DRAFT Technical Memorandum #17

DATE: November 29, 2017

TO: Corvallis TSP Project Management Team and Stakeholders

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SUBJECT: **Corvallis Transportation System Plan Update**
Task 7.1 Transportation System Solutions

This memorandum identifies recommended transportation system solutions to address the future transportation needs identified in the evaluation of existing and future conditions (Technical Memoranda #7 through #14). Transit-specific solutions are not included in this memorandum, but can be found in Technical Memorandum #18. Included are a summary of the process used to develop and evaluate the recommended solutions, descriptions of the projects identified, and guidance for project prioritization with consideration to available funding.

Solutions Development Process

The project team developed the recommended transportation solutions following the process identified in *Technical Memorandum #14 – Transportation Solutions Identification Process*. The process considered project goals and objectives and input from three main sources:

- Stakeholders (via committee meetings, public open house, and project website comments)
- Previous Plans (such as the 1996 TSP and area plans for North, South, and West Corvallis)
- Independent Project Team Evaluation (Technical Memoranda #7 and #12)

Consistent with the project goals, solutions development focused on creating a balanced system able to provide travel options for a wide variety of needs and users. The project team has ensured that the solutions include lower-cost improvements to enhance existing infrastructure and extend its useful life rather than relying solely on the construction of new facilities that require substantial funding and may have greater impacts on the environment and adjacent property.

Solution Evaluation Process

All recommended solutions were compared to a set of qualitative evaluation criteria to aid in project prioritization decisions. The evaluation criteria, listed below, were developed directly from the project goals and objectives outlined in *Technical Memorandum #6 – Transportation Data and Potential Evaluation Criteria* and are intended to be used to indicate how strongly each solution supports community-expressed interests.

Goal 1: Provide an efficient transportation system that support economic vitality by facilitating the local and regional movement of people and goods.

Evaluation Criteria

a. Project significantly reduces vehicle-miles traveled (VMT)[1]
b. Project improves the performance of a substandard intersection
c. Project significantly improves travel time on a freight route during the PM peak
d. Project significantly improves percentage of households and employment in close proximity to high quality pedestrian or bicycle facilities
e. Project significantly improves percentage of households and employment near (within ¼-mile) transit service served by at least 30 transit vehicles per day[2]

Goal 2: Provide a transportation system that enhances the health and safety of residents.

Evaluation Criteria

f. Project provides a bicycle facility on an arterial or collector roadway[1]
g. Project provides a pedestrian facility on an arterial or collector roadway[1]
h. Project improves a recognized safety issue
i. Project improves safety for vulnerable users[1]

Goal 3: Provide a diversified and accessible transportation system that ensures mobility for all members of the community and provides viable alternatives to automobile travel.

Evaluation Criteria

j. Project improves span and frequency of transit service by route classification
k. Project improves percent of collectors and higher roadway mileage with transit service served by at least 30 transit vehicles per day
l. Project reduces the bicycle level of traffic stress
m. Project reduces the pedestrian level of traffic stress on arterial/collector segments
n. Project improves pedestrian network quality at arterial/collector intersections
o. Project significantly improves percentage of households and employment near (within ¼-mile) transit service served by at least 30 transit vehicles per day

[1] Also supports Goal 4.

Goal 4: Provide a sustainable transportation system through responsible stewardship of financial and environmental resources.

Evaluation Criteria

p. Project focuses on travel demand management or existing transportation system management
q. Project provides a bicycle facility on an arterial or collector roadway
r. Project provides a pedestrian facility on an arterial or collector roadway
s. Project improves safety for vulnerable users
t. Project encourages increased travel by transit
u. Project significantly reduces vehicle-miles traveled (VMT)

Each project was scored independently receiving one point per evaluation criterion met, with each criterion weighted equally. The total project score is the sum of the points. These project scores were converted into High, Medium, and Low Priority groupings. Currently, projects within ± one standard deviation of the median score are rated "Medium", while projects scoring higher than (+) one standard deviation of the median are rated "High" and projects scoring lower than (-) one standard deviation of the median are rate "Low". Because the criteria have been weighted equally, it is possible that some ratings may not reflect stakeholder interests. Such discrepancies will be discussed through upcoming committee meetings and the public open house and adjustments will be made where appropriate. The project descriptions in Tables 1 through 5 show how each solution was rated.

Each project was also evaluated for potential impacts to environmental resources and Title VI populations (e.g., low income, minorities, and people with disabilities). The process for identifying potential impacts applied a high-level spatial analysis to see if a project would have a substantial impact on a known environmentally sensitive area or might disproportionately impact an area of Corvallis where Title VI populations are known to be higher (mapped in Technical Memorandum #1). A note is included in the project description for each project where a potential impact was identified. The following environmental resources were included in this evaluation:

- Parks
- Historic Sites
- Historic Districts
- Protected Vegetation
- Protected Riparian Corridors
- Wetlands

Recommended Solutions

Tables 1 through 5 and Figures 1 through 5 describe the recommended solutions for Corvallis' transportation system through the year 2040. Solutions are presented in five categories (order does not imply priority):

1. Pedestrian and Bicycle
2. Pedestrian (only)
3. Bicycle (only)
4. Multimodal (typically involves comprehensive improvements for auto, pedestrian, and bicycle modes)
5. Auto/Freight

Each solution was assigned a primary source of funding for planning purposes (City, County, State, or private development), although such designations do not create any obligation for funding. The TSP will provide a prioritized list of "City" projects (where the City is assumed to be the primary contributor of funding) that is constrained within the assumed 20-year funding estimate. The TSP will also provide a prioritized list of "State" projects that the City could use to make decisions for applying for grants or other funding mechanisms. While there may be "County" projects that the City would like to be prioritized in the next 20 years, these decisions are ultimately up to the County. The City can, however, choose to provide funds to help support State or County projects thus expediting the timeline on those projects the City would like prioritized. "Private development" projects will likely be built in coordination with land use actions and future development.

Pedestrian and Bicycle

Pedestrian and Bicycle projects provide connections and improve mobility for people on foot and for people riding bicycles. Pedestrian and Bicycle projects are typically multi-use paths that provide access for non-motorized modes of transportation separated from vehicular traffic and roadways, though some multi-use trails are located parallel to roadways. Alignments shown on maps within this document are conceptual. Final alignments and facility design will be dependent on approved development plans at the time of construction. Although some of the projects are from the Parks Master Plan, they are included in this TSP because they are considered an element of the low stress network, and provide connectivity for people using bicycles for transportation.

An Active Transportation Toolkit has been developed for the City of Corvallis to help identify street design elements to improve active transportation travel such as walking, transit, and bicycling. The toolkit includes various treatments, specific design recommendations, technical design resources, cost estimate, and the best street environment for applying the treatment.

Table 1: Proposed Pedestrian and Bicycle Solutions

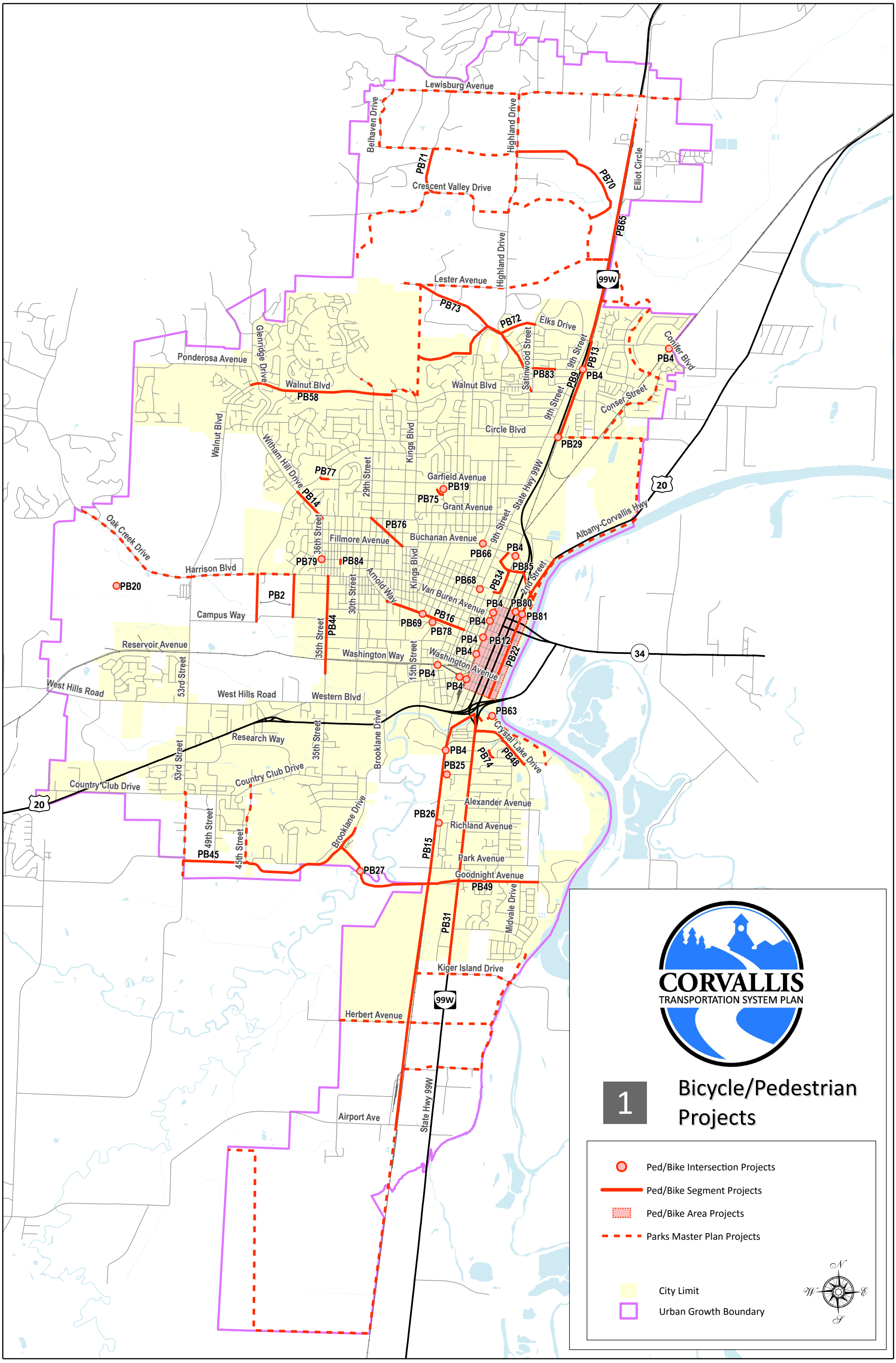
Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
PB2	New multi-use path	Circle Boulevard Multi-Use Path	$495,000	Developers / City	High	Corvallis 1996 TSP, CAMPO RTP
	Extend existing Circle Boulevard path from Harrison to Campus Way. Consider alternate alignment further east on OSU's boundary if path directly through OSU land is not feasible.					
PB4	Pedestrian/bicycle crossings	Bicycle/ Pedestrian RR Crossing	$550,000	City / Railroad	High	Corvallis 1996 TSP, Project Team
	Improve 11 deficient railroad crossings within the city. The railroad crossings are difficult to cross and present a safety hazard. Improvements would reconstruct the crossing surfaces to be safe, effective and to enhance the city's intermodal transportation system. Locations include: SE Avery at SE Allen, SW Western at SW 7th Street, SW Jefferson at 6th Street, NW Van Buren at NW 6th Street, NE Conifer Boulevard at OR 99W, NE Conifer Boulevard at Cheldelin Middle School, NW Buchanan Avenue between 5th and 9th Streets, SW Western at SW 6th Street, NW Monroe at NW 6th Street, NW Harrison at 6th Street, and 11th Street.					
PB9	New multi-use path	Northeast Corvallis Multi-Use Path	$440,000	City/Developer	High	Corvallis 1996 TSP
	Construct multi-use path following the railroad tracks parallel to OR 99W between Circle Boulevard and Conifer Boulevard. The preferred location for this path is on the east side of the railroad tracks to provide increases access and connectivity. If this is not feasible, the track may be constructed in the highway right-of-way on the west side of the tracks.					
PB11	Wayfinding	Multi-Use Path Wayfinding	$270,000	City	Low	CAMPO RTP
	Install wayfinding signage (including signage, maps, and pavement markings) along multi-use paths throughout Corvallis to provide navigational informational, provide guidance to destinations of interest, and reassure users that they are on the correct route.					
PB12	Wayfinding	Downtown Corvallis Wayfinding	$375,000	City	Low	CAMPO RTP,
	Install wayfinding signage for bicycle and pedestrian travel in the downtown area to provide navigational information, provide guidance to destinations of interest, and reassure users that they are on the correct route.					
PB13	New multi-use path	OR 99W Multi-Use Path	$175,000	ODOT / City	High	CAMPO RTP
	Extend OR 99W multi-use path from Conifer Boulevard north to Elks Drive					
PB14	Widen bike lanes and improve pedestrian safety	Witham Hill Drive Sidewalk and Bike Lanes	$830,000	City/Assessments to property owners	High	CAMPO RTP
	Improve bike lanes and construct sidewalks on east side of Witham Hill Drive between Circle Boulevard and Grant Avenue.					
PB15	New multi-use path	South Corvallis Multi-use Path	$6,230,000	City	High	; Stakeholder Request
	Construct 3.5-mile multi-use path parallel to existing railroad in Southeast Corvallis between existing path at from Marys River south to Airport Avenue					
PB16	Refinement Study	Monroe Avenue Shared Pedestrian, Bicycle, Transit Street Study	$200,000	City / OSU	High	Stakeholder Request
	Conduct a study to consider the costs and benefits of restricting / prohibiting general auto traffic on Monroe Avenue between 14th and 26th Streets.					

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
PB17	Travel Demand Management	Travel Demand Management Program Support	$100,000 per year	City	Medium	Stakeholder Request
	Provide/Increase alternative modes of transportation (i.e. non-motor vehicle travel) through Transportation Demand Management Programs and related efforts.					
PB19	Bridge project	17th Street Bridge	$355,000	City	High	Project Team
	Construct new pedestrian/bike bridge over Dixon Creek at 17th Street alignment within existing city right-of-way to provide a direct connection across Garfield without necessitating wrong way or midblock crossing. Develop in coordination with Project B42.					
PB20	New multi-use path	Bald Hill Farm Trail	$30,000	Benton County	High	STIP 2015-2018
	Build 1/2-mile section of trail on Bald Hill Farm to replace an existing public trail that resides on a private road on the farm.					
PB22	Pedestrian and bicycle safety improvements	2nd Street Safety Improvements	$200,000	ODOT / City	Medium	Stakeholder Request
	Pedestrian and bicycle safety improvement study between B Avenue and Waterworks Street. Conduct a study of 2nd Street and extensive outreach before developing specific recommendations. Potential options to improve safety are include buffered bike lane to improve bicycle conditions and wider sidewalks for pedestrian conditions. Improvements could be achieved through narrowed lane widths, removal of parking, removal of redundant travel lanes, or removal of center turn lanes where it is not needed.					
PB25	Pedestrian/bicycle crossings	SW Cummings Avenue Railroad Crossing	$500,000	ODOT / City / Private Rail owner	Medium	Stakeholder Request
	Develop connection over railroad to SW Allen Street for pedestrians/bicycles. Connection may not be necessary if PB26 is implemented.					
PB26	Pedestrian/bicycle crossings	SW Tunison Avenue Railroad Crossing	$500,000	ODOT / City / Private rail owner	Medium	Stakeholder Request
	Develop connection over railroad to SW Allen Street for pedestrians/bicycles. Connection may not be necessary if PB25 is implemented.					
PB27	Bridge project	Brooklane Bridge	$200,000	City	Medium	Stakeholder Request
	Study feasibility of new bicycle/pedestrian bridge over Marys River along the Wake Robin Avenue – Brooklane Place alignment. (or alternatively along the Goodnight Avenue – Brooklane Place alignment).					
PB29	Pedestrian and bicycle safety improvements	OR 99W Multi-Use Path and Circle Boulevard	$275,000	ODOT / City	Medium	Stakeholder Request
	Improve intersection and safety - consider curb radius reductions that shortens crossing distance from southwest corner while supporting freight vehicles ability to turn without crossing double yellow line. Alternatively, consider channelized right turn with "pork chop" island for pedestrians (which can include signal or an unsignalized marked crossing). Cost includes new island and a new traffic signal.					
PB31	Refinement Study	OR 99W South Corvallis Refinement Study	$200,000	ODOT / City	High	Stakeholder Request
	Conduct a study to consider the costs and benefits of improvements to the OR 99W corridor that would make South Corvallis a more comfortable and attractive place to walk and bike.					
PB34	New multi-use path	OR 99W Multi-Use Path Downtown Extension	$330,000	ODOT / City	High	Stakeholder Request

