MEMORANDUM

December 1, 2023

To: Scott Hoelscher, Clackamas County

Dru van Hengel, Jeri Stroupe, Nelson\Nygaard

From: Talia Jacobson, Kerry Aszklar, AICP, and Jacob Nigro

Project: Walk Bike Clackamas

Re: Final Technical Memorandum 10: Project Identification

Overview

This memorandum describes the approach to identifying potential projects for the Walk Bike Clackamas plan (WBC plan) and lists the projects. To identify walking and bicycling projects in unincorporated Clackamas County, the Project Team reviewed and incorporated projects from previous planning efforts and identified from public comments. The Project Team also acknowledged the potential for Clackamas County to collaborate with other agency partners, including the Oregon Department of Transportation (ODOT) for projects not on Countymaintained streets.

After compiling projects from previous plans into one map, the Project Team identified areas with no proposed projects for each of the five county planning areas, emphasizing gap and need locations within equity focus areas. Additionally, the Project Team considered specific other criteria, described in the Approach section below.

The Project Team also identified potential locations to consolidate substantially similar projects from prior planning efforts, in anticipation of work for Technical Memorandum 11: Pedestrian and Bicycle Priority Recommendations.

Per June 2023 discussions with the Project Team, project analysis focuses on county-owned streets in unincorporated areas. Previously identified projects on ODOT facilities were included and will be prioritized separately from projects on county-owned facilities. This memo will not consider additional new projects that may be needed to address walking and bicycling needs on ODOT facilities. The final plan will recommend that ODOT and the County assess active transportation needs and advance improvements on state roads through other efforts.

This memorandum also includes pedestrian and bicycle spot improvements that go into more depth on the types of improvements needed, as well as two recommended locations for potential advisory bicycle lanes.

Approach

Overview

To create a list of walking and bicycling projects, the Project Team identified active transportation projects from previous plans, with a focus on identifying new projects specifically in equity focus areas. First, to inventory existing active transportation projects from previous plans, the Project Team created a basemap showing the spatial compilation of previously identified but unbuilt projects. This basemap only shows projects on County-owned streets and excludes projects within incorporated areas. The remaining projects were amalgamated where projects documented in different plans overlap.

The Project Team compared unbuilt, previously identified projects to locations with gaps, deficiencies, and needs that are in the priority WBC routes and geographies, which include:

- Locations on the vulnerable road user high injury network or near fatal or severe injury crash locations that involved people walking or bicycling
- Priority Active Transportation Routes
- The Essential Pedestrian Network
- The equity focus areas, identified through the WBC planning effort
- Locations where members of the public requested improvements via the interactive online map

This memo describes locations where no project had been identified on one of the priority routes or geographies. The Project Team used these locations as focus areas for developing new projects to evaluate.

Data Used

Technical Memorandum 10 is built on a variety of data sources to ensure a robust set of inputs that inform project identification. As with other WBC technical memorandums, this memorandum uses the five geographic planning areas to divide the County:

- East County Area
- Southwest County Area
- Greater McLoughlin Area
- Greater Clackamas Regional Center/Industrial Area
- Northwest Area

On a more detailed geographic level, the data for equity focus areas is based on the equity index measure used for the WBC plan. The equity index measure identifies distributions of the following demographic groups in the county, based on density of households per acre:

- Black people, Indigenous people, and People of Color (BIPOC)
- Immigrants
- People with limited English proficiency
- Low-income and low-wealth community members
- Low- and moderate-income renters and homeowners
- People with disabilities
- Youth and seniors

Locations with higher concentrations of these communities are mapped as equity focus areas.

The Project Team mapped the two key active transportation networks: the Priority Active Transportation Routes (PAT Routes) from the 2015 Clackamas County Active Transportation Plan, and the Essential Pedestrian Network (EPN) identified in the Clackamas County Comprehensive Plan, Map 5-3. These networks have already been through public engagement processes and adopted by the Clackamas County Board of Commissioners, and therefore serve as foundational networks to enhance with infrastructure projects through the WBC planning effort.

Using these foundational networks, the Project Team overlaid unbuilt walking and bicycling projects from the County's Transportation System Plan (TSP). Additionally, if a project was included in multiple plans (including the TSP), it was categorized as a TSP project. For instance, the Mt. Hood Ped Bike Implementation Plan and the Clackamas Regional Center Pedestrian and Bike Connection Project were both incorporated into the Clackamas County TSP and are labeled as TSP projects.

The map also includes projects from the <u>Safe Routes to School Action Plans</u> for the following schools located in unincorporated county areas:

- Whitcomb Elementary
- Bilquist Elementary
- Happy Valley Elementary
- Happy Valley Middle
- Mt Scott Elementary
- Oak Creek Elementary
- Oregon Trail Elementary
- River Grove Elementary
- Welches Elementary
- Oak Grove Elementary

The Project Team also used over 280 mapped public comments from Engagement Phase 2 of the Walk Bike Clackamas planning effort from winter/spring 2023 to identify new projects. These public comments were drawn as lines and points on an online map and coded by WBC goal. For instance, a public comment about a missing sidewalk or bikeway segment was coded as relevant to "connectivity". As new projects were identified, they were flagged by whether they addressed a public comment and by WBC goal. A flag was added to projects from the TSP and SRTS action plans that addressed a public comment.

Alignment of Networks and Projects

After compiling projects into one map, the Project Team reviewed the spatial distribution of projects by subareas. In particular, the Project Team sought to identify locations where there were not already proposed walking or bicycling projects in equity focus areas, as well as locations where projects on the PAT routes and the EPN were not already captured by previous plans.

To note, the PAT routes were layered on top of the EPN to capture improvements for both bicycling and walking. If a group of EPN routes was clustered together in an equity focus area, but there were no proposed projects in that area, then those EPN routes would potentially be identified as a "bucket" of projects.

Additional Data Considerations

Accompanying these maps are data from previous technical memorandums, such as pedestrian and bicycle crash locations, existing walking or bicycling infrastructure, from <u>Technical Memorandum 4: Existing Conditions</u>¹, and pedestrian crossing stress (PxLTS, with 1 as low-stress and 4 as high-stress) and Bicycle Level of Traffic Stress (BLTS with 1 as low-stress and 4 as high-stress) from Technical Memorandum 8: Gaps and Deficiencies. These data sources can be used to understand whether priority routes/geographies that lack projects are also locations with known walking and bicycling deficiencies.

