of the corridor: Park Blocks, Alton Baker Park, and Skinner Butte Park.

### **S.1.2. Wildlife and / or Waterfowl Refuges**

There are no wildlife or waterfowl refuges within 350 feet of the project corridors.

### **S.1.3. Section 4(f) Historic Resources**

With regard to Section 4(f) historic resources, this report uses historic resource data collected for the *MovingAhead Cultural Resources Technical Report* (CH2M and Heritage Research Associates, 2017) and identifies cultural resources within the Section 4(f) analysis area listed in, or considered potentially eligible for listing in, the National Register of Historic Places (NRHP). It is important to note that the *MovingAhead Cultural Resources Technical Report* has made *preliminary* determinations of eligibility for historic properties – the formal Section 106 Determination of Eligibility (DOE) process has not yet been undertaken for these properties.

For the purpose of conservatively assessing potential impacts, this report assumes all historic resources preliminarily deemed eligible for the NRHP in the *MovingAhead Cultural Resources Technical Report* (CH2M and Heritage Research Associates, 2017) will be officially determined eligible through the formal Section 106 DOE process. Any historic resources currently preliminarily determined eligible for the NRHP

determined to not be eligible for the NRHP by the Oregon State Historic Preservation Office (SHPO) through the formal Section 106 DOE process would be removed from subsequent Section 4(f) analysis. Section 4(f) applies to archeological sites that are both listed in and eligible for listing in the NRHP and that warrant preservation in place, but not to those that are chiefly important because of what can be learned by data recovery. According to the *MovingAhead Cultural Technical Report*, no such sites were identified and therefore archaeological sites are not considered along any of the Corridors as Section 4(f) resources.

#### **S.1.3.1. Highway 99 Corridor**

A review of the Oregon SHPO database and the NRHP database for listed properties along the Highway 99 Corridor resulted in the identification of no historic resources that are formally listed on the NRHP at present. Two historic resources are inventoried in the Oregon SHPO historic resources database as NRHP-eligible. Windshield surveys identified a total of 33 historic resources along the Enhanced Corridor and 39 historic resources along the EmX corridor, including the two resources listed in the Oregon SHPO database as eligible.

#### **S.1.3.2. River Road Corridor**

A total of 75 properties were identified from the Oregon SHPO database and during the windshield survey as potentially eligible. Four of the properties are City Landmarks listed by the City of Eugene.

#### **S.1.3.3. 30th Avenue to LCC Corridor**

Review of the Oregon SHPO database and the NRHP database for listed properties along the 30th Avenue to LCC Corridor has resulted in the identification of four historic resources along the proposed APE corridor (between 11th and 17th Avenues along Oak and Pearl Streets) that are formally listed on the NRHP at present. Two City Landmarks (one of which is also NRHP-listed) have also been recognized in the same neighborhood along the proposed corridor. A total of 89 individual properties and one potential historic district were identified from the SHPO database and during the windshield survey as eligible or potentially eligible

#### **S.1.3.4. Coburg Road Corridor**

Review of the Oregon SHPO database and the NRHP database for listed properties along the Coburg Road Corridor has resulted in the identification of only one historic resource—the Ferry Street Bridge—along the proposed APE corridor north of the Willamette River. No resources are formally listed on the NRHP, and no City Landmarks appear to be close to the proposed corridor.

Because the portion of the corridor north of the river was developed primarily in recent decades, most of the potentially eligible historic resources identified during the reconnaissance of the APE were constructed between 1940 and 1968. A total of 23 individual properties and one potential historic district were identified from the SHPO database and during the windshield survey as eligible or potentially eligible

#### **S.1.3.5. Martin Luther King, Jr. Boulevard Corridor**

The Martin Luther King, Jr. Boulevard Corridor north of the river was constructed relatively recently (after World War II) at which time this area began its transition from agricultural lands to incorporate more commercial and residential use. Only four historic resources were identified from the Oregon SHPO database and during the windshield survey as eligible or potentially eligible.

## S.2. Environmental Consequences

### S.2.1. Section 4(f) Parks and Recreation Resources

A summary of preliminary use assessments for all Section 4(f) park/recreation resources within 350 feet of the centerline of the build alternatives is provided in Table S.1-1.

**Table S.1-1. Summary of Section 4(f) Preliminary Use Assessments by Corridor and Alternative**

<b>Alternatives</b>	<b>Potential Non-De Minimis Use Anticipated</b>	<b>Potential De Minimis Impact Use Anticipated</b>	<b>No Use(s) Anticipated</b>
<b>Highway 99 Corridor</b>			
No-Build Alternative	None	No impact	Not applicable
Enhanced Corridor Alternative	None	Trainsong Park 8 Historic Resources	McNail-Riley House, Lincoln School Park,
EmX Alternative	None	Trainsong Park 8 Historic Resources	Washington Jefferson Park
<b>River Road Corridor</b>			
No-Build Alternative	None	No impact	Not applicable
Enhanced Corridor Alternative	None	West Bank Park 24 Historic Resources	Scobert Gardens Razor Park Washington Jefferson Park River Road Park Annex
EmX Alternative	None	West Bank Park Razor Park 19 Historic Resources	Scobert Gardens Washington Jefferson Park River Road Park Annex
<b>30th Avenue to Lane Community College Corridor</b>			
No-Build Alternative	None	No impact	Not applicable
Enhanced Corridor Alternative	None	Amazon Park 25 Historic Resources	Bloomberg Ribbon Trail Laurelwood Golf Course
EmX Alternative	None	Amazon Park 14 Historic Resources	Bloomberg Ribbon Trail Laurelwood Golf Course
<b>Coburg Road Corridor</b>			
No-Build Alternative	None		

**Table S.1-1. Summary of Section 4(f) Preliminary Use Assessments by Corridor and Alternative**

<b>Alternatives</b>	<b>Potential Non-De Minimis Use Anticipated</b>	<b>Potential De Minimis Impact Use Anticipated</b>	<b>No Use(s) Anticipated</b>
Enhanced Corridor Alternative	None	10 Historic Resources	Park Blocks Skinner Butte Park Alton Baker Park
EmX Alternative	None	Park Blocks 10 Historic Resources	Skinner Butte Park Alton Baker Park
<b>Martin Luther King, Jr. Boulevard Corridor</b>			
No-Build Alternative	None	No impact	Not applicable
Enhanced Corridor Alternative	None	Alton Baker Park No Historic Resources	Park Blocks Skinner Butte Park

**S.2.2. Section 4(f) Historic Resources Environmental Consequences and Conclusions**

An assessment of anticipated effects to historic resources from the build alternatives is provided in Table S.1-1. Of those resources potentially affected under all build alternatives, none are anticipated to have unavoidable adverse effects. If any build alternative in any corridors was selected as the locally preferred alternative, LTD would seek a *de minimis* impact determination of “no adverse effects” for those potentially affected resources in that corridor(s). As defined in Code of Federal Regulations Title, Chapter 23, Sections 774.5 and 774.17, a *de minimis* impact determination is made for a historic resource if FTA makes a determination for a property of “No Adverse Effect” or “No Historic Properties Affected” through consultation under Section 106, and the SHPO concurs with that determination.

**S.2.3. Section 4(f) Park Resources Mitigation Measures and Conclusions**

Based on the current conceptual design for both Enhanced Corridor and the EmX Corridor Alternatives, the analysis of potential impacts described in this Section 4(f) Evaluation, and consistent with the requirements of 23 CFR 774.5(b), this report preliminarily concludes that none of the project action alternatives would adversely affect the features, attributes, or activities for Section 4(f) park and recreation resource protection. As such, project actions for each Enhanced Corridor and EmX Corridor Alternatives would likely result in a Section 4(f) *de minimis* impact, consistent with 23 CFR 774. In future phases, LTD and FTA will develop detailed impacts analyses, determine detailed minimization, compensatory and mitigation measures with concurrence from the agency of jurisdiction over the resource, allow for public review and make a final determination.

**S.2.4. Section 4(f) Historic Resources Mitigation Measures and Conclusions**

As stated in Section S.3.3, it is anticipated that none of the impacts would result in a Section 106 Adverse effect determination and therefore, LTD would request a *de minimis* determination for the preferred alternative. While, measures to minimize harm would still be applicable under Section 106 analysis, and the Section 4(f) would require public review prior to final determination, there would be no further responsibility under Section 4(f).

# 1. Introduction

## 1.1. MovingAhead Technical Reports

A total of 20 technical reports have been prepared for the MovingAhead Project. The technical reports have been prepared to support the selection of preferred alternatives for the MovingAhead Project and subsequent environmental documentation. The technical reports assume that any corridors advanced for environmental review will require a documented categorical exclusion under the National Environmental Policy Act (NEPA). Any corridors requiring a higher level of environmental review would be supported by the technical evaluation but might not be fully covered by the technical evaluation.

Technical reports have been prepared for the following disciplines:

- Acquisitions and Displacements
- Air Quality
- Capital Cost Estimating
- Community Involvement, Agency and Tribal Coordination
- Community, Neighborhood, and Environmental Justice
- Cultural Resources
- Ecosystems (Biological, Fish Ecology, Threatened and Endangered Species, Wetlands and Waters of the U.S. and State)
- Energy and Sustainability
- Geology and Seismic
- Hazardous Materials
- Land Use and Prime Farmlands
- Noise and Vibration
- Operating and Maintenance Costs
- Parklands, Recreation Areas, and Section 6(f)
- Section 4(f)
- Street and Landscape Trees
- Transportation
- Utilities
- Visual and Aesthetic Resources
- Water Quality, Floodplain, and Hydrology

In general, each technical report includes the following information for identifying effects:

- Relevant laws and regulations
- Contacts and coordination
- Summary of data sources and analysis methods described in the *MovingAhead Environmental Disciplines Methods and Data Report* (CH2M HILL, Inc. [CH2M] et al., 2015)
- Affected environment
- Adverse and beneficial effects including short-term, direct, indirect and cumulative
- Mitigation measures
- Permits and approvals
- References

## 1.2. Draft Section 4(f) Technical Report and Purpose

This Draft Section 4(f) Technical Report presents the results of the assessment of all Section 4(f)-protected resources located in the Section 4(f) analysis area. It provides descriptions of existing conditions at all Section 4(f) resources, descriptions of potential impacts from project alternatives, discussions of potential measures to minimize harm, and preliminary determinations of use.

## 1.3. Discipline Experts

Discipline experts who contributed to the preparation of this report are identified in **Error! Reference source not found.** including their area of expertise, affiliated organization, title and years of experience.

**Table 1.3-1. Discipline Experts**

Discipline	Technical Expert	Affiliated Organization	Title / Years of Experience
Section 4(f)	Michael Hoffmann	CH2M	Senior Planner / 16 years
<b>Editors</b>			
	Lynda Wannamaker	Wannamaker Consulting	President / 33 years
	Scott Richman	CH2M	Project Manager / 24 years
	Ryan Farncomb	CH2M	Senior Transportation Planner / 7 years
	Kristin Hull	CH2M	Senior Project Manager / 15 years
	Kelly Hoell	LTD	Transit Development Planner / 11 years

Source: MovingAhead Project Team. (2017).

## 1.4. Study Background

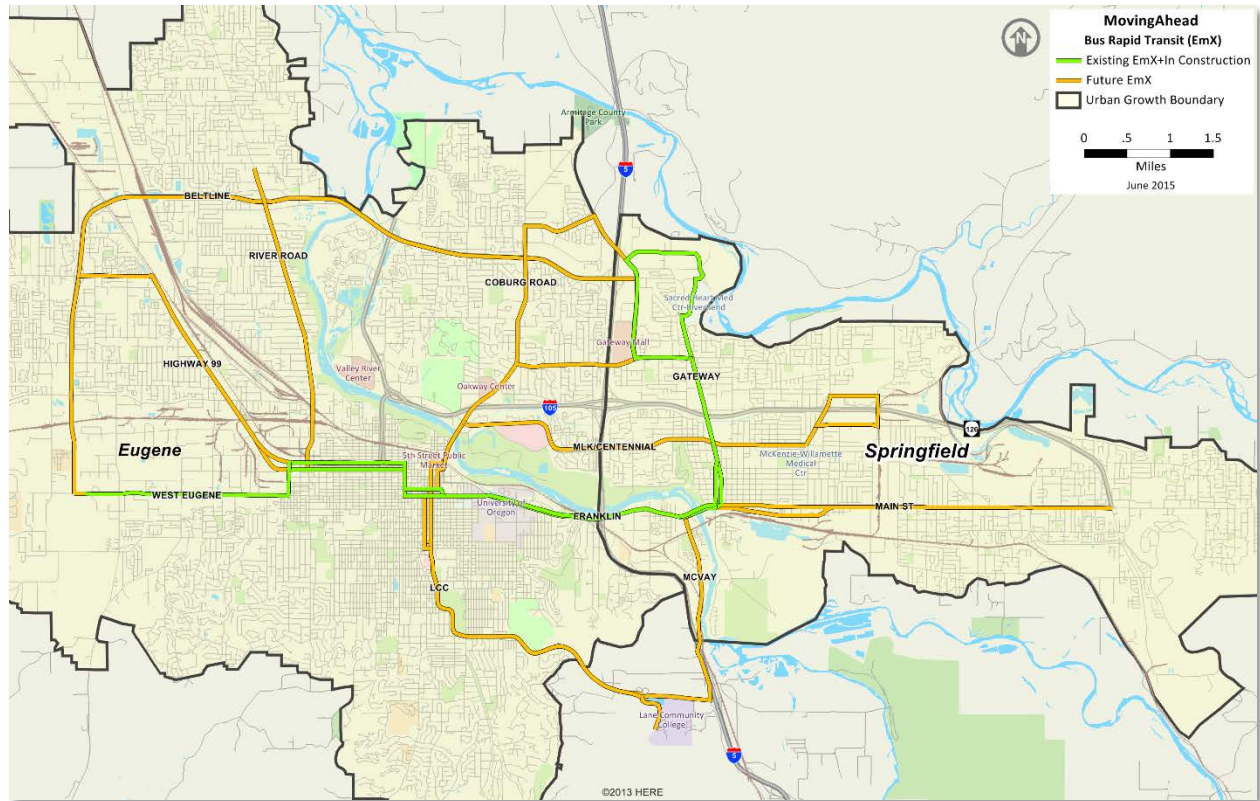
The purpose of the MovingAhead Project is to determine which high-capacity transit corridors identified in the adopted *Central Lane Metropolitan Planning Organization Regional Transportation Plan* (Lane Council of Governments [LCOG], 2011, December; RTP) and the *Lane Transit District Long-Range Transit Plan* (Lane Transit District [LTD], 2014) as part of the Frequent Transit Network (FTN) are ready to advance to capital improvements programming in the near term. The study is being conducted jointly with the City of Eugene and LTD to facilitate a streamlined and cost-efficient process through concurrent planning, environmental review, and design and construction of multiple corridors. The study area includes Eugene and portions of unincorporated Lane County.

The *Lane Transit District Long-Range Transit Plan* (LTD, 2014) identifies the full Martin Luther King, Jr. Boulevard / Centennial Boulevard Corridor as a future part of the FTN. Initially, MovingAhead considered options on Centennial Boulevard to serve Springfield as part of this corridor. Because Springfield does not have the resources available to consider transit enhancements on Centennial Boulevard at this time, MovingAhead will only develop Emerald Express (EmX) and Enhanced Corridor



Alternatives within Eugene. Figure 1.4-1 presents LTD's existing and future bus rapid transit (BRT) system.

**Figure 1.4-1. Lane Transit District's Bus Rapid Transit (BRT) System**



Source: LTD. (2015, Amended 2015, June).

## 1.5. Screening and Evaluation of Multimodal Options

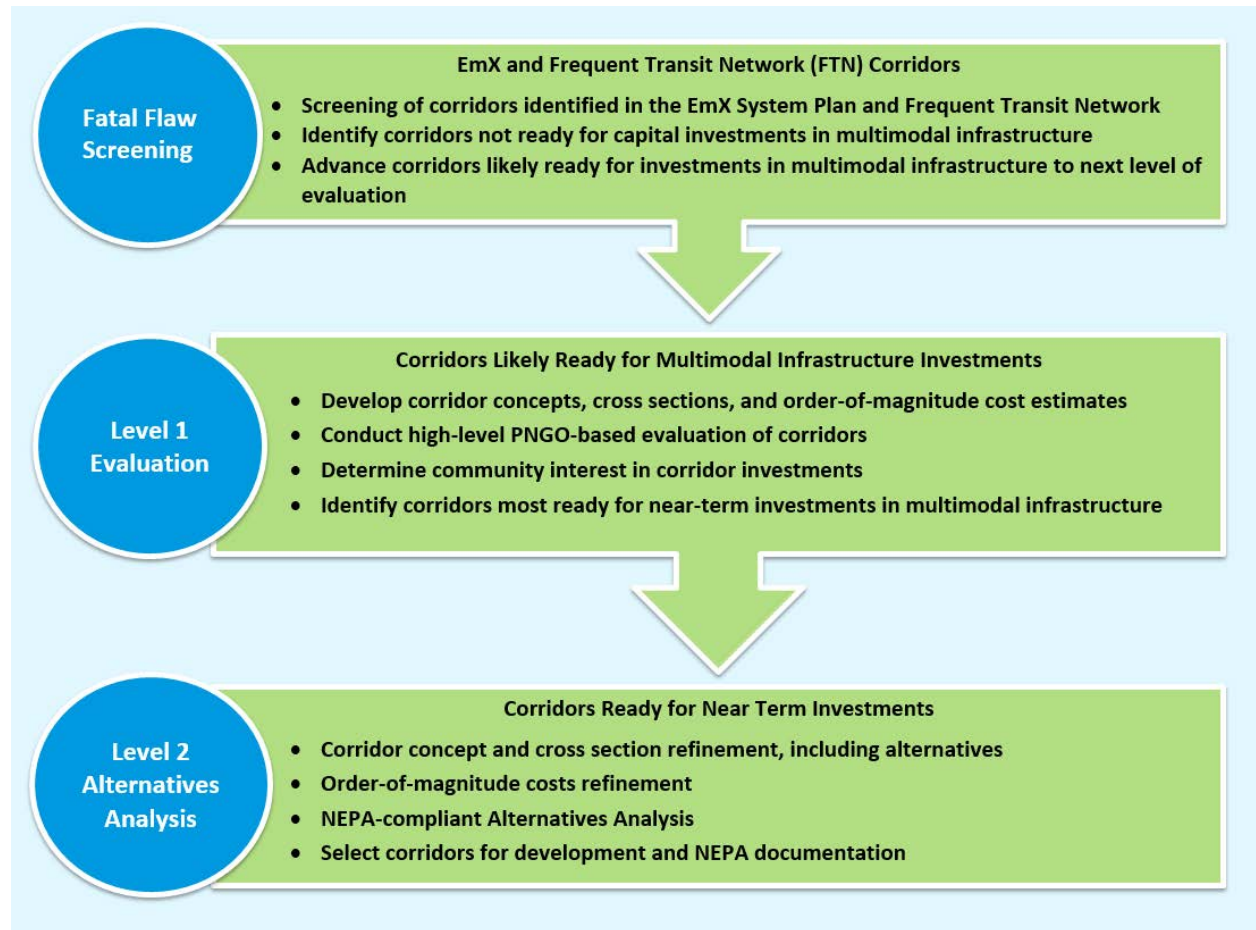
The MovingAhead Project process includes two phases. This first phase has three discrete but closely related tasks: identifying transit improvements; identifying improvements for bicyclists, pedestrians, and users of mobility devices; and preparing a NEPA-compliant evaluation of alternatives focused on the region's transportation system. Corridor options identified as part of the first phase were developed using multimodal cross sections that include variations on automobile, truck, and bus travel lanes; bicycle lanes; landscaping strips; and sidewalks. At the end of the first phase, the City of Eugene and LTD will select the corridors that are most ready for near-term capital improvements and prioritize improvements for funding. The selected corridors will be advanced to the second phase, which will focus on preparing NEPA environmental reviews (Documented Categorical Exclusions), and initiating the Federal Transit Administration (FTA) project development process.

### 1.5.1. Fatal Flaw Screening

The project team conducted a fatal flaw screening in February 2015 to identify which of the 10 corridors should not move forward to the Level 1 Screening Evaluation (Figure 1.5-1). This high-level evaluation used criteria based on MovingAhead's Purpose, Need, Goals, and Objectives (LTD, 2015, Amended 2015,

June) and existing data to determine which corridors were not ready for capital investment in BRT or multimodal infrastructure in the next 10 years. The screening was conducted with local, regional, and state agency staff. Of the 10 corridors identified, the following three corridors were not advanced from the fatal flaw screening to the Level 1 Screening Evaluation: 18th Avenue, Bob Straub Parkway, and Randy Papé Beltline Highway. Table 1.5-1 shows the results of the fatal flaw screening.

**Figure 1.5-1. MovingAhead Phase 1 Steps**



Source: Wannamaker Consulting. (2015).



**Table 1.5-1. Results of the Fatal Flaw Screening**

Corridor	Advanced to Level 1	Consider Later
Highway 99	✓	
River Road	✓	
Randy Papé Beltline		✓
18th Avenue		✓
Coburg Road	✓	
Martin Luther King, Jr. Boulevard / Centennial Boulevard	✓	
30th Avenue to Lane Community College	✓	
Main Street-McVay Highway	✓	
Valley River Center	✓	
Bob Straub Parkway		✓

Source: LTD and City of Eugene. (2015, June).

The six remaining multimodal corridors were advanced to the Level 1 Screening Evaluation to determine how they compared with each other in meeting the Purpose, Need, Goals, and Objectives.

### 1.5.2. Level 1 Screening Evaluation

The Level 1 Screening Evaluation assessed how each corridor would perform according to the Purpose, Need, Goals, and Objectives of MovingAhead. The Level 1 Screening Evaluation used existing studies and readily available data to evaluate each corridor. Based on community input and technical analysis, the following corridors and alternatives were advanced from the Level 1 Screening Evaluation to the Level 2 Alternatives Analysis (AA) (Table 1.5-2):

- No-Build Alternatives: all corridors
- Enhanced Corridor and EmX Alternatives:
  - Highway 99 Corridor
  - River Road Corridor
  - 30th Avenue to Lane Community College (LCC) Corridor
  - Coburg Road Corridor
- Enhanced Corridor Alternative:
  - Martin Luther King, Jr. Boulevard Corridor

The Valley River Center Corridor received the least public support during public outreach and was not carried forward to the Level 2 AA.

For a detailed discussion of alternatives and design options considered for each corridor, but not carried forward to the Level 2 AA, please refer to the *Alternatives and Design Options Considered but Eliminated Technical Memorandum* (CH2M, 2016).

**Table 1.5-2. Corridors and Transit Alternatives Advanced to the Level 2 Alternatives Analysis**

Corridor	No-Build	Enhanced Corridor	EmX
Highway 99	✓	✓	✓
River Road	✓	✓	✓
30th Avenue to Lane Community College	✓	✓	✓
Coburg Road	✓	✓	✓
Martin Luther King, Jr. Boulevard	✓	✓	

Source: CH2M. (2016a).

For a detailed discussion of alternatives and design options considered for each corridor, but not carried forward to the Level 2 AA, please refer to the *Alternatives and Design Options Considered but Eliminated Technical Memorandum* (CH2M, 2016a).

### 1.5.3. Level 2 Alternatives Analysis

To guide the Level 2 AA, LTD prepared new ridership forecasts and related evaluation measures using the LCOG regional model. Base-year and future-year forecasts were prepared for corridor alternatives based upon updated inputs and transit networks specific to each corridor. The planning horizon year used for the Level 2 AA is 2035. The built and natural environments, transit operations, traffic, finance, historical resources, and other areas were also evaluated as part of the Level 2 AA. The findings from the Level 2 AA will aid LTD and the City of Eugene in determining how corridors should be prioritized for capital investments over the next 5 years. Selected corridors will be advanced to Phase 2.

## 1.6. Purpose and Need

The prioritization of capital investments in multimodal transit corridors is a powerful tool for implementing local and regional comprehensive land use and transportation plans, agency strategic plans, and other community planning documents. Capital investments in multimodal transit corridors can have a substantial impact on patterns of growth and development. By coordinating the timing of, and prioritizing the funding for, strategic multimodal capital investments, the MovingAhead Project (a multimodal transit corridor study) helps ensure that future development is consistent with our region’s plans and vision.

The Purpose and Need Statement was refined based on public and agency input.

### 1.6.1. Purpose

The purpose of the MovingAhead Project is to:

- Develop a Capital Improvements Program that forecasts and matches projected revenues and capital needs over a 10-year period
  - Balance desired multimodal transit corridor improvements with the community’s financial resources
  - Ensure the timely and coordinated construction of multimodal transit corridor infrastructure
  - Eliminate unanticipated, poorly planned, or unnecessary capital expenditures

- Identify the most economical means of financing multimodal transit corridor capital improvements
- Establish partnerships between LTD, City of Eugene, and other local agencies that prioritize multimodal transit infrastructure needs and promote interagency cooperation
- Ensure that multimodal transit corridor investments are consistent with local comprehensive land use and transportation plans

### 1.6.2. Need

The need for the MovingAhead Project is based on the following factors:

- LTD's and the region's commitment to implementing the region's vision for BRT in the next 20 years consistent with the RTP that provides the best level of transit service in a cost-effective and sustainable manner.
- Need for streamlined environmental reviews to leverage systemwide analysis.
- Need to build public support for implementation of the systemwide vision.
- Selection of the next EmX / FTN corridors is based on long-range operational and financial planning for LTD's service.

### 1.6.3. Goals and Objectives

#### **Goal 1: Improve multimodal transit corridor service**

- Objective 1.1: Improve transit travel time and reliability
- Objective 1.2: Provide convenient transit connections that minimize the need to transfer
- Objective 1.3: Increase transit ridership and mode share in the corridor
- Objective 1.4: Improve access for people walking and bicycling, and to transit
- Objective 1.5: Improve the safety of pedestrians and bicyclists accessing transit, traveling in and along the corridor, and crossing the corridor

#### **Goal 2: Meet current and future transit demand in a cost-effective and sustainable manner**

- Objective 2.1: Control the increase in transit operating cost to serve the corridor
- Objective 2.2: Increase transit capacity to meet current and projected ridership demand
- Objective 2.3: Implement corridor improvements that provide an acceptable return on investment
- Objective 2.4: Implement corridor improvements that minimize impacts to the environment and, where possible, enhance the environment
- Objective 2.5: Leverage funding opportunities to extend the amount of infrastructure to be constructed for the least amount of dollars

#### **Goal 3: Support economic development, revitalization, and land use redevelopment opportunities for the corridor**

- Objective 3.1: Support development and redevelopment as planned in other adopted documents
- Objective 3.2: Coordinate transit improvements with other planned and programmed pedestrian and bicycle projects
- Objective 3.3: Coordinate transit improvements with other planned and programmed roadway projects
- Objective 3.4: Minimize adverse impacts to existing businesses and industry
- Objective 3.5: Support community vision for high capacity transit in each corridor
- Objective 3.6: Improve transit operations on state facilities in a manner that is mutually beneficial to vehicular and freight traffic flow around transit stops and throughout the corridor
- Objective 3.7: Improve transit operations in a manner that is mutually beneficial to vehicular traffic flow for emergency service vehicles

#### 1.6.4. Evaluation Criteria

Evaluation criteria will be used during the Trade-off Analysis, which is part of the Level 2 AA, to aid in determining how well each of the corridor alternatives would meet the project’s Purpose, Need, Goals, and Objectives. The evaluation criteria require a mix of quantitative data and qualitative assessment. The resulting data will be used to measure the effectiveness of each proposed corridor alternative and to assist in comparing and contrasting the alternatives and options. In Table 1.6-1, evaluation criteria are listed for each of the project’s objectives. Some objectives have only one criterion for measuring effectiveness, while others require several criteria.

**Table 1.6-1. Evaluation Criteria**

Goals and Objectives		Evaluation Criteria
<b>Goal 1: Improve multimodal transit corridor service</b>		
Objective 1.1:	Improve transit travel time and reliability	<ul style="list-style-type: none"> <li>• Round trip p.m. peak transit travel time between select origins and destinations</li> <li>• On-time performance (no more than 4 minutes late) of transit service</li> </ul>
Objective 1.2:	Provide convenient transit connections that minimizes the need to transfer	<ul style="list-style-type: none"> <li>• Number of transfers required between heavily used origin-destination pairs</li> </ul>
Objective 1.3:	Increase transit ridership and mode share in the corridor	<ul style="list-style-type: none"> <li>• Average weekday boardings on corridor routes</li> <li>• Transit mode share along the corridor</li> <li>• Population within 0.5 mile of transit stop</li> <li>• Employment within 0.5 mile of transit stop</li> </ul>
Objective 1.4:	Improve access for people walking and bicycling, and to transit	<ul style="list-style-type: none"> <li>• Connectivity to existing pedestrian facilities</li> <li>• Connectivity to existing bicycle facilities</li> </ul>
Objective 1.5:	Improve the safety of pedestrians and bicyclists accessing transit, traveling in and along the corridor, and crossing the corridor	<ul style="list-style-type: none"> <li>• Opportunity to provide a safe and comfortable environment for pedestrians and bicyclists in the corridor</li> </ul>
<b>Goal 2: Meet current and future transit demand in a cost-effective and sustainable manner</b>		
Objective 2.1:	Control the increase in transit operating cost to serve the corridor	<ul style="list-style-type: none"> <li>• Cost per trip</li> <li>• Impact on LTD operating cost</li> <li>• Cost to local taxpayers</li> </ul>
Objective 2.2:	Increase transit capacity to meet current and projected ridership demand	<ul style="list-style-type: none"> <li>• Capacity of transit service relative to the current and projected ridership</li> </ul>
Objective 2.3:	Implement corridor improvements that provide an acceptable return on investment	<ul style="list-style-type: none"> <li>• Benefit / cost assessment of planned improvements</li> </ul>
Objective 2.4:	Implement corridor improvements that minimize impacts to the environment and, where possible, enhance the environment	<ul style="list-style-type: none"> <li>• Results of screening-level assessment of environmental impacts of transit solutions</li> </ul>

**Table 1.6-1. Evaluation Criteria**

Goals and Objectives		Evaluation Criteria
Objective 2.5:	Leverage funding opportunities to extend the amount of infrastructure to be constructed for the least amount of dollars	<ul style="list-style-type: none"> <li>• Number and dollar amount of funding opportunities that could be leveraged</li> <li>• Meet the FTA’s Small Starts funding requirements</li> </ul>
<b>Goal 3: Support economic development, revitalization and land use redevelopment opportunities for the corridor</b>		
Objective 3.1:	Support development and redevelopment as planned in other adopted documents	<ul style="list-style-type: none"> <li>• Consistent with the BRT System Plan and FTN concept</li> <li>• Consistent with the <i>Regional Transportation System Plan</i> (Central Lane Metropolitan Planning Organization [MPO], 2007)</li> <li>• Consistent with local comprehensive land use plans</li> </ul>
Objective 3.2:	Coordinate transit improvements with other planned and programmed pedestrian and bicycle projects	<ul style="list-style-type: none"> <li>• Capability of transit improvement to coordinate with other planned and programmed pedestrian and bicycle projects identified in adopted plans and Capital Improvements Programs</li> </ul>
Objective 3.3:	Coordinate transit improvements with other planned and programmed roadway projects	<ul style="list-style-type: none"> <li>• Capability of transit improvement to coordinate with other planned and programmed roadway projects identified in adopted plans and Capital Improvements Programs</li> </ul>
Objective 3.4:	Minimize adverse impacts to existing businesses and industry	<ul style="list-style-type: none"> <li>• Impacts to businesses along the Corridor measured in number and total acres of properties acquired, parking displacements, and access impacts.</li> <li>• Impact on freight and delivery operations for Corridor businesses</li> </ul>
Objective 3.5:	Support community vision for high capacity transit in corridor	<ul style="list-style-type: none"> <li>• Community vision includes high capacity transit in corridor</li> </ul>
Objective 3.6:	Improve transit operations on state facilities in a manner that is mutually beneficial to vehicular and freight traffic flow around transit stops and throughout the corridor	<ul style="list-style-type: none"> <li>• Impact on current and future year intersection level of service (LOS) on state facilities</li> <li>• Impact on current and future year p.m. peak hour auto / truck travel times on state facilities</li> </ul>
Objective 3.7:	Improve transit operations in a manner that is mutually beneficial to vehicular traffic flow for emergency service vehicles	<ul style="list-style-type: none"> <li>• Qualitative assessment of potential impacts to emergency service vehicle traffic flow and access</li> </ul>

Source: LTD and City of Eugene. (2015, June).