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
	Use railroad right-of-way or obtain easements between property lines to extend OR 99W path from Buchanan Avenue to 6th or 7th Street in downtown. Depending on the final alignment, if a bridge over Dixon Creek is required, it may increase costs by about $400,000.					
PB44	New multi-use path	35th Street – OSU Multi-Use Path	$655,000	City / OSU / City Parks and Recreation Department	High	2015 Parks Master Plan
	Develop new multi-use path along 35th Street between Harrison Boulevard and Oak Creek (north of Sagebrush Drive). This is a parks projects, but is included in this TSP because it is considered an element of the low-stress network, and provides connectivity for people using bicycles for transportation.					
PB45	New multi-use path	Brooklane Drive Multi-Use Path	$1,255,000	City / City Parks and Recreation Department	High	2015 Parks Master Plan
	Develop new multi-use path along Brooklane Drive and Nash Avenue between Hawkeye Avenue and 53rd Street. This is a parks projects, but is included in this TSP because it is considered an element of the low-stress network, and provides connectivity for people using bicycles for transportation.					
PB48	New multi-use path	Crystal Lake Drive Multi-Use Path	$390,000	City / City Parks and Recreation Department	High	2015 Parks Master Plan
	Develop new multi-use path between OR 99W and Fischer Lane along Chapman Place and Crystal Lake Drive. This is a parks projects, but is included in this TSP because it is considered an element of the low-stress network, and provides connectivity for people using bicycles for transportation.					
PB49	New multi-use path	Goodnight Avenue – Caldwell Multi-Use Path	$685,000	City / City Parks and Recreation Department	High	2015 Parks Master Plan
	Develop new multi-use path along Goodnight Avenue between Brooklane Drive, via Caldwell Natural Area to Willamette Park. This is a parks projects, but is included in this TSP because it is considered an element of the low-stress network, and provides connectivity for people using bicycles for transportation.					
PB58	New multi-use path	Walnut Boulevard Extension Multi-Use Path	$1,055,000	City / City Parks and Recreation Department	High	2015 Parks Master Plan
	Extend Walnut Blvd path east from Audene Drive to 27th Street. This is a parks projects, but is included in this TSP because it is considered an element of the low-stress network, and provides connectivity for people using bicycles for transportation.					
PB63	Bridge project	Confluence of Willamette and Marys River Bridge	$355,000	City	High	Stakeholder Request
	Develop multi-use path connection (bridge) between existing Willamette River Trail and PB42.					
PB65	New multi-use path	OR 99W Multi-Use Path Extension	$1,535,000	ODOT / City / Developer	High	Stakeholder Request
	Extend multi-use path along OR 99W to Lewisburg Road					
PB66	Bicycle/pedestrian safety improvements	11th Street/ Buchanan Avenue Safety Improvements	$50,000	City	Medium	CAMPO RTP
	Intersection improvements (pedestrian/bicycle safety): Install curb extensions to reduce crossing distances. Need to consider safety, school peak traffic, and pedestrian access for safe route to High School.					
PB68	Intersection improvements	9th Street/Polk Avenue Intersection Improvements	$295,000	City	Medium	Stakeholder Request

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
	Intersection improvements (safety) - relocate traffic signal and pedestrian crossing to intersection with north leg of Polk Avenue, add pedestrian refuge island across the south side of new signalized intersection.					
PB69	Pedestrian safety improvements	Monroe Avenue/16th Street	$35,000	City	Medium	Stakeholder Request
	Intersection improvement (safety): Add curb extensions					
PB70	New multi-use path	Frazier Creek Trail	$920,000	City	High	North Corvallis Area Plan - Alternative Transportation Network map
	Develop new multi-use path along Frazier Creek between Highland Drive and Owens Farm & Natural Area					
PB71	New multi-use path	Crescent Valley Dr Trail	$285,000	City	High	North Corvallis Area Plan - Alternative Transportation Network map
	Develop new multi-use path along Crescent Valley Drive between Frazier Creek Drive and Jackson Creek Drive					
PB72	New multi-use path	Northern Corvallis Multi-Use Path	$855,000	City	Low	North Corvallis Area Plan - Alternative Transportation Network map
	Develop new multi-use path from Elks Drive/Satinwood Street to Century Drive via Brandis Natural Area.					
PB73	New multi-use path	Stewart Slough Multi-Use Path	$995,000	City	Low	North Corvallis Area Plan - Alternative Transportation Network map
	Develop new multi-use path along Stewart Slough between Walnut Boulevard/Satinwood Street and Lester Avenue west of Glen Eden Drive.					
PB74	New multi-use path	Crystal Lake Drive - Chester Avenue Multi-Use Path	$55,000	Developer	Medium	Project Team
	Require future development to include multi-use path connecting Crystal Lake Drive to Chester Avenue along existing well-used unpaved desire line path through grass. A path may not be necessary if an extension of Chester Avenue is extended west.					
PB75	New multi-use path	Porter Park Multi-Use Path	$50,000	City	Medium	Project Team
	Add a paved path through Porter Park connecting 17th Street with existing bridge and Garfield Avenue (following well-used unpaved desire line path through grass).					
PB76	Corridor improvements	Coolidge Way Corridor Improvements	$130,000	City	Medium	Project Team
	Implement pedestrian and bicycle safety improvements along Coolidge Way between 29th Street & Grant Avenue and Fillmore Avenue & 23rd Street. Extend curbs and tighten corners to reduce speeds and reduce pedestrian crossing distance.					
PB77	New multi-use path	Crest Dr - Woodland Meadow Park Trail	$45,000	City	Medium	Project Team

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
	Pave existing well-used desire-line path through grass in Woodland Meadow Park connecting Circle Boulevard path to Crest Drive					
PB78	Intersection improvements	Campus Way and 14th Street Intersection Improvements	$75,000	OSU	High	Project Team
	Modify intersection to improve safety and facilitate pedestrians and bicycles crossing 14th Street on Campus Way. Consider traffic circle or traffic diverter to prevent left turns and through movement except for bicycles.					
PB79	Pedestrian/bicycle crossing	Polk Avenue and 36th Street Refuge Island	$25,000	City	High	Project Team
	Install refuge island to facilitate crossing 36th Street for pedestrians and people on bikes. Would require removal of parking spaces on east side of 36th Street near Polk Avenue.					
PB80	Pedestrian/bicycle crossing	Tyler Avenue and 3rd Street Crossing	$65,000	ODOT / City	High	Project Team
	Extend curbs to facilitate pedestrian and bicycle crossing. Would require removal of parking spaces near Tyler Avenue.					
PB81	Pedestrian/bicycle crossing	Tyler Avenue and 2nd Street Crossing	$25,000	ODOT / City	High	Project Team
	Consider removal of center turn lane on northbound approach and install refuge island to facilitate crossing 2nd Street for pedestrians and people on bikes					
PB83	New multi-use path	Conifer Multi-Use Path	$135,000	City	Medium	Project Team
	Use existing right-of-way and utility easement along Conifer Boulevard between Satinwood Street and Bryant Street to develop pedestrian and bicycle connection. Path would reduce out-of-direction travel for residents visiting Wildcat Park and students of Wilson Elementary School. This project would require impacts to private property. This project is one segment of a citywide low-stress network.					
PB84	New multi-use path	33rd Street Multi-Use Path	$25,000	City	Medium	Project Team
	Construct paved path between Tyler and Polk Avenue. Evidence of well-used desire-line path through grass.					
PB85	New multi-use path	OR 99W – Riverfront Connector	$2,260,000	ODOT	Low	9th Street Improvement Plan
	Construct paved path between Riverfront Path extension and OR 99W Multi-Use Path extension (PB 34). Dixon Creek and vacant land between NE 2nd Street/NW 1st Street and Buchanan Avenue/4th Street provide a potential alignment for the path.					


Lewisburg Avenue
Belhaven Drive
Highland Drive
PB71
Crescent Valley Drive
PB70
Elliot Circle
PB65
Highland Drive
Lester Avenue
99W
PB73
PB72
Elks Drive
Satinwood Street
9th Street
PB13
PB4
Conifer Blvd
PB83
PB9
PB4
Ponderosa Avenue
Glenridge Drive
Walnut Blvd
PB58
Walnut Blvd
Conser Street
Walnut Blvd
Circle Blvd
PB29
Witham Hill Drive
PB77
Kings Blvd
29th Street
Garfield Avenue
PB19
PB75
Grant Avenue
State Hwy 99W
20
Albany-Corvallis Hwy
PB14
36th Street
PB76
Fillmore Avenue
Buchanan Avenue
9th Street
PB66
PB4
Oak Creek Drive
PB79
PB84
Harrison Blvd
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2nd Street
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PB34
PB20
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Van Buren Avenue
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PB80
Campus Way
30th Street
Arnold Way
Kings Blvd
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35th Street
Reservoir Avenue
Washington Way
15th Street
Washington Avenue
PB22
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PB4
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West Hills Road
53rd Street
West Hills Road
Western Blvd
PB63
Crystal Lake Drive
Research Way
PB4
PB74
PB48
PB25
35th Street
Brooklane Drive
Country Club Drive
Country Club Drive
53rd Street
20
Alexander Avenue
PB26
Richland Avenue
49th Street
45th Street
Brooklane Drive
PB15
PB45
Park Avenue
PB27
Goodnight Avenue
PB49
Midvale Drive
PB31
Kiger Island Drive
99W
Herbert Avenue
State Hwy 99W
Airport Ave
CORVALLIS
TRANSPORTATION SYSTEM PLAN
1
Bicycle/Pedestrian Projects
Ped/Bike Intersection Projects
Ped/Bike Segment Projects
Ped/Bike Area Projects
Parks Master Plan Projects
City Limit
Urban Growth Boundary
N
W
E
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Pedestrian

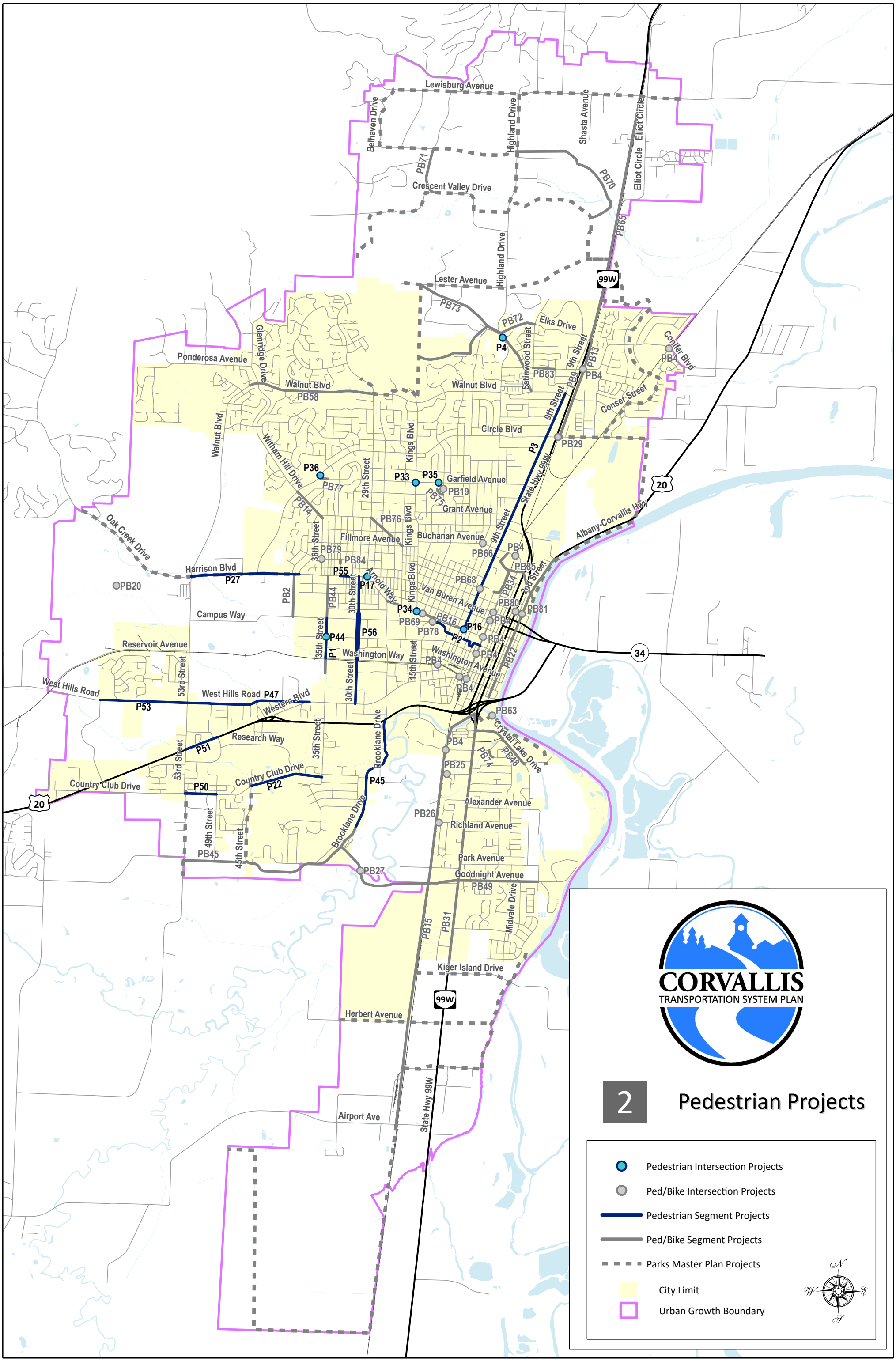
Pedestrian projects improve safety and comfort for people walking and using mobility devices. Pedestrian projects support access along roadways and reduce the difficulty of crossing streets mid-block or at busy intersections. Locations shown on maps within this document are conceptual. Final alignments and facility types will be dependent on approved development plans at the time of construction.

Table 2: Proposed Pedestrian Solutions

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
P1	New sidewalks	35th Street Sidewalks	$125,000	Developers / City	Medium	TM 7
	Sidewalk infill along 35th Street between Washington and Campus Way. 35th Street is close to high demand area (OSU) and is expected to see increased development in the future.					
P2	Widen sidewalks	Madison Avenue Sidewalks	$255,000	Developers	High	Corvallis 1996 TSP
	Widen sidewalk for sidewalk multi-use path. Widen sidewalk on north side to 12 feet between 6th-8th and 9th-14th. From 8th-9th the sidewalk will only be able to be widened to 10 feet without destroying trees in the park strip.					
P3	Pedestrian crossings	9th Street Pedestrian Crossings	$180,000	City	High	CAMPO RTP; 9th Street Improvement Plan
	Complete recommendations of the 9th Street improvement Plan for pedestrian crosswalks. The two crosswalk areas remaining to be completed are between Buchanan Avenue and Grant Avenue, and between Grant Avenue and Garfield Avenue.					
P4	Pedestrian safety improvements	Highland Drive/Meadow Ridge Place	$25,000	City	Medium	CAMPO RTP
	Improve pedestrian safety by adding a marked crosswalk at Highland Drive and Meadow Ridge Place. Crosswalk would improve visibility for pedestrians accessing bus stops on Highland Drive, for both residents of Meadow Ridge Place and Highland Dell Drive. Also consider additional street lighting.					
P5	Improve sidewalks	City-wide sidewalk retrofit	$150,000 per year	City / ODOT	Medium	CAMPO RTP
	Develop program to install ADA ramps, install new sidewalks, and retrofit existing sidewalks to be ADA compliant throughout the city. In general, ramp replacements are assumed at $5,000 per ramp and sidewalk infill is assumed at $100 per foot.					
P16	Pedestrian safety improvements	Monroe Avenue and 9th Street Safety Improvements	$35,000	City	High	TM 7
	Improve crossing safety - Curb radius reductions and curb extension on southeast corner.					
P17	Pedestrian safety improvements	Harrison Boulevard and 29th Street Safety Improvements	$35,000	City	High	TM 7
	Improve crossing safety - Curb radius reduction and curb extension					
P22	New sidewalks	Country Club Drive Sidewalks	$295,000	Developer / City	High	TM 12
	Add sidewalks on Country Club Drive between 35th Street and 45th Street. Sidewalks provide connectedly in area with limited street network. Improves access to transit stops.					
P27	New sidewalks	Harrison Boulevard Sidewalks	$440,000	Developers / City	High	TM 12

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
	Add sidewalks on Harrison Boulevard between west end of LDS church and 53rd Street/Walnut Boulevard. New sidewalks provide access along arterial where there is limited street connectivity. Sidewalks also provide pedestrian access in area expected to see growth in the future.					
P33	Pedestrian crossings	NW Garfield Avenue and NW Kings Boulevard Pedestrian Crossings	$100,000	City	High	Stakeholder Request
	Add traffic control or enhanced crossing to improve yielding compliance at crosswalk and increase visibility at night. Consider curb extensions.					
P34	Pedestrian safety improvements	Monroe Avenue and Kings Boulevard Pedestrian Safety	$35,000	City	High	Stakeholder Request
	Add curb extensions to reduce pedestrian crossing distance					
P35	Pedestrian safety improvements	Garfield Avenue/Porter Park Crosswalk	$15,000	City	High	Stakeholder Request
	Add raised crosswalk where Porter Park path leads onto Garfield Avenue west of 17th Street; move/replace existing speed bumps to accommodate new raised crosswalk.					
P36	Pedestrian safety improvements	Circle Boulevard/Woodland Meadow Park Crosswalk	$10,000	City	High	Stakeholder Request
	Add crosswalk where park path crosses Circle Boulevard between Lantana Drive and Witham Hill Drive.					
P41	Safety	Pedestrian Safety Improvements	$150,000 per year	City	High	Project Team
	Establish annual program with funding to construct 4-6 pedestrian projects annually such as curb extensions, pedestrian-activated crossings and other improvements throughout the city to improve pedestrian safety and enhance pedestrian connectivity.					
P44	Pedestrian Safety	35th Street and Campus Way Crossing Improvements	$47,000	City / OSU	Medium	In CIP
	Pedestrian safety and crossing improvements at 35th Street and Campus Way.					
P45	New sidewalks	Brooklane Drive Sidewalks	$485,000	City / Assessments to property owners	Medium	Stakeholder Request
	Add sidewalks to Brooklane Drive between US 20 and Hawkeye Avenue.					
P47	New sidewalks	West Hills Road Sidewalks	$495,000	Developer / City Assessments to property owners	Medium	Corvallis 1996 TSP, CAMPO RTP
	Add sidewalks to both sides of West Hills Road between Western Boulevard and 53rd Street. Area is expected to see future growth. Sidewalks also provide access to transit and increase connectivity where there is a limited street network.					
P50	New sidewalks	Country Club Drive	$125,000	Developers / City / Assessments to property owners	Medium	Project Team
	Add sidewalks on SW Country Club Drive between 49th Street and 53rd Street on south side to improve pedestrian safety and access to transit stops.					
P51	New sidewalks	Philomath Boulevard (US 20/OR 34)	$135,000	Developers / ODOT	Medium	Project Team

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
	Add sidewalk on Philomath Boulevard (US 20/OR 34) between 53rd Street and Technology Loop on north side to provide access to transit stops.					
P53	New sidewalks	West Hills Road	$340,000	Developers / Assessments to property owners	Medium	Project Team
	Add sidewalks on West Hills Road between Winding Way and 53rd Street on south side to improve pedestrian safety and provide access to transit stops.					
P55	Pedestrian crossing	NW Harrison Pedestrian Crossings	$10,000	City	Low	Project Team
	Install a marked pedestrian crossing on Harrison Boulevard near Harding Center between 31st and 33rd Streets.					
P56	Pedestrian crossings	30th Street Pedestrian Crossings	$200,000	OSU	Low	Project Team
	Implement pedestrian crossing improvements along 30th Street between Harrison Boulevard and Western Boulevard. The City will work with OSU to identify appropriate improvements to be implemented. The initial cost assumes construction of Rectangular Rapid Flashing Beacons at three locations along with improvement lighting at all pedestrian crossing locations.					