Draft Project List Review

The Project Team prepared a draft project list for County review. County staff identified previously completed projects to be removed from the list, opportunities for consolidating overlapping projects, and projects that the

¹ https://dochub.clackamas.us/documents/drupal/8c7f9ee9-27e7-4e3f-9e96-06cd395512e4

County did not intend to advance due to policy changes since their conception. This memo reflects the final project list after incorporating the County's revisions.

Some identified projects overlap with facilities that are owned and managed by local jurisdictional agencies. Listed below are those projects that straddle agency ownership. They are identified in project maps and in project lists by their project identification number, which starts with an "O". These projects will require partnership with local jurisdictions. It is recommended that the County reach out to these partners early to collaborate on these projects. Projects that require collaboration with the Oregon Department of Transportation are coded as "ODOT" in the project ID. All other projects are coded as "CC" for "Clackamas County", meaning they are fully within the jurisdiction of unincorporated County.

Summary

Overall, the combination of previously planned TSP and SRTS projects covers a wide geographic range of the county and as a result, the Project Team did not add a significant number of new projects. Below is a breakdown of the projects by source and by road ownership.

Table 1. Source and number of identified projects

Source	Projects on Clackamas County Roads	Projects on roads owned by other jurisdictions	Projects on ODOT Facilities	Total
Transportation System Plan (2015)	149	10	26	185
Safe Routes to Schools Action Plans (2016-2022)	30	1	2	33
Newly identified projects	33	5	5	43
Total	212	16	33	261

^{*}Excludes projects that have been or are in the process of being constructed.

Countywide Project Overview

Each planning area has varying degrees of equity focus areas, miles of PAT routes, miles of EPN routes, and TSP- or SRTS-identified projects. Many factors contribute to these criteria: population density, land use, road connectivity, topography, and waterbodies or streams. However, there are opportunities to improve walking and bicycling conditions across Clackamas County.

See Figure 3 for a map of equity focus areas, active transportation networks, and previously identified projects. More information about previously identified projects, as well as locations for potential new projects and projects for agency partner collaboration, is organized by planning area on the following pages.

Advisory Bike Lanes

The County requested potential locations for advisory bike lanes. Advisory bike lanes are a relatively new roadway treatment that reallocates roadway space to provide a single vehicle travel lane and dashed lines on either side for pedestrians and bicyclists (Figure 1). Approaching cars are allowed to encroach into the walking and biking areas if no other users are present. Oncoming vehicles must yield to each other and to pedestrians and bicyclists.



Figure 1. Advisory bike lane in Hanover, New Hampshire. Copyright 2014 The Dartmouth Company, Inc. All Rights Reserved. Reprinted with Permission.

A feasibility study for the design and implementation of an Advisory Bike Lane is recommended in two locations. For these corridors, a review of existing vehicle speeds and volumes will be needed to understand if this treatment is appropriate and to inform the specific design features. As a high-level guide, the Project Team referenced Figure 2 below from the FHWA *Small Town and Rural Multimodal Networks* guide for volume and speed thresholds. Advisory bike lanes can be applied in various contexts and may be located on streets with or without parking, though particular care should be taken when parking is present.

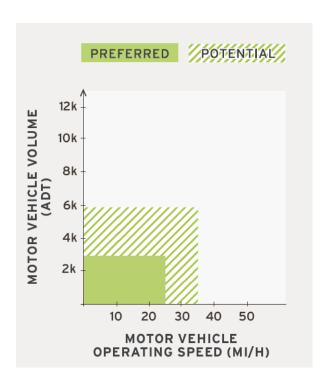


Figure 2. Volumes and speeds recommended for advisory bike lanes in rural locations. Source: FHWA Small Town and Rural Multimodal Networks 2016.

- 1. Greater McLoughlin Subarea: The first identified location is a corridor currently identified in the TSP as a Bike Boulevard project. The proposed location is SE Naef Road between SE River Road and SE Wallace Road, and SE Oetkin Road from SE Wallace Road to SE Thiessen Road. Along this segment, SE Naef Road crosses SE McLoughlin at a signal and currently dead ends just south of SE Oatfield Road. It is recommended that some sort of bike and pedestrian access be provided to connect to SE Oatfield Road and to jog and continue the bikeway on SE Naef Road north of SE Oatfield Road. This corridor then jogs again at SE Wallace Road and continues on SE Oetkin Road until meeting with SE Thiessen Road. This would create a low-stress and low-volume continuous route through this area and maintaining the dead-end for motor vehicles would ensure no cut-through traffic.
- 2. Southwest Subarea: The second identified location is a ~1.0-mile segment currently identified in the TSP as a project to add paved shoulders. The proposed location, N Holly Street from NE 37th Avenue to NE 22nd Avenue, is in a rural land use context that currently has no sidewalks and no paved shoulders for bicycles. This stretch of N Holly Street does not cross any major roads and has good visibility as a straight segment.

Spot Improvements

In addition to developing projects in each subarea, the Project Team identified certain locations as key focus projects, identified as "spot improvements," for walking and bicycling. The table below provides an overview of where spot improvements are located. Some locations include improvements for both walking and bicycling. More details about these spot improvements can be found in each subarea section.

Table 2. Overview of spot improvements by subarea

Subareas	Locations	Spot Improvements			
		Pedestrian	Bicycling		
Northwest Area	SW Wilsonville Rd and Willamette Way W	✓	✓		
Greater McLoughlin	SE River Rd and SE Oak Grove Blvd	✓	✓		
Area	SE Hill Road (at SE View Acres Road)	✓	✓		
	SE Hill Rd and SE Bramble Ct	✓	-		
	SE Jennings Ave, between SE River Rd and SE	✓	-		
	Morse Rd				
Greater Clackamas	SE King Rd and SE Cook Ct	✓	✓		
Regional Center/	SE King Rd and SE 77 th Ave	✓	✓		
Industrial Area	SE Harmony and SE Harmony/Linwood Ave SE	✓	✓		
	Monroe and SE 78th Ave	✓	✓		
	SE 142 nd Ave to Pfeifer Park	-	✓		
	SE Sunnyside Rd and SE Stevens Rd	-	✓		
Southwest	Initial spot improvements deleted after County review.				
East	Initial spot improvements deleted after County review.				