BRT = bus rapid transit

FTA = Federal Transit Administration

LOS = level of service

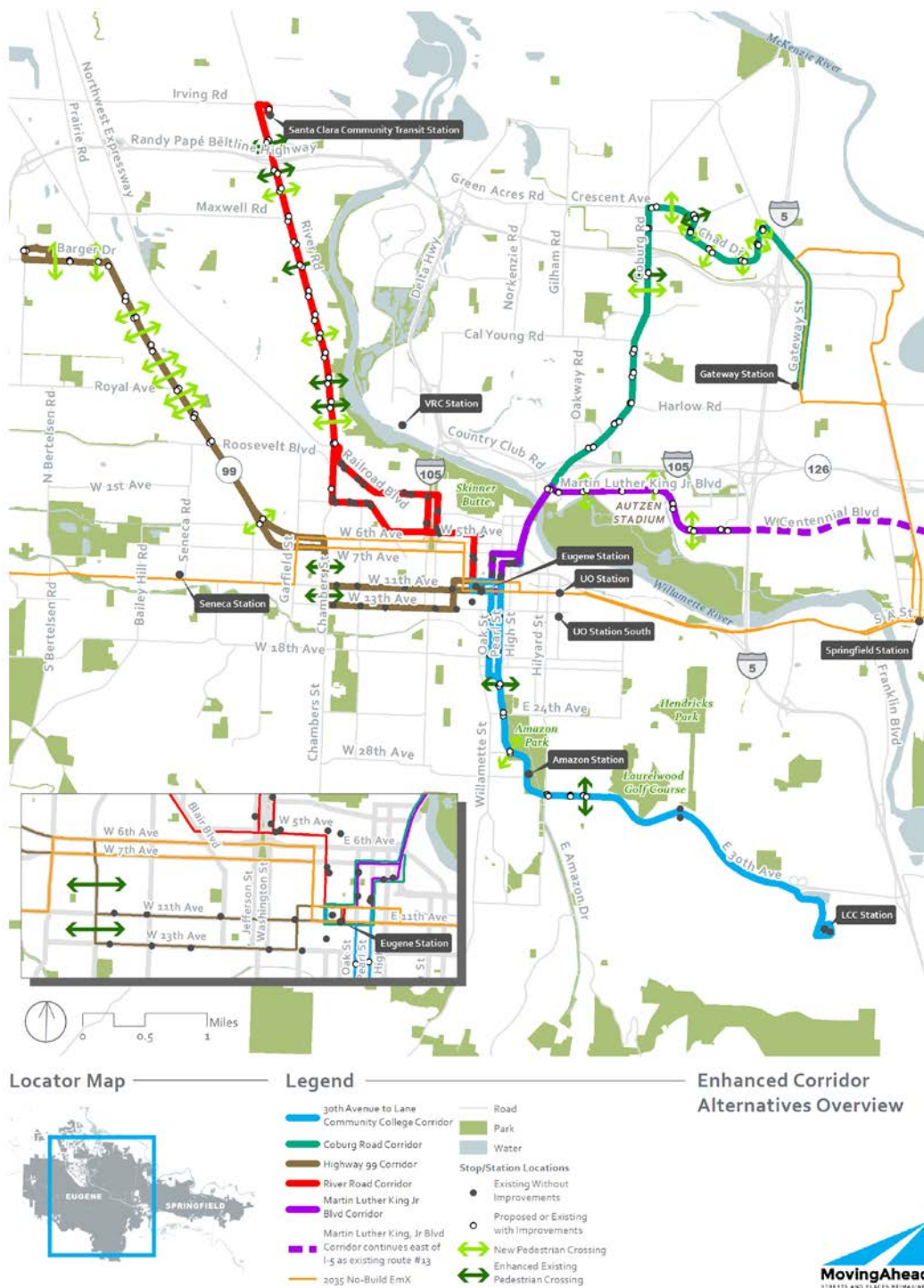
LTD = Lane Transit District

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## 2. Alternatives Considered

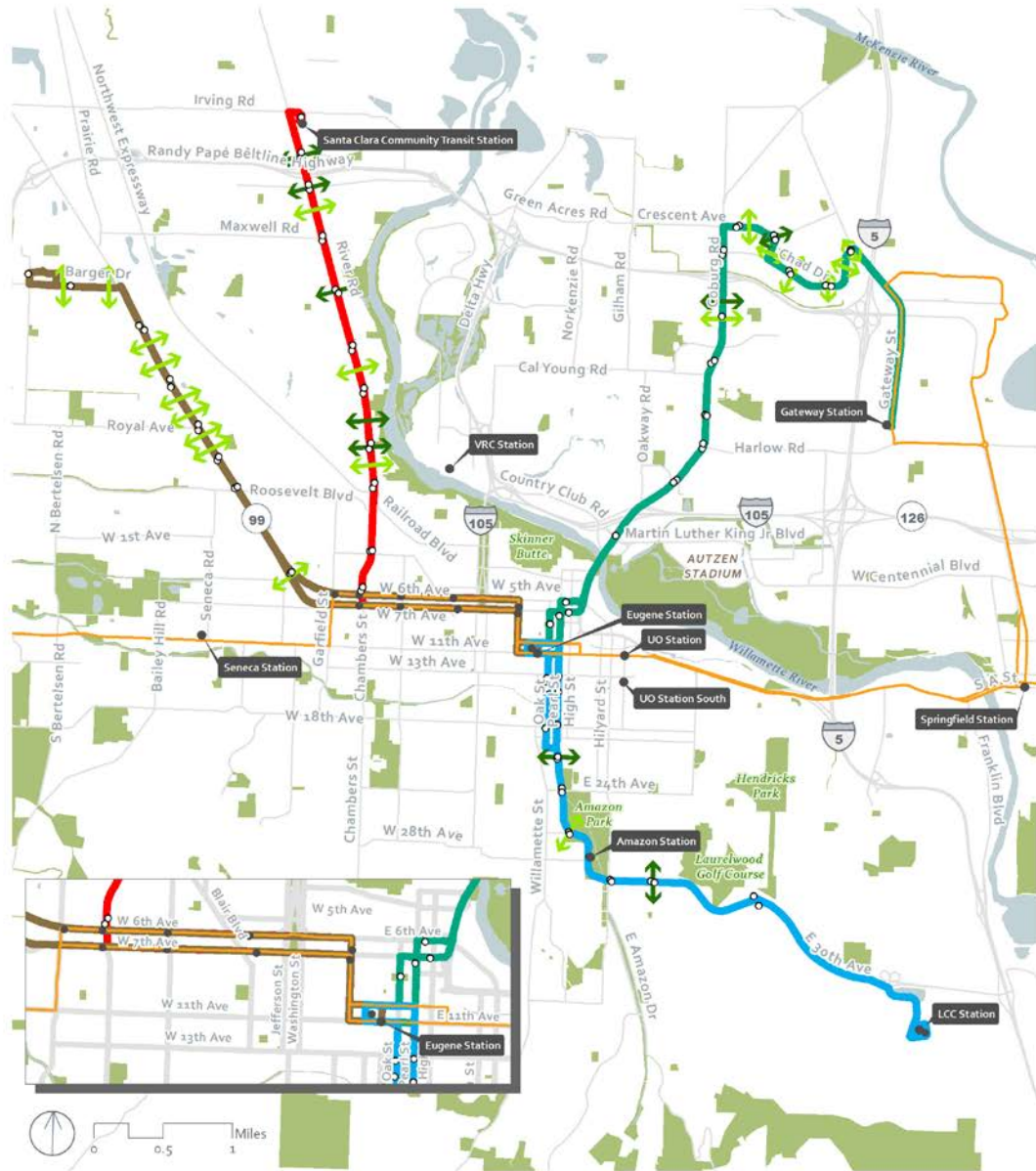
This section briefly reviews the major features of the alternatives considered in the Level 2 AA. For full details on each alternative and the five corridors described in this technical report – Highway 99, River Road, 30th Avenue to LCC, Coburg Road, and Martin Luther King, Jr. Boulevard – refer to the *MovingAhead Level 2 Definition of Alternatives* (CH2M et al., 2016). Each corridor location is shown on Figures 2.1-1 and 2.1-2 for the Enhanced Corridor Alternatives and the EmX Alternatives, respectively.

**Figure 2.1-1. Enhanced Corridor Alternatives Overview**





**Figure 2.1-2. EmX Alternatives Overview**



Locator Map

Legend

EmX Alternatives Overview



- 30th Avenue to Lane Community College Corridor
  - Coburg Road Corridor
  - Highway 99 Corridor
  - River Road Corridor
  - 2035 No-Build EmX
  - Road
  - Park
  - Water
- Stop/Station Locations**
- Existing Without Improvements
  - Proposed or Existing with Improvements
  - ↔ New Pedestrian Crossing
  - ↔ Enhanced Existing Pedestrian Crossing



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## 2.1. No-Build Alternative Transit Network

This section describes the No-Build Alternative transit network, which is based on projected conditions in the year 2035, the project's environmental forecast year. For each corridor, the No-Build Alternative serves as a reference point to gauge the benefits, costs, and effects of the build alternatives.

### 2.1.1. Capital Improvements

Under the No-Build Alternative, the following capital improvements are anticipated by 2035:

- **West Eugene EmX Extension.** Currently under construction, the West Eugene EmX Extension (WEEE) project and its associated capital improvements will be completed in 2017.
- **Santa Clara Community Transit Center.** The existing River Road Station is located at the southeast corner of the River Road / Randy Papé Beltline Highway interchange between the eastbound on-ramp and River Avenue. To meet growing demand and avoid the impacts of increasing congestion, LTD plans to relocate the River Road Station to a site north of the Randy Papé Beltline Highway at the southeast corner of River Road and Hunsaker Lane. Once relocated to the new site, the River Road Station would be renamed the Santa Clara Community Transit Center. This new transit center is planned to include a mix of uses including a park and ride lot, residential housing, community space, and commercial uses. The River Road Station relocation to the new site is anticipated to be completed by the end of 2018.
- **Main Street EmX Extension.** Included in the RTP and currently under study, the extension of the existing Franklin EmX line on Main Street from Springfield Station to Thurston Station and associated capital improvements (e.g., stations, bicycle and pedestrian facilities, and signal modifications) is anticipated to be completed within the 20-year planning horizon (2035). The No-Build Alternative transit network assumes EmX service on Main Street. However, the outcome of this study, and the ultimate improvements chosen, are uncertain at this time.
- **McVay Highway Enhanced Corridor.** Included in the RTP and currently under study, Enhanced Corridor service from Springfield Station on McVay Highway to LCC and associated capital improvements (e.g., improved stops, transit queue jumps, and improved bicycle and pedestrian crossings) is anticipated to be completed within the 20-year planning horizon (2035).

### 2.1.2. Transit Operations

The No-Build Alternatives for each corridor include changes to transit service anticipated as a result of the WEEE project, Main Street EmX Extension project, development of the Santa Clara Community Transit Center, and other changes to fixed route service. The following changes to the existing 2016 fixed route services are anticipated by 2035:

- Eliminated routes:
  - Route 11 (replaced by Main Street EmX service)
  - Route 32 (replaced by WEEE service)
  - Route 76 (replaced by WEEE service)
  - Route 85 (replaced by Enhanced Corridor service on the McVay Highway)
  - Route 43 (replaced by WEEE service)
- Other route modifications:
  - Add WEEE service (replaces Route 43 service on W. 11th Avenue) as extension of existing EmX service
  - Add Main Street EmX service from Springfield Station to Thurston Station

- Add Route 2 with service from Barger Drive / Echo Hollow Road to Eugene Airport
- Add Route 16 to connect north and south of Main Street with EmX service
- Add Enhanced Corridor service on McVay Highway from Springfield Station to LCC (replaces Route 85)
- Reroute Route 33 and extend to Amazon Parkway
- Reroute Route 36 to extend north of W. 11th Avenue to Barger Drive (replaces Route 43)
- Reroute Route 41 via Highway 99 / Royal Avenue / W. 11th Avenue
- Reroute Route 40 via Royal Avenue / Elmira Road / Roosevelt Boulevard / Chambers Street / W. 2nd Avenue / Oak and Pearl Streets
- Add Route 44 paralleling Route 40 above to serve West Eugene
- Reroute Route 55 to extend to Santa Clara Community Transit Center
- Reroute Route 93 with service continuing to Eugene Station via Seneca Station and service terminating at the WEEE terminus
- Change in service frequencies:
  - Increase service on Route 24 from 30-minute peak frequencies to 15-minute peak frequencies
  - Increase service on Route 28 from approximately 30-minute peak frequencies (varying 20- to 30-minute intervals) to 15-minute peak frequencies
  - Increase service on Route 41 from 30- and 15-minute peak frequencies to 15-minute peak frequencies
  - Increase service on Route 51 from 60-minute off-peak frequencies to 30-minute off-peak frequencies
  - Increase service on Route 52 from 60-minute off-peak frequencies to 30-minute off-peak frequencies
  - Increase service on Route 66 from 30- and 15-minute weekday a.m. peak, off-peak, and p.m. peak frequencies to 15-minute weekday a.m. peak, off-peak, and p.m. peak frequencies
  - Increase service on Route 67 from approximately 30-minute weekday a.m. peak, off-peak, and p.m. peak frequencies to 15-minute weekday a.m. peak, off-peak, and p.m. peak frequencies
  - Increase service on Route 78 from approximately 60-minute frequencies from 8 a.m. to 6 p.m. to 30-minute weekday a.m. peak, off-peak, and p.m. peak frequencies
  - Increase service on Route 79x from 30-minute peak frequencies to 10-minute peak frequencies, and modify off peak frequencies to 15 minutes from between 10 and 30 minutes currently
  - Decrease a.m. peak service on Route 93 from 60-minute frequencies to 120-minute frequencies during a.m. peak hours, and increase from no service between Veneta and the WEEE terminus to 120-minute frequencies during p.m. peak hours (off-peak service is 120-minute frequencies between Veneta and the WEEE terminus)
  - Decrease a.m. peak service on Route 96 from 30-minute frequencies to 60-minute frequencies, and increase off-peak service from no service between 8:20 a.m. and 3:40 p.m. to 60-minute off-peak frequencies

Key transportation improvements specific to each corridor are described under each corridor’s No-Build Alternative.

## 2.2. Enhanced Corridor Alternatives

Enhanced Corridor Alternatives are intended to address the project’s Purpose, Need, Goals, and Objectives without major transit capital investments, instead focusing on lower-cost capital improvements, operational improvements, and transit service refinements. Features could include transit queue jumps (lanes for buses that allow the bus to “jump” ahead of other traffic at intersections

using a separate signal phase), stop consolidation, enhanced shelters, and redesigned service to improve cross-town connectivity. These features improve reliability, reduce transit travel time, and increase passenger comfort.

Enhanced Corridor service would run from 6:45 a.m. to 11:30 p.m. weekdays, 7 a.m. to 11 p.m. Saturdays, and 8 a.m. to 8 p.m. Sundays. Service frequencies are assumed to be 15 minutes during all periods.

### 2.3. EmX Alternatives

EmX (BRT) Alternatives are characterized by exclusive guideways (business access and transit [BAT] lanes or bus-only lanes); branded, multi-door 60-foot-long BRT vehicles; enhanced stations with level boarding platforms instead of stops; off-board fare collection; signal priority; wider stop spacing; and frequent and redesigned service to improve cross-town connectivity.

EmX service is assumed to run from 6:45 a.m. to 11:30 p.m. weekdays, 7 a.m. to 11 p.m. Saturdays, and 8 a.m. to 8 p.m. Sundays. Service frequencies are assumed to be 10 minutes during all periods.

### 2.4. Highway 99 Corridor

The Highway 99 Corridor begins at the Eugene Station, travels through downtown, then extends northwest along Highway 99 to Barger Drive, turning west at Barger Drive to terminate on Cubit Street north of the intersection of Barger Drive and Cubit Street east of the Randy Papé Beltline Highway. This corridor is approximately 10.5 round-trip miles.

#### 2.4.1. No-Build Alternative

The Highway 99 Corridor No-Build Alternative includes existing roadway, bicycle, pedestrian, and transit facilities in the corridor, as well as planned improvements in the *DRAFT Eugene 2035 Transportation System Plan* (City of Eugene, 2016a; Draft Eugene 2035 TSP). The No-Build Alternative would not include capital improvements on Highway 99. As part of the Draft Eugene 2035 TSP, the following transportation improvements are planned along or adjacent to the corridor:

- Upgrade Bethel Drive, from Highway 99 to Roosevelt Boulevard, to a two-lane urban facility with sidewalks on both sides of the road, bicycle lanes, and planting strips
- Widen Barger Drive immediately west of the Randy Papé Beltline Highway interchange to include an additional travel lane in each direction
- Add a shared-use path on the west side of Highway 99 from Roosevelt Boulevard south to the intersection of W. 7th Avenue and Garfield Street (the section of this project from Roosevelt to W. 5th Avenue has been completed)
- Add bicycle lanes on Garfield Street from Roosevelt Boulevard south to W. 6th Avenue
- Add a bicycle lane on W. 6th Avenue from Garfield Street to W. 5th Avenue
- Complete the sidewalk network on Highway 99 from Roosevelt Boulevard south to Garfield Street
- Add a shared-use path on Roosevelt Boulevard from Maple Street to Highway 99
- Add a bicycle lane on Roosevelt Boulevard from Highway 99 east to railroad tracks

Under the No-Build Alternative, Highway 99 Corridor service would remain at 15-minute headways during peak periods and 30-minute headways during off-peak periods and evenings. Under the No-Build Alternative, a slight change is also made to Route 93, which would stop at the Pearl Buck Center in the absence of Route 44.

### **2.4.2. Enhanced Corridor Alternative**

Capital improvements under the Highway 99 Corridor Enhanced Corridor Alternative would include enhanced bicycle and pedestrian crossings; improvements to existing bus stops and the construction of new stops; construction of queue jumps at some intersections; traffic signal reconstruction; construction of bus-only left turn lanes; and roadway widening at some locations in the corridor.

Existing conventional fixed-service routes would remain the same as with the No-Build Alternative, with the exception of the elimination of Route 41. Service west of WinCo would also remain the same or be improved.

### **2.4.3. EmX Alternative**

The Highway 99 Corridor EmX Alternative would include creating BAT lanes on segments of W. 7th Avenue and Highway 99; reconstructing the Highway 99 / Roosevelt Boulevard intersection (traffic signal, turn lanes, and queue jump); completing other intersection modifications in the corridor; roadway widening at some locations; and constructing nine new enhanced pedestrian and bicycle crossings, new sidewalks, and a pedestrian bridge across the railroad line from Highway 99 to the Trainsong neighborhood. Four existing bus stop locations would be improved to EmX stations, in addition to constructing new stations. Some existing EmX stations would be used for the Highway 99 Corridor EmX service.

Route 44 is a conventional service line added to this alternative only, providing coverage on 11th and 13th Avenues as well as service to the Pearl Buck Center on W. 1st Avenue, with 30-minute headways during all periods. This would be a decrease in service for the 11th and 13th Avenue corridors that currently have 15-minute peak service. Route 44 is primarily intended to replace conventional service lost with the removal of the existing Route 41. Route 41 would be replaced with the Highway 99 Corridor EmX service described in this alternative.

## **2.5. River Road Corridor**

The River Road Corridor begins at the Eugene Transit Center, travels through downtown and then north to the Santa Clara Community Transit Center (intersection of Hunsaker Lane and River Road). This corridor is approximately 10.3 round-trip miles.

### **2.5.1. No-Build Alternative**

The River Road Corridor No-Build Alternative would include existing roadway, bicycle, pedestrian, and transit facilities in the corridor, as well as planned improvements in the Draft Eugene 2035 TSP. There would be no additional major bus capital improvements under the No-Build Alternative.

As part of the Draft Eugene 2035 TSP, the following transportation improvements are planned adjacent to and along the River Road Corridor:

- Upgrade the Hunsaker Lane / Beaver Street intersection to urban collector standards, including two travel lanes, a center turn lane, bicycle lanes, sidewalks on both sides of the road, and planting strips from River Road to Division Avenue
- Provide bicycle boulevards on Ruby Avenue, Horn Lane, Arbor Drive, and Park Avenue
- Include sidewalks on Hunsaker Lane, Howard Avenue, and Hilliard Lane
- Provide protected bicycle lanes on River Road from the Northwest Expressway to Division Avenue



Under the No-Build Alternative, River Road Corridor service would remain at 30-minute headways for both Routes 51 and 52 (which together effectively provide 15-minute service during peak periods) and off-peak periods. After 6:15 p.m., there is no longer a combined 15-minute frequency, and headways return to 30 minutes.

### **2.5.2. Enhanced Corridor Alternative**

Capital improvements constructed as part of the River Road Corridor Enhanced Corridor Alternative would include BAT lanes on River Road approaching the Randy Papé Beltline Highway and other roadway improvements, like traffic signal reconstruction at certain locations along the corridor. Improvements to existing bus stops and the construction of new stops would also occur.

Routes 51 and 52 would be eliminated, and Enhanced Corridor service for River Road includes a split alignment in order to serve portions covered by those routes at 30-minute headways. In this arrangement, the area from Railroad Boulevard to W. 1st Avenue is served by one Enhanced Corridor service as a replacement for the Route 51 service, while the area along Blair Boulevard and W. 2nd Avenue is served by the other alignment to replace service lost with removal of Route 52. Those alignments meet at Railroad Boulevard and River Road to serve the River Road Corridor with consistent 15-minute headways.

### **2.5.3. EmX Alternative**

New construction under the River Road Corridor EmX Alternative would include lane repurposing on River Road for BAT lanes, constructing short sections of exclusive bus lanes near the Randy Papé Beltline Highway, reconstructing traffic signals and intersections at several locations, constructing new bicycle and pedestrian crossings, improving existing stops to EmX stations, and constructing new stations. Some existing EmX stations would be used with the River Road EmX service.

Transit service changes would also include modifying headways on Route 40 during the a.m. and p.m. peak hours to 15 minutes, developing a new Route 50 “River Road Connector” with 30-minute headways all day, and eliminating Routes 51, 52, and 55. These replacements ensure no loss in existing coverage or service.

## **2.6. 30th Avenue to Lane Community College Corridor**

The 30th Avenue to LCC Corridor begins at Eugene Station and travels south along Pearl Street (outbound) to Amazon Parkway, then on E. 30th Avenue to its terminus at the LCC Station. The return trip travels on Oak Street (inbound), which is the northbound couplet to Pearl Street. This corridor is approximately 10.2 round-trip miles.

### **2.6.1. No-Build Alternative**

The 30th Avenue to LCC Corridor No-Build Alternative would include existing roadway, bicycle, pedestrian, and transit facilities in the corridor, as well as planned improvements in the Draft Eugene 2035 TSP. There would be no additional major bus capital improvements to the 30th Avenue to LCC Corridor under the No-Build Alternative.

The Draft Eugene 2035 TSP identifies the following transportation improvements along or adjacent to the corridor:

- Bicycle boulevard on Alder Drive

For the portion of E. 30th Avenue in unincorporated Lane County, Lane County does not plan to improve bicycle facilities along the road.

Under the No-Build Alternative, 30th Avenue to LCC Corridor service would remain at 30-minute headways on Route 81. The Route 82 service would remain at 10-minute headways during the a.m. peak, 15-minute headways during off-peak periods, and 20-minute headways during the p.m. peak, with no weekend service.

### **2.6.2. Enhanced Corridor Alternative**

Capital improvements as part of the 30th Avenue to LCC Corridor Enhanced Corridor Alternative would include the construction of new bus stops, capital improvements to some existing bus stops, a new traffic signal on Amazon Parkway at E. 20th Avenue, and new bike facilities on Oak and Pearl Streets.

Under the 30th Avenue to LCC Corridor Enhanced Corridor Alternative, service to LCC provided by Routes 81 and 82 would be eliminated and replaced by Enhanced Corridor service. The direct connection between LCC and the University of Oregon Station along Route 81 would be eliminated. It would be replaced by connecting the 30th Avenue to LCC Corridor Enhanced Corridor Alternative to the Franklin EmX line with a transfer at Eugene Station.

### **2.6.3. EmX Alternative**

The 30th Avenue to LCC Corridor EmX Alternative would include repurposing parking and general-purpose lanes to BAT lanes on Oak and Pearl Streets, constructing queue jumps, extending E. 20th Avenue, adding a new traffic signal on Amazon Parkway, and adding a new cycle track on High Street. In addition to constructing new EmX stations, existing bus stops would be improved to EmX stations in certain locations.

Service to LCC provided by Routes 81 and 82 would be replaced with EmX service. The direct connection between LCC and the University of Oregon Station along Route 81 would be eliminated. It would be replaced by connecting the 30th Avenue to LCC Corridor EmX Alternative to the Franklin EmX line with a transfer at Eugene Station.

## **2.7. Coburg Road Corridor**

The Coburg Road Corridor begins at Eugene Station and continues to Coburg Road using the Ferry Street Bridge. The corridor continues north on Coburg Road to Crescent Avenue, east on Crescent Avenue and Chad Drive to N. Game Farm Road, and south on N. Game Farm Road and Gateway Street to the existing Gateway Station at the Gateway Mall. Although service extends from N. Game Farm Road to the Gateway Station, capital improvements for the corridor terminate at Interstate 5 (I-5). This corridor is approximately 11.2 round-trip miles.

### **2.7.1. No-Build Alternative**

The Coburg Road Corridor No-Build Alternative includes existing roadway, bicycle, pedestrian, and transit facilities in the corridor, as well as planned improvements in the Draft Eugene 2035 TSP. There would be no additional major transportation improvements to the Coburg Road Corridor under the No-Build Alternative.

Under the No-Build Alternative, the Coburg Road Corridor service would remain at 15-minute headways on Routes 66 and 67 at all weekday times, 30-minute headways on Saturdays, and 60-minute headways on Sundays.

### **2.7.2. Enhanced Corridor Alternative**

The Coburg Road Corridor Enhanced Corridor Alternative would include new traffic signal construction, intersection reconstruction at several locations on Coburg Road, the addition of queue jumps, and the addition of BAT lanes south of the Interstate 105 (I-105) interchange. New crossings for bicyclists and pedestrians would be constructed. Existing bus stops would be improved and new stops would also be constructed.

Route 12 would be altered to serve Valley River Center and Marcola Road. A new route (Route 60) would be added to serve Valley River Center, and Routes 66 and 67 would be eliminated. This change would provide new service and coverage to the Cal Young neighborhood and along Hayden Bridge Way in Springfield. It would require current passengers along Harlow Road to transfer in order to get downtown.

### **2.7.3. EmX Alternative**

Improvements to the corridor under the Coburg Road Corridor EmX Alternative would include construction of exclusive transit lanes at several locations on Coburg Road and intersection reconstruction at multiple locations. New bicycle and pedestrian crossings and EmX stations would be constructed, and some existing bus stops would be improved to EmX stations.

As in the Coburg Road Corridor Enhanced Corridor Alternative, Route 12 would be altered to serve Valley River Center and Marcola Road, and Route 60 would be added to serve Valley River Center, while Routes 66 and 67 would be eliminated. This change would provide new service and coverage to the Cal Young neighborhood and along Hayden Bridge Way in Springfield. It would require current passengers along Harlow Road to transfer in order to get downtown.

## **2.8. Martin Luther King, Jr. Boulevard Corridor**

The Martin Luther King, Jr. Boulevard Corridor begins at Eugene Station and travels through downtown Eugene on Oak and Pearl Streets and on 7th and 8th Avenues. The corridor uses the Ferry Street Bridge to reach Martin Luther King, Jr. Boulevard and continues east on Martin Luther King, Jr. Boulevard past Autzen Stadium to Centennial Boulevard. Although transit service continues along Centennial Boulevard, capital improvements for the corridor terminate at I-5. The corridor is approximately 6.0 round-trip miles.

### **2.8.1. No-Build Alternative**

The Martin Luther King, Jr. Boulevard Corridor No-Build Alternative includes existing roadway, bicycle, pedestrian, and transit facilities in the corridor, as well as planned improvements in the Draft Eugene 2035 TSP. The Draft Eugene 2035 TSP identifies the following transportation improvements along or adjacent to the Martin Luther King, Jr. Corridor:

- Add a center turn lane along sections of Martin Luther King, Jr. Boulevard from Club Road to Leo Harris Parkway



Under the No-Build Alternative, the Martin Luther King, Jr. Boulevard Corridor service would remain at 30-minute headways.

### **2.8.2. Enhanced Corridor Alternative**

Capital improvements associated with the Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative would include reconstructing traffic signals at the intersections of Coburg Road and Martin Luther King, Jr. Boulevard and of Martin Luther King, Jr. Boulevard and Centennial Loop; repurposing existing outside general-purpose lanes to BAT lanes on Martin Luther King, Jr. Boulevard; adding a new traffic signal at the intersection of Martin Luther King, Jr. Boulevard and Leo Harris Parkway; enhancing pedestrian crossings; constructing new bus stops; and improving existing bus stops. Existing Route 13 would be eliminated.

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### 3. Methods and Data

This section describes the analysis methodologies and data used for the Draft Section 4(f) Evaluation for the MovingAhead Project.

Section 4(f) of the U.S. Department of Transportation Act of 1966, 49 United States Code (U.S.C.) 303(c), is a federal law that protects publicly owned parks, recreation areas, wildlife and / or waterfowl refuges, as well as significant historic sites, whether publicly or privately owned. Section 4(f) requirements apply to all transportation projects that require funding or other approvals by the U.S. Department of Transportation (USDOT). As a USDOT agency, FTA must comply with Section 4(f).

#### 3.1. Relevant Laws and Regulations

##### 3.1.1. Federal

- **U.S. Department of Transportation Act of 1966, Section 4(f), 49 U.S.C. 303** (<https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/section-4f-department-transportation-act>); implementing regulations at 23 Code of Federal Regulations (CFR) 771.101-771.137 ([http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title23/23cfr774\\_main\\_02.tpl](http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title23/23cfr774_main_02.tpl)); and guidelines in the Federal Highway Administration, *Section 4(f) Policy Paper* (<https://www.environment.fhwa.dot.gov/4f/4fpolicy.asp>).
- This act prohibits the Secretary of Transportation from approving any program or project that requires the “use” of (i) any publicly owned land in a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or (ii) any land from a historic site of national, state, or local significance, (collectively, “Section 4[f] resources”) unless there is no feasible and prudent alternative to the use of such land, and unless such program or project includes all possible planning to minimize harm to the park, recreation area, wildlife refuge, or historic resource.
- Historic resources are addressed separately in the *MovingAhead Cultural Resources Technical Report* (CH2M and Heritage Research Associates, 2017), with coordination in this section for shared Section 4(f) resources.
- **National Historic Preservation Act of 1966, 16 U.S.C. 470.** (<http://www.achp.gov/NHPA.pdf>), and implementing regulations, 36 CFR 63--- Determinations of Eligibility for Inclusion in the National Register of Historic Places (NRHP) (<https://www.gpo.gov/fdsys/granule/CFR-2011-title36-vol1/CFR-2011-title36-vol1-part63/content-detail.html>), 36 CFR 800--- Protection of Historic Properties (<http://www.achp.gov/regs-rev04.pdf>).

This act establishes a program for preserving historic properties throughout the nation and declares as a national policy to protect, rehabilitate, restore, and reuse districts, sites, buildings, structures, and objects significant in American architecture, history, archaeology, and culture. Section 106 of the National Historic Preservation Act requires that federal agencies take into account the effect of government-funded construction projects on property that is included in, or eligible for inclusion in, the NRHP.

##### 3.1.2. State

None applicable.

### 3.1.3. Local

None applicable.

## 3.2. Analysis Area

The Section 4(f) analysis area for the MovingAhead Project is based on the corridor alternatives selected for further analysis in the Level 2 AA. The final boundaries of the Section 4(f) analysis area include all parcels within 350 feet of the centerline of the alternatives. The 350-foot boundary represents the unobstructed screening distance for FTA noise impact assessments, which allows for identification of potential constructive uses of Section 4(f) resources.

## 3.3. Contacts and Coordination

As necessary, the project team coordinated with owners of potentially impacted Section 4(f) resources and applicable regulatory agency staff. In addition, the project team consulted applicable planning documents to identify park and recreation resources, determine Section 4(f) applicability, and evaluate the project alternatives for potential uses. Information sources included the following:

- Federal
  - U.S. Department of the Interior National Park Service
  - FTA
  - U.S. Bureau of Land Management
- State
  - Oregon Department of Transportation (ODOT)
  - Oregon Parks and Recreation Department
  - Oregon State Historic Preservation Office (SHPO)
- Local
  - Lane County, Oregon
  - LCOG
  - City of Eugene Planning and Development Department
  - City of Eugene Parks and Recreation Department
  - City of Springfield Community Planning and Development
  - Willamalane Park and Recreation District

## 3.4. Level 1 Screening

No data were collected nor analysis conducted for the Level 1 Screening.

## 3.5. Level 2 Alternatives Analysis

### 3.5.1. Data Collection

#### 3.5.1.1. Parks and Recreation Resources

Geographic information systems and other mapping were used to identify publicly owned parks and recreational resources within the Section 4(f) analysis area's 350-foot buffer of proposed alignments. A follow-up visual scan of the study area was conducted using Google Earth™ and applicable state and

local parks maps to verify that all parks and recreational resources were identified. Each park and recreational resource was reviewed to determine that it is publicly owned, open to the general public, and used for recreation. If the resource is mapped or included in an adopted planning document, it was considered “significant” according to the Section 4(f) statute. For purposes of this review, all park or recreational resources were found to meet Section 4(f) protection.

The following existing condition elements were addressed in the description of each Section 4(f) property in the study area:

- Physical description (location / address, size of resource, and setting)
- Ownership
- Activities / features / attributes of the resource
- Access to the resource
- Visitor use
- Planned Uses

### 3.5.1.2. Historic Resources

This report uses historic resource data collected for the *MovingAhead Cultural Resources Technical Report* (CH2M and Heritage Research Associates, 2017) and identifies cultural resources within the Section 4(f) analysis area listed in, or are considered potentially eligible for listing in, the NRHP. It is important to note that the *MovingAhead Cultural Resources Technical Report* contains *preliminary* determinations of eligibility for historic properties – the formal Determination of Eligibility (DOE) process has not yet been undertaken for these properties.