Lewisburg Avenue
Belhaven Drive
Highland Drive
Shasta Avenue
Elliot Circle
PB71
PB70
PB65
Crescent Valley Drive
Lester Avenue
PB73
PB72
Elks Drive
P4
99W
Ponderosa Avenue
Glenridge Drive
Walnut Blvd
PB58
Satinwood Street
PB83
9th Street
PB13
PB9
PB4
Conifer Blvd
Conser Street
Circle Blvd
P3
PB29
State Hwy 99W
Walnut Blvd
Witham Hill Drive
P36
PB77
29th Street
P33
P35
Garfield Avenue
PB19
PB75
Grant Avenue
PB14
PB76
Kings Blvd
Fillmore Avenue
Buchanan Avenue
36th Street
PB79
PB84
PB66
PB4
PB85
2nd Street
Albany-Corvallis Hwy
20
Oak Creek Drive
Harrison Blvd
P27
P55
P17
Arnold Way
Kings Blvd
PB68
PB34
PB20
PB2
PB44
30th Street
Van Buren Avenue
PB80
PB81
Campus Way
P34
PB69
PB16
PB78
P16
P2
P44
P56
35th Street
P1
Washington Way
Washington Avenue
PB22
34
Reservoir Avenue
53rd Street
15th Street
West Hills Road
West Hills Road P47
P53
Western Blvd
PB63
Crystal Lake Drive
PB74
PB48
PB25
Research Way
P51
Brooklane Drive
P45
Country Club Drive
P22
P50
20
Alexander Avenue
PB26
Richland Avenue
49th Street
45th Street
PB45
Park Avenue
PB27
Goodnight Avenue
PB49
Midvale Drive
PB15
PB31
Kiger Island Drive
99W
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Bicycle

Bicycle projects are intended to provide people traveling by bicycle with direct and reduced stress routes. Alignments and locations of bicycle projects shown on maps within this document are conceptual. Final alignments and facility types will be dependent on approved development plans at the time of construction.

Several of the projects listed below are part of a low-stress network. These are routes that provide a clear bicycle network connecting many destinations along routes that are safe and comfortable for people of all ages and abilities to ride bicycles. They are designed to give priority to through-bicycle traffic and minimize through-vehicle traffic, and can form the backbone of a citywide bicycle network. Low-stress networks include neighborhood bikeways, multi-use paths and protected bike lanes. Low-stress networks can be implemented in phases, by corridor or even by segment.

Neighborhood bikeways are one element of a low-stress network. They are local streets where vehicle speeds are slowed and traffic volumes reduced. They incorporate crossing improvements (such as median refuge islands and rapid flashing beacons) as well as traffic calming measures (such as chicanes, curb extensions and diverters). Additional information on elements of neighborhood bikeways are included in the Active Transportation Toolkit. A map of the projects included in the low-stress network is in Figure 4.

Table 3: Proposed Bicycle Solutions

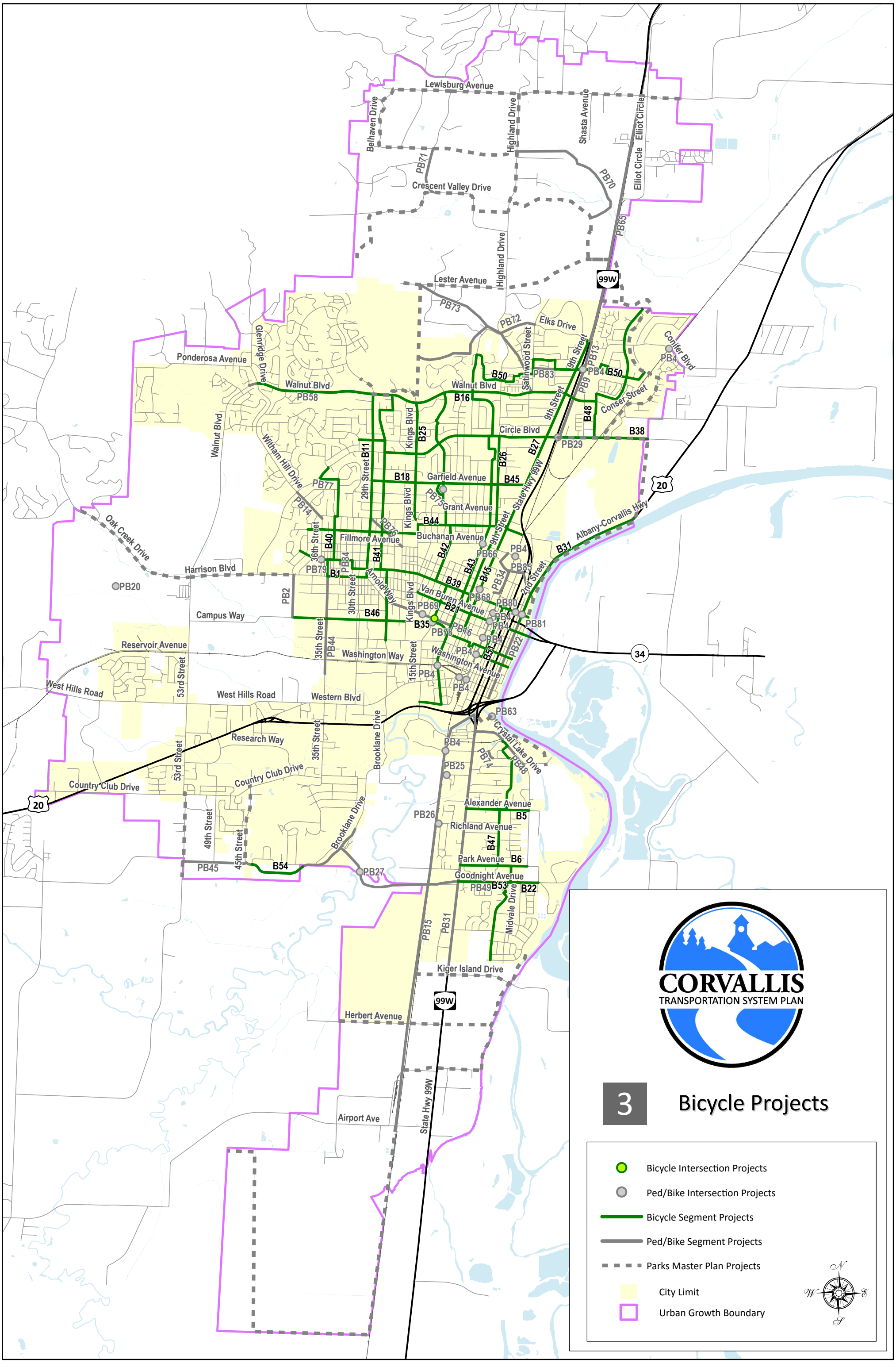
Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
B1	New bike lanes	Harrison Boulevard Bike Lanes	$750,000	City	Medium	Corvallis 1996 TSP
	Add bike lanes along Harrison Boulevard between 29th Street and 36th Street. Adding bike lanes may require expansion of roadway and removal of trees.					
B2	New bicycle parking	Bicycle Parking	$80,000	City / Developers	Low	Corvallis 1996 TSP
	Bicycle Parking Improvements: covered downtown, downtown upgrade, other commercial					
B5	New bike lanes	Alexander Avenue Bike Lanes	$170,000	Developers / Assessments to property owners	Medium	Corvallis 1996 TSP
	Add bike lanes to Alexander Avenue between Crystal Lake Drive and 3rd Street/OR 99W. To provide bike lanes, parking on one side would have to be eliminated and the street widened 6 feet to provide two 10-foot travel lanes, one 8-foot parking lane and two 6-foot bike lanes.					
B6	New bike lanes	Park Avenue Bike Lanes	$270,000	Developers / Assessments to property owners	Medium	Corvallis 1996 TSP
	Add bike lanes on Park Avenue between Crystal Lake Drive and 3rd Street/OR 99W. To provide bike lanes, parking on one side would have to be eliminated and the street widened.					
B11	Widen bike lanes	29th Street Bike Lanes	$200,000	City	Medium	
	Study the feasibility of widening bicycle lanes along 29th Street between Harrison Boulevard and Fillmore Avenue.					
B15	New bike lanes	9th Street Bike Lanes	$105,000	City	Medium	TM 12
	Add bike lanes on 9th Street between Polk Avenue and Monroe Avenue. Project would require reallocation of roadway from two lanes in each direction, to one lane in each direction, with center turn lane and bike lanes. Project would require analysis of traffic volumes, turning movements and level of service to					

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
	determine potential impacts of reconfiguration. Coordinate with Project A20 and Project A26. Project cost includes $50,000 for study and analysis, and $55,000 to implement bike lanes.					
B16	Reduce bike stress	Walnut Boulevard Bicycle Lanes	$380,000	City	Medium	TM 12
	Improve bicycle conditions on Walnut Boulevard between Jack London Street and Witham Hill Drive: consider buffered bike lanes. Buffered bike lanes require lane removals and lane width reductions or a combination of both. This cost is based on a $135,000 cost per mile (calculated based on the average of unit costs from available national sources).					
B18	Reduce bike stress	Garfield Avenue Bike Lanes	$815,000	City	Medium	TM 12
	Improve bicycle conditions on Garfield Avenue between 9th Street and 29th Street with protected bike lane. A protected bike lane requires the removal of parking or roadway widening. This project is one element of a citywide low-stress network. This cost is based on a $800,000 cost per mile (calculated based on the average of unit costs from available national sources).					
B21	Reduce bike stress	Van Buren Avenue Bike Lanes	$130,000	City/ODOT	Medium	TM 12
	Improve bicycle conditions on Van Buren Avenue between Kings Boulevard and the Willamette River. Consider buffered bike lanes. Buffered bike lanes require narrower lanes, or removal of parking. This cost is based on a $135,000 cost per mile (calculated based on the average of unit costs from available national sources).					
B22	Reduce bike stress	Goodnight Avenue Bike Lanes	$205,000	City	Medium	TM 12
	Improve bicycle conditions on Goodnight Avenue between OR 99W and Park Avenue. Consider buffered bike lanes by removing parking or expanding roadway, or consider conversion to local classification with neighborhood bikeway.					
B25	Reduce bike stress	Kings Boulevard Bike Lanes	$130,000	City	Medium	TM 12
	Improve bicycle conditions on Kings Boulevard between Walnut Boulevard and Grant Avenue. Consider buffered bike lanes (with removal of center turn lane, lane narrowing, roadway widening, or combination of all three). This cost is based on a $135,000 cost per mile (calculated based on the average of unit costs from available national sources).					
B26	Reduce bike stress	Highland Drive Bike Lanes	$190,000	City	Medium	TM 12
	Improve bicycle conditions on Highland Drive between Circle Boulevard and Harrison Boulevard. Consider buffered bike lanes. Buffered bike lanes require removal of parking, lane narrowing, roadway widening, or a combination of all three. This cost is based on a $135,000 cost per mile (calculated based on the average of unit costs from available national sources).					
B27	Reduce bike stress	9th Street Bike Lanes	$350,000	City	Medium	TM 12
	Improve bicycle conditions on 9th Street between Monroe Avenue and Elks Drive. Consider buffered bike lanes. Buffered bike lanes require removal of center turn lane, lane narrowing, removal of travel lanes, roadway expansion, or a combination of all four. This cost is based on a $135,000 cost per mile (calculated based on the average of unit costs from available national sources).					
B31	Widen bike lanes; reduce bike stress	US 20 Bike Lanes	$650,000	ODOT / City / Developers	Medium	Stakeholder Request
	Add buffered or protected bike lanes to NE 2nd Avenue (US 20) between Downtown and the northeast UGB boundary. Would require expanding the roadway width.					
B35	Reduce bike stress	Monroe Avenue and 14th Street Bicycle Amenities	$5,000	City / OSU	Medium	Stakeholder Request

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
	Add bicycle amenities such as bike boxes, wayfinding, etc. to improve bicycle safety and access. Bicycle boxes can increase driver awareness of bicycles, provide dedicated space for bicyclist to make left turns without turning from the center turn lane.					
B38	New neighborhood bikeway and Low-Stress Network	Elmwood Drive Neighborhood Bikeway/Circle Boulevard Low-Stress Roadway	$1,820,000	City	Medium	Project Team
	Develop low-stress route from Elmwood Drive and Firwood Drive, via 27th Street, Circle Boulevard, to eastern UGB boundary. Segments on local roadways would be designated as a neighborhood bikeway. Segments along arterials and collectors would require protected bike lanes. Protected bike lanes require lane removal, roadway expansion, narrower lanes, or a combination of all three. This project is one segment of a citywide low-stress network. This cost is based on $275,000 per mile for neighborhood bikeways, and $800,000 per mile for protected bike lanes (calculated based on the average of unit costs from available national sources). Refer to Low-Stress Network map for detailed alignment.					
B39	New neighborhood bikeway	Tyler Avenue Neighborhood Bikeway	$550,000	City	Medium	Project Team
	Develop neighborhood bikeway along Tyler Avenue and Polk Avenue between Elizabeth Drive on the west, and the Willamette River on the east. This project is one segment of a citywide low-stress network. This cost is based on $275,000 per mile (calculated based on the average of unit costs from available national sources).					
B40	New neighborhood bikeway	Alta Vista Drive/34th Street Neighborhood Bikeway	$260,000	City	Medium	Project Team
	Develop neighborhood bikeway along Alta Vista Drive and 34th Street between Circle Boulevard and Crest Drive on the north, and 35th Street and Harrison Blvd on the south. This project is one segment of a citywide low-stress network. This cost is based on $275,000 per mile (calculated based on the average of unit costs from available national sources).					
B41	New neighborhood bikeway	27th/26th Street Neighborhood Bikeway	$575,000	City / OSU	Medium	Project Team
	Develop neighborhood bikeway between Walnut Boulevard and Jefferson Way along 27th Street, 26th Street, and 25th Street, Refer to Low-Stress Network map for detailed alignment. This project is one segment of a citywide low-stress network. This cost is based on $275,000 per mile (calculated based on the average of unit costs from available national sources).					
B42	New neighborhood bikeway	16th/17th Street Neighborhood Bikeway	$565,000	City	Medium	Project Team
	Develop neighborhood bikeway along 16th and 17th Streets between Walnut Boulevard and Rolling Green Drive on the north, and 14th Street and Monroe Avenue on the south. This project is one segment of a citywide low-stress network. This cost is based on $275,000 per mile (calculated based on the average of unit costs from available national sources).					
B43	New neighborhood bikeway	11th Street Neighborhood Bikeway	$910,000	City	Medium	Project Team
	Develop neighborhood bikeway along 11th Street between 13th Street and Angelica Drive on the north, and 15th Street and E Avenue on the south. This project is one segment of a citywide low-stress network. This cost is based on $275,000 per mile (calculated based on the average of unit costs from available national sources).					
B44	New neighborhood bikeway	Beca Avenue/Lincoln Avenue Neighborhood Bikeway	$540,000	City	Medium	Project Team
	Develop neighborhood bikeway along Lincoln Avenue and Beca Avenue between Merrie Drive and OR 99W					

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
	Multi-Use Path. This project is one segment of a citywide low-stress network. This cost is based on $275,000 per mile, plus a $60,000 segment of multi-use path along Kings Boulevard between Lincoln Avenue and Beca Avenue (calculated based on the average of unit costs from available national sources).					
B46	New neighborhood bikeway	Campus Way/Madison Avenue Neighborhood Bikeway	$640,000	OSU / City	Medium	Project Team
	Develop neighborhood bikeway along Campus Way (under OSU jurisdiction) between western OSU boundary and 11th Street, Madison Avenue between 11th Street and the Willamette Multi-Use Path for westbound travel, and on Jefferson Avenue between 7th Street and the Willamette Multi-Use Path for eastbound travel. Segments along Jefferson Avenue require roadway widening to install a buffered bike lane. This project is one segment of a citywide low-stress network. This cost is based on $275,000 per mile (calculated based on the average of unit costs from available national sources).					
B47	New neighborhood bikeway	SE Corvallis Neighborhood Bikeway	$570,000	City / Assessments to property owners	Medium	Project Team
	Develop neighborhood bikeway in Southeast Corvallis from Vera Avenue and Crystal Lake Drive, along Vica Way, Bethel Street, Thompson Street, Goodpark Street, Summerfield Drive and Dockside Drive to Shoreline Drive. This project is one segment of a citywide low-stress network. This cost is based on $275,000 per mile (calculated based on the average of unit costs from available national sources).					
B48	New neighborhood bikeway	Lancaster Street Neighborhood Bikeway	$355,000	City	Medium	Project Team
	Develop neighborhood bikeway along Lancaster Street from Lancaster and Oxford Circle, to Jack London Street and Circle Boulevard. This project is one segment of a citywide low-stress network. This cost is based on $275,000 per mile (calculated based on the average of unit costs from available national sources).					
B50	New neighborhood bikeway	NE Corvallis Neighborhood Bikeway	$585,000	City	Medium	Project Team
	Develop neighborhood bikeway between 13th Street and Angelica Drive, via Anjini Circle, Sundance Circle, Satinwood Street, Maxine Avenue, Bryant Street, Conifer Boulevard, Cambridge Circle, and Plymouth Circle and Sherwood Way to Village Green Park. Segment along Satinwood Street may require protected or buffered bike lanes. Segment along Conifer Boulevard between 9th Street and Cambridge requires lane narrowing, roadway widening, removal of parking, or a combination of all three. This project is one segment of a citywide low-stress network. This cost is based on $275,000 per mile (calculated based on the average of unit costs from available national sources). Project PB83 provides a multi-use path through Wildcat Park that could provide alternate alignment for this neighborhood bikeway.					
B51	Protected Bike Lanes	5th Street Protected Bike Lanes	$105,000	City	Medium	Project Team
	Add protected bike lanes along 5th Street between Jefferson Avenue and Tyler Avenue. An alternative alignment on 2nd Street could also be suitable. Protected bike lanes require removal of parking, lane narrowing, and/or conversion of angled parking to parallel parking. This project is one segment of a citywide low-stress network. Cost is based on $800,000 per mile (calculated based on the average of unit costs from available national sources).					
B53	Protected Bike Lane	Goodnight Avenue protected bike lanes	$70,000	City	Medium	Project Team
	Remove parking along Goodnight Avenue between Goodpark Street and Summerfield Drive (or to the multi-use path east of Summerfield Drive) to install a two-way protected bike lane to provide a low-stress connection along Goodnight Avenue for the Southeast Corvallis Neighborhood Bikeway (Project B47). This project is one segment of a citywide low-stress network. Cost is based on $800,000 per mile (calculated based on the average of unit costs from available national sources).					