Figure 3. Projects in unincorporated Clackamas County

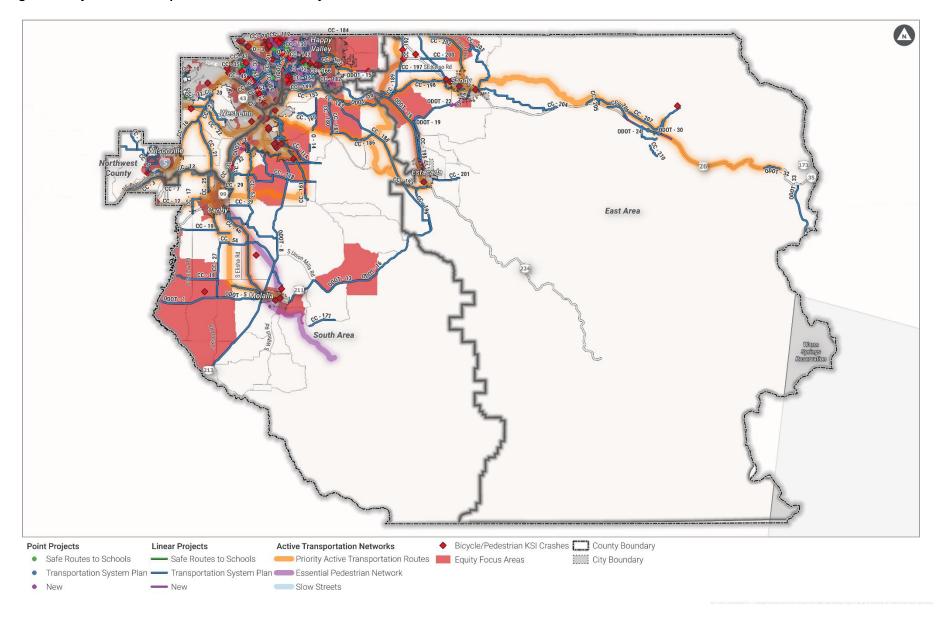


Figure 4. Sidewalk presence in Clackamas County

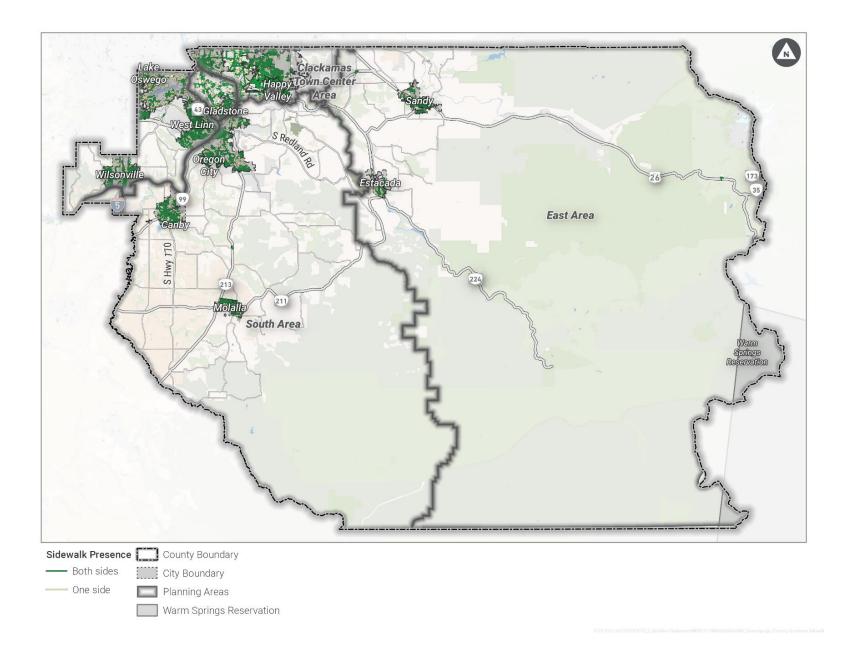
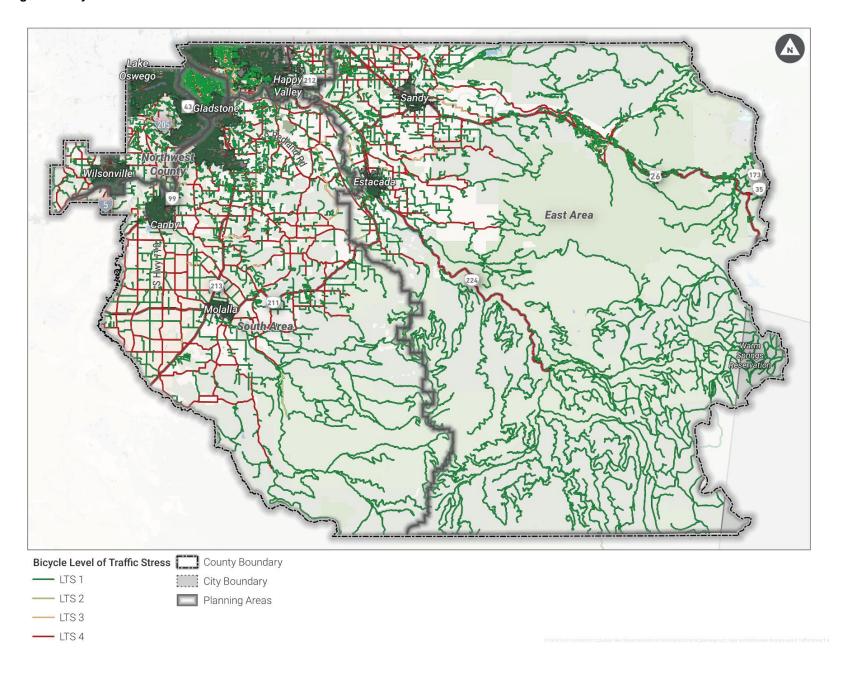


Figure 5. Bicycle Level of Traffic Stress



Project Identification Details by County Planning Area

Northwest Area

Previously Proposed Projects

In the Northwest planning area, most of the equity focus areas fall within local jurisdictional boundaries. One area not within those boundaries is southwest of Wilsonville, which is primarily the Grand Oaks Nature Park.

