

IMPLEMENTATION PLAN

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SUBJECT: US 20 Albany Study - Implementation Plan

Project #23072-000

INTRODUCTION

Traffic in and through downtown Albany, Oregon has been an issue for several years, particularly on US 20 and over the Ellsworth Street and Lyon Street bridges. Congestion in these areas was identified as a problem in the 1997 and 2010 editions of the Albany Transportation System Plan (TSP). An analysis of future baseline conditions indicates that seven intersections within the study area are expected to exceed capacity or operate at LOS F by the year 2043. Most significant of these intersections is 1st Avenue/Lyon Street at the southern end of the Lyon Street bridge, which is expected to fail in the next five years and is currently a significant bottleneck creating congestion and delays in downtown Albany and on ODOT’s highway.

The project team initially set out to develop and analyze a series of alternatives through a two-tier process. The first stage of analysis (Tier 1 Screening) sought to select a series of project alternatives and pass them through a fatal flaw evaluation before being advanced to a more detailed study (Level 2



Evaluation). The Level 2 Evaluation analyzed the project alternatives and identified key findings and proposed recommendations. The analysis performed for the Level 2 Evaluation exposed new system bottlenecks, and additional improvements were identified to mitigate and address these needs as an addendum.

The purpose of this memorandum is to detail an implementation plan for the project alternatives identified during the Level 2 Evaluation.

KEY NEEDS

TABLE 1: KEY NEEDS

LOCATION	EXISTING NEEDS	FUTURE NEEDS
SPRINGHILL DRIVE/US 20	<ul style="list-style-type: none"> • Address long delays caused by heavy truck traffic • Slopes are difficult in snow/ice • Improved superelevation 	<ul style="list-style-type: none"> • SB queuing will result in 15% of demand unserved • Standard superelevation
1ST AVE/LYON ST	<ul style="list-style-type: none"> • Critical congestion bottleneck • High crash occurrence • Bicycle/Pedestrian crashes and conflicts 	<ul style="list-style-type: none"> • Address capacity needs with 33% of the 1st Avenue traffic demand unserved during the PM peak period • Improved pedestrian and bicycle enhancements
2ND AVE & 3RD AVE/LYON ST	<ul style="list-style-type: none"> • High number of crashes • Delays and congestion for eastbound traffic on 2nd at Lyons St. 	<ul style="list-style-type: none"> • Address capacity for eastbound 2nd Ave.
1ST AVE & 2ND AVE/ ELLSWORTH ST	<ul style="list-style-type: none"> • 11% of EB US 20 demand unserved at 1st Ave. • 14% of EB US 20 demand unserved at 2nd Ave. 	<ul style="list-style-type: none"> • Address key bottlenecks and capacity issues in 2043 no-build scenario
DOWNTOWN SIGNALIZED INTERSECTIONS	<ul style="list-style-type: none"> • Limited visibility, vehicle congestion, & crossing distance are challenge for bicyclists & pedestrians 	<ul style="list-style-type: none"> • Provide enhanced pedestrian crossings and curb extensions where possible to improve pedestrian and bicycle safety.
9TH AVE/LYON ST/OR 99E	<ul style="list-style-type: none"> • NB off-ramp queues out • Southbound/Westbound queuing on Ellsworth St/9th Avenue 	<ul style="list-style-type: none"> • Address key bottlenecks and capacity issues in 2043 no-build scenario
LYON-ELLSWORTH COUPLET BIKE FACILITIES	<ul style="list-style-type: none"> • Current bicycle level of stress is 4 	<ul style="list-style-type: none"> • Provide bicycle facilities that accommodate all ages and abilities.

ALTERNATIVES PROCESS DESCRIPTION

EVALUATION CRITERIA

Tier 1 Screening

The first screening applied a simplified, qualitative version of the project evaluation criteria that was developed by the PMT to align with the goals and objectives that guide this planning process. Each proposed project alternative was evaluated using the following performance measures:

- Motor Vehicle Operations
- On-Street Parking
- Pedestrian Benefit
- Bicycle Benefit
- Transit Benefit
- Turning Impacts/Driveway Access
- Safety
- Cost

A handful of alternatives that had a negative impact or were clearly outperformed by similar and lower cost alternatives were removed during the Tier 1 screening, including curb extensions throughout the corridor and a transit-only approach at Albany Transit Center.

Level 2 Evaluation

Each advanced project alternative was evaluated against the Tier 2 screening criteria, each of which is a comprehensive assessment of potential benefits and trade-offs associated with project alternatives. The screening criteria were developed based on a combination of qualitative and quantitative analysis.