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
B54	New bike lanes	Brooklane Drive bike lanes	$60,000	City / Developer/ Assessments to property owners	Medium	Project Team
	Install bike lanes to fill existing bicycle network gap between Agate Avenue (west) and Agate Avenue (east). This cost is based on a $135,000 cost per mile (calculated based on the average of unit costs from available national sources).					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Highland Drive
Shasta Avenue
Elliot Circle
PB71
PB70
PB65
Crescent Valley Drive
Lester Avenue
PB73
PB72
Elks Drive
99W
Ponderosa Avenue
Glenridge Drive
Walnut Blvd
PB58
B16
B50
PB83
Satinwood Street
9th Street
PB13
PB4
Conifer Blvd
PB9
Conser Street
B48
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Circle Blvd
PB29
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30th Street
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Van Buren Avenue
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Campus Way
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PB81
Reservoir Avenue
35th Street
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Washington Way
15th Street
Washington Avenue
B51
PB22
34
53rd Street
West Hills Road
Western Blvd
PB63
Brooklane Drive
Crystal Lake Drive
PB74
PB48
PB25
Research Way
Country Club Drive
PB26
Alexander Avenue
B5
Richland Avenue
B47
Park Avenue
B6
49th Street
45th Street
PB45
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Goodnight Avenue
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B22
Midvale Drive
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Kiger Island Drive
Herbert Avenue
Airport Ave
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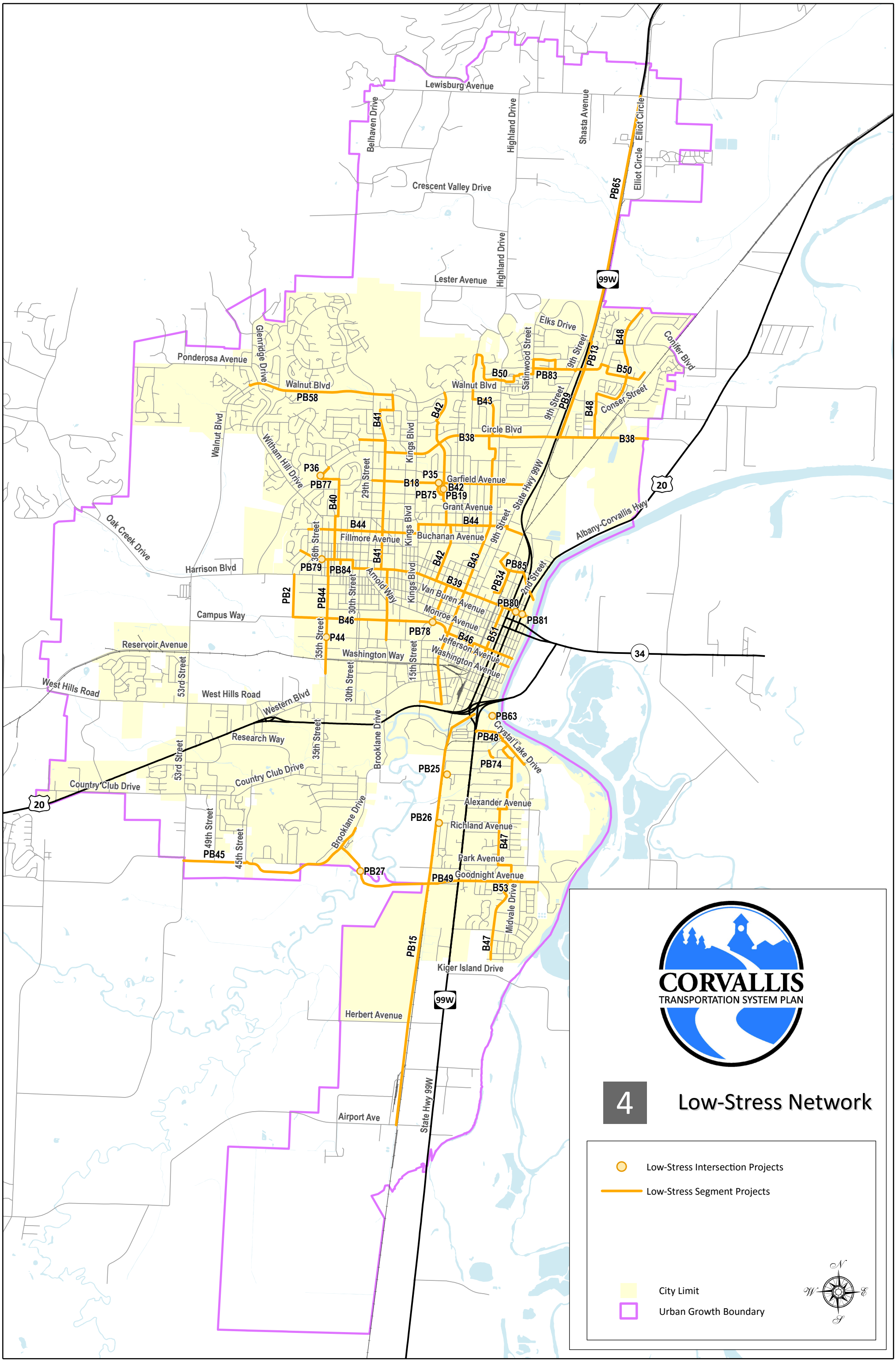


CORVALLIS TRANSPORTATION SYSTEM PLAN

4 Low-Stress Network

- Low-Stress Intersection Projects
- Low-Stress Segment Projects
- City Limit
- Urban Growth Boundary

Multimodal

Multimodal investments seek to create a connected local and regional transportation network for all modes in Corvallis. Most Multimodal projects are new streets or improvements to existing streets to bring them up to City design standards, with the resulting corridor including facilities for people driving, walking, and biking.

It is important to note that new roadways should be aligned with existing street intersections when constructed. Alignments shown on maps within this document are conceptual. Final alignments will be dependent on approved development plans at the time of construction. There are a few new roadways for which the City has identified specific alignments as shown in the appendix. These projects with specific alignments include M12, M108, M124, M118 and M120.

It should also be noted that the improvements identified in the 2013 Airport Master Plan are not included in this plan.

Table 4: Proposed Multimodal Projects

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
M2	Intersection - Mobility	26th Street/US 20-OR 34 Improvements	$1,280,000	ODOT	Medium	Project Team
	Intersection improvements (capacity): May include constructing a southbound right turn lane or southbound left turn lane and bike lanes on 26th Street. Note: Retaining wall along Oak Creek would be required. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
M3	Modernization	West Hills Road Modernization	$8,718,000	County/Developer	High	Corvallis 1996 TSP
	Widen to arterial standard. Consider supplemental safety improvements to address potential sight distance limitations related to horizontal and vertical alignment (west of Grand Oaks). Project has potential impacts to or may be constrained by environmental resources.					
M4	Modernization	Ponderosa Avenue Modernization	$5,485,000	Developer/City	Medium	Corvallis 1996 TSP
	Widen to collector standard. Project has potential impacts to or may be constrained by environmental resources.					
M5	Intersection - Safety & Mobility	Circle Boulevard/ 9th Street Improvements	$1,156,000	City	Medium	Corvallis 1996 TSP, 9th Street Plan
	Intersection improvements (capacity and safety): May include constructing a northbound right turn lane, southbound right turn lane and westbound right turn lane with signal modifications (northbound right turn and southbound right turn overlap), lengthen the northbound left turn lane, and pedestrian/bicycle improvements. Requires ROW acquisition. Coordinate with Project B27.					
M6	New Roadway	Circle Boulevard Extension to Harrison Boulevard	$8,569,000	City/Developer	Medium	Corvallis 1996 TSP
	New roadway extension: Construct Circle Boulevard Extension to arterial standard between existing stub and Harrison Boulevard. Project has potential impacts to or may be constrained by environmental resources.					

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
M7	New Roadway	New N-S 1 Neighborhood Collector from Airport Avenue to Goodnight Avenue	$9,681,000	Developer/City	Medium	Corvallis 1996 TSP, South Corvallis Area Plan
	New roadway extension: Construct new neighborhood collector connecting Airport Avenue to Goodnight Avenue west of OR 99W.					
M8	New Roadway	Van Buren Bridge (New Construction)	$69,000,000	ODOT	High	Corvallis 1996 TSP
	Reconstruct a new two-lane bridge across the Willamette River adjacent to and north of the Van Buren Avenue Bridge. Address weight restriction and vertical clearance on Van Buren Bridge to avoid out-of-direction travel for trucks. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
M9	Modernization	Harrison Boulevard Widening	$9,200,000	County/Developer	Medium	Corvallis 1996 TSP
	Widen Harrison Boulevard between 36th Street and 53rd Street to 3-lanes to meet arterial standard including bike lanes. Coordinate with Project P27 and Parks Master Plan project. Project has potential impacts to or may be constrained by environmental resources.					
M10	Modernization	53rd Street Widening	$24,954,000	County/Developer	Medium	Corvallis 1996 TSP
	Widen to arterial standard between Harrison Boulevard and US 20-OR 34, consistent with the 5-lane cross-section identified in the West Corvallis - North Philomath Plan. Project has potential impacts to or may be constrained by environmental resources.					
M11	New Roadway	Reservoir Avenue Extension	$7,743,000	Developer/City	Medium	West Area Plan
	New roadway extension: Extend Reservoir Avenue to connect with Washington Way and construct to collector standard Note: Construction is likely dependent on redevelopment. Project has potential impacts to or may be constrained by environmental resources.					
M12	New Roadway	King Boulevard Extension	$ 36,799,000	Developer/City	Medium	Corvallis 1996 TSP
	New roadway extension: Extend Kings Boulevard from current stub north to Crescent Valley Drive and construct to arterial standard. Project has potential impacts to or may be constrained by environmental resources.					
M13	Modernization	Highland Drive Widening	$16,949,000	County/Developer	Medium	Corvallis 1996 TSP
	Widen Highland Drive between Angelica Drive and Lewisburg Road to meet arterial standard. Coordinate with Project PB60. Project has potential impacts to or may be constrained by environmental resources.					
M14	Modernization	Lewisburg Avenue Widening	$15,390,000	County/Developer	Medium	Corvallis 1996 TSP
	Widen Lewisburg Avenue between OR 99W and west UGB to meet arterial standard. Coordinate with Project PB61. Project has potential impacts to or may be constrained by environmental resources.					
M15	New Roadway	Crystal Lake Drive Extension	$2,358,000	County/Developer	Medium	Corvallis 1996 TSP
	New roadway extension: Extend Crystal Lake from Park Avenue to Goodnight Avenue and construct to neighborhood collector standard.					

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
M16	Intersection - Safety & Mobility	53rd Street Railroad Crossing	$7,000,000	County	Medium	Benton County CIP 2017-2019, CAMPO RTP
	Intersection improvements (capacity and safety): Reconstruct crossing including right-of-way acquisition and also consider realignment. Coordinate with Project M10. Project has potential impacts to or may be constrained by environmental resources.					
M20	New Roadway	North Corvallis Bypass	$148,337,000	ODOT	Medium	Corvallis 1996 TSP, Corvallis Willamette River Crossing/Van Buren Bridge Proposed Solutions 2009
	New roadway extension: Construct the 2-lane northern leg of the OR 34 bypass from the existing OR 34/OR 34 Bypass intersection across the Willamette River connecting to US 20 and OR 99W north of Polk Avenue. Coordinate with Project M8. Note: Right-of-Way acquisition needed. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
M23	Intersection - Safety	Walnut Boulevard/Witham Hill Drive/Glenridge Drive	$280,000	City	Medium	Stakeholder Request
	Intersection improvements (safety): Extend the westbound merge on Walnut Boulevard. Project has potential impacts to or may be constrained by environmental resources.					
M24	Intersection - Safety	Western Boulevard/7th Street Rail Crossing Improvements	$479,000	Developer	Medium	Stakeholder Request
	Intersection improvements (safety): Improvements needed to mitigate complex intersection and minimize multimodal conflicts. Improvements should focus on multimodal safety and pedestrian circulation around 7th Street rail crossings. Note: To be constructed with development. Project has potential impacts to or may be constrained by environmental resources.					
M27	Intersection - Safety	Country Club Drive/69th Street/US 20-OR 34	$5,679,000	ODOT	Low	Stakeholder Request
	Intersection Improvements (safety): Improvements needed to mitigate complex intersection and poor street alignments. Improvements may include realignments of Country Club Drive and 69th Street and may include a roundabout. Project is subject to ODOT approval.					
M29	Intersection - Safety	Harrison Boulevard/Kings Boulevard	$10,000	City	Medium	Stakeholder Request
	Intersection improvements (safety): Improve way finding signage.					
M30	Intersection - Safety & Mobility	Grant Ave/29th Street	$599,000	City	Medium	Stakeholder Request

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
	Intersection improvements (capacity and safety): Options include: 1) Close Coolidge Way at the intersection of Grant Avenue/29th Street and connection to Grant Avenue just east of the intersection. Create a public plaza and construct curb extensions to shorten the crossing distance, or 2) Install a traffic signal. Note: Initial costs assumes a traffic signal. Project has potential impacts to or may be constrained by environmental resources.					
M47	Intersection - Safety & Mobility	15th Street/US 20-OR 34	$1,600,000	ODOT	High	Project Team
	Intersection improvements (capacity and safety): May include constructing a southbound left turn lane which would require reconstruction of the southwest corner to align the southbound through lane and its receiving lane, traffic signal modifications to include protected northbound and southbound left-turns, reduce turning radii to reduce speed and installing freight sensors to allow freight to pass through without braking to reduce noise pollution and adding bike box to improve safety. Consider modifying grading to improve visibility. Project is subject to ODOT approval.					
M49	Intersection - Safety & Mobility	Van Buren Avenue/4th Street	$121,000	ODOT	Medium	Project Team
	Intersection improvements (capacity and safety): May include extending the eastbound right turn lane, removal of parking to construct a southbound left turn lane, or removal of parking to construct curb extensions. Initial costs include the eastbound right turn and southbound left turn lane improvements. Project is subject to ODOT approval.					
M58	New Roadway	New E-W 1 Collector from Highland Drive to Lester Avenue Extension	$10,559,000	County/Developer	Medium	North Corvallis Plan
	New roadway extension: Construct new collector between Highland Drive and Lester Avenue Extension. Project has potential impacts to or may be constrained by environmental resources.					
M59	New Roadway	Circle Boulevard Extension	$7,209,000	OSU/Developer	Medium	Project Team
	New roadway extension: Extend Circle Boulevard between Harrison Boulevard and New E-W Collector from Reservoir Avenue to Washington Way and construct to neighborhood collector standard. Note: Construction is likely dependent on redevelopment. Project has potential impacts to or may be constrained by environmental resources.					
M60	Corridor - Safety & Mobility	Western Boulevard Improvements	$5,393,000	City	Medium	Project Team
	Corridor (capacity and safety): Construct a center turn lane on Western Boulevard between 4th Street and 26th Street and construct high visibility crosswalks along this segment. Note: Initial cost assumes up to 5 high visibility crosswalks along this segment and the specific locations have not been identified. Coordinate with Project A28 and Project M24. Project has potential impacts to or may be constrained by environmental resources.					
M61	Corridor - Safety	Arnold Way Improvements	$1,306,000	City	Low	Harrison Corridor Study
	Intersection improvements (safety): Safety improvements to reduce auto/bicycle/pedestrian conflicts and reduce speeding include: 1) Realign Van Buren Avenue, west of Arnold Way and to intersect Arnold Way to form a T-intersection and close 28th Street at the intersection of 28th Street/Arnold Way and 2) Realign Jackson Avenue to intersect Arnold Way to form a T-intersection and close 27th Street at the intersection of					