Outside of this equity focus area, there are no EPN routes in the Northwest planning area.

There are a series of Safe Routes to Schools projects in the Rivergrove community in unincorporated Clackamas County.

Gap Areas in Need of Project Identification

All EPN and PAT routes in unincorporated parts of the Northwest Area have had projects identified through the TSP or SRTS Action Plans. The project team did not identify locations in need of new projects.

Opportunities for Agency Partner Collaboration

Opportunities for partner collaboration include streets that are within Clackamas County but are maintained by local jurisdictions or by the Oregon Department of Transportation. In the Northwest area, SW Wilsonville Road and SW Bell Road border Wilsonville and both are identified as high-stress bikeways. This intersection is also identified as a high stress crossing for pedestrians. At the intersection of SW Wilsonville Road and SW Bell Road, both streets split and form the border of an equity focus area, with SW Wilsonville Road also the location of a pedestrian fatality at Willamette Way West. SW Wilsonville Road going northeast is also the location of several other high-stress pedestrian crossings, namely at:

- Wellington
- Orchard Drive
- SW Oakleaf Loop
- SW Industrial Way
- A trail crossing at SW Morey Lane

Other opportunities for collaboration include implementing the Shared Street on SW Dawn Street in the Rivergrove neighborhood and SW Burma Road southwest of Lake Oswego, both of which cross jurisdictional boundaries.

Spot Improvements

Spot improvements in the Northwest subarea include:

SW Wilsonville Rd and Willamette Way W

Table 3. Spot improvements in the Northwest subarea.

Location	Description	Pedestrian	Bicycle
SW Wilsonville Rd and Willamette Way W	Enhance existing crossing; consider a median island refuge on west leg of intersection with curb ramps. Update signage to include bicyclists.	√	√

