MovingAhead

STREETS AND PLACES REIMAGINED

Level 2 Definition of Alternatives

DRAFT

Lane Transit District
City of Eugene

In cooperation with
Lane Council of Governments

July 2016

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Level 2 Definition of Alternatives

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.

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Prepared for
Federal Transit Administration
Lane Transit District
City of Eugene

Prepared by
CH2M
Wannamaker Consulting
DKS Associates
John Parker Consulting

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For Additional Information or to Comment

If you would like additional information about the MovingAhead project or would like to provide feedback, please contact us.

Contact Method	How to Contact Us
Website	http://movingahead.org
U.S. Mail, Email and/or Telephone	Chris Henry, Transportation Planning Engineer City of Eugene Public Works – Engineering 99 East Broadway, Suite 400 Eugene, OR 97401-3174 chris.c.henry@ci.eugene.or.us 541-682-8472 Sasha Luftig, Transit Development Planner Lane Transit District P.O. Box 7070 Springfield, OR 97475 Or 3500 East 17th Avenue Eugene, OR 97401-0470 Sasha.Luftig@ltd.org 541-682-6135
Written Comments at Meetings	A comment box is available at community meetings for submitting written comments. Refer to the website for the dates and locations of meetings.

Authors

Identified in the following table is the list of technical experts who conducted analyses and authored sections of this report along with the authors' titles and their affiliated organizations.

Authors and Senior Reviewers

Authors/Senior Reviewers	Role	Title/Organization
Kristin Hull	Author/Senior Reviewer	Senior Project Manager/CH2M
Lynda Wannamaker	Author/Senior Reviewer	Principal/Wannamaker Consulting
Ryan Farncomb	Author	Senior Planner/CH2M
James McGrath	Lead Designer	Senior Project Manager/CH2M
Adrianna Stanley, PE	Engineer	Transportation Engineer/CH2M
Peter Coffey	Traffic Engineer	Principal/DKS
Sara Hoeber	Graphics	Graphic Designer/CH2M
Randy Parker	Travel Modelling	Principal/John Parker Consulting

Authors/Senior Reviewers	Role	Title/Organization
Jennifer John	Travel Modelling	Senior Technologist/CH2M

1. Introduction

This chapter provides an overview of this Level 2 Definition of Alternatives Technical Memorandum and the MovingAhead project study area, project purpose, and study process.

1.1 Level 2 Definition of Alternatives Technical Memorandum

The Level 2 Definition of Alternatives Technical Memorandum:

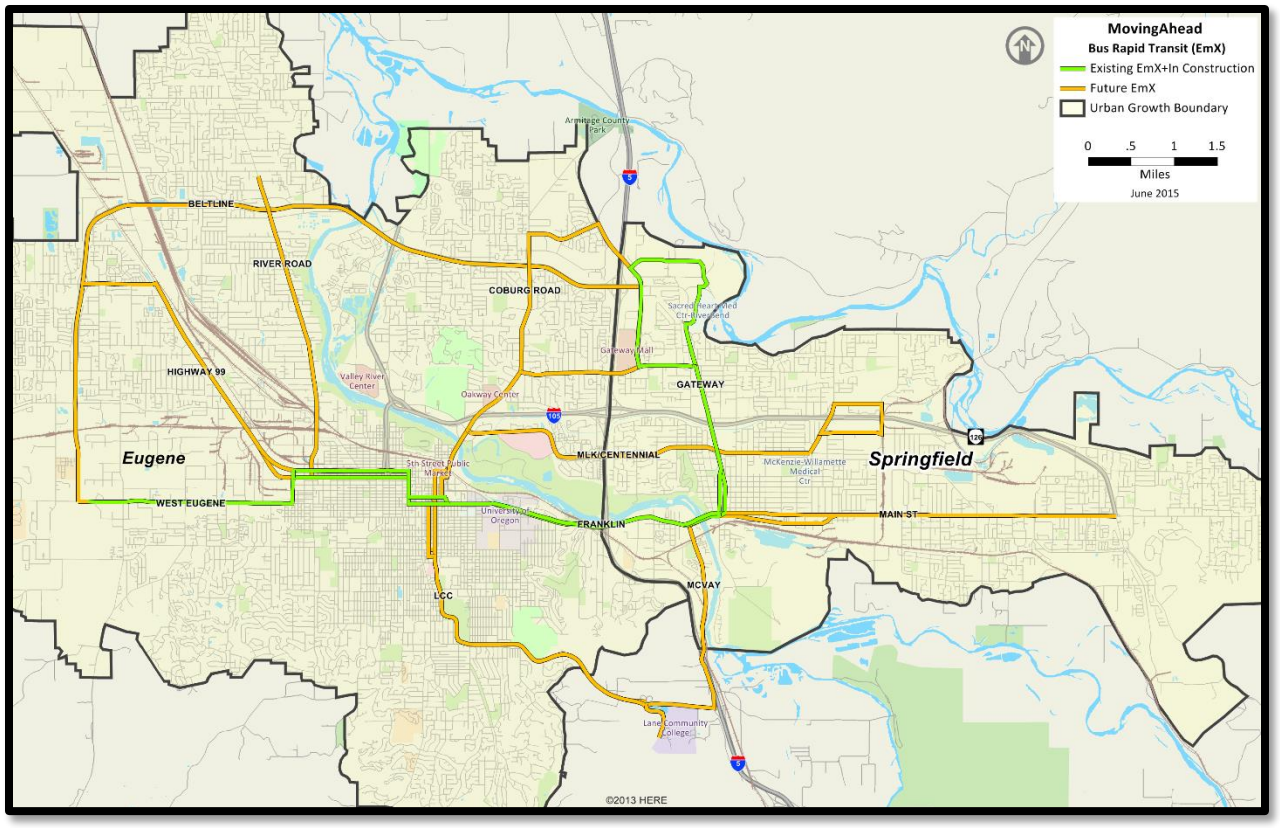
- Describes the MovingAhead project corridors and alternatives advanced from Level 1 for further study.
- Provides the basis for transportation and environmental analyses that will be conducted to support MovingAhead's Level 2 Alternatives Analysis (Level 2 AA).
- Provides information to be considered in the Locally Preferred Alternatives Technical Memorandum.
- Supports the basis of future environmental analysis in preparation for Documented Categorical Exclusions in compliance with the National Environmental Policy Act (NEPA).

1.2 Project Purpose and Study Area

The purpose of the MovingAhead project is to determine which high-capacity transit corridors identified in the adopted Emerald Express (EmX) System Plan and 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 Lane Transit District (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.

LTD's Long-Range Transit Plan (LTD, 2014) identifies the 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 EmX and Enhanced Corridor options within Eugene. Figure 1.2-1 presents LTD's existing EmX system (LTD's bus rapid transit [BRT] system).

Figure 1.2-1. Lane Transit District's EmX System



Source: LTD, 2015.

1.3 Screening and Evaluation of Multimodal Options

The MovingAhead project process includes two phases. The 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 most ready for near-term capital improvements. Those selected corridors will be advanced to the second phase, which will focus on preparing NEPA environmental reviews (Documented Categorical Exclusions), prioritizing corridors for funding, and initiating the Federal Transit Administration project development process.

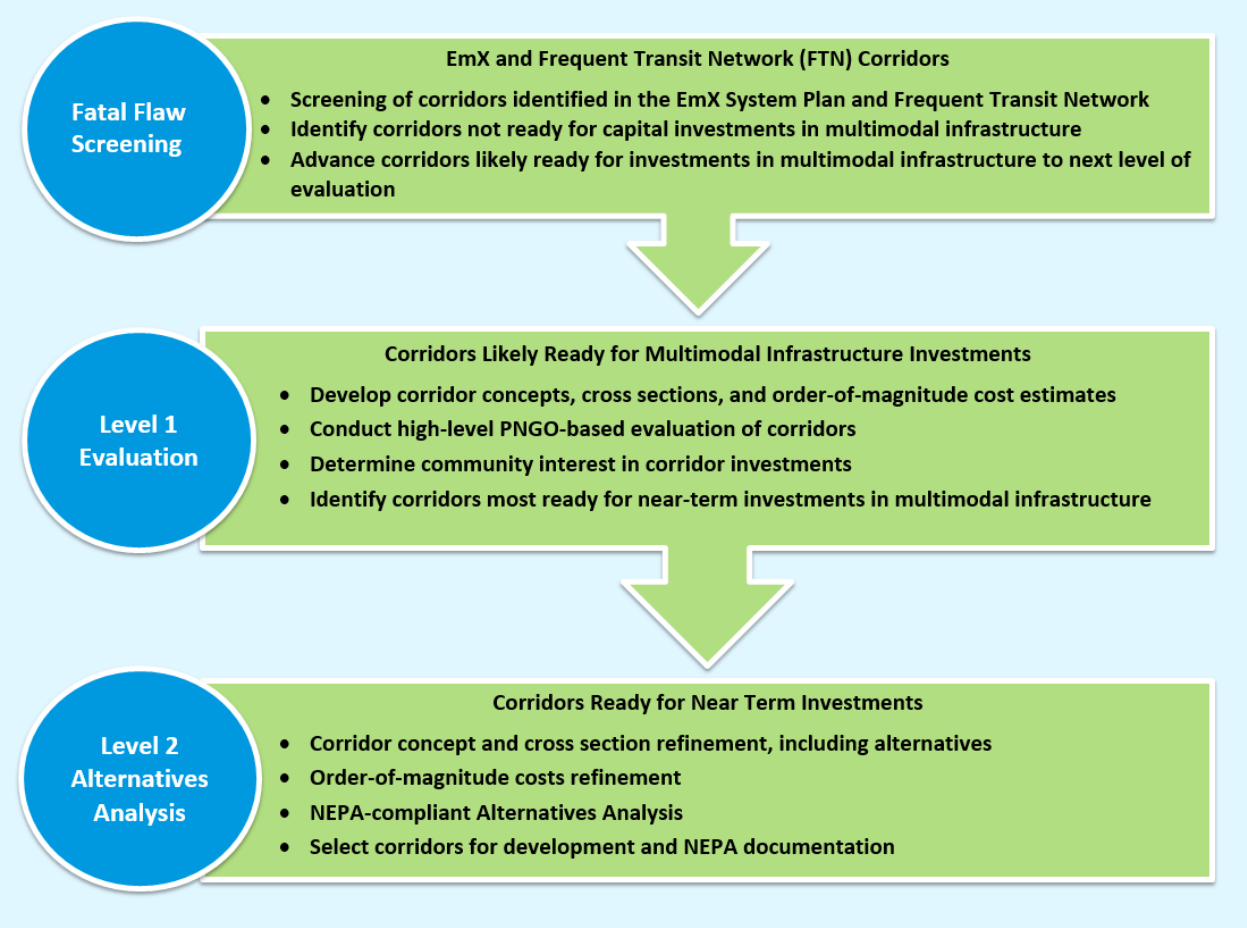
1.3.1 Fatal Flaw Screening

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 1.3-1). This high-level evaluation used criteria based on MovingAhead's Purpose, Need, Goals, and Objectives (LTD, 2015) and existing data to determine which corridors will not be 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 3 corridors were not advanced from the fatal flaw

screening to the Level 1 Screening Evaluation: 18th Avenue, Bob Straub Parkway, and the Randy Papé Beltline Highway. Table 1.3-1 shows the results of the fatal flaw screening.

Although originally advanced from the fatal flaw screening, the Main Street-McVay Highway Corridor was not advanced to the Level 1 Screening Evaluation because the Springfield City Council (on May 18, 2015) and LTD Board (on May 20, 2015) determined that the corridor is ready to advance to a study to select a Locally Preferred Transit Solution. At this time, the Main Street-McVay Highway Corridor will continue to be studied on a schedule that is ahead of the MovingAhead project schedule. If the Main Street-McVay Highway Corridor study schedule is delayed and its progress coincides with this project, the corridor could be reincorporated back into MovingAhead.

Figure 1.3-1. MovingAhead Phase 1 Steps



Source: Wannamaker Consulting, 2015.

Table 1.3-1. Results of the Fatal Flaw Screening

Corridor	Advanced to Level 1	Consider Later
Highway 99	✓	
River Road	✓	
Randy Papé Beltline		✓

Table 1.3-1. Results of the Fatal Flaw Screening

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

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

1.3.2 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 concepts were advanced from the Level 1 Screening Evaluation to the Level 2 AA (Table 1.3-2):

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

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

Table 1.3-2. Corridors and Transit Concepts Advanced to the Level 2 Alternatives Analysis

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

The concepts advanced from the Level 1 Screening Evaluation were subsequently developed into the alternatives described in this memorandum. 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 (2016).*

1.3.3 Level 2 Alternatives Analysis

To guide the Level 2 AA, LTD will prepare new ridership forecasts and related evaluation measures using the Lane Council of Governments regional model. Base-year and future-year forecasts will be 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 environment, transit operations, traffic, finance, historical resources, and other areas will also be evaluated as part of the Level 2 AA. The findings from the Level 2 AA will aid LTD and its partner agencies in determining how corridors should be prioritized for capital investments over the next 5 years. Selected corridors will be advanced to NEPA evaluation.

1.4 Alternatives Descriptions

1.4.1 Transit Component of Projects

The project team developed No-Build, Enhanced Corridor, and EmX (BRT) Alternatives for each corridor, except the Martin Luther King, Jr. Boulevard Corridor, for which the team developed only No-Build and Enhanced Corridor Alternatives. Each corridor location is shown on Figure 1.4-1. 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. The description of each No-Build Alternative is based on the projected conditions in 2035. Capital projects are derived from the financially constrained project lists in the *Eugene Transportation System Plan* (expected adoption in 2016), *Lane County Transportation System Plan* (update in progress), the *Lane Transit District Capital Improvement Plan* (most recently amended in June 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 or better service frequency.

EmX Alternatives are characterized by sections of exclusive guideway, branded multi-door 60-foot-long BRT 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 mode 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.

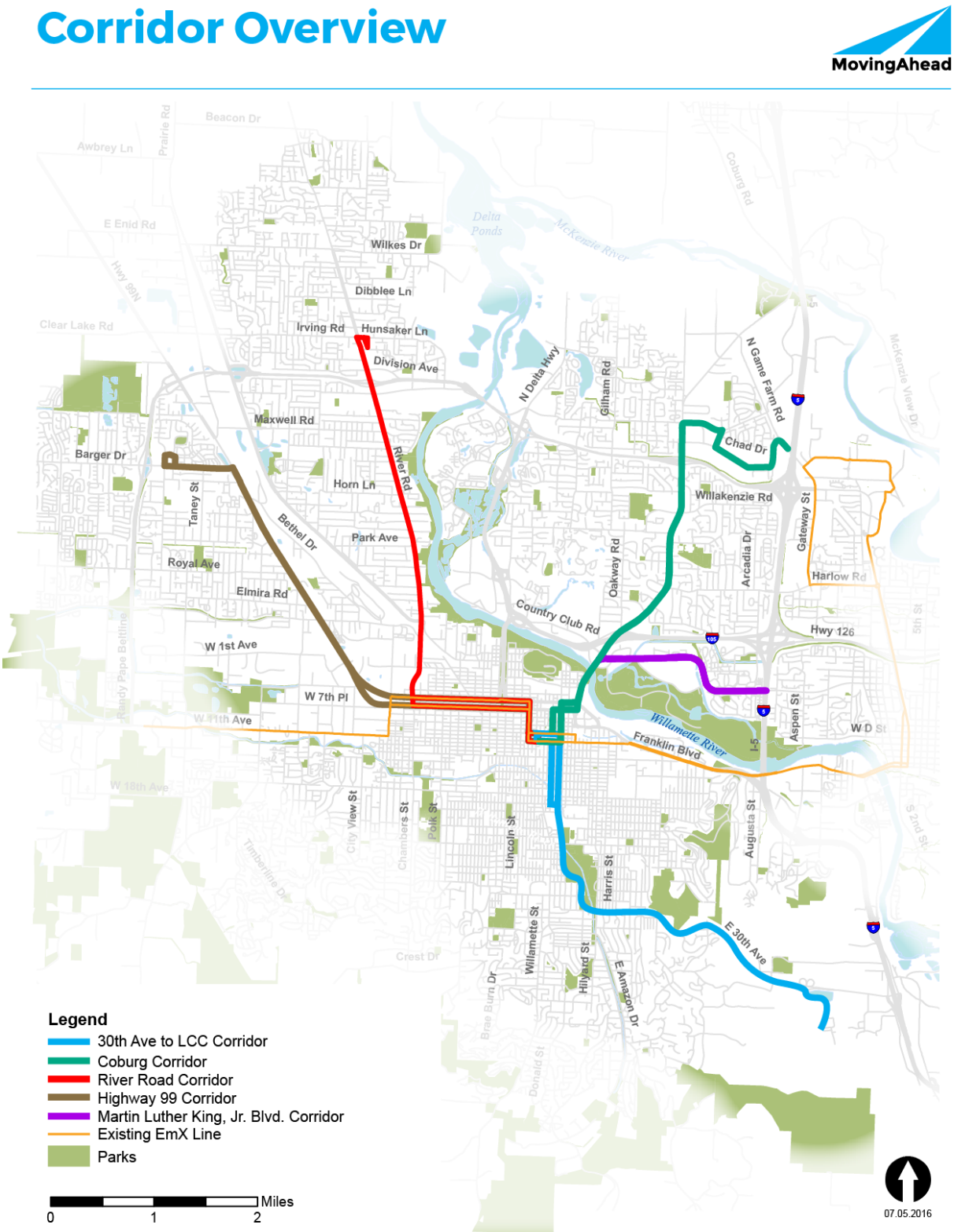
The EmX and Enhanced Corridor Alternatives have been developed at a conceptual level of detail to support the Level 2 AA process. All improvements will require design refinement before further analysis under NEPA can be conducted. Station locations are provided to suggest the areas served by stations, but those locations may move by several blocks during the refinement process to best serve land use and minimize impacts. Other design attributes may also change to minimize impacts or costs, or to improve the performance of the alternative.

Many alternatives include sidewalk reconstruction or construction of new sidewalks without roadway reconstruction. Where these additions are significant, they are described in the text. Other sidewalks

may be reconstructed or constructed along with roadway reconstruction or to provide access to EmX stations or Enhanced Corridor stops. At all locations where new construction or reconstruction of the existing roadway takes place, new ADA-compliant curb ramps will be constructed. Detailed alternative drawings are provided as Appendix A.

Tables 1.4-1 and 1.4.-2 summarize the alternatives in each corridor with respect to their transit capital improvements and operating characteristics, respectively.

Figure 1.4-1. Level 1 Corridors Advanced to the Level 2 Alternatives Analysis



Source: CH2M, 2016.

Table 1.4-1. Capital Improvements for the No-Build, Enhanced Corridor, and EmX Alternatives (Year 2035)

Capital Improvements	Highway 99			River Road			30th Avenue to LCC			Coburg Road			Martin Luther King, Jr. Boulevard	
	No-Build	*Enhanced Corridor*	*EmX*	*No-Build*	*Enhanced Corridor*	*EmX*	*No-Build*	*Enhanced Corridor*	*EmX*	*No-Build*	*Enhanced Corridor*	*EmX*	*No-Build*	*Enhanced Corridor*
EmX														
EmX Lane Miles														
Total Round Trip EmX[a] System Miles (existing/new)	33.2/0	33.2/0	33.2/10.5	33.2/0	33.2/0	33.2/10.3	33.2/0	33.2/0	33.2/10.2	33.2/0	33.2/0	33.2/11.2 (13.6)[b]	33.2/0	33.2/0
Corridor Exclusive Miles[c] (existing/new)	2.20/0	N/A	2.20/0.40	2.40/0	N/A	2.40/ 2.28	0.01/0	N/A	0.01/1.37	0.02/0	N/A	0.02/1.82	0/0	N/A
EmX Stations														
EmX System Stations (existing/new)	88/0	88/0	88/16	88/0	88/0	88/20	88/0	88/0	88/21	88/0	88/0	88/30	88/0	88/0
Corridor EmX Stations[d] (existing/new)	9/0	9/0	9/14	8/0	8/0	8/20	1/0	1/0	1/20	1/0	1/0	1/28	0/0	0/0
BRT Vehicles (in service/spares)														
EmX System BRT Vehicles (in service/spares)	19/5	19/5	23/6	19/5	19/5	23/6	19/5	19/5	22/6	19/5	19/5	24/6	19/5	19/5
Corridor BRT Vehicles (in service/spares)[e]	0/0	0/0	4/1	0/0	0/0	4/1	0/0	0/0	3/1	0/0	0/0	5/1	0/0	0/0
Operations and Maintenance Facilities														
Facilities	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Operations and Maintenance Facility Capacity (40-foot and 60-foot buses)[f]	87/72	87/72	87/72	87/72	87/72	87/72	87/72	87/72	8772	87/72	87/72	87/72	87/72	87/72
Storage Capacity (number of revenue vehicles)	159	159	159	159	159	159	159	159	159	159	159	159	159	159

Capital Improvements	Highway 99			River Road			30th Avenue to LCC			Coburg Road			Martin Luther King, Jr. Boulevard	
	No-Build	*Enhanced Corridor*	*EmX*	*No-Build*	*Enhanced Corridor*	*EmX*	*No-Build*	*Enhanced Corridor*	*EmX*	*No-Build*	*Enhanced Corridor*	*EmX*	*No-Build*	*Enhanced Corridor*
Bus														
Total Round Trip Enhanced Corridor Miles (existing/new)	0/0	0/11.1	0/0	0/0	0/10.3	0/0	0/0	0/10.3	0/0	0/0	0/11.2 (13.6)[b]	0/0	0/0	0/6.0 (9.6)[h]
Corridor Transit Priority Miles[g] (existing/new)	2.20/0	2.20/0.40	N/A	2.40/ 0	2.40/0.22	N/A	0/0	0/0	N/A	0.02/0	0.02/0.34	N/A	0 / 0	2.41
Corridor Bus Stops[i]	48	32	See note "L"	64	59	See note "L"	51	21	See note "L"	43	33	See note "L"	20	19
Corridor Transit Centers	1	1	1	2	2	2	3	3	3	2	2	2	1	1
Buses (in service/spares)														
Systemwide (in service/spares)	74/15	73/15	72/14	74/15	72/14	72/14	74/15	71/14	68/14	74/15	76/15	72/14	74/15	75/15
Corridor[j] (in service)	4	3	2	10	6	8	6	3	0	11	13	9	2	3
Corridor Park and Ride Facilities														
Lots[k]	2	2	1	1	1	1	1	1	1	3	3	3	0	0
Spaces	26	26	26	66	66	66	44	44	44	59	59	59	0	0
Pedestrian Crossings														
Number of new crossings	N/A	9	8	N/A	3	1	N/A	1	1	N/A	7	7	N/A	3
Number of enhanced crossings	N/A	2	1	N/A	5	5	N/A	2	10	N/A	2	2	N/A	0

[a] EmX is LTD's BRT system.

[b] Capital improvements in the Coburg Road Corridor stop at Interstate 5; however, EmX and Enhanced Corridor service would continue to Gateway Station in Springfield. This figure represents the total corridor mileage to Gateway Station.

[c] Exclusive miles are defined as the round-trip miles of business access and transit (BAT) lanes, bus-only lanes, and queue jumps associated with each EmX alternative.

[d] Existing EmX stations in the corridor will be used by this project's alternatives. The station counts include transit centers present in the corridor.

[e] BRT vehicles are branded, 60-foot articulated vehicles used in the EmX system.

[f] The existing operations and maintenance facility is located in Springfield, Oregon. The No-Build alternatives for each corridor include expansion of this existing facility; no additional expansion would occur with any Enhanced Corridor or EmX alternative.

[g] Transit priority miles are defined as the round-trip miles of BAT lanes, bus-only lanes, and queue jumps associated with each Enhanced Corridor alternative.

[h] Capital improvements in the Martin Luther King, Jr. Boulevard Corridor stop at Interstate 5; however, Enhanced Corridor service would continue to Springfield, ending near the intersection of Olympic Street and N. 21st Street.

[i] Existing bus stops in this corridor will be used by this project's alternatives. The bus stop counts include transit centers present in the corridor.

[j] Enhanced Corridor alternatives are served by a mix of 60-foot articulated and 40-foot buses.

[k] There are no park and ride lots in the Martin Luther King, Jr. Boulevard Corridor, which ends at Interstate 5; however, buses continue east, accessing three park and ride lots totaling 174 spaces.

[L] Bus stops would remain with some EmX alternatives due to local routes bus service that would operate some corridors; however, the exact number of stops will be determined later in the process.

N/A = not applicable

Table 1.4-2. Transit Operating Characteristics for the No-Build, Enhanced Corridor, and EmX Alternatives (Year 2035)

Operating Characteristics	Highway 99			River Road			30th Avenue to LCC			Coburg Road			Martin Luther King, Jr. Boulevard	
	No-Build	*Enhanced Corridor*	*EmX*	*No-Build*	*Enhanced Corridor*	*EmX*	*No-Build*	*Enhanced Corridor*	*EmX*	*No-Build*	*Enhanced Corridor*	*EmX*	*No-Build*	*Enhanced Corridor*
EmX														
Weekday Vehicle Miles Travelled														
Systemwide	3,445	3,445	4,519	3,445	3,445	4,517	3,445	3,445	4,497	3,445	3,445	4,812	3,445	3,445
Change from No-Build	N/A	0	+1,074	N/A	0	+1,072	N/A	0	+1,052	N/A	0	+1,367	N/A	0
Weekday Revenue Hours[a]														
Systemwide	187	187	237	187	187	239	187	187	237	187	187	261	187	187
Change from No-Build	N/A	0	+50	N/A	0	+52	N/A	0	+50	N/A	0	+74	N/A	0
Corridor EmX Frequencies[b] (peak/off-peak/evening)	N/A	N/A	10/10/15	N/A	N/A	10/10/15	N/A	N/A	10/10/15	N/A	N/A	10/10/15	N/A	N/A
Bus														
Weekday Vehicle Miles Travelled														
Systemwide	10,575	11,261	10,565	10,575	10,781	10,371	10,575	10,735	9,683	10,575[c]	11,274[c]	9,920[c]	10,575[d]	11,396[d]
Change from No-Build	N/A	+686	-10	N/A	+206	-204	N/A	+160	-892	N/A	+699	-655	N/A	+821
Weekday Revenue Hours														
Systemwide	697	725	696	697	697	676	697	701	648	697[c]	710[c]	636[c]	697[d]	734[d]
Change from No-Build	N/A	+28	-1	N/A	+0	-21	N/A	+4	-49	N/A	+13	-61	N/A	+37
Corridor Bus Frequencies (peak/off-peak/evening)	15/30/60	15/15/30	N/A	15/15/30	15/15/30	N/A	10/15/60	15/15/30	N/A	15/15/60	15/15/30	N/A	30/30/60	15/15/30

[a] Revenue hours are the cumulative total number of hours within an average weekday that transit vehicles would be operating within revenue service, including layovers. Revenue hours do not include the time a vehicle spends traveling from or to the operations and maintenance facility at the start or end of revenue service.