For the purpose of conservatively assessing potential impacts, this report assumes all historic resources preliminarily deemed eligible for the NRHP in the *MovingAhead Cultural Resources Technical Report* (CH2M and Heritage Research Associates, 2017) will be officially determined eligible through the formal Section 106 DOE process. Any historic resources currently preliminarily determined eligible for the NRHP determined to not be eligible for the NRHP by the SHPO through the formal Section 106 DOE process would be removed from subsequent Section 4(f) analysis.

Section 4(f) applies to archeological sites that are both listed in and eligible for listing in the NRHP and that warrant preservation in place, but not to those that are chiefly important because of what can be learned by data recovery. Archeological sites whose importance as a resource can be documented through a data recovery process alone are generally not protected under Section 4(f). An archaeological resource eligible only under National Historic Preservation Act “Criterion D” is considered valuable only in terms of the data that can be recovered from it. For such resources (such as pottery scatters and refuse deposits), it is generally assumed that there is minimal value attributed to preserving such resources in place. Conversely, resources eligible under Criteria A, B, and / or C are considered to have value intrinsic to the resource’s location. According to the *MovingAhead Cultural Technical Report*, no sites were identified among any of the Corridors that would qualify as Section 4(f) resource and therefore archaeological sites are not considered along any of the Corridors as Section 4(f) resources.

### 3.5.2. Significance Thresholds

For the Section 4(f) assessment, a significant impact was defined as one in which there is a potential “use” of a Section 4(f) resource.

### 3.5.3. Determination of Use (Impact Analysis)

After identifying the Section 4(f) resources in the Section 4(f) analysis area, the analysts determined whether, and to what extent, the project would result in a “use” of that resource. The type of Section 4(f) use was determined according to the following Section 4(f) use definitions:

- **Permanent Incorporation.** Pursuant to 23 CFR 774.17, this type of use occurs when land from a Section 4(f) property is permanently incorporated into a transportation project. This may occur as a result of partial or full acquisition of the Section 4(f) property, permanent easements, or temporary easements that exceed regulatory limits.
- **Temporary Occupancy.** As defined in 23 CFR 774.13(d), this type of use can occur when there is a temporary occupancy of land at the resource that is adverse in terms of the statute’s preservation purpose as determined by the criteria in 23 CFR 774.13(d). If the temporary occupancy exception criteria in 23 CFR 774.13(d) are met, then the temporary occupancy of the resource by the project does not result in the use of the Section 4(f) property. If the criteria in 23 CFR 774.13(d) are not met, the temporary occupancy is considered a use. (Section 3.5.3.2 provides a list of the temporary occupancy criteria.)
- **Constructive Use.** As defined in 23 CFR 774.15(a), a constructive use occurs when a transportation project does not incorporate land from a Section 4(f) property, but the project’s proximity impacts are so severe that the protected activities, features, or attributes that qualify a property for protection under Section 4(f) are substantially impaired.

This report provides descriptions of impacts to all Section 4(f) resources and provides associated preliminary use determinations for affected parks and recreation resources. However, because use determinations for Section 4(f) historic resources are tied to Section 106 Findings of Effect (FOEs), and FOE analysis is not being undertaken at this stage of the project, this report does not assess use for Section 4(f) historic resources.

The FTA can approve a transportation use of a Section 4(f) property if:

- The use of the property meets the requirements for a regulatory exception established under Section 4(f). For instance, a temporary use can be allowed if it meets the requirements described above.

Or:

- The use will have a *de minimis* impact on the property.

Or:

- There is no feasible and prudent avoidance alternative to using the property; and
- The program or project includes all possible planning to minimize harm to the property resulting from the use.

*De minimis* impacts are those that do not “adversely affect the activities, features, and attributes” of a Section 4(f) resource. A *de minimis* impact finding can take into account any mitigation or enhancement measures that would be implemented, including design measures, to avoid or reduce impacts.

For public parks or recreation properties, a *de minimis* impact finding requires written concurrence from the agency with jurisdiction over the property, such as a city or county parks department. There must also be an opportunity for public notice and comment.

For historic and archaeological sites, a *de minimis* impact finding is allowed if FTA has made a “no adverse effect” finding in compliance with Section 106 of the National Historic Preservation Act of 1966

(Before making a *de minimis* finding, FTA must send a written notice to the SHPO. If the SHPO concurs or does not object, FTA may proceed with its finding.

When FTA has made a *de minimis* determination, the project is not required to analyze avoidance alternatives for that Section 4(f) property.

### 3.5.3.1. Permanent Incorporation Analysis

If analysis reveals that land from a Section 4(f) resource would be permanently incorporated into the project, an assessment would be made as to whether the impacts of this permanent incorporation would be *de minimis* in nature.

A determination of *de minimis* use can be made only if the project will not adversely affect the features, attributes, or activities that make the Section 4(f) property significant. The specific requirements for a *de minimis* determination are different for historic sites and for public parklands, recreational areas, and wildlife and waterfowl refuges. According to Section 4(f) regulations, evaluations of avoidance alternatives and selection of an alternative having the least overall harm are not required if a *de minimis* use determination is made.

If the official with jurisdiction does not agree with a *de minimis* use determination, an Individual Section 4(f) Evaluation would need to be undertaken that would include an analysis whether a prudent and feasible avoidance alternative exists. If the Individual Section 4(f) Evaluation concludes there is no feasible and prudent alternative to use of the Section 4(f) resource, FTA may only approve the alternative or alternatives that cause the least overall harm. A least-overall-harm analysis would be conducted to determine which alternative(s) may proceed. A *de minimis* determination is inappropriate where a project results in a constructive use (23 CFR 774.3[b] and 23 CFR 774.17).

- **Parks, Recreation, and Refuges.** A *de minimis* impact on a public parkland, recreational area, or wildlife and waterfowl refuge is defined as that which does not “adversely affect the features, attributes or activities qualifying the property for protection under Section 4(f).” This determination can be made only with the concurrence of the official with jurisdiction, and can be made only after an opportunity for public review and comment on the proposed determination.
- **Historic Properties.** As defined in 23 CFR 774.5 and 774.17, a *de minimis* impact determination is made for a historic site if FTA makes a determination for a property of “No Adverse Effect” or “No Historic Properties Affected” through consultation under Section 106, and the SHPO concurs with that determination.

### 3.5.3.2. Temporary Occupancy Analysis

If analysis reveals that land from a Section 4(f) resource would be temporarily occupied by the project during construction activities, an assessment would be made as to whether this temporary occupancy constitutes a use.

Temporary occupancies do not constitute a use and are, therefore, not subject to the provisions of Section 4(f) if they meet each of the following five exception criteria in 23 CFR 774.13(d):

- i. Duration of occupancy must be temporary (i.e., less than the time needed for construction of the project, and there can be no change in ownership of the land).
- ii. The scope of work must be minor (i.e., both the nature and magnitude of the changes to the Section 4(f) property are minimal).

- iii. There can be no anticipated permanent adverse physical impacts, nor can there be interference with the activities, features, or attributes of the property, on either a temporary or permanent basis.
- iv. The land being used must be fully restored (i.e., the property must be returned to a condition that is at least as good as that which existed prior to the project).
- v. Written concurrence must be obtained from the officials with jurisdiction, documenting agreement with the above conditions. If the official with jurisdiction does not agree with a temporary occupancy exception determination, an analysis of use must be conducted. If concurrence is obtained from the officials with jurisdiction over the properties, a final determination will be made by FTA in the Final Section 4(f) Evaluation, which will be included in the Record of Decision.

If the official with jurisdiction does not agree that the temporary occupancy criteria have been met, then the temporary occupancy of the Section 4(f) resource would be considered a use. An Individual Section 4(f) Evaluation would need to be undertaken that would include an analysis of feasible and prudent avoidance alternatives.

### 3.5.3.3. Constructive Use Analysis

A constructive use does not involve actual physical impact to the Section 4(f) property via permanent incorporation of land or a temporary occupancy of land into a transportation facility. A constructive use occurs when the proximity impacts of a proposed project adjacent to, or near, a Section 4(f) resource result in substantial impairment to the activities, features, or attributes that qualify a resource for protection under Section 4(f). As a general matter, this means that the value of the resource, in terms of its Section 4(f) purpose and significance, would be meaningfully reduced or lost. The types of impacts that may qualify as constructive use are addressed in 23 CFR 774.15. A project's proximity to a Section 4(f) resource is not in itself an impact that results in a constructive use. The assessment for constructive use will be based upon the impact that is directly attributable to the project under review, not the overall combined impacts to a Section 4(f) resource from multiple sources over time.

### 3.5.3.4. Individual Section 4(f) Evaluation

The term "Individual Section 4(f) Evaluation" is used in this section to refer to the process of assessing feasible and prudent avoidance alternatives; considering all possible planning to minimize harm for each resource where a non-*de minimis* use would be caused by the project; and determining the alternative with the least overall harm. This analysis is required for all uses of a Section 4(f) property, except in the case of a *de minimis* use determination. (*De minimis* is described in Section 3.5.3)

The primary steps in an Individual Section 4(f) Evaluation are described below.

- **Analyze Avoidance Alternatives:** In this step, FTA considers alternatives that completely avoid the use of a Section 4(f) property. The avoidance analysis applies the Section 4(f) feasible and prudent criteria (23 CFR 774.17[2] and [3]). An alternative is not feasible if it cannot be built as a matter of sound engineering judgment (23 CFR 774.17[2]). An avoidance alternative is not considered prudent (23 CFR 774.17[3]) if:
  - i. It compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;
  - ii. It results in unacceptable safety or operational problems;



- iii. After reasonable mitigation, it still causes:
    - (a) Severe social, economic, or environmental impacts;
    - (b) Severe disruption to established communities;
    - (c) Severe disproportionate impacts to minority or low income populations, or
    - (d) Severe impacts to environmental resources protected under other federal statutes;
  - iv. It results in additional construction, maintenance, or operational costs of an extraordinary magnitude;
  - v. It causes other unique problems or unusual factors; or
  - vi. It involves multiple factors in paragraphs (3)(i) through (3)(v) of this definition, that while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.
- **Consider All Possible Planning to Minimize Harm:** After determining that there are no feasible and prudent alternatives to avoid the use of Section 4(f) property, the project approval process for an Individual Section 4(f) Evaluation requires the consideration and documentation of all possible planning to minimize harm to Section 4(f) property (23 CFR 774.3[a][2]). *All possible planning*, defined in 23 CFR 774.17, means that all reasonable measures identified in the Section 4(f) evaluation to minimize harm or to mitigate for adverse impacts and effects must be included in the project. All possible planning to minimize harm does not require analysis of feasible and prudent avoidance alternatives as such analysis will have already occurred in the context of searching for feasible and prudent alternatives that would avoid Section 4(f) properties altogether under 23 CFR 774.3(a)(1). Minimization and mitigation measures should be determined through consultation with the official(s) with jurisdiction. Mitigation measures involving public parks, recreation areas, or wildlife or waterfowl refuges may involve replacement of land and / or facilities of comparable value and function, or monetary compensation to enhance remaining land. Mitigation of historic sites usually consists of those measures necessary to preserve the integrity of the site and agreed to in the project's Section 106 Agreement in accordance with 36 CFR 800 by FTA, the SHPO, and other consulting parties.
  - **Determine Alternative(s) with Least Overall Harm:** If no feasible and prudent alternatives are identified that would avoid using a Section 4(f) property, FTA also determines the alternative that would cause the least overall harm to Section 4(f) properties using the following factors (23 CFR 774.3[c]1) and the results of considering all possible planning to minimize harm:
    - i. The ability to mitigate adverse impacts to each Section 4(f) property
    - ii. The relative severity of the remaining harm after mitigation
    - iii. The relative significance of each Section 4(f) property
    - iv. The views of the officials with jurisdiction over each property
    - v. The degree to which each alternative meets the project purpose and need
    - vi. The magnitude of adverse effects to resources not protected by Section 4(f)
    - vii. Substantial cost differences among the alternatives

- **Coordinate with Officials with Jurisdiction:** FTA and ODOT are coordinating with the officials with jurisdiction over each protected property for which a determination is made in the project’s Draft Section 4(f) Evaluation.

#### **3.5.3.5. Mitigation Measures Approach**

Based on the location, degree, and nature of impacts to a Section 4(f) resource, the project team will identify possible mitigation measures during the evaluation process and in coordination with other disciplines. As appropriate, the project team will consult with the jurisdictional owners of the Section 4(f) properties to determine the most appropriate measures to mitigate for potential impacts.

## 4. Highway 99 Corridor Section 4(f) Evaluation

The Highway 99 Corridor begins at the Eugene Station, travels through downtown Eugene, then extends northwest along Highway 99 to Barger Drive, turning west at Barger Drive to terminate on Cubit Street north of the intersection of Barger Drive and Cubit Street east of the Randy Papé Beltline Highway. This corridor is approximately 10.5 round-trip miles.

### 4.1. Highway 99 Corridor Affected Environment: Section 4(f) Parks and Recreation Resources

Table 4.1-1 lists Section 4(f) parks and recreation resources within the Highway 99 Corridor Section 4(f) analysis area. Figure 4.1-1 depicts the resource locations.

**Table 4.1-1. Highway 99 Corridor Section 4(f) Analysis Area Section 4(f) Parks and Recreation Resources**

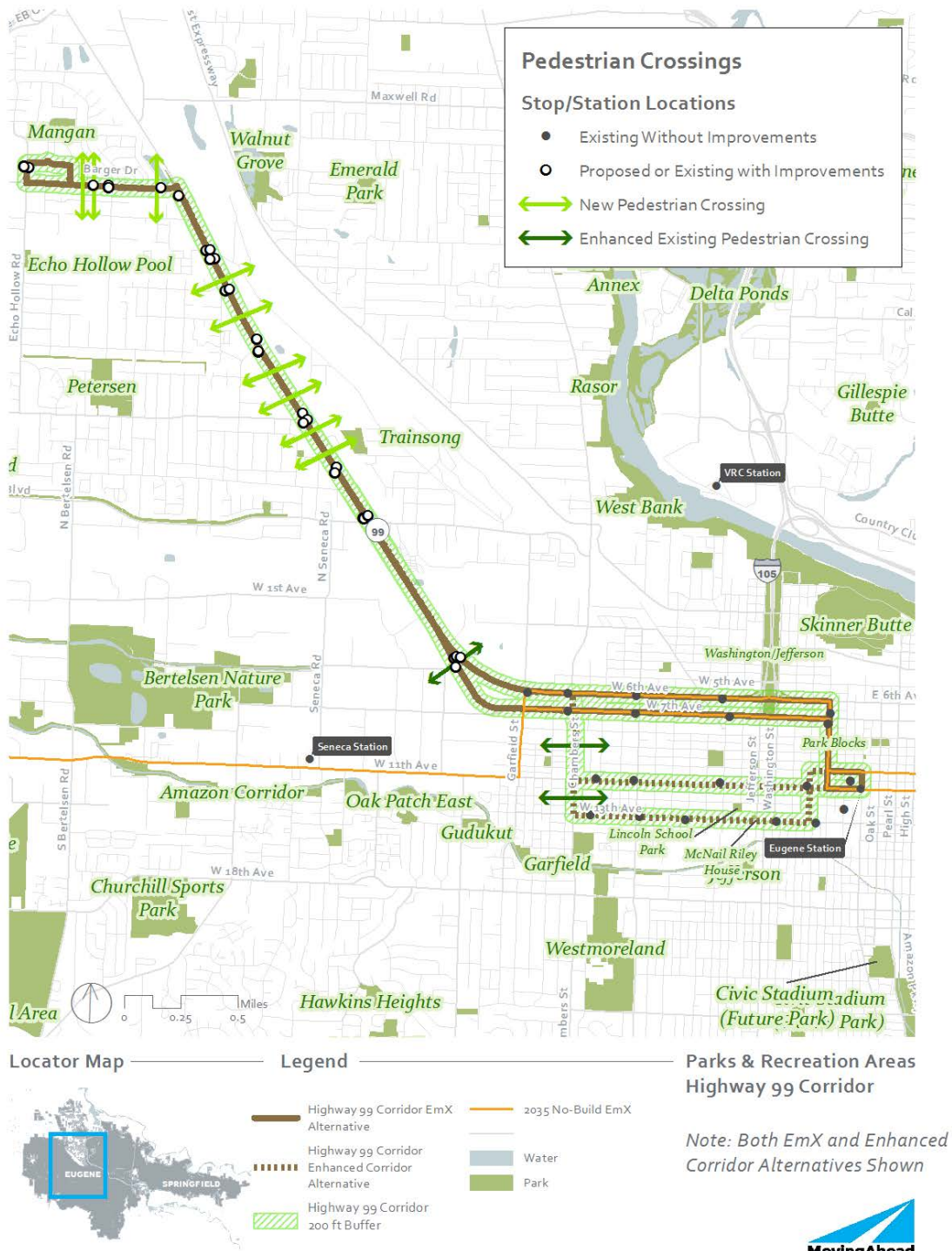
Resource Name	Location	Official with Jurisdiction	Section 4(f) Qualifying Description
Washington Jefferson Park	W. 6th and W. 7th Avenues, Eugene	City of Eugene	Skatepark, a basketball court, and horseshoe pits
McNail-Riley House	Jefferson Street and W. 13th Avenue, Eugene	City of Eugene	Community meeting facility
Lincoln School Park	W. 12th Avenue and Madison Street, Eugene	City of Eugene	Municipal park (basketball, picnic tables, play area, sand volleyball)
Trainsong Park	2775 Edison Street, Eugene	City of Eugene	Municipal park (ballfields, basketball, picnic tables, play area, skatepark)

#### 4.1.1. Washington Jefferson Park

The southern blocks of the Washington Jefferson Park are adjacent to W. 6th and W. 7th Avenues. The City of Eugene manages this 24.6-acre park on ODOT-owned properties at the I-105 terminus. The land's primary purpose is as right of way (ROW) for the I-105 freeway structures. A portion of the park, including a stage, a 23,000-square-foot skatepark, a basketball court, and horseshoe pits, is covered by the I-105 bridge, which creates a dry and lit place for recreation year round. ODOT leases the land to the City to operate the park as a secondary use. Park amenities include active and passive recreational facilities with year-round restrooms, which were developed using a Land and Water Conservation Fund grant.

Pedestrian access into the park is provided at several locations. Crosswalks through Washington and Jefferson Streets are provided at W. 6th Avenue. A limited number of parking stalls are provided along Washington and Jefferson Streets, with pay parking lots at W. 3rd Avenue and W. 4th Avenue. A designated bike lane exists along a portion of Washington Street and Jefferson Street.

**Figure 4.1-1. Highway 99 Corridor Parks and Recreation Resources**



Document Path: \\PD\XFP\01\Proj\LaneTransit\District\657958\Eugene\BRT\GIS\MapFiles\Level\_2\Environmental\_Analysis\Parks-Recreation\Level\_2\_Corridor\_EnviroAnalysis\_BaseMap\_CorridorExte\2\_Parks\_200ft\_99\_99 (2).mxd

Parks and RECreate: System Plan Update, Research and Studies, Draft Planning SubArea Report; City Central Parks and Recreation (City of Eugene, 2016, July), includes a recommendation to develop a master plan for the Washington Jefferson Park.

#### **4.1.2. McNail-Riley House**

The McNail-Riley House and Lincoln School Park are located along the Enhanced Corridor Alternative route. The McNail-Riley House is a special use facility on a 0.2-acre property at the northwestern corner of Jefferson Street and W. 13th Avenue. The McNail-Riley House is used for community meetings and offers a large main room, a parlor, and a full kitchen. Access and parking are provided off W. 13th Avenue and Jefferson Street. Lincoln School Park is a 0.8-acre neighborhood pocket park at W. 12th Avenue and Madison Street near the county fairgrounds. Lincoln Park provides a variety of recreational opportunities, including basketball, picnic tables, a play area, and sand volleyball. Access and street parking are provided off W. 12th Avenue.

#### **4.1.3. Lincoln School Park**

Lincoln School Park is a 0.8-acre neighborhood pocket park at W. 12th Avenue and Madison Street near the county fairgrounds. Lincoln School Park provides a variety of recreational opportunities, including basketball, picnic tables, a play area, and sand volleyball. Access and on-street parking are provided off W. 12th Avenue. The park is included on the city's official parks system map and is a significant public park and recreation resource subject to the requirements of Section 4(f).

#### **4.1.4. Trainsong Park**

Trainsong Park is a 5-acre park at 2775 Edison Street in Eugene. The park contains ballfields, a basketball court, a skate park, picnic tables, and a playground area. The park is included on the city's official parks system map and is a significant public park and recreation resource subject to the requirements of Section 4(f).

### **4.2. Highway 99 Corridor Affected Environment: Historic Resources**

A review of the SHPO and NRHP databases for listed properties along the Highway 99 Corridor, and a windshield survey conducted by project cultural resource specialists, indicated:

- No historic resources formally listed in the NRHP were identified within the Highway 99 Corridor.
- Forty-two resources were identified as being potentially eligible for the NRHP (2 resources are listed in the SHPO database, 40 were identified during the windshield survey).

Potentially historic resources in the Highway 99 Corridor are discussed in Sections 4.4 and 4.6.

### **4.3. Highway 99 Corridor Enhanced Corridor Alternative: Potential Impacts to Park and Recreational Section 4(f) Resources**

#### **4.3.1. McNail-Riley House - Description of Potential Impacts**

The Highway 99 Corridor Enhanced Corridor Alternative is not anticipated to have any direct or indirect impacts to McNail-Riley House because there would be no roadway or other infrastructure modifications in the immediate vicinity of the park. This alternative would not result in temporary

impacts, nor would the project's proximity impacts (noise or visual) be so severe as to substantially impair those activities, features, or attributes that qualify the resource for protection under Section 4(f).

#### **4.3.2. Lincoln School Park - Description of Potential Impacts**

The Highway 99 Corridor Enhanced Corridor Alternative is not anticipated to have any direct or indirect impacts to Lincoln School Park because there would be no roadway or other infrastructure modifications in the immediate vicinity of the park. This alternative would not result in temporary impacts, nor would the project's proximity impacts (noise or visual) be so severe as to substantially impair those activities, features, or attributes that qualify the resource for protection under Section 4(f).

#### **4.3.3. Trainsong Park - Description of Potential Impacts**

Although Trainsong Park is not adjacent to the Highway 99 Corridor, under the Enhanced Corridor Alternative, a pedestrian bridge would be constructed from the park across the existing rail line east of the Highway 99 Corridor. On the west side of the rail line, the new pedestrian bridge would connect to a paved pedestrian walkway that would subsequently connect to Highway 99 (Figure 4.3-1). Although this alternative was designed to have the least impact possible on Trainsong Park, installation of the pedestrian bridge would necessitate using 0.15 acre of unimproved parkland. The impacted parkland does not contain any recreational features or amenities. Construction of the pedestrian bridge would improve access to the park by providing bicycle and pedestrian access from points west of the railroad line where no such connection exists currently. This improves access and also removes a safety hazard for children otherwise choosing to cross a railroad to access park resources.

##### **4.3.3.1. Assessment of Permanent Use**

The Highway 99 Corridor Enhanced Corridor Alternative would result in the permanent incorporation of approximately 0.15 acre of parkland from Trainsong Park. That parkland does not contain any recreational features or attributes.

##### **4.3.3.2. Assessment of Temporary Occupancy**

The Highway 99 Corridor Enhanced Corridor Alternative would necessitate the temporary occupancy of land at Trainsong Park to install the pedestrian bridge. Minor increases in noise and dust would occur at the park during construction. However, no activities, features, or attributes of Trainsong Park would be permanently impacted by project actions nor would temporary construction actions at the park permanently or temporarily interfere with visitors using the park.

##### **4.3.3.3. Assessment of Constructive Use**

The Highway 99 Corridor Enhanced Corridor Alternative would not add noise or visual intrusion that would result in substantial impairment to the activities, features, or attributes that qualify Trainsong Park for protection under Section 4(f).



**Figure 4.3-1. Highway 99 Corridor Enhanced Corridor and EmX Alternatives – Trainsong Park**



Source: CH2M. (2017).

#### 4.3.3.4. Preliminary Determination of Use

Based on the current conceptual design of the Highway 99 Corridor Enhanced Corridor Alternative and the analysis of potential impacts described in this section, and consistent with the requirements of 23 CFR 774.5(b), this report preliminarily concludes that project actions would not adversely affect the features, attributes, or activities that qualify Trainsong Park for Section 4(f) protection. As such, project actions under the Highway 99 Corridor Enhanced Corridor Alternative would likely result in a Section 4(f) *de minimis* impact to Trainsong Park, consistent with 23 CFR 774.17.

#### 4.4. Highway 99 Corridor Enhanced Corridor Alternative: Potential Impacts to Historic Section 4(f) Resources

An assessment of anticipated effects to historic resources in the Highway 99 Corridor from the Enhanced Corridor Alternative (excerpted from the *MovingAhead Cultural Resources Technical Report*) is provided in Table 4.4-1 and illustrated in Figure 4.4-1. For the purpose of conservatively assessing potential impacts, this report assumes that all historic resources preliminarily deemed eligible for the NRHP in the *MovingAhead Cultural Resources Technical Report* (CH2M and Heritage Research Associates, 2017) would be officially determined eligible through the formal Section 106 DOE process in consultation with the SHPO. Any historic resources currently preliminarily determined eligible for the NRHP determined to not be eligible for the NRHP by the SHPO through the formal Section 106 DOE process would be removed from subsequent Section 4(f) analysis. In the next phases of analysis, additional historic resources may be identified and reviewed for project impacts under Section 106 as well as consistency with Section 4(f).

Eight resources are potentially affected by this alternative; three would be directly affected, three would be indirectly affected, and two would be both directly and indirectly affected. Table 4.4-1 provides a general determination of how the Highway 99 Corridor Enhanced Corridor Alternative would potentially affect the resource, either through property acquisition, impacts on access, or visual effects. No resources are anticipated to be removed to construct the project. No project impacts alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

Therefore, no resources are anticipated to be deemed to have an adverse effect from the project. If this alternative was selected as the Locally Preferred Alternative (LPA), LTD would seek a *de minimis* impact determination of "No Adverse Effect" for those eight resources. Per 23 CFR 774.5 and 774.17, a *de minimis* impact determination is made for a historic resource if FTA makes a determination for a property of "No Adverse Effect" or "No Historic Properties Affected" through consultation under Section 106, and the SHPO concurs with that determination.

**Table 4.4-1. Highway 99 Corridor Enhanced Corridor Alternative Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
1286 Chambers	1704363107900	1935	EC		
1682 W. 8th Avenue	1704361304400				
837 Chambers	1704361304500				
857 Chambers	1704361304600				
1680 W. Broadway	1704361304700				
925 Chambers	1704361306200				
945 Chambers	1704361305901				
955 Chambers	1704361305902				
1710 W. Broadway	1704362406000	1924-1950	EC (Grouping)		
924 Chambers	1704362406100				
936 Chambers	1704362406200				
950 Chambers	1704362406300				
970 Chambers	1704362406400				
980 Chambers	1704362406500				
984 Chamber	1704362406600				
1698 W. 11th Avenue	1704364205800	1948	EC		
630 Garfield	1704362201600	1960	EC		
2300 W. 7th Avenue	1704351100100	1965	EC		



**Table 4.4-1. Highway 99 Corridor Enhanced Corridor Alternative Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
362 Highway 99	1704262400500	1938	EC		
376 Highway 99	1704262400100	1955	EC		
450 Highway 99	1704262103800	1963 / 1985	EC / altered	T	A
595 Highway 99	1704262101201	1940	EC	T	V*
605 Highway 99	1704262100900	1946	EC		V*
700 Highway 99	1704262102500	1940	EC		
723-795 Highway 99	1704262100200 1704262100300 1704262100500 1704262102300	1930-1956	EC	S, T, A	
780 Highway 99	1704262102300	1945	EC	T	
800 Highway 99	170423330620	1955	EC		
969 Highway 99	1704233300700	1940	EC		
1175 Highway 99	1704233301000	1956	EC		S, T
1291 Highway 99	1704233001200	1941	EC		
Bonneville Substation	1704224100400	c 1939	ES	S, T, A	
1740 Highway 99W	1704221400500	c 1930 (1941, 1974)	EC		T
4030 Barger	1704222200400	1930	EC		

<sup>a</sup> Preliminary evaluation includes: eligible contributing (EC) and eligible significant (ES)

Note:

Does not include downtown, 6th, 7th, 11th, or 13th Avenue segments addressed in previous LTD studies and for which no changes are proposed.

\* = Visual effect from elevated path to bridge

A = Access Affected

c = circa

S = Enhanced Shelter

T = Narrow Partial Property Acquisition

V = Visual Effect (other than shelter)

**Figure 4.4-1. Highway 99 Corridor Enhanced Corridor– Historic Resources**



**Locator Map**



**Legend**

- Highway 99 Corridor
- 2035 No-Build EmX
- Road
- New Pedestrian Crossing
- Enhanced Existing Pedestrian Crossing
- Stop/Station Locations
- Existing Without Improvements
- Proposed or Existing with Improvements
- Potentially Eligible Historic Property within the APE

**Potentially Eligible Historic Properties within the APE Highway 99 Corridor Enhanced Corridor Alternative**

*Note: APE = Area of Potential Effects*



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## **4.5. Highway 99 Corridor EmX Alternative: Potential Impacts to Park and Recreational Section 4(f) Resources**

### **4.5.1. Washington Jefferson Park - Description of Potential Impacts**

The Highway 99 Corridor EmX Alternative is not anticipated to have any direct or indirect impacts to Washington Jefferson Park because there would be no capital improvements at the existing EmX stations near the park (W. 6th Avenue / Monroe Street and W. 7th Avenue / Monroe Street). This alternative would not result in temporary impacts, nor would the project's proximity impacts (noise or visual) be so severe as to substantially impair those activities, features, or attributes that qualify the resource for protection under Section 4(f). However, signal timing would be altered to reduce delay and improve reliability for EmX service. The improved reliability to Washington Jefferson Park would enhance accessibility for the park users

### **4.5.2. Trainsong Park - Description of Potential Impacts**

Trainsong Park is described in Section 4.1.4. Impacts to Trainsong Park under the Highway 99 Corridor EmX Alternative would be identical to those described for the Enhanced Corridor Alternative in Section 4.3.4. That is, although Trainsong Park is not adjacent to the Highway 99 Corridor, under the EmX Alternative, a pedestrian bridge would be constructed from the park across the existing freight rail line east of the Highway 99 Corridor. On the west side of the rail line, the new pedestrian bridge would connect to a paved pedestrian walkway that would subsequently connect to Highway 99 (Figure 4.3-1). Although this alternative was designed to have the least impact possible on Trainsong Park, installation of the pedestrian bridge would necessitate a use of 0.15 acre of unimproved parkland. The impacted parkland does not contain any recreational features or amenities. Construction of the pedestrian bridge would improve access to the park by providing bicycle and pedestrian access from points west of the railroad line where no such connection exists currently. This improve access and also removes a safety hazard for children otherwise choosing to cross a railroad to access park resources.

#### **4.5.2.1. Assessment of Permanent Incorporation**

The Highway 99 Corridor EmX Alternative would result in the permanent incorporation of approximately 0.15 acre of parkland from Trainsong Park. That parkland does not contain any recreational features or attributes.

#### **4.5.2.2. Assessment of Temporary Occupancy**

The Highway 99 Corridor EmX Alternative would necessitate the temporary occupancy of land at Trainsong Park to install the pedestrian bridge. Minor increases in noise and dust would occur at the park during construction. However, no activities, features, or attributes of Trainsong Park would be permanently impacted by project actions nor would temporary construction actions at the park permanently or temporarily interfere with visitors using the park.

#### **4.5.2.3. Assessment of Constructive Use**

The Highway 99 Corridor EmX Alternative would not add noise or visual intrusion that would result in substantial impairment to the activities, features, or attributes that qualify Trainsong Park for protection under Section 4(f).

#### 4.5.2.4. Preliminary Determination of Use

Based on the current conceptual design of the Highway 99 Corridor EmX Alternative and the analysis of potential impacts described in this section, and consistent with the requirements of 23 CFR 774.5(b), this report preliminarily concludes that project actions would not adversely affect the features, attributes, or activities that qualify Trainsong Park for Section 4(f) protection. As such, project actions under the Highway 99 Corridor EmX Alternative would likely result in a Section 4(f) *de minimis* impact to Trainsong Park, consistent with 23 CFR 774.17.