The level of traffic stress (LTS) was analyzed for proposed pedestrian and bicycle facilities in the study area using methodology from the ODOT *Analysis and Procedures Manual (APM)*. LTS rates the stress of roadway segments based on characteristics such as motor vehicle traffic volumes and speeds, presence of walking and bicycling facilities, and degree of separation between motorized and nonmotorized users. The possible scores range from 1 to 4, with 1 representing the lowest stress and 4 representing the highest stress.

CORRIDOR IMPLEMENTATION PLAN

SHORT TERM PLAN (0-5 YEARS)

Figure 1 and Table 2 present projects suggested for short term phasing, for which funding should be secured and implementation initiated within five years. These are projects that are either low cost, high priority, or both. The total estimated cost of the short-term improvements is **\$15.5 million**.

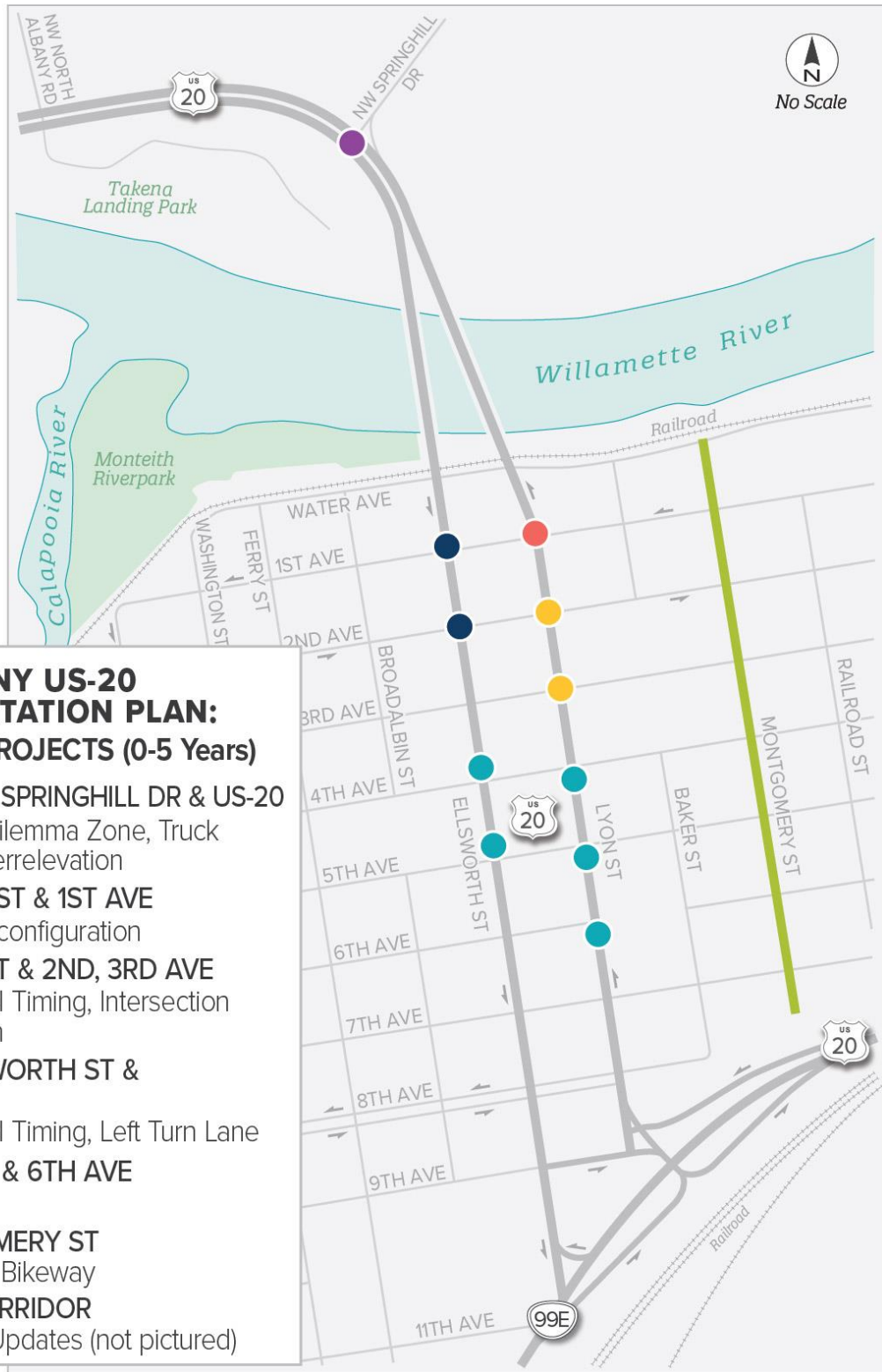


FIGURE 1: SHORT TERM PROJECTS (0-5 YEARS)