Figure 6. Projects in unincorporated Clackamas County, Northwest area

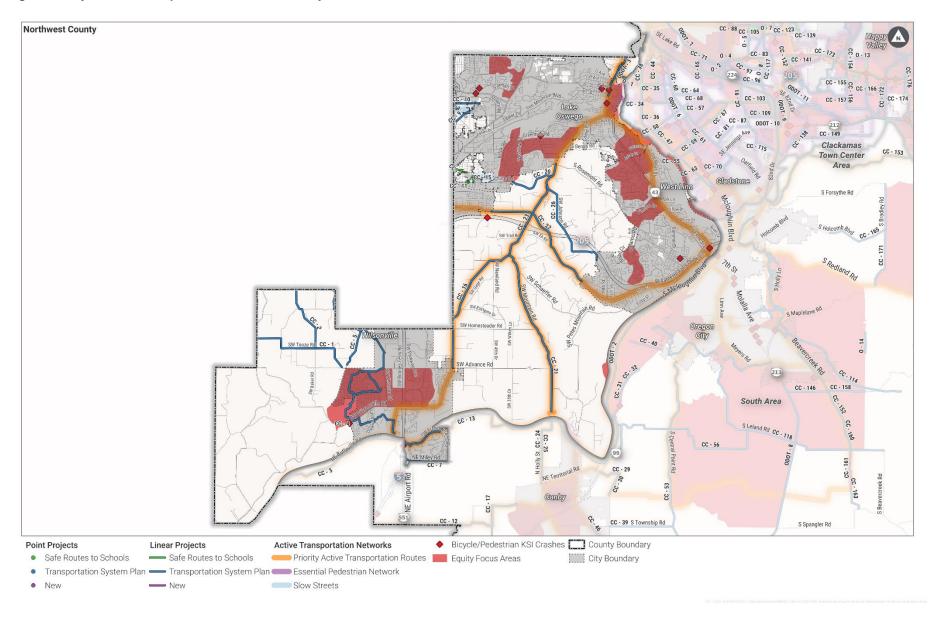


Figure 7. Sidewalk Presence, Northwest area

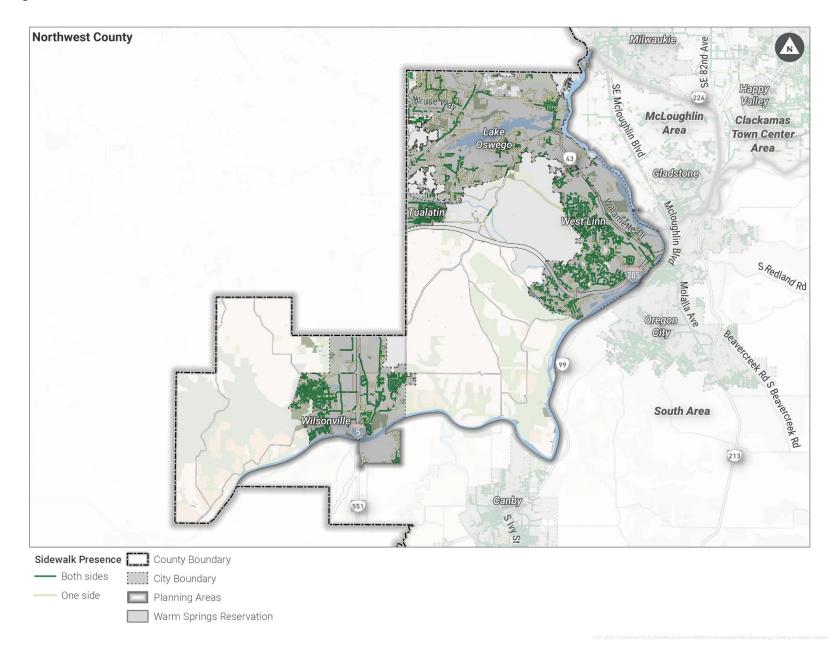


Figure 8. Bicycle Level of Traffic Stress, Northwest area

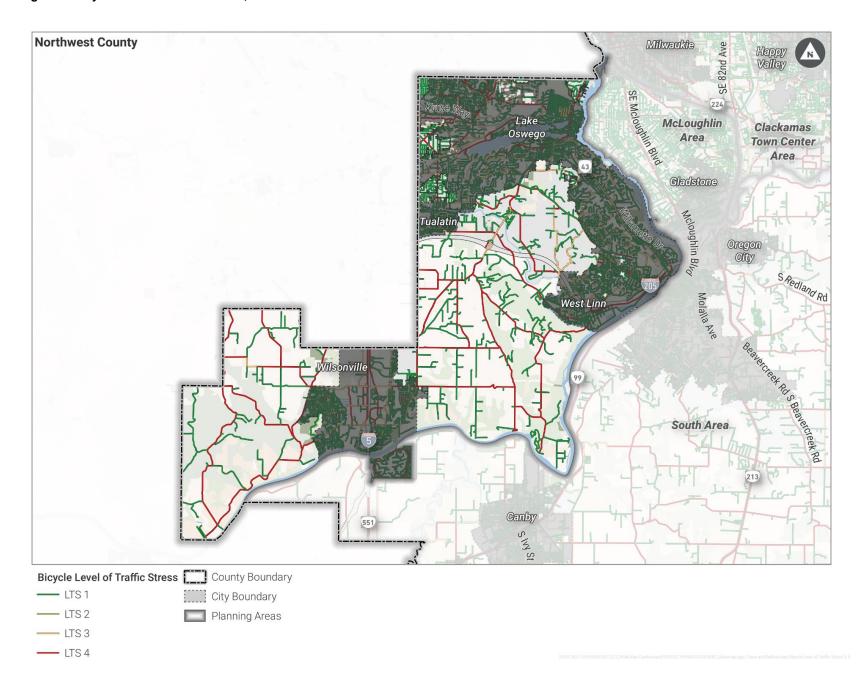


Table 4. Linear Projects in Northwest Area

Project ID (New)	Name	Extent 1	Extent 2	Miles	Description
is (item)	Pleasant Hill Rd /	Externe 1	Externe E	Willes	Description
	McConnell Rd /				
CC - 1	Tooze Rd	Ladd Hill Rd	Westfall Rd	2.76	Add paved shoulders
CC - 2	Baker Rd	Tooze Rd	County line	1.71	Add paved shoulders
CC - 5	Graham's Ferry Rd	County line	Westfall Rd	1.01	Add paved shoulders
		Willamette River			Construct bike / pedestrian facilities
CC - 6	Tonquin Trail	through Wilsonville		7.73	pursuant to the Tonquin Trail Master Plan
					Install sidewalks from Longfellow Ave. to
CC - 8	McEwan Road	SW 65th Ave	240' east of Kristi Way	0.39	65th Ave. along south side of road
CC - 9	Carman Dr	Lake Oswego city limits	Roosevelt Ave	0.4	Add bikeways and pedestrian facilities
CC - 10	Bonita Rd	Carman Dr	I-5	0.65	Add bikeways and pedestrian facilities
					Construct pedestrian path from Childs Rd. to
CC - 14	Pilkington Road	SW Dawn St	SW Childs Rd	0.13	Dawn St. along west side of road
					Add paved shoulders in accordance with the
	Stafford Rd / 65th		Boeckman Rd / Advance		Active Transportation Plan and turn lanes at
CC - 16	Ave	I-205	Rd	4.47	major intersections
CC - 20	Childs Rd	Stafford Rd	Lake Oswego city limits	1.19	Add pedestrian facilities, bikeways
					Add paved shoulders in accordance with the
CC - 21	Mountain Rd	Stafford Rd	Canby Ferry	4.28	Active Transportation Plan
					Add paved shoulders in accordance with the
CC - 22	Borland Rd	Tualatin city limits	West Linn city limits	3.3	Active Transportation Plan
					Add paved shoulders in accordance with the
					Active Transportation Plan and turn lanes a
CC - 23	Stafford Rd	Rosemont Rd	I-205	1.83	major intersections
CC - 26	Johnson Rd	Stafford Rd	West Linn city limits	2.87	Add paved shoulders

Table 5. Point projects in the Northwest area.

Project				
ID (New)	Name	Extent 1	Extent 2	Description
				Enhance existing crossing; consider a median island
	Graham Oaks			refuge on west leg of intersection with curb ramps.
CC - 4	Nature Park Trail	SW Wilsonville Rd	Willamette Way W	Update signage to include bicyclists.
CC - 11	Childs Road	Childs Road	SW Benfield Ave	Install flashing beacon (RRFB) at Benfield Ave.
CC - 15	Pilkington Road	Pilkington Rd	SW Dawn St	Installing flashing beacon (RRFB) at Dawn St.

Greater McLoughlin Area

Previously Proposed Projects

Previously proposed projects in the McLoughlin area from the TSP largely align with crash locations, mainly on McLoughlin Boulevard/Route 99. Other TSP proposed projects include many east-west connections across McLoughlin Boulevard. There are also several Safe Routes to School crossing improvements near Bilquist Elementary School and Oak Grove Elementary School. Much of the southwest area of the Greater McLoughlin area is identified as an equity focus area.

Gap Areas in Need of Project Identification

There are streets in equity focus areas on either a PAT route or on the EPN that do not have existing projects. The Trolley Trail, a well-used mostly off-street facility, travels through multiple equity focus areas, but no improvement projects are planned.

There are many streets on the EPN located in equity focus areas, which do not have improvement projects identified. Many of these streets are local streets that connect to higher volume streets, such as River Road and Oatfield Road.

There are EPN routes without projects in the equity focus areas east of SE Webster Street as well as north of SE Aldercrest Road. Routes on the EPN here are critical given the large swatches of land that lack pedestrian connections. There are also EPN routes without projects in the equity focus area between SE Park Avenue and SE Courtney Avenue; but this area has some TSP projects as well as some SRTS projects adjacent to Oak Grove Elementary School.