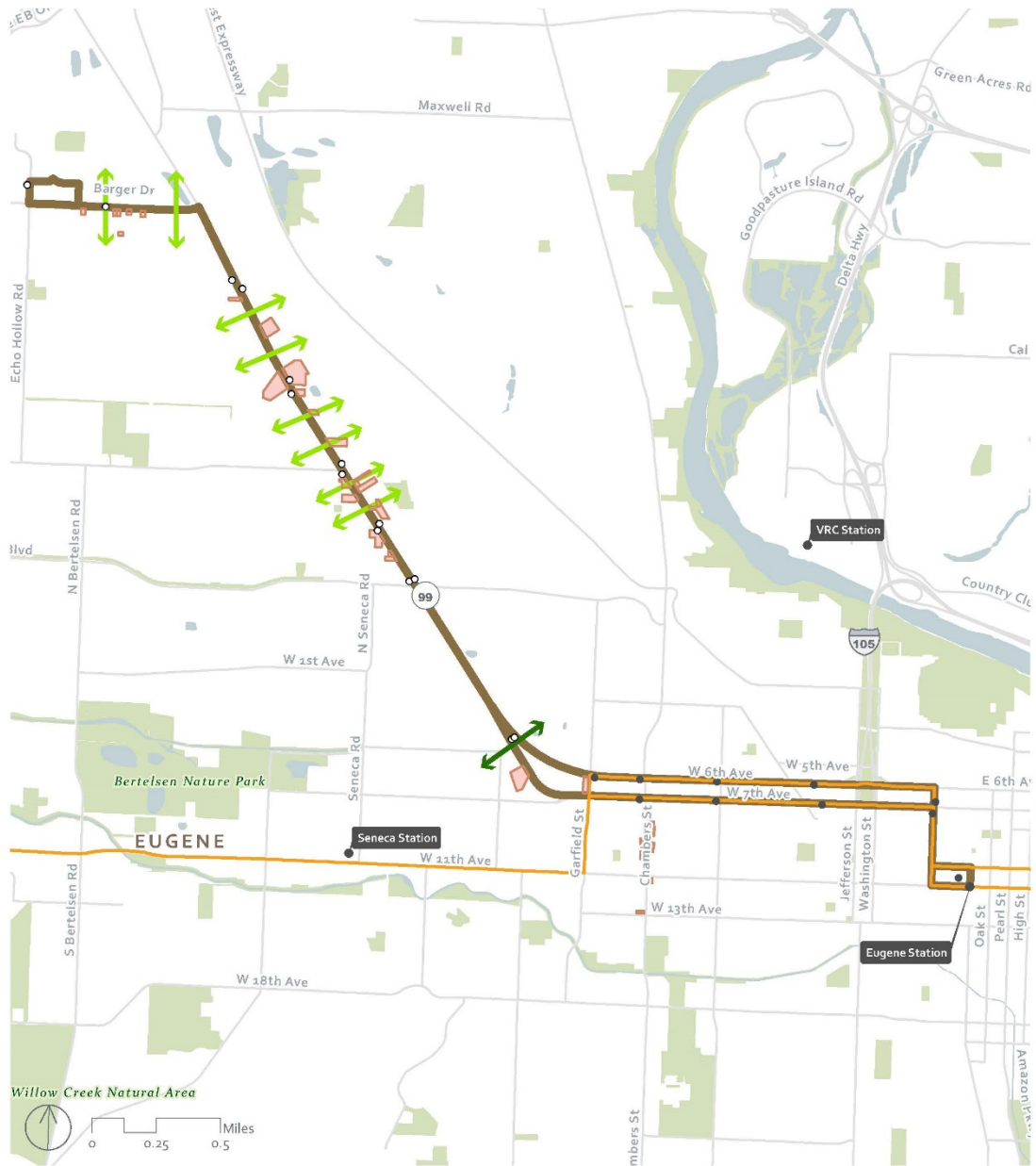
#### 4.6. Highway 99 Corridor EmX Alternative: Potential Impacts to Historic Section 4(f) Resources

An assessment of anticipated effects to historic resources in the Highway 99 Corridor from the EmX Alternative (excerpted from the *MovingAhead Cultural Resources Technical Report*) is provided in Table 4.6-1 and illustrated in Figure 4.6.-1. For the purpose of conservatively assessing potential impacts, this report assumes that all historic resources preliminarily deemed eligible for the NRHP in the *MovingAhead Cultural Resources Technical Report* (CH2M and Heritage Research Associates, 2017) would be officially determined eligible through the formal Section 106 DOE process. Any historic resources currently preliminarily determined eligible for the NRHP determined to not be eligible for the NRHP by the SHPO through the formal Section 106 DOE process would be removed from subsequent Section 4(f) analysis. In the next phases of analysis, additional historic resources may be identified and reviewed for project impacts under Section 106 as well as consistency with Section 4(f).

Eight resources are potentially affected by this alternative; one would be directly affected, four would be indirectly affected, and three would be both directly and indirectly affected. Table 4.6-1 provides a general determination of how the Highway 99 Corridor EmX Alternative would potentially affect the resource, either through property acquisition, impacts on access, or visual effects. No resources are anticipated to be removed for to construct the project. No project impacts alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

Therefore, no resources are anticipated to be deemed to have an adverse effect from the project. If this alternative was selected as the LPA, LTD would seek a *de minimis* impact determination of “No Adverse Effect” for those eight resources. Per 23 CFR 774.5 and 774.17, a *de minimis* impact determination is made for a historic resource if FTA makes a determination for a property of “No Adverse Effect” or “No Historic Properties Affected” through consultation under Section 106, and the SHPO concurs with that determination.

**Figure 4.6-1. Highway 99 Corridor EmX Alternative – Historic Resources**



**Locator Map**



**Legend**

- Highway 99 Corridor
- 2035 No-Build EmX
- Road
- ↔ New Pedestrian Crossing
- ↔ Enhanced Existing Pedestrian Crossing
- Stop/Station Locations Existing Without Improvements
- Stop/Station Locations Proposed or Existing with Improvements
- ▭ Potentially Eligible Historic Property within the APE

**Potentially Eligible Historic Properties within the APE Highway 99 Corridor EmX Alternative**

*Note: APE = Area of Potential Effects*



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**Table 4.6-1. Highway 99 Corridor EmX Alternative Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
1286 Chambers	1704363107900	1935	EC		
1682 W. 8th Avenue	1704361304400	1924-1950	EC		
837 Chambers	1704361304500				
857 Chambers	1704361304600				
1680 W. Broadway	1704361304700				
925 Chambers	1704361306200				
945 Chambers	1704361305901				
955 Chambers	1704361305902				
1710 W. Broadway	1704362406000				
924 Chambers	1704362406100				
936 Chambers	1704362406200				
950 Chambers	1704362406300				
970 Chambers	1704362406400				
980 Chambers	1704362406500				
984 Chamber	1704362406600				
1698 W. 11th Avenue	1704364205800	1948	EC		
630 Garfield	1704362201600	1960	EC		
2300 W. 7th Avenue	1704351100100	1965	EC		
362 Highway 99	1704262400500	1938	EC		
376 Highway 99	1704262400100	1955	EC		
450 Highway 99	1704262103800	1963 / 1985	EC / altered	T	S
595 Highway 99	1704262101201	1940	EC	T	V*
605 Highway 99	1704262100900	1946	EC		V*
700 Highway 99	1704262102500	1940	EC		
723-795 Highway 99	1704262100200 1704262100300 1704262100500 1704262102300	1930-1956	EC		S

**Table 4.6-1. Highway 99 Corridor EmX Alternative Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
780 Highway 99	1704262102300	1945	EC	T	S
800 Highway 99	170423330620	1955	EC		
969 Highway 99	1704233300700	1940	EC		
1175 Highway 99	1704233301000	1956	EC		S, T
1291 Highway 99	1704233001200	1941	EC		
1511 Highway 99	1704221400401	1965	EC		
Bonneville Substation	1704224100400	c 1939	ES	S, T, A	
1740 Highway 99W	1704221400500	c 1930 (1941, 1974)	EC		S
3850 Barger	1704222100400	1925-1950	EC (Groups, 5 houses)		
3890 Barger	1704222100700				
1930 Taney Street	1704222108400				
3920 Barger	1704222110200				
3930 Barger	1704222110300				
4030 Barger	1704222200400	1930	EC		

<sup>a</sup> Preliminary evaluation includes: eligible contributing (EC) and eligible significant (ES)

Note:

Does not include downtown, 6th, 7th, 11th, or 13th Avenue segments addressed in previous LTD studies and for which no changes are proposed.

\* = Visual effect from elevated path to bridge

A = Access Affected

c = circa

S = EmX Station

T = Narrow Partial Property Acquisition

V = Visual Effect (other than station)



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## 5. River Road Corridor Section 4(f) Evaluation

The River Road Corridor begins at the Eugene Station, travels through downtown Eugene, then extends north to the Santa Clara Community Transit Center (intersection of Hunsaker Lane and River Road). This corridor is approximately 10.3 round-trip miles.

### 5.1. River Road Corridor Affected Environment: Section 4(f) Parks and Recreation Resources

Table 5.1-1 lists Section 4(f) parks and recreation resources within the River Road Corridor Section 4(f) analysis area. Figure 5.1-1 depicts the resource locations.

**Table 5.1-1. River Road Corridor Section 4(f) Analysis Area Section 4(f) Parks and Recreation Resources**

Resource Name	Location	Official with Jurisdiction	Section 4(f) Qualifying Description
Washington Jefferson Park	W. 6th and W. 7th Avenues, Eugene	City of Eugene	Skatepark, a basketball court, and horseshoe pits
Scobert Gardens	1180 W. 4th Avenue, Eugene	City of Eugene	Municipal park (playground)
West Bank Park	Stephens Drive and Stults Avenue, Eugene	City of Eugene	Municipal park (fishing, off-street bike / pedestrian path)
River Road Park Annex	1055 River Road, Eugene	City of Eugene	Community events and programs
Razor Park	River Road and Park Avenue, Eugene	City of Eugene	Municipal park (off-street bike / pedestrian path)

#### 5.1.1. Washington Jefferson Park

Washington Jefferson Park is described in Section 4.1.1.

#### 5.1.2. Scobert Gardens

Scobert Gardens is a 1.2-acre neighborhood park at 1180 W. 4th Avenue, one block west of the corridor alignments along Blair Boulevard. The park includes a playground, walkways, and landscaping. It sits amid single-family homes with access and parking provided along W. 4th Avenue.

#### 5.1.3. West Bank Park

According to the City of Eugene Parks and Recreation Department (2016d), West Bank Park consists of 50.44 acres of Willamette River frontage in the River Road area, between Maurie Jacobs Park and the Owosso Bike Bridge. A number of informal river access points are found along the West Bank Path, as well as a 12-foot-wide paved bike and pedestrian path and 1 of 4 sections of the nearly 14-mile Ruth Bascom Riverbank Path System running through the park for 2.1 miles.

**Figure 5.1-1. River Road Corridor Parks and Recreations Areas**



Locator Map



Legend

- River Road Corridor EmX Alternative
- River Road Corridor Enhanced Corridor Alternative
- Highway 99 Corridor 350 ft Buffer
- 2035 No-Build EmX
- Road
- Water
- Park

Parks Section 4(f) Areas  
River Road Corridor

Note: Both EmX and Enhanced Corridor Alternatives Shown



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#### **5.1.4. River Road Park Annex**

The River Road Park Annex is a community building situated on a 0.2-acre property at 1055 River Road, adjacent to the corridor alignments along River Road. The facility is used for community events and recreational programs, and is available for rent through the River Road Park and Recreation District. The property includes parking, and access is provided off E. Hillcrest Drive.

#### **5.1.5. Rasor Park**

According to the City of Eugene Parks and Recreation Department (2016c), Rasor Park consists of 10 acres of the West Bank Riverfront Park System in the River Road area in Eugene. The park is an exceptional, distinctive public space because of its location on the river; special landscape (including oak woodland, savanna-prairie, and other native vegetation); considerable neighborhood investment in native planting, care, and maintenance; undeveloped condition; excellent views; good pedestrian and bicycle access; and potential role in nodal development. The park contains a significant and manageable patch of valuable habitat for native plants, animals, fungi, and other species. Likewise, the riparian forest provides opportunities for controlling exotic species and replanting with native tree, shrub, and herbaceous species to increase the health, structure, and viability of the river zone. The existing Oregon white oak, woodland, and other native trees are also valuable resources in the park.

### **5.2. River Road Corridor Affected Environment: Historic Resources**

A review of the SHPO and NRHP databases for listed properties along the River Road Corridor, as well as a windshield survey conducted by project cultural resource specialists, indicated:

- No historic resources formally listed in the NRHP were identified within the River Road Corridor.
- Seventy-five resources were identified as being potentially eligible for the NRHP (67 resources are listed in the SHPO database, 8 were identified during the windshield survey).
- Three eligible contributing (EC) resources and one eligible significant (EC) resources are also listed as City Landmarks. These are 370 River Road (EC), 390 River Road (EC), 405 River Road (EC) and 1410 River Road (ES).

Potentially historic resources in the River Road Corridor are discussed in Sections 5.4 and 5.6.

### **5.3. River Road Corridor Enhanced Corridor Alternative: Potential Impacts to Park and Recreational Section 4(f) Resources**

#### **5.3.1. Washington Jefferson Park - Description of Potential Impacts**

The River Road Corridor Enhanced Corridor Alternative is not anticipated to have any direct or indirect impacts to Washington Jefferson Park because there would be no roadway or other infrastructure modifications in the immediate vicinity of the park. As such, there would be no Section 4(f) use of Washington Jefferson Park under the River Road Corridor Enhanced Corridor Alternative. This alternative would not result in temporary impacts, nor would the project's proximity impacts (noise or visual) be so severe as to substantially impair those activities, features, or attributes that qualify the resource for protection under Section 4(f).

### **5.3.2. Scobert Gardens - Description of Potential Impacts**

The River Road Corridor Enhanced Corridor Alternative is not anticipated to have any direct or indirect impacts to Scobert Gardens because there would be no roadway or other infrastructure modifications in the immediate vicinity of the park. As such, there would be no Section 4(f) use of Scobert Gardens under the River Road Corridor Enhanced Corridor Alternative. This alternative would not result in temporary impacts, nor would the project's proximity impacts (noise or visual) be so severe as to substantially impair those activities, features, or attributes that qualify the resource for protection under Section 4(f).

### **5.3.3. West Bank Park - Description of Potential Impacts**

Under the River Road Corridor Enhanced Corridor Alternative, minor property acquisitions would occur along River Road to accommodate project capital improvements (Figure 5.3-1). Although this alternative was designed to have the least impact possible on West Bank Park, installation of an enhanced bus shelter and sidewalk could affect a small portion of the park. However, the shelter location could be moved during design refinement to eliminate or reduce effects on the park.

#### **5.3.3.1. Assessment of Permanent Incorporation**

The River Road Corridor Enhanced Corridor Alternative would result in the permanent incorporation of approximately 0.03 acre of parkland from West Bank Park. That parkland does not contain any recreational features or attributes.

#### **5.3.3.2. Assessment of Temporary Occupancy**

The River Road Corridor Enhanced Corridor Alternative would necessitate the temporary occupancy of land at West Bank Park to install a new bus shelter and sidewalk. However, no activities, features, or attributes of West Bank Park would be permanently impacted by project actions nor would temporary construction actions at the park permanently or temporarily interfere with visitors using the park. The portion of the park to be temporarily occupied during construction would be restored to existing conditions or better.

#### **5.3.3.3. Assessment of Constructive Use**

The River Road Corridor Enhanced Corridor Alternative would not add noise or visual intrusion that would result in substantial impairment to the activities, features, or attributes that qualify West Bank Park for protection under Section 4(f).

#### **5.3.3.4. Preliminary Determination of Use**

Based on the current conceptual design of the River Road Corridor Enhanced Corridor Alternative and the analysis of potential impacts described in this section, and consistent with the requirements of 23 CFR 774.5(b), this report preliminarily concludes that project actions would not adversely affect the features, attributes, or activities that qualify West Bank Park for Section 4(f) protection. As such, project actions under the River Road Corridor Enhanced Corridor Alternative would likely result in a Section 4(f) *de minimis* impact to West Bank Park, consistent with 23 CFR 774.17.

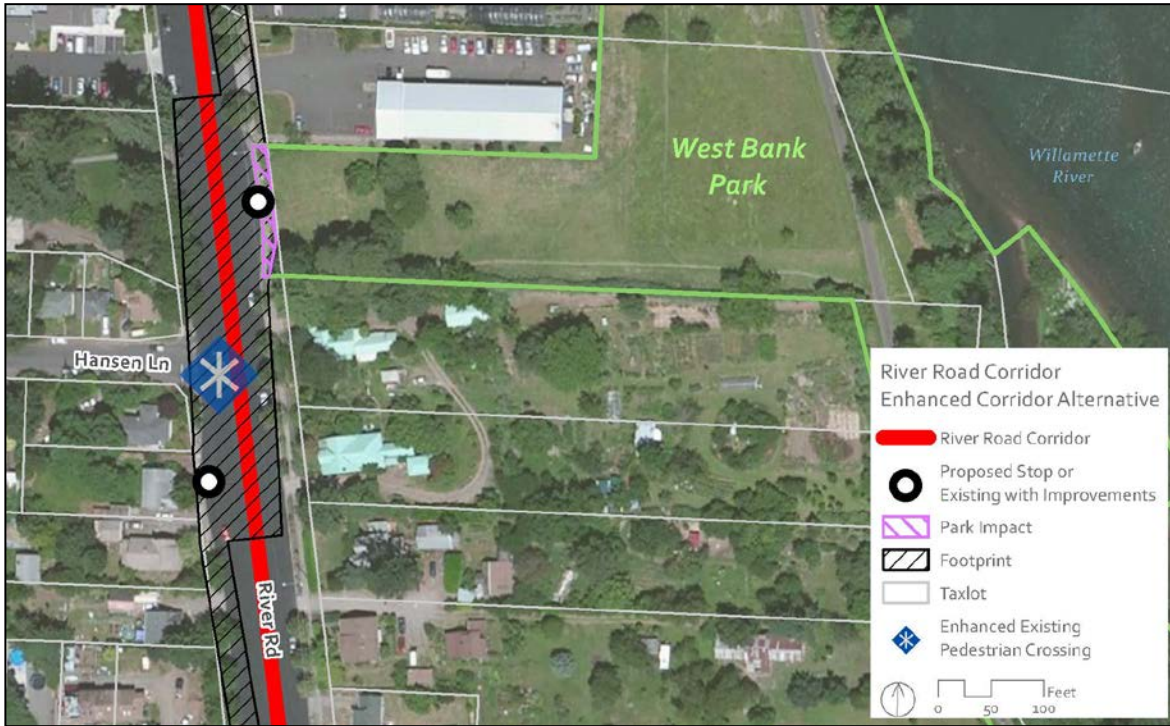
### **5.3.4. River Road Park Annex - Description of Potential Impacts**

The River Road Corridor Enhanced Corridor Alternative is not anticipated to have any direct or indirect impacts to the River Road Park Annex because there would be no roadway or other infrastructure



modifications in the immediate vicinity of the park. This alternative would not result in temporary impacts, nor would the project’s proximity impacts (noise or visual) be so severe as to substantially impair those activities, features, or attributes that qualify the resource for protection under Section 4(f). As such, there would be no Section 4(f) use of River Road Park Annex under the River Road Corridor Enhanced Corridor Alternative.

**Figure 5.3-1. River Road Corridor Enhanced Corridor Alternative – West Bank Park**



Source: CH2M. (2015).

### 5.3.5. Razor Park - Description of Potential Impacts

The River Road Corridor Enhanced Corridor Alternative is not anticipated to have any direct or indirect impacts to Razor Park because there would be no roadway or other infrastructure modifications in the immediate vicinity of the park. This alternative would not result in temporary impacts, nor would the project’s proximity impacts (noise or visual) be so severe as to substantially impair those activities, features, or attributes that qualify the resource for protection under Section 4(f). As such, there would be no Section 4(f) use of Razor Park under the River Road Corridor Enhanced Corridor Alternative.

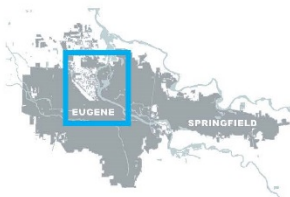
### 5.4. River Road Corridor Enhanced Corridor Alternative: Potential Impacts to Historic Section 4(f) Resources

An assessment of anticipated effects to historic resources in the River Road Corridor from the Enhanced Corridor Alternative (excerpted from the *MovingAhead Cultural Resources Technical Report*) is provided in Table 5.4-1 and illustrated in Figure 5.4-1. For the purpose of conservatively assessing potential impacts, this report assumes all historic resources preliminarily deemed eligible for the NRHP in the *MovingAhead Cultural Resources Technical Report* (CH2M and Heritage Research Associates, 2017) would be officially determined eligible through the formal Section 106 DOE process. Any historic

**Figure 5.4-1. River Road Corridor Enhanced Corridor Alternative – Historic Resources**



**Locator Map**



**Legend**

- River Road Corridor
- 2035 No-Build EmX
- Road
- ↔ New Pedestrian Crossing
- ↔ Enhanced Existing Pedestrian Crossing
- Existing Without Improvements
- Proposed or Existing with Improvements
- Potentially Eligible Historic Property within the APE

**Potentially Eligible Historic Properties within the APE River Road Corridor Enhanced Corridor Alternative**

*Note: APE = Area of Potential Effects*



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**Table 5.4-1. River Road Corridor Enhanced Corridor Alternative Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
285 River Road	1704251301901	1962	EC		S
325 River Road	1704251202700	1926 (1929)	EC		
330 River Road	1704252400200	1924	EC		
345 River Road	1704251202400	1929	EC		
355 River Road	1704251202300	1925	EC		
365 River Road	1704251202000	1923	EC		
370 River Road [single family residential]	1704252107404	c 1890	EC City Landmark		
375 River Road	1704251201900	1920	EC		
385 River Road	1704251201400	1926	EC		
390 River Road [single family residential]	1704252105404	c 1920	EC City Landmark		
395 River Road	1704251201300	1920	EC		
405 River Road [single family residential]	1704251201200 / 1704251201203	1910	EC City Landmark		
450 River Road	1704252104607	C 1920 (1908)	EC		
455 River Road	1704251200800	1923	EC		
460 River Road	1704252104500	1936	EC		
470 River Road	1704252104400	1928	EC		S
480 River Road	1704252104300	1930	EC	S, P	
485 River Road	1704251200500	c 1920	EC		S
65 Hansen Lane	1704252100400	1950	EC		S
100 Hansen Lane	1704252104100	1946	EC		S
501 / 505 River Road	1704251200400	1920	EC		
530 River Road	1704252100300	1918	EC		



**Table 5.4-1. River Road Corridor Enhanced Corridor Alternative Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
570 River Road	1704243407300	1936	EC		
600 River Road	1704243404500	c 1925 (1936)	EC		
610 River Road	1704243404400	1928	EC		S
670 River Road	1704243400502	1936	EC		
680 River Road	1704243400400	1942	EC		
700 River Road	1704243400300	1942	EC		
710 River Road	1704243400200	1948	EC		
720 River Road	1704243400100	1941	EC		
730 River Road	1704243106600	1946	EC		
740 River Road	1704243106500	1934	EC		
750 River Road	1704243106400	1938	EC		
22 Park Avenue	1704243106300	1880	EC	S, P	
755 River Road	1704243106900	1932	EC		
800 River Road	1704243104500	1928	EC		
805 River Road	1704243107600	1912	EC		S, A
840 River Road	1704243104200	1927	EC		
865 River Road	1704243101600	1941	EC		
901 River Road	1704242407900	1954	EC	T	S
930 River Road	1704242409200	1931	EC		S
931 River Road	1704242406900	1949	EC		S
940 River Road	1704242409100	1926	EC		S
988 River Road	1704242409001	1964	EC		
1000 River Road	1704242408501	1958	EC		
1015 River Road	1704242404000802	1948 (1950)	EC		S
1020 River Road	1704242408300	1922	EC		S, A
1030 River Road	1704242408302	1960	EC		S
1065 River Road	1704242107500	1941	EC		

**Table 5.4-1. River Road Corridor Enhanced Corridor Alternative Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
1085 River Road	1704242107400	1928	EC		
1105 River Road	1704242107000	c 1965	EC		
49 Arbor Drive	1704242103300	1951	EC		S
1220 River Road	1704242202800	1927	EC		
1240 River Road	1704242202700	1920	EC		
1245 River Road	1704242101900	1935	EC		
1246-48 River Road	1704242202701	1940	EC		
14 Greenleaf (SE)	1704242101700	1953	EC		
39 Greenleaf (NE)	1704242100500	1907	EC		
1270 River Road	1704242201202	1924	EC		
1275 River Road	1704242100400	1940	EC		
1298 River Road	1704133308600	1955	EC		S
1318 River Road	1704133306300	1928	EC	S	S
1350 River Road	1704133306200	1940	EC		S
1353 River Road	1704133301700	c 1920 (1933)	EC		
1410 River Road [single family residential]	1704133304602	c 1910 (1920-22)	ES City Landmark		
1445 River Road	1704133300901	c 1960	EC		
1495 River Road	1704133300801	c 1965	EC		
1580 River Road	1704133302100	c 1960 (1952)	EC		S
1625 River Road	1704133200400	1928	EC		
1630 River Road	1704133202702	1930	EC		
1707 River Road	1704133204700	no date	EC		S
1920 River Road	1704141401000	1945 / 1925	EC		S
1925 River Road	1704132300303	1967	EC		S
1950 River Road	1704141400800	c 1950	EC		

**Table 5.4-1. River Road Corridor Enhanced Corridor Alternative Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
2550 River Road	1704114402300	1925	EC		

<sup>a</sup> Preliminary evaluation includes: eligible contributing (EC) and eligible significant (ES)

A = Access Affected

c = circa

NE = northeast

P = Planting Strip (effect from tree removal, new parking bay, new sidewalk)

S = Enhanced Shelter

SE = southeast

T = Narrow Partial Property Acquisition

resources currently preliminarily determined eligible for the NRHP determined to not be eligible for the NRHP by the SHPO through the formal Section 106 DOE process would be removed from subsequent Section 4(f) analysis. In the next phases of analysis, additional historic resources may be identified and reviewed for project impacts under Section 106 as well as consistency with Section 4(f).

Twenty-four resources are potentially affected by this alternative; two would be directly affected, 20 would be indirectly affected, and two would be both directly and indirectly affected. Table 5.4-1 provides a general determination of how the River Road Corridor Enhanced Corridor Alternative would potentially affect the resource, either through property acquisition, impacts on access, or visual effects. No resources are anticipated to be removed to construct the project. No project impacts alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

Therefore, no resources are anticipated to be deemed to have an adverse effect from the project. If this alternative was selected as the LPA, LTD would seek a *de minimis* impact determination of “No Adverse Effect” for those 24 resources. Per 23 CFR 774.5 and 774.17, a *de minimis* impact determination is made for a historic resource if FTA makes a determination for a property of “No Adverse Effect” or “No Historic Properties Affected” through consultation under Section 106, and the SHPO concurs with that determination.

## 5.5. River Road Corridor EmX Alternative: Potential Impacts to Park and Recreational Section 4(f) Resources

### 5.5.1. Washington Jefferson Park - Description of Potential Impacts

The River Road Corridor EmX Alternative is not anticipated to have any direct or indirect impacts to Washington Jefferson Park because there would be no roadway or other infrastructure modifications in the immediate vicinity of the park. As such, there would be no Section 4(f) use of Washington Jefferson Park under the River Road Corridor EmX Alternative.

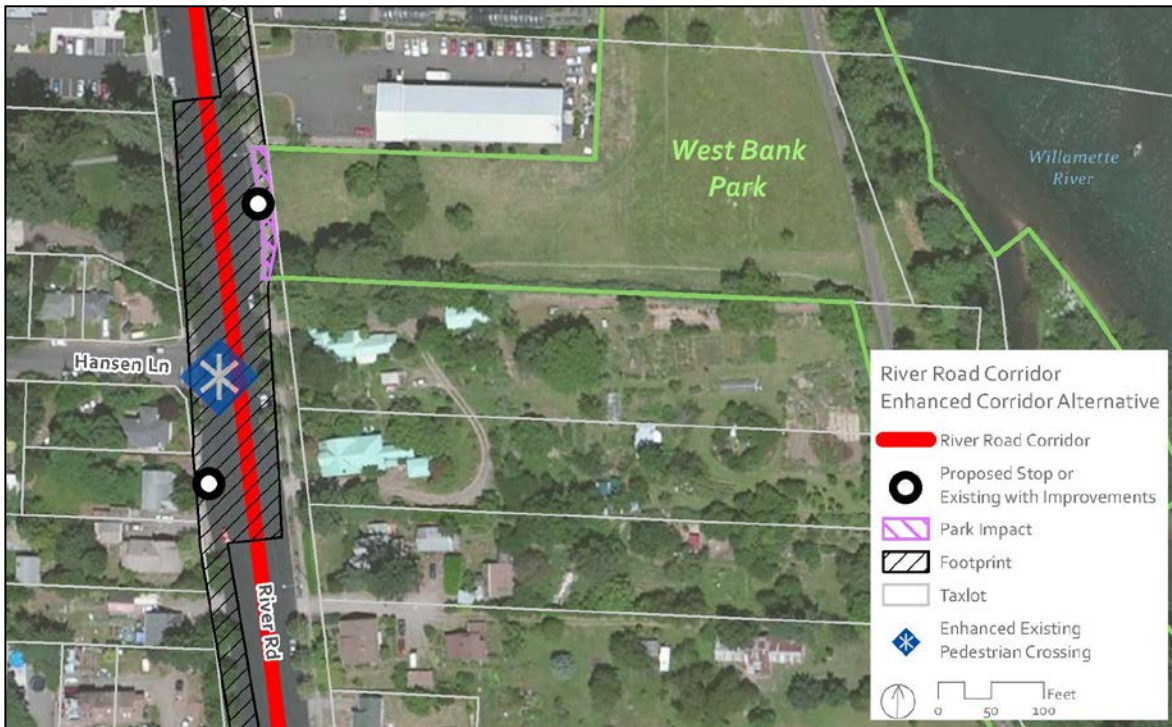
### 5.5.2. Scobert Gardens -Description of Potential Impacts

Scobert Gardens is described in Section 5.1.2. The River Road Corridor EmX Alternative is not anticipated to have any direct or indirect impacts to Scobert Gardens because there would be no roadway or other infrastructure modifications in the immediate vicinity of the park. As such, there would be no Section 4(f) use of Scobert Gardens under the River Road Corridor EmX Alternative.

### 5.5.3. West Bank Park - Description of Potential Impacts

West Bank Park is described in Section 5.1.3. Under the River Road Corridor EmX Alternative, minor property acquisitions would occur along River Road to accommodate project capital improvements (Figure 5.5-1). Although this alternative was designed to have the least impact possible on West Bank Park, installation of an EmX station and bike lane would require using a narrow portion of the park. During future design phases, further avoidance and minimization would review the potential of shifting the station. However, the placement of these project attributes would enhance accessibility and safety for non-motorized transportation for park users.

**Figure 5.5-1. River Road Corridor EmX Alternative – West Bank Park**



Source: CH2M. (2015).

#### 5.5.3.1. Assessment of Permanent Incorporation

The River Road Corridor EmX Alternative would result in the permanent incorporation of approximately 0.06 acre of parkland from West Bank Park. That parkland does not contain any recreational features or attributes.

#### **5.5.3.2. Assessment of Temporary Occupancy**

The River Road Corridor EmX Alternative would necessitate the temporary occupancy of land at West Bank Park to install a new EmX Station and bike lane. However, no activities, features, or attributes of West Bank Park would be permanently impacted by project actions nor would temporary construction actions at the park permanently or temporarily interfere with visitors using the park. The portion of the park to be temporarily occupied during construction would be restored to existing conditions or better.

#### **5.5.3.3. Assessment of Constructive Use**

The River Road Corridor EmX Alternative would not add noise or visual intrusion that would result in substantial impairment to the activities, features, or attributes that qualify West Bank Park for protection under Section 4(f).

#### **5.5.3.4. Preliminary Determination of Use**

Based on the current conceptual design of the River Road Corridor EmX Alternative and the analysis of potential impacts described in this section, and consistent with the requirements of 23 CFR 774.5(b), this report preliminarily concludes that project actions would not adversely affect the features, attributes, or activities that qualify West Bank Park for Section 4(f) protection. As such, project actions under the River Road Corridor EmX Alternative would likely result in a Section 4(f) *de minimis* impact to West Bank Park, consistent with 23 CFR 774.17.

#### **5.5.4. River Road Park Annex - Description of Potential Impacts**

The River Road Corridor EmX Alternative is not anticipated to have any direct or indirect impacts to the River Road Park Annex because there would be no roadway or other infrastructure modifications in the immediate vicinity of the park. As such, there would be no Section 4(f) use of the River Road Park Annex under the River Road Corridor EmX Alternative.

#### **5.5.5. Rasor Park - Description of Potential Impacts**

Under the River Road Corridor EmX Alternative, minor property acquisitions would occur along River Road to accommodate project capital improvements (Figure 5.5-2). Although this alternative was designed to have the least impact possible on Rasor Park, installation of a new bike lane could affect a small portion of the park. During future design phases, further avoidance and minimization would review the potential of shifting the station. However, the placement of these project attributes would enhance accessibility and safety for non-motorized transportation for park users.

##### **5.5.5.1. Assessment of Permanent Incorporation**

The River Road Corridor EmX Alternative would result in the permanent incorporation of approximately 0.09 acre of parkland from Rasor Park. That parkland does not contain any recreational features or attributes.

##### **5.5.5.2. Assessment of Temporary Occupancy**

The River Road Corridor EmX Alternative would necessitate the temporary occupancy of land at Rasor Park to install a new bike lane. However, no activities, features, or attributes of Rasor Park would be permanently impacted by project actions nor would temporary construction actions at the park



permanently or temporarily interfere with visitors using the park. The portion of the park to be temporarily occupied during construction would be restored to existing conditions or better.

### 5.5.5.3. Assessment of Constructive Use

The River Road Corridor EmX Alternative would not add noise or visual intrusion that would result in substantial impairment to the activities, features, or attributes that qualify Rasor Park for protection under Section 4(f).