[b] Frequencies are measured in minutes and refer to how often transit vehicles would pass by a given point in the same direction.

[c] Capital improvements in the Coburg Road Corridor stop at Interstate 5; however, EmX and Enhanced Corridor service would continue to Gateway Station in Springfield. The vehicle miles travelled and weekday revenue hours presented in the table assume service to Springfield.

[d] Capital improvements in the Martin Luther King, Jr. Boulevard Corridor stop at Interstate 5; however, Enhanced Corridor service would continue to Springfield, ending near the intersection of Olympic Street and N. 21st Street. The vehicle miles travelled and weekday revenue hours presented in the table assume service to Gateway Station.

N/A = not applicable

Source: LTD, 2016.

1.5 Enhanced Corridor and Bus Rapid Transit Facility Capital Improvements

This section defines and illustrates capital improvement terms used in this technical memorandum.

Enhanced Corridors *have amenities at bus stops, like shelters and seating.*

1.5.1 Enhanced Corridors

Enhanced Corridors include features to improve reliability, reduce transit travel times, and increase passenger comfort. These features include transit queue jumps, which are lanes for buses that allow the bus to "jump" ahead of other traffic at intersections using a separate signal phase and a dedicated transit lane on the nearside of the intersection. Enhanced Corridors also include stop amenities like shelters. Buses generally share lanes with other vehicles. New facilities to make walking, cycling, and using mobility devices safer and more convenient could be constructed along with Enhanced Corridor investments. Enhanced Corridors do not include branded vehicles.

1.5.2 Business Access and Transit Lanes

A business access and transit (BAT) lane is reserved for buses and right-turning vehicles only. BAT lanes allow access to businesses and residences while improving bus reliability and reducing transit travel time. BAT lanes also enhance the capacity of the remaining travel lanes by removing buses from general traffic. BAT lanes are restricted to transit vehicles except where vehicles enter or exit adjacent property or where they need to make a right turn at an intersection. Typically, only buses are allowed to use the lane to cross an intersecting street. In general, a BAT lane is separated from general-purpose lanes by a paint stripe and signage. Both EmX and Enhanced Corridor Alternatives use BAT lanes.

BAT lanes *are bus-only lanes that may be used by right-turning vehicles.*

1.5.3 Bus-Only Lanes

Bus-only lanes are reserved for transit. Bus-only lanes may be located in the median of the street or, in some cases, in the outside travel lanes. Other vehicles are typically allowed to cross bus-only lanes only at signalized intersections.

EmX Alternatives *include sections of bus-only lanes.*

1.5.4 EmX (Bus Rapid Transit) Stations

An EmX station is a substantial facility that typically includes a shelter, level boarding, platform opportunity for advance fare collection, unique name, distinctive look and feel, passenger information including real time signage, lighting and security, and seating, bicycle racks, and trash cans.

EmX stations *include level boarding, shelters, lighting, seating, and other amenities. They may also include ticket vending machines.*

1.5.5 Transit Queue Jumps

Transit queue jumps are bus-only lanes approaching intersections to allow buses to proceed through signals and merge into regular travel lanes ahead of other vehicles. Signals typically provide a phase specifically for buses. Transit queue jumps reduce delay at signals and improve the operational efficiency of the transit system. They are used with both EmX and Enhanced Corridor Alternatives.

Transit queue jumps allow buses to bypass traffic at congested intersections. They include short sections of bus-only lanes and a bus-only signal phase that allows the bus to "jump" ahead of queued vehicle traffic in adjacent lanes.

1.5.6 New and Enhanced Crossings

New and enhanced pedestrian and cyclist crossings are included as part of both Enhanced Corridor and EmX Alternatives. New crossings are generally located at areas where there is no legal pedestrian crossing (often at mid-block locations away from intersections). Improvements can include new pavement markings, traffic signals, and median refuge islands. Enhanced crossings include these same improvements to *existing* legal crossings (usually street intersections).

2. No-Build Alternative Transit Network

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

2.1 Capital Improvements

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

- **West Eugene EmX Line**. Currently under construction, the West Eugene EmX (West Eugene EmX Extension Project, or WEEE) line 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, affordable housing, community space, and commercial uses. The River Road Station relocation to the new site is anticipated to be completed by 2018 and, for this project, is included as part of the No-Build Alternative.
- **Main Street EmX Extension**. Included in the 2035 Regional Transportation Plan (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, signal modifications) is anticipated to be completed within the 20-year planning horizon. The No-Build Alternative transit network assumes EmX service on Main Street; however, the outcome of this study, and the ultimate improvements chosen, is uncertain at this time.
- **McVay Highway Enhanced Corridor**. Included in the 2035 Regional RTP and currently under study, Enhanced Corridor service from Springfield Station on McVay Highway to Lane Community College 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.

2.2 Transit Operations

The No-Build Alternatives for each corridor include changes to transit service anticipated as a result of the WEEE, 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 within the 20-year planning horizon:

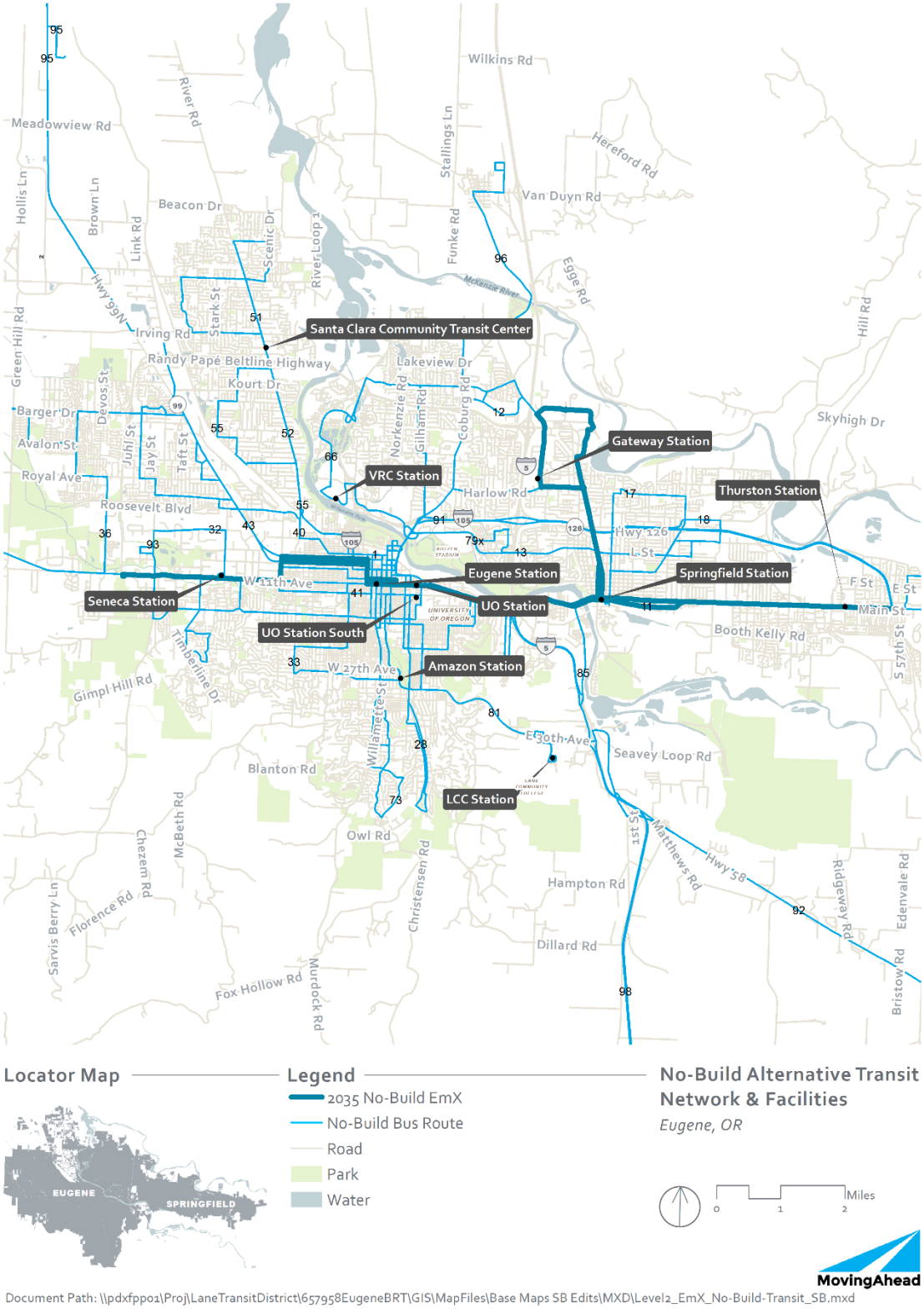
- Eliminated routes:
  - Route 11 (replaced by Main Street EmX service)
  - Route 32 (replaced by WEEE service)
  - Route 76 (replaced by WEEE service)
  - Route 85 (replaced by Enhanced Corridor service on the McVay Highway)
  - Route 43 (replaced by WEEE service)
- Other route modifications:

- 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 West Eugene EmX 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.
  - Service on Route 93 would decrease from 60-minute a.m. peak frequencies to 120-minute frequencies during a.m. peak hours, and increase from no service between Veneta and WEEE terminus to 120-minute frequencies during p.m. peak hours (off-peak service is 120-minute frequencies between Veneta and West Eugene EmX terminus).
  - Service on Route 96 would decrease a.m. peak service from 30-minute to 60-minute frequencies, and increase off-peak service from no service between 8:20 a.m. to 3:40 p.m. to 60-minute off-peak frequencies.

Figure 2.2-1 shows the No-Build Alternative transit network.

Figure 2.2-1. No-Build Transit Network (2035)



Source: CH2M, 2016.

3. Highway 99 Corridor Alternatives

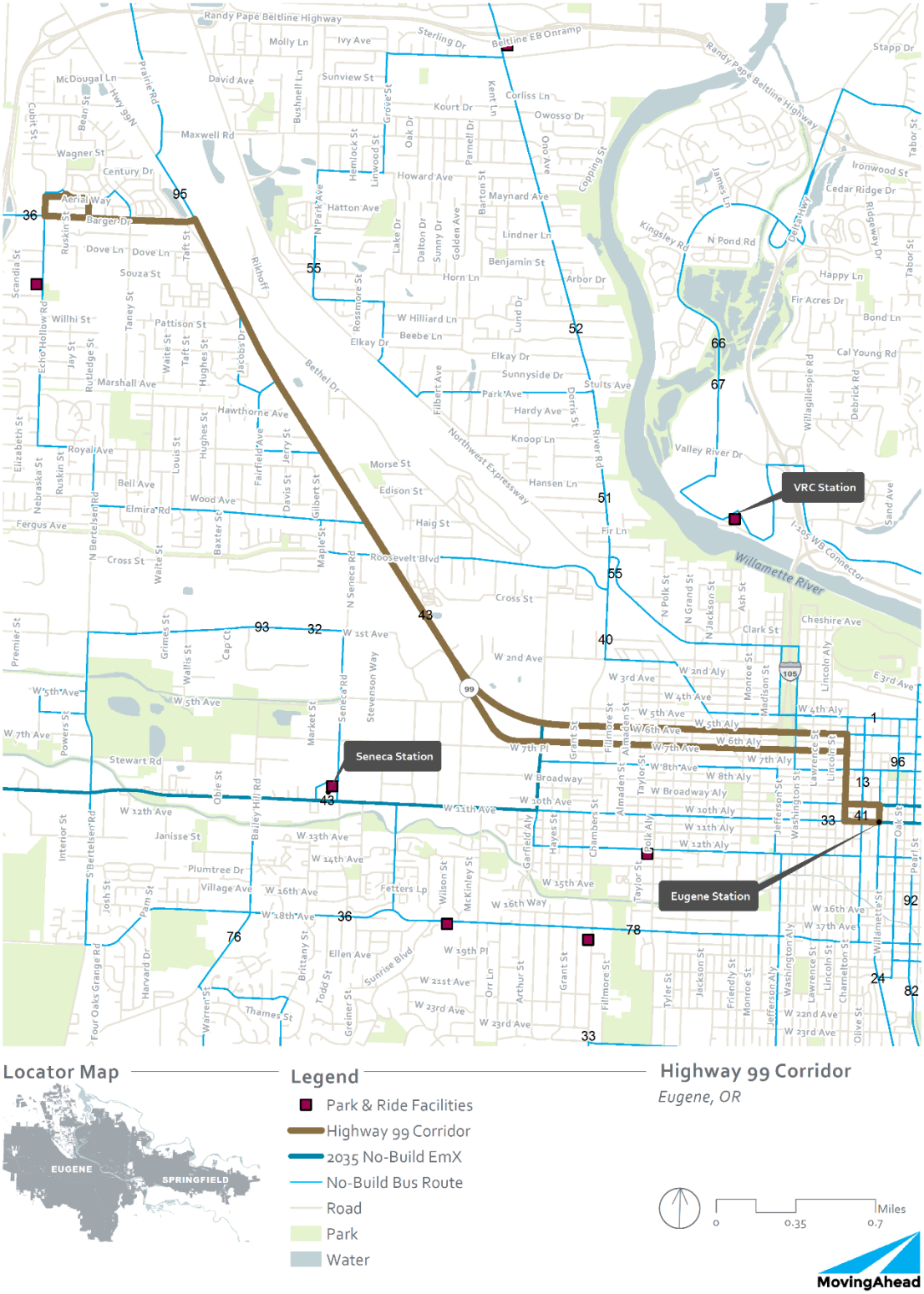
The Highway 99 Corridor begins at the Eugene Station, travels through downtown, then extends northwest along Highway 99 to Barger Drive, turning west at Barger Drive to terminate north of the intersection of Barger Drive and Cubit Street, east of the Randy Papé Beltline Highway. This corridor is approximately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

3.1 No-Build Alternative

3.1.1 Capital Improvements

The No-Build Alternative includes existing roadway, bicycle, pedestrian, and transit facilities in the corridor, as well as planned improvements in the 2035 Eugene Transportation System Plan (TSP). There would be no additional major bus capital improvements under the No-Build Alternative.

Figure 3.1-1. Highway 99 No-Build Transit Network



Source: CH2M, 2016

3.1.1.1 Roadway

The No-Build Alternative would not include capital improvements on Highway 99. As part of the 2035 Eugene TSP, the following roadway projects 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

3.1.1.2 Bicycle and Pedestrian

Currently, sidewalks are present on most streets along and adjacent to the corridor. Bicycle lanes are also present on Highway 99 and Barger Drive within the corridor, except for a bicycle lane and sidewalk gap on Highway 99 south of Roosevelt Boulevard.

The 2035 Eugene TSP identifies the following bicycle and pedestrian projects along or adjacent to the corridor:

- Add a shared-use path on the west side of Highway 99 from Roosevelt Boulevard south to the intersection of W. 7th Avenue (Highway 99) 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 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

3.1.1.3 Bus Facilities and Vehicles

The No-Build Alternative includes 48 existing bus stops (based on the Enhanced Corridor Alternative routing) in the corridor and one existing transit center (Eugene Station, located in downtown Eugene). There would be no additional major bus capital improvements in the corridor under the No-Build Alternative. Figure 3.1-1 shows the No-Build Alternative transit network.

Under the No-Build Alternative, LTD would have 74 fixed-route service buses (mix of 40-foot and 60-foot buses) and 15 spares operating in the system.

3.1.1.4 EmX Facilities and BRT Vehicles

The No-Build Alternative includes EmX facilities associated with the existing EmX service (Franklin and Gateway lines), those currently under construction for the West Eugene EmX line, and the Main Street EmX Extension line, which is anticipated in the 2035 Regional Transportation Plan (RTP). Under the No-Build Alternative, no other major EmX facility improvements would be made.

LTD would have 19 BRT vehicles (60-foot articulated) and five spares operating in the system (including the West Eugene EmX line BRT vehicles, which have already been added to the fleet, and Main Street EmX line BRT vehicles). Under the No-Build Alternative, LTD's fleet of BRT vehicles would remain the same.

3.1.1.5 Park and Ride Facilities

The No-Build Alternative would include LTD's current leased and owned park and ride facilities and would not include additional park and ride facilities along the corridor. The following two park and ride lots are present in the corridor:

- Allison Park Christian Church (leased, 10 spaces), at 1520 Echo Hollow Road
- Eugene Faith Center (leased, 16 spaces), near the intersection of W. 13th Avenue and Polk Street

3.1.1.6 Operations and Maintenance Facilities

Under the No-Build Alternative, LTD would continue to use its one existing operations and maintenance facility, located in Springfield on Glenwood Boulevard. LTD plans to expand its Glenwood maintenance facility to accommodate an increase in BRT vehicles and fixed-route service vehicles operating in the system. The expanded storage yard would have a capacity of approximately 159 vehicles (for a mix of 40-foot standard buses and 60-foot articulated buses/BRT vehicles). Construction of the expanded facility is anticipated to be completed in 2017. The No-Build Alternative does not include further expansion of LTD's existing operations and maintenance facility.

3.1.2 Operations

3.1.2.1 Roadway

Roadway operations would be the same as current conditions on Highway 99 and Barger Drive. There are no planned operations improvements in the corridor.

Highway 99 would continue to have two travel lanes in each direction and a center turn lane along most of the corridor. Barger Drive, with the exception of the capital improvements noted previously, would continue to have one travel lane in each direction and a center turn lane.

3.1.2.2 Bus

The No-Build transit network for all corridors is described in Section 1.4.

LTD Routes 41 and 95 would continue serving the corridor under the No-Build Alternative. Route 95 runs along Highway 99 and between Eugene Station and Junction City. Route 41 would change from its current alignment to operate on Highway 99, Royal Avenue, W. 11th Avenue, and 13th Avenue. Route 41 would operate with 15-minute peak frequencies, 30-minute midday frequencies, and 60-minute evening frequencies. Route 95, which primarily serves commuters from Junction City, would operate with approximately eight round trips per day. Route 40, while it does not run along Highway 99 itself, would continue to serve the corridor with stops in downtown Eugene and on Highway 99, Roosevelt Boulevard, and Barger Drive.

3.1.2.3 EmX

The No-Build Alternative would not include EmX service on Barger Drive or Highway 99 (west of Garfield). For the 2035 planning year, the No-Build Alternative would include the following EmX lines:

- Franklin EmX, an east-west line serving downtown Eugene and downtown Springfield (existing)
- Gateway EmX, a north-south line serving downtown Springfield and North Springfield (existing)
- West Eugene EmX, an east-west line serving downtown Eugene and West Eugene (currently under construction with an anticipated opening in 2017)
- Anticipated EmX service on Main Street in Springfield from Springfield Station to Thurston Station

The Franklin and West Eugene EmX lines would continue to serve the downtown Eugene terminus of this corridor.

3.2 Enhanced Corridor Alternative

3.2.1 Capital Improvements

This section describes the roadway, bicycle, pedestrian, and transit capital improvements that would occur under the Enhanced Corridor Alternative as compared to the No-Build Alternative. Figure 3.2-1 illustrates bus and roadway capital improvements, and Figure 3.2-2 illustrates bicycle and pedestrian improvements that would occur as part of this alternative.

3.2.1.1 Roadway

The Enhanced Corridor Alternative would include the following new roadway improvements, listed in order from Eugene Station north to the corridor terminus at Cubit Street and Barger Drive:

- Convert one existing general-purpose lane to a BAT lane on the south side of W. 7th Avenue, from W. 7th Place to Garfield Street
- Construct transit queue jumps at the following intersections:
    - Highway 99 and Roosevelt Boulevard
    - Highway 99 and Barger Drive
- Construct BAT lanes in both directions on Highway 99 approaching Roosevelt Boulevard
- Construct a bus-only left-turn lane on Highway 99 onto westbound Barger Drive
- Reconstruct traffic signals at the following intersections:
    - W. 7th Avenue and W. 7th Place
    - Highway 99 and W. 5th Avenue
    - Highway 99 and Roosevelt Boulevard
    - Highway 99 and Royal Avenue
    - Highway 99 and Fairfield Avenue
    - Highway 99 and Bethel Drive
    - Highway 99 and Barger Drive
- Widen Cubit Street to accommodate two layover spaces for 60-foot articulated buses
- Construct a new traffic signal at the driveway north of Barger Drive and Cubit Street

Figure 3.2-1. Enhanced Corridor Alternative Transit and Roadway Improvements

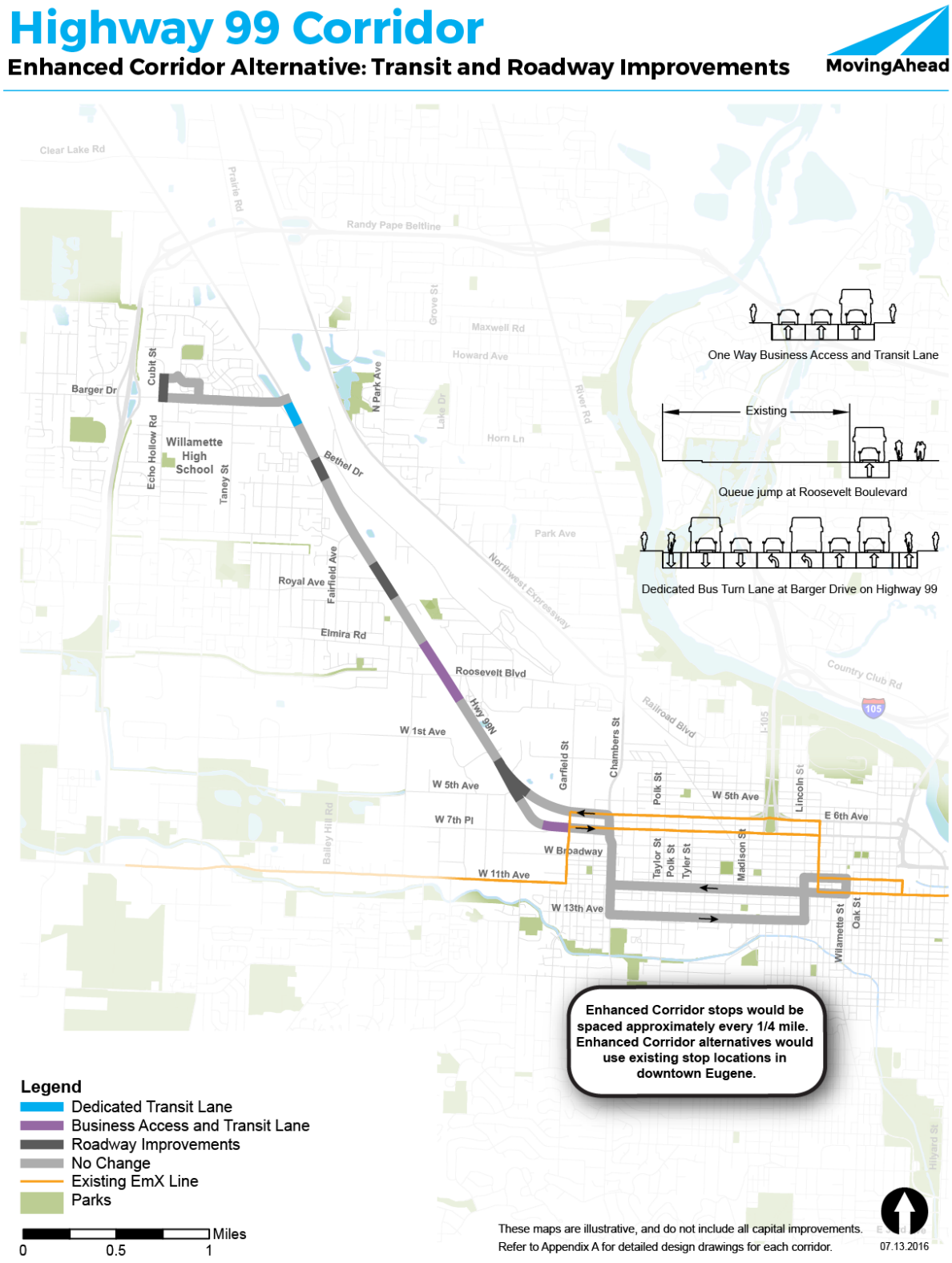


Figure 3.2-2. Enhanced Corridor Alternative Pedestrian and Bicycle Improvements

3.2.1.2 Bicycle and Pedestrian Facilities

The Enhanced Corridor Alternative would include the following bicycle and pedestrian facilities in addition to those of the No-Build Alternative, listed in order from Eugene Station north to the corridor terminus at Cubit Street and Barger Drive:

- Nine new crossings at the following locations:
  - Highway 99 and W. 5th Avenue
  - Highway 99 and Side Street
  - Highway 99 south of Royal Avenue
  - Highway 99 north of Richard Avenue
  - Highway 99 south of Fairfield Avenue
  - Highway 99 south of Pattison Street
  - Highway 99 north of Pattison Street
  - Barger Drive east of Century Drive
  - Barger Drive east of Altamont Street
- Two enhanced existing crossings at the following locations:
  - Chambers Street and W. 12th Avenue
  - Chambers Street and Broadway

Other pedestrian and bicycle improvements under the Enhanced Corridor Alternative include:

- Reconstruct sidewalks at some locations and replace curb ramps at all locations where construction occurs
- Construct new sidewalk on W. 6th Avenue from W. 5th Avenue to Garfield Street
- Construct a pedestrian bridge across the freight railroad line, from Highway 99 just north of Side Street east to Trainsong Park
- Construct new sidewalk on the north side of Barger Drive from Highway 99 to near Century Drive

3.2.1.3 Bus Facilities and Vehicles

Bus stops would be spaced approximately 0.25 mile apart, except where existing bus stops and spacing would be used as noted below. Some stops would be improved with seating and shelters.

The corridor terminates north of the intersection of Barger Drive and Cubit Street with the final outbound stop at the layover location north of this intersection. The bus would layover at this location before picking up inbound passengers. Buses reach this terminus by turning north onto Altamont Street from Barger Drive and traveling north to Aerial Way. Buses turn west on Aerial Way from Altamont Street, then turn west on Wagner Street and south on Cubit Street, reaching the terminus layover location on the west side of Cubit Street. The terminus includes two layover spaces for 60-foot articulated buses. This layover facility includes space for a toilet.