TABLE 2: SHORT TERM PROJECTS (0-5 YEARS)

LOCATION	ALT	DESCRIPTION	SCREENING CRITERIA ADDRESSED	COST
SPRINGHILL DRIVE/US 20	1A	<ul style="list-style-type: none"> • Re-stripe to allow SB dual left turn 	<ul style="list-style-type: none"> • Motor Vehicle Operations • Safety • Economic Vitality • Consistency with City/State Standards • Societal Benefits 	\$200,000
	1B	<ul style="list-style-type: none"> • Examine dilemma zone 	<ul style="list-style-type: none"> • Safety • Societal Benefits 	\$50,000
	1C	<ul style="list-style-type: none"> • Establish truck route down Hickory Road to North Albany Road to redirect southbound trucks (Temporary) 	<ul style="list-style-type: none"> • Motor Vehicle Operations • Safety • Economic Vitality • Consistency with City/State Standards • Societal Benefits 	\$70,000
	1D	<ul style="list-style-type: none"> • Fix superelevation 	<ul style="list-style-type: none"> • Safety • Consistency with City/State Standards • Societal Benefits 	\$10,300,000
1ST AVENUE/LYON STREET AND LYON STREET BRIDGE	2D	<ul style="list-style-type: none"> • Change WB lane geometry to TH-RT, RT, Bike Lane • Remove parking to add curb extension on west leg • Add ped phase or LPI to north crosswalk 	<ul style="list-style-type: none"> • Motor Vehicle Operations • On-Street Parking • Pedestrian Facilities • Bicycle Facilities • Safety • Community Livability • Economic Vitality • Societal Benefits 	\$500,000
	2F	<ul style="list-style-type: none"> • Reconfigure the bridge deck to include a multi-use path that continues up Springhill Dr to Hickory St 	<ul style="list-style-type: none"> • Motor Vehicle Operations • On-Street Parking • Pedestrian Facilities • Bicycle Facilities • Safety • Community Livability • Economic Vitality • Consistency with City/State Standards • Societal Benefits 	\$3,200,000
2ND & 3RD AVE/LYON ST	3B	<ul style="list-style-type: none"> • Upgrade signal timing (LPIs, updated splits) 	<ul style="list-style-type: none"> • Motor Vehicle Operations • Safety • Community Livability 	\$15,000

LOCATION	ALT	DESCRIPTION	SCREENING CRITERIA ADDRESSED	COST
1ST & 2ND AVE/ ELLSWORTH ST	9	<ul style="list-style-type: none"> Remove half block of parking and add left turn lane at 2nd Ave/Lyon St EB approach 	<ul style="list-style-type: none"> Economic Vitality Societal Benefits Motor Vehicle Operations Safety Pedestrian Facilities Consistency with City/State Standards Societal Benefits 	\$250,000
	4B	<ul style="list-style-type: none"> Upgrade signal timing (LPIs, updated splits) 	<ul style="list-style-type: none"> Motor Vehicle Operations Safety Community Livability Economic Vitality Societal Benefits 	\$20,000
	4C	<ul style="list-style-type: none"> Remove half block of parking and add left turn lane at 2nd/Ellsworth SB approach 	<ul style="list-style-type: none"> Motor Vehicle Operations On-Street Parking Safety Community Livability Economic Vitality Consistency with City/State Standards Societal Benefits 	\$250,000
DOWNTOWN UNSIGNALIZED INTERSECTIONS	5B	<ul style="list-style-type: none"> Add RRFBs on upstream crossing 	<ul style="list-style-type: none"> Pedestrian Facilities Bicycle Facilities Transit Facilities Safety Community Livability Consistency with City/State Standards Societal Benefits 	\$500,000
LYON-ELLSWORTH COUPLET BIKE FACILITIES	7D	<ul style="list-style-type: none"> Implement a neighborhood bikeway on Montgomery Street connecting to the Lyon Street bridge via 1st Avenue. 	<ul style="list-style-type: none"> Bicycle Facilities Safety Consistency with City/State Standards Societal Benefits 	\$100,000
9 TH AVENUE AT ELLSWORTH ST & LYON ST	8 – Phase 1	<ul style="list-style-type: none"> Couplet corridor signal timing update, including potential cycle length adjustments 	<ul style="list-style-type: none"> Motor Vehicle Operations Safety 	\$25,000

LONG TERM PLAN (5+ YEARS)

Figure 2 and Table 3 present projects suggested for long term phasing, for which funding should be secured and implementation initiated after five years. These are projects that are either higher cost, lower priority, or both. The total estimated cost of the long-term improvements is **\$7.1 million**.