**Figure 5.5-2. River Road Corridor EmX Alternative – Rasor Park**



### 5.5.5.4. Preliminary Determination of Use

Based on the current conceptual design of the River Road Corridor EmX Alternative and the analysis of potential impacts described in this section, and consistent with the requirements of 23 CFR 774.5(b), this report preliminarily concludes that project actions would not adversely affect the features, attributes, or activities that qualify Rasor Park for Section 4(f) protection. As such, project actions under the River Road Corridor EmX Alternative would likely result in a Section 4(f) *de minimis* impact to Rasor Park, consistent with 23 CFR 774.17.

## 5.6. River Road Corridor EmX Alternative: Potential Impacts to Historic Section 4(f) Resources

An assessment of anticipated effects to historic resources in the River Road Corridor from the EmX Alternative (excerpted from the *MovingAhead Cultural Resources Technical Report*) is provided in Table 5.6-1 and illustrated in Figure 5.6-1. Resources identified as potentially eligible for the NRHP in the

*MovingAhead Cultural Resources Technical Report* (CH2M and Heritage Research Associates, 2017) would be assessed at a future date subsequent to being determined eligible by the SHPO through the formal Section 106 DOE process. In the next phases of analysis, additional historic resources may be identified and reviewed for project impacts under Section 106 as well as consistency with Section 4(f).

Nineteen resources are potentially affected by this alternative; 11 would be directly affected, seven would be indirectly affected, and one would be directly and indirectly affected. Table 5.6-1 provides a general determination of how the River Road Corridor EmX Alternative would potentially affect the resource, either through property acquisition, impacts on access, or visual effects. No resources are anticipated to be removed to construct the project. No project impacts alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

Therefore, no resources are anticipated to be deemed to have an adverse effect from the project. If this alternative was selected as the LPA, LTD would seek a *de minimis* impact determination of “No Adverse Effect” for those 19 resources. *De minimis* impacts are those that, after consideration of any measure(s) to minimize harm (such as any avoidance, minimization, mitigation, or enhancement measures), do not adversely affect the activities, features, or attributes of the Section 4(f) property.

**Table 5.6-1. River Road Corridor EmX Alternative Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
285 River Road	1704251301901	1962	EC		S
325 River Road	1704251202700	1926 (1929)	EC		
330 River Road	1704252400200	1924	EC		
345 River Road	1704251202400	1929	EC		
355 River Road	1704251202300	1925	EC		
365 River Road	1704251202000	1923	EC		
370 River Road	1704252107404	c 1890 City Landmark	EC		
375 River Road	1704251201900	1920	EC		
385 River Road	1704251201400	1926	EC		
390 River Road	1704252105404	c 1920 City Landmark	EC		
395 River Road	1704251201300	1920	EC		
405 River Road	1704251201200 / 1704251201203	1910 City Landmark	EC		
450 River Road	1704252104607	c 1920 (1908)	EC		



**Table 5.6-1. River Road Corridor EmX Alternative Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
455 River Road	1704251200800	1923	EC		
460 River Road	1704252104500	1936	EC		
470 River Road	1704252104400	1928	EC	S, T	
480 River Road	1704252104300	1930	EC	S, T	
485 River Road	1704251200500	c 1920	EC		S
65 Hansen Lane	1704252100400	1950	EC		S
100 Hansen Lane	1704252104100	1946	EC	S, T	
501 / 505 River Road	1704251200400	1920	EC		S
530 River Road	1704252100300	1918	EC		
570 River Road	1704243407300	1936	EC		
600 River Road	1704243404500	c 1925 (1936)	EC		
610 River Road	1704243404400	1928	EC		
670 River Road	1704243400502	1936	EC		
680 River Road	1704243400400	1942	EC		
700 River Road	1704243400300	1942	EC		
710 River Road	1704243400200	1948	EC		
720 River Road	1704243400100	1941	EC		
730 River Road	1704243106600	1946	EC		
740 River Road	1704243106500	1934	EC		
750 River Road	1704243106400	1938	EC		
22 Park Avenue	1704243106300	1880	EC	S, T	
755 River Road	1704243106900	1932	EC		
800 River Road	1704243104500	1928	EC		
805 River Road	1704243107600	1912	EC	S, T	
840 River Road	1704243104200	1927	EC		
865 River Road	1704243101600	1941	EC		
901 River Road	1704242407900	1954	EC		

**Table 5.6-1. River Road Corridor EmX Alternative Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
930 River Road	1704242409200	1931	EC		
931 River Road	1704242406900	1949	EC		
940 River Road	1704242409100	1926	EC		
988 River Road	1704242409001	1964	EC		
1000 River Road	1704242408501	1958	EC		
1015 River Road	1704242404000802	1948 (1950)	EC		S
1020 River Road	1704242408300	1922	EC	S	
1030 River Road	1704242408302	1960	EC	S, A	
1065 River Road	1704242107500	1941	EC		
1085 River Road	1704242107400	1928	EC		
1105 River Road	1704242107000	c 1965	EC		
49 Arbor Drive	1704242103300	1951	EC		
1220 River Road	1704242202800	1927	EC		
1240 River Road	1704242202700	1920	EC		
1245 River Road	1704242101900	1935	EC		
1246-48 River Road	1704242202701	1940	EC		
14 Greenleaf (SE)	1704242101700	1953	EC		
39 Greenleaf (NE)	1704242100500	1907	EC		
1270 River Road	1704242201202	1924	EC		
1275 River Road	1704242100400	1940	EC		
1298 River Road	1704133308600	1955	EC		S
1318 River Road	1704133306300	1928	EC	T, A	S
1350 River Road	1704133306200	1940	EC	T, A	
1353 River Road	1704133301700	c 1920 (1933)	EC		S
1410 River Road	1704133304602	c 1910 (1920-22) City Landmark	ES		
1445 River Road	1704133300901	c 1960	EC		

**Table 5.6-1. River Road Corridor EmX Alternative Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
1495 River Road	1704133300801	c 1965	EC		
1580 River Road	1704133302100	c 1960 (1952)	EC		
1625 River Road	1704133200400	1928	EC		
1630 River Road	1704133202702	1930	EC		
1707 River Road	1704133204700	no date	EC	S, T	
1920 River Road	1704141401000	1945 / 1925	EC		
1925 River Road	1704132300303	1967	EC	T	
1950 River Road	1704141400800	c 1950	EC	T	
2550 River Road	1704114402300	1925	EC		

<sup>a</sup> Preliminary evaluation includes: eligible contributing (EC) and eligible significant (ES)

A = Access Affected

c = circa

NE = northeast

S = EmX Station

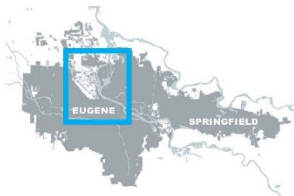
SE = southeast

T = Narrow Partial Property Acquisition

**Figure 5.6-1. River Road Corridor EmX Alternative – Historic Resources**



**Locator Map**



**Legend**

- River Road Corridor
- 2035 No-Build EmX
- Road
- ↔ New Pedestrian Crossing
- ↔ Enhanced Existing Pedestrian Crossing
- Stop/Station Locations
- Existing Without Improvements
- Proposed or Existing with Improvements
- Potentially Eligible Historic Property within the APE

**Potentially Eligible Historic Properties within the APE River Road Corridor EmX Alternative**

*Note: APE = Area of Potential Effects*



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## 6. 30th Avenue to Lane Community College Corridor Section 4(f) Evaluation

The 30th Avenue to LCC Corridor begins at Eugene Station and travels south along Pearl Street (outbound) and north along Oak Street (inbound) to Amazon Parkway, then on E. 30th Avenue to its terminus at the LCC Station. This corridor is approximately 10.2 round-trip miles.

### 6.1. 30th Avenue to Lane Community College Corridor Affected Environment: Section 4(f) Parks and Recreation Resources

Table 6.1-1 lists Section 4(f) parks and recreation resources located within the 30th Avenue to LCC Corridor Section 4(f) analysis area. Figure 6.1-1 depicts the resource locations.

**Table 6.1-1. 30th Avenue to Lane Community College Corridor Section 4(f) Analysis Area Section 4(f) Parks and Recreation Resources**

Resource Name	Location	Official with Jurisdiction	Section 4(f) Qualifying Description
Bloomberg	33000 Bloomberg Road, Eugene	ODOT / City of Eugene	Municipal park (basketball, picnic tables, play area)
Ribbon Trail	North-south trail between Hendricks Park and E. 30th Avenue, Eugene	City of Eugene	Municipal trail
Laurelwood Golf Course	2700 Columbia Street, Eugene	City of Eugene	Municipal golf course
Amazon Park	22 Amazon Parkway, Eugene	City of Eugene	Municipal park (ballfields, garden, performance space, picnic)

#### 6.1.1. Bloomberg

According to the City of Eugene Parks and Recreation Department (2016a), Bloomberg is an 18.46-acre undeveloped park that contains an old landfill, and is where the Eugene Parks and Open Space division composts much of the leaf debris collected by the fall leaf collection program. The site is planned to eventually connect to the rest of the Ridgeline Park.

#### 6.1.2. Ribbon Trail

The Ribbon Trail is a 0.9-mile gravel hiking trail that travels north-south between Hendricks Park and E. 30th Avenue.

#### 6.1.3. Laurelwood Golf Course

According to the City of Eugene Parks and Recreation Department (2016b), Laurelwood Golf Course is a regulation, 9-hole golf course facility owned by the City of Eugene and managed by a private vendor under contract to the City. In addition to the golf course, the site contains a forested natural area on the

southeast side adjacent to Central Boulevard. A trail accessed from Central Boulevard connects the park to the Ribbon Trail, a portion of the Ridgeline Trail that leads to Hendricks Park.

#### **6.1.4. Amazon Park**

Amazon Park, located at 22 Amazon Parkway, encompasses nearly 100 acres and includes a variety of recreational opportunities, community centers, and natural areas. Recreational facilities at the park include an outdoor pool, ball and soccer fields, basketball and tennis courts, pedestrian and bicycle paths, a community garden, an outdoor performance space, a play area, and a skateboard bowl. The Adidas Oregon Trail occupies the parkland between Amazon Parkway and the Amazon River. The trail is a 5.5-mile jogging path that winds through Amazon Park, along Amazon Parkway, and up to Frank Kinney Park, where it connects to Ridgeline Park.

### **6.2. 30th Avenue to Lane Community College Corridor Affected Environment: Historic Resources**

A review of the SHPO and NRHP databases for listed properties along the 30th Avenue to LCC Corridor, as well as a windshield survey conducted by project cultural resource specialists, indicated:

- Four historic resources formally listed in the NRHP were identified within the 30th Avenue to LCC Corridor.
- Eighty-nine individual resources and four historic districts were identified as being potentially eligible for the NRHP (33 resources are listed in the SHPO database, 57 were identified during the windshield survey).
- One eligible significantly and one eligible contributing resources are also listed as City Landmarks. These are 1143 Oak (ES), and 1412 Pearl (EC).

Potentially historic resources in the 30th Avenue to LCC Corridor are discussed in Sections 6.4 and 6.6.

**Figure 6.1-1. 30th Avenue to Lane Community College Corridor Parks and Recreation Resources**



<b>Locator Map</b>	<b>Legend</b>	<b>Parks Section 4(f) Areas 30th Avenue to Lane Community College</b>								
	<table border="0"> <tr> <td> 30th Ave/LCC Corridor</td> <td> 2035 No-Build EmX</td> </tr> <tr> <td> 30th Ave/LCC Corridor 350 ft Buffer</td> <td> Road</td> </tr> <tr> <td></td> <td> Water</td> </tr> <tr> <td></td> <td> Park</td> </tr> </table>	30th Ave/LCC Corridor	2035 No-Build EmX	30th Ave/LCC Corridor 350 ft Buffer	Road		Water		Park	<i>Note: Both EmX and Enhanced Corridor Alternatives Shown</i>
30th Ave/LCC Corridor	2035 No-Build EmX									
30th Ave/LCC Corridor 350 ft Buffer	Road									
	Water									
	Park									

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### **6.3. 30th Avenue to Lane Community College Corridor Enhanced Corridor Alternative: Potential Impacts to Park and Recreational Section 4(f) Resources**

#### **6.3.1. Bloomberg - Description of Potential Impacts**

The 30th Avenue to LCC Corridor Enhanced Corridor Alternative is not anticipated to have any direct or indirect impacts to Bloomberg because there would be no roadway or other infrastructure modifications in the immediate vicinity of the undeveloped park. This alternative would not result in temporary impacts, nor would the project's proximity impacts (noise or visual) be so severe as to substantially impair those activities, features, or attributes that qualify the resource for protection under Section 4(f). As such, there would be no Section 4(f) use of Bloomberg under the 30th Avenue to LCC Corridor Enhanced Corridor Alternative.

#### **6.3.2. Ribbon Trail – Description of Potential Impacts**

The 30th Avenue to LCC Corridor Enhanced Corridor Alternative is not anticipated to have any direct or indirect impacts to the Ribbon Trail because there would be no roadway or other infrastructure modifications in the immediate vicinity of the trail. This alternative would not result in temporary impacts, nor would the project's proximity impacts (noise or visual) be so severe as to substantially impair those activities, features, or attributes that qualify the resource for protection under Section 4(f). As such, there would be no Section 4(f) use of the Ribbon Trail under the 30th Avenue to LCC Corridor Enhanced Corridor Alternative.

#### **6.3.3. Laurelwood Golf Course - Description of Potential Impacts**

The 30th Avenue to LCC Corridor Enhanced Corridor Alternative is not anticipated to have any direct or indirect impacts to the Laurelwood Golf Course because there would be no roadway or other infrastructure modifications in the immediate vicinity of the golf course. This alternative would not result in temporary impacts, nor would the project's proximity impacts (noise or visual) be so severe as to substantially impair those activities, features, or attributes that qualify the resource for protection under Section 4(f). As such, there would be no Section 4(f) use of the Laurelwood Golf Course under the 30th Avenue to LCC Corridor Enhanced Corridor Alternative.

#### **6.3.4. Amazon Park – Description of Potential Impacts**

Under the 30th Avenue to LCC Corridor Enhanced Corridor Alternative, minor property acquisitions would occur along Amazon Parkway to accommodate project capital improvements (Figure 6.3-1). Although this alternative was designed to have the least impact possible on Amazon Park, installation of a new sidewalk and bus shelter could affect a small portion of the park. However, the alternative could be modified during design refinement to eliminate or reduce effects on the park.

##### **6.3.4.1. Assessment of Permanent Incorporation**

The 30th Avenue to LCC Corridor Enhanced Corridor Alternative would result in the permanent incorporation of approximately 0.29 acre of parkland from Amazon Park. That parkland does not contain any recreational features or attributes.

### 6.3.4.2. Assessment of Temporary Occupancy

The 30th Avenue to LCC Corridor Enhanced Corridor Alternative would necessitate the temporary occupancy of land at Amazon Park to install a new sidewalk and bus shelter. However, no activities, features, or attributes of Amazon Park would be permanently impacted by project actions nor would temporary construction actions at the park permanently or temporarily interfere with visitors using the park. The portion of the park to be temporarily occupied during construction would be restored to existing conditions or better.

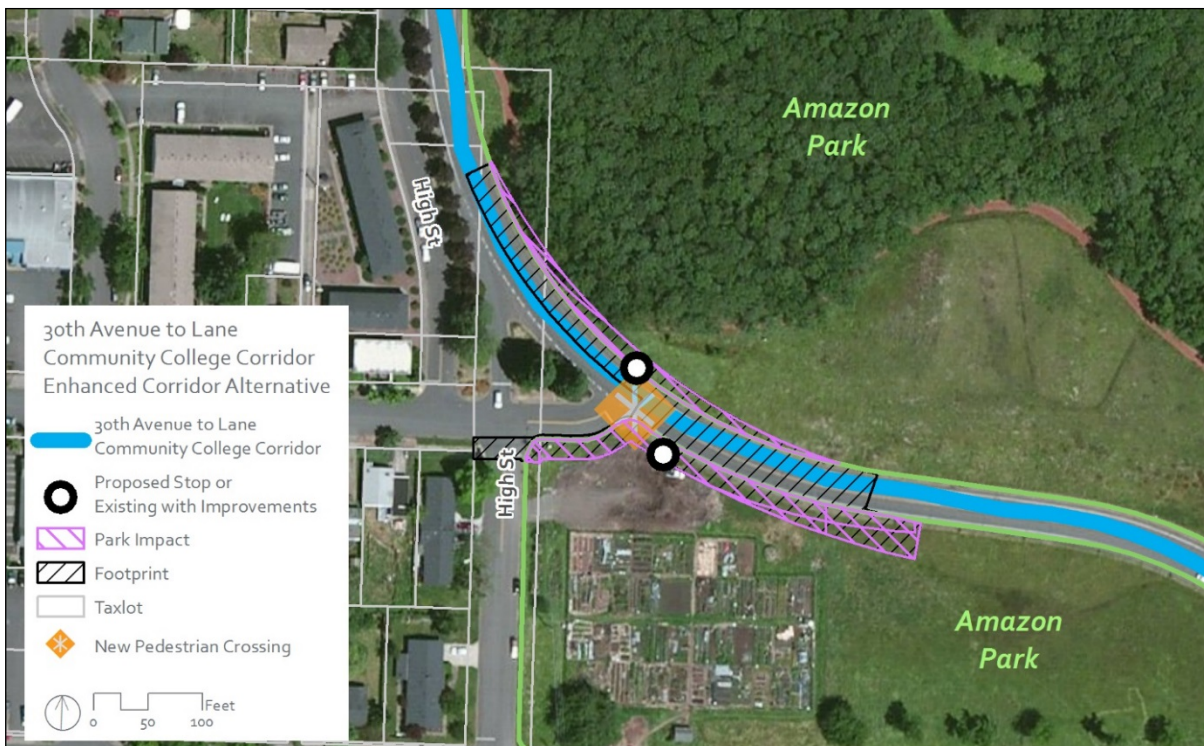
### 6.3.4.3. Assessment of Constructive Use

The 30th Avenue to LCC Corridor Enhanced Corridor Alternative would not result in substantial impairment to the activities, features, or attributes that qualify Amazon Park for protection under Section 4(f).

### 6.3.4.4. Preliminary Determination of Use

Based on the current conceptual design of the 30th Avenue to LCC Corridor Enhanced Corridor Alternative and the analysis of potential impacts described in this section, and consistent with the requirements of 23 CFR 774.5(b), this report preliminarily concludes that project actions would not adversely affect the features, attributes, or activities that qualify Amazon Park for Section 4(f) protection. As such, project actions under the 30th Avenue to LCC Corridor Enhanced Corridor Alternative would likely result in a Section 4(f) *de minimis* impact to Amazon Park, consistent with 23 CFR 774.

**Figure 6.3-1. 30th Avenue to Lane Community College Corridor Enhanced Corridor Alternative – Amazon Park**



Source: CH2M. (2015).

#### 6.4. 30th Avenue to Lane Community College Corridor Enhanced Corridor Alternative: Potential Impacts to Historic Section 4(f) Resources

An assessment of anticipated effects to historic resources in the 30th to Lane Community College Corridor from the Enhanced Corridor Alternative (excerpted from the *MovingAhead Cultural Resources Technical Report*) is provided in Table 6.4-1 and illustrated in Figure 6.4-1. For the purpose of conservatively assessing potential impacts, this report assumes all historic resources preliminarily deemed eligible for the NRHP in the *MovingAhead Cultural Resources Technical Report* (CH2M and Heritage Research Associates, 2017) will be officially determined eligible through the formal Section 106 DOE process. Any historic resources currently preliminarily determined eligible for the NRHP determined to not be eligible for the NRHP by the SHPO through the formal Section 106 DOE process would be removed from subsequent Section 4(f) analysis. In the next phases of analysis, additional historic resources may be identified and reviewed for project impacts under Section 106 as well as consistency with Section 4(f).

Twenty-five resources are potentially affected by this alternative; two would be directly affected, 22 would be indirectly affected, and one would be both directly and indirectly affected. Table 6.4-1 provides a general determination of how the 30th Avenue to Lane Community College Enhanced Corridor Alternative would potentially affect the resource, either through property acquisition, impacts on access, or visual effects. No resources are anticipated to be removed to construct the project. No project impacts alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

Therefore, no resources are anticipated to be deemed to have an adverse effect from the project. If this alternative was selected as the LPA, LTD would seek a *de minimis* impact determination of “No Adverse Effect” for those 25 resources. Per 23 CFR 774.5 and 774.17, a *de minimis* impact determination is made for a historic resource if FTA makes a determination for a property of “No Adverse Effect” or “No Historic Properties Affected” through consultation under Section 106, and the SHPO concurs with that determination.

**Table 6.4-1. 30th Avenue to Lane Community College Corridor Enhanced Corridor Alternative Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
32 E. 11th Avenue	1703314114600	c 1925	EC		
50 E. 11th Avenue	1703314114500	c 1931	EC		
185 E. 11th Avenue	1703311411200 / 1703311411300	1930	EC		
112 E. 13th Avenue	1703314111500	1930	EC		P
<b>1143 Oak</b> [Converted fraternity house; multi-unit residential]	<b>1703314110500</b>	<b>1910</b>	<b>ES NR</b> City Landmark		
1166 Oak	1703314114300	1911	EC		

**Table 6.4-1. 30th Avenue to Lane Community College Corridor Enhanced Corridor Alternative  
Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
1230 Oak	1703314113900	1908	EC		
<b>1263 Oak</b>	<b>1703314111100</b>	<b>1928</b>	<b>ES NR</b>		
<b>1281 Oak</b>	<b>1703314113700</b>	<b>c 1928</b>	<b>ES NR</b>		
1287 Oak	1703314111200	1950	EC		
1290 Oak	1703314113600	c 1940	EC		P
1330 Oak	1703314113300	1920	EC		
1339 Oak	1703314111700	1966	EC		P
1348 Oak	1703314113200	1920	EC		
1358 Oak	1703314113100	1965	EC		
1372 Oak	1703314110300	1910	EC		S
1390 Oak	1703314112900	c 1905 (1914)	EC		S
1483 Oak	1703314402100	c 1910	EC		P
1495 Oak	1703314402000	c 1920	EC		
1699 Oak	1703314411500	1930	EC		
1815 Oak	1803061102100	1958	EC		
1850 Oak	1803061103300	1962	EC		
1908 Oak	1803061104500	1950	EC		
1911 Oak	1803061107200	1947	EC		
1940 Oak	1803061104700	1930	EC		
1945 Oak	1803061107100	1947	EC		
1955 Oak	1803061106900	1952	EC		
1193 Pearl	1703314105900	c 1920	EC		
1209 Pearl	1703314106700	1920	EC		
1210 Pearl	1703314109700	1920	EC		P
1234 Pearl	1703314109600	1924	EC		P
1264 Pearl	1703314109500	1921	EC		P
1280 Pearl	1703314109400	1930	EC		P
1290 Pearl	1703314109300	c 1935	EC		P

**Table 6.4-1. 30th Avenue to Lane Community College Corridor Enhanced Corridor Alternative  
Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
1300 Pearl	1703314109000	1938	EC		P
1361 Pearl	1703314107500	c 1890	EC		S
1375 Pearl	1703314107600	1927	EC		S
1389 Pearl	1703314107700	c 1905	EC		S
1390 Pearl	1703314108700	1948	EC	S	P
1412 Pearl [Converted residential structure; commercial]	1703314108500	1915	EC City Landmark		P
1430 Pearl	1703314108400	1915	EC		P
1442 Pearl	1703314108300	c 1905	EC		P
1454 Pearl	1703314401500	1939, 1900	EC		
1478 Pearl	1703314401600	c 1905	EC		
1491 Pearl	1703314401200	c 1920	EC		
1492 Pearl	1703314401700	1910	EC		
1531 Pearl	1703314405800	c 1905	EC		
1570 Pearl	1703314405300	1957	EC	T	
1598 Pearl	1703314405600	1927 (1935)	EC	T	
<b>1605 Pearl / 244 E. 16th Avenue</b>	<b>1703314410400</b>	<b>1911</b>	<b>ES / NR</b>		
1627 Pearl	1703314410200	1915	EC		
1648 Pearl	1703314410800	c 1925	EC		
Amazon Channel		1940-1959	ES		
1733 Pearl	1703314413600	1962	EC		
1846 Pearl	1803061101800	1956	EC		
1850 Pearl	1803061103100	1942	EC		
1912 Pearl	1803061107700	1935	EC		
1940 Pearl	1803061107800	1941	EC		P
99 E. 17th Avenue	1703314412000	1961	EC		
74 E. 18th Avenue	1803061103200	1957	EC		
90 E. 20th Avenue	1803061106600	1936	EC		

**Table 6.4-1. 30th Avenue to Lane Community College Corridor Enhanced Corridor Alternative  
Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
215 E. 19th Avenue	1803061101500	1946	EC		
81 E. 23rd Avenue	1803061404700	1957	EC		
90 E. 23rd Avenue	1803061404800	1953	EC		
2450 High	1803064109000	1952	EC		
2460 High	1803064109300	1962	EC		
2470 High	1803064109400	1954	EC		
195 E. 25 <sup>th</sup> Avenue	1803064110100	1946	EC		
180 E. 25th Avenue	1803064111500	1946	EC		
2800 block of Ferry, East side, continuous		1950s	Possible District		
2805 Ferry	1803053300200	1955	EC		
2815 Ferry	1803053300300	1954	EC		
2825 Ferry	1803053300400	1952	EC		
2835 Ferry	1803053300500	1952	EC		
2845 Ferry	1803053300600	1952	EC		
2855 Ferry	1803053300700	1952	EC		
2865 Ferry	1803053300800	1954	EC		
2875 Ferry	1803053300900	1953	EC		
2885 Ferry	1803053301000	1952	EC		
2900 block of Ferry, East side, continuous		Mid-1950s	Potential District		
2901 Ferry	1803082200200	1953	EC		
2905 Ferry	1803082200300	1953	EC		
2915 Ferry	1803082200400	1955	EC		
2925 Ferry	1803082200500	1953	EC		
2935 Ferry	1803082200600	1954	EC		
2951 Ferry	1803082200800	1950	EC		
30th from Alder Alley to Agate Street, continuous		Late 1950s-ear 1960s	Potential District		
1150 E. 29th Avenue	1803081203800	1949	EC / ES		S

**Table 6.4-1. 30th Avenue to Lane Community College Corridor Enhanced Corridor Alternative  
Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
<i>2996 Harris</i>	1803082100900	1948	EC		
30th from Alder to Agate, continuous		Late 1950s-1960s	Potential District		
<i>3015 University</i>	1803081208800	1958	EC		S
<i>3005 Harris</i>	1803082112200	1957	EC		S
4000 E. 30th Avenue	1803100001400	1963, 1967	EC		

<sup>a</sup> Preliminary evaluation includes: eligible contributing (EC) and eligible significant (ES)

Note:

**Bolded resources** indicate NRHP sites (ES NR).

c = circa

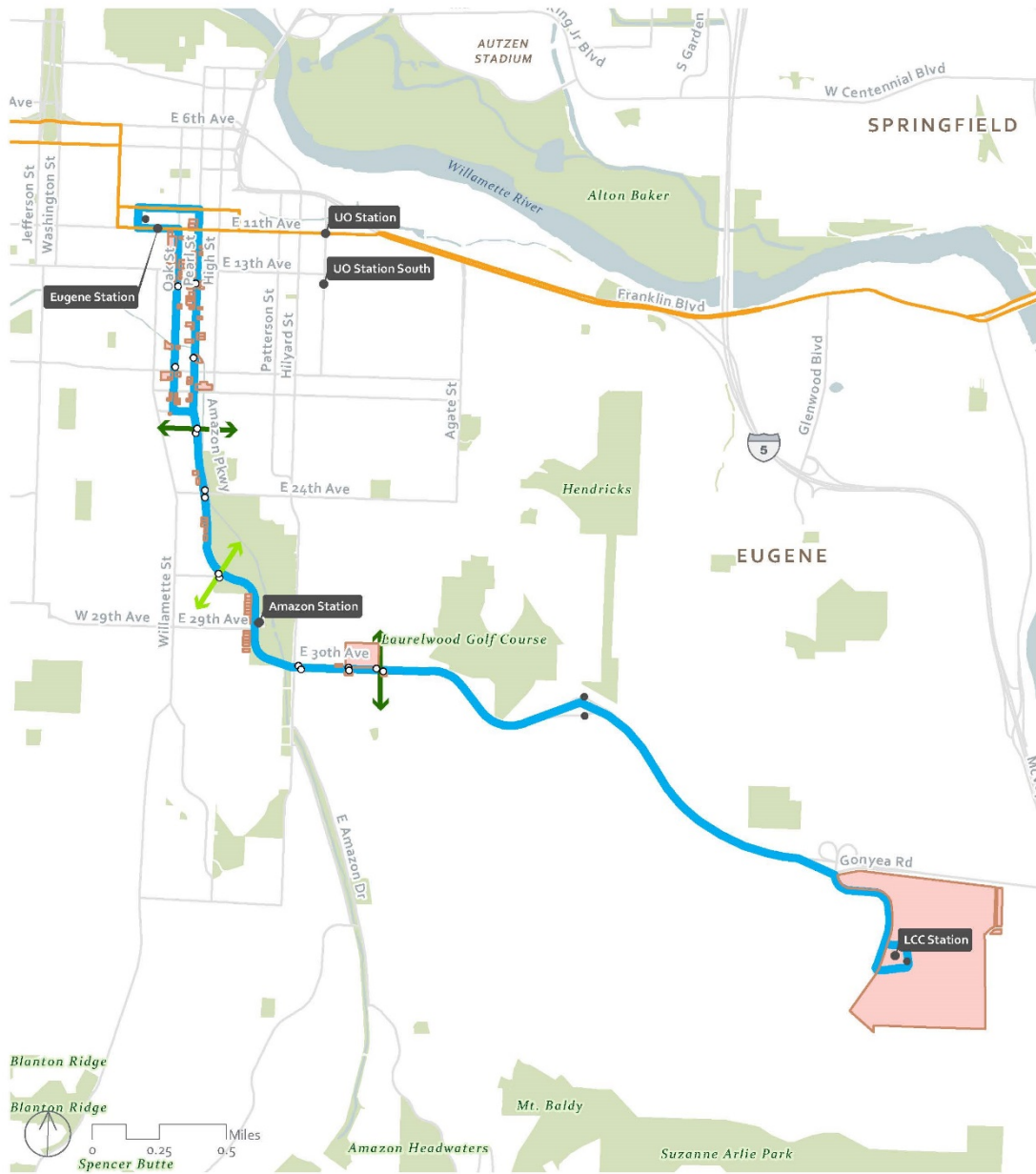
P = Planting Strip (effect from tree removal, new parking bay, new sidewalk)

S = Enhanced Shelter

T = Narrow Partial Property Acquisition



**Figure 6.4-1. 30th Avenue Corridor Enhanced Corridor Alternative – Historic Resources**



**Locator Map**



**Legend**

- 30th Avenue to Lane Community College Corridor
- 2035 No-Build EmX
- Road
- ↔ New Pedestrian Crossing
- ↔ Enhanced Existing Pedestrian Crossing
- Stop/Station Locations
  - Existing Without Improvements
  - Proposed or Existing with Improvements
- Potentially Eligible Historic Property within the APE

Potentially Eligible Historic Properties within the APE  
 30th Avenue to Lane Community College Corridor Enhanced Corridor Alternative

*Note: APE = Area of Potential Effects*



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## **6.5. 30th Avenue to Lane Community College Corridor EmX Alternative: Potential Impacts to Park and Recreational Section 4(f) Resources**

### **6.5.1. Bloomberg – Description of Potential Impacts**

The 30th Avenue to LCC Corridor EmX Alternative is not anticipated to have any direct or indirect impacts to Bloomberg because there would be no roadway or other infrastructure modifications in the immediate vicinity of the park. This alternative would not result in temporary impacts, nor would the project's proximity impacts (noise or visual) be so severe as to substantially impair those activities, features, or attributes that qualify the resource for protection under Section 4(f).

### **6.5.2. Ribbon Trail - Description of Potential Impacts**

The 30th Avenue to LCC Corridor EmX Alternative is not anticipated to have any direct or indirect impacts to the Ribbon Trail because there would be no roadway or other infrastructure modifications in the immediate vicinity of the trail. This alternative would not result in temporary impacts, nor would the project's proximity impacts (noise or visual) be so severe as to substantially impair those activities, features, or attributes that qualify the resource for protection under Section 4(f).

### **6.5.3. Laurelwood Golf Course – Description of Potential Impacts**

The 30th Avenue to LCC Corridor EmX Alternative is not anticipated to have any direct or indirect impacts to the Laurelwood Golf Course because there would be no roadway or other infrastructure modifications in the immediate vicinity of the golf course. This alternative would not result in temporary impacts, nor would the project's proximity impacts (noise or visual) be so severe as to substantially impair those activities, features, or attributes that qualify the resource for protection under Section 4(f).

### **6.5.4. Amazon Park – Description of Potential Impacts**

Under the 30th Avenue to LCC Corridor EmX Alternative, minor property acquisitions would occur along Amazon Parkway to accommodate project capital improvements (Figure 6.5-1). Although this alternative was designed to have the least impact possible on Amazon Park, installation of a new sidewalk and bus shelter would affect a small portion of the park.

#### **6.5.4.1. Assessment of Permanent Incorporation**

The 30th Avenue to LCC Corridor EmX Alternative would result in the permanent incorporation of approximately 1 acre of parkland from Amazon Park. That parkland does not contain any recreational features or attributes.