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
	27th Street/Arnold Way.					
M64	New Roadway	29th Street Extension	$4,281,000	Developer/City	Medium	North Corvallis Plan
	New roadway extension: Construct 29th Street Extension to collector standard between existing stub and Kings Boulevard Extension.					
M71	New Roadway	Satinwood Street Extension	$5,280,000	Developer/City	Medium	Good Samaritan Regional Medical Center Campus Master Plan 2014
	New roadway extension: Construct Satinwood Street Extension to collector standard between existing stub and Lester Avenue Extension. Project has potential impacts to or may be constrained by environmental resources.					
M74	New Roadway	Rivergreen Avenue Extension	$8,763,000	Developer/City	Medium	Project Team
	New roadway extension: Construct Rivergreen Avenue Extension to neighborhood collector standard between OR 99W and new Collector between Airport Place and Rivergreen Avenue Extension (M101). Project has potential impacts to or may be constrained by environmental resources.					
M77	New Roadway	Lester Avenue Extension	$13,127,000	County/Developer	Medium	North Area Plan
	New roadway extension: Construct Lester Avenue Extension to collector standard between Highland Drive and OR 99W. Project has potential impacts to or may be constrained by environmental resources.					
M78	New Roadway	Frazier Creek Drive Extension	$21,830,000	County/Developer	Medium	North Area Plan
	New roadway extension: Construct Frazier Creek Drive Extension to collector standards between Crescent Valley Drive and West Elliot Circle Extension. Coordinate with Project PB70. Project has potential impacts to or may be constrained by environmental resources.					
M79	New Roadway	New N-S 2 Collector parallel to, and east of, Highland Drive	$13,007,000	County/Developer	Medium	North Area Plan
	New roadway extension: Construct a new N-S roadway parallel to, and east of, Highland Drive to collector standard between Frazier Creek Extension and new E-W Collector from Highland Drive to Lester Avenue Extension (M58). Project has potential impacts to or may be constrained by environmental resources.					
M90	New Roadway	West Elliot Circle Construction	$19,262,000	County/Developer	Medium	North Area Plan
	New roadway extension: Construct West Elliot Circle to collector standard between OR 99W and the north UGB. Project has potential impacts to or may be constrained by environmental resources.					
M91	New Roadway	New N-S 3 Neighborhood Collector between Lewisburg Avenue and Frazier Creek Drive Extension	$6,985,000	County/Developer	Medium	North Area Plan
	New roadway extension: Construct new neighborhood collector between Lewisburg Avenue and Frazier					

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
	Creek Drive Extension. Project has potential impacts to or may be constrained by environmental resources.					
M92	New Roadway	New N-S 4 Neighborhood Collector between Crescent Valley Drive and Spring Meadow Drive	$7,373,000	County/Developer	Medium	North Area Plan
	New roadway extension: Construct new neighborhood collector between Crescent Valley Drive and Spring Meadow Drive. Project has potential impacts to or may be constrained by environmental resources.					
M93	New Roadway	Spring Meadow Drive Extension	$6,209,000	County/Developer	Medium	North Area Plan
	New roadway extension: Construct Spring Meadow Drive Extension to neighborhood collector standard between Highland Drive and exiting stub. Project has potential impacts to or may be constrained by environmental resources.					
M94	New Roadway	New N-S 5 Neighborhood Collector between Lewisburg Drive and Spring Meadow Drive Extension	$3,881,000	County/Developer	Medium	North Area Plan
	New roadway extension: Construct new neighborhood collector between Lewisburg Drive and Spring Meadow Drive Extension. Project has potential impacts to or may be constrained by environmental resources.					
M95	New Roadway	New N-S 6 Neighborhood Collector between Lester Avenue and Crescent Valley Drive	$7,502,000	County/Developer	Medium	North Area Plan
	New roadway extension: Construct new neighborhood collector between Lester Avenue and Crescent Valley Drive. Project has potential impacts to or may be constrained by environmental resources.					
M98	New Roadway	New N-S 7 Collector between Rivergreen Avenue and Airport Avenue Extension	$23,348,000	Developer/City	Medium	South Area Plan
	New roadway extension: Construct new collector between Rivergreen Avenue and Airport Avenue Extension.					
M99	New Roadway	Herbert Avenue Extension	$5,937,000	County/Developer	Medium	Project Team
	New roadway extension: Construct Herbert Avenue Extension to collector standard between OR 99W and East UGB. Project has potential impacts to or may be constrained by environmental resources.					
M100	Modernization	Corliss Avenue Widening	$3,818,000	Developer/City	Medium	South Area Plan
	Widen to neighborhood collector standard between OR 99W and East UGB. Coordinate with Project A63. Project has potential impacts to or may be constrained by environmental resources.					
M101	New Roadway	New N-S 8 Neighborhood Collector between	$21,545,000	Developer/City	Medium	South Area Plan

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
		Airport Place and Rivergreen Avenue Extension				
	New roadway expansion: Construct a new collector between Airport Place and Rivergreen Avenue Extension (M74).					
M102	Intersection - Safety & Mobility	25th Avenue/Park Terrace Place/Monroe Avenue Improvements	$36,000	City	Medium	Previous Campus Plan
	Intersection improvements (capacity and safety): Consider restricting northbound and southbound approaches to right-in, right-out only to improve traffic operations and pedestrian/bicycle safety. Coordinate with Project PB16.					
M104	Study	Downtown Circulation Study	$150,000	City	High	Project Team
	Downtown Circulation Study to address a range of concerns and identify potential solutions expressed in the downtown area including: parking, motor vehicle circulation, bicycle connectivity, freight operations (loading), transit and pedestrian design. Also evaluate improvements at 3rd Street/OR 99W/OR 34 Ramp to address traffic operations/merge. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
M105	New Roadway	Washington Way Realignment	$1,561,000	City/OSU	Medium	Stakeholder Request
	New roadway extension: Realign Washington Way as the east leg of the existing Washington Avenue/15th Street intersection to form a 4-legged, 90-degree intersection.					
M106	Modernization	Lester Avenue Modernization	$5,849,000	County/Developer	Medium	Stakeholder Request
	Upgrade Lester Avenue between Kings Boulevard Extension and Highland Drive to collector standard. Project has potential impacts to or may be constrained by environmental resources.					
M107	Modernization	Crescent Valley Drive Modernization	$16,384,000	County/Developer	Medium	Stakeholder Request
	Upgrade Crescent Valley Drive between Lewisburg Drive and Highland Drive to collector standard. Project has potential impacts to or may be constrained by environmental resources.					
M108	New Roadway	Technology Loop Extension	$2,356,000	Developer/City	Medium	Stakeholder Request
	New roadway extension: Construct Technology Loop Extension to neighborhood collector standard between US 20-OR 34 and Gerold Street. Coordinate with A18. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
M109	New Roadway	Sagebrush Drive Extension	$14,268,000	Developer/City	Medium	Stakeholder Request
	New roadway extension: Construct a new collector between 53rd Street and 35th Street to provide connection between Sagebrush Drive and Cherry Avenue. Note: This solution preferred over Project M11. Project has potential impacts to or may be constrained by environmental resources.					
M110	New Roadway	Kiger Island Extension	$13,269,000	County/Developer	Medium	South Corvallis Area Plan
	New roadway extension: Construct Kiger Island Extension to collector standard between OR 99W and west UGB.					

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
M111	New Roadway	Airport Avenue Extension	$3,193,000	County/Developer	Medium	South Corvallis Area Plan
	New roadway extension: Construct Airport Avenue Extension to collector standard between OR 99W and New N-S Collector between Rivergreen Avenue and Airport Avenue Extension (M98). Coordinate with Project A13.					
M112	New Roadway	Gerold Street Extension	$4,140,000	Developer/City	Medium	Project Team
	New roadway extension: Construct Gerold Street Extension to neighborhood collector standard between West Hills Road and New E-W Collector between 35th Street and 53rd Street (M109). Project has potential impacts to or may be constrained by environmental resources.					
M113	New Roadway	New N-S 9 Collector north of Lester Avenue Extension	$4,852,000	County/Developer	Medium	Project Team
	New roadway extension: Construct new collector between Lester Avenue Extension and New E-W Collector from Highland Drive to Lester Avenue Extension (M58). Project has potential impacts to or may be constrained by environmental resources.					
M114	New Roadway	Birdsong Drive Extension	$3,675,000	Developer/ City/ Assessments to property owners	Medium	Project Team
	New roadway extension: Construct Birdsong Drive Extension to neighborhood collector standard between 49th Street and 53rd Street.					
M116	New Roadway	Shasta Drive Extension	$3,578,000	County/Developer	Medium	Project Team
	New roadway extension: Construct Shasta Drive Extension to neighborhood collector standard between Frazier Creek Drive Extension to existing stub and construct frontage improvements on the existing portion of Shasta Drive.					
M117	New Roadway	Raider Way Extension	$7,509,000	County/Developer	Medium	Project Team
	New roadway extension: Construct Raider Way Extension to collector standard between Crescent Valley Drive and Kings Boulevard Extension and construct frontage improvements on the existing portion of Raider Way. Project has potential impacts to or may be constrained by environmental resources.					
M118	New Roadway	New E-W 3 Neighborhood Collector between 53rd Street and 66th Street Extension	$9,579,000	Developer/City	Medium	Project Team
	New roadway extension: Construct E-W Neighborhood Collector between 53rd Street and 66th Street Extension. Project has potential impacts to or may be constrained by environmental resources.					
M119	New Roadway	New W-N Neighborhood Collector between 69th Street and West Hills Road	$20,284,000	Developer/City	Medium	Project Team
	New roadway extension: Construct W-N Neighborhood Collector between 69th Street and West Hills Road. Project has potential impacts to or may be constrained by environmental resources.					
M120	New Roadway	66th Street Extension	$8,719,000	Developer/City	Medium	Project Team

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
	New roadway extension: Construct 66th Street Extension to neighborhood collector standard between existing stub and West Hills Road and construct frontage improvements on the existing portion of 66th Street. Project has potential impacts to or may be constrained by environmental resources.					
M121	New Roadway	New N-S 10 Neighborhood Collector between US 20-OR 34 and West Hills Road	$9,579,000	Developer/City	Medium	Project Team
	New roadway extension: Construct N-S Neighborhood Collector between US 20-OR 34 and West Hills Road. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
M122	New Roadway	New N-S 11 Neighborhood Collector between Country Club Drive and Plymouth Drive	$7,607,000	Developer/City	Medium	Project Team
	New roadway extension: Construct N-S Neighborhood Collector between Country Club Drive and Plymouth Drive.					
M123	New Roadway	Weltzin Avenue Extension	$11,833,000	Developer/City	Medium	Project Team
	New roadway extension: Construct Weltzin Avenue Extension to collector standard between OR 99W and West UGB including upgrading the existing gravel portion. Weltzin Avenue Extension should align with Corliss Avenue Extension (M100) at OR 99W to form a 4-legged, 90-degree intersection.					
M124	New Roadway	New E-W 4 Neighborhood Collector between Technology Loop Extension and 53rd Avenue	$3,099,000	Developer/City	Medium	Project Team
	New roadway extension: Construct new neighborhood collector between Technology Loop Extension and 53rd Avenue.					
M125	New Roadway	New N-S 12 Collector between Reservoir Avenue and Walnut Boulevard	$24,228,000	Developer/City	Medium	Project Team
	New roadway extension: Construct new neighborhood collector between Reservoir Avenue and Walnut Boulevard. Project has potential impacts to or may be constrained by environmental resources.					
M126	Corridor - Safety & Mobility	Goodnight Avenue Realignment	$3,068,000	Developer/City	Medium	Corvallis CIP 2015-19
	Corridor (capacity and safety): Realign Goodnight Avenue west of OR 99W form a 4-legged, 90-degree intersection at OR 99W/Goodnight Avenue (east of OR 99W). This realignment will impact properties west of OR 99W. Coordinate with Project A10 and Project PB49.					
M127	New Roadway	New E-W 5 Neighborhood Collector between Elliot Circle and East UGB	$7,043,000	Developer/City	Medium	North Area Plan
	New roadway extension: Construct new neighborhood collector between Elliot Circle and East UGB (south of					

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
	Pinot Gris Drive).					
M128	Modernization	53rd Street Modernization	$5,954,000	County	Medium	Corvallis 1996 TSP
	Upgrade 53rd Street between Country Club Drive and Nash Avenue to arterial standard.					
M129	Modernization	Crystal Lake Drive Modernization	$5,516,000	Developer/ City/ Assessments to property owners	Medium	Corvallis 1996 TSP, CAMPO RTP
	Upgrade Crystal Lake Drive between Alexander Avenue and Park Avenue to neighborhood collector standard.					
M130	Modernization	Oak Creek Drive Modernization	$2,100,000	Developer/City	Medium	Corvallis 1996 TSP
	Upgrade Oak Creek Drive between Walnut Boulevard and West UGB to collector standard.					

Note: Proposed roadway alignments are conceptual in nature. Actual alignments could vary significantly and are subject to refinement during development review. However, the location of connections to existing intersections are generally expected to be constructed as shown.

5 Multimodal & Auto/Freight Projects

CORVALLIS TRANSPORTATION SYSTEM PLAN

- Intersection Projects
- Segment Projects
- Corridor Study
- Downtown Study
- Railroad
- City Limit
- Urban Growth Boundary

Auto/Freight

These projects are focused on improving the efficiency and safety of motor vehicle travel and address a limited number of key bottlenecks.

Table 5: Proposed Auto/Freight Projects

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
A1	Intersection - Mobility	Buchanan Avenue/ 9th Street Turn Lane	$1,580,000	City	Low	Corvallis 1996 TSP, CAMPO RTP
	Intersection improvements (capacity): Construct eastbound left-turn lane, traffic signal modifications and improve sight distance for the eastbound approach.					
A2	Intersection - Safety	Conifer Boulevard / Conser Street Turn Lane	$3,679,000	City	Low	Corvallis 1996 TSP
	Intersection improvements (safety): Construct westbound left turn lane on Conifer Boulevard.					
A3	System Management	US 20-OR 34 Optimization	$910,000	ODOT	Medium	Corvallis 1996 TSP, US 20-OR 34 Optimization Study (2015)
	Implement strategies identified in the US 20-OR 34 Optimization Study (2015): 1) Adaptive Signal Timing, 2) Freight Signal Priority, and/or 3) Arterial Performance Measurement and Real-Time Equipment Monitoring - at 5 signalized intersections and 1 mid-block locations to collect arterial performance measures, including traffic volumes, travel speeds, travel times, vehicle classifications, vehicle occupancy, pedestrian and bicycle volumes, and delay for vehicles, pedestrians and bicyclists. Consider need for coordination with Project A25. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
A4	New Roadway	OR 99W/US 20-OR 34 Ramps	$24,220,000	ODOT	Medium	Corvallis 1996 TSP, Stakeholder Request
	New off-ramp: Provide eastbound off ramp between eastbound US 20-OR 34 to southbound OR 99W and provide a southbound off ramp between southbound OR 99W to eastbound US 20-OR 34. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
A5	Intersection - Mobility	OR 34/Bypass Interchange	$76,632,000	ODOT	Low	Corvallis 1996 TSP
	Intersection improvement (capacity): OR 34/Bypass Interchange Improvements. Suggested improvement- add westbound left-turn flyover ramp. Project is subject to ODOT approval.					
A6	Intersection - Safety & Mobility	Conifer Avenue/OR 99W/9th Street Intersections	$792,000	ODOT	Medium	CAMPO RTP
	Intersection improvements (capacity and safety): Capacity improvements may include construction of a northbound right turn lane and southbound right turn lane on OR 99W, and closing the westbound approach at 9th Street/Conifer Boulevard to construct a second eastbound left turn lane. Closure of the westbound approach at 9th Street/Conifer may create a potential shift of traffic onto OR 99W, Walnut Boulevard, Elks Drive, and Kings Boulevard Extension, if constructed. Project is subject to ODOT approval.					
A7	Roadway Widening	OR 99W: Circle to RR Widening	$5,250,000	ODOT	Medium	Corvallis 1996 TSP, Corvallis CIP

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
						2015-19 (Design Phase Only)
	Widen OR 99W: Construct two additional travel lanes on OR 99W between the railroad over crossing and Circle Boulevard. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
A8	Intersection - Safety & Mobility	Harrison Boulevard/2nd Street	$541,000	ODOT	Medium	Project Team
	Intersections improvements (capacity and safety): May include extending the southbound right turn lane and constructing a westbound right turn lane. Coordinate with Project B31. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
A9	Intersection - Mobility	53rd Street/Country Club Roundabout	$2,746,000	County/Developer	Low	CAMPO RTP
	Intersection improvement (capacity): Construct a roundabout in conjunction with development.					
A10	Intersection - Mobility	OR 99W/Goodnight Avenue Traffic Control	$8,379,000	ODOT/Developer	Medium	CAMPO RTP
	Intersection improvements (capacity): Install roundabout or traffic signal, when warranted which may be dependent on the construction of Project A11. Improvement cannot occur until Project A48 is complete and should be coordinated with Project M126. Before a signal can be installed, an engineering investigation must be conducted or reviewed by the Region Traffic Engineer who will forward intersection traffic control recommendations to ODOT headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.[1]					
A11	Intersection - Mobility	OR 99W/Rivergreen Avenue Traffic Control	$8,379,000	ODOT/Developer	Medium	CAMPO RTP
	Intersection improvements (capacity): Install roundabout or traffic signal, when warranted which may be dependent on the construction of Project A10. Before a signal can be installed, an engineering investigation must be conducted or reviewed by the Region Traffic Engineer who will forward intersection traffic control recommendations to ODOT headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.[1]					
A12	Intersection - Mobility	Circle Boulevard/29th Street Signal	$465,000	City/Developer	Low	CAMPO RTP
	Intersection improvements (capacity): Install traffic signal, when warranted.					
A13	Intersection - Mobility	OR 99W/Airport Avenue Traffic Control	$5,327,000	ODOT/Developer	Medium	CAMPO RTP
	Intersection improvements (capacity): Install roundabout or traffic signal, when warranted. Before a signal can be installed, an engineering investigation must be conducted or reviewed by the Region Traffic Engineer who will forward intersection traffic control recommendations to ODOT headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.[1]					