Under the Enhance Corridor Alternative, the following 13 existing stops would be used for bus service, but would not receive capital improvements:

- Eugene Station
- W. 11th Avenue and Lincoln Street westbound
- W. 13th Avenue and Lincoln Street eastbound
- W. 11th Avenue and Jefferson Street westbound
- W. 13th Avenue and Washington Street eastbound
- W. 11th Avenue and Monroe Street westbound

- W. 13th Avenue and Monroe Street eastbound
- W. 11th Avenue and Jackson Street westbound
- W. 13th Avenue and Jackson Street eastbound
- W. 11th Avenue and Polk Street westbound
- W. 13th Avenue and Polk Street eastbound
- W. 11th Avenue and Almaden Street westbound
- W. 13th Avenue and Chambers Street eastbound

Under the Enhanced Corridor Alternative, the following eight existing stop locations would receive capital improvements:

- Highway 99 and Roosevelt Boulevard northbound
- Highway 99 and Roosevelt Boulevard southbound
- Highway 99 between Fairfield Avenue and Richard Street northbound
- Highway 99 between Fairfield Avenue and Richard Street southbound
- Highway 99 and Pattison Street northbound
- Highway 99 and Pattison Street southbound
- Highway 99 and Bethel Drive northbound
- Highway 99 and Bethel Drive southbound

Under the Enhanced Corridor Alternative, the following 11 new stop locations would be constructed:

- Highway 99 and W. 5th Avenue northbound
- Highway 99 and W. 5th Avenue southbound
- Highway 99 and Elmira Road northbound
- Highway 99 and Elmira Road southbound
- Highway 99 and Royal Avenue northbound
- Highway 99 and Royal Avenue southbound
- Barger Drive and Highway 99 westbound
- Highway 99 and Barger Drive southbound
- Barger Drive and N. Clarey Street westbound
- Barger Drive and N. Clarey Street eastbound
- Cubit Street north of Barger Drive northbound and southbound (terminus)

Under the Enhanced Corridor Alternative, the following new layover facility would be constructed:

- West side of Cubit Street north of Barger Drive (terminus)

Under the Enhanced Corridor Alternative, the following existing stop would be improved for the extended Route 36:

- East side of Cubit Street north of Barger Drive

There would be 16 fewer bus stops in the corridor under this alternative as compared to the No-Build Alternative, due to increased stop spacing.

Under the Enhanced Corridor Alternative, LTD would have 73 fixed-route service buses (mix of 40-foot and 60-foot buses) and 15 spares operating in the system, a reduction of one bus as compared to the No-Build Alternative.

3.2.1.4 EmX Facilities and BRT Vehicles

Under the Enhanced Corridor Alternative, EmX facilities and BRT vehicles would be the same as under the No-Build Alternative.

3.2.1.5 Park and Ride Facilities

Under the Enhanced Corridor Alternative, park and ride facilities would be the same as under the No-Build Alternative.

3.2.1.6 Operations and Maintenance Facilities

Under the Enhanced Corridor Alternative, operations and maintenance facilities would be the same as under the No-Build Alternative.

3.2.2 Operations

3.2.2.1 Roadway

Roadway operations under the Enhanced Corridor Alternative would be similar to that of the No-Build Alternative, with the following exceptions:

- BAT lanes would be constructed and available for right-turning vehicles only, as described in Section 3.2.1.1
- Transit queue jumps would alter traffic signal timing at the intersections of Highway 99 and Roosevelt Boulevard and Highway 99 and Barger Drive. These would reduce delay for buses
- A new traffic signal on Cubit Street north of Barger Drive would affect intersection operations
- Signal timing at some existing signalized intersections would be altered to reduce delay for buses

3.2.2.2 Bus

Under the Enhanced Corridor Alternative, outbound buses would exit the downtown Eugene Station traveling westbound onto W. 11th Avenue to Chambers Street, north on Chambers Street to W. 6th Avenue, then west on W. 6th Avenue which becomes Highway 99. The outbound buses would continue north on Highway 99 to Barger Drive, then would continue west on Barger Drive to Altamont Street. Buses would turn north onto Altamont Street and continue northbound to Aerial Way, turn west on Aerial Way until it ends at Wagner Street, then turn west onto Wagner Street. Buses would turn south onto Cubit Street, terminating at the layover facility on the west side of Cubit Street north of Barger Drive.

Inbound buses would board passengers at the layover before continuing south on Cubit Street. From Cubit Street, buses would turn east onto Barger Drive, travel to Highway 99, turn south onto Highway 99, and continue southeast on Highway 99, which becomes W. 7th Avenue. Inbound buses would continue east on W. 7th Avenue to Chambers Street, turn south on Chambers Street, travel south to W. 13th Avenue, turn east onto W. 13th Avenue and continue to travel east to Olive Street, and turn north on Olive Street to the Eugene Station.

Buses would primarily operate in mixed traffic, except at transit queue jump locations, bus-only turn lanes, and sections of BAT lane on W. 7th Avenue and Highway 99 on either side of the intersection with Roosevelt Boulevard. Enhanced Corridor service would run from 6 a.m. to 12 a.m. weekdays, 7 a.m. to 11 p.m. Saturdays, and 8 a.m. to 8 p.m. Sundays. Weekday frequencies would be 15 minutes during peak periods, 15 minutes during off-peak periods, and 30 minutes during the evenings.

Under the Enhanced Corridor Alternative, existing fixed-route service would be similar to the No-Build Alternative, with the following exception:

- Route 41 would be replaced by Highway 99 Enhanced Corridor service. Transit service west of Beltline Highway would be provided by Route 36 as under the No-Build Alternative.

Based on these operational changes, the Enhanced Corridor Alternative would result in 686 additional bus vehicle miles traveled and 28 additional bus revenue hours, as compared to the No-Build Alternative (Table 1.4-2).

3.2.2.3 EmX

Under the Enhanced Corridor Alternative, there would be no change in EmX operating characteristics as compared to the No-Build Alternative.

3.3 EmX Alternative

3.3.1 Capital Improvements

This section describes the roadway, bicycle, pedestrian, and transit capital improvements that would occur under the EmX Alternative, as compared to the No-Build Alternative. Figure 3.3-1 illustrates EmX and roadway capital improvements, and Figure 3.3-2 illustrates bicycle and pedestrian improvements that would occur as part of this alternative.

3.3.1.1 Roadway

The EmX Alternative would include the following roadway capital improvements in addition to those of the No-Build Alternative, listed in order from Eugene Station north to the corridor terminus at Cubit Street and Barger Drive:

- Convert one existing general-purpose lane to a BAT lane on the south side of W. 7th Avenue, from W. 7th Place to Garfield Street
- Construct transit queue jumps at the following intersections:
  - Highway 99 and Roosevelt Boulevard
  - Highway 99 and Royal Avenue
  - Highway 99 and Bethel Drive
  - Highway 99 and Barger Drive
- Construct BAT lanes in both directions on Highway 99 approaching Roosevelt Boulevard
- Construct dual northbound left-turn lanes from Highway 99 onto Roosevelt Boulevard westbound for auto traffic
- Construct a bus-only left-turn lane from Highway 99 northbound onto Barger Drive westbound
- Construct a new traffic signal at the intersection of the driveway north of Barger Drive and Cubit Street
- Reconstruct traffic signals at the following intersections:
  - W. 7th Avenue and W. 7th Place
  - Highway 99 and W. 5th Avenue
  - Highway 99 and Roosevelt Boulevard
  - Highway 99 and Royal Avenue
  - Highway 99 and Fairfield Avenue
  - Highway 99 and Bethel Drive
  - Highway 99 and Barger Drive
- Widen Cubit Street to accommodate two layover spaces for 60-foot BRT vehicles

- Restripe Highway 99 to accommodate a buffered bicycle lane (this would narrow vehicle travel lanes)

3.3.1.2 Bicycle and Pedestrian

The EmX Alternative would include the following bicycle and pedestrian facilities in addition to those of the No-Build Alternative, listed in order from Eugene Station north to the corridor terminus at Cubit Street and Barger Drive:

- Eight new crossings at the following locations:
  - Highway 99 and Side Street
  - Highway 99 south of Royal Avenue
  - Highway 99 north of Richard Avenue
  - Highway 99 south of Fairfield Avenue
  - Highway 99 south of Pattison Street
  - Highway 99 north of Pattison Street
  - Barger Drive east of Century Drive
  - Barger Drive between Altamont Street and N. Clarey Street
- One enhanced crossing at the following location:
  - Highway 99 and W. 5th Avenue

This alternative also includes the following improvements:

- Reconstruct sidewalks at some locations and replace curb ramps at all locations where construction occurs
- Construct new sidewalk on W. 6th Avenue from W. 5th Avenue to Garfield Street
- Restripe Highway 99 to create a buffered bicycle lane north of Roosevelt Boulevard to Barger Drive
- Construct a pedestrian bridge across the freight railroad line, from Highway 99 just north of Side Street east to Trainsong Park
- Restripe Barger Drive to create a buffered bicycle lane on the north side of Barger Drive from Highway 99 to Cubit Street
- Construct new sidewalk on the north side of Barger Drive from Highway 99 to near Century Drive

Figure 3.3-1. EmX Alternative Transit and Roadway Improvements

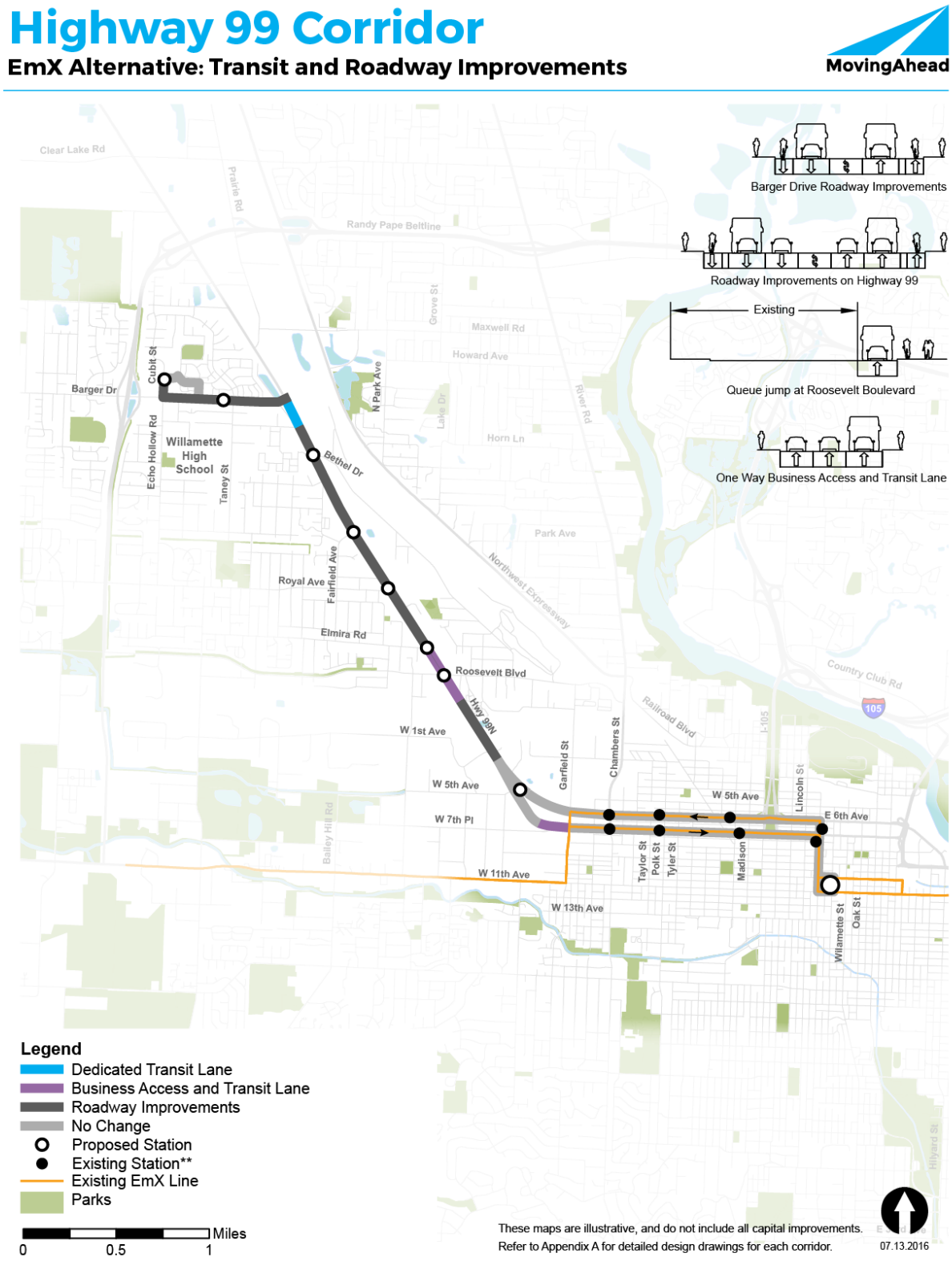


Figure 3.3-2. EmX Alternative Pedestrian and Bicycle Improvements

3.3.1.3 Bus Facilities and Vehicles

Under the EmX Alternative, there would be no changes from the No-Build Alternative for bus facilities, except for the following:

- Remove up to 24 bus stops due to replacement of fixed-route service with EmX service, which has greater station spacing

Under the EmX Alternative, LTD would have 72 fixed-route service buses (mix of 40-foot and 60-foot buses) and 14 spares operating in the system, a reduction of three vehicles (includes one spare) as compared to the No-Build Alternative.

3.3.1.4 EmX Facilities and BRT Vehicles

The EmX Alternative would use existing station facilities at Eugene Station and along W. 6th and W. 7th Avenues from downtown Eugene to Garfield Street. EmX stations would have level boarding and tactile treatment to help facilitate BRT vehicle docking and boarding and alighting of passengers, as well as amenities like shelters, benches, trash receptacles, bicycle racks, and fare payment kiosks. EmX stations would be spaced approximately 0.33 mile apart, except in the downtown core.

The corridor terminates north of the intersection of Barger Drive and Cubit Street with the final outbound stop at the layover location north of this intersection. The BRT vehicle would layover at this location before picking up inbound passengers. BRT vehicles reach this terminus by turning north onto Altamont Street from Barger Drive and traveling north to Aerial Way. BRT vehicles turn west on Aerial Way from Altamont Street, then turn west on Wagner Street and south on Cubit Street, reaching the terminus layover location on the west side of Cubit Street. The terminus includes two layover spaces for BRT vehicles. This layover facility includes space for a toilet.

Under the EmX Alternative, one bus bay at Eugene Station would be improved to accommodate BRT vehicles.

The following eight existing EmX stations would receive no capital improvements and would be used with Highway 99 EmX service:

- W. 6th Avenue and Charnelton Street westbound
- W. 7th Avenue and Charnelton Street eastbound
- W. 6th Avenue and Monroe Street westbound
- W. 7th Avenue and Monroe Street eastbound
- W. 6th Avenue and Polk Street westbound
- W. 7th Avenue and Polk Street eastbound
- W. 6th Avenue and Chambers Street westbound
- W. 7th Avenue and Chambers Street eastbound

Fourteen new EmX stations would be constructed at the following locations:

- Highway 99 and W. 5th Avenue northbound
- Highway 99 and W. 5th Avenue southbound
- Highway 99 and Roosevelt Boulevard northbound
- Highway 99 and Roosevelt Boulevard southbound
- Highway 99 and Elmira Street northbound
- Highway 99 and Elmira Street southbound
- Highway 99 and Royal Avenue northbound
- Highway 99 and Royal Avenue southbound

- Highway 99 and Fairfield Avenue northbound
- Highway 99 and Fairfield Avenue southbound
- Highway 99 and Bethel Drive northbound
- Highway 99 and Bethel Drive southbound
- Barger Drive between N. Clarey Street and Altamont Street westbound and eastbound
- Cubit Street north of Barger Drive northbound and southbound (terminus)

The following new layover facility would be constructed:

- West side of Cubit Street north of Barger Drive (terminus)

Under the EmX Alternative, the following new stop would be constructed for the extended Route #36:

- East side of Cubit Street north of Barger Drive

Under the EmX Alternative, LTD would have 23 BRT vehicles (60-foot articulated) and 6 spares operating in the system, an addition of 5 BRT vehicles (includes 2 spares) as compared to the No-Build Alternative.

3.3.1.5 Park and Ride Facilities

The EmX Alternative would include the same park and ride facilities as under the No-Build Alternative.

3.3.1.6 Operations and Maintenance Facilities

The EmX Alternative would include the same operations and maintenance facilities as under the No-Build Alternative.

3.3.2 Operations

3.3.2.1 Roadway

Roadway operations under the EmX Alternative would be similar to that of the No-Build Alternative with the following exceptions:

- Transit queue jumps would alter traffic signal timing at the intersections of Highway 99 and Roosevelt Boulevard, Highway 99 and Royal Avenue, Highway 99 and Bethel Drive, and Highway 99 and Barger Drive. These would reduce delay for BRT vehicles
- Dual turn lanes at the intersection of Highway 99 and Roosevelt Boulevard would accommodate more traffic turning west onto Roosevelt Boulevard
- A reduction in the number of general-purpose lanes to construct BAT lanes would reduce vehicular capacity. BAT lanes would be constructed and available for right-turning vehicles only at the following locations:
    - W. 7th Avenue, from W. 7th Place to Garfield Street
    - Both directions on Highway 99 approaching Roosevelt Boulevard
- Signal timing at some existing signalized intersection would be altered

3.3.2.2 Bus

Bus operations under the EmX Alternative would be similar to the bus operations under the No-Build Alternative, with the following exception:

- Route 41 would be replaced by Highway 99 EmX service. Transit service from Cubit Street to west of the terminus and Randy Papé Beltline Highway would be provided by Route 36.

Based on these operational changes, the EmX Alternative would result in 10 fewer bus vehicle miles traveled and one fewer bus revenue hour, as compared with the No-Build Alternative. (Table 1.4-2).

3.3.2.3 EmX

Under the EmX Alternative, outbound BRT vehicles would leave the Eugene Station, travel west on W. 11th Avenue, turn north onto Charnelton Street, travel north to W. 6th Avenue, then turn west on W. 6th Avenue. BRT vehicles would continue west on W. 6th Avenue, which becomes Highway 99 west of Garfield Street, and continue northwest to Barger Drive. BRT vehicles would turn west onto Barger Drive, continue west on Barger Drive to Altamont Street, then turn north onto Altamont Street. BRT vehicles would travel north on Altamont Street, turn west onto Aerial Way, then travel west on Aerial Way. From Aerial Way, BRT vehicles would travel west on Wagner Street, turn south on Cubit Street, and terminate at the layover station on the west side of Cubit Street north of Barger Drive.

Inbound, BRT vehicles would exit the terminus traveling south on Cubit Street to Barger Drive, turn east on Barger Drive, and travel on Barger Drive to Highway 99. BRT vehicles would turn south on Highway 99 and travel southeast on Highway 99 until it becomes W. 7th Avenue. BRT vehicles would continue east on W. 7th Avenue, turn south onto Charnelton Street, turn east onto W. 10th Street, and terminate at the Eugene Station. Inbound BRT vehicles may use alternate layover bays at Eugene Station if a late-departing BRT vehicle is occupying the scheduled layover location.

BRT vehicles would primarily operate in mixed traffic, except at transit queue jump locations, bus-only left-turn lanes, and sections of BAT lane on Highway 99. Under the EmX Alternative, the EmX system would extend from Eugene Station northwest to the intersection of Barger Drive and Cubit Street.

Final routing decisions will be made as EmX corridors are implemented.

EmX service would run from 6 a.m. to 12 a.m. weekdays, 7 a.m. to 11 p.m. Saturdays, and 8 a.m. to 8 p.m. Sundays. Service frequencies would be 10 minutes during peak periods, 10 minutes during off-peak periods, and 15 minutes during the evenings.

The EmX Alternative would result in 1,074 additional BRT vehicle miles traveled and 50 additional BRT revenue hours as compared to the No-Build Alternative (average weekdays in 2035).

4. River Road Corridor Alternatives

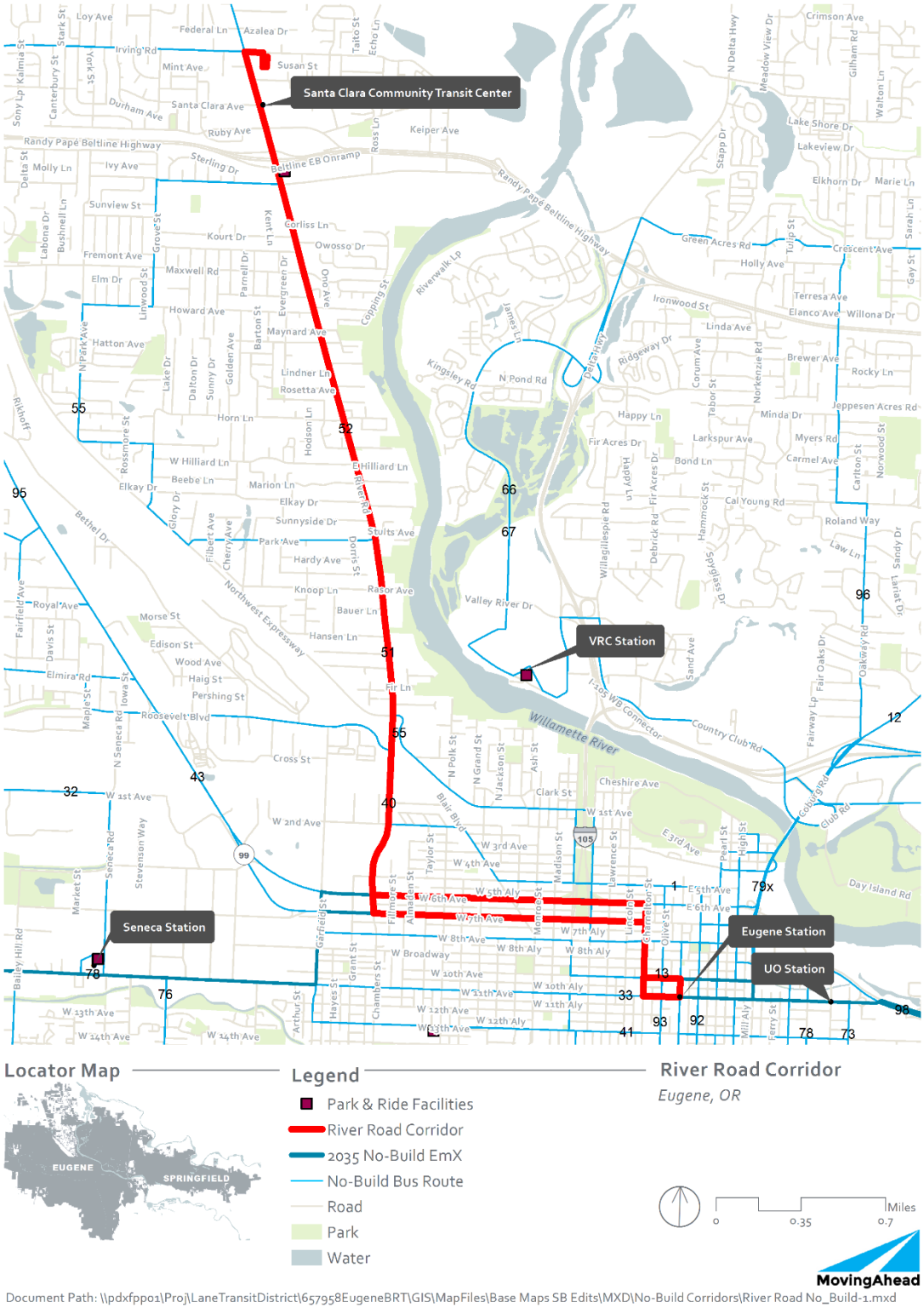
The River Road Corridor begins at the Eugene Station and travels north to the Santa Clara Community Transit Center (intersection of Hunsaker Lane and River Road). This corridor is approximately 10.3 round trip miles.

4.1 No-Build Alternative

4.1.1 Capital Improvements

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

Figure 4.1-1. River Road No-Build Transit Network



Source: CH2M, 2016

4.1.1.1 Roadway

The No-Build Alternative would not include capital improvements to River Road. River Road would continue to have two travel lanes in each direction and a center turn lane.

As part of the 2035 Eugene TSP, the following roadway project is planned adjacent to the corridor:

- Upgrade the Hunsaker Lane/Beaver Street 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

4.1.1.2 Bicycle and Pedestrian Facilities

Currently, sidewalks are present on some streets along and adjacent to the corridor. Bicycle lanes are present along sections of the major streets within the corridor, including along River Road.

The 2035 Eugene TSP identifies the following bicycle and pedestrian projects along or adjacent to the corridor:

- Bicycle boulevards on Ruby Avenue, Horn Lane, Arbor Drive, and Park Avenue
- Sidewalks on Hunsaker Lane, Howard Avenue, and Hilliard Lane
- Protected bicycle lanes on River Road from the Northwest Expressway to Division Avenue

4.1.1.3 Bus Facilities and Vehicles

The No-Build Alternative would include 64 existing bus stops along River Road (based on the Enhanced Corridor Alternative alignment) and in downtown Eugene and two transit centers (Eugene Station in downtown Eugene and Santa Clara Community Transit Center at the terminus of the corridor). Figure 4.1-1 shows the No-Build Alternative transit network.

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, affordable housing, community space, and commercial uses. The River Road Station relocation to the new site is anticipated to be completed by 2018 and is included as part of the No-Build Alternative.

Under the No-Build Alternative, LTD would have 74 fixed-route service buses (mix of 40-foot and 60-foot buses) and 15 spares operating in the system.

4.1.1.4 EmX Facilities and BRT Vehicles

The No-Build Alternative includes EmX facilities associated with the existing EmX service (Franklin and Gateway lines), those currently under construction for the West Eugene EmX line, and the Main Street EmX Extension line which is anticipated in the 2035 RTP. Under the No-Build Alternative, no other major EmX facility improvements would be made.

LTD would have 19 BRT vehicles (60-foot articulated) and five spares operating in the system (including West Eugene EmX line BRT vehicles, which have already been added to the fleet, and Main Street EmX line BRT vehicles). Under the No-Build Alternative, LTD's fleet of BRT vehicles would remain the same.

4.1.1.5 Park and Ride Facilities

The No-Build Alternative would include LTD's current leased and owned park and ride facilities and would not include additional park and ride facilities along the corridor. There is one existing park and ride lot at River Road Station (owned, 118 spaces). Park and ride facilities at the River Road Station will be partially replaced at the Santa Clara Community Transit Center, which is anticipated to have 66 spaces.

4.1.1.6 Operations and Maintenance Facilities

Under the No-Build Alternative, LTD would continue to use its one existing operations and maintenance facility in the region, located in Springfield on Glenwood Boulevard. LTD plans to expand its Glenwood maintenance facility to accommodate an increase in BRT vehicles and fixed-route service buses operating in the system. The expanded storage yard would have a capacity of approximately 159 vehicles (for a mix of 40-foot standard buses and 60-foot articulated buses/BRT vehicles). Construction is anticipated to be completed in 2017. The No-Build Alternative does not include further expansion of LTD's existing operations and maintenance facility.

4.1.2 Operations

4.1.2.1 Roadway

Roadway operations would be the same as existing conditions on River Road. There are no planned operations improvements in the corridor.

4.1.2.2 Bus

The No-Build transit network for all corridors is described in Section 1.4.

The River Road section of the corridor would continue to be served primarily by LTD Routes 51 and 52, with Route 55 serving areas along and to the west of River Road. Route 55 would be extended on River Road to terminate at the new Santa Clara Community Transit Center. Routes 51 and 52 would operate with 30-minute frequencies during the peak period, and Route 55 would have 60-minute frequencies all day. Routes 51 and 52 would operate with staggered schedules, such that service would effectively operate with 15-minute frequencies along most of the corridor.