Opportunities for Agency Partner Collaboration

Improvements to McLoughlin Boulevard/Route 99 should be developed in collaboration with ODOT, with a focus on safety and improving crossing opportunities. Numerous pedestrian and bicycle crashes have occurred on McLoughlin Boulevard. Other opportunities include working with Gladstone to improve crossings on Oatfield Road and on Webster Road from the city boundary to 82nd Drive.

Spot Improvements

Spot improvements in the Greater McLoughlin subarea include:

- SE River Road and SE Oak Grove Boulevard
- SE Jennings Ave, between SE River Road and SE Morse Road
- SE Hill Road and SE Bramble Court
- SE Hill Road and SE View Acres Road

Table 6. Spot improvements in the Greater McLoughlin subarea.

Location	Description	Pedestrian	Bicycle
SE River Road and SE Oak Grove Boulevard	Install high-visibility crosswalks on all four approaches. Explore opportunities for curb extensions that do not obstruct the planned bikeway on SE River Road or the existing bikeway on SE Oak Grove Blvd. A paint and post protected intersection design could be explored in conjunction with the design of the bike facilities on SE River Road.	√	•

Location	Description	Pedestrian	Bicycle
SE Jennings Ave, between SE River Road and SE Morse Road	Install sidewalk on the northwest side of the road between SE River Road and SE Morse Road to connect to existing sidewalks to the west and a larger proposed sidewalk project on SE Jennings to the east.	√	
SE Hill Rd (at SE Bramble Ct)	Upgrade SE Bramble Court and SE Hill Road crosswalk with RRFB	✓	
SE Hill Road (at SE View Acres Road)	Enhanced crosswalk at Hill Rd and View Acres Rd. Install RRFB.	✓	√