#### **6.5.4.2. Assessment of Temporary Occupancy**

The 30th Avenue to LCC Corridor EmX Alternative would necessitate the temporary occupancy of land at Amazon Park for to install a new sidewalk and EmX station. However, no activities, features, or attributes of Amazon Park would be permanently impacted by project actions nor would temporary construction actions at the park permanently or temporarily interfere with visitors using the park. The portion of the park to be temporarily occupied during construction would be restored to existing conditions or better.

**Figure 6.5-1. 30th Avenue to Lane Community College Corridor EmX Alternative – Amazon Park**



Source: CH2M. (2015).

#### 6.5.4.3. Assessment of Constructive Use

The 30th Avenue to LCC Corridor EmX Alternative would not result in substantial impairment to the activities, features, or attributes that qualify Amazon Park for protection under Section 4(f).

#### 6.5.4.4. Preliminary Determination of Use

Based on the current conceptual design of the 30th Avenue to LCC Corridor EmX Alternative and the analysis of potential impacts described in this section, and consistent with the requirements of 23 CFR 774.5(b), this report preliminarily concludes that project actions would not adversely affect the features, attributes, or activities that qualify Amazon Park for Section 4(f) protection. As such, project actions under the 30th Avenue to LCC Corridor EmX Alternative would likely result in a Section 4(f) *de minimis* impact to Amazon Park, consistent with 23 CFR 774.

### 6.6. 30th Avenue to Lane Community College Corridor EmX Alternative: Potential Impacts to Historic Section 4(f) Resources

An assessment of anticipated effects to historic resources in the 30th Avenue to LCC Corridor from the EmX Alternative (excerpted from the *MovingAhead Cultural Resources Technical Report*) is provided in Table 6.6-1 and illustrated in Figure 6.6-1. For the purpose of conservatively assessing potential impacts, this report assumes historic resources preliminarily deemed eligible for the NRHP in the *MovingAhead Cultural Resources Technical Report* (CH2M and Heritage Research Associates, 2017) would be officially determined eligible through the formal Section 106 DOE process. Any historic resources currently preliminarily determined eligible for the NRHP determined to not be eligible for the NRHP by the SHPO through the formal Section 106 DOE process would be removed from subsequent Section 4(f) analysis.

In the next phases of analysis, additional historic resources may be identified and reviewed for project impacts under Section 106 as well as consistency with Section 4(f).

Fourteen resources are potentially affected by this alternative; four would be directly affected and 10 would be indirectly affected. Table 6.6-1 provides a general determination of how the 30th Avenue to LCC Corridor EmX Alternative would potentially affect the resource, either through property acquisition, impacts on access, or visual effects. No resources are anticipated to be removed to construct the project. No project impacts alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

Therefore, no resources are anticipated to be deemed to have an adverse effect from the project. If this alternative was selected as the LPA, LTD would seek a *de minimis* impact determination of “No Adverse Effect” for those 14 resources. Per 23 CFR 774.5 and 774.17, a *de minimis* impact determination is made for a historic resource if FTA makes a determination for a property of “No Adverse Effect” or “No Historic Properties Affected” through consultation under Section 106, and the SHPO concurs with that determination.

**Table 6.6-1. 30th Avenue to Lane Community College Corridor EmX Alternative Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
32 E. 11th Avenue	1703314114600	c 1925	EC		
50 E. 11th Avenue	1703314114500	c 1931	EC		
185 E. 11th Avenue	1703311411200 / 1703311411300	1930	EC		
112 E. 13th Avenue	1703314111500	1930	EC		
<b>1143 Oak</b> [Converted fraternity house; multi-unit residential]	<b>1703314110500</b>	<b>1910</b>	<b>ES NR</b> City Landmark		
1166 Oak	1703314114300	1911	EC		
1230 Oak	1703314113900	1908	EC		
<b>1263 Oak</b>	<b>1703314111100</b>	<b>1928</b>	<b>ES NR</b>		
<b>1281 Oak</b>	<b>1703314113700</b>	<b>c 1928</b>	<b>ES NR</b>		
1287 Oak	1703314111200	1950	EC		
1290 Oak	1703314113600	c 1940	EC		
1330 Oak	1703314113300	1920	EC	S, T	
1339 Oak	1703314111700	1966	EC		S
1348 Oak	1703314113200	1920	EC	S, T	
1358 Oak	1703314113100	1965	EC		S

**Table 6.6-1. 30th Avenue to Lane Community College Corridor EmX Alternative Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
1372 Oak	1703314110300	1910	EC		
1390 Oak	1703314112900	c 1905 (1914)	EC		
1483 Oak	1703314402100	c 1910	EC		
1495 Oak	1703314402000	c 1920	EC		
1699 Oak	1703314411500	1930	EC		
1815 Oak	1803061102100	1958	EC		S
1850 Oak	1803061103300	1962	EC		
1908 Oak	1803061104500	1950	EC		
1911 Oak	1803061107200	1947	EC		
1940 Oak	1803061104700	1930	EC		
1945 Oak	1803061107100	1947	EC		
1955 Oak	1803061106900	1952	EC		
1193 Pearl	1703314105900	c 1920	EC		
1209 Pearl	1703314106700	1920	EC		
1210 Pearl	1703314109700	1920	EC		
1234 Pearl	1703314109600	1924	EC		
1264 Pearl	1703314109500	1921	EC		
1280 Pearl	1703314109400	1930	EC		
1290 Pearl	1703314109300	c 1935	EC		
1300 Pearl	1703314109000	1938	EC		S
1361 Pearl	1703314107500	c 1890	EC		
1375 Pearl	1703314107600	1927	EC		
1389 Pearl	1703314107700	c 1905	EC		
1390 Pearl	1703314108700	1948	EC		
1412 Pearl [Converted residential structure; commercial]	1703314108500	1915	EC City Landmark		
1430 Pearl	1703314108400	1915	EC		
1442 Pearl	1703314108300	c 1905	EC		S



**Table 6.6-1. 30th Avenue to Lane Community College Corridor EmX Alternative Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
1454 Pearl	1703314401500	1939, 1900	EC		S
1478 Pearl	1703314401600	c 1905	EC		S
1491 Pearl	1703314401200	c 1920	EC		
1492 Pearl	1703314401700	1910	EC		S
1531 Pearl	1703314405800	c 1905	EC		
1570 Pearl	1703314405300	1957	EC		
1598 Pearl	1703314405600	1927 (1935)	EC		
<b>1605 Pearl / 244 E. 16th Avenue</b>	<b>1703314410400</b>	<b>1911</b>	<b>ES / NR</b>		
1627 Pearl	1703314410200	1915	EC		
1648 Pearl	1703314410800	c 1925	EC		
Amazon Channel		1940-1959	ES		
1733 Pearl	1703314413600	1962	EC		S
1846 Pearl	1803061101800	1956	EC		
1850 Pearl	1803061103100	1942	EC		
1912 Pearl	1803061107700	1935	EC		
1940 Pearl	1803061107800	1941	EC		
99 E. 17th Avenue	1703314412000	1961	EC		
74 E. 18th Avenue	1803061103200	1957	EC	S, T	
90 E. 20th Avenue	1803061106600	1936	EC		
215 E. 19th Avenue	1803061101500	1946	EC		
81 E. 23rd Avenue	1803061404700	1957	EC		
90 E. 23rd Avenue	1803061404800	1953	EC		
2450 High	1803064109000	1952	EC		
2460 High	1803064109300	1962	EC		
2470 High	1803064109400	1954	EC		
195 E 25th	1803064110100	1946	EC		
180 E 25th	1803064111500	1946	EC		
2800 block of Ferry, East side, continuous		1950s	Possible District		

**Table 6.6-1. 30th Avenue to Lane Community College Corridor EmX Alternative Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
2805 Ferry	1803053300200	1955	EC		
2815 Ferry	1803053300300	1954	EC		
2825 Ferry	1803053300400	1952	EC		
2835 Ferry	1803053300500	1952	EC		
2845 Ferry	1803053300600	1952	EC		
2855 Ferry	1803053300700	1952	EC		
2865 Ferry	1803053300800	1954	EC		
2875 Ferry	1803053300900	1953	EC		
2885 Ferry	1803053301000	1952	EC		
2900 block of Ferry, East side, continuous		Mid-1950s	Potential District		
2901 Ferry	1803082200200	1953	EC		
2905 Ferry	1803082200300	1953	EC		
2915 Ferry	1803082200400	1955	EC		
2925 Ferry	1803082200500	1953	EC		
2935 Ferry	1803082200600	1954	EC		
2951 Ferry	1803082200800	1950	EC		
30th from Alder Alley to Agate Street, continuous		Late 1950s-era 1960s	Potential District		
1150 E. 29th Avenue	1803081203800	1949	EC / ES		S
2996 Harris	1803082100900	1948	EC		
30th from Alder to Agate, continuous		Late 1950s-1960s	Potential District		
3015 University	1803081208800	1958	EC	S	
3005 Harris	1803082112200	1957	EC		
4000 E. 30th Avenue	1803100001400	1963, 1967	EC		

<sup>a</sup> Preliminary evaluation includes: eligible contributing (EC) and eligible significant (ES)

Note:

**Bolded** resources indicate NRHP sites (evaluated as ES NR).

c = circa

S = EmX Station

T = Narrow Partial Property Acquisition



**Figure 6.6-1. 30th Avenue LCC Corridor EmX Alternative – Historic Resources**



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## 7. Coburg Road Corridor Section 4(f) Evaluation

The Coburg Road Corridor begins at the Eugene Station and continues to Coburg Road using the Ferry Street Bridge. The corridor continues north on Coburg Road to Crescent Avenue, east on Crescent Avenue and Chad Drive to N. Game Farm Road, and south on N. Game Farm Road and Gateway Street to the existing Gateway Station at the Gateway Mall. This corridor is approximately 11.2 round-trip miles.

### 7.1. Coburg Road Corridor Affected Environment: Section 4(f) Parks and Recreation Resources

Table 7.1-1 lists Section 4(f) parks and recreation resources located within the Coburg Road Corridor Section 4(f) analysis area. Figure 7.1-1 depicts the resource locations.

**Table 7.1-1. Coburg Road Corridor Section 4(f) Analysis Area Section 4(f) Parks and Recreation Resources**

Resource Name	Location	Official with Jurisdiction	Section 4(f) Qualifying Description
Park Blocks	Between 8th Avenue and Park Street, Eugene	City of Eugene	Municipal park (urban plaza, benches)
Skinner Butte Park	248 Cheshire Avenue, Eugene	City of Eugene	Municipal park (ballfields, fishing, trails, picnic tables, playground, informal sports / play fields, rock climbing, spray pad)
Alton Baker Park	200 Day Island Road, Eugene	City of Eugene	Municipal park (BMX track, disc golf, boat launch, fishing, trails, picnic tables, informal sports / play fields)

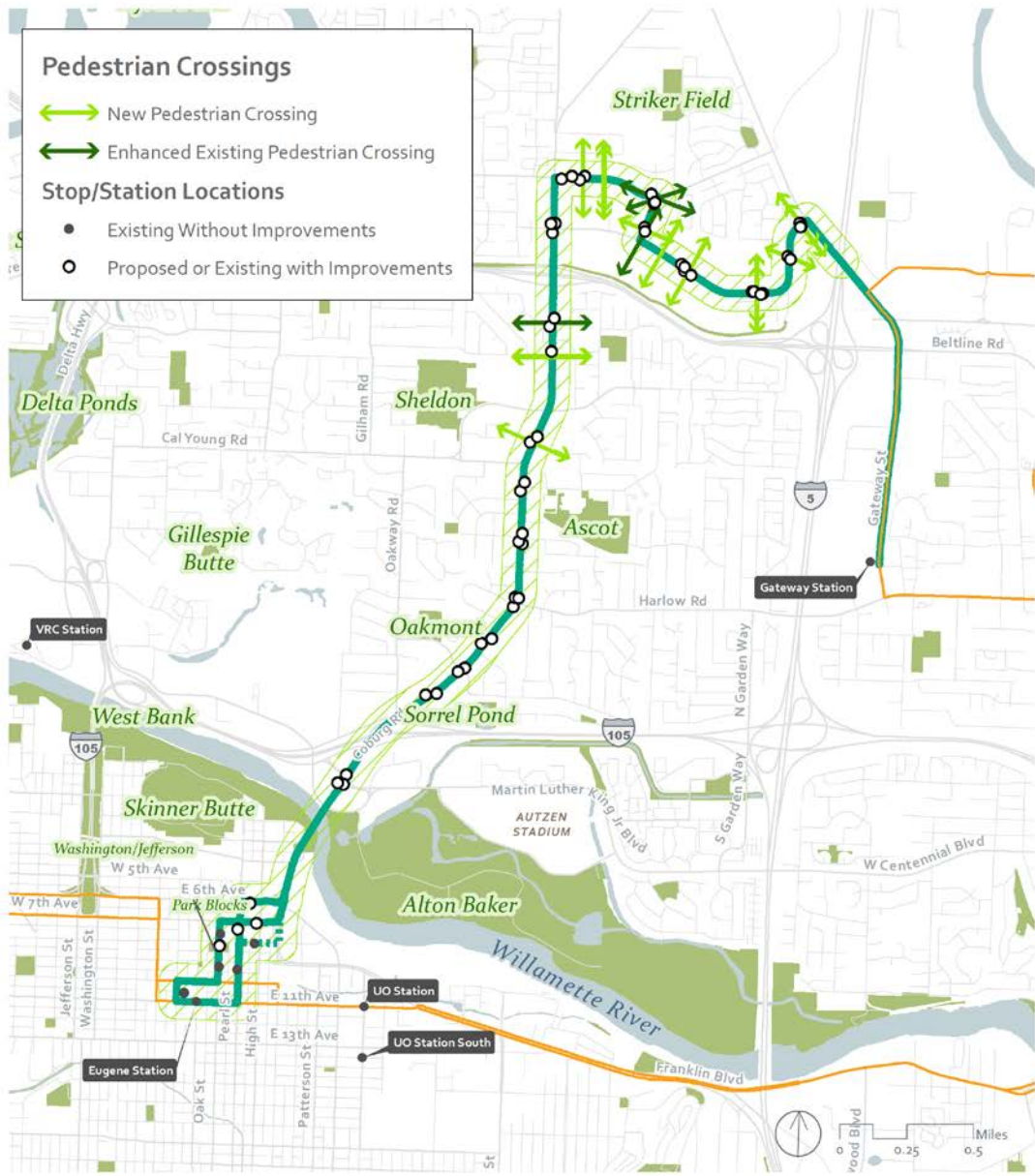
#### 7.1.1. Park Blocks

Park Blocks is a 1.5-acre park composed of two urban plazas between 8th Avenue and East, South, and West Park Streets in downtown Eugene. Oak Street dissects the two urban plaza squares. The Park Blocks contain benches, public art, and landscaped features. They are a critical component of the Eugene identity and economic health, and are home to the Saturday Market and the Lane County Farmers Market.

#### 7.1.2. Skinner Butte Park

Skinner Butte Park is an approximately 100-acre park at 248 Cheshire Avenue along the western side of the Willamette River, just north of downtown Eugene. The park serves as a community destination and includes features such as Skinner Butte, the Columns climbing area, RiverPlay Discovery Village Playground, Campbell Senior Center, Lamb Cottage, Skinner City Farm community garden, acres of lawn and meadows, hiking trails, bike paths, and picnic areas. Vehicular access into the park is provided from W. 3rd Avenue and High Street. The park includes an internal road system with parking at several locations, including near the Campbell Senior Center and the ballfields.

**Figure 7.1-1. Coburg Road Corridor Parks and Recreation Resources**



Locator Map

Legend

Parks Section 4(f) Areas  
Coburg Road Corridor



- Coburg Road Corridor EmX Alternative
- 2035 No-Build EmX
- Coburg Road Corridor Enhanced Corridor
- Road
- ▨ Coburg Rd Corridor 350 ft Buffer
- Water
- Park

Note: Both EmX and Enhanced Corridor Alternatives Shown



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### 7.1.3. Alton Baker Park

Alton Baker Park, Eugene’s largest developed park at approximately 400 acres, consists of forest, fields, plains, and trails. The park is at 200 Day Island Road along the east banks of the Willamette River, directly across from the University of Oregon. Alton Baker Park uses and facilities have continued to grow with the city of Eugene, with the park adding several features in recent years. Features include a concert venue, biking and walking trails that connect all over the Eugene and Springfield area, a canoe canal, a BMX track, a disc golf course, and an undeveloped and natural section. Several local events are also hosted in the park every year (including “Art and the Vineyard” and the “Eugene Rotary Duck Race”), in addition to the regular concerts hosted at the Cuthbert Amphitheater. Transit access to Alton Baker Park along Coburg Road is provided by LTD Routes 66 and 67. The closest bus stop is at Coburg Road and Country Club Road. Vehicular access into the park is provided from Country Club Road and Leo Harris Parkway. The park includes an internal road system with parking at several locations.

## 7.2. Coburg Road Corridor Affected Environment: Historic Resources

A review of the SHPO and NRHP databases for listed properties along the Coburg Road Corridor, as well as a windshield survey conducted by project cultural resource specialists, indicated:

- No historic resources formally listed in the NRHP were identified within the Coburg Road Corridor.
- Twenty-three individual resources and one potential historic district were identified as potentially eligible for the NRHP (1 resource is listed in the SHPO database, 23 were identified during the windshield survey).

Potentially historic resources in the Coburg Road Corridor are discussed in Sections 7.4 and 7.6.

## 7.3. Coburg Road Corridor Enhanced Corridor Alternative: Potential Impacts to Park and Recreational Section 4(f) Resources

### 7.3.1. Park Blocks – Description of Potential Impacts

The Coburg Road Corridor Enhanced Corridor Alternative is not anticipated to have any direct or indirect impacts to the Park Blocks. The project would not extend outside existing ROW in the vicinity of this resource. This alternative would not result in temporary impacts, nor would the project’s proximity impacts (noise or visual) be so severe as to substantially impair those activities, features, or attributes that qualify the resource for protection under Section 4(f). As such, there would be no Section 4(f) use of the Park Blocks under the Coburg Road Corridor Enhanced Corridor Alternative.

### 7.3.2. Skinner Butte Park – Description of Potential Impacts

The Coburg Road Corridor Enhanced Corridor Alternative is not anticipated to have any direct or indirect impacts to Skinner Butte. The project would not extend outside existing ROW in the vicinity of this resource. This alternative would not result in temporary impacts, nor would the project’s proximity impacts (noise or visual) be so severe as to substantially impair those activities, features, or attributes that qualify the resource for protection under Section 4(f). As such, there would be no Section 4(f) use of Skinner Butte under the Coburg Road Corridor Enhanced Corridor Alternative.

### 7.3.3. Alton Baker Park – Description of Potential Impacts

The Coburg Road Corridor Enhanced Corridor Alternative is not anticipated to have any direct or indirect impacts to Alton Baker Park. The project would not extend outside existing ROW in the vicinity of this resource. This alternative would not result in temporary impacts, nor would the project’s proximity impacts (noise or visual) be so severe as to substantially impair those activities, features, or attributes that qualify the resource for protection under Section 4(f). As such, there would be no Section 4(f) use of Alton Baker Park under the Coburg Road Corridor Enhanced Corridor Alternative.

### 7.4. Coburg Road Corridor Enhanced Corridor Alternative: Potential Impacts to Historic Section 4(f) Resources

An assessment of anticipated effects to historic resources in the Coburg Road Corridor from the Enhanced Corridor Alternative (excerpted from the *MovingAhead Cultural Resources Technical Report*) is provided in Table 7.4-1 and illustrated in Figure 7.4-1. For the purpose of conservatively assessing potential impacts, this report assumes all historic resources preliminarily deemed eligible for the NRHP in the *MovingAhead Cultural Resources Technical Report* (CH2M and Heritage Research Associates, Inc., 2017) would be officially determined eligible through the formal Section 106 DOE process. Any historic resources currently preliminarily determined eligible for the NRHP determined to not be eligible for the NRHP by the SHPO through the formal Section 106 DOE process would be removed from subsequent Section 4(f) analysis. In the next phases of analysis, additional historic resources may be identified and reviewed for project impacts under Section 106 as well as consistency with Section 4(f).

Ten resources are potentially affected by this alternative; five would be directly affected, three would be indirectly affected, and two would be both directly and indirectly affected. Table 7.4-1 provides a general determination of how the Coburg Road Corridor Enhanced Corridor Alternative would potentially affect the resource, either through property acquisition, impacts on access, or visual effects. No resources are anticipated to be removed to construct the project. No project impacts alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

**Table 7.4-1. Coburg Road Corridor Enhanced Corridor Alternative Potential National Register of Historic Places-Eligible Properties**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
Ferry Street Bridge		1950	EC / ES		
1 Club Road	1703293201000	1964	EC		
11 Coburg	1703293200500	1968	EC		
20 Coburg	1703293200200	1967	EC	T	
West side Coburg Road, Frontier Drive to Bailey Lane		1940-1960	EC (potential district)		S, T
2590 Pioneer Pike	1703291101000	1951	EC		

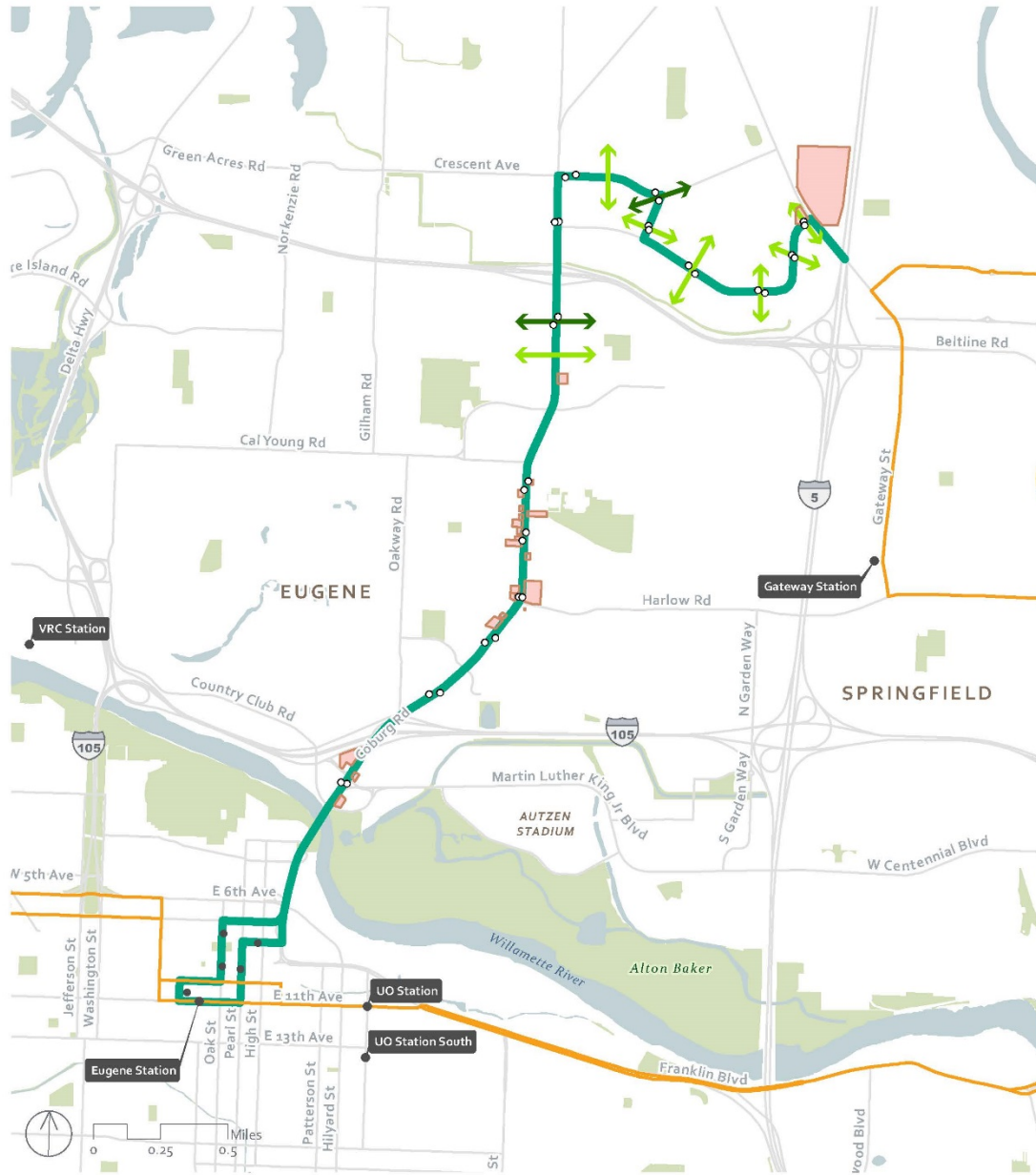


**Table 7.4-1. Coburg Road Corridor Enhanced Corridor Alternative Potential National Register of Historic Places-Eligible Properties**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
2595 Pioneer Pike	1703291100701	1950	EC		
2344 Pioneer Pike	1703204406000	1952	EC		S
780 Coburg	1703204405800	1941	EC		
970 Coburg	1703204400900	1941	EC	S, T	
2692 Tandy Turn	1703204400201	1941	EC	T	S
1008 Coburg	1703204106900	1952	EC		
1030 Coburg	1703204107000	1948	EC		
2690 Forrester	1703204106300	1960	EC		
2691 Forrester	1703204103400	1958	EC		
2693 Sharon Way	1703204101900	1960	EC	T	S
656 Cherry Drive	1703291160007	1941	EC	T	
777 Coburg	1703204404900	1952	EC		S
945 Coburg	1703204401702	1940	EC		
1091 Coburg	1703204106400	1940	EC		
1209 Coburg	1703204101000	1953	EC (no district)	S, T	
1465 Coburg	1703201002900802	1940-1956	EC		
1755 Coburg	1703212206700	1962	EC		
89355 N. Game Farm Road	1703150000900	1928	EC	S, T	

<sup>a</sup> Preliminary evaluation includes: eligible contributing (EC) and eligible significant (ES).  
 S = Enhanced Shelter  
 T = Narrow Partial Property Acquisition

**Figure 7.4-1. Coburg Road Corridor Enhanced Corridor Alternative – Historic Resources**



**Locator Map**



**Legend**

- Coburg Road Corridor
- 2035 No-Build EmX
- Road
- ↔ New Pedestrian Crossing
- ↔ Enhanced Existing Pedestrian Crossing
- Stop/Station Locations
  - Existing Without Improvements
  - Proposed or Existing with Improvements
- Potentially Eligible Historic Property within the APE

**Potentially Eligible Historic Properties within the APE  
Coburg Road Corridor  
Enhanced Corridor Alternative**

*Note: APE = Area of Potential Effects*



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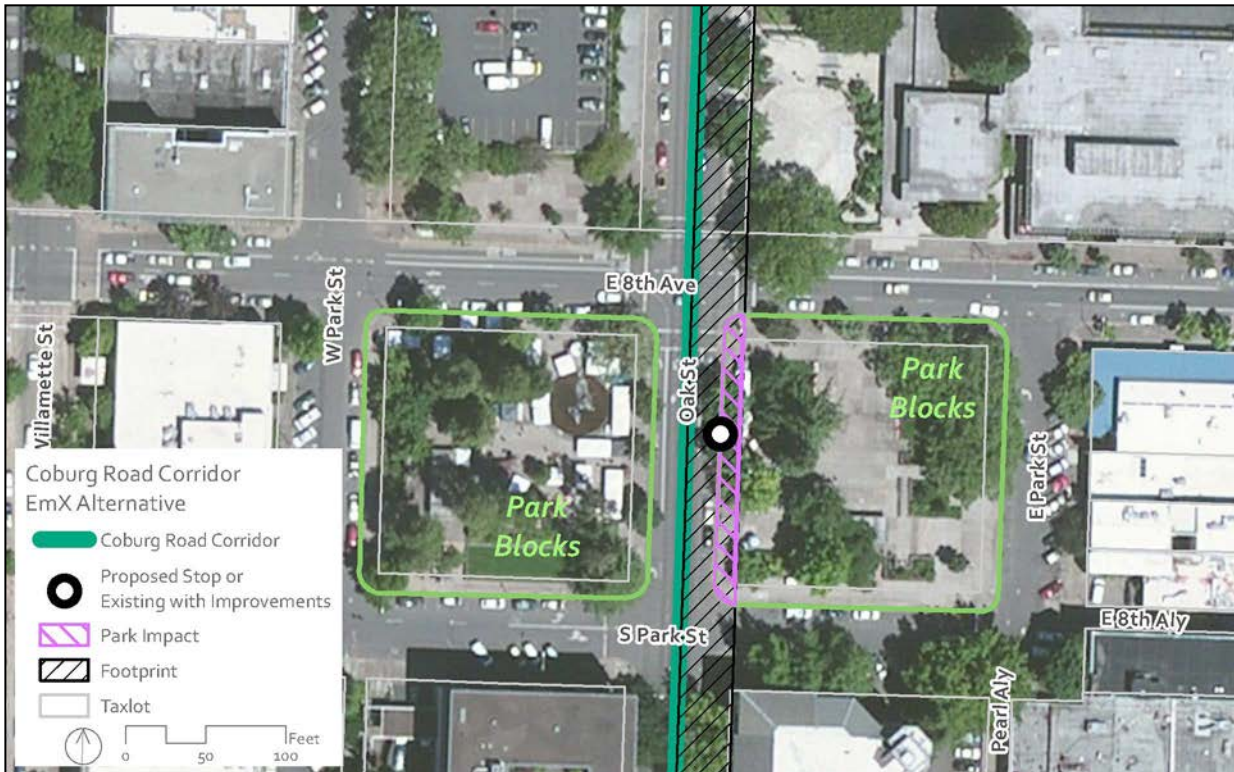
Therefore, no resources are anticipated to be deemed to have an adverse effect from the project. If this alternative was selected as the LPA, LTD would seek a *de minimis* impact determination of “No Adverse Effect” for those 10 resources. Per 23 CFR 774.5 and 774.17, a *de minimis* impact determination is made for a historic resource if FTA makes a determination for a property of “No Adverse Effect” or “No Historic Properties Affected” through consultation under Section 106, and the SHPO concurs with that determination.

## 7.5. Coburg Road Corridor EmX Alternative: Potential Impacts to Park or Recreational Section 4(f) Resources

### 7.5.1. Park Blocks – Description of Potential Impacts

Although this alternative was designed to have the least impact possible on the Park Blocks, the construction of an EmX station along the east side of Oak Street under the Coburg Road Corridor EmX Alternative would necessitate a minor acquisition of land from the Park Blocks plaza (Figure 7.5-1).

**Figure 7.5-1. Coburg Road Corridor EmX Alternative – Park Blocks**



Source: CH2M. (2015).

#### 7.5.1.1. Assessment of Permanent Incorporation

The Coburg Road Corridor EmX Alternative would result in the permanent incorporation of approximately 0.05 acre of parkland from the Park Blocks. That parkland does not contain any recreational features or attributes.

#### **7.5.1.2. Assessment of Temporary Occupancy**

The Coburg Road Corridor EmX Alternative would necessitate the temporary occupancy of land at the Park Blocks to install an EmX station. However, no activities, features, or attributes of the Park Blocks would be permanently impacted by project actions nor would temporary construction actions at the park permanently or temporarily interfere with visitors using the park. The portion of the park to be temporarily occupied during construction would be restored to existing conditions or better.

#### **7.5.1.3. Assessment of Constructive Use**

The Coburg Road Corridor EmX Alternative would not result in substantial impairment to the activities, features, or attributes that qualify the Park Blocks for protection under Section 4(f).

#### **7.5.1.4. Preliminary Determination of Use**

Based on the current conceptual design of the Coburg Road Corridor EmX Alternative and the analysis of potential impacts described in this section, and consistent with the requirements of 23 CFR 774.5(b), this report preliminarily concludes that project actions would not adversely affect the features, attributes, or activities that qualify the Park Blocks for Section 4(f) protection. As such, project actions under the Coburg Road Corridor EmX Alternative would likely result in a Section 4(f) *de minimis* impact to the Park Blocks, consistent with 23 CFR 774.

#### **7.5.2. Skinner Butte Park – Description of Potential Impacts**

The Coburg Road Corridor EmX Alternative is not anticipated to have any direct or indirect impacts to Skinner Butte. The project would not extend outside existing ROW in the vicinity of this resource. This alternative would also not result in temporary impacts, nor would the project's proximity impacts (noise or visual) be so severe as to substantially impair those activities, features, or attributes that qualify the resource for protection under Section 4(f). As such, there would be no Section 4(f) use of Skinner Butte under the Coburg Road Corridor EmX Alternative.

#### **7.5.3. Alton Baker Park – Description of Potential Impacts**

The Coburg Road Corridor EmX Alternative is not anticipated to have any direct or indirect impacts to Alton Baker Park. The project would not extend outside existing ROW in the vicinity of this resource. This alternative would not result in temporary impacts, nor would the project's proximity impacts (noise or visual) be so severe as to substantially impair those activities, features, or attributes that qualify the resource for protection under Section 4(f). As such, there would be no Section 4(f) use of Alton Baker Park under the Coburg Road Corridor EmX Alternative.