4.1.2.3 EmX

The No-Build Alternative would not include EmX service on River Road. For the 2035 planning year, the No-Build Alternative would include the following EmX lines:

- Franklin EmX, an east-west line serving downtown Eugene and downtown Springfield (existing)
- Gateway EmX, a north-south line serving downtown Springfield and North Springfield (existing)
- West Eugene EmX, an east-west line serving downtown Eugene and West Eugene (currently under construction with an anticipated opening in 2017)
- Anticipated EmX service on Main Street in Springfield from Springfield Station to Thurston Station

The Franklin and West Eugene EmX lines would continue to serve the downtown Eugene Station.

4.2 Enhanced Corridor Alternative

4.2.1 Capital Improvements

This section describes the roadway, bicycle, pedestrian, and transit capital improvements that would occur under the Enhanced Corridor Alternative, as compared to the No-Build Alternative. Figures 4.2-1

illustrates bus and roadway capital improvements, and Figure 4.2-2 illustrates bicycle and pedestrian improvements that would occur as part of this alternative. Note that the Enhanced Corridor Alternative follows existing bus routing from Eugene Station to River Road with buses alternating between routes on Blair Boulevard and W. 2nd Avenue, and W. 5th Avenue and Railroad Avenue (currently Routes 51 and 52).

4.2.1.1 Roadway

The Enhanced Corridor Alternative would include the following roadway improvements in addition to those of the No-Build Alternative, listed in order from Eugene Station north to the corridor terminus at Santa Clara Community Transit Center:

- Construct a right-turn lane on River Road northbound at the intersection with Railroad Boulevard for turning vehicles. This lane would also be used as a queue jump for buses
- Reconstruct the traffic signal at River Road and Silver Lane
- Construct northbound BAT lane approaching Silver Lane
- Construct BAT lanes in both directions from the south Randy Papé Beltline Highway ramp terminal to Silver Lane. Buses would travel in mixed traffic under the interchange itself
- Construct a BAT lane north of Randy Papé Beltline Highway ramp terminal to Division Avenue

4.2.1.2 Bicycle and Pedestrian

The Enhanced Corridor Alternative would include the following bicycle and pedestrian facilities in addition to those of the No-Build Alternative, listed in order from Eugene Station north to the corridor terminus at Santa Clara Community Transit Center:

- Three new crossings at the following locations:
    - River Road and Briarcliff Loop
    - River Road and Elkay Drive
    - River Road and Corliss Lane
- Five enhanced crossings at the following locations:
    - River Road and Hansen Lane
    - River Road and Knoop Lane
    - River Road and Merry Lane
    - River Road and Silver Lane
    - River Road and Division Avenue

Other improvements under the Enhanced Corridor Alternative include:

- Reconstruct sidewalks at some locations and replace curb ramps at all locations where construction occurs
- Construct sidewalk bulb outs (extending into the roadway) at some stops to allow buses to stop without leaving the travel lane

Figure 4.2-1. Enhanced Corridor Alternative Transit and Roadway Improvements

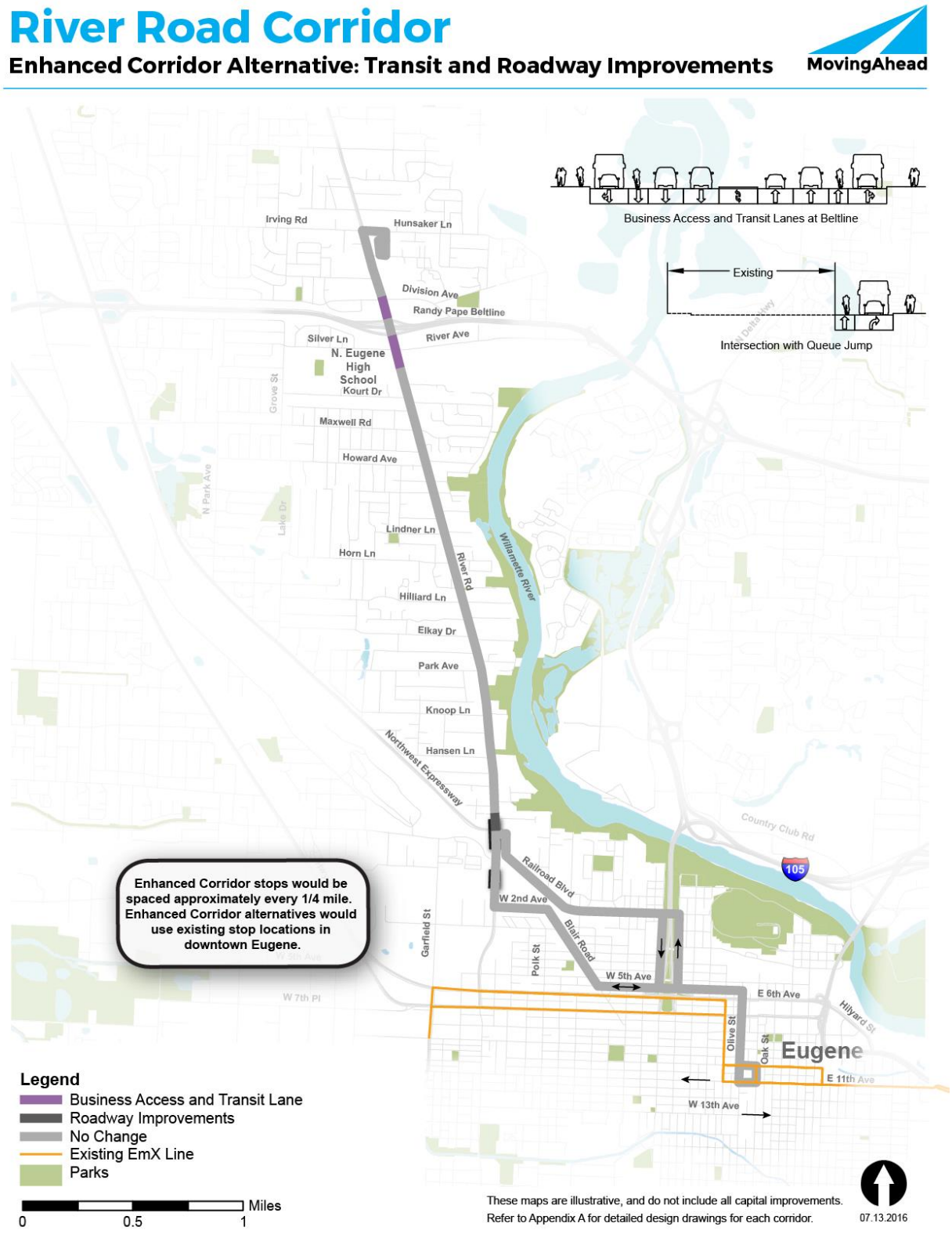


Figure 4.2-2. Enhanced Corridor Alternative Pedestrian and Bicycle Improvements

4.2.1.3 Bus Facilities and Vehicles

Bus stops would be spaced approximately 0.25 mile apart, except where existing bus stops and spacing would be used as noted below. Some stops in the corridor would be improved with seating and shelters. Between the Eugene Station and the W. 2nd Avenue and River Road intersection, buses would use existing roadway and bus stops without capital improvements.

Under the Enhanced Corridor Alternative, the following 31 existing stops would be used for bus service, but would receive no capital improvements:

Route A:

- Washington Street between W. 5th and 4th Avenues northbound
- Jefferson Street between W. 5th and 4th Avenues southbound
- Washington Street and W. 3rd Street northbound
- Jefferson Street and W. 1st Street southbound
- W. 1st Avenue and Adams Street westbound
- W. 1st Avenue and Monroe Street eastbound
- W. 1st Avenue and N. Jackson Street westbound
- W. 1st Avenue and N. Jackson Street eastbound
- Railroad Boulevard and N. Polk Street northbound
- Railroad Boulevard and N. Polk Street southbound
- Railroad Boulevard and Cross Street northbound
- Railroad Boulevard and Cross Street southbound

Route B:

- W. 5th Avenue and Madison Street eastbound
- W. 5th Avenue and Monroe Street westbound
- W. 5th Avenue and Adams Street eastbound
- Blair Boulevard and W. 4th Avenue northbound
- Blair Boulevard and W. 4th Avenue southbound
- Blair Boulevard and W. 2nd Avenue southbound
- W. 2nd Avenue and Blair Boulevard westbound
- W. 2nd Avenue and Taylor Street westbound
- W. 2nd Avenue and Taylor Street eastbound
- W. 2nd Avenue and Chambers Street eastbound
- Chambers Street and W. 2nd Avenue northbound

Both routes:

- Eugene Station
- Olive Street between W. 8th and W. 7th Avenues northbound
- Olive Street between W. 7th and W. 8th Avenues southbound
- W. 5th Avenue and Olive Street westbound
- W. 5th Avenue and Olive Street eastbound
- W. 5th Avenue between Lawrence and Washington Streets westbound
- W. 5th Avenue between Washington and Lawrence Streets eastbound
- Santa Clara Community Transit Center (terminus)

Under the Enhanced Corridor Alternative, the following 28 new stop locations would be constructed:

- Chambers Street and W. 2nd Avenue northbound
- Chambers Street and W. 1st Avenue southbound
- River Road and Northwest Expressway northbound
- River Road and Northwest Expressway southbound
- River Road and Hansen Lane northbound
- River Road and Hansen Lane southbound
- River Road and Knoop Lane northbound
- River Road and Knoop Lane southbound
- River Road and Park Avenue northbound
- River Road and Park Avenue southbound
- River Road and Elkay Drive northbound
- River Road and Elkay Drive southbound
- River Road and Hilliard Lane northbound
- River Road and Hilliard Lane southbound
- River Road and Horn Lane northbound
- River Road and Horn Lane southbound
- River Road and Merry Lane northbound
- River Road and Merry Lane southbound
- River Road and Howard Avenue northbound
- River Road and Howard Avenue southbound
- River Road and Maxwell Road northbound
- River Road and Maxwell Road southbound
- River Road and Corliss Lane northbound
- River Road and Corliss Lane southbound
- River Road and Silver Lane northbound
- River Road and Silver Lane southbound
- River Road and Division Avenue northbound
- River Road and Division Avenue southbound

There would be 5 fewer bus stops in the corridor under the Enhanced Corridor Alternative as compared to the No-Build Alternative, due to increased stop spacing in the corridor.

Under the Enhanced Corridor Alternative, LTD would have 72 fixed-route service buses (mix of 40-foot and 60-foot buses) and 14 spares operating in the system, a reduction of three buses (including one spare) as compared to the No-Build Alternative.

4.2.1.4 EmX Facilities and BRT Vehicles

Under the Enhanced Corridor Alternative, EmX facilities and BRT vehicles would be the same as under the No-Build Alternative.

4.2.1.5 Park and Ride Facilities

Under the Enhanced Corridor Alternative, park and ride facilities would be the same as under the No-Build Alternative.

4.2.1.6 Operations and Maintenance Facilities

Under the Enhanced Corridor Alternative, operations and maintenance facilities would be the same as under the No-Build Alternative.

4.2.2 Operations

4.2.2.1 Roadway

Roadway operations under the Enhanced Corridor Alternative would be similar to that of the No-Build Alternative with the following exceptions:

- Construction of a right-turn lane described in Section 4.2.1.1 would improve right-turning movements for vehicles
- Construction of BAT lanes that would be available for right-turning vehicles only, as described in Section 4.2.1.1
- Alter signal timing at some existing signalized intersection

4.2.2.2 Bus

Under the Enhanced Corridor Alternative, outbound buses would exit the Eugene Station onto Olive Street, travel north on Olive Street, then west on W. 5th Avenue. The bus would then travel in one of two directions:

- North along Washington Street to W. 1st Avenue, then west on W. 1st Avenue, which becomes Railroad Boulevard, and continuing west on Railroad Boulevard to River Road
- Continuing west on W. 5th Avenue to Blair Boulevard, northwest on Blair Boulevard to W. 2nd Avenue, west onto W. 2nd Avenue, and continuing westbound to Chambers Street, and north on Chambers Street, which becomes River Road

From either route, the bus would travel northbound on River Road past Northwest Expressway and through the Randy Papé Beltline Highway interchange, east on Hunsaker Lane, then south into the terminus at the Santa Clara Community Transit Center.

Inbound buses would exit the Santa Clara Community Transit Center, turning west onto Hunsaker Lane, south onto River Road, and continue traveling south through the Randy Papé Beltline Highway interchange to Northwest Expressway. From Northwest Expressway, based on alternating schedules, the bus would head one of two directions:

- Southeast on Railroad Boulevard to W. 1st Avenue, east on W. 1st Avenue to Jefferson Street, then south on Jefferson Street until reaching W. 5th Avenue
- South on River Road until it becomes Chambers Street, south on Chambers Street to W. 2nd Avenue, east on W. 2nd Avenue, then southeast on Blair Boulevard to W. 5th Avenue

These two routes would be served by alternating schedules (i.e., every other bus would run on W. 2nd Avenue).

From either route, buses would continue east on W. 5th Avenue to Olive Street, turn south on Olive Street, then travel south on Olive Street to Eugene Station.

Enhanced Corridor service would run from 6 a.m. to 12 a.m. weekdays, 7 a.m. to 11 p.m. Saturdays, and 8 a.m. to 8 p.m. Sundays. Weekday frequencies would be 15 minutes during peak periods, 15 minutes during off- peak periods, and 30 minutes during the evenings.

Under the Enhanced Corridor Alternative, existing fixed-route service would be similar to the No-Build Alternative with the following exceptions:

- Eliminate Route 51 (replaced by Enhanced Corridor service)
- Eliminate Route 52 (replaced by Enhanced Corridor service)

Based on these operational changes, the Enhanced Corridor Alternative would result in 206 additional bus vehicle miles traveled and the same bus revenue hours, as compared with the No-Build Alternative (Table 1.4-2).

4.2.2.3 EmX

Under the Enhanced Corridor Alternative, there would be no change in EmX operating characteristics as compared to the No-Build Alternative.

4.3 EmX Alternative

4.3.1 Capital Improvements

This section describes the roadway, bicycle, pedestrian, and transit capital improvements that would occur under the EmX Alternative, as compared to the No-Build Alternative. Figure 4.3-1 illustrates EmX and roadway capital improvements, and Figure 4.3-2 illustrates bicycle and pedestrian improvements that would occur as part of this alternative.

Figure 4.3-1. EmX Alternative Transit and Roadway Improvements

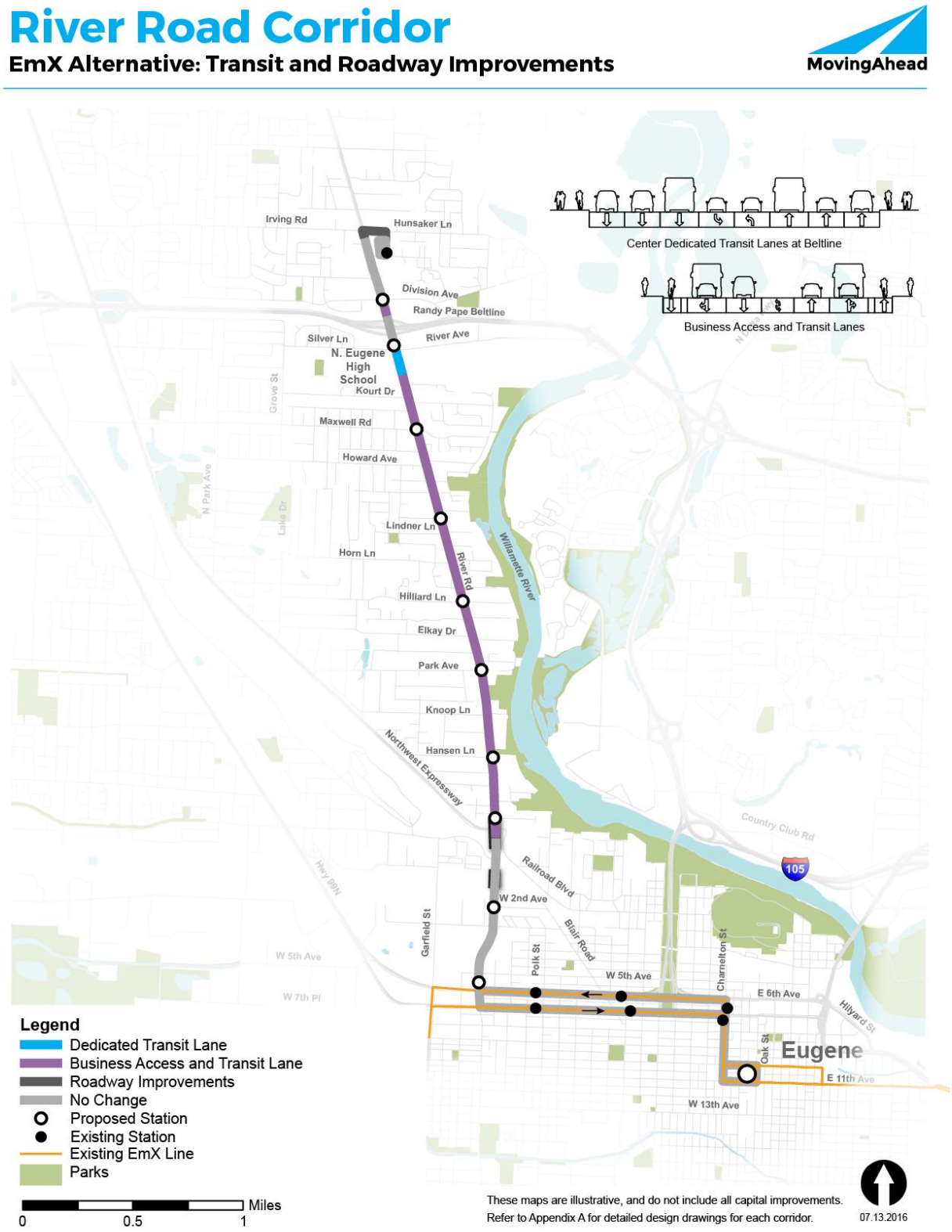
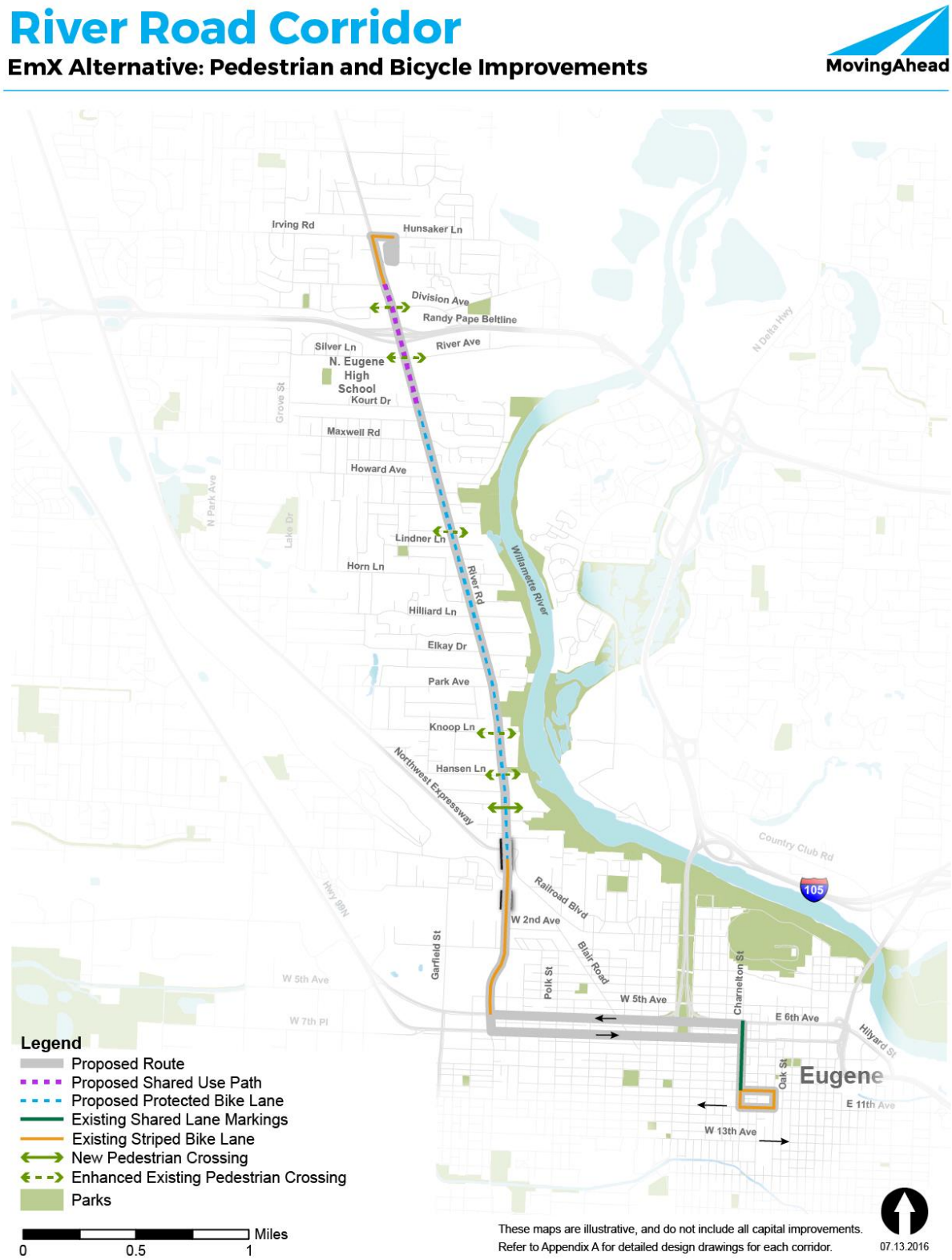


Figure 4.3-2. EmX Alternative Pedestrian and Bicycle Improvements



4.3.1.1 Roadway

The EmX Alternative would include the following roadway capital improvements in addition to those of the No-Build Alternative, listed in order from Eugene Station north to the corridor terminus at Santa Clara Community Transit Center:

- Construct a northbound right-turn lane from River Road to Railroad Boulevard to facilitate vehicles turnings onto Railroad Boulevard. This lane would also be used as a queue jump for buses
- Restripe River Road to include narrower travel lanes and a protected bicycle lane
- Repurpose existing outside general-purpose lanes to BAT lanes on River Road:
  - Northbound from Briarcliff Drive to Kourt Drive
  - Southbound from Kourt Drive to Northwest Expressway
- Construct new center-running bus-only lanes on River Road:
  - Northbound from Corliss Lane to the southern ramp terminal at the Randy Papé Beltline Highway
  - Southbound from the southern ramp terminal at the Randy Papé Beltline Highway to Corliss Lane
- Construct new BAT lanes on River Road:
  - Northbound from the north ramp terminal of the Randy Papé Beltline Highway to Division Avenue
  - Southbound from Division Avenue to the north ramp terminal of the Randy Papé Beltline Highway
- Reconstruct the traffic signals at the intersections of River Road and:
  - Silver Lane
  - Southern ramp terminal at the Randy Papé Beltline Highway interchange
  - Northern ramp terminal at the Randy Papé Beltline Highway interchange
  - Division Avenue
  - Hunsaker Lane
- Construct a new bus-only left-turn lane on Hunsaker Lane westbound to River Road southbound to facilitate left turns onto River Road

4.3.1.2 Bicycle and Pedestrian Facilities

The EmX Alternative would include the following bicycle and pedestrian facilities in addition to those of the No-Build Alternative, listed in order from Eugene Station north to the corridor terminus at Santa Clara Community Transit Center:

- One new crossing at the following location:
  - River Road and Briarcliff Loop
- Five enhanced crossings at the following locations:
  - River Road and Hansen Lane
  - River Road and Knoop Lane
  - River Road and Merry Lane
  - River Road and Silver Lane
  - River Road and Division Avenue

Other improvements under the EmX Alternative include:

- Reconstruct sidewalks at some locations and replace curb ramps at all locations where construction occurs
- Route bicycle lanes behind EmX Stations and away from travel lanes on River Road to reduce bicycle, vehicle, and BRT vehicle conflicts
- Stripe a protected bicycle lane on both sides of River Road from Northwest Expressway north to Silver Lane (requires narrowing travel lanes)
- Replace existing bicycle lane with shared-use path on both sides of River Road from Silver Lane to Division Avenue
- Construct a new eastbound bicycle lane on Hunsaker Lane adjacent to corridor terminus

4.3.1.3 Bus Facilities and Vehicles

Under the EmX Alternative, there would be little change from the No-Build Alternative for bus facilities, except for the following:

- Remove up to 36 bus stops due to replacement with EmX service, which has greater station spacing

Under the EmX Alternative, LTD would have 72 fixed-route service buses (mix of 40-foot and 60-foot buses) and 14 spares operating in the system, which is three fewer buses (includes one spare) as compared to the No-Build Alternative.

4.3.1.4 EmX Facilities and BRT Vehicles

EmX stations would have level boarding and tactile treatment to help facilitate BRT vehicle docking and boarding and alighting of passengers, as well as amenities like shelters, benches, trash receptacles, bicycle racks, and fare payment kiosks. EmX stations would be spaced approximately 0.33 mile apart, except in the downtown core.

Under the EmX Alternative, one bus bay at Eugene Station would be improved to accommodate BRT vehicles.

The following seven existing EmX stations would receive no capital improvements and would be used with the River Road EmX service:

- W. 6th Avenue and Charnelton Street westbound
- W. 7th Avenue and Charnelton Street eastbound
- W. 6th Avenue and Monroe Street westbound
- W. 7th Avenue and Monroe Street eastbound
- W. 6th Avenue and Polk Street westbound
- W. 7th Avenue and Polk Street eastbound
- Santa Clara Community Transit Center (terminus)

Under the EmX Alternative, 20 new EmX stations would be constructed at the following locations:

- Chambers Street and W. 6th Avenue northbound
- Chambers Street and W. 6th Avenue southbound
- Chambers Street and W. 2nd Avenue northbound
- Chambers Street and W. 2nd Avenue southbound
- River Road and Northwest Expressway northbound
- River Road and Northwest Expressway southbound
- River Road and Hansen Lane northbound

- River Road and Hansen Lane southbound
- River Road and Park Avenue northbound
- River Road and Park Avenue southbound
- River Road and Hilliard Lane northbound
- River Road and Hilliard Lane southbound
- River Road and Merry Lane northbound
- River Road and Merry Lane southbound
- River Road and Maxwell Road northbound
- River Road and Maxwell Road southbound
- River Road and Silver Lane northbound
- River Road and Silver Lane southbound
- River Road and Division Avenue northbound
- River Road and Division Avenue southbound

Under the EmX Alternative, LTD would have 23 BRT vehicles (60-foot articulated) and 6 spares operating in the system, an increase of five BRT vehicles (includes two spares) as compared to the No-Build Alternative.

4.3.1.5 Park and Ride Facilities

The EmX Alternative would include the same park and ride facilities as under the No-Build Alternative.

4.3.1.6 Operations and Maintenance Facilities

The EmX Alternative would include the same operations and maintenance facilities as under the No-Build Alternative.