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
A14	Intersection - Mobility	OR 99W/Walnut Boulevard	$8,380,000	ODOT	Medium	CAMPO RTP, Good Samaritan Regional Medical Center Campus Master Plan 2014, 9th Street Study, North Corvallis Area Plan
	Intersection improvements (capacity): Could include construction of a northbound right turn lane, eastbound right turn lane, southbound right turn lane, westbound right turn lane and lengthening of the southbound left turn lane. Project is subject to ODOT approval.					
A15	Intersection - Mobility	9th Street/Walnut Boulevard Turn Lanes	$863,000	City	Low	CAMPO RTP
	Intersection improvements (capacity): Construct a southbound right turn lane and a second westbound left turn lane.					
A16	Intersection - Mobility	OR 99W/Kiger Island Drive Traffic Control	$5,327,000	ODOT/Developer	Medium	CAMPO RTP
	Intersection improvements (capacity): Install roundabout or traffic signal, when warranted. Before a signal can be installed, an engineering investigation must be conducted or reviewed by the Region Traffic Engineer who will forward intersection traffic control recommendations to ODOT headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.[1]					
A17	Intersection - Safety & Mobility	35th Street/US 20-OR 34	$232,000	ODOT	Medium	Project Team
	Intersection improvements (capacity and safety): Could include construction of a northbound right turn lane and traffic signal modifications for protected/permitted phases on 35th Street approaches. Consider coordination with Project A25. Project is subject to ODOT approval.					
A18	Intersection - Safety & Mobility	Technology Loop/US 20-OR 34	$561,000	ODOT	Medium	Project Team
	Intersection improvement (capacity): Could include constructing a second westbound left turn lane or traffic signal modifications for protected/permitted westbound left turn phase. Consider coordination with Project A25. Project is subject to ODOT approval.					
A20	Intersection - Safety	Van Buren Avenue/9th Street Restripe	$26,000	City	Medium	Project Team
	Intersection improvements (safety): Restripe southbound approach to include on 9th Street a southbound left turn lane and southbound through lane includes signal timing modifications. Coordinate with Project B15.					
A21	Intersection - Mobility	29th Street/Harrison Boulevard Turn Lane	$222,000	City	Low	Stakeholder Request
	Intersection improvements (capacity): Construct a southbound right-turn lane.					
A24	Intersection -	3rd Street/OR	$2,615,000	ODOT	Low	Project Team

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
	Mobility	99W/Crystal Lake Drive/Avery Avenue				
	Intersection improvements (capacity): Construct capacity improvements at the intersection. Improvements may include construction of a westbound right turn lane and a second southbound left turn lane, which would require a second receiving lane on Crystal Lake Drive, traffic signal modifications and installation of flexible bollards or other cost-efficient methods of increasing turning radius and slowing vehicles to improve pedestrian and bicycle safety. Project is subject to ODOT approval.					
A25	Roadway Widening	US 20-OR 34 Capacity Enhancements	$37,715,000	ODOT	High	Project Team
	Capacity enhancements for the US 20-OR 34 corridor from OR 99W to the west UGB. Improvements could include: Widen US 20-OR 34 to 4-5 lanes, add turn lanes and traffic signal modifications. Consolidate and realign the US 20-OR 34/Western Boulevard intersections to form a single T-intersection including an eastbound left turn lane and southbound left turn lane or could also involve constructing a traffic signal or roundabout with bypass lanes and access management needed. Should be designed and constructed in coordination with Project A3 and P24. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
A26	Intersection - Safety	9th Street/Harrison Boulevard Restripe	$26,000	City	Medium	Project Team
	Intersection improvements (safety): Restripe northbound approach to include a northbound left turn lane and northbound through lane includes signal timing modifications. Coordinate with Project B15.					
A27	Intersection - Safety & Mobility	Kings Boulevard/Garfield Avenue Turn Lanes and Signal	$741,000	City/Developer	Medium	Project Team
	Intersection improvement (capacity and safety): Improve intersection sight distance, construct a northbound and southbound left turn lane and install a traffic signal, when warranted. Coordinate with Project A51. Project has potential impacts to or may be constrained by environmental resources.					
A28	Intersection - Mobility	30th Street/Western Boulevard Traffic Control	$5,327,000	City	Medium	Project Team
	Intersection improvements (capacity): Install roundabout or traffic signal, when warranted or enhance alternative routes to encourage drivers to use signalized intersections at 35th Street or 26th Street.					
A29	Intersection - Mobility	OR 99W/Lewisburg	$2,207,000	ODOT/Developer	Low	North Area Plan
	Intersection improvements (capacity): Construct capacity improvements at the intersection. Improvements may include constructing an eastbound right turn lane, eastbound left turn lane, westbound right turn lane, westbound left turn lane, southbound right turn lane, traffic signal modifications and rail crossing enhancements. Project is subject to ODOT approval.					
A30	Intersection - Mobility	OR 99W/Lester Avenue Extension Signal	$838,000	ODOT/Developer	Medium	North Area Plan
	Intersection improvements (capacity): Install roundabout or traffic signal, when warranted. Before a signal can be installed, an engineering investigation must be conducted or reviewed by the Region Traffic Engineer who will forward intersection traffic control recommendations to ODOT headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.[1]					
A31	Intersection - Mobility	Walnut Avenue/Highland	$1,022,000	City	Low	North Area Plan

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
		Drive Turn Lanes				
	Intersection improvements (capacity): Construct a southbound right turn lane, northbound right turn lane and a westbound right turn lane with signal timing updates to improve northbound and southbound left-turn movements.					
A32	Corridor - Safety & Mobility	OR 99W/9th Street/Samaritan Drive/ Elks Drive Realignment	$9,636,000	ODOT/Developer	Medium	Good Samaritan Regional Medical Center Campus Master Plan 2014
	Corridor (capacity and safety): Realignment of NW 9th Street at NW Elks Drive – NW 9th Street alignment will be shifted westward to align with NW Samaritan Drive as part of the Good Samaritan Regional Medical Center campus expansion. This improvement may also include widening of OR 99W from NE Conifer Boulevard to NW Elks Drive to provide four travel lanes. The Elks Drive/9th Street intersection may include a left-turn lane and shared through/right turn lane on each approach. The Elks Drive/OR 99W intersection may include two northbound through lanes, northbound left turn lane, two southbound through lanes, a southbound right turn lane, an eastbound right turn land and an eastbound left turn lane. Initial cost estimate includes new signals. Before a signal can be installed, an engineering investigation must be conducted or reviewed by the Region Traffic Engineer who will forward intersection traffic control recommendations to ODOT headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval.[1]					
A33	Intersection - Mobility	OR 99W/Elliot Circle	$1,810,000	ODOT/Developer	Low	North Area Plan
	Intersection Improvements (capacity): May include the construction of roundabout or a traffic signal (when warranted), westbound left turn lane, westbound right turn lane, eastbound right turn lane and northbound left turn lane. The need for this project is dependent on Project M90. Before a signal can be installed, an engineering investigation must be conducted or reviewed by the Region Traffic Engineer who will forward intersection traffic control recommendations to ODOT headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.[1]					
A35	Study	Kings Boulevard Refinement Plan	$150,000	City	Medium	Stakeholder Request
	Corridor study to improve traffic (motor vehicle and freight) operations on Kings Boulevard with potential traffic control modifications. Project has potential impacts to or may be constrained by environmental resources.					
A37	Intersection - Mobility	Lewisburg/West Elliot Circle Signal	$360,000	County/Developer	Medium	North Area Plan
	Intersection improvements (capacity): Install traffic signal, when warranted. Project has potential impacts to or may be constrained by environmental resources.					
A38	Intersection - Mobility	Harrison Boulevard/4th Street	$485,000	ODOT	Low	Project Team
	Intersection improvements (capacity): May include construction of a southbound right turn lane on 4th Street and a westbound left turn lane on Harrison Boulevard (Consider changing westbound approach to include: a left turn lane, shared through/left turn lane, and through lane; or if needed: a left turn lane, shared through/left turn lane, and two through lanes). If a second westbound left turn lane is provided, pedestrian crossing safety on the south approach must be addressed. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
A39	Intersection - Mobility	Van Buren Avenue/2nd Street Turn Lane	$243,000	ODOT	Low	Project Team
	Intersection improvements (capacity): Consider converting the parking lane to an eastbound right turn lane on Van Buren Avenue. Decision to remove parking lane for a right turn lane must be coordinated with Project B21. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
A41	Intersection - Mobility	Elliot Circle/Frazier Creek Roundabout	$2,394,000	County/Developer	Low	North Area Plan
	Intersection improvements (capacity): Construct a roundabout, when needed.					
A42	Intersection - Mobility	Highland Drive/Frazier Creek Roundabout	$5,327,000	County/Developer	Medium	North Area Plan
	Intersection improvements (capacity): Construct a roundabout, when needed. Project has potential impacts to or may be constrained by environmental resources.					
A43	Intersection - Mobility	Highland Drive/Lester Avenue Roundabout	$5,327,000	County/Developer	Medium	North Area Plan
	Intersection improvements (capacity): Construct a roundabout, when needed. Project has potential impacts to or may be constrained by environmental resources.					
A45	Corridor - Mobility	35th Street Turn Lanes	$2,109,000	Developer/City	Low	Project Team
	Corridor (capacity): Construct left turn lanes along 35th Street between US 20-OR 34 and Harrison Boulevard at Western Boulevard, Washington Way, Jefferson Way, Campus Way, Orchard Avenue, Jackson Avenue, and Van Buren Avenue. Project has potential impacts to or may be constrained by environmental resources.					
A46	Corridor - Mobility	OR 34 Overpass (OR 99W) Clearance	$63,058,000	ODOT	Low	Project Team
	Corridor (capacity): Improve to meet vertical clearance requirements. The vertical clearance for northbound and southbound OR 99W at the OR 34 overpass is one to two feet below the design standard. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
A47	System Management	9th Street Signal Coordination	$76,000	City	Medium	9th Street Plan
	Synchronize traffic lights along 9th Street between Polk Avenue and Elks Drive. Cost estimate includes signal controller upgrades and signal timing updates at six existing traffic signals: Polk Avenue, Buchanan Avenue, Grant Avenue, Garfield Avenue, Circle Boulevard, and Walnut Boulevard.					
A48	Intersection - Mobility	Goodnight Avenue/3rd Street/OR 99W ROW	$370,000	ODOT	Medium	Corvallis CIP 2015-19
	Intersection improvement (capacity): ROW acquisition to allow realignment of Goodnight Avenue to make a 4-way intersection at Goodnight Avenue/OR 99W. Would precede Project A10. Project is subject to ODOT approval.					
A49	Safety	Seismic Retrofit of Bridges	$250K - $1.25M	City	Medium	Project Team
	Program to support seismic retrofit of up to 12 bridges on collectors and arterials under City of Corvallis jurisdiction. Project has potential impacts to or may be constrained by environmental resources.					
A51	Modernization & Safety	Kings Boulevard Widening	$4,040,000	City	Medium	Corvallis 1996 TSP, Project Team
	Widen to add a two-way left-turn lane between Circle Boulevard and Grant Avenue. Project has potential					

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
	impacts to or may be constrained by environmental resources.					
A52	Modernization & Safety	Kings Boulevard Widening	$11,400,000	City	Medium	Corvallis 1996 TSP
	Widen to add a two-way left-turn lane between Taylor Avenue and Harrison Boulevard.					
A53	Corridor - Mobility	Harrison Boulevard Improvements	$3,300,000	City	Medium	Stakeholder Request
	Corridor (capacity): Upgrade to arterial standards between 30th Street and 36th Street. Coordinate with Project B1. Project has potential impacts to or may be constrained by environmental resources.					
A54	Intersection - Safety & Mobility	Harrison Boulevard/3rd Street/OR 99W Improvements	$109,000	ODOT	Medium	Project Team
	Intersection improvements (capacity and safety): Increase northeast corner turning radius for trucks. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
A56	Intersection - Safety & Mobility	Circle Boulevard/OR 99W Improvements	$1,846,000	ODOT	Medium	9th Street Plan
	Intersection Improvements (capacity and safety): May include constructing a southbound right turn lane on OR 99W, northbound right turn lane on OR 99W, westbound right turn lane on Circle Boulevard, a second westbound left turn lane on Circle Boulevard and lengthening the westbound left turn lane; also may include traffic signal modifications to include right turn overlap on each approach and pedestrian improvements. Coordinate with Project PB29. Project is subject to ODOT approval.					
A57	Intersection - Safety & Mobility	30th Street/Harrison Boulevard Improvements	$634,000	City	Low	Harrison Corridor Study
	Intersection Improvements (capacity and safety): Options include 1) Restrict northbound left, northbound through movements, and restrict westbound to southbound off Harrison Boulevard, 2) Construct a traffic signal and coordinate with the traffic signal at 29th Street/Harrison Boulevard, or 3) Construct a series of roundabouts at 30th Street/Harrison Boulevard and 29th Street/Harrison Boulevard. Coordinate with Project A53. Initial costs represent Option 1 and Option 2. Widening Harrison Boulevard included in Project A53.					
A58	Intersection - Safety	Van Buren Avenue/Kings Boulevard Realignment	$667,000	City	Medium	Project Team
	Intersection improvements (safety): May include closing the west approach of Van Buren Avenue to realign Kings Boulevard south approach and create a "T" intersection with Van Buren Avenue including bicycle and pedestrian improvements with traffic signal modifications. Project has potential impacts to or may be constrained by environmental resources.					
A59	Intersection - Safety & Mobility	Reservoir Avenue/53rd Street Roundabout	$5,654,000	County/Developer	Medium	Stakeholder Request
	Intersections improvements (capacity and safety): Construct a roundabout. Project has potential impacts to or may be constrained by environmental resources.					
A60	Intersection - Safety & Mobility	Circle Boulevard Ext./Harrison Boulevard Improvements	$5,629,000	Developer/City	Medium	Project Team

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
	Intersections improvements (capacity and safety): Options include: 1) Construct a roundabout, or 2) Construct left turn lanes on the eastbound, southbound, and northbound approaches. Project has potential impacts to or may be constrained by environmental resources.					
A62	Intersection - Safety & Mobility	Witham Hill Drive/Circle Boulevard Traffic Control	$2,592,000	Developer/City	Medium	Project Team
	Intersections improvements (capacity and safety): Construct a roundabout or traffic signal. Project has potential impacts to or may be constrained by environmental resources.					
A63	Intersection - Safety	Corliss Avenue/Weltzin Avenue Realignment	$4,058,000	Developer/City	Medium	Project Team
	Intersection improvements (safety): Realign intersection to create a 4-legged intersection. Initial cost assumes reconstruction of Weltzin Avenue between OR 99W and the railroad.					
A64	Intersection - Safety & Mobility	53rd Street/US 20-OR 34	$3,162,000	ODOT	Medium	CAMPO RTP, Project Team
	Intersection improvements (capacity and safety): May include constructing a southbound right turn lane, extending the westbound right turn lane, a second westbound through lane and a second eastbound through lane. This project should be coordinated with the 53rd Street and US 20-OR 34 corridor widening projects (M10 and A25). Additional coordination may be needed for the following pedestrian and bicycle projects: B8, P28, and PB59. Project is subject to ODOT approval. Project has potential impacts to or may be constrained by environmental resources.					
A65	Intersection - Mobility	Elks Drive/OR 99W Traffic Control	$838,000	ODOT	Medium	Project Team
	Intersection improvements (capacity): Install roundabout or traffic signal, when warranted.					
A66	Intersection - Safety	Kings Boulevard/Buchanan Avenue Realignment	$255,000	City	Low	Kings Boulevard Corridor Study
	Reconstruct the driveway on the west side of Kings Boulevard to align with Buchanan Avenue for a 4-legged, 90-degree intersection. Consider closing the other two driveways located north of Filmore to reduce conflicting traffic movements.					
A67	Intersection - Mobility	Frazier Creek Drive/Crescent Valley Drive Roundabout	$2,394,000	County/Developer	Medium	North Area Plan
	Intersection improvements (capacity): Construct a roundabout, when needed.					
A68	Intersection - Mobility	Granger Avenue/Elliot Circle Roundabout	$2,394,000	County/Developer	Medium	North Area Plan
	Intersection improvements (capacity): Construct a roundabout, when needed.					
A69	Intersection - Mobility	Satinwood Street Ext./Lester Avenue Ext. Roundabout	$2,394,000	County/Developer	Medium	North Area Plan
	Intersection improvements (capacity): Construct a roundabout, when needed.					
A70	Intersection - Mobility	Crescent Valley Drive/Highland Drive Signal	$360,000	County/Developer	Medium	North Area Plan
	Intersection improvements (capacity): Install traffic signal, when warranted.					

Project ID	Project Type	Project Name	Cost Estimate	Primary Funding Source	Evaluation Rating	Source
A71	System Management	Circle Boulevard Signal Coordination	$101,000	City	Medium	Project Team
	Synchronize traffic lights along Circle Boulevard from 27th Street east to Walnut Boulevard. Cost estimate includes signal controller upgrades and signal timing updates at 8 existing traffic signals: 27th Street, Kings Boulevard, Corvallis Aquatic Center, Highland Drive, 9th Street, OR 99W, Four Acre Place, and Walnut Boulevard.					
A72	System Management	Walnut Boulevard Signal Coordination	$114,000	City	Medium	Project Team
	Synchronize traffic lights along Walnut Boulevard between OR 99W and Glenridge Drive. Cost estimate includes signal controller upgrades and signal timing updates at 9 existing traffic signals: Glenridge Drive, Aspen Street, 29th Street, Kings Boulevard, Rolling Green Drive, Highland Drive, Satinwood Street, 9th Street, and OR 99W.					
[1]Meeting a traffic signal warrant does not guarantee approval to install a traffic signal.						