Figure 9. Projects in unincorporated Clackamas County, Greater McLoughlin area

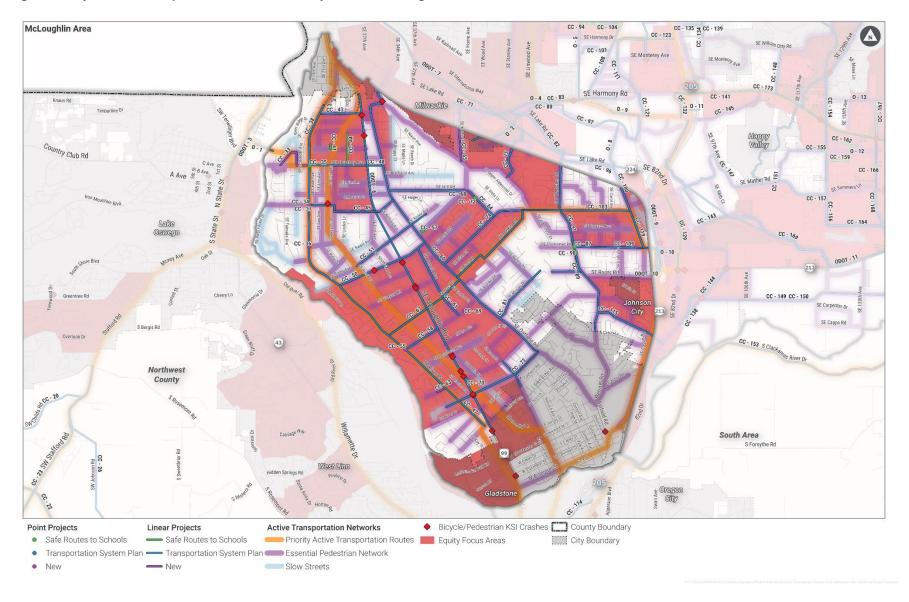


Figure 10. Sidewalk presence, Greater McLoughlin area

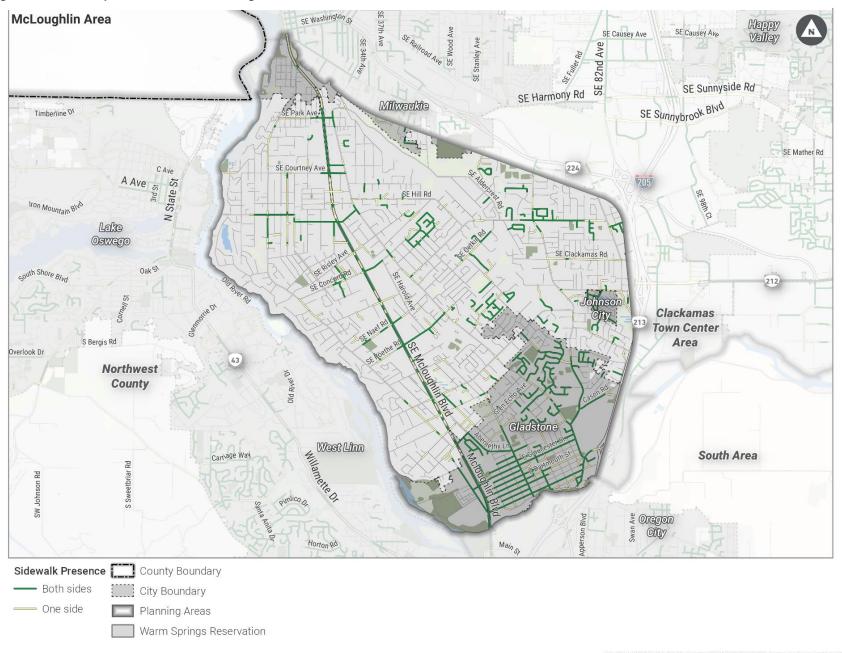


Figure 11.Bicycle Level of Traffic Stress, Greater McLoughlin area

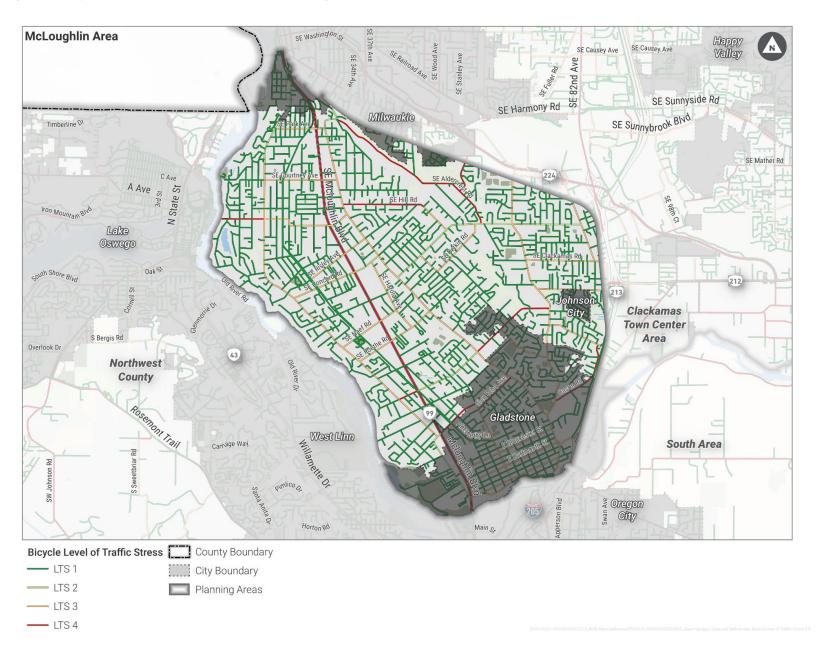


Table 7. Linear Projects in the Greater McLoughlin Area

Project					
ID (New)	Name	Extent 1	Extent 2	Miles	Description
					Explore opportunities to provide bike and pedestrian access
	SE Bluff Rd/SE Denny St/SE				along SE Bluff Road and/or SE Fairoaks Way to provide
CC - 33	Laurie Ave/SE Courtney Ave	SE Courtney Ave	SE River Rd	0.48	access to Rivervilla Park
CC - 38	River Rd	Lark St	Courtney Ave	0.64	Add pedestrian facilities
CC - 41	Arista Drive	Courtney Ave	Trolley Trail	0.09	pilot for advisory bike lane, or shared street/greenway
			OR 99E		
			(McLoughlin		Construct pedestrian facilities / complete gaps on the south
CC - 42	Courtney Ave	River Rd	Blvd)	0.59	side; add bikeways
			OR 99E		
			(McLoughlin		
CC - 43	Park Ave	River Rd	Blvd)	0.42	Fill sidewalk gaps
			SE Courtney		
CC - 44	Linden Lane	SE Linden Pl	Ave	0.32	Install shared street.
CC - 45	Oak Grove Blvd	Oatfield Rd	River Rd	0.96	Fill gaps in pedestrian facilities and bikeways
					Construct bike lane in accordance with the Active
CC - 47	River Rd	Park Ave	Glen Echo Ave	3.95	Transportation Plan.
CC - 48	Courtney Ave	OR 99E	Oatfield Rd	0.16	Fill gaps in pedestrian facilities and bikeways
CC - 50	Concord Rd	River Rd	Oatfield Rd	0.97	Fill gaps in pedestrian facilities
CC - 51	Risley Ave	Arista Dr	Hager Rd	0.88	Fill gaps in pedestrian facilities
			OR 99E		
			(McLoughlin		
CC - 58	Roethe Rd	River Rd	Blvd)	0.38	Add bikeways, pedestrian facilities and traffic calming
					Add pedestrian facilities in accordance with the Active
CC - 59	Naef Rd	Oatfield Rd	River Rd	0.91	Transportation Plan
		Milwaukie city	Gladstone city		
CC - 60	Oatfield Rd	limits	limits	3.4	Fill gaps in pedestrian facilities and bikeways
CC - 61	Harold Ave	Concord Rd	Roethe Rd	0.8	Add pedestrian facilities and traffic calming
CC - 62	SE Jennings Ave	SE Morse Ct	SE River Rd	0.09	Implement shared street

Project					
ID (New)	Name	Extent 1	Extent 2	Miles	Description
					Install sidewalk on the northwest side of the road between
					SE River Road and SE Morse Road to connect to existing
					sidewalks to the west and a larger proposed sidewalk project
CC - 63	SE Jennings Ave	SE Morse St	SE River Road	0.09	on SE Jennings to the east.
CC - 64	Hill Rd	Oatfield Rd	Thiessen Rd		Add bikeways and pedestrian facilities
CC - 64	niii ku	SE Aldercrest	miessen ku	1.17	Add bikeways and pedestrian facilities
CC - 65	SE Kuehn Rd	Road	SE Lake Road	0.56	Implement shared street
					·
CC - 66	Oetkin Rd - Naef Rd	Thiessen Rd	River Rd	1.97	Implement shared street
	SE Naef Rd/SE Wallace		SE Thiessen	4.0=	Explore feasibility of installing an Advisory Bike Lane on SE
CC - 67	Rd/SE Oetkin Rd	SE River Road	Road	1.97	Naef Road and SE Oatkin Road.
CC - 73	Hull Ave	Wilmot St	Tims View Ave	1.09	Fill gaps in pedestrian facilities
					Add bikeways and pedestrian facilities. For the Oetkin Rd to
					Webster Rd section, construct in accordance with the Active
CC - 74	Thiessen Rd	Oatfield Rd	Webster Rd	1.39	Transportation Plan
					Add pedestrian facilities and bikeways on one side of the
CC - 75	Rusk Rd	OR 224 South	Aldercrest Rd	0.57	roadway
CC - 76	Portland Ave	Jennings Ave	Hull Ave	0.31	Fill gaps in pedestrian facilities
CC - 81	McNary Rd/Mabel Ave	Oatfield Rd	Webster Rd	0.93	Add bikeways and pedestrian facilities
		110 ft north of			
		SE San Marcos			
CC - 89	Webster Road	Ave	SE Webster Rd	0.3	Re-stripe and fill gap on bike lane
CC - 91	Webster Rd	OR 224	Gladstone	1.91	Fill gaps in bikeways and pedestrian facilities
		Johnson Rd / Clac	kamas Rd /		Fill gaps in pedestrian facilities on Johnson Rd, Clackamas Rd
CC - 100	School Pedways	Webster Rd		1.63	and Webster Rd within 1/4 mile of schools
					Add pedestrian facilities and bikeways in accordance with
CC - 103	Thiessen Rd	Webster Rd	Johnson Rd	0.71	the Active Transportation Plan
CC - 109	Clackamas Rd	Webster Rd	McKinley Ave	0.71	Fill gaps in bikeways and pedestrian facilities
CC - 115	Strawberry Ln	Webster Rd	82nd Dr	0.74	Add pedestrian facilities and fill bikeway gaps
					Bikeway and pedestrian facilities infill. From Thiessen Rd to
			I-205 multi-use		I-205 multi-use path, construct in accordance with the Active
CC - 119	Johnson Rd/McKinley Rd	OR 224	path	1.22	Transportation Plan.