4.3.2 Operations

4.3.2.1 Roadway

Roadway operations under the EmX Alternative would be similar to that of the No-Build Alternative with the following exceptions:

- Construction of right-turn lane onto Railroad Boulevard would improve right-turning movements for vehicles
- Signal timing at some existing signalized intersection would be altered
- A reduction in one general-purpose lane in each direction to develop BAT lanes on River Road from the Northwest Expressway to approximately Kourt Drive would reduce vehicular capacity. BAT lanes would be constructed and available for right-turning vehicles only
- New bus-only lanes would improve BRT vehicle travel times on River Road at the following locations:
    - Northbound from Corliss Lane to the southern ramp terminal at the Randy Papé Beltline Highway
    - Southbound from the southern ramp terminal at the Randy Papé Beltline Highway to Corliss Lane

4.3.2.2 Bus

Bus operations under the EmX Alternative include the following changes as compared to the No-Build Alternative:

- Modify frequencies on Route 40 during the a.m. and p.m. peak to 15 minutes
- Add Route 50 “River Road Connector” with 30-minute frequencies all day

- Eliminate Route 51 (replaced by EmX service)
- Eliminate Route 52 (replaced by EmX service)
- Eliminate Route 55 (replaced by Route 40)

Based on these operational changes, the EmX Corridor Alternative would result in 204 fewer bus vehicle miles traveled and 21 fewer bus revenue hours, as compared with the No-Build Alternative (Table 1.4-2).

4.3.2.3 EmX

Under the EmX Alternative, outbound BRT vehicles would exit the Eugene Station onto W. 11th Avenue turning north onto Charnelton Street, travel north on Charnelton Street to W. 6th Avenue, then turn west onto W. 6th Avenue. BRT vehicles would continue west and turn north on Chambers Street, which becomes River Road. BRT vehicles would travel north on River Road past the Northwest Expressway, through the Randy Papé Beltline Highway interchange, turn east on Hunsaker Lane, and turn south into the terminus at Santa Clara Community Transit Center.

Inbound BRT vehicles would exit the Santa Clara Community Transit Center by turning west onto Hunsaker Lane, travel west on Hunsaker Lane to River Road, and turn south onto River Road. BRT vehicles would travel south on River Road through the Randy Papé Beltline Highway interchange and past Northwest Expressway where River Road becomes Chambers Street. BRT vehicles would continue south on Chambers Street to W. 7th Avenue, turn east onto W. 7th Avenue, travel eastbound to Charnelton Street, south on Charnelton Street, then turn east on W. 10th Avenue to the Eugene Station. Inbound BRT vehicles may use alternate layover bays at Eugene Station if a late-departing BRT vehicle is occupying the scheduled layover location.

Final routing decisions will be made as EmX corridors are implemented.

EmX service would run from 6 a.m. to 12 a.m. weekdays, 7 a.m. to 11 p.m. Saturdays, and 8 a.m. to 8 p.m. Sundays. Weekday service frequencies would be 10 minutes during peak periods, 10 minutes during off-peak periods, and 15 minutes during the evenings.

The EmX Alternative would result in 1,072 additional BRT vehicle miles traveled and 52 additional BRT revenue hours as compared to the No-Build Alternative (average weekdays in 2035).

5. 30th Avenue to Lane Community College Corridor Alternatives

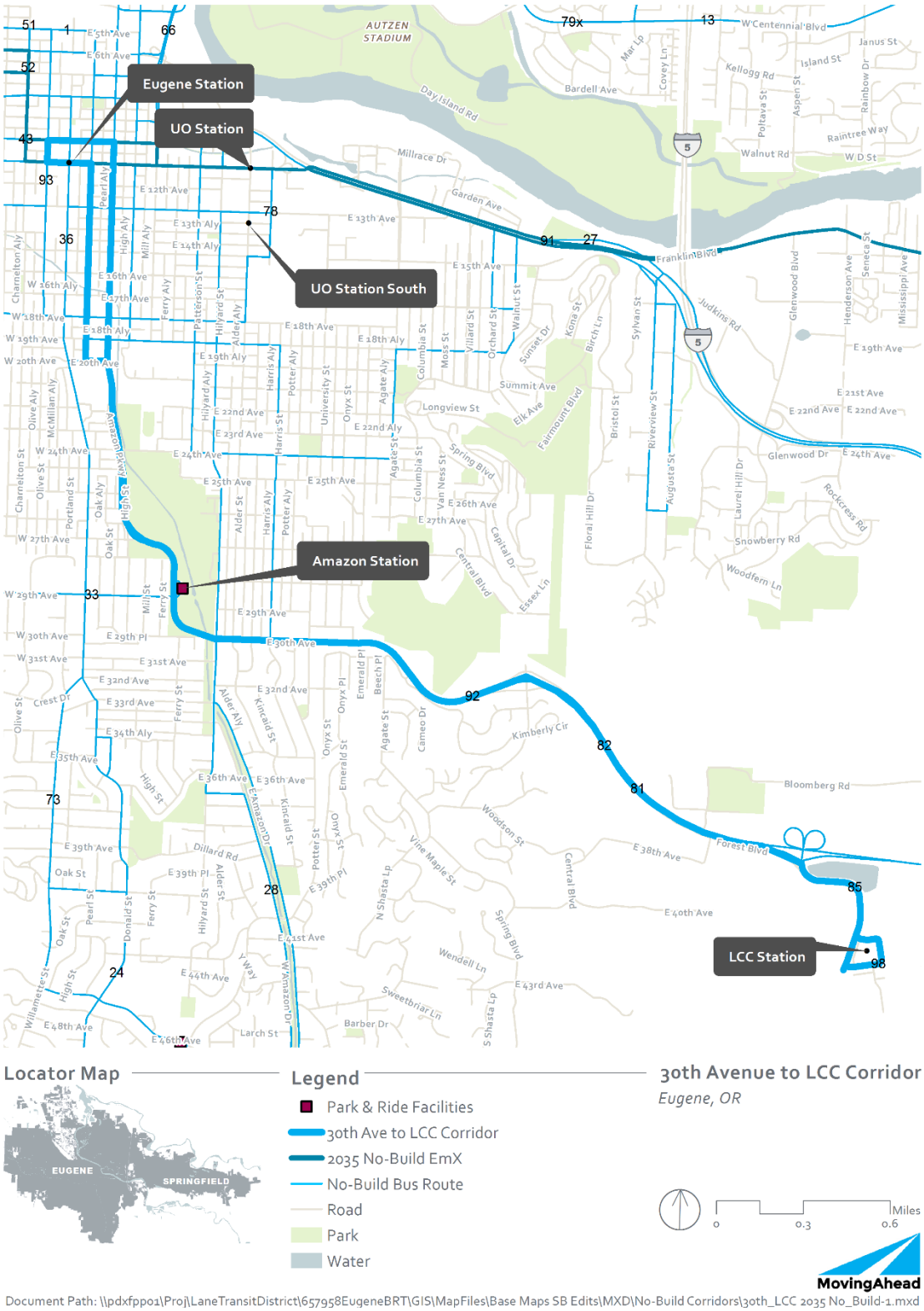
The 30th Avenue to LCC Corridor begins at Eugene Station and travels south along Pearl Street (outbound) and north along Oak Street (inbound) to Amazon Parkway, then on E. 30th Avenue to its terminus at the LCC Station. This corridor is approximately 10.2 round trip miles.

5.1 No-Build Alternative

5.1.1 Capital Improvements

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

Figure 5.1-1. 30th Avenue to LCC No-Build Transit Network



Source: CH2M, 2016

5.1.1.1 Roadway

The No-Build Alternative would not include capital improvements to roads. Amazon Parkway would generally have one travel lane in each direction, and E. 30th Avenue would continue to have two travel lanes in each direction with turn lanes (no change from existing conditions). E. 30th Avenue east of the Spring Boulevard intersection to the LCC campus is located in unincorporated Lane County.

There are no planned roadway projects for the corridor as part of the 2035 Eugene TSP.

5.1.1.2 Bicycle and Pedestrian Facilities

Currently, sidewalks are present on some streets along and adjacent to the corridor. Much of 30th Avenue and sections of Amazon Parkway lack sidewalks. Bicycle lanes are present along sections of the major streets within the corridor, including portions of Amazon Parkway north of E. 29th Avenue. E. 30th Avenue does not have continuous dedicated bicycle facilities.

The 2035 Eugene TSP identifies the following bicycle and pedestrian project adjacent to the corridor:

- Bicycle boulevard on Alder Street from E.17th Street south to E. 30th Avenue (and continuing south on Kincaid Street to E. 39th Street)

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

5.1.1.3 Bus Facilities and Vehicles

The No-Build Alternative includes 51 existing bus stops along Amazon Parkway and E. 30th Avenue and three existing transit centers (Eugene Station, located in downtown Eugene, and Amazon Station, on the Amazon Parkway, and Lane Community College Station). Under the No-Build Alternative, LTD would have 74 fixed-route service buses (mix of 40-foot and 60-foot buses) and 15 spares operating in the system. Figure 5.1-1 shows the No-Build Alternative transit network.

5.1.1.4 EmX Facilities and BRT Vehicles

The No-Build Alternative includes EmX facilities associated with the existing EmX service (Franklin and Gateway lines), those currently under construction for the West Eugene EmX line, and the Main Street EmX Extension line, which is anticipated in the 2035 RTP. Under the No-Build Alternative, no other major EmX facility improvements would be made.

LTD would have 19 BRT vehicles (60-foot articulated) and five spares operating in the system (including West Eugene EmX line BRT vehicles, which have already been added to the fleet, and Main Street EmX line BRT vehicles). Under the No-Build Alternative, LTD's fleet of BRT vehicles would remain the same.

5.1.1.5 Park and Ride Facilities

The No-Build Alternative would include LTD's current leased and owned park and ride facilities and would not include additional park and ride facilities along the corridor. There is one existing park and ride lot at Amazon Station (E. 29th Avenue and Amazon Parkway, owned by the City of Eugene, 44 spaces).

5.1.1.6 Operations and Maintenance Facilities

Under the No-Build Alternative, LTD would continue to use its one existing operations and maintenance facility in the region, located in Springfield on Glenwood Boulevard. LTD plans to expand the Glenwood maintenance facility to accommodate an increase in BRT vehicles and fixed-route service vehicles

operating in the system. The expanded storage yard would have a capacity of approximately 159 vehicles (for a mix of 40-foot standard buses and 60-foot articulated buses/BRT vehicles). Construction is anticipated to be completed in 2017. The No-Build Alternative does not include further expansion of LTD's existing operations and maintenance facility.

5.1.2 Operations

5.1.2.1 Roadway

Roadway operations would be the same as existing conditions on Amazon Parkway and E. 30th Avenue. There are no planned operations improvements in the corridor.

5.1.2.2 Bus

The No-Build transit network for all corridors is described in Section 1.4.

LTD Routes 81, 82, and 92 would continue to serve the corridor between downtown and LCC. Route 82 would operate with 10-minute frequencies during peak periods and 15-minute frequencies during off-peak periods. Route 81 would have 30-minute frequencies all day. Both routes would operate along the corridor. Route 81 would continue to provide all-day service to the University of Oregon, while Route 82 would continue to provide service to Eugene Station. Route 92 would provide three daily round trips between LCC and downtown Eugene (Route 92 provides service to Lowell).

5.1.2.3 EmX

The No-Build Alternative would not include EmX service to the Pearl Street/Oak Street couplet, Amazon Parkway, or E. 30th Avenue. For the 2035 planning year, the No-Build Alternative would include the following EmX lines:

- Franklin EmX, an east-west line serving downtown Eugene and downtown Springfield (existing)
- Gateway EmX, a north-south line serving downtown Springfield and North Springfield (existing)
- West Eugene EmX, an east-west line serving downtown Eugene and West Eugene (currently under construction with an anticipated opening in 2017)
- Anticipated EmX service on Main Street in Springfield from Springfield Station to Thurston Station

The Franklin and West Eugene EmX lines would continue to serve the downtown Eugene Station.

5.2 Enhanced Corridor Alternative

5.2.1 Capital Improvements

This section describes the roadway, bicycle, pedestrian, and transit capital improvements that would occur under the Enhanced Corridor Alternative, as compared to the No-Build Alternative. Figure 5.2-1 illustrates bus and roadway capital improvements, and Figure 5.2-2 illustrates bicycle and pedestrian improvements that would occur as part of this alternative.

5.2.1.1 Roadway

The Enhanced Corridor Alternative would include the following roadway improvements in addition to those of the No-Build Alternative, listed in order from Eugene Station south to the corridor terminus at LCC:

- Repurpose some on-street parking to create a buffered bicycle lane on:
    - Pearl Street from E. 12th Avenue to E. 19th Avenue
    - Oak Street from E. 12th Avenue to E. 20th Avenue

- Add new on-street parking along Oak and Pearl Streets (partially replacing on-street parking removed due to the addition of a buffered bicycle lane)
- Extend E. 20th Avenue from Oak Street to Amazon Parkway as a 60-foot-wide street with cross section to be determined through City of Eugene development review
- Construct new traffic signals at:
    - Oak Street and the extension of E. 20th Avenue
    - Amazon Parkway and the extension of E. 20th Avenue
    - Amazon Parkway and driveway of the former Civic Stadium site
    - E. 30th Avenue and University Street

Buses would travel in mixed traffic in all areas south of downtown Eugene along Amazon Parkway and E. 30th Avenue.

5.2.1.2 Bicycle and Pedestrian

The Enhanced Corridor Alternative would include the following bicycle and pedestrian facilities in addition to those of the No-Build Alternative, listed in order from Eugene Station south to the corridor terminus at LCC:

- One new crossing at the following location:
    - Amazon Parkway and E. 27th Avenue
- Two enhanced crossings at the following locations:
    - Decommission pedestrian bridge and convert to enhanced pedestrian crossing on Amazon Parkway at the Civic Stadium development site
    - E. 30th Avenue and University Street

Other improvements under the Enhanced Corridor Alternative include:

- Reconstruct sidewalks at some locations and replace curb ramps at all locations where construction occurs
- Construct sidewalk bulb outs (extending into the roadway) at stops to allow buses to stop without leaving the travel lane at these locations
- Stripe a buffered bicycle lane on:
    - Pearl Street from E. 11th Avenue to E. 19th Avenue
    - Oak Street from E. 11th Avenue to E. 20th Avenue

Figure 5.2-1. Enhanced Corridor Alternative Transit and Roadway Improvements

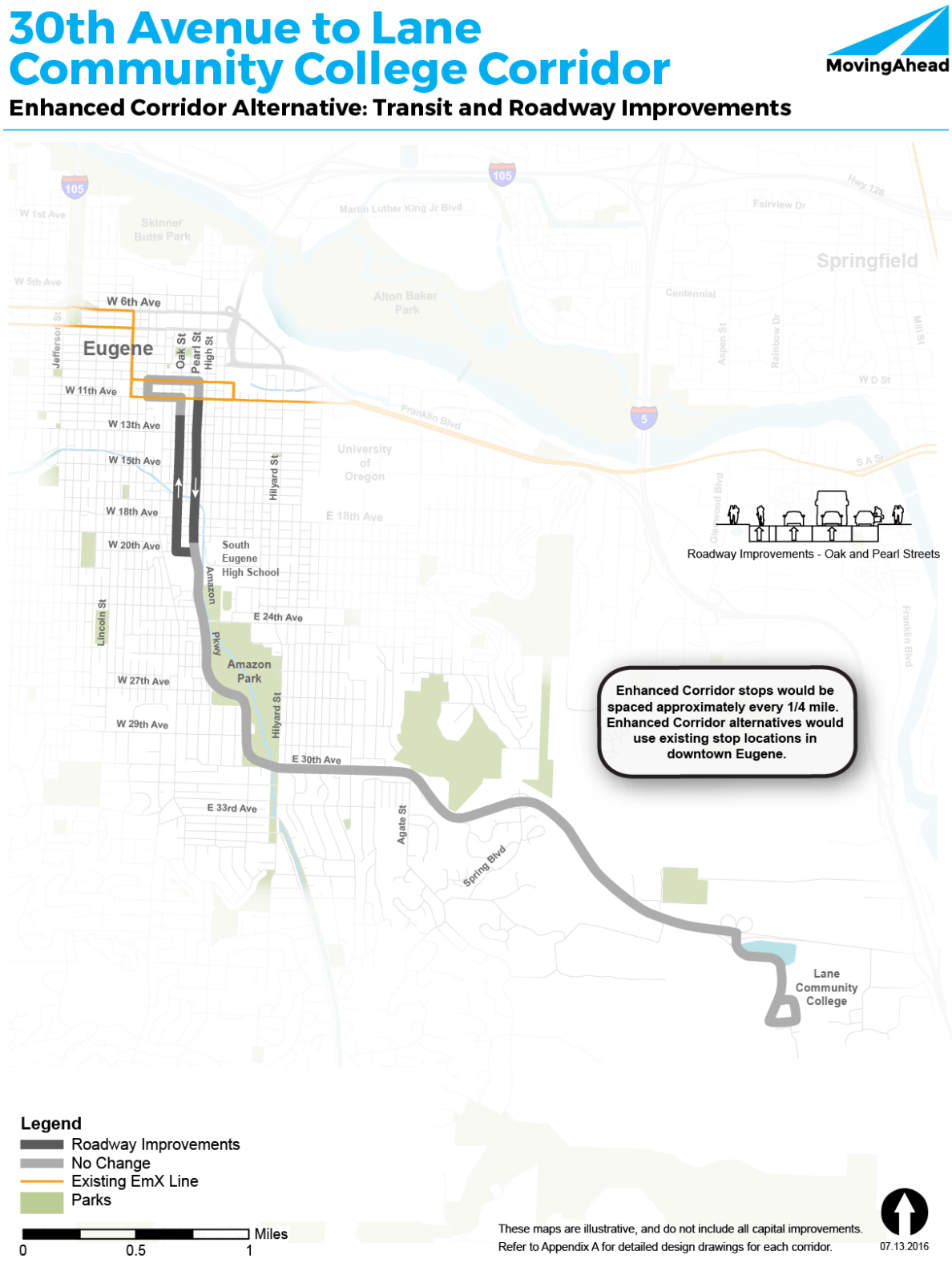
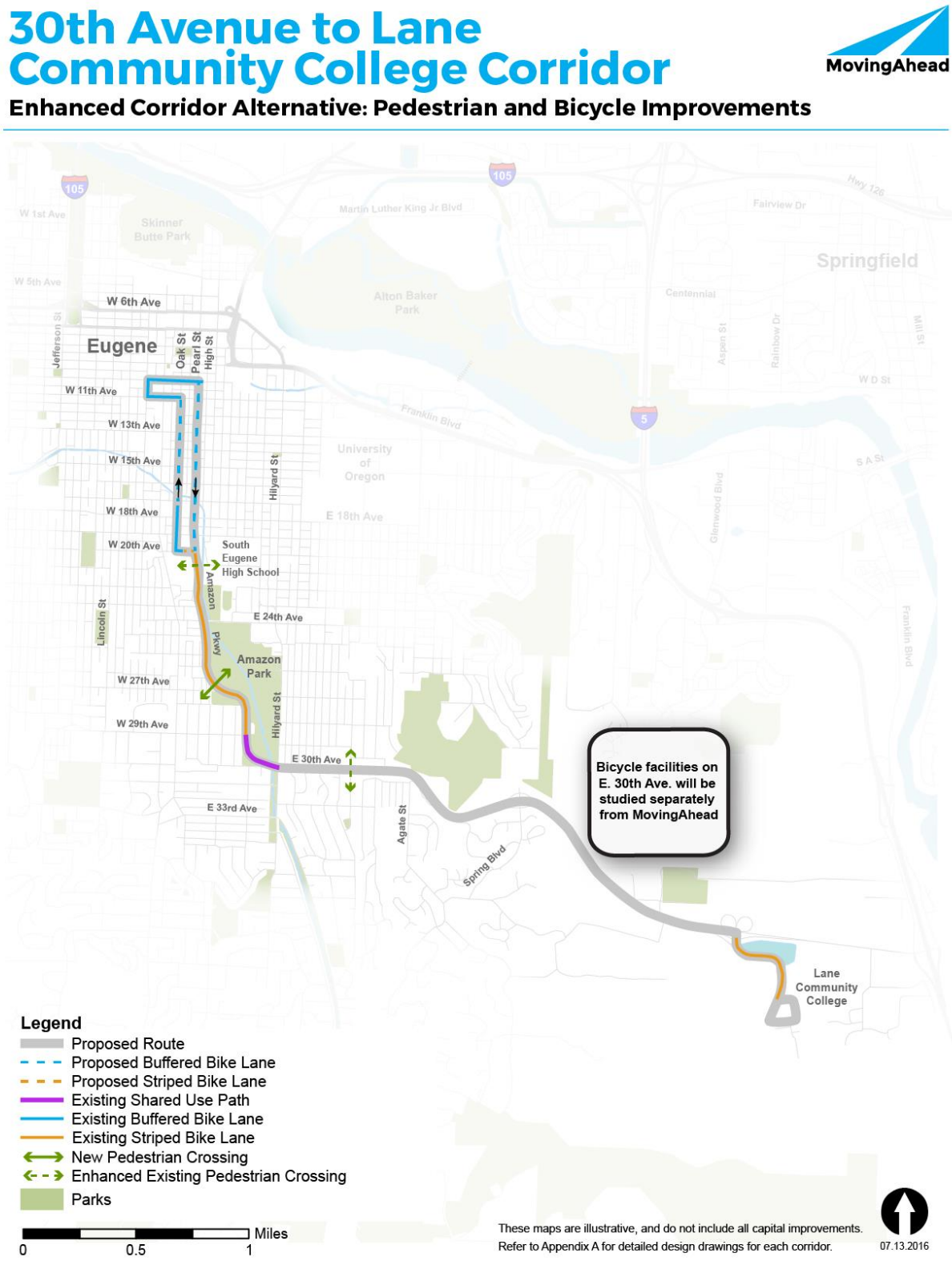


Figure 5.2-2. Enhanced Corridor Alternative Pedestrian and Bicycle Improvements



5.2.1.3 Bus Facilities and Vehicles

Bus stops would be spaced approximately 0.25 mile apart, except where existing bus stops and spacing would be used as noted below. Some stops in the corridor would be improved with seating and shelters.

This corridor would terminate at LCC, where an operator bathroom facility would be constructed.

Under the Enhanced Corridor Alternative, the following four existing stops would be used for the bus service, but would receive no capital improvements:

- Eugene Station
- Amazon Station
- Spring Boulevard and E. 30th Avenue eastbound
- Spring Boulevard and E. 30th Avenue westbound

Under the Enhanced Corridor Alternative, the following six existing stop locations would receive capital improvements:

- Amazon Parkway and E. 24th Avenue eastbound
- Amazon Parkway and E. 24th Avenue westbound
- E. 30th Avenue and Harris Street eastbound
- E. 30th Avenue and University Street westbound
- E. 30th Avenue and University Street eastbound
- LCC Terminus (operator restroom facility is added)

Under the Enhanced Corridor Alternative, the following 11 new stop locations would be constructed:

- Oak Street and E. 14th Avenue northbound
- Pearl Street and E. 14th Avenue southbound
- Pearl Street and E. 17th Avenue southbound
- Oak Street and E. 18th Avenue northbound
- Amazon Parkway and the former Civic Stadium site driveway northbound
- Amazon Parkway and the former Civic Stadium site driveway southbound
- Amazon Parkway and E. 27th Avenue northbound
- Amazon Parkway and E. 27th Avenue southbound
- E. 30th Avenue and Hilyard Street westbound
- E. 30th Avenue and Hilyard Street eastbound
- E. 30th Avenue and Harris Street westbound

There would be 30 fewer bus stops in the corridor under this alternative as compared to the No-Build Alternative, due to increased stop spacing in the corridor.

Under the Enhanced Corridor Alternative, LTD would have 71 fixed-route service buses (mix of 40-foot and 60-foot buses) and 14 spares operating in the system, a reduction of four buses (including one spare) as compared to the No-Build Alternative.

5.2.1.4 EmX Facilities and BRT Vehicles

Under the Enhanced Corridor Alternative, EmX facilities and BRT vehicles would be the same as under the No-Build Alternative.

5.2.1.5 Park and Ride Facilities

Under the Enhanced Corridor Alternative, park and ride facilities would be the same as under the No-Build Alternative.

5.2.1.6 Operations and Maintenance Facilities

Under the Enhanced Corridor Alternative, operations and maintenance facilities would be the same as under the No-Build Alternative.

5.2.2 Operations

5.2.2.1 Roadway

Roadway operations under the Enhanced Corridor Alternative would be similar to that of the No-Build Alternative with the following exceptions:

- Signal timing at some existing signalized intersection would be altered.
- Some street parking would be eliminated on Oak and Pearl Streets. New street parking would be added at select locations.
- The extension of E. 20th Avenue would increase connectivity.
- New traffic signals would affect traffic operations at the following locations:
    - Oak Street and the extension of E. 20th Avenue
    - Amazon Parkway and the extension of E. 20th Avenue
    - Amazon Parkway and driveway of the former Civic Stadium site
    - E. 30th Avenue and University Street

5.2.2.2 Bus

Outbound, the bus would exit the Eugene Station onto W. 10th Avenue, travel east on E. 10th Avenue, south on Pearl Street, continuing south at E. 19th Street when Pearl Street becomes Amazon Parkway. The bus would continue south to Hilyard Street and east on E. 30th Avenue, terminating at LCC.

Inbound, the bus would leave the terminus at LCC and turn west onto E. 30th Avenue which becomes Amazon Parkway at Hilyard Street. The bus would continue north on Amazon Parkway to the driveway at the Civic Stadium redevelopment site, traveling west for one block on the extension of E. 20th Avenue to Oak Street, then continuing north on Oak Street to E. 11th Avenue. The bus would then travel west on E. 11th Avenue to the Eugene Station.

Enhanced Corridor service would run from 6 a.m. to 12 a.m. weekdays, 7 a.m. to 11 p.m. Saturdays, and 8 a.m. to 8 p.m. Sundays. Weekday frequencies would be 15 minutes during peak periods, 15 minutes during off- peak periods, and 30 minutes during the evenings.

Under the Enhanced Corridor Alternative, existing fixed-route service would be similar to the No-Build Alternative, with the following exceptions:

- Eliminate Route 81 (replaced by Enhanced Corridor service)
- Eliminate Route 82 (replaced by Enhanced Corridor service)

Based on these operational changes, the Enhanced Corridor Alternative would result in 160 additional bus vehicle miles traveled and four additional bus revenue hours, as compared with the No-Build Alternative (Table 1.4-2).

5.2.2.3 EmX

Under the Enhanced Corridor Alternative, there would be no change in EmX operating characteristics as compared to the No-Build Alternative.

5.3 EmX Alternative

5.3.1 Capital Improvements

This section describes the roadway, bicycle, pedestrian, and transit capital improvements that would occur under the EmX Alternative, as compared to the No-Build Alternative. Figure 5.3-1 illustrates EmX and roadway capital improvements, and Figure 5.3-2 illustrates bicycle and pedestrian improvements that would occur as part of this alternative.