Transportation System Management

Transportation System Management (TSM) strategies extend the functional life of existing and future facilities by optimizing their ability to move people and goods in a safe and efficient manner. They are also often easier to implement due to generally lower capital investment costs than traditional projects that build new facilities or add roadway capacity. The proposed project list contains two system management projects. The first project involves optimization of US 20-OR 34, which includes adaptive signal timing, freight signal priority and collecting real-time travel information such as traffic volumes, travel times and vehicle classification. The second project involves signal coordination along 9th Street between Buchanan and Walnut. A third project involves signal coordination on Circle Boulevard from 27th Street east to Walnut Boulevard. A forth project involves signal coordination on Walnut Boulevard from OR 99W to Glenridge Drive.

Traffic Signal Coordination and Optimization

The coordination and optimization of traffic signals along key corridors can substantially reduce congestion and travel time while increasing travel speeds for those traveling along the mainline corridor. Signals along US 20-OR 34 (between 15th Street and 35th Street), OR 99W and US 20 are currently coordinated and any new or improved signal along these corridors within Corvallis shall be added to the coordinated system. Traffic signal spacing also plays a significant role in the ability to successfully coordinate signal timing to achieve efficient progression of traffic.

For proposed signals on ODOT facilities, approval will need to be acquired from ODOT prior to installation. ODOT signal spacing policy identifies a desirable distance of at least ½ mile between signals unless an engineering investigation demonstrates that another distance would be appropriate. For proposed signals on Benton County facilities, approval will also need to be acquired from Benton County prior to installation.

Intelligent Transportation Systems

The Central Willamette Valley Intelligent Transportation System (ITS) Plan defines advanced technologies that support regional transportation initiatives such as promoting travel options, optimizing transportation system performance, and reducing the frequency and effects of incidents. The plan was developed

collaboratively with a Steering Committee of stakeholders from across the region. The ITS Action Plan includes advanced technologies and management strategies that improve the safety and efficiency of the transportation system and improve the traveler experience for all modes in the Central Willamette Valley. The ITS Action Plan includes specific ITS projects and deployment priorities. A total of 43 ITS projects were identified for the Central Willamette Valley to support the region's vision and goals. The ITS projects that best fit the region's vision can be described as follows:

- **Expand Traveler Information Services:** Provide traveler information on arterial roadways and support multimodal route planning and guidance.
- **Implement Transit Service Enhancements:** Improve transit speed and reliability and broadcast real-time vehicle location and stop arrival information.
- **Enhance Safety of Alternative Modes:** Improve bicycle detection and provide bicycle signal timing.
- **Improve Corridor System Management Capabilities:** Enhance traffic signal operations (timing and signal system), provide video monitoring, provide vehicle detection (speeds and volumes), install Ethernet communications, update coordinated signal timings, and support transit signal priority.
- **Construct a Regional Communications Network between Agencies:** Provide a network that supports transportation data exchange and video sharing.
- **Construct Virtual Traffic Operations Centers:** Provide staff and physical space to support active corridor management.
- **Enable Emergency Service Coordination -** Provide coordinated planning and operations and share real-time traffic and incident information between emergency services and traffic management.

The City of Corvallis should pursue opportunities to work with regional partners on larger scale ITS efforts that would benefit Corvallis residents. Such cooperation could range from agreements to share information and data or allow use of City right-of-way for regional ITS infrastructure to advocating for enhancement of the traffic signals in the US 20-OR 34 corridor to include freight priority and detection for bicycles.

Transportation Demand Management

(This section is also provided in Technical Memorandum #18 – Transit Solutions.)

Transportation Demand Management (TDM) or "transportation options" are terms for strategies that support transportation system efficiency by encouraging a shift from drive-alone trips to other means of travel such as transit, bicycling, walking, and ridesharing. Strategies aim to reduce drive-alone trips overall or focus on peak-hour commuting times to reduce roadway congestion. Strategies the City can focus on to enhance ridership are described below.

The existing Corvallis Transportation Options program supports TDM through the following program areas:

- Education and Outreach: Corvallis has a Bicycle and Pedestrian Advisory Board that meets monthly. The City of Corvallis fosters education programs such as the two-week event Get There Corvallis, promotes the Bike Commute challenge each year, and tables at numerous Oregon State University and community events.

- The Corvallis Transportation Program Specialist works directly with employers to manage programs that provide incentives for employees to bike, walk, use transit or carpool to work. There are currently 20 businesses, representing about 8,000 employees, participating in the Employee Transportation Coordinator program.

Regional TDM programming is also provided through Cascades West Rideshare. This organization is housed within the Oregon Cascades West Council of Governments and covers Benton, Linn, and Lincoln Counties. Cascades West Rideshare services include vanpool matching through the Valley Vanpool program, which offers 17 routes, six of which connect Corvallis to Eugene, Salem, Sheridan, and Springfield. Cascades West Rideshare also offers employer outreach, an Emergency Ride Home program, regional Safe Routes to School support, regional park-and-ride planning, and promotes the statewide Drive Less Connect ridesharing tool.

Research has shown that a comprehensive set of complementary policies implemented over a large geographic area can influence the number of vehicle miles traveled to/from that area.[2] As part of the Corvallis Area Metropolitan Planning Organization (CAMPO), Corvallis has an opportunity to work with regional partners to implement and benefit from larger scale efforts.

Recommended Actions

- **Work with regional partners on transportation demand management programs facilitating public transportation use.** The City of Corvallis employs a half-time employee to oversee TDM for the City and Cascades West rideshare employs staff to cover the three-county region. Additional staff resources at the city level could enhance TDM and add new programming that supports transit ridership. These programs might include:
  - Work shuttles: Some employment sites can be a good market for public transportation, especially if the company has limited parking or incentives for not driving alone. Shuttle programs are typically sponsored by the employer and provide transportation between the employment site and major transit stops.
  - Individualized marketing: Individualized marketing campaigns typically target a neighborhood, corridor, or employment site. Corvallis has done such a campaign in the past, and recurring campaigns have been shown to effectively promote transportation options.
  - Information kiosk: An on-site kiosk at the Downtown Transit Center would provide information on transit routes, schedules, and fares; carshare and vanpool ridematching services; bicycle maps and resources; and other ways to help people travel using alternative modes. Currently there is no staff available at the Downtown Transit Center to provide this service.
  - Integrated trip planning: CTS's online trip planner could be enhanced by adding other modes and regional transit service providers, such as the Linn Benton Loop, Benton County and several regional carriers at the Albany Train Station.
- **Continue travel training and mobility management services in coordination with Benton County and Oregon Cascades West Council of Governments**. Travel training includes a suite of services to

[2] *The Potential for Land Use Demand Management Policies to Reduce Automobile Trips*, ODOT, by ECO Northwest, June 1992.

introduce new or potential riders to a transit system. General travel training can also include events and training to let people of all ages and needs get familiar with public transportation. Training for seniors and people with disabilities can facilitate accessibility for specific demographics, or facilitate access to the public fixed-route system.

- **Continue strong rider information and marketing materials**. Marketing can include reinforcing the CTS "brand" to ensure information is recognizable and familiar, and leads to clear, understandable and broadly accessible materials. Marketing for transit includes information and materials that lets transit customers know how to use—and remember how to use—the Corvallis Transit System and related travel programs. The marketing programs should continue to be easy and inexpensive to implement to preserve operating resources, be integrated into other parts of the City's activities such as transportation options, and be designed to reach existing and potential rider markets.

Preparing for the Future and Smarter Mobility

Emerging transportation technologies will shape our roads, communities, and daily lives for generations. Vehicles are becoming more connected, automated, shared, and electric. This future is highly uncertain, but it will have significant impacts for how we plan, design, build, and use our transportation system. Below are some important definitions that provide the basis for the impacts, policies and action items discussed in the following sections.

Connected vehicles (CVs) will enable communications between vehicles, infrastructure, and other road users, see Figure 6. This means that our vehicles will be able to assist human drivers and prevent crashes while making our system operate more smoothly.

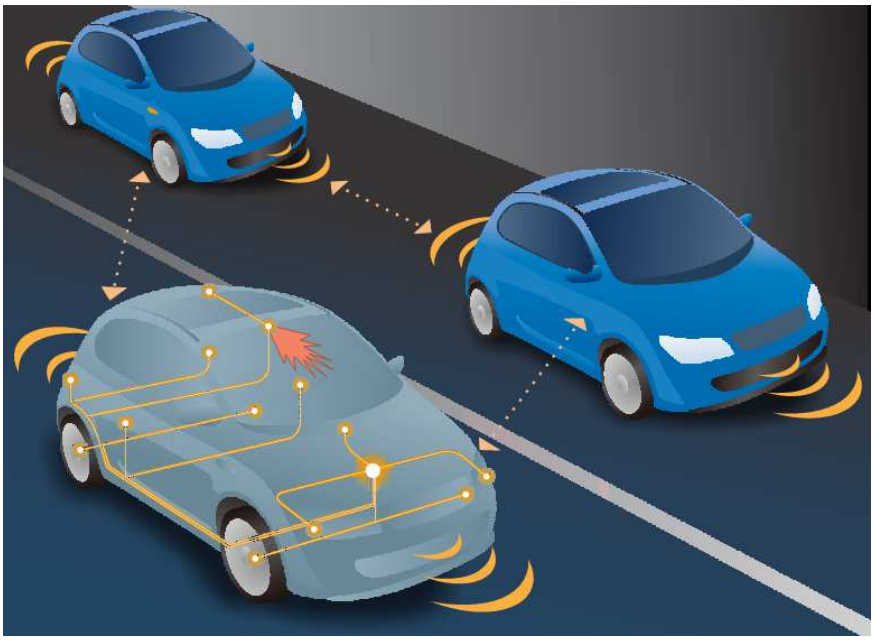
Automated vehicles (AVs) will, to varying degrees, take over driving functions and allow travelers to focus their attention on other matters. Already today we have vehicles with combined automated functions like lane keeping and adaptive cruise control. However, these still require constant driver oversight. In the future, more sophisticated sensing and programming technology will allow vehicles to operate with little to no operator oversight.

Shared vehicles (SVs) are already on the road today in Corvallis that allow ride-hailing companies to offer customers access to vehicles through cell phone applications. Ride-hailing applications allow for on-demand transportation with comparable convenience to car ownership without the hassle of maintenance and parking. Ride-hailing applications can enable customers to choose whether share a trip with another person along their route, or travel alone.

Electric Vehicles (EVs) have been on the road for decades and are becoming more economically feasible as the production costs of batteries decline.

Many of these vehicles will not be exclusive of the others and it is important to think of the host of implications that arise from the combination of these technologies. When discussing these vehicles as a whole, they can be referred to as connected, automated, shared, and electric (**CASE**) vehicles.

Figure 6: Vehicle to Vehicle Communication



Impacts of CASE Vehicles

Congestion and Road Capacity

There are several competing forces that will unfold as connected, automated, and shared vehicles are deployed. It is difficult to predict how these vehicles will influence congestion and road capacity. The following factors will transform how people use our roadways:

- AVs will provide a more relaxing or productive ride experience and people will have less resistance to longer commutes.
- Shared AVs will likely cost significantly less on a per mile basis which will increase demand for travel.
- CV technology will allow vehicles to operate safely with closer following distance, less unnecessary braking, and better coordinated traffic control. This will increase road capacity in the long run as CVs and AVs comprise increasing portions of the public and private fleet of vehicles.
- In the near term, as AVs still make up a fraction of the fleet of vehicles, road capacity could decrease as AVs will operate more slowly and cautiously than regular vehicles.
- A new class of traffic – zero-occupant vehicles – will increase traffic congestion
- Roadways may need to be redesigned or better maintained to accommodate the needs of automated driving systems. For instance, stripping may need to be wider and more consistently maintained.

The following questions remain open and should be followed closely to understand the degree to which CASE vehicles will impact road capacity and congestion:

- How much will AVs cost for people to own them personally?
- How much will AVs cost if they are used as a shared fleet?

- How does cost and the improved ride experience of AVs influence travel behavior?
- How much more efficiently will AVs operate compared to regular human driven vehicles once they dominate the vehicle fleet?
- How will AVs impact road capacity in the near term as they are deployed in mixed traffic with human driven vehicles?
- What portion of traffic will be zero-occupant vehicles and what areas will likely generate the highest portion of zero-occupant vehicles looking for parking or waiting for their next passenger?

Transit

AVs could become cost competitive with transit and undermine transit ridership as riders prefer a more convenient alternative. However, transit will remain the most efficient way to move high volumes of people through constricted urban environments. AVs will not eliminate congestion and as discussed above, could exacerbate it – especially in the early phases of AV adoption. In addition, shared AVs may not serve all areas of a community and underserved communities still require access to transit to meet their daily needs.

Parking

Because AVs will be able to park themselves, travelers will elect to get dropped off at their destination while their vehicle goes to find parking or their next passenger. Shared AVs will have an even greater impact on parking because parking next to your destination will no longer be a priority for the traveling public. This means that parking may be over-supplied in many areas and new opportunities to reconfigure land use will emerge. Outstanding questions related to parking that should be closely followed include:

- How does vehicle ownership impact parking behavior?
- What portion of the AV fleet will be shared?
- How far out of the downtown area will AVs be able to park while remaining convenient and readily available?

Curb Space

In addition to parking impacts, the ability to be dropped off at your destination will create more potential for conflicts in the right of way between vehicles that are dropping passengers off, vehicles moving through traffic, and vehicles parked on the street. This issue is already occurring in many urban areas with ride-hailing companies where popular destinations are experiencing significant double-parking issues.

Package Delivery

AVs will also be used to deliver packages, food, and expand services. This may mean that delivery vehicles will need to be accommodated in new portions of the right of way. For instance, if the AV parks at the curb in a neighborhood and smaller robots are used to deliver packages from door to door, new conflicts will arise between vehicles, pedestrians, and bicyclists.

Electric Vehicle Charging

To accommodate a future where electric vehicles will come to dominate our vehicle fleet, we will need to build new charging capacity. In addition to charging stations, cities, electric utilities, regions, and states will need to work together to create enough electricity to supply the significant increase in demand.

Policies and Action Items

Mobility Hubs

A mobility hub is a central location that serves as a multimodal connection point for transit, car share, bike share, and ride share stations, see Figure 7. This system can serve as a tool to encourage travelers to take seamless multimodal trips that are well timed and convenient. Mobility hubs make the most sense to put in transit centers that are located near urbanized areas with multimodal supportive infrastructure (e.g., protected bike lanes) to maximize connectivity for first and last-mile solutions. The location of Corvallis' Downtown Transit Center and presence of transit and bike share presents an opportunity to create a mobility hub at a low cost.

Figure 7: Mobility Hub

Road Planning and Capacity

It is difficult to plan for the impacts of CASE vehicles on road capacity at this point in their development. Because there is a high potential that ultimately road capacity will increase after CASE vehicles are widely adopted along with a corresponding increase in traffic demand, we can expect that congestion will continue to persist.

However, CASE vehicles provide a much greater opportunity for effective transportation demand management solutions because the expected congestion can be used to encourage use of transit, shared vehicles, and bike share. These modes could all be encouraged through pricing mechanisms that are vastly less expensive to implement than building more road capacity. A variety of pricing mechanisms and alternatives to the State gasoline tax are enabled with CASE technology because these vehicles will be tracked geographically, and by time of day. With time/location data, transportation system operators will be able to develop pricing mechanisms that reduce congestion at a lower cost than other roadway

improvements.[3] Larger cities will be the first to implement these strategies and smaller cities like Corvallis should follow these developments closely.

Parking

As CASE vehicles are more widely adopted, Corvallis should periodically review its parking standards.

- Consider building new parking garages that can be converted (with flat instead of ramped floors) to other uses in case AVs make them underutilized in their lifetime. If that isn't financially feasible, consider alternative transportation demand management strategies.
- Consider revising minimum parking requirements for new developments, especially in areas that are within one mile of transit.
- Consider system development charges that fund the installation of charging stations in new developments.

Curb-space Management

- Inventory parking utilization and identify areas that could be converted from parking to curbside pick-up and drop-off zones.

Transit

To avoid potential equity and congestion issues, transit agencies need to work together to integrate the use of automated vehicles and transit. Transit needs to adapt to new competition in the transportation marketplace as well as consider adopting CASE technologies to support transit operations. Corvallis and the Corvallis Transit System should consider:

- Partnering with ride-hailing companies to provide first and last-mile solutions.
- Working with ride-hailing companies and bike share to integrate payment platforms and enable one button purchase of a suite of transportation options for multimodal trips.
- Creating fixed route autonomous shuttles to provide first and last-mile solutions.
- Creating on-demand autonomous shuttles to provide first and last-mile solutions.

[3] Fishman, E, 2016 Road Use Pricing: Driverless cars, congestion and policy responses.

Financially Feasible and Illustrative Project Lists

The proposed solutions in this technical memorandum include all projects identified for improving Corvallis' transportation system, regardless of priority or likelihood to be funded. The TSP planning process eliminates any project that may not be feasible for reasons other than financial limitations (such as environmental or existing development limitations). Later in the TSP update process, the recommended projects will be divided into two lists based on priority and likelihood of being funded. The Financially Feasible Project List will identify the highest priority projects that could be constructed with funding anticipated through 2040. The Illustrative Project List will include the remaining recommended projects that are not included in the Financially Feasible Project List.

With an estimated $1.2 billion worth of proposed transportation system solutions identified in Tables 1 through 5, the City must make reasonable investment decisions to arrive at a set of transportation improvements to best meet identified needs through 2040. As detailed in Technical Memorandum #9, the City expects to have approximately $42.1 million to fund transportation improvements for which the City will be the primary source of funding through 2040. Of this amount, $22.8 million is from SDC funds and must be used for projects that increase the capacity of the transportation system[4]. It would take over $396.4 million (about $63.6 million with only City listed as the primary funding source and about $332.8 million with the City and a secondary funding source such as Developer or ODOT) to construct all the improvements for which the City has primary funding responsibility, meaning over $354. million in projects will not be funded.