### **7.6. Coburg Road Corridor EmX Alternative: Potential Impacts to Historic Section 4(f) Resources**

An assessment of anticipated effects to historic resources in the Coburg Road Corridor from the EmX Alternative (excerpted from the *MovingAhead Cultural Resources Technical Report*) is provided in Table 7.6-1 and illustrated in Figure 7.6-1. For the purpose of conservatively assessing potential impacts, this report assumes historic resources preliminarily deemed eligible for the NRHP in the *MovingAhead Cultural Resources Technical Report* (CH2M and Heritage Research Associates, Inc., 2017) would be officially determined eligible through the formal Section 106 DOE process. Any historic resources currently preliminarily determined eligible for the NRHP determined to not be eligible for the NRHP by

the SHPO through the formal Section 106 DOE process would be removed from subsequent Section 4(f) analysis. In the next phases of analysis, additional historic resources may be identified and reviewed for project impacts under Section 106 as well as consistency with Section 4(f).

Ten resources are potentially affected by this alternative; six would be directly affected, two would be indirectly affected, and two would be both directly and indirectly affected. Table 7.6-1 provides a general determination of how the Coburg Road Corridor EmX Alternative would potentially affect the resource, either through property acquisition, impacts on access, or visual effects. No resources are anticipated to be removed to construct the project. No project impacts alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

Therefore, no resources are anticipated to be deemed to have an adverse effect from the project. If this alternative was selected as the LPA, LTD would seek a *de minimis* impact determination of "No Adverse Effect" for those 10 resources. Per 23 CFR 774.5 and 774.17, a *de minimis* impact determination is made for a historic resource if FTA makes a determination for a property of "No Adverse Effect" or "No Historic Properties Affected" through consultation under Section 106, and the SHPO concurs with that determination.

**Table 7.6-1. Coburg Road Corridor EmX Alternative Potential National Register of Historic Places-Eligible Properties**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
Ferry Street Bridge		1950	EC / ES		
1 Club Road	1703293201000	1964	EC		
11 Coburg	1703293200500	1968	EC		S
20 Coburg	1703293200200	1967	EC	T	S
West side Coburg Road, Frontier Drive to Bailey Lane		1940-1960	EC (potential district)	S, T	S, V
2590 Pioneer Pike	1703291101000	1951	EC		
2595 Pioneer Pike	1703291100701	1950	EC		
2344 Pioneer Pike	1703204406000	1952	EC	S, T	
780 Coburg	1703204405800	1941	EC		S, P
970 Coburg	1703204400900	1941	EC	S, T	
2692 Tandy Turn	1703204400201	1941	EC	S, T	
1008 Coburg	1703204106900	1952	EC		
1030 Coburg	1703204107000	1948	EC		
2690 Forrester	1703204106300	1960	EC		

**Table 7.6-1. Coburg Road Corridor EmX Alternative Potential National Register of Historic Places-Eligible Properties**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
2691 Forrester	1703204103400	1958	EC		
2693 Sharon Way	1703204101900	1960	EC		
656 Cherry Drive	1703291160007	1941	EC	S	
777 Coburg	1703204404900	1952	EC	S	
945 Coburg	1703204401702	1940	EC?		
1091 Coburg	1703204106400	1940	EC		
1209 Coburg	1703204101000	1953	EC (no district)		
1465 Coburg	1703201002900802	1940-1956	EC		
1755 Coburg	1703212206700	1962	EC		
89355 N. Game Farm Road	1703150000900	1928	EC	S, T	

<sup>a</sup> Preliminary evaluation includes: eligible contributing (EC) and eligible significant (ES)

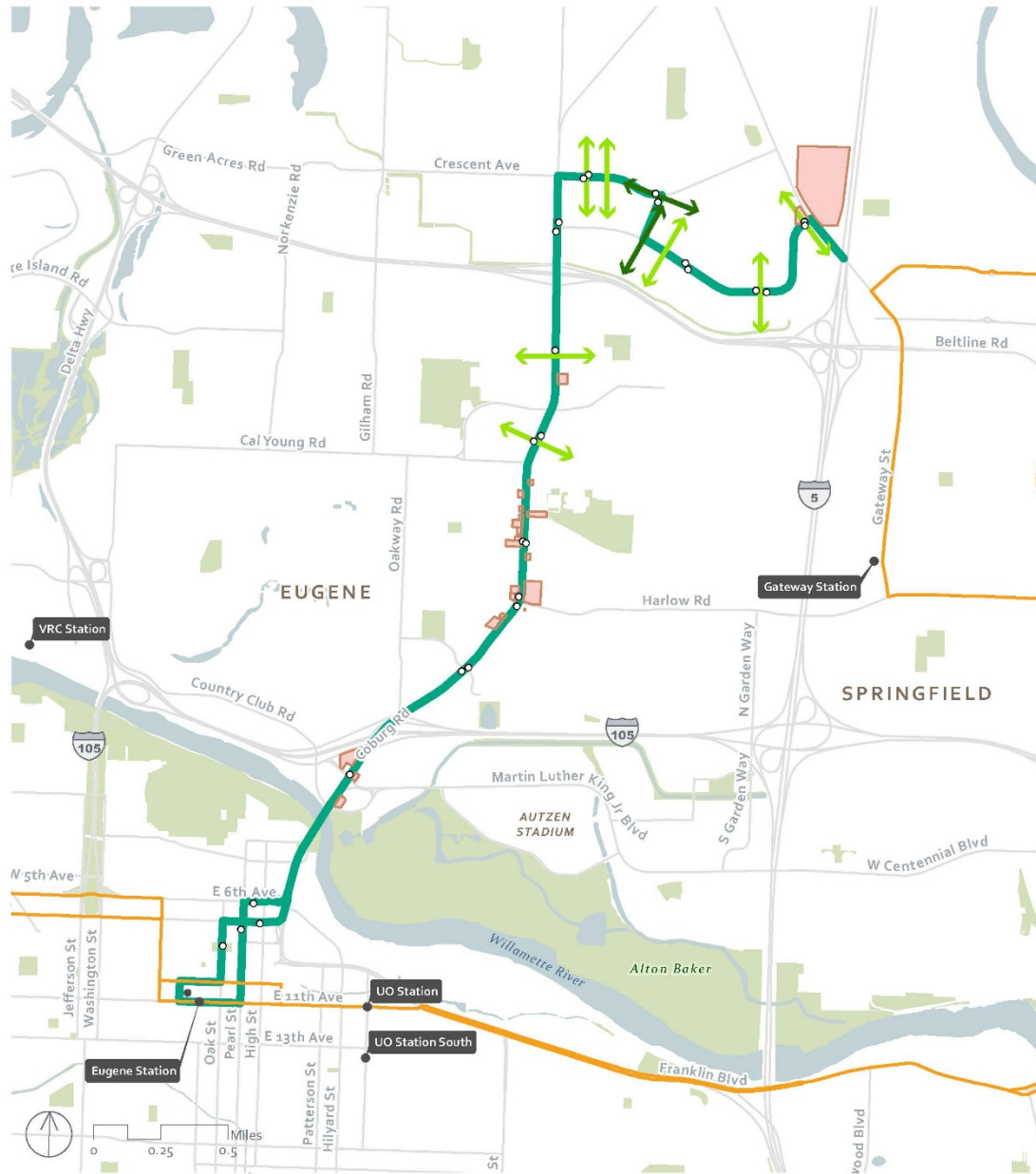
P = Planting Strip (effect from improvements adjacent to tax lot)

S = EmX Station

T = Narrow Partial Property Acquisition

V = Visual Effect (other than station)

**Figure 7.6-1. Coburg Road Corridor EmX Alternative – Historic Resources**



**Locator Map**



**Legend**

- Coburg Road Corridor
- 2035 No-Build EmX
- Road
- ↔ New Pedestrian Crossing
- ↔ Enhanced Existing Pedestrian Crossing
- Stop/Station Locations
- Existing Without Improvements
- Proposed or Existing with Improvements
- Potentially Eligible Historic Property within the APE

**Potentially Eligible Historic Properties within the APE Coburg Road Corridor EmX Alternative**

*Note: APE = Area of Potential Effects*



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## 8. Martin Luther King, Jr. Boulevard Corridor Section 4(f) Evaluation

### 8.1. Martin Luther King, Jr. Boulevard Corridor Affected Environment: Section 4(f) Parks and Recreation Resources

Table 8.1-1 lists Section 4(f) parks and recreation resources within the Martin Luther King, Jr. Boulevard Corridor Section 4(f) analysis area. Figure 8.1-1 depicts the resource locations.

**Table 8.1-1. Martin Luther King, Jr. Boulevard Corridor Section 4(f) Analysis Area Section 4(f) Parks and Recreation Resources**

Resource Name	Location	Official with Jurisdiction	Section 4(f) Qualifying Description
Park Blocks	Between 8th Avenue and Park Street, Eugene	City of Eugene	Municipal park (urban plaza, benches)
Skinner Butte Park	248 Cheshire Avenue, Eugene	City of Eugene	Municipal park (ballfields, fishing, trails, picnic tables, playground, informal sports / play fields, rock climbing, spray pad)
Alton Baker Park	200 Day Island Road, Eugene	City of Eugene	Municipal park (BMX track, disc golf, boat launch, fishing, trails, picnic tables, informal sports / play fields)

#### 8.1.1. Park Blocks

Park Blocks is described in Section 7.1.1.

#### 8.1.2. Skinner Butte Park

Skinner Butte Park is described in Section 7.1.2.

#### 8.1.3. Alton Baker Park

Alton Baker Park is described in Section 7.1.3.

### 8.2. Martin Luther King, Jr. Boulevard Corridor Affected Environment: Historic Resources

A review of the SHPO and NRHP databases for listed properties along the Martin Luther King, Jr. Boulevard Corridor, as well as a windshield survey conducted by project cultural resource specialists, indicated:

- No historic resources formally listed in the NRHP were identified within the Martin Luther King, Jr. Boulevard Corridor.



**Figure 8.1-1. Martin Luther King, Jr. Boulevard Corridor Parks and Recreation Resources**



- Four resources were identified as potentially eligible for the NRHP (two resources are listed in the SHPO database, two were identified during the windshield survey).

Potentially historic resources in the Martin Luther King, Jr. Boulevard Corridor are discussed in Section 8.4.

### **8.3. Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative: Potential Impacts to Park and Recreational Section 4(f) Resources**

#### **8.3.1. Park Blocks – Description of Potential Impacts**

The Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative is not anticipated to have any direct or indirect impacts to the Park Blocks. The project would not extend outside existing ROW in the vicinity of this resource. This alternative would not result in temporary impacts, nor would the project's proximity impacts (noise or visual) be so severe as to substantially impair those activities, features, or attributes that qualify the resource for protection under Section 4(f). As such, there would be no Section 4(f) use of the Park Blocks under the Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative.

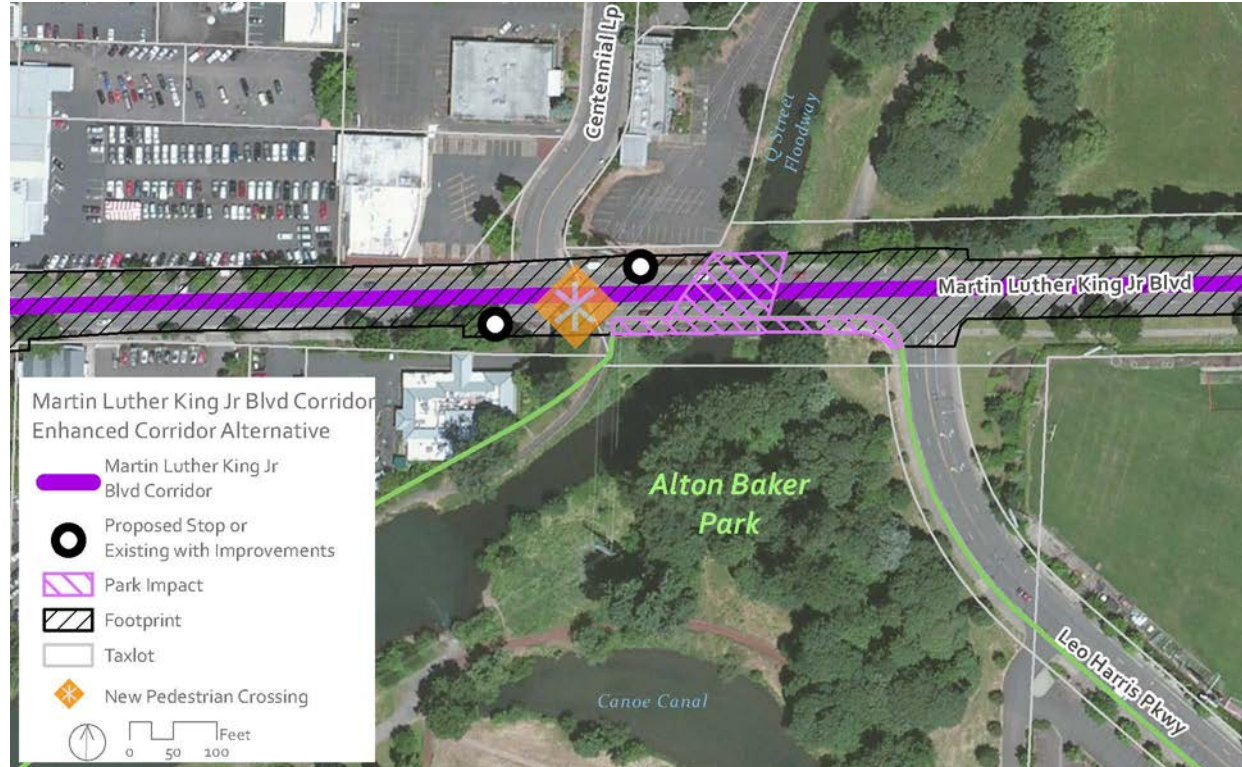
#### **8.3.2. Skinner Butte Park – Description of Potential Impacts**

The Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative is not anticipated to have any direct or indirect impacts to Skinner Butte. The project would not extend outside existing ROW in the vicinity of this resource. This alternative would not result in temporary impacts, nor would the project's proximity impacts (noise or visual) be so severe as to substantially impair those activities, features, or attributes that qualify the resource for protection under Section 4(f). As such, there would be no Section 4(f) use of Skinner Butte under the Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative.

#### **8.3.3. Alton Baker Park – Description of Potential Impacts**

The Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative is not anticipated to have any adverse impacts to Alton Baker Park because the existing road width near the park would be maintained. However, minor property acquisitions would occur along Martin Luther King, Jr. Boulevard to accommodate capital improvements. Construction of the BAT lane and the new signal at Martin Luther King, Jr. Boulevard and Leo Harris Parkway could affect 0.13 acre of the Alton Baker Park property (Figure 8.3-1) The area of impact would not affect the continued viability, integrity, usage, or value of the park, nor would it degrade the recreational experience.

**Figure 8.3-1. Martin Luther King, Jr. Blvd. Enhanced Corridor Alternative – Alton Baker Park**



### 8.3.3.1. Assessment of Permanent Incorporation

The Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative would result in the permanent incorporation of approximately 0.13 acre of parkland from Alton Baker Park. That parkland does not contain any recreational features or attributes.

### 8.3.3.2. Assessment of Temporary Occupancy

The Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative would necessitate the temporary occupancy of land at Alton Baker Park to install a BAT lane. However, no activities, features, or attributes of Alton Baker Park would be permanently impacted by project actions nor would temporary construction actions at the park permanently or temporarily interfere with visitors using the park. The portion of the park to be temporarily occupied during construction would be restored to existing conditions or better.

### 8.3.3.3. Assessment of Constructive Use

The Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative would not result in substantial impairment to the activities, features, or attributes that qualify Alton Baker Park for protection under Section 4(f).

### 8.3.3.4. Preliminary Determination of Use

Based on the current conceptual design of the Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor and the analysis of potential impacts described in this section, and consistent with the requirements of 23 CFR 774.5(b), this report preliminarily concludes that project actions would not adversely affect the features, attributes, or activities that qualify Alton Baker Park for Section 4(f) protection. As such, project actions under the Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative would likely result in a Section 4(f) *de minimis* impact to Alton Baker Park, consistent with 23 CFR 774.

### 8.4. Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative: Potential Impacts to Historic Section 4(f) Resources

An assessment of anticipated effects to historic resources in the Martin Luther King, Jr. Boulevard Corridor from the Enhanced Corridor Alternative (excerpted from the *MovingAhead Cultural Resources Technical Report*) is provided in Table 8.4-1 and illustrated in Figure 8.4-1. For the purpose of conservatively assessing potential impacts, this report assumes all historic resources preliminarily deemed eligible for the NRHP in the *MovingAhead Cultural Resources Technical Report* (CH2M and Heritage Research Associates, Inc., 2017) would be officially determined eligible through the formal Section 106 DOE process. Any historic resources currently preliminarily determined eligible for the NRHP determined to not be eligible for the NRHP by the SHPO through the formal Section 106 DOE process would be removed from subsequent Section 4(f) analysis. In the next phases of analysis, additional historic resources may be identified and reviewed for project impacts under Section 106 as well as consistency with Section 4(f).

**Table 8.4-1. Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative Inventory of Identified Historic Resources and Anticipated Effects**

Address	Tax Lot	Date	Preliminary Evaluation <sup>a</sup>	Long-term Direct	Long-term Indirect / Cumulative
Ferry Street Bridge		1950	EC / ES		
11 Coburg	1703293200500	1968	EC		
415 Lindley Lane	1703331200100	1937	EC		
3395 Regent	1703332100304	1966	EC		

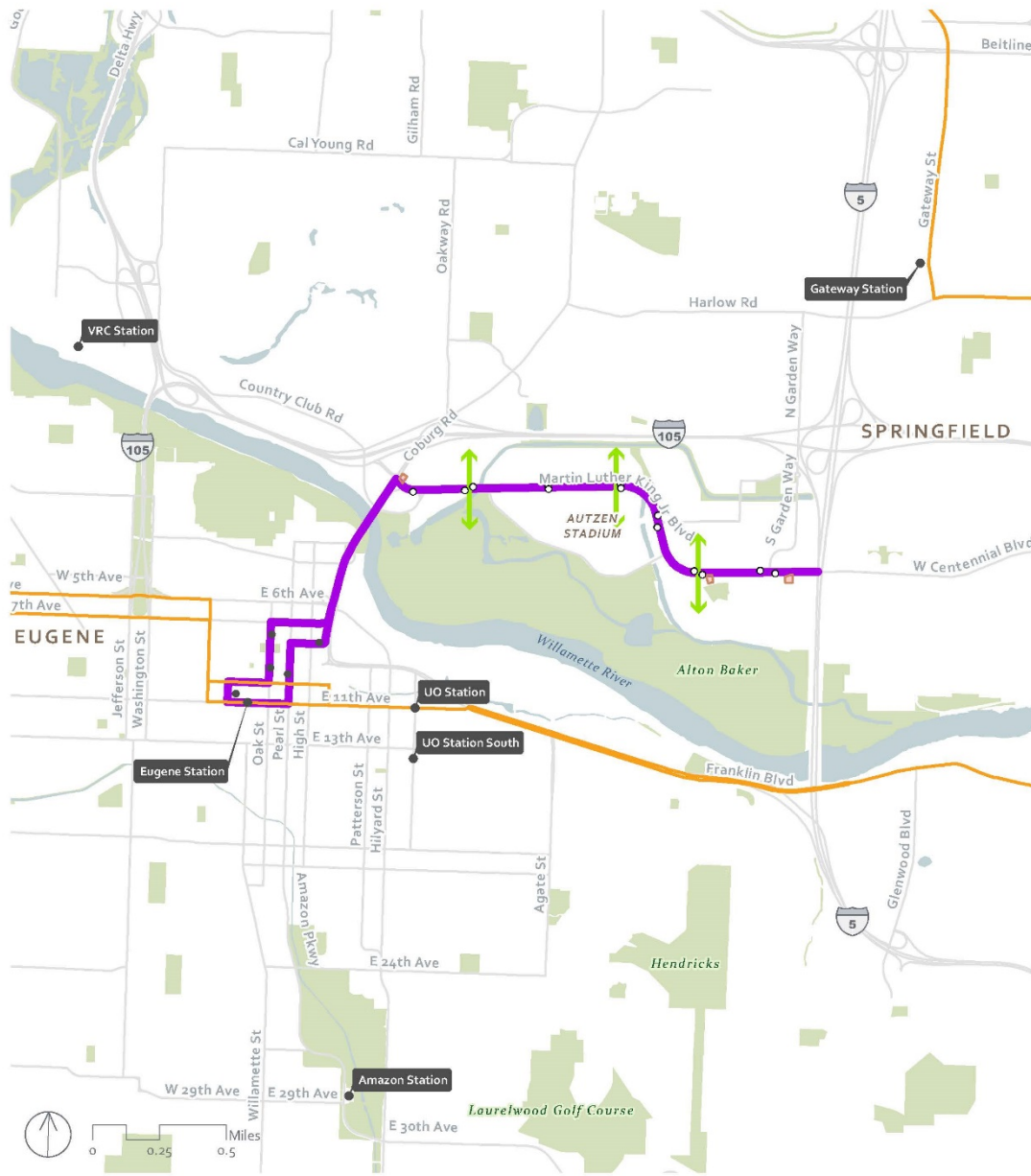
<sup>a</sup> Preliminary evaluation includes: eligible contributing (EC) and eligible significant (ES).

No resources are potentially directly or indirectly affected by this alternative. Table 8.4-1 provides a general determination of how the Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative would potentially affect the resource, either through property acquisition, impacts on access, or visual effects. No resources are anticipated to be removed to construct the project. No project impacts alter, directly or indirectly, any characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

Therefore, no resources are anticipated to be deemed to have an adverse effect from the project. If this alternative was selected as the LPA, LTD would seek a *de minimis* impact determination of "No Adverse Effect" for those 4 resources. Per 23 CFR 774.5 and 774.17, a *de minimis* impact determination is made



**Figure 8.4-1. Martin Luther King, Jr. Blvd Corridor Enhanced Corridor Alternative – Historic Resources**



**Locator Map**



**Legend**

- Martin Luther King Jr Blvd Corridor
- 2035 No-Build EmX
- Road
- ↕ New Pedestrian Crossing
- ↔ Enhanced Existing Pedestrian Crossing
- Stop/Station Locations
- Existing Without Improvements
- Proposed or Existing with Improvements
- Potentially Eligible Historic Property within the APE

Potentially Eligible Historic Properties within the APE  
**Martin Luther King Jr Corridor Enhanced Corridor Alternative**

*Note: APE = Area of Potential Effects*



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for a historic resource if FTA makes a determination for a property of “No Adverse Effect” or “No Historic Properties Affected” through consultation under Section 106, and the SHPO concurs with that determination. Therefore, no resources are anticipated to be deemed to have an adverse effect from the project and no further action would be required of LTD regarding Section 4(f) Historic resources.



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## Appendix A: Glossary and Naming Conventions

This appendix includes a detailed list of acronyms, abbreviations and technical terms used throughout this report. It also includes naming conventions used in the MovingAhead Project.

**Table A-1 Acronyms and Abbreviations**

Acronyms and Abbreviations	Definitions
/H-RCP	Historic Structures or Sites Combine Zone
/WP	Waterside Protection
/WQ	Water Quality
°C	degree(s) Celsius
µg/L	microgram(s) per liter
µg/m <sup>3</sup>	microgram(s) per cubic meter
AA	Alternatives Analysis
AAC	all aluminum conductor
AASHTO	American Association of State Highway and Transportation Officials
AAI	All Appropriate Inquiry
ACS	American Community Survey
ADA	Americans with Disabilities Act
AEO	Annual Energy Outlook
APE	Area of Potential Effect
API	Area of Potential Impact
approx.	approximately
ARTS	All Roads Transportation Safety Program
ATR	Automated Traffic Recording
BAT	business access and transit
BEST	Better Eugene Springfield Transit
BFE	Base Flood Elevation
BMP	best management practice
BPA	Bonneville Power Administration
BRT	bus rapid transit
Btu	British thermal unit
c	Circa
CAA	Clean Air Act
CAFE	Corporate Average Fuel Economy
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CERCLIS	Comprehensive Environmental Response Compensation and Liability Information System

Acronyms and Abbreviations	Definitions
CFR	Code of Federal Regulations
CFU	Colony-Forming Unit
CH2M	CH2M HILL, Inc.
CIG	Capital Investment Grant
CIP	Capital Improvements Program
City	City of Eugene
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
COGP	County Opportunity Grant Program
Corps	U.S. Army Corps of Engineers
CRL	Confirmed Release List
CSZ	Cascadia Subduction Zone
CTR	commute trip reduction
CWA	Clean Water Act
CY	cubic yard
dB	Decibel
dBA	A-weighted decibel
DBE	Disadvantaged Business Enterprise
DEIS	Draft Environmental Impact Statement. Also referred to as Draft EIS.
DEQ	Oregon Department of Environmental Quality
DKS	DKS Associates
DLS	Donation Land Claim
DOE	Determination of Eligibility
DOGAMI	Oregon Department of Geology and Mineral Industries
DOT	Department of Transportation
Draft EIS	Draft Environmental Impact Statement. Also referred to as DEIS.
Draft Envision Eugene	<i>Draft Envision Eugene Community Vision</i> (Envision Eugene, 2016, July)
Draft Eugene 2035 TSP	<i>DRAFT Eugene 2035 Transportation System Plan</i> (City of Eugene, 2016)
DSL	Oregon Department of State Lands
DU	dwelling unit
EA	Environmental Assessment or each
EC	City of Eugene Code
EC	eligible contributing
EC	Enhanced Corridor Alternative (in some tables)
ECLA	<i>Eugene Comprehensive Lands Assessment</i> (ECONorthwest, 2010, June)
ECSI	Environmental Cleanup Site Information database (Oregon DEQ, 2016)
EFH	essential fish habitat

Acronyms and Abbreviations	Definitions
EIS	Environmental Impact Statement
EJ	Environmental Justice
EmX	Emerald Express, Lane Transit District’s Bus Rapid Transit System
EmX	EmX Alternative (in some tables)
EOA	Equity and Opportunity Assessment
EPA	U. S. Environmental Protection Agency
ES	eligible significant
ES NR	eligible significant NRHP
ESA	Endangered Species Act or Environmental Site Assessment
ESH	essential indigenous anadromous salmonid habitat
ESU	Evolutionarily Significant Unit
EWEB	Eugene Water & Electric Board
FAST Act	Fixing America’s Surface Transportation Act
FEIS	Final Environmental Impact Statement. Also referred to as Final EIS.
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act of 1974
Final EIS	Final Environmental Impact Statement. Also referred to as FEIS.
FOE	Finding of Effect
FPPA	Farmland Protection Policy Act, 7 U.S.C. 4201-4209 and 7 CFR 658
FRA	Federal Railroad Administration
ft	foot (feet)
ft <sup>2</sup>	square foot (feet)
FTA	Federal Transit Administration
FTN	Frequent Transit Network
FY	fiscal year
GAN	Grant Anticipation Note
GARVEE	Grant Anticipation Revenue Vehicle
GHG	greenhouse gas
GIS	geographic information system
GLO	General Land Office
HGM	Hydro-geomorphic
HMTA	Hazardous Materials Transport Act of 1975, with amendments in 1990 and 1994
HOV	high-occupancy vehicle
HPNW	Historic Preservation Northwest
I-5	Interstate 5
I-105	Interstate 105
IOF	Immediate Opportunity Fund



Acronyms and Abbreviations	Definitions
ISA	International Society of Arboriculture
ISTEA	Intermodal Surface Transportation Efficiency Act
kV	kilovolt(s)
LaneACT	Lane Area Commission on Transportation
LCC	Lane Community College
LCDC	Land Conservation and Development Commission
LCOG	Lane Council of Governments
Ldn	day-night sound level
LE	Listed Endangered
LEP	limited English proficiency
$L_{eq}$	equivalent sound level
LF	lineal foot (feet)
LGAC	Local Government Affairs Council
LGGP	Local Government Grant Program
LID	Local Improvement District
$L_{max}$	maximum sound level
$L_{min}$	minimum sound level
LNG	liquefied natural gas
LOS	level of service
LPA	Locally Preferred Alternative
LRAPA	Lane Regional Air Protection Agency
LRFP	LTD's Long-Range Financial Plan
LRT	Light Rail Transit
LRTP	LTD's Long-Range Transit Plan
LT	Listed Threatened
LTD	Lane Transit District
LUST	leaking underground storage tank
LWCF	Land and Water Conservation Fund
m	meter(s)
MAP-21	Moving Ahead for Progress in the 21st Century
MBTA	Migratory Bird Treaty Act
Metro Plan	<i>Metro Plan, Eugene-Springfield Metropolitan Area General Plan</i> (LCOG et al., 1987, as updated on 2015, December 31)
mg/kg	milligram(s) per kilogram
MI	mile(s)
mL	milliliter(s)
MMA	Michael Minor and Associates, Inc.
MOA	Memorandum of Agreement

Acronyms and Abbreviations	Definitions
MOE	Measure of Effectiveness
MPC	Metropolitan Policy Committee
mpg	miles per gallon
mph	miles per hour
MPO	Metropolitan Planning Organization
MTIP	<i>Metropolitan Transportation Improvement Program Federal FY 2015 to Federal FY 2018 (Central Lane MPO, adopted 2014, October, as amended)</i>
Mw	Earthquake moment magnitude
N/A	not applicable
NA	not applicable; no data available
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NAVD88	North American Vertical Datum of 1988
ND	nodal development
NEPA	National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321-4347
NFA	no further action
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO <sub>2</sub>	nitrous dioxide
NO <sub>x</sub>	nitrous oxides
NPDES	National Pollutant Discharge Elimination System
NPMS	National Pipeline Mapping System
NPS	Department of Interior's National Park Service
NR	Natural Resource
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NS	no standard established
NW Natural	Northwest Natural
O <sub>3</sub>	ozone
O&M	operations and maintenance
OAR	Oregon Administrative Rule
OARRA	Oregon Archaeological Records Remote Access
ODA	Oregon Department of Agriculture
ODEQ	Oregon Department of Environmental Quality
ODFW	Oregon Department of Fish and Wildlife
ODOE	Oregon Department of Energy
ODOT	Oregon Department of Transportation
OHP	Oregon Highway Plan

Acronyms and Abbreviations	Definitions
OPA	Oil Pollution Act of 1990
OPRD	Oregon Parks and Recreation Department
OR	Oregon
ORBIC	Oregon Biodiversity Information Center
ORS	Oregon Revised Statutes
OTIB	Oregon Transportation Infrastructure Bank
Pb	lead
PCB	polychlorinated biphenyl
PEM	Palustrine Emergent Wetland
PM	particulate matter
PM <sub>10</sub>	particulate matter – 10 microns in diameter
PM <sub>2.5</sub>	particulate matter – 2.5 microns in diameter
PMT	Project Management Team
ppb	parts per billion
PPE	personal protective equipment
ppm	parts per million
PROS	Parks, Recreation, and Open Space
PUC	Public Utilities Commission
Qls	landslide and debris avalanche deposits
Qtg	terrace and fan deposits
Qty	quantity
RCRA	Resource Conservation and Recovery Act of 1976
RFFA	reasonably foreseeable future action
ROW	right of way
RRFB	Rectangular Rapid Flash Beacon
RTP	<i>Central Lane Metropolitan Planning Organization Regional Transportation Plan</i> (LCOG, adopted 2007, November; 2011, December). (The RTP includes the Financially Constrained Roadway Projects List)
SARA	Superfund Amendments and Reauthorization Act of 1986
SARA III	Emergency Planning and Community Right to Know Act of 1986; part of the SARA amendments
SC	sensitive critical
SCC	Standard Cost Categories
SCORP	Statewide Comprehensive Outdoor Recreation Plan
SDC	Systems Development Charge
SDWA	Safe Drinking Water Act
sec	second(s)
Section 4(f)	Section 4(f) of the Department of Transportation Act of 1966

Acronyms and Abbreviations	Definitions
Section 6(f)	Section 6(f) of the LWCF Act of 1965
Section 106	Section 106 of the National Historic Preservation Act of 1966 (36 CFR 800.5)
SF	square foot (feet)
SHPO	Oregon State Historic Preservation Office
SIP	State Implementation Plan
SMU	Species Management Unit
SO <sub>2</sub>	sulfur dioxide
SOC	species of concern
SSGA	Small Starts Construction Grant Agreement
STA	Special Transportation Area
STIP	Statewide Transportation Improvement Program
SV	Sensitive Vulnerable
SY	square yard(s)
TAP	Transportation Alternatives Program
TAZ	transportation analysis zone
TCE	Temporary Construction Easement
TD	transit-oriented development
TDM	Transportation Demand Management
TEA-21	Transportation Equity Act for the 21st Century
Teoe	siliciclastic marine sedimentary rocks
TESCP	Temporary Erosion and Sediment Control Plan
TIF	Tax Increment Financing
TIP	Transportation Improvement Program
TMDL	total maximum daily load
TOD	transit-oriented development
TPAU	Department of Transportation – Transportation Planning Analysis Unit
TPR	Transportation Planning Rule
TransPlan	<i>Eugene-Springfield Transportation System Plan</i> (City of Eugene et al., adopted 2002, July)
TRB	Transportation Research Board
TSI	Transportation System Improvement
TSM	Transportation System Management
TSP	Transportation System Plan
UGB	Urban Growth Boundary
UMTA	Urban Mass Transit Administration
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, 42 U.S.C. 4601 et. seq., 49 CFR Part 24
URA	Urban Renewal Area

<b>Acronyms and Abbreviations</b>	<b>Definitions</b>
U.S.C.	United States Code
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank
v/c	volume-to-capacity
VHT	vehicle hours traveled
VMT	vehicle miles traveled
VOC	volatile organic compound
WEEE	West Eugene EmX Extension
WEG	wind erodibility group
YOE	year of expenditure

**Table A-2 Terms**

<b>Terms</b>	<b>Definitions</b>
Accessibility	The extent to which facilities are barrier-free and useable for all persons with or without disabilities.
Action	An “action,” a federal term, is the construction or reconstruction, including associated activities, of a transportation facility. For the purposes of this Handbook, the terms “project,” “proposal,” and “action” are used interchangeably unless otherwise specified. An action may be categorized as a “categorical exclusion” or a “major federal action.”
Agricultural / Forest / Natural Resource	AG, EFU-25, EFU-30, EFU-40, F-1, F-2, and NR
Alignment	Alignment is the street or corridor that the transit project would be located within.
Alternative Fuels	Low-polluting fuels which are used to propel a vehicle instead of high-sulfur diesel or gasoline. Examples include methanol, ethanol, propane or compressed natural gas, liquid natural gas, low-sulfur or "clean" diesel and electricity.
Alternatives Analysis (AA)	The process of evaluating the costs, benefits, and impacts of a range of transportation alternatives designed to address mobility problems and other locally-defined objectives in a defined transportation corridor, and for determining which particular investment strategy should be advanced for more focused study and development. The Alternatives Analysis (AA) process provides a foundation for effective decision making.
Area of Potential Effect	A term used in Section 106 to describe the area in which historic resources may be affected by a federal undertaking.
Area of Potential Impact	An assessment’s Area of Potential Impact for the project is defined separately for each discipline.