Figure 5.3-1. EmX Alternative Transit and Roadway Improvements

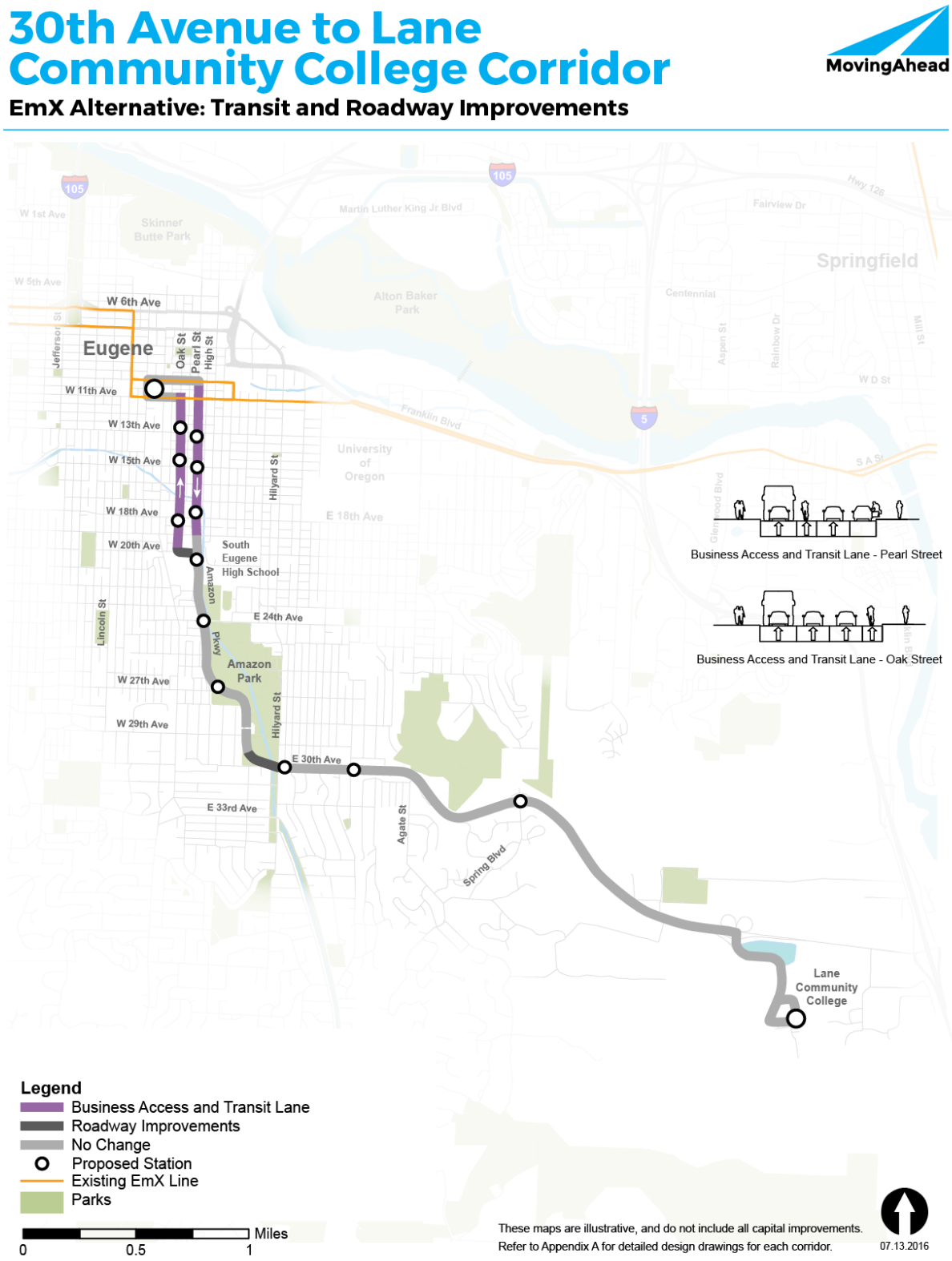
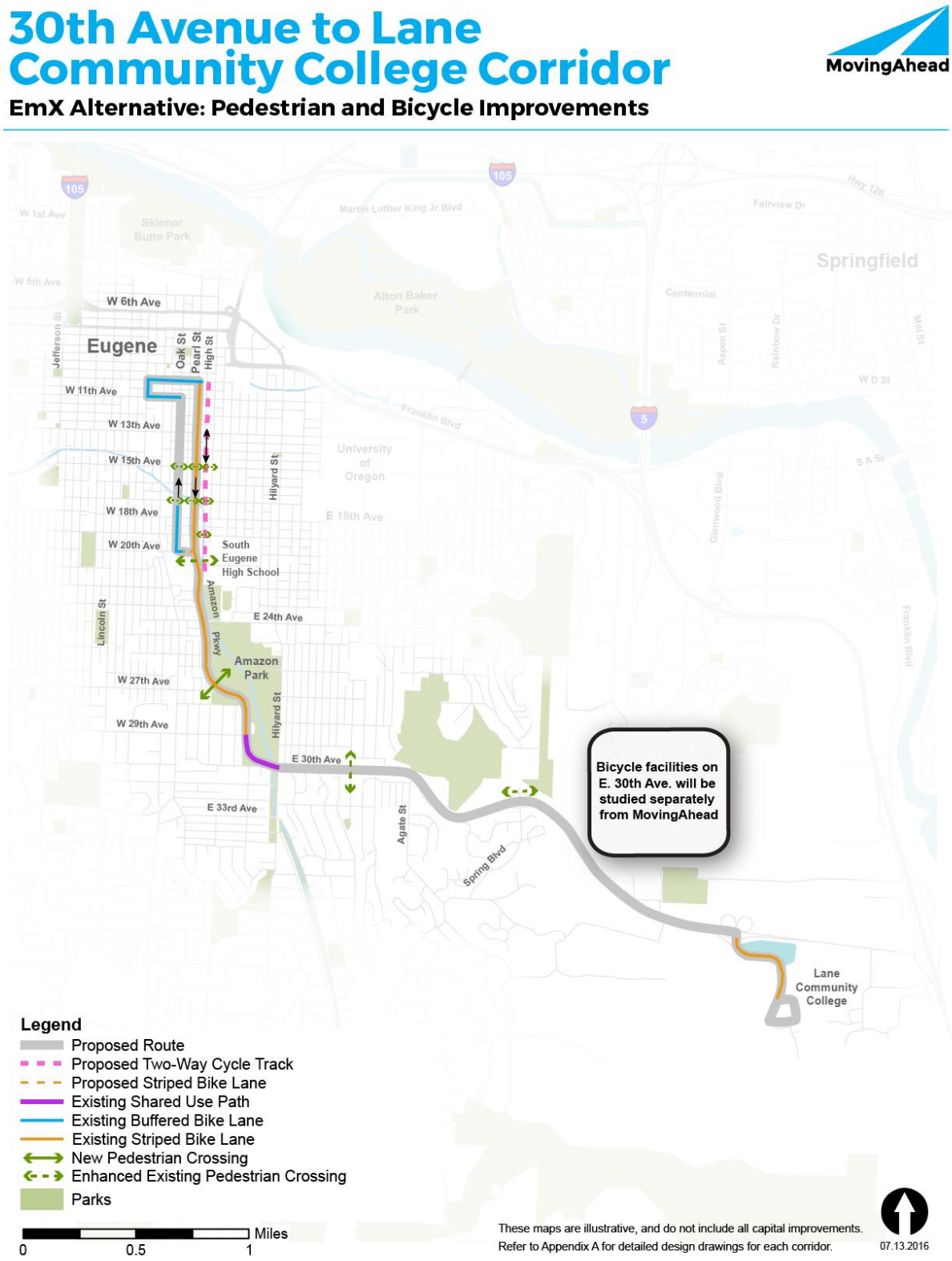


Figure 5.3-2. EmX Alternative Pedestrian and Bicycle Improvements



5.3.1.1 Roadway

The EmX Alternative would include the following roadway capital improvements in addition to those of the No-Build Alternative, listed in order from Eugene Station south to the corridor terminus at LCC:

- Repurpose a general purpose lane on Pearl Street from E. 10th Avenue to E. 19th Avenue to a BAT lane
- Repurpose on-street parking on Oak Street from E. 20th Avenue to E. 11th Avenue to a BAT lane
- Add new on-street parking along Oak and Pearl Streets (partially replacing existing on-street parking removed for the addition of BAT lanes)
- Extend E. 20th Avenue from Oak Street to Amazon Parkway as a 60-foot-wide street with cross section to be determined through City of Eugene development review
- Construct new traffic signals at:
    - Oak Street and the extension of E. 20th Avenue
    - Amazon Parkway and the extension of E. 20th Avenue
    - Amazon Parkway and the driveway of the former Civic Stadium site
    - E. 30th Avenue and University Street
- Construct transit queue jump at the intersection of E. 19th Avenue and Pearl Street
- Construct new left-turn lane from Amazon Parkway to westbound E. 20th Avenue
- Extend existing bus-only turn lane on Amazon Parkway into Amazon Station to accommodate two articulated BRT vehicles

5.3.1.2 Bicycle and Pedestrian Facilities

The EmX Alternative would include the following bicycle and pedestrian facilities in addition to those of the No-Build Alternative, listed in order from Eugene Station south to the corridor terminus at LCC:

- One new crossing at the following location:
    - Amazon Parkway at E. 27th Avenue
- Ten enhanced crossings at the following locations:
    - Pearl Street and E. 15th Avenue
    - Oak Street and E. 15th Avenue
    - High Street and E. 15th Avenue
    - Pearl Street and E. 17th Avenue
    - Oak Street and E. 17th Avenue
    - High Street and E. 17th Avenue
    - High Street and E. 19th Avenue
    - Decommission pedestrian bridge and convert into enhanced pedestrian crossing on Amazon Parkway at the Civic Stadium development site
    - E. 30th Avenue and University Street
    - Spring Boulevard and E. 30th Avenue (located on north side between off- and on-ramp)

Other improvements under the EmX Alternative include:

- Reconstruct sidewalks at some locations and replace curb ramps at all locations where construction occurs
- Construct a two-way cycle track on High Street from E. 10th Avenue connecting to the Amazon Multi-Use Path at E. 19th Avenue

5.3.1.3 Bus Facilities and Vehicles

There would be no changes to the No-Build Alternative's bus capital facilities under the EmX Alternative, except for the following:

- Remove up to 30 bus stops due to replacement with EmX service, which has greater station spacing.

Under the EmX Alternative, LTD would have 68 fixed-route service buses (40-foot and 60-foot buses) and 14 spares operating in the system, a reduction of seven buses (including one spare) as compared to the No-Build Alternative.

5.3.1.4 EmX Facilities and BRT Vehicles

EmX stations would have level boarding and tactile treatment to help facilitate BRT vehicle docking and boarding and alighting of passengers, as well as amenities like shelters, benches, trash receptacles, bicycle racks, and fare payment kiosks. EmX stations would be spaced approximately 0.33 mile apart, except in the downtown core.

This corridor would terminate at LCC, where an operator bathroom facility would be constructed.

Under the EmX Alternative, one bus bay at Eugene Station and two bus bays at Amazon Station would be improved to accommodate BRT vehicles.

Nineteen new EmX stations would be constructed at the following locations:

- Oak Street and E. 13th Avenue northbound
- Pearl Street and E. 13th Avenue southbound
- Oak Street and E. 15th Avenue northbound
- Pearl Street and E. 15th Avenue southbound
- Oak Street and E. 18th Avenue northbound
- Pearl Street and E. 18th Avenue southbound
- Amazon Parkway and the former Civic Stadium site driveway northbound
- Amazon Parkway and the former Civic Stadium site driveway southbound
- Amazon Parkway and E. 24th Avenue northbound
- Amazon Parkway and E. 24th Avenue southbound
- Amazon Parkway and E. 27th Avenue northbound
- Amazon Parkway and E. 27th Avenue southbound
- E. 30th Avenue and Hilyard Street westbound
- E. 30th Avenue and Hilyard Street eastbound
- E. 30th Avenue and University Street westbound
- E. 30th Avenue and University Street eastbound
- Spring Boulevard westbound and E. 30th Avenue
- Spring Boulevard eastbound and E. 30th Avenue
- LCC Terminus (including operator restroom facility)

Under the EmX Alternative, LTD would have 22 BRT vehicles (60-foot articulated) and 6 spares operating in the system, an increase of four BRT vehicles (includes one spare) as compared to the No-Build Alternative.

5.3.1.5 Park and Ride Facilities

The EmX Alternative would include the same park and ride facilities as under the No-Build Alternative.

5.3.1.6 Operations and Maintenance Facilities

The EmX Alternative would include the same operations and maintenance facilities as under the No-Build Alternative.

5.3.2 Operations

5.3.2.1 Roadway

Roadway operations under the EmX Alternative would be similar to that of the No-Build Alternative with the following exceptions:

- Signal timing at some existing signalized intersection would be altered.
- A reduction in the number of general-purpose lanes to construct BAT lanes on Pearl Street would reduce vehicular capacity. BAT lanes would be available for right-turning vehicles only.
- Some street parking would be eliminated on Oak and Pearl Streets. New street parking would be added at select locations.
- The extension of E. 20th Avenue would increase connectivity for auto and bus traffic.
- New traffic signals would affect traffic operations at these locations.
    - Oak Street and the extension of E. 20th Avenue
    - Amazon Parkway and the extension of E. 20th Avenue
    - Amazon Parkway and the driveway of the former Civic Stadium site
    - E. 30th Avenue and University Street
- Prohibition of eastbound to northbound turning movement from E. 30th Avenue onto Hilyard Street would affect traffic operations at this intersection.

5.3.2.2 Bus

Bus operations under the EmX Alternative would be similar to the bus operations under the No-Build Alternative, with the following exceptions:

- Eliminate Route 81 (replaced by EmX service)
- Eliminate Route 82 (replaced by EmX service)

Based on these operational changes, the EmX Alternative would result in 892 fewer bus vehicle miles traveled and 49 fewer bus revenue hours, as compared with the No-Build Alternative (Table 1.4-2).

5.3.2.3 EmX

Under the EmX Alternative, outbound BRT vehicles would depart Eugene Station and travel east on E. 10th Avenue, then south on Pearl Street until E. 19th Avenue where Pearl Street becomes Amazon Parkway. BRT vehicles would then continue south on Amazon Parkway until it becomes E. 30th Avenue. From E. 30th Avenue, BRT vehicles would continue east, terminating at LCC.

Inbound BRT vehicles would leave the terminus at LCC and travel west on E. 30th Avenue to where E. 30th Avenue becomes Amazon Parkway. BRT vehicles would travel north on Amazon Parkway until E. 20th Avenue, then travel west on E. 20th Avenue for one block, then continue north on Oak Street to E. 11th Avenue. BRT vehicles would then travel west on E. 11th Avenue to Eugene Station. Inbound BRT vehicles may use alternate layover bays at Eugene Station if a late-departing BRT vehicle is occupying the scheduled layover location.

Final routing decisions will be made as EmX corridors are implemented.

EmX service would run from 6 a.m. to 12 a.m. weekdays, 7 a.m. to 11 p.m. Saturdays, and 8 a.m. to 8 p.m. Sundays. Weekday service frequencies would be 10 minutes during peak periods, 10 minutes during off-peak periods, and 15 minutes during the evenings.

The EmX Alternative would result in 1,052 additional BRT vehicle miles traveled and 50 additional BRT revenue hours as compared to the No-Build Alternative (average weekdays in 2035).

6. Coburg Road Corridor Alternatives

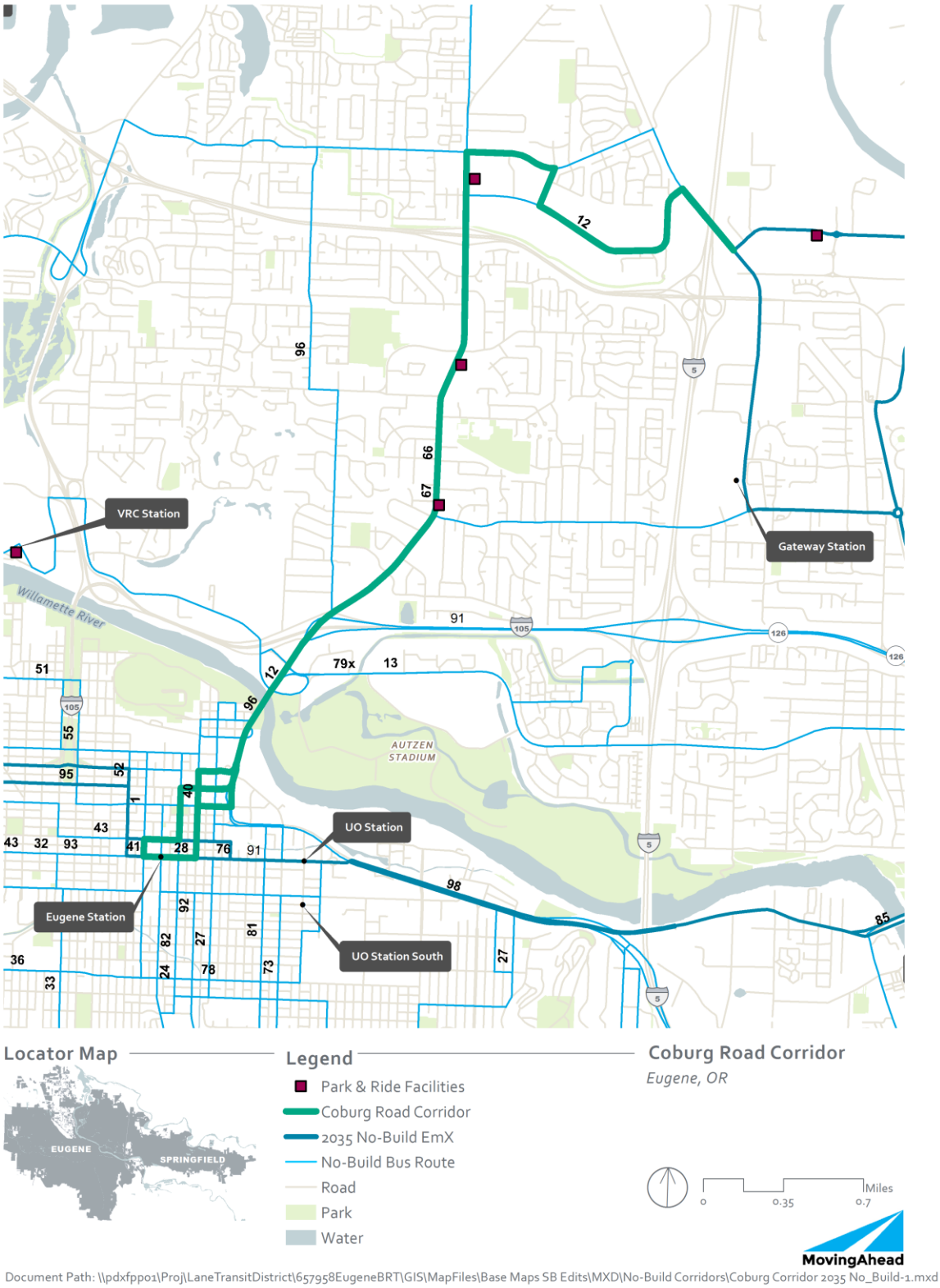
The Coburg Road Corridor begins at Eugene Station and continues to Coburg Road using the Ferry Street Bridge. The corridor continues north on Coburg Road to Crescent Avenue, east on Crescent Avenue and Chad Drive to N. Game Farm Road, and south on N. Game Farm Road and Gateway Street to the existing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

6.1 No-Build Alternative

6.1.1 Capital Improvements

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

Figure 6.1-1. Coburg Road No-Build Transit Network



Source: CH2M, 2016

6.1.1.1 Roadway

The No-Build Alternative would not include capital improvements in this corridor. Coburg Road would continue to have two travel lanes in each direction and a center turn lane or median for much of the length of the corridor. Crescent Avenue, Chad Drive, and Game Farm Road would continue to have one travel lane in each direction and a center turn lane.

6.1.1.2 Bicycle and Pedestrian

Currently, sidewalks are present on most streets along and adjacent to the corridor except for section of Crescent Avenue and Chad Drive. Coburg Road has continuous bicycle lanes north of Oakway Road and shared-use paths on both sides of the street south of Oakway Road.

6.1.1.3 Bus Facilities and Vehicles

The No-Build Alternative would include 43 existing bus stops along Coburg Road, Chad Drive, and Crescent Avenue and two existing transit centers (Eugene Station, located in downtown Eugene, and Gateway Station, a transit center, located in Springfield). Under the No-Build Alternative, LTD would have 74 fixed-route service buses (mix of 40-foot and 60-foot buses) and 15 spares operating in the system. Figure 6.1-1 shows the No-Build Alternative transit network.

6.1.1.4 EmX Facilities and BRT Vehicles

The No-Build Alternative includes EmX facilities associated with the existing EmX service (Franklin and Gateway lines), those currently under construction for the West Eugene EmX line, and the Main Street EmX Extension line, which is anticipated in the 2035 RTP. Under the No-Build Alternative, no other major EmX facility improvements would be made.

LTD would have 19 BRT vehicles (60-foot articulated) and five spares operating in the system (including West Eugene BRT vehicles, which have already been added to the fleet, and the Main Street EmX line BRT vehicles). Under the No-Build Alternative, LTD's fleet of BRT vehicles would remain the same.

6.1.1.5 Park and ride Facilities

The No-Build Alternative would include LTD's current leased and owned park and ride facilities and would not include additional park and ride facilities along the corridor. The No-Build Alternative would include LTD's three current leased and owned park and ride lots:

- Westminster Presbyterian Church (leased, 777 Coburg Road, 33 spaces)
- Papa's Pizza (leased, 1577 Coburg Road, 11 spaces)
- ShopKo (leased, 2815 Chad Drive, 15 spaces)

6.1.1.6 Operations and Maintenance Facilities

Under the No-Build Alternative, LTD would continue to use its one existing operations and maintenance facility in the region, located in Springfield on Glenwood Boulevard. LTD plans to expand its Glenwood maintenance facility to accommodate an increase in BRT vehicles and fixed-route service vehicles operating in the system. The expanded storage yard would have a capacity of approximately159 vehicles (for a mix of 40-foot standard buses and 60-foot articulated buses/BRT vehicles). Construction is anticipated to be completed in 2017. The No-Build Alternative does not include further expansion of LTD's existing operations and maintenance facility.

6.1.2 Operations

6.1.2.1 Roadway

Roadway operations would be the same as existing conditions on Coburg Road, Crescent Avenue, Shadowview Drive, Chad Drive, and N. Game Farm Road. There are no planned operations improvements in the corridor.

6.1.2.2 Bus

The No-Build transit network for all corridors is described in Section 1.4.

The Coburg Road Corridor would continue to be served by LTD Routes 66 and 67 with service frequencies increased to 15 minutes during weekdays. Route 96 provides commuter service to the City of Coburg with 30- to 60-minute frequencies during peak periods, and Route 12 provides local service along Coburg Road and connects to the Gateway Corridor via Harlow Road with frequencies of 30 minutes.

6.1.2.3 EmX

The No-Build Alternative would not include EmX service on Coburg Road. For the 2035 planning year, the No-Build Alternative would include the following EmX lines:

- Franklin EmX, an east-west line serving downtown Eugene and downtown Springfield (existing)
- Gateway EmX, a north-south line serving downtown Springfield and North Springfield (existing)
- West Eugene EmX, an east-west line serving downtown Eugene and West Eugene (currently under construction with an anticipated opening in 2017)
- Planned EmX service on Main Street in Springfield from Springfield Station to Thurston Station

The Franklin and West Eugene EmX lines would continue to serve the downtown Eugene Station.

6.2 Enhanced Corridor Alternative

6.2.1 Capital Improvements

This section describes the roadway, bicycle, pedestrian, and transit capital improvements that would occur under the Enhanced Corridor Alternative, as compared to the No-Build Alternative. Figure 6.2-1 illustrates bus and roadway capital improvements, and Figure 6.2-2 illustrates bicycle and pedestrian improvements that would occur as part of this alternative.