Finding the right mix of projects for the Financially Feasible list can depend on which project goals are being prioritized. Should the City seek a balance of all goals, or choose to emphasize efficient travel for motor vehicles, safety improvements, or projects that enhance walking and biking options? Getting feedback on the mix of projects that should be included in the Financially Feasible list will be a focus of upcoming committee meetings and the next public open house.

It should be noted that the City is not required to implement projects identified on the Financially Feasible list first. Priorities may change over time and unexpected opportunities may arise to fund particular projects. The City is free to pursue any of these opportunities at any time. The purpose of the Financially Feasible project list is to establish reasonable expectations for the level of improvements that will occur and give the City initial direction on where funds should be allocated.

Future Performance of the Transportation System

Intersection Traffic Operations

If constructed, the proposed solutions from the project lists in this technical memorandum would significantly improve transportation to and through Corvallis for all modes of travel and would support the community's ability to meet its goals. Motor vehicle congestion is anticipated to improve in Corvallis

[4] Other limitations exist for projects funded fully or partially by System Development Charges, and any improvements paid for with SDC funds would need to be compliant with the City of Corvallis SDC Ordinance and Oregon Revised Statute (ORS) 223.297 – 223.314. For more information, see http://www.corvallisoregon.gov/index.aspx?page=381

through 2040 and adopted mobility standards are projected to be met at most of the study area intersections with the proposed improvements as shown in Table 6 and Table 7. There are four study area intersections (15th Street & US 20-OR 34, OR 99W & Crystal Lake Drive/Avery Drive, 53rd Street & US 20-OR 34 and 30th Street & Harrison Boulevard) that do not meet mobility standards with the proposed solutions in place.

Additional improvements or alternative mobility standards may need to be explored at these locations to balance multimodal needs. For example, the 15th Street/US 20-OR 34 intersection could meet mobility targets with the construction of a second eastbound and westbound through lane, but the eastbound travel lanes would need to merge back to one lane before the OR 99W overpass. Other trade-offs include higher projects costs. The OR 99W/Crystal Lake Drive/Avery Drive and 53rd Street/US 20-OR 34 intersections could meet mobility targets with the construction of additional turn lanes, however the trade-offs include higher projects costs and property impacts. Finally, the 30th Street/Harrison Boulevard intersection could meet mobility standards by restricting additional turn movements such as the southbound left turn, however this would reduce the connectivity for the residents north of Harrison.

The recommended new streets will enhance connectivity and ensure efficient travel routes are provided when future development occurs. By providing more local street travel options, the projects work to reduce the burden on critical arterial links while increasing resilience to non-recurring disruptive events. The greatest source of recurring congestion for Corvallis residents is on US 20-OR 34, OR 99W and the Van Buren Bridge where local and regional travel converge to create a bottleneck. Therefore, continued cooperation with regional partners to advance improvements in these corridors should be a priority.

The network of active transportation facilities will provide non-motorized travel access across town and to regional attractions beyond the UGB. Integration with regional active transportation networks provides even more opportunities for healthy living and economic vitality and will let more visitors experience the community of Corvallis.

Table 6: Future 2040 Design Hour Operating Conditions at Study Intersections (P.M. Peak Hour)

Intersection[a]	Jurisdiction	Mobility Standard	2040 Baseline Intersection Performance[b]		2040 Project List Intersection Performance[b]	
			LOS	*V/C*		
Signalized						
(1) NW Harrison & NW 36th St	City of Corvallis	LOS D	C	0.82	B	0.66
(2) NW Walnut & NW 29th St	City of Corvallis	LOS D	B	0.73	B	0.67
(6) NW Kings Blvd & NW Walnut Blvd	City of Corvallis	LOS D	B	0.76	B	0.73
(7) NW Kings Blvd & NW Circle Blvd	City of Corvallis	LOS D	C	0.8	C	0.78
(8) NW Kings Blvd & NW Grant Ave	City of Corvallis	LOS D	C	0.88	C	0.86
(9) NW Kings Blvd & NW Buchanan Ave	City of Corvallis	LOS D	B	0.74	B	0.69
(10) NW 9th St & NW Buchanan Ave	City of Corvallis	LOS D	D	0.87	C	0.61
(11) NW 29th St & NW Harrison Blvd	City of Corvallis	LOS D	C	0.9	B	0.64
(12) NW Kings Blvd & NW Harrison Blvd	City of Corvallis	LOS D	B	0.68	B	0.67
(13) NW 9th St & NW Harrison Blvd	City of Corvallis	LOS D	B	0.64	B	0.70
(14) NW 53rd St & NW Harrison Blvd	City of Corvallis	LOS D	B	0.79	B	0.77
(15) NW 35th St & NW Harrison Blvd	City of Corvallis	LOS D	C	0.5	C	0.77
(17) NW 9th St & NW Van Buren Ave	City of Corvallis	LOS D	C	0.86	B	0.66
(18) NW Kings Blvd & NW Van Buren Ave	City of Corvallis	LOS D	B	0.52	A	0.37
(19) NW 14th St & NW Monroe Ave	City of Corvallis	LOS D	C	0.47	C	0.52
(20) SW 15th St & SW Western Blvd	City of Corvallis	LOS D	D	0.92	C	0.81
(21) SW 15th St & US20-OR34	ODOT	0.85	E	**1.11**	D	**0.95**
(22) NW 9th St & NW Grant St	City of Corvallis	LOS D	A	0.65	A	0.72
(23) NW 35th St & NW Western Blvd	City of Corvallis	LOS D	D	0.98	B	0.85
(26) NW Highland Dr & NW Walnut Blvd	City of Corvallis	LOS D	D	0.89	C	0.55
(27) NW Witham Hill Dr & NW Walnut Blvd	City of Corvallis	LOS D	B	0.64	B	0.59
(28) OR99W & NW Conifer Blvd	ODOT	V/C 0.90	F	**1.01**	D	0.87
(34) OR99W & Crystal Lake/Avery	ODOT	V/C 0.90	F	**1.16**	F	**1.09**
(35) Harrison & 4th	ODOT	V/C 0.95	D	**0.98**	C	0.93
(36) Harrison & 3rd	ODOT	V/C 0.95	C	0.91	C	0.80
(37) Harrison & 2nd	ODOT	V/C 0.90	D	**1.09**	B	0.70
(38) Van Buren & 2nd	ODOT	V/C 0.90	F	**1.46**	B	0.50
(39) Van Buren & 3rd	ODOT	V/C 0.95	F	**1.42**	B	0.72
(40) Van Buren & 4th	ODOT	V/C 0.95	F	**1.31**	B	0.56
(41) US20-OR34 & 35th	ODOT	V/C 0.85	E	**1.05**	D	0.85
(42) US20-OR34 & 53rd	ODOT	V/C 0.85	F	**1.02**	E	**0.89**
(43) OR99W & Circle Blvd	ODOT	V/C 0.90	E	**1.01**	D	0.79
(44) Walnut & 9th	City of Corvallis	LOS D	D	0.64	C	0.58
(45) Circle & 9th	City of Corvallis	LOS D	D	0.88	D	0.81
(46) OR99W & Walnut	ODOT	V/C 0.90	D	0.78	D	0.68
(47) SW Technology Loop & US20-OR34	ODOT	V/C 0.85	D	**1.08**	C	0.72
(48) 26th St & US20-OR34	ODOT	V/C 0.85	E	**1.09**	C	0.84
Two-Way Stop Controlled						
(3) NW 9th St/Samaritan Dr & NW Elks Dr	City of Corvallis	LOS D	A/C	0.66	A/C	0.41
(4) OR99W & SE Rivergreen Ave	ODOT	V/C 0.90	A/F	0.76	C	0.64
(5) OR99W & NW Elks Dr	ODOT	V/C 0.90	A/D	0.66	B	0.56
(16) NW 30th St & NW Harrison Blvd	City of Corvallis	LOS D	**A/F**	>2.0	**A/E**	0.57
(24) SW 45th St & SW Country Club Dr	City of Corvallis	LOS D	A/B	0.06	A/B	0.07
(25) NW Witham Hill Dr & NW Circle Blvd	City of Corvallis	LOS D	A/D	0.47	B	0.34
(29) NW 9th St & NW Conifer Blvd	City of Corvallis	LOS D	A/C	0.55	A/C	0.58
(49) US20-OR34 & Western	ODOT	V/C 0.85	A/F	**1.26**	C	0.85

Signalized intersections:
LOS = Level of Service of Intersection
V/C = Volume-to-Capacity Ratio of Intersection

Two-Way Stop Controlled intersections:
LOS = Level of Service of Major Street/Minor Street
V/C = Volume-to-Capacity Ratio of Worst Movement

[a] **Bold shaded** values do not meet standards.

Table 7: Future 2040 Average Weekday Operating Conditions at Study Intersections (P.M. Peak Hour)

Intersection[a]	Jurisdiction	Mobility Standard	2040 Baseline Intersection Performance[b]		2040 Project List Intersection Performance[b]	
			LOS	*V/C*		
Signalized						
(1) NW Harrison & NW 36th St	City of Corvallis	LOS D	C	0.76	B	0.61
(2) NW Walnut & NW 29th St	City of Corvallis	LOS D	B	0.7	B	0.63
(6) NW Kings Blvd & NW Walnut Blvd	City of Corvallis	LOS D	B	0.74	B	0.70
(7) NW Kings Blvd & NW Circle Blvd	City of Corvallis	LOS D	C	0.77	B	0.74
(8) NW Kings Blvd & NW Grant Ave	City of Corvallis	LOS D	B	0.85	B	0.82
(9) NW Kings Blvd & NW Buchanan Ave	City of Corvallis	LOS D	B	0.69	B	0.65
(10) NW 9th St & NW Buchanan Ave	City of Corvallis	LOS D	D	0.77	C	0.54
(11) NW 29th St & NW Harrison Blvd	City of Corvallis	LOS D	C	0.86	B	0.54
(12) NW Kings Blvd & NW Harrison Blvd	City of Corvallis	LOS D	B	0.64	B	0.60
(13) NW 9th St & NW Harrison Blvd	City of Corvallis	LOS D	B	0.57	B	0.63
(14) NW 53rd St & NW Harrison Blvd	City of Corvallis	LOS D	B	0.74	B	0.72
(15) NW 35th St & NW Harrison Blvd	City of Corvallis	LOS D	C	0.45	B	0.71
(17) NW 9th St & NW Van Buren Ave	City of Corvallis	LOS D	C	0.82	B	0.57
(18) NW Kings Blvd & NW Van Buren Ave	City of Corvallis	LOS D	B	0.47	A	0.33
(19) NW 14th St & NW Monroe Ave	City of Corvallis	LOS D	C	0.42	C	0.47
(20) SW 15th St & SW Western Blvd	City of Corvallis	LOS D	C	0.89	B	0.76
(21) SW 15th St & US20-OR34	ODOT	0.85	D	**0.96**	C	0.82
(22) NW 9th St & NW Grant St	City of Corvallis	LOS D	A	0.61	A	0.68
(23) NW 35th St & NW Western Blvd	City of Corvallis	LOS D	C	0.81	B	0.82
(26) NW Highland Dr & NW Walnut Blvd	City of Corvallis	LOS D	D	0.81	D	0.49
(27) NW Witham Hill Dr & NW Walnut Blvd	City of Corvallis	LOS D	B	0.61	B	0.56
(28) OR99W & NW Conifer Blvd	ODOT	V/C 0.90	E	0.88	D	0.75
(34) OR99W & Crystal Lake/Avery	ODOT	V/C 0.90	F	**1.01**	E	**0.94**
(35) Harrison & 4th	ODOT	V/C 0.95	C	0.85	C	0.81
(36) Harrison & 3rd	ODOT	V/C 0.95	C	0.79	B	0.70
(37) Harrison & 2nd	ODOT	V/C 0.90	C	**0.95**	B	0.61
(38) Van Buren & 2nd	ODOT	V/C 0.90	F	**1.27**	B	0.44
(39) Van Buren & 3rd	ODOT	V/C 0.95	F	**1.23**	B	0.63
(40) Van Buren & 4th	ODOT	V/C 0.95	F	**1.14**	B	0.48
(41) US20-OR34 & 35th	ODOT	V/C 0.85	D	**0.87**	C	0.74
(42) US20-OR34 & 53rd	ODOT	V/C 0.85	E	**0.87**	D	0.77
(43) OR99W & Circle Blvd	ODOT	V/C 0.90	D	0.87	D	**0.92**
(44) Walnut & 9th	City of Corvallis	LOS D	C	0.58	C	0.52
(45) Circle & 9th	City of Corvallis	LOS D	D	0.79	D	0.73
(46) OR99W & Walnut	ODOT	V/C 0.90	D	0.68	D	0.59
(47) SW Technology Loop & US20-OR34	ODOT	V/C 0.85	C	**0.91**	C	0.62
(48) 26th St & US20-OR34	ODOT	V/C 0.85	D	**0.94**	C	0.72
Two-Way Stop Controlled						
(3) NW 9th St/Samaritan Dr & NW Elks Dr	City of Corvallis	LOS D	A/C	0.54	A/B	0.34
(4) OR99W & SE Rivergreen Ave	ODOT	V/C 0.90	A/D	0.39	B	0.55
(5) OR99W & NW Elks Dr	ODOT	V/C 0.90	A/C	0.45	B	0.44
(16) NW 30th St & NW Harrison Blvd	City of Corvallis	LOS D	**A/F**	1.2	A/D	0.48
(24) SW 45th St & SW Country Club Dr	City of Corvallis	LOS D	A/B	0.05	A/B	0.06
(25) NW Witham Hill Dr & NW Circle Blvd	City of Corvallis	LOS D	A/C	0.26	B	0.30
(29) NW 9th St & NW Conifer Blvd	City of Corvallis	LOS D	A/C	0.48	A/C	0.50
(49) US20-OR34 & Western	ODOT	V/C 0.85	A/F	**0.96**	C	0.73

Signalized intersections:
LOS = Level of Service of Intersection
V/C = Volume-to-Capacity Ratio of Intersection

Two-Way Stop Controlled intersections:
LOS = Level of Service of Major Street/Minor Street
V/C = Volume-to-Capacity Ratio of Worst Movement

[a]

[a] **Bold shaded** values do not meet standards.

System Performance

Evaluation criteria were developed based on Corvallis' overall vision, goals, and objectives for long-range growth and community development to assess various alternative policies and investment packages. Table 8 compares transportation system performance between the 2040 Baseline (i.e., the "No Build" scenario from Technical Memorandum #12) and 2040 Project List scenarios.

Under the 2040 conditions vehicle-miles traveled (VMT) per capita increases slightly. In general, adding roadway capacity and relieving congestion results in increases in VMT. However, improving system connectivity reduces out-of-direction travel which results in decreased VMT. Under the Project List scenario, the net effect is almost no change from Baseline conditions.

Another key measure, number of intersections that fail to meet mobility standards, is reduced from 15 intersections to 4 intersections under the 2040 Project List scenario.

There are minimal changes to the percentage of population and employment near high quality pedestrian or bicycle facilities. However, the percentage of population and employment near high frequency transit roughly doubles in the 2040 Project List scenario. There was substantial investment assumed in the long-term transit system vision (refer to Technical Memorandum #18 – Transit Solutions), which resulted in increasing service frequency on existing routes in many cases from 60-minute headways down to 15-minute headways.

Table 8: Summary of 2040 Base and Illustrative Scenario System Performance

Evaluation Criteria			2040 Baseline Conditions	2040 Project List Conditions
Vehicle-Miles Traveled (VMT) per capita - daily[5]			5.80	5.84
Intersection performance compared to applicable agency mobility standards/targets			15 intersections fail to meet mobility standards/ targets	4 intersections fail to meet mobility standards/ targets
Peak hour travel time on freight routes, in minutes			67.8	59.2
Percent of population[6] and employment (employment centers with greater than 100 employees) in close proximity (1/8 mile) to high quality pedestrian or bicycle facilities	Ped	Population	50%	52%
		Employment	53%	54%
	Bike	Population	89%	89%
		Employment	85%	85%

[5] Approximate estimates of daily VMT and population are based on CALM model outputs and land use data inputs.

[6] Approximate estimate of population based on CALM model land use data inputs.

Evaluation Criteria	2040 Baseline Conditions	2040 Project List Conditions
Percent of total jobs within 1/4-mile walking distance of transit stops served by at least 30 transit vehicles per day	35%	70%
Percent of total households within 1/4-mile walking distance of transit stops served by at least 30 transit vehicles per day	32%	60%
Percent of all roads with walking facilities on both sides of the roadway	71%	74%
Percent of the bicycle network with biking facilities on both sides of the roadway	79%	84%
Number of projects or programs (high, medium, or low by alternative analysis package) that address recognized safety issues	0	30
Number of projects and programs (high, medium, or low by alternative analysis package) that improve safety for vulnerable travelers (e.g., school children, elderly, disabled)	0	20
Span and frequency of transit service – number of routes that provide 30 or more trips per day	4	6
Percent of major collectors and higher roadway mileage with transit service providing 30 or more transit vehicles per day	14%	25%
Bicycle Level of Traffic Stress – Percent of high quality (or low stress) on all roads	74%	77%
Pedestrian Level of Service - Percent of high quality collector and arterial segments	32.7%	36.6%
Pedestrian Level of Service – Number of low or medium-low quality intersections	15	13
Number of projects or programs (high, medium, or low by alternative analysis package) that focus on travel demand management or existing transportation system management	0	2
Encourages increased travel by transit	0	136 projects