FIGURE 2: LONG TERM PROJECTS (5+ YEARS)

TABLE 3: LONG TERM PROJECTS (5+ YEARS)

LOCATION	ALT	DESCRIPTION	BENEFITS	COST
1 ST AVENUE/LYON STREET AND LYON STREET BRIDGE	2E	<ul style="list-style-type: none"> Remove one WB lane Change WB lane geometry to TH-RT, RT Remove parking to add curb extension on west leg Shift bike lane to south side of 1st Avenue 	<ul style="list-style-type: none"> Motor Vehicle Operations On-Street Parking Pedestrian Facilities Bicycle Facilities Safety Community Livability Economic Vitality Societal Benefits 	\$500,000
			<ul style="list-style-type: none"> Motor Vehicle Operations Pedestrian Facilities Bicycle Facilities Transit Facilities Safety Community Livability Economic Vitality Consistency with City/State Standards Societal Benefits 	\$1,100,000
9 TH AVE/LYON STREET/OR 99E RAMPS	6A	<ul style="list-style-type: none"> Add second lane to OR 99E off-ramp continuing to Lyon Street 	<ul style="list-style-type: none"> Motor Vehicle Operations Pedestrian Facilities Bicycle Facilities Transit Facilities Safety Community Livability Economic Vitality Consistency with City/State Standards Societal Benefits 	\$1,100,000
			<ul style="list-style-type: none"> On-Street Parking Pedestrian Facilities Bicycle Facilities Safety Consistency with City/State Standards Societal Benefits 	\$2,300,000
			<ul style="list-style-type: none"> On-Street Parking Pedestrian Facilities Bicycle Facilities Safety Consistency with City/State Standards Societal Benefits 	\$2,700,000
LYON- ELLSWORTH COUplet BIKE FACILITIES (ALTERNATIVE TO BE SELECTED IN TSP UPDATE)	7A	<ul style="list-style-type: none"> One two-way cycle track on the east side of Lyon Street 	<ul style="list-style-type: none"> On-Street Parking Pedestrian Facilities Bicycle Facilities Safety Consistency with City/State Standards Societal Benefits 	\$2,300,000
			<ul style="list-style-type: none"> On-Street Parking Pedestrian Facilities Bicycle Facilities Safety Consistency with City/State Standards Societal Benefits 	\$2,700,000
LYON- ELLSWORTH COUplet BIKE FACILITIES (ALTERNATIVE TO BE SELECTED IN TSP UPDATE)	7B	<ul style="list-style-type: none"> Two one-way cycle tracks on the right shoulders of Lyon Street and Ellsworth Street 	<ul style="list-style-type: none"> On-Street Parking Pedestrian Facilities Bicycle Facilities Safety Consistency with City/State Standards Societal Benefits 	\$2,700,000
			<ul style="list-style-type: none"> On-Street Parking Pedestrian Facilities Bicycle Facilities Safety Consistency with City/State Standards Societal Benefits 	\$500,000
9 TH AVENUE AT ELLSWORTH ST & LYON ST	8 – Phase 2	<ul style="list-style-type: none"> Coordinate 9th Avenue signals (once Alternative 6A is implemented) 	<ul style="list-style-type: none"> Motor Vehicle Operations Safety 	\$25,000
			<ul style="list-style-type: none"> Motor Vehicle Operations Safety 	\$25,000

RECOMMENDATIONS SUMMARY

This memo is intended to provide guidance on when to implement the recommended projects identified through the processes established in the Tier 1 Screening memorandum and refined during the Level 2 Alternatives Evaluation. Table 4 provides a high-level breakdown of the projects identified in the US 20 Albany Study.

TABLE 4: SUMMARY OF PROJECTS

IMPLEMENTATION TIME FRAME	ALTERNATIVES	TOTAL NUMBER	TOTAL ESTIMATED COST
SHORT TERM PROJECTS	1A, 1B, 1C, 1D, 2D, 3F, 3B, 4B, 4C, 5B, 7D, 8 – Phase 1, 9	13	\$15,480,000
LONG TERM PROJECTS	2E, 6A, 7A, 7B, 7C, 8 – Phase 2	6	\$7,125,000
	TOTAL	19	\$22,605,000

ATTACHMENTS

ATTACHMENT A – LEVEL 2 EVALUATION CRITERIA MEMORANDUM

ATTACHMENT B – EXISTING AND FUTURE BASELINE CONDITIONS