6.2.1.1 Roadway

The Enhanced Corridor Alternative would include the following roadway improvements in addition to those of the No-Build Alternative, listed in order from Eugene Station northeast to where the capital improvements end at N. Game Farm Road (with service continuing to Gateway Station):

- Construct a new traffic signal at the following locations:
    - E. 4th Avenue on-ramp to Coburg Road
    - Coburg Road and Elysium Avenue to facilitate pedestrian crossings
    - Crescent Avenue and Shadowview Lane
    - Shadowview Lane and Chad Drive
    - Driveway of the Veteran's Affairs hospital site and Chad Drive (west of where Chad Drive curves north into Old Coburg Road)
- Reconstruct traffic signals at the intersections of:

  - Coburg Road and Martin Luther King, Jr. Boulevard
  - Coburg Road and the southern ramp terminals of the I-105 interchange
  - Coburg Road and Harlow Road
  - Coburg Road and Willakenzie Road
  - Southern and northern ramp terminals at the Randy Papé Beltline Highway interchange
- Add or extend right-turn lanes on Coburg Road to improve both bus and traffic movement at the intersections of:
  - Oakmont Way (northbound and southbound)
  - Harlow Road (northbound)
  - Willakenzie Road (northbound)
  - Southern ramp terminals at the Randy Papé Beltline Highway interchange (northbound)
  - Northern ramp terminals at the Randy Papé Beltline Highway interchange (northbound)
  - Chad Drive (northbound)
  - Crescent Avenue (northbound)
- Replace the existing landscaping strip and repurpose the right turn lane along the west side of Coburg Road with a new southbound BAT lane on Coburg Road from Cedarwood Drive to just south of Country Club Road
- Extend the existing northbound BAT lane on Coburg Road from just south of the intersection of Martin Luther King, Jr. Boulevard to the southern Interstate 105 (I-105) ramp terminal
- Construct transit queue jump on Coburg Road at the Oakway Center driveway south of Oakmont Way to allow buses exiting the stop at this location to reenter traffic
- Reconfigure the existing right-turn lane at the southern ramp terminal of the Randy Papé Beltline Highway interchange (northbound)
- Construct a new right-turn lane at the northern ramp terminal of the Randy Papé Beltline Highway interchange (southbound)

Figure 6.2-1. Enhanced Corridor Alternative Transit and Roadway Improvements

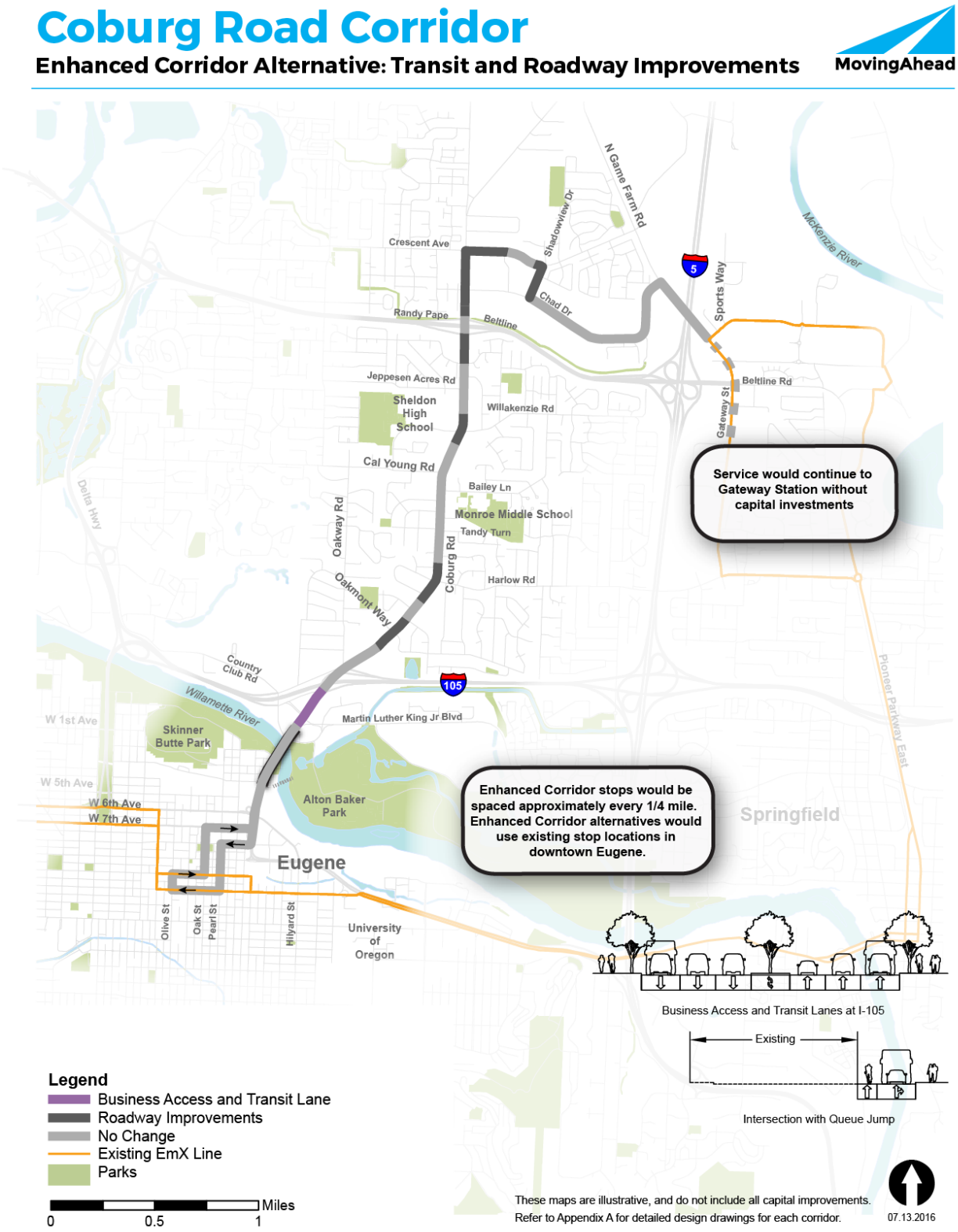
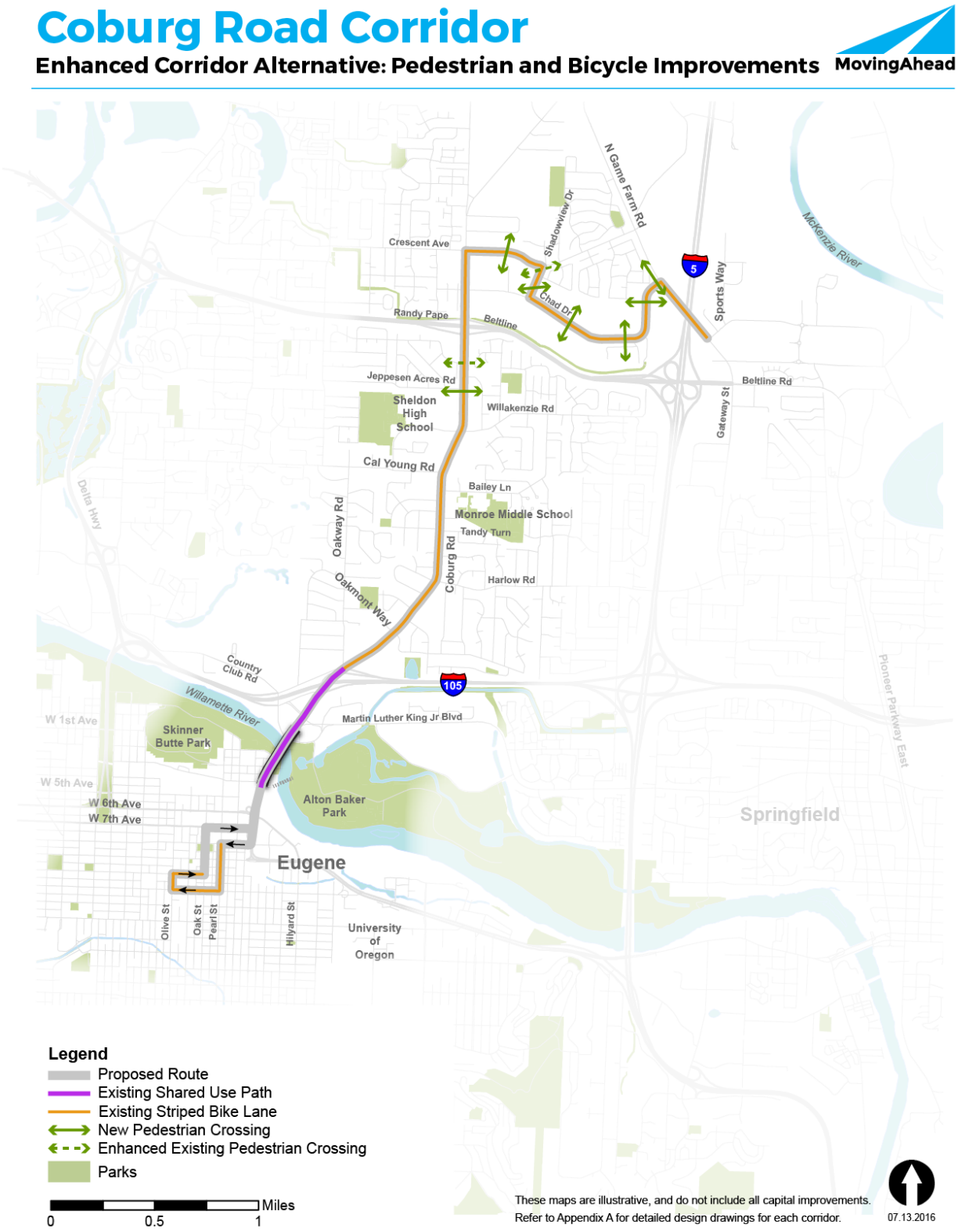


Figure 6.2-2. Enhanced Corridor Alternative Pedestrian and Bicycle Improvements



6.2.1.2 Bicycle and Pedestrian

The Enhanced Corridor Alternative would include the following bicycle and pedestrian facilities in addition to those of the No-Build Alternative, listed in order from Eugene Station northeast to where the capital improvements end at N. Game Farm Road (with transit service continuing to Gateway Station):

- Seven new crossings at the following locations:
  - Coburg Road and Jeppesen Acres Road
  - Crescent Avenue and Tennyson Avenue
  - Shadowview Lane north of Chad Drive
  - Crescent Avenue east of Shadowview Lane near the driveway of Grainger Industrial Supply
  - Driveway of the Veteran's Affairs hospital site (west of where Chad Drive becomes Old Coburg Road)
  - Old Coburg Road south of Cape Hatteras Drive
  - Old Coburg Road north of Cape Hatteras Drive
- Two enhanced crossings at the following locations:
  - Coburg Road and Elysium Avenue
  - Crescent Avenue and Shadowview Lane

Other improvements under the Enhanced Corridor Alternative include:

- Reconstruct sidewalks at some locations and replace curb ramps at all locations where construction occurs
- Construct new sidewalk on Crescent Avenue from Coburg Road to Tennyson Avenue
- Construct sidewalk bulb outs (extending into the roadway) at some stops to allow buses to stop without leaving the travel lane

6.2.1.3 Bus Facilities and Vehicles

Bus stops would be spaced approximately 0.25 mile apart, except where existing bus stops and spacing would be used as noted below. Some stops in the corridor would be improved with seating and shelters.

Under the Enhanced Corridor Alternative, the following five existing stops would be used for bus service, but would not receive capital improvements:

- Eugene Station
- Oak Street and E. 7th Avenue northbound
- Oak Street and Broadway northbound
- Pearl Street and E. 10th Avenue southbound
- E. 8th Avenue and High Street westbound

Under the Enhanced Corridor Alternative, the following four existing stop locations would receive capital improvements

- Crescent Avenue and Coburg Road eastbound
- Crescent Avenue and Coburg Road westbound
- Shadowview Lane and Crescent Avenue southbound
- Crescent Avenue and Shadowview Lane westbound

Under the Enhanced Corridor Alternative, the following 24 new stop locations would be constructed:

- Coburg Road and Country Club Road northbound

- Coburg Road and Country Club Road southbound
- Coburg Road between Oakway Road and Oakmont Way (Oakway Center driveway) northbound
- Coburg Road between Oakway Road and Oakmont Way (Oakway Center driveway) southbound
- Coburg Road and Frontier Drive northbound
- Coburg Road and Frontier Drive southbound
- Coburg Road and Harlow Road northbound
- Coburg Road and Harlow Road southbound
- Coburg Road and Tandy Turn northbound
- Coburg Road and Tandy Turn southbound
- Coburg Road and Bailey Lane northbound
- Coburg Road and Bailey Lane southbound
- Coburg Road and Elysium Avenue northbound
- Coburg Road and Elysium Avenue southbound
- Coburg Road and Chad Drive northbound
- Coburg Road and Chad Drive southbound
- Shadowview Lane north of Chad Drive northbound
- Shadowview Lane north of Chad Drive southbound
- Chad Drive and the Grainger Industrial Supply driveway (east of Shadowview Lane) eastbound
- Chad Drive and the Grainger Industrial Supply driveway (east of Shadowview Lane) westbound
- Chad Drive and the Veteran's Affairs Hospital driveway eastbound
- Chad Drive and the Veteran's Affairs Hospital driveway westbound
- Old Coburg and Game Farm Road eastbound
- Old Coburg and Game Farm Road westbound

There would be nine fewer bus stops in the corridor under this alternative as compared to the No-Build, due to increased stop spacing in the corridor.

Under the Enhanced Corridor Alternative, LTD would have 76 fixed-route service buses (mix of 40-foot and 60-foot buses) and 15 spares operating in the system, an increase of two buses (includes spares) as compared to the No-Build Alternative.

6.2.1.4 EmX Facilities and BRT Vehicles

Under the Enhanced Corridor Alternative, EmX facilities and BRT vehicles would be the same as under the No-Build Alternative.

6.2.1.5 Park and Ride Facilities

Under the Enhanced Corridor Alternative, park and ride facilities would be the same as under the No-Build Alternative.

6.2.1.6 Operations and Maintenance Facilities

Under the Enhanced Corridor Alternative, operations and maintenance facilities would be the same as under the No-Build Alternative.

6.2.2 Operations

6.2.2.1 Roadway

Roadway operations under the Enhanced Corridor Alternative would be similar to that of the No-Build Alternative, except for the following improvements:

- Signal timing at some existing signalized intersection would be altered
- The extension of the BAT lane on Coburg Road near I-105 and new BAT lanes at other locations would be available for right-turning vehicles only
- New turn lanes would improve traffic operations and reduce bus delay at the following intersections:
    - Oakmont Way (northbound and southbound)
    - Harlow Road (northbound)
    - Willakenzie Road (northbound)
    - Southern ramp terminals at the Randy Papé Beltline Highway interchange (northbound)
    - Northern ramp terminals at the Randy Papé Beltline Highway interchange (northbound)
    - Chad Drive (northbound)
    - Crescent Avenue (northbound)
- New traffic signals would affect traffic operations at the following locations:
    - E. 4th Avenue on-ramp to Coburg Road
    - Coburg Road and Elysium Avenue to facilitate pedestrian crossings
    - Crescent Avenue and Shadowview Lane
    - Shadowview Lane and Chad Drive
    - Driveway of the Veteran's Affairs hospital site and Chad Drive (west of where Chad Drive curves north into Old Coburg Road)
- A transit queue jump would reduce bus delay at the intersection of Coburg Road and Oakmont Way.

6.2.2.2 Bus

Under the Enhanced Corridor Alternative, outbound buses would travel from the Eugene Station east on W. 10th Avenue and E. 10th Avenue to Oak Street, north on Oak Street to E. 7th Avenue, east on E. 7th Avenue to Coburg Road, and north across the Ferry Street Bridge. Buses would then continue north along Coburg Road through the I-105 interchange and past the Randy Papé Beltline Highway interchange, turning east on Crescent Avenue to Shadowview Lane, turning south onto Shadowview Lane, and then east onto Chad Drive. Buses would continue eastbound on Chad Drive, which becomes Old Coburg Road as it turns northbound shortly before it terminates at N. Game Farm Road. Buses would then turn southeast onto N. Game Farm Road, continue southbound past Interstate 5 (I-5) and onto Gateway Street to Gateway Station. There would be no capital improvements beyond I-5.

From Gateway Station, inbound buses would travel north on Gateway Street past I-5 onto N. Game Farm Road and continue northwest until turning west onto Old Coburg Road. Buses would then travel south on Old Coburg Road, which becomes Chad Drive and turns west. Buses would continue west on Chad Drive until Shadowview Lane, turn north onto Shadowview Lane and then west onto Crescent Avenue. Buses would then turn south from Crescent Avenue onto Coburg Road and would continue south past the Randy Papé Beltline Highway and I-105 interchanges to the Ferry Street Bridge. After crossing the bridge, buses would continue on Coburg Road until turning west on E. 8th Avenue, then south on Pearl Street, and west onto E. 11th Avenue and W. 11th Avenue to reach the Eugene Station.

Enhanced Corridor service would run from 6 a.m. to 12 a.m. weekdays, 7 a.m. to 11 p.m. Saturdays, and 8 a.m. to 8 p.m. Sundays. Weekday frequencies would be 15 minutes during peak periods, 15 minutes during off- peak periods, and 30 minutes during the evenings.

Under the Enhanced Corridor Alternative, fixed-route service would include the following changes as compared to the No-Build Alternative:

- Modify Route 12 to serve Valley River Center and Marcola Road
- Add new Route 60 to serve Valley River Center
- Eliminate Route 66 (replaced by Enhanced Corridor service)
- Eliminate Route 67 (replaced by Enhanced Corridor service)

Based on these operational changes, the Enhanced Corridor Alternative would result in 699 additional bus vehicle miles traveled and 13 additional bus revenue hours, as compared with the No-Build Alternative (Table 1.4-2).

6.2.2.3 EmX

Under the Enhanced Corridor Alternative, there would be no change in EmX operating characteristics compared to the No-Build Alternative.

6.3 EmX Alternative

6.3.1 Capital Improvements

This section describes the roadway, bicycle, pedestrian, and transit capital improvements that would occur under the EmX Alternative, as compared to the No-Build Alternative. Figure 6.3-1 illustrates EmX and roadway capital improvements, and Figure 6.3-2 illustrates bicycle and pedestrian improvements that would occur as part of this alternative.

6.3.1.1 Roadway

The EmX Alternative would include the following roadway capital improvements in addition to those of the No-Build Alternative, listed in order from Eugene Station northeast to where the capital improvements end at N. Game Farm Road (with transit service continuing to Gateway Station):

- Construct new traffic signals at the following intersections:
    - E. 7th Avenue on-ramp to Coburg Road
    - E. 4th Avenue on-ramp to Coburg Road
    - Coburg Road and Elysium Avenue to facilitate transition into bus-only lane
    - Crescent Avenue and Shadowview Lane
    - Shadowview Lane and Chad Drive
    - Driveway of the Veteran's Affairs hospital site (west of where Chad Drive becomes Old Coburg Road)
- Reconstruct traffic signals at the following intersections:
    - Coburg Road and Martin Luther King, Jr. Boulevard
    - Coburg Road and the southern and northern ramp terminals of the I-105 interchange
    - Coburg Road and Oakmont Way
    - Coburg Road and Harlow Road
    - Coburg Road and Willakenzie Road
    - Southern and northern ramp terminals at the Randy Papé Beltline Highway interchange
    - Coburg Road and Chad Drive
    - Coburg Road and Crescent Avenue
- Repurpose a general-purpose lane to a BAT lane on:
    - E. 7th Avenue from Oak Street to High Street (eastbound)
    - E. 6th Avenue from High Street to Pearl Street (westbound)

- Construct a dual-direction (northbound and southbound), center-running bus-only lanes on Coburg Road from north of the Ferry Street Bridge to the southern ramp terminal of I-105 by repurposing one existing northbound travel lane and widening the roadway
- Construct a northbound, center-running bus-only lane on Coburg Road from the southern ramp terminal of I-105 to north of the overcrossing of I-105 by repurposing one existing northbound travel lane
- Convert the existing two-way left-turn lane to a single bus-only "swap" lane on either side of Oakmont Way (the single bus-only swap lane would be used by northbound BRT vehicles approaching the intersection and southbound BRT vehicles approaching the intersection, with protected signal phasing at the intersection allowing BRT vehicles to swap into and out of mixed traffic.)
- Repurpose existing general purpose lanes for construction of a northbound bus-only lane and transit queue jump south of the intersection of Coburg Road and Harlow Road
- Construct a single northbound bus-only lane on Coburg Road from Pioneer Pike to Harlow Road
- Construct a southbound BAT lane with a transit queue jump from Turnbull Lane to Harlow Road
- Construct right-turn lanes northbound and southbound at the intersection of Coburg Road and Willakenzie Road
- Repurpose existing general-purpose lanes for construction of dual-direction (northbound and southbound), center-running bus-only lanes on Coburg Road from Elysium Avenue north to Crescent Avenue
- Construct a new bus-only left-turn lane on Crescent Avenue to facilitate bus turns onto Coburg Road southbound

Figure 6.3-1. EmX Alternative Transit and Roadway Improvements

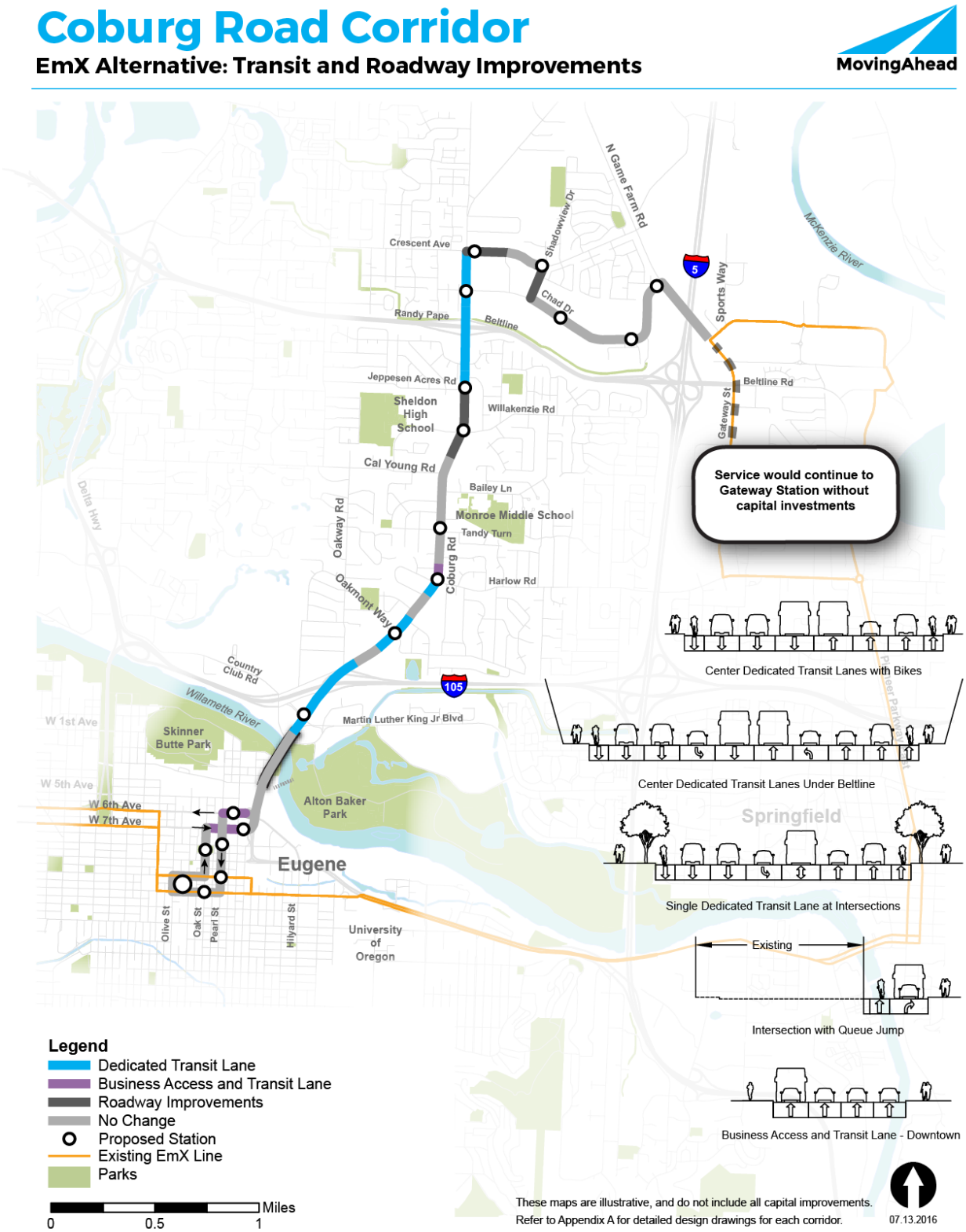


Figure 6.3-2. EmX Alternative Pedestrian and Bicycle Improvements

6.3.1.2 Bicycle and Pedestrian

The EmX Alternative would include the following bicycle and pedestrian facilities in addition to those of the No-Build Alternative, listed in order from Eugene Station northeast to where the capital improvements end at N. Game Farm Road (with transit service continuing to Gateway Station):

- Seven new crossings at the following locations:
  - Coburg Road between Cal Young Road and Willakenzie Road
  - Coburg Road and Jeppesen Acres Road
  - Crescent Avenue between Coburg Road and Tennyson Avenue
  - Crescent Avenue and Tennyson Avenue
  - Chad Drive east of Shadowview Lane near the driveway of Grainger Industrial Supply
  - The driveway of the Veteran's Affairs hospital site (west of where Chad Drive becomes Old Coburg Road)
  - Old Coburg Road between Cape Hatteras Drive and N. Game Farm Road
- Two enhanced crossings at the following locations:
  - Crescent Avenue and Shadowview Lane
  - Chad Drive and Shadowview Lane

The EmX Alternative also includes the following improvements:

- Reconstruct sidewalks at some locations and replace curb ramps at all locations where construction occurs
- Construct new sidewalk on Crescent Avenue from Coburg Road to Tennyson Avenue
- Reconstruct sidewalks on:
  - Coburg Road from Elysium Avenue north to Crescent Avenue
  - Coburg Road north and south of Oakmont Way

Except for one location, bicycle lanes will be routed behind EmX stations away from travel lanes on Coburg Road to reduce bicycle, vehicle, and BRT vehicle conflicts. The southbound bicycle lane will be routed in front of southbound EmX station located at the Coburg Road intersection with Pioneer Pike/Harlow Road to reduce right-of-way impacts.

6.3.1.3 Bus Facilities and Vehicles

The EmX Alternative would result in the following changes to the No-Build Alternative's bus capital facilities:

- Remove up to 14 bus stops due to replacement with EmX service, which has greater station spacing

Under the EmX Alternative, LTD would have 72 fixed -route service buses (mix of 40-foot and 60-foot buses) and 14 spares operating in the system, a reduction of three buses (includes one spare) as compared to the No-Build Alternative.

6.3.1.4 EmX Facilities and BRT Vehicles

EmX stations would have level boarding and tactile treatment to help facilitate BRT docking and passenger boarding and alighting, as well as amenities like shelters, benches, trash receptacles, bicycle racks, and fare payment kiosks. EmX stations would be spaced approximately 0.33 mile apart, except in the downtown core.

Under the EmX Alternative, one bus bay at Eugene Station would be improved to accommodate BRT vehicles.

Twenty eight new EmX stations would be constructed at the following locations:

- Pearl Street north of E. 10th Avenue southbound
- E. 11th Avenue between Pearl Street and Oak Street westbound
- Oak Street south of E. 8th Avenue northbound
- Pearl Street south of E. 7th Avenue southbound
- E. 6th Avenue and High Street westbound
- E. 7th Avenue and High Street eastbound
- Coburg Road and Country Club Road northbound and southbound
- Coburg Road and Oakmont Way northbound
- Coburg Road and Oakmont Way southbound
- Coburg Road and Harlow Road northbound
- Coburg Road and Harlow Road southbound
- Coburg Road and Tandy Turn northbound
- Coburg Road and Tandy Turn southbound
- Coburg Road between Cal Young Road and Willakenzie Road northbound
- Coburg Road between Cal Young Road and Willakenzie Road southbound
- Coburg Road and Jeppesen Acres Road northbound and southbound
- Coburg Road and Chad Drive northbound
- Coburg Road and Chad Drive southbound
- Crescent Avenue between Coburg Road and Tennyson Avenue eastbound
- Crescent Avenue between Coburg Road and Tennyson Avenue westbound
- Shadowview Lane and Crescent Avenue southbound
- Crescent Avenue and Shadowview Lane westbound
- Chad Drive east of Shadowview Lane eastbound
- Chad Drive east of Shadowview Lane westbound
- Chad Drive and the Veteran's Affairs Hospital driveway eastbound
- Chad Drive and the Veteran's Affairs Hospital driveway westbound
- Old Coburg and Game Farm Road eastbound
- Old Coburg and Game Farm Road westbound

Under the EmX Alternative, LTD would have 24 BRT vehicles (60-foot articulated) and 6 spares operating in the system, an addition of six BRT vehicles (includes one spare) as compared to the No-Build Alternative.

6.3.1.5 Park and Ride Facilities

The EmX Alternative would include the same park and ride facilities as under the No-Build Alternative.

6.3.1.6 Operations and Maintenance Facilities

The EmX Alternative would include the same operations and maintenance facilities as under the No-Build Alternative.