<b>Terms</b>	<b>Definitions</b>
Auxiliary Lanes	Lanes designed to improve safety and reduce congestion by accommodating cars and trucks entering or exiting the highway or roadway, and reducing conflicting weaving and merging movements.
Base Fare	The price charged to one adult for one transit ride; excludes transfer charges, and reduced fares.
Base Period	The period between the morning and evening peak periods when transit service is generally scheduled on a constant interval. Also known as "off-peak period."
Boarding	Boarding is a term used in transit to account for passengers of public transit systems. One person getting on a transit vehicle equals one boarding. In many cases, individuals will have to transfer to an additional transit vehicle to reach their destination and may well use transit for the return trip. Therefore, a single rider may account for several transit boardings in one day.
Bus Rapid Transit (BRT)	A transit mode that combines the quality of rail transit and the flexibility of buses. It can operate on bus lanes, high-occupancy vehicle (HOV) lanes, expressways, or ordinary streets. The vehicles are designed to allow rapid passenger loading and unloading, with more doors than ordinary buses.
Business Access and Transit (BAT) Lane	In general, a BAT lane is a concrete lane, separated from general-purpose lanes by a paint stripe and signage. A BAT lane provides Bus Rapid Transit (BRT) priority operations, but general-purpose traffic is allowed to travel within the lane to make a turn into or out of a driveway or at an intersecting street. However, only the BRT vehicle is allowed to use the lane to cross an intersecting street.
Busway	Exclusive freeway lane for buses and carpools.
Capital Improvements Program (CIP)	A CIP is a short-range plan, usually 4 to 10 years, which identifies capital projects and equipment purchases, provides a planning schedule, and identifies options for funding projects in the program.
Categorical Exclusion (CE)	A CE means a category of actions that do not individually or cumulatively have a significant effect on the human environment and for which, therefore, neither an environmental assessment nor an environmental impact statement is required.
Chambers Special Area Zone	S-C
Charter Tree	A tree defined by the Eugene Charter (City of Eugene, 2002, updated 2008) as "... (a living, standing, woody plant having a trunk 25 inches in circumference at a point 4-½ feet above mean ground level at the base of the trunk) of at least fifty years of age within publicly owned rights of way for streets, roads, freeways, throughways, and thoroughfares and within those portions of the city which were in the incorporated boundaries of the city as of January 1, 1915, shall be designated historic street trees and recognized as objects of high historic value and significance in the history of the city and deserving of maintenance and protection." These trees have special historic importance to the City and require special processes be followed if their removal is proposed, including a public vote on the project proposing the removal.
Charter Tree Boundary	Defined by the Eugene Charter (City of Eugene, 2002, updated 2008) as "...those portions of the city which were in the incorporated boundaries of the city as of January 1, 1915." Trees within this boundary may, if they meet certain criteria, be granted the special title and protective status of a Charter Tree, defined above.



<b>Terms</b>	<b>Definitions</b>
City of Eugene Zoning Classifications	Industrial (I-2 and I-3), Commercial (C-3), Mixed-Use (C-1, C-2, GO, S-C, S-CN, S-DR, S-DW, S-E, S-F, S-HB, S-JW, S-RN, S-W, and S-WS), Single-Family Residential (R-1), Multi-Family Residential (R-2 and R-3), Institution (PL and PRO), Agricultural / Forest / Natural Resource (AG, EFU-25, EFU-30, EFU-40, F-1, F-2, and NR), Office (E-1 and E-2), Special Area Zone (Non-Mixed Use) (S-H and S-RP), Downtown Westside Special Area Zone (S-DW), Chambers Special Area Zone (S-C)
Clean Air Act Amendments of 1990	The comprehensive federal legislation that establishes criteria for attaining and maintaining the federal standards for allowable concentrations and exposure limits for various air pollutants; the act also provides emission standards for specific vehicles and fuels.
Collector Streets	Collector streets provide a balance of both access and circulation within and between residential and commercial/industrial areas. Collectors differ from arterials in that they provide more of a citywide circulation function, do not require as extensive control of access, and are located in residential neighborhoods, distributing trips from the neighborhood and local street system.
Commercial	C-3
Commuter Rail	Commuter rail is a transit mode that is a multiple car electric or diesel propelled train. It is typically used for local, longer-distance travel between a central city and adjacent suburbs, and can operate alongside existing freight or passenger rail lines or in exclusive rights of way.
Compressed Natural Gas (CNG)	An alternative fuel; compressed natural gas stored under high pressure. CNG vapor is lighter than air.
Conformity	The ongoing process that ensures the planning for highway and transit systems, as a whole and over the long term, is consistent with the state air quality plans for attaining and maintaining health-based air quality standards; conformity is determined by metropolitan planning organizations (MPOs) and the U.S. Department of Transportation (U.S. DOT), and is based on whether transportation plans and programs meet the provisions of a State Implementation Plan.
Congestion Mitigation and Air Quality (CMAQ)	Federal funds available for either transit or highway projects that contribute significantly to reducing automobile emissions, which cause air pollution.
Cooperating Agency	Regulations that implement the National Environmental Policy Act define a cooperating agency as any federal agency, other than a lead agency, which has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal (or a reasonable alternative) for legislation or other major federal action significantly affecting the quality of the human environment.
Coordination Plan	Required under Moving Ahead for Progress in the 21st Century (MAP-21), the coordination plan contains procedures aimed at achieving consensus among all parties in the initial phase of environmental review and to pre-empt disagreements that can create delays later on in a project.
Corridor	A broad geographical band that follows a general directional flow connecting major sources of trips that may contain a number of streets, highways, and transit route alignments.
Demand Responsive	Non-fixed-route service utilizing vans or buses with passengers boarding and alighting at pre-arranged times at any location within the system's service area. Also called "Dial-a-Ride."

<b>Terms</b>	<b>Definitions</b>
Diesel Multiple Unit (DMU)	Each unit carries passengers and can be self-powered by a diesel motor; no engine unit is required.
Documented Categorical Exclusion (DCE)	<p>A DCE means a group of actions that may also qualify as Categorical Exclusions (CEs) if it can be demonstrated that the context in which the action is taken warrants a CE exclusion; i.e., that no significant environmental impact will occur. Thus, these actions are referred to as DCEs. Such actions require some National Environmental Policy Act documentation, but not an Environmental Assessment or a full-scale Environmental Impact Statement.</p> <p>DCEs documentation must demonstrate that, in the context(s) in which these actions are to be performed, they will have no significant environmental impact or that such impacts will be mitigated.</p>
Downtown Westside Special Area Zone	S-DW
Draft Environmental Impact Statement (DEIS)	The DEIS is the document that details the results of the detailed analysis of all of the projects alternatives. The DEIS contains all information learned about the impacts of a project and alternatives.
Earmark	A federal budgetary term that refers to the specific designation by Congress that part of a more general lump-sum appropriation be used for a particular project; the earmark can be designated as a minimum and/or maximum dollar amount.
Effects	Effects include ecological, aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions that may have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial. Effects include: (1) direct effects that are caused by the action and occur at the same time and place, and (2) indirect effects that are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use; population density or growth rate; and related effects on air and water and other natural systems, including ecosystems (40 CFR 1508.8).
Electrical Multiple Unit (EMU)	The EMU is heavier than a light rail vehicle, but it is powered in the same way by an overhead electrical system.
EmX	Lane Transit District’s Bus Rapid Transit System, pronounced “MX,” short for Emerald Express.
Environmental Assessment (EA)	A report subject to the requirements of the National Environmental Policy Act (NEPA) demonstrating that an Environmental Impact Statement (EIS) is not needed for a specific set of actions. The EA can lead to a Finding of No Significant Impact (FONSI).
Environmental Impact Statement (EIS)	A comprehensive study of likely environmental impacts resulting from major federally-assisted projects; EISs are required by the National Environmental Policy Act.

Terms	Definitions
Environmental Justice	<p>A formal federal policy on environmental justice was established in February 1994 with Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations." There are three fundamental environmental justice principles:</p> <ul style="list-style-type: none"> <li>• To 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.</li> <li>• To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.</li> <li>• To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.</li> </ul>
Envision Eugene	<p>The City of Eugene's Comprehensive Plan (latest draft or as adopted). Envision Eugene includes a determination of the best way to accommodate the community's projected needs over the next 20 years.</p>
Evaluation Criteria	<p>Evaluation criteria are the factors used to determine how well each of the proposed multimodal alternatives would meet the project's Goals and Objectives. The Evaluation Criteria require a mix of quantitative data and qualitative assessment. The resulting data are used to measure the effectiveness of proposed multimodal alternatives and to assist in comparing and contrasting each of the alternatives to select a preferred alternative.</p>
Exclusive Right of Way	<p>A roadway or other facility that can only be used by buses or other transit vehicles.</p>
Fatal Flaw Screening	<p>The purpose of a Fatal Flaw Screening is to identify alternatives that will not work for one reason or another (e.g., environmental, economic, community). By using a Fatal Flaw Screening process to eliminate alternatives that are not likely to be viable, a project can avoid wasting time or money studying options that are not viable and focus on alternatives and solutions that have the greatest probability of meeting the community's needs (e.g., environmentally acceptable, economically efficient, implementable).</p>
Finding of No Significant Impact (FONSI)	<p>A document prepared by a federal agency showing why a proposed action would not have a significant impact on the environment and thus would not require preparation of an Environmental Impact Statement (EIS). A FONSI is based on the results of an Environmental Assessment (EA).</p>
Fixed Guideway System	<p>A system of vehicles that can operate only on its own guideway constructed for that purpose (e.g., rapid rail, light rail). Federal usage in funding legislation also includes exclusive right of way bus operations, trolley coaches, and ferryboats as "fixed guideway" transit.</p>
Fixed Route	<p>Service provided on a repetitive, fixed-schedule basis along a specific route with vehicles stopping to pick up and deliver passengers at set stops and stations; each fixed-route trip serves the same origins and destinations, unlike demand responsive and taxicabs.</p>
Geographic Information System (GIS)	<p>A data management software tool that enables data to be displayed geographically (i.e., as maps).</p>

<b>Terms</b>	<b>Definitions</b>
Goals and Objectives	<p>Goals and objectives define the project’s desired outcome and reflect community values. Goals and objectives build from the project’s Purpose and Need Statement.</p> <ul style="list-style-type: none"> <li>• Goals are overarching principles that guide decision making. Goals are broad statements.</li> <li>• Objectives define strategies or implementation steps to attain the goals. Unlike goals, objectives are specific and measurable.</li> </ul>
Guideway	A transit right of way separated from general purpose vehicles.
Headway	Time interval between vehicles passing the same point while moving in the same direction on a particular route.
Heritage Tree	The <i>City of Eugene Urban Forest Management Plan</i> (City of Eugene Public Works Department Maintenance Division, 1992) defines “Heritage Trees” as: “Any tree of exceptional value to our community based on its size (relative to species), history, location, or species, or any combination of these criteria.” Such a tree cannot be removed “except when otherwise necessary for the public health, safety, or welfare.”
Hydrology	Refers to the flow of water including its volume, where it drains, and how quickly it flows.
Impacts	A term to describe the positive or negative effects upon the natural or built environments as a result of an action (i.e., project).
Independent Utility	A project or section of a larger project that would be a usable and reasonable expenditure even if no other projects or sections of a larger project were built and/or improved.
Industrial	I-2 and I-3
Institution	PL and PRO
Intergovernmental Agreement	A legal pact authorized by state law between two or more units of government, in which the parties contract for, or agree on, the performance of a specific activity through either mutual or delegated provision.
Intermodal	Those issues or activities that involve or affect more than one mode of transportation, including transportation connections, choices, cooperation, and coordination of various modes. Also known as "multimodal."
Jefferson Westside Special Area Zone	S-JW
Joint Development	Ventures undertaken by the public and private sectors for development of land around transit stations or stops.
Key Transit Corridors	Key Transit Corridors are mapped in Envision Eugene and are anticipated to be significant transit corridors for the City and the region
Kiss & Ride	A place where commuters are driven and dropped off at a station to board a public transportation vehicle.

Terms	Definitions
Land and Water Conservation Fund (LWCF) Act of 1965	16 U.S.C. 4601-4 et seq. The Land and Water Conservation Fund (LWCF) State Assistance Program was established by the LWCF Act of 1965 to stimulate a nationwide action program to assist in preserving, developing, and providing assurance to all citizens of the United States (of present and future generations) such quality and quantity of outdoor recreation resources as may be available, necessary, and desirable for individual active participation. The program provides matching grants to states and through states to local units of government, for the acquisition and development of public outdoor recreation sites and facilities.
Landscape Tree	A living, standing, woody plant having a trunk that exists on private property.
Lane Regional Air Protection Agency (LRAPA)	LRAPA is responsible for achieving and maintain clean air in Lane County using a combination of regulatory and non-regulatory methods
Layover Time	Time built into a schedule between arrival at the end of a route and the departure for the return trip, used for the recovery of delays and preparation for the return trip.
Lead Agency	The organization that contracts and administers a study. For transit projects, FTA would typically fill this role. The lead agency has the final say about the project's purpose and need, range of alternatives to be considered, and other procedural matters.
Level of Detail	The amount of data collected, and the scale, scope, extent, and degree to which item-by-item particulars and refinements of specific points are necessary or desirable in carrying out a study.
Level of Service (LOS)	LOS is a measure used by traffic engineers to determine the effectiveness of elements of transportation infrastructure. LOS is most commonly used to analyze highways, but the concept has also been applied to intersections, transit, and water supply.
Light Rail Transit (LRT)	Steel wheel/steel rail transit constructed on city streets, semi-private right of way, or exclusive private right of way. Formerly known as "streetcar" or "trolley car" service, LRT's major advantage is operation in mixed street traffic at grade. LRT vehicles can be coupled into trains, which require only one operator and often are used to provide express service.
Limited (or Controlled) Access	Restricted entry to a transportation facility based upon facility congestion levels or operational condition. For example, a limited access roadway normally would not allow direct entry or exit to private driveways or fields from said roadway.
Liquefaction	A phenomenon associated with earthquakes in which sandy to silty, water saturated soils behave like fluids. As seismic waves pass through saturated soil, the structure of the soil distorts, and spaces between soil particles collapse, causing ground failure.
Liquefied Natural Gas (LNG)	An alternative fuel; a natural gas cooled to below its boiling point of 260 degrees Fahrenheit so that it becomes a liquid; stored in a vacuum bottle-type container at very low temperatures and under moderate pressure. LNG vapor is lighter than air.
Local Streets	Local streets have the sole function of providing direct access to adjacent land. Local streets are deliberately designed to discourage through-traffic movements.

<b>Terms</b>	<b>Definitions</b>
Locally Preferred Alternative (LPA)	The LPA is the alternative selected through the Alternatives Analysis process completed prior to or concurrent with National Environmental Policy Act analysis. This term is also used to describe the proposed action that is being considered for New Starts or Small Starts funds.
Low-Income Persons	Those whose median household income is at or below the Department of Health and Human Services poverty guidelines. For a four-person household with two related children, the poverty threshold is \$24,300 (year 2016 dollars).
Maintenance area	An air quality designation for a geographic area in which levels of a criteria air pollutant meet the health-based primary standard (national ambient air quality standard, or NAAQS) for the pollutant. An area may have on acceptable level for one criteria air pollutant, but may have unacceptable levels for others. Maintenance/attainment areas are defined using federal pollutant limits set by EPA.
Maintenance facility	A facility along a corridor used to clean, inspect, repair and maintain bus vehicles, as well as to store them when they are not in use.
Major Arterial	Major arterial streets should serve to interconnect the roadway system of a city. These streets link major commercial, residential, industrial, and institutional areas. Major arterial streets are typically spaced about one mile apart to assure accessibility and reduce the incidence of traffic using collectors or local streets for through traffic in lieu of a well-placed arterial street. Access control, such as raised center medians, is a key feature of an arterial route. Arterials are typically multiple miles in length.
Major Investment Study (MIS)	An alternatives analysis study process for proposed transportation investments in which a wide range of alternatives is examined to produce a smaller set of alternatives that best meet project transportation needs. The purpose of the study is to provide a framework for developing a package of potential solutions that can then be further analyzed during an Environmental Impact Statement process.
Metro Plan Designations	Commercial, Commercial / Mixed Use, Government and Education, Heavy Industrial, High Density Residential / Mixed-Use, High Density Residential, Light-Medium Industrial, Low Density Residential, Medium Density Residential, Medium Density Residential / Mixed-Use, Mixed-Use, Parks and Open Space, Major Retail Center, Campus Industrial, University Research
Metropolitan Planning Organization (MPO)	The organization designated by local elected officials as being responsible for carrying out the urban transportation and other planning processes for an area.
Minimum Operable Segment	A stand-alone portion of the alternative alignment that has independent utility, allowed by FTA to be considered as interim termini for a project. A minimum operable segment (MOS) provides flexibility to initiate a project with available funding while pursuing additional funding to complete the remainder of the project.

Terms	Definitions
Minor Arterial	A minor arterial street system should interconnect with and augment the urban major arterial system and provide service to trips of moderate length at a somewhat lower level of travel mobility than major arterials. This system also distributes travel to geographic areas smaller than those identified with the higher system. The minor arterial street system includes facilities that allow more access and offer a lower traffic mobility. Such facilities may carry local bus routes and provide for community trips, but ideally should not be located through residential neighborhoods.
Minority	A person who is one or more of the following: <ul style="list-style-type: none"> <li>• Black: a person having origins in any of the black racial groups of Africa</li> <li>• Hispanic or Latino: a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race</li> <li>• Asian American: a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent</li> <li>• American Indian and Alaskan Native: a person having origins in any of the original people of North America, South America (including Central America), and who maintains cultural identification through tribal affiliation or community recognition</li> <li>• Native Hawaiian and Other Pacific Islander: a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands</li> </ul>
Mitigation	A means to avoid, minimize, rectify, or reduce an impact, and in some cases, to compensate for an impact.
Mixed-Use	C-1, C-2, GO, S-C, S-CN, S-DR, S-DW, S-E, S-F, S-HB, S-JW, S-RN, S-W, and S-WS
Modal Split	A term that describes how many people use different forms of transportation. Frequently used to describe the percentage of people using private automobiles as opposed to the percentage using public transportation, walking, or biking. Modal split can also be used to describe travelers using other modes of transportation. In freight transportation, modal split may be measured in mass.
Mode	A particular form or method of travel distinguished by vehicle type, operation technology, and right-of-way separation from other traffic.
Moving Ahead for Progress in the 21st Century (MAP-21)	Moving Ahead for Progress in the 21st Century (MAP-21) was signed by President Obama on July 6, 2012, reauthorizing surface transportation programs through FY 2014. It includes new and revised program guidance and regulations with planning requirements related to public participation, publication, and environmental considerations.
MovingAhead Project	<p>The City of Eugene and LTD are working with regional partners and the community to determine which improvements are needed on some of our most important transportation corridors for people using transit, and facilities for people walking and biking. MovingAhead will prioritize transit, walking, and biking projects along these corridors so that they can be funded and built in the near-term.</p> <p>The project will focus on creating active, vibrant places that serve the community and accommodate future growth. During Phase 1, currently underway, the community will weigh in on preferred transportation solutions for each corridor and help prioritize corridors for implementation. When thinking about these important streets, LTD and the City of Eugene refer to them as corridors because several streets may work as a system to serve transportation needs.</p>
Multi-Family Residential	R-2 and R-3



Terms	Definitions
Multimodal	Multimodal refers to various modes. For the MovingAhead project, multimodal refers to Corridors that support various transportation modes including vehicles, buses, walking and cycling.
National Environmental Policy Act of 1969 (NEPA)	A comprehensive federal law requiring analysis of the environmental impacts of federal actions such as the approval of grants; also requiring preparation of an Environmental Impact Statement for every major federal action significantly affecting the quality of the human environment.
New Starts	Federal funding granted under Section 3(i) of the Federal Transit Act. These discretionary funds are made available for construction of a new fixed guideway system or extension of any existing fixed guideway system, based on cost-effectiveness, alternatives analysis results, and the degree of local financial commitment.
No Action or No-Build Alternative	An alternative that is used as the basis to measure the impacts and benefits of the other alternative(s) in an environmental assessment or other National Environmental Policy Act action. The No-Build Alternative consists of the existing conditions, plus any improvements that have been identified in the Statewide Transportation Improvement Program.
Nonattainment Area	Any geographic region of the United States that the U.S. Environmental Protection Agency (EPA) has designated as not attaining the federal air quality standards for one or more air pollutants, such as ozone and carbon monoxide.
Notice of Intent	A federal announcement, printed in the <i>Federal Register</i> , advising interested parties that an Environmental Impact Statement will be prepared and circulated for a given project
Office	E-1 and E-2
Off-Peak Period	Non-rush periods of the day when travel activity is generally lower and less transit service is scheduled. Also called "base period."
Oregon Statewide Comprehensive Outdoor Recreation Plan (SCORP)	The 2013-2017 Oregon Statewide Comprehensive Outdoor Recreation Plan (SCORP), entitled <i>Ensuring Oregon's Outdoor Legacy</i> (OPRD, No Date), constitutes Oregon's basic 5-year plan for outdoor recreation. The plan guides the use of LWCF funds that come into the state; provides guidance for other OPRD-administered grant programs; and provides recommendations to guide federal, state, and local units of government, as well as the private sector, in making policy and planning decisions.
Park and Ride	Designated parking areas for automobile drivers who then board transit vehicles from these locations.
Participating Agency	A federal or non-federal agency that may have an interest in the project. These agencies are identified and contacted early-on in the project with an invitation to participate in the process. This is a broader category than "cooperating agency" (see Cooperating Agency).
Passenger Miles	The total number of miles traveled by passengers on transit vehicles; determined by multiplying the number of unlinked passenger trips times the average length of their trips.
Peak Hour	The hour of the day in which the maximum demand for transportation service is experienced (refers to private automobiles and transit vehicles).
Peak Period	Morning and afternoon time periods when transit riding is heaviest.

<b>Terms</b>	<b>Definitions</b>
Peak/Base Ratio	The number of vehicles operated in passenger service during the peak period divided by the number operated during the base period.
Place-miles	Place-miles refers to the total carrying capacity (seated and standing) of each bus and is calculated by multiplying vehicle capacity of each bus by the number of service miles traveled each day. Place-miles highlight differences among alternatives caused by a different mix of vehicles and levels of service.
Preferred Alternative	An alternative that includes a major capital improvement project to address the problem under investigation. As part of the decision making process, the Preferred Alternative is compared against the No Action or No-Build Alternative from the standpoints of transportation performance, environmental consequences, cost-effectiveness, and funding considerations.
Purpose and Need	The project Purpose and Need provides a framework for developing and screening alternatives. The purpose is a broad statement of the project's transportation objectives. The need is a detailed explanation of existing conditions that need to be changed or problems that need to be fixed.
Queuing	Occurs when traffic lanes cannot fit all the vehicles trying to use them, or if the line at an intersection extends into an upstream intersection.
Record of Decision (ROD)	A decision made by FTA as to whether the project sponsor receives federal funding for a project. The Record of Decision follows the Draft EIS and Final EIS.
Regulatory Agency	An agency empowered to issue or deny permits.
Resource Agency	A federal or state agency or commission that has jurisdictional responsibilities for the management of a resource such as plants, animals, water, or historic sites.
Revenue Hours	Hours of transit service available for carrying paying riders.
Ridership	The number of people using a public transportation system in a given time period.
Ridesharing	A form of transportation, other than public transit, in which more than one person shares the use of the vehicle, such as a van or car, to make a trip. Also known as "carpooling" or "vanpooling."
Right of Way	Publicly owned land that can be acquired and used for transportation purposes.
Safe, Accountable, Flexible, Efficient Transportation Equity Act (SAFETEA-LU)	SAFETEA-LU was passed by Congress July 29, 2005, and signed by the President August 10, 2005. Includes new and revised program guidance and regulations (approximately 15 rulemakings) with planning requirements related to public participation, publication, and environmental considerations. SAFETEA-LU covers FY 2005 through FY 2009 with a total authorization of \$45.3 billion.
Scoping	A formal coordination process used to determine the scope of the project and the major issues likely to be related to the proposed action (i.e., project).
Screening Criteria	Criteria used to compare alternatives.
Section 106	Section 106 of the National Historic Preservation Act of 1966 requires that federal agencies take into account the effect of government-funded construction projects on property that is included in, or eligible for inclusion in, the NRHP.
Section 4(f) of the Department of Transportation Act of 1966	23 U.S.C. 138 and 49 U.S.C. 303. Parks are subject to evaluation in the context of Section 4(f) of the Department of Transportation Act of 1966, which governs the use of publicly-owned/open to the public park and recreation lands, government-owned wildlife lands, and historic resources.

Terms	Definitions
Section 4(f) resources	(i) any publicly owned land in a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or (ii) any land from a historic site of national, state, or local significance
Section 6(f) of the LWCF Act of 1965	The LWCF's most important tool for ensuring long-term stewardship is its "conversion protection" requirement. Section 6(f)(3) strongly discourages conversions of state and local park, and recreational facilities to other uses. Conversion of property acquired or developed with assistance under the program requires approval of the Department of Interior's National Park Service (NPS) and substitution of other recreational properties of at least equal fair market value, and of reasonably equivalent usefulness and location.
Shuttle	A public or private vehicle that travels back and forth over a particular route, especially a short route or one that provides connections between transportation systems, employment centers, etc.
Single-Family Residential	R-1
Special Area Zone (Non-Mixed Use)	S-H and S-RP
Springfield 2030	Currently underway, this update to the City of Springfield's Comprehensive Plan will guide and support attainment of the community's livability and economic prosperity goals and redevelopment priorities.
Springfield Transportation System Plan (TSP)	The City of Springfield's Transportation System Plan looks at how the transportation system is currently used and how it should change to meet the long-term (20-year) needs of the City of Springfield's residents, businesses, and visitors. The Plan, which identifies improvements for all modes of transportation, will serve as the City of Springfield's portion of the Regional Transportation System Plan prepared by Lane Council of Governments (LCOG). It was prepared in coordination with Oregon Department of Transportation, LCOG, and the Oregon Department of Land Conservation and Development. The TSP was adopted March 11, 2014.
State Implementation Plan (SIP)	A state plan mandated by the Clean Air Act Amendments of 1990 that contains procedures to monitor, control, maintain, and enforce compliance with national standards for air quality.
Strategy	An intended action or series of actions which when implemented achieves the stated goal.
Street Tree	A living, standing, woody plant having a trunk that exists in the public right of way.
Study Area	The area within which evaluation of impacts is conducted. The study area for particular resources will vary based on the decisions being made and the type of resource(s) being evaluated.
Throughput	The number of users being served at any time by the transportation system.
Title VI	This Title declares it to be the policy of the United States that discrimination on the ground of race, color, or national origin shall not occur in connection with programs and activities receiving federal financial assistance and authorizes and directs the appropriate federal departments and agencies to take action to carry out this policy.

<b>Terms</b>	<b>Definitions</b>
Transit Oriented Development (TOD) or Nodal Development	A strategy to build transit ridership, while discouraging sprawl, improving air quality and helping to coordinate a new type of community for residents. TODs are compact, mixed-use developments situated at or around transit stops. Sometimes referred to as Transit Oriented Communities, or Transit Villages.
Transit System	An organization (public or private) providing local or regional multi-occupancy-vehicle passenger service. Organizations that provide service under contract to another agency are generally not counted as separate systems.
Transitway	A Bus Rapid Transit (BRT) priority lane generally with a concrete lane, with or without concrete tracks with grass-strip divider, and a curb separation, traversable by general-purpose vehicles at signalized intersections.
Transportation Demand Management (TDM)	Strategies to attempt to reduce peak period automobile trips by encouraging the use of high occupancy modes through commuter assistance, parking incentives, and work policies that alter the demand for travel in a defined area in terms of the total volume of traffic, the use of alternative modes of travel, and the distribution of travel over different times of the day.
Transportation Improvement Program (TIP)	A program of intermodal transportation projects, to be implemented over several years, growing out of the planning process and designed to improve transportation in a community. This program is required as a condition of a locality receiving federal transit and highway grants.
Travel Shed	Synonymous with “corridor” (see Corridor). A subarea in which multiple transportation facilities are experiencing congestion, safety, or other problems.
urban plaza	An urban plaza is a place that can be used for socializing, relaxation, and/or events.
v/c ratio	Used as a principal measure of congestion. The “v” represents the volume or the number of vehicles that are using the roadway at any particular period. The “c” represents the capacity of a roadway at its adopted level of service (LOS). If the volume exceeds the capacity of the roadway (volume divided by capacity exceeds 1.00), congestion exists.
Vehicle Hours of Delay	Cumulative delay experiences by transit vehicles during high traffic periods.
Water Quality	Refers to the characteristics of the water, such as its temperature and oxygen levels, how clear it is, and whether it contains pollutants.
Whiteaker Special Area Zone	S-W

## Appendix B: Construction Activities

### General Construction Methods

The following section describes how construction of the Locally Preferred Alternative (LPA) would likely be staged and sequenced. This description is based on Lane Transit District's (LTD's) experience with the Franklin, Gateway, and West Eugene EmX Corridors. The final plan for construction methods, sequencing, and staging will be determined in coordination with the contractor and permitting authorities.

Utility work will generally be completed before the transportation infrastructure is constructed. Utility work, often conducted by local utility companies, occurs separately from project-related construction. After completing required utility relocation and other preparatory site work, the contractor will begin with construction of new transit lanes, bike lanes, sidewalks, and any other "flatwork." The contractor will modify existing signals or construct new traffic signals as part of this work. In some cases, the contractor may construct the signal footings but install signal arms after initial work is complete. Flatwork for stations, including curbs, ramps, and station footings, will be completed as the work progresses along the alignment. Streets and street segments will be restored to normal operations after this work is complete. The contractor is expected to progress approximately two blocks every 2 weeks, with additional time required – up to 2 weeks – for each enhanced stop or EmX station. Additional time will be required at intersections that require new or substantially modified traffic signals. The construction sequencing will be determined through coordination between the contractor and local residents, businesses, and property owners regarding construction scheduling preferences. It is expected that, for each major segment, the work would start at one end of the segment and progress to the other end of the segment. All flatwork is expected to be completed in two construction seasons.

Stations will be fabricated during the second construction season and installed during the subsequent (final) construction season, along with landscaping, fare machines, real-time passenger information, enhanced stop or EmX station amenities, and other similar items.

The contractor and LTD will coordinate closely with the Oregon Department of Transportation (ODOT) and with the City of Eugene (as appropriate to the jurisdiction) on traffic control. Depending on the segment, ODOT or the City will review and approve traffic plans for construction.

On streets with multiple lanes in each direction (or multiple lanes in one direction for one-way streets), at least one lane of traffic will be open at all times. Flaggers will coordinate travel at intersections and other points of congestion, as necessary. On streets with a single lane, it may be necessary to close one direction of traffic for certain periods. In those situations, flaggers will be used to manage the traffic flow safely. The contractor and LTD will also coordinate with businesses to ensure that the project maintains access for patrons and deliveries.

### Coordination with Businesses and Residents

LTD's Franklin, Gateway, and West Eugene EmX projects demonstrated LTD's commitment to communicating with impacted businesses, residences, and travelers, both before and during construction. As with those projects, LTD will contact all businesses and residents along the alignment well before construction begins to solicit local concerns, issues, and scheduling preferences. Businesses and residents will also be able to communicate with the contractor and LTD during construction. LTD's construction liaison will provide e-mail updates and serve as an ongoing point of contact to address

concerns and to provide information to affected businesses, residents, and other interested persons. LTD will provide a 24-hour hotline to quickly address construction concerns from businesses and residences.

LTD will also work to enhance activity at businesses affected by construction. This can be done through attractive signage, direct communications with the public (e.g., direct mail and advertising), and community events (e.g., street fairs). These techniques succeeded in keeping business areas active during previous EmX projects.