6.3.2 Operations

6.3.2.1 Roadway

Roadway operations under the EmX Alternative would be affected by the following:

- Signal timing at existing signalized intersections would be altered
- The extension of the BAT lane on Coburg Road near I-105 and new BAT lanes in downtown Eugene on W. 6th and 7th Avenues would be available for right-turning vehicles only
- Repurposing a general purpose lane on sections of Coburg Road on:
    - E. 7th Avenue from Oak Street to High Street
    - E. 6th Avenue from High Street to Pearl Street.
    - Coburg Road from north of the Ferry Street Bridge to the southern ramp terminal of I-105
    - Coburg Road from the southern ramp terminal of I-105 to north of the overcrossing of I-105
    - Coburg Road south of the intersection with Harlow Road
    - Coburg Road from Elysium Avenue north to Crescent Avenue
- New turn lanes would improve traffic operations and reduce bus delay at the intersections of:
    - Coburg Road and Willakenzie Road
    - Coburg Road and Crescent Avenue
- New traffic signals would affect traffic operations at the following locations:
    - E. 7th Avenue on-ramp to Coburg Road
    - E. 4th Avenue on-ramp to Coburg Road
    - Coburg Road and Elysium Avenue to facilitate transition into bus-only lane
    - Crescent Avenue and Shadowview Lane
    - Shadowview Lane and Chad Drive
    - Driveway of the Veteran's Affairs hospital site (west of where Chad Drive becomes Old Coburg Road)
- A transit queue jump would reduce bus delay at intersections of Coburg Road and Harlow Road
- Sections of dedicated transit lanes on Coburg Road would eliminate left turns onto driveways at these locations; signals would allow U-turns at affected intersections

6.3.2.2 Bus

Bus operations under the EmX Alternative would be similar to the bus operations under the No-Build Alternative, with the following exceptions:

- Modify Route 12 to serve Valley River Center and Marcola Road
- Add new Route 60 to serve Valley River Center
- Eliminate Route 66 (replaced by Coburg Road EmX service)
- Eliminate Route 67 (replaced by Coburg Road EmX service)

Based on these operational changes, the EmX Alternative would result in 655 fewer bus vehicle miles traveled and 61 fewer bus revenue hours, as compared with the No-Build Alternative (Table 1.4-2).

6.3.2.3 EmX

Under the EmX Alternative, outbound BRT vehicles would travel from the Eugene Station east on W. 10th Avenue and E. 10th Avenue to Oak Street, north on Oak Street to E. 7th Avenue, east on E. 7th Avenue to Coburg Road, and north across the Ferry Street Bridge. BRT vehicles would then continue north along Coburg Road through the I-105 interchange and past the Randy Papé Beltline Highway interchange, turning east on Crescent Avenue to Shadowview Lane, south onto Shadowview Lane, and east onto Chad Drive. BRT vehicles would continue eastbound on Chad Drive, which becomes Old Coburg Road as it turns northbound shortly before it terminates at N. Game Farm Road. BRT vehicles

would turn southeast onto N. Game Farm Road, continue southbound past I-5 and onto Gateway Street to Gateway Station. There would be no capital improvements east of I-5 on Gateway Street.

From Gateway Station, inbound BRT vehicles would travel north on Gateway Street past I-5 onto N. Game Farm Road and continue northwest until turning west onto Old Coburg Road. BRT vehicles would then travel south on Old Coburg Road, which turns west and becomes Chad Drive, continuing westbound on Chad Drive until Shadowview Lane, turning north onto Shadowview Lane and then west onto Crescent Avenue. BRT vehicles would then turn south from Crescent Avenue onto Coburg Road and would continue south past the Randy Papé Beltline Highway and I-105 interchanges to the Ferry Street Bridge. After crossing the bridge, BRT vehicles would continue on Coburg Road until turning west on E. 6th Avenue, then south on Pearl Street, and west onto E. 11th Avenue to reach the Eugene Station. Inbound BRT vehicles may use alternate layover bays at Eugene Station if a late-departing BRT vehicle is occupying the scheduled layover location.

Final routing decisions will be made as EmX corridors are implemented.

EmX service would run from 6 a.m. to 12 a.m. weekdays, 7 a.m. to 11 p.m. Saturdays, and 8 a.m. to 8 p.m. Sundays. Service frequencies would be 10 minutes during peak periods, 10 minutes during off-peak periods, and 15 minutes during the evenings.

The EmX Alternative would result in 1,367 additional BRT vehicle miles traveled and 74 additional BRT revenue hours as compared to the No-Build Alternative (average weekdays in 2035).

7. Martin Luther King, Jr. Boulevard Corridor Alternatives

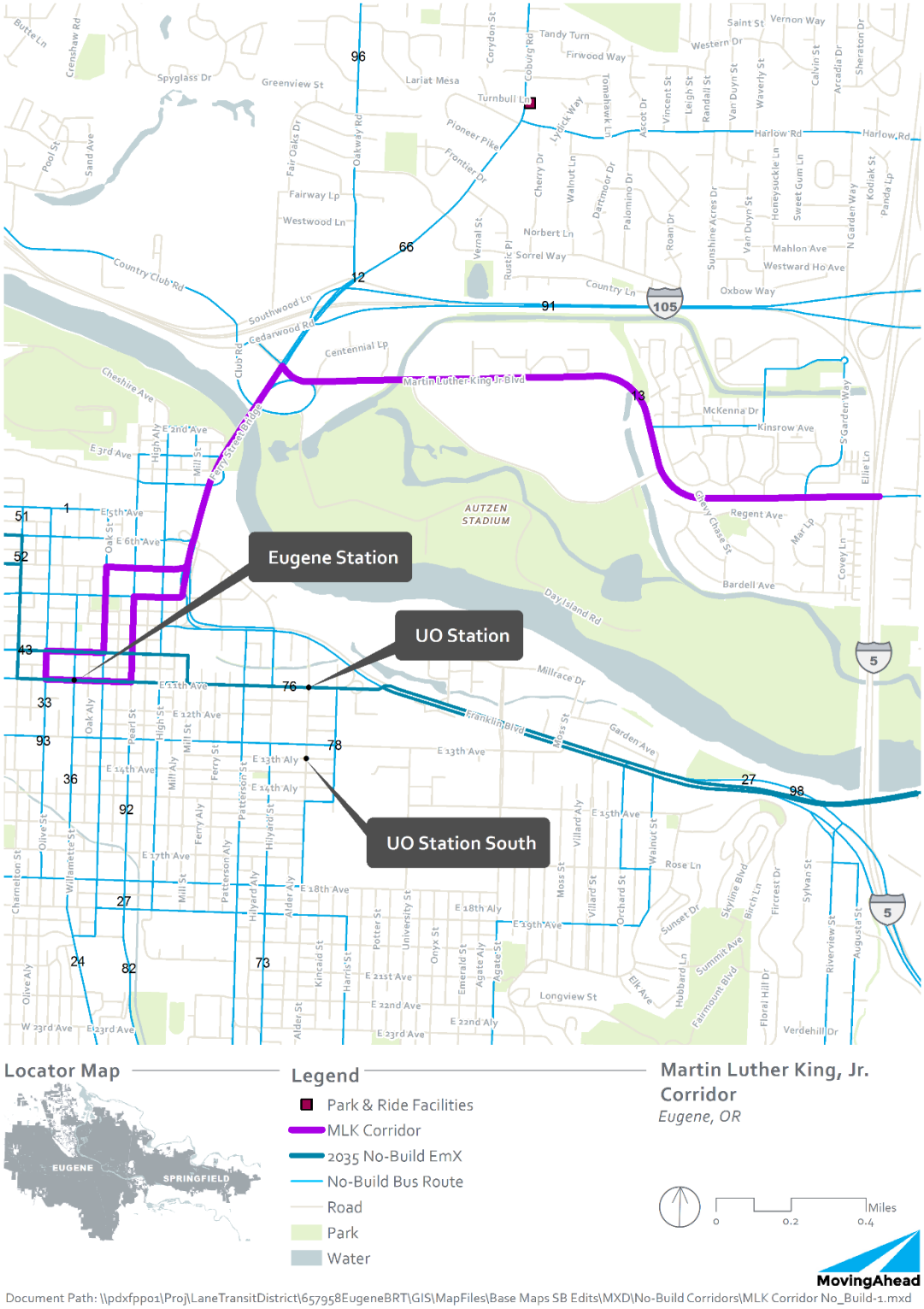
The Martin Luther King, Jr. Boulevard Corridor begins at Eugene Station and travels through downtown Eugene on Oak and Pearl Streets and 7th and 8th Avenues. The corridor uses the Ferry Street Bridge to reach Martin Luther King, Jr. Boulevard and continues east on Martin Luther King, Jr. Boulevard past 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.

7.1 No-Build Alternative

7.1.1 Capital Improvements

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

Figure 7.1-1. Martin Luther King, Jr. Boulevard No-Build Transit Corridor



Source: CH2M, 2016

7.1.1.1 Roadway

The No-Build Alternative would include a center turn lane west of Autzen Stadium, as identified in the 2035 Eugene TSP. No other improvements are planned. Martin Luther King, Jr. Boulevard would continue to have two travel lanes in each direction.

7.1.1.2 Bicycle and Pedestrian

Currently, sidewalks are present on most streets along and adjacent to the corridor, but there are no bicycle lanes. However, the sidewalk on Martin Luther King, Jr Boulevard is wide and functions as a shared-use path for cyclists and pedestrians. No sidewalk or bicycle lane improvements are planned in the corridor for the next 20 years.

7.1.1.3 Bus Facilities and Vehicles

The No-Build Alternative includes the existing 20 bus stops along Coburg Road and Martin Luther King, Jr. Boulevard and one existing transit center (Eugene Station, located in downtown Eugene). Under the No-Build Alternative, LTD would have 74 fixed-route service buses (mix of 40-foot and 60-foot buses) and 15 spares operating in the system. Figure 7.1-1 shows the No-Build Alternative transit network.

7.1.1.4 EmX Facilities and BRT Vehicles

The No-Build Alternative includes EmX facilities associated with the existing EmX service (Franklin and Gateway lines), those currently under construction for the West Eugene EmX line, and the Main Street EmX Extension line, which is planned in the 2035 RTP. Under the No-Build Alternative, no other major EmX facility improvements would be made.

LTD would have 19 BRT vehicles (60-foot articulated) and five spares operating in the system (including West Eugene EmX line BRT vehicles, which have already been added to the fleet, and the Main Street EmX line BRT vehicles). Under the No-Build Alternative, LTD's fleet of BRT vehicles would remain the same.

7.1.1.5 Park and Ride Facilities

There are currently no park and ride facilities in this corridor. The No-Build Alternative would include LTD's current leased and owned park and ride facilities near other corridors and would not include additional park and ride facilities along this corridor.

7.1.1.6 Operations and Maintenance Facilities

Under the No-Build Alternative, LTD would continue to use its one existing operations and maintenance facility in the region, located in Springfield on Glenwood Boulevard. LTD plans to expand its Glenwood maintenance facility to accommodate an increase in BRT vehicles and fixed-route service buses operating in the system. The expanded storage yard would have a capacity of approximately 159 vehicles (for a mix of 40-foot standard buses and 60-foot articulated buses/BRT vehicles). Construction is anticipated to be completed in 2017. The No-Build Alternative does not include further expansion of LTD's existing operations and maintenance facility.

7.1.2 Operations

7.1.2.1 Roadway

As part of the 2035 Eugene TSP, the following roadway project is planned along the corridor:

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

7.1.2.2 Bus

The No-Build transit network for all corridors is described in Section 1.4.

Under the No-Build Alternative, LTD Routes 13 and 79x would operate along Martin Luther King, Jr. Boulevard with frequencies of 30 minutes and 10 to 15 minutes, respectively. Route 79x is an express route operating between Martin Luther King, Jr. Boulevard and University of Oregon Station. The route operates only when the University of Oregon is in session.

7.1.2.3 EmX

The No-Build Alternative would not include EmX service on Martin Luther King, Jr. Boulevard. For the 2035 planning year, the No-Build Alternative would include the following EmX lines:

- Franklin EmX, an east-west line serving downtown Eugene and downtown Springfield (existing)
- Gateway EmX, a north-south line serving downtown Springfield and North Springfield (existing)
- West Eugene EmX, an east-west line serving downtown Eugene and West Eugene (currently under construction with an anticipated opening in 2017)
- Planned EmX service on Main Street in Springfield from Springfield Station to Thurston Station

The Franklin and West Eugene EmX lines would continue to serve the downtown Eugene Station.

7.2 Enhanced Corridor Alternative

7.2.1 Capital Improvements

This section describes the roadway, bicycle, pedestrian, and transit capital improvements that would occur under the Enhanced Corridor Alternative, as compared to the No-Build Alternative. Figure 7.2-1 illustrates bus and roadway capital improvements, and Figure 7.2-2 illustrates bicycle and pedestrian improvements that would occur as part of this alternative.

7.2.1.1 Roadway

The Enhanced Corridor Alternative would include the following roadway improvements in addition to those of the No-Build Alternative, listed in order from Eugene Station north and east to I-5 (no capital improvements would occur east of I-5):

- Construct a westbound bus-only left-turn lane at the intersection of Martin Luther King, Jr. Boulevard and Coburg Road (for a total of three left-turn lanes) and a bus-only receiving lane on Coburg Road
- Construct a new traffic signal at the intersection of Martin Luther King, Jr. Boulevard and Leo Harris Parkway
- Reconstruct traffic signals at the intersections of:
    - Martin Luther King, Jr. Boulevard and Coburg Road
    - Martin Luther King, Jr. Boulevard and Club Road/Centennial Loop
- Repurpose existing general-purpose lanes to BAT lanes on:
    - Martin Luther King, Jr. Boulevard from east of Club Road/Centennial Loop east to Marche Chase Drive (eastbound)
    - Martin Luther King, Jr. Boulevard from Marche Chase Drive to Leo Harris Parkway (westbound)

7.2.1.2 Bicycle and Pedestrian

The Enhanced Corridor Alternative would include the following bicycle and pedestrian facilities in addition to those of the No-Build Alternative, listed in order from Eugene Station north and east to I-5 (the terminus for capital improvements):

- Three new crossings at the following locations:
  - Martin Luther King, Jr. Boulevard at Centennial Loop east (near the trailhead)
  - Martin Luther King, Jr. Boulevard at the west PK Park entrance
  - Martin Luther King, Jr. Boulevard at Chevy Chase Street

Reconstruction of sidewalks would also occur at some locations as well as replacement of curb ramps at all locations where construction occurs.

7.2.1.3 Bus Facilities and Vehicles

Bus stops would be spaced approximately 0.25 mile apart, except where existing bus stops and spacing would be used as noted below. Some stops in the corridor would be improved with seating and shelters.

Figure 7.2-1. Enhanced Corridor Alternative Transit and Roadway Improvements

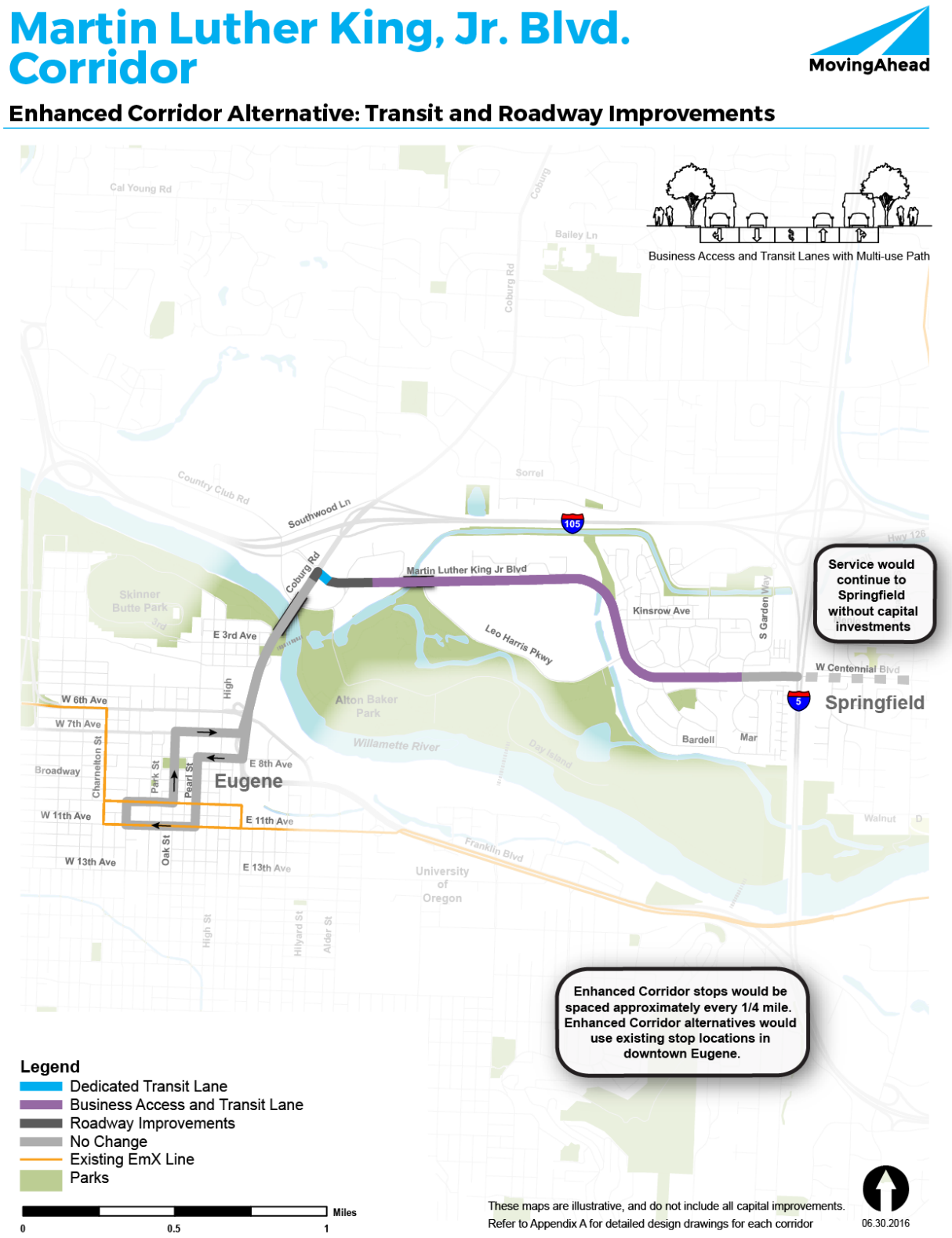
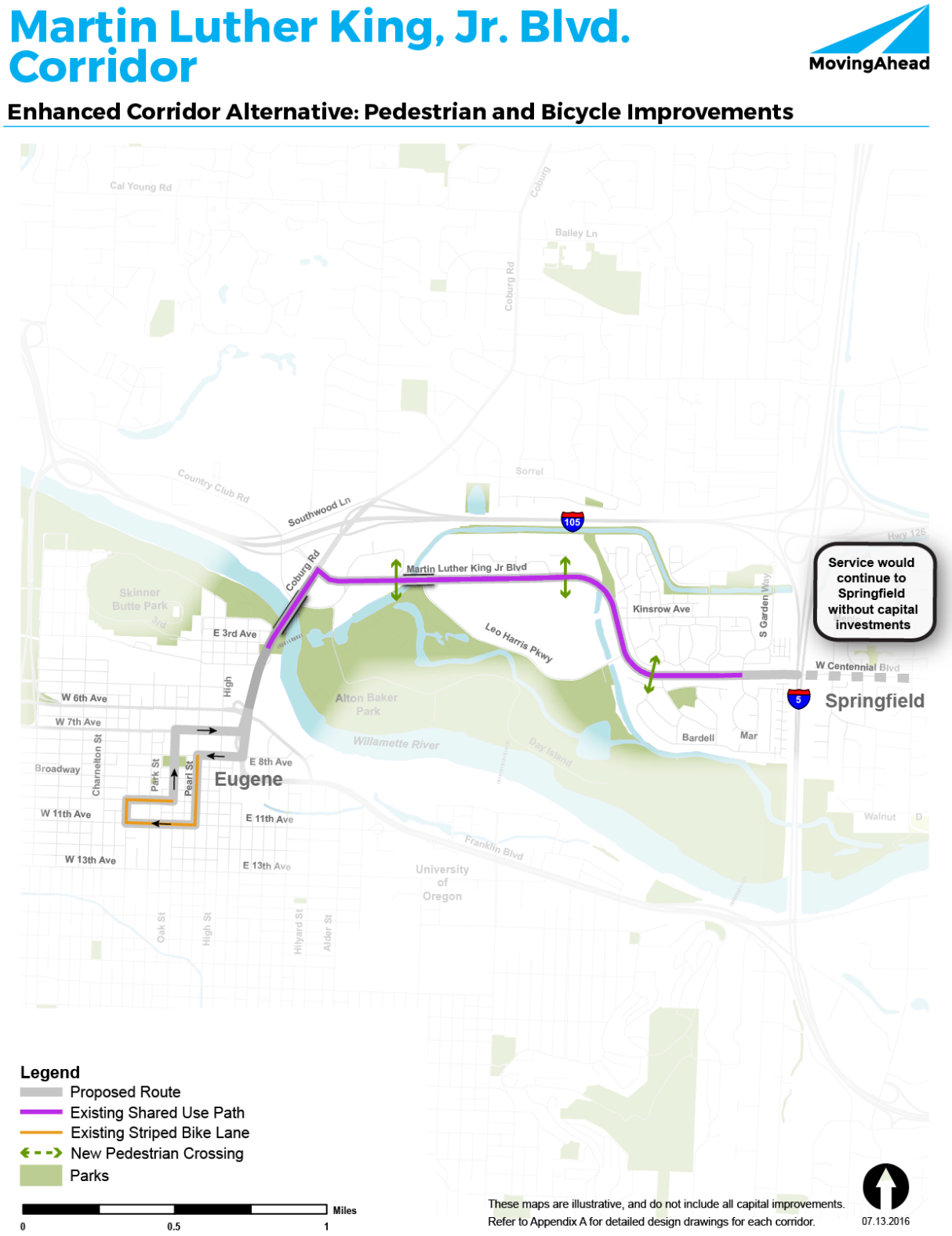


Figure 7.2-2. Enhanced Corridor Alternative Pedestrian and Bicycle Improvements



Under the Enhance Corridor Alternative, the following five existing stops would be used for bus service, but would not receive capital improvements:

- Eugene Station
- Oak Street and E. 7th Avenue northbound
- Oak Street and Broadway northbound
- Pearl Street and E. 10th Avenue southbound
- E. 8th Avenue and High Street westbound

Under the Enhanced Corridor Alternative, the following 10 existing stop locations would receive capital improvements:

- Martin Luther King, Jr. Boulevard west of Club Road eastbound
- Coburg Road and Country Club Road southbound
- Martin Luther King, Jr. Boulevard and Centennial Loop east eastbound
- Martin Luther King, Jr. Boulevard and Centennial Loop east westbound
- Martin Luther King, Jr. Boulevard and Kinsrow eastbound
- Martin Luther King, Jr. Boulevard and Kinsrow westbound
- Martin Luther King, Jr. Boulevard and Chevy Chase eastbound
- Martin Luther King, Jr. Boulevard and Chevy Chase westbound
- Martin Luther King, Jr. Boulevard and Lindley eastbound
- Martin Luther King, Jr. Boulevard and Lindley westbound

Under the Enhanced Corridor Alternative, the following four new stop locations would be constructed:

- Martin Luther King, Jr. Boulevard and Boy Scouts of America Oregon Trail Council driveway (east of Leo Harris Parkway) eastbound
- Martin Luther King, Jr. Boulevard and Boy Scouts of America Oregon Trail Council driveway (east of Leo Harris Parkway) westbound
- Martin Luther King, Jr. Boulevard and the PK Park driveway eastbound
- Martin Luther King, Jr. Boulevard and the PK Park driveway westbound

There would be a reduction of one bus stop in the corridor under this alternative as compared to the No-Build Alternative.

Under the Enhanced Corridor Alternative, LTD would have 75 fixed-route service buses (mix of 40-foot and 60-foot buses) and 15 spares operating in the system, an increase of one bus as compared to the No-Build Alternative.

7.2.1.4 EmX Facilities and BRT Vehicles

Under the Enhanced Corridor Alternative, EmX facilities and BRT vehicles would be the same as under the No-Build Alternative.

7.2.1.5 Park and Ride Facilities

Under the Enhanced Corridor Alternative, park and ride facilities would be the same as under the No-Build Alternative.

7.2.1.6 Operations and Maintenance Facilities

Under the Enhanced Corridor Alternative, operations and maintenance facilities would be the same as under the No-Build Alternative.

7.2.2 Operations

7.2.2.1 Roadway

Roadway operations under the Enhanced Corridor Alternative would be similar to that of the No-Build Alternative with the following exceptions:

- Signal timing at some existing signalized intersection would be altered.
- A new traffic signal at Martin Luther King, Jr. Boulevard and Leo Harris Parkway would affect traffic operations.
- A reduction in the number of general-purpose lanes to construct BAT lanes on Martin Luther King, Jr. Boulevard would reduce vehicular capacity. BAT lanes would be available for right-turning vehicles only.

7.2.2.2 Bus

Under the Enhanced Corridor Alternative, outbound buses would travel east from the Eugene Station on W. 10th Avenue and E. 10th Avenue to Oak Street, then north on Oak Street to E. 7th Avenue. Buses would travel on E. 7th Avenue until turning north onto the existing ramp onto Coburg Road, then crossing the Ferry Street Bridge. Buses would then turn east onto Martin Luther King, Jr. Boulevard, traveling east past Autzen Stadium, and continuing until the road becomes Centennial Boulevard. The outbound route would continue east of I-5 on Centennial Boulevard into Springfield without capital improvements.

Inbound from I-5, buses would travel west on Centennial Boulevard, which becomes Martin Luther King, Jr. Boulevard. Buses would continue west to Coburg Road, turn south on Coburg Road, then travel south across the Ferry Street Bridge. Buses would turn westbound onto E. 8th Avenue, then southbound on Pearl Street. Buses would turn west onto E. 11th Avenue, terminating at Eugene Station.

Enhanced Corridor service would run from 6 a.m. to 12 a.m. weekdays, 7 a.m. to 11 p.m. Saturdays, and 8 a.m. to 8 p.m. Sundays. Weekday frequencies would be 15 minutes during peak periods, 15 minutes during off- peak periods, and 30 minutes during the evenings.

Bus operations under the Enhanced Corridor Alternative would be the same as bus operations under the No-Build Alternative, with the exception of eliminating Route 13 (which would be replaced by Enhanced Corridor service).

Based on these operational changes, the Enhanced Corridor Alternative would result in 821 additional bus vehicle miles traveled and 37 additional bus revenue hours, as compared with the No-Build Alternative (Table 1.4-2).

7.2.2.3 EmX

Under the Enhanced Corridor Alternative, there would be no change in EmX operating characteristics as compared to the No-Build Alternative.

8. References

Alternatives and Design Options Considered but Eliminated Technical Memorandum (CH2M, 2016)

CH2M (2016)

Emerald Express (EmX) System Plan (LTD, 2001)

Eugene Design Standards and Guidelines for Eugene Streets, Sidewalks, Bikeways and Accessways (1999)

Eugene Pedestrian and Bicycle Master Plan (City of Eugene, 2012)

Draft 2035 Eugene Transportation System Plan (City of Eugene, expected adoption in 2016)

Lane County Transportation System Plan (update in progress)

Lane Transit District Capital Improvement Plan (most recently amended in June 2015)

Lane Transit District Long-Range Plan (LTD, 2014)

Level 1 Screening Memo (LTD, 2015)

Wannamaker Consulting (2015)