Table 8. Point Projects in the Greater McLoughlin Area

Project ID				
(New)	Name	Extent 1	Extent 2	Description
				Install high-visibility crosswalks on all four approaches. Explore
				opportunities for curb extensions that do not obstruct the
				planned bikeway on SE River Road or the existing bikeway on SE
				Oak Grove Blvd. A paint and post protected intersection design
	SE River Rd/SE Oak		SE Oak Grove	could be explored in conjunction with the design of the bike
CC - 34	Grove Blvd	SE River Road	Blvd	facilities on SE River Road.
CC - 35	Courtney Road	SE Courtney Ave	SE River Rd	Install crosswalk at River Rd. intersection
	SE River Rd/SE			Install high-visibility crosswalk at SE River Road and SE Creighton
CC - 36	Creighton Ave	SE River Rd	SE Creighton Ave	Ave
	Oak Grove			
CC - 37	Boulevard	SE Oak Grove Blvd	SE River Rd	Install crosswalks at River Rd. intersection
	SE Roethe Rd/SE			Install high-visibility crosswalk at SE River Road and SE Roethe
CC - 55	River Rd	SE River Rd	SE Roethe Road	Road
				Lower speed and add "shared streets" treatments to SE View
CC - 57	SE View Acres Road	SE Hill Rd	SE Oatfield Rd	Acres Rd between SE Hill Rd and SE Oatfield
	SE Hill Rd/SE View		SE View Acres	
CC - 68	Acres Rd	SE Hill Road	Road	Enhanced crosswalk at Hill and View Acres. RRFB.
				Enhanced crosswalk with RRFB at intersection of Roethe and SE
CC - 69	SE Roethe Rd	SE Roethe Rd	SE Austin St	Austin St
		OR 99E / Jennings Ave		
CC - 70	OR 99E	intersection		Construct bike signal at Jennings-99E- Trolley Trail intersection
				Upgrade SE Bramble Court and SE Hill Road crosswalk with RRFB
CC - 72	SE Hill Road	SE Hill Rd	SE Bramble Ct	flashers
				Webster Road/Clackamas Road intersection curb ramp
CC - 87	Webster Road	SE Clackamas Rd	SE Webser Rd	construction
			100 ft north of SE	
CC - 90	Webster Road	SE Webster Rd	Bixel Way	Install permanent radar speed sign

Greater Clackamas Regional Center/Industrial Area

Previously Proposed Projects

The Greater Clackamas Regional Center/Industrial area has significant geographic swaths of equity focus areas concentrated in Happy Valley, south of Sunnyside Road, and east of SE Foster Road.

The TSP projects provide good geographic distribution across the area, including in unincorporated Clackamas County. Many TSP projects align with the PAT routes, and all PAT routes in equity focus areas are accounted for as TSP projects; some PAT routes not in equity focus areas are not identified as TSP projects.

Gap Areas in Need of Project Identification

Not all EPN routes in equity focus areas have existing projects associated with them, and many of the EPN routes outside of equity focus areas do not have TSP or SRTS projects identified. Equity focus areas where EPN routes lack projects are located:

- Adjacent to the Clackamas Town Center Mall
- On and west of the I-205 Multi-Use Path
- West of SE Fuller Road
- South of SE Otty Street/SE Drew Avenue
- SE Johnson Creek Boulevard
- SE Summers Lane (adjacent to schools with no action plans)
- SE Eckert Lane
- SE Tillstrom Road

For bicycling, many PAT routes are already accounted for in existing projects. However, a number of high stress bikeways in equity focus areas are not identified as PAT routes or served by existing projects. Those streets, largely east of Happy Valley in unincorporated Clackamas County, are Tillstrom Road, SE Borges Road, and SE 222nd Drive.

Opportunities for Agency Partner Collaboration

Locations where the Project Team recommends that projects advanced through partner collaboration include:

- I-205 Multi-Use Path
- Crossings over Interstate 205
- Route 224
- SE 242nd Ave from the county border in the north to Route 212/Clackamas-Boring Highway 174.

Spot Improvements

Spot improvements in the Greater Clackamas Regional Center subarea include:

- SE King Rd and SE Cook Ct
- SE King Rd and SE 77th Ave
- SE Harmony and SE Harmony/Linwood Ave
- SE Monroe and SE 78th Ave
- SE 142nd Ave to Pfeifer Park
- SE Sunnyside Rd and SE Stevens Rd

Table 9. Spot improvements in the Greater Clackamas Regional Center subarea.

Location	Description	Pedestrian	Bicycle
SE King Rd and SE Cook Ct	Install a high-visibility crosswalk. Explore the possibility of a signal such as a rectangular rapid flashing beacon (RRFB) or a HAWK signal, or additional traffic control measures. Install ADA compliant curb ramps. Consider reducing rub radii at SE Cook Ct. Install green crossbike markings through the intersection for enhancing visibility of bike lane. Consider feasibility of median.	~	~
SE King Rd and SE 77th Ave	Install a high visibility crosswalk and ADA compliant curb ramps. Explore the possibility of a signal such as a rectangular rapid flashing beacon (RRFB) or a HAWK signal, or additional traffic control measures. Install green crossbike markings through the intersection to enhance visibility of bike lane. Consider feasibility of median.	~	~
SE Harmony and SE Harmony/Linwood Ave	Paint high visibility crosswalk on all four legs of intersection. Upgrade curb ramps to be ADA compliant and directional. Install sidewalk to access bus stop on east corner of intersection. Install lead pedestrian intervals for cross signal. Install green crossbike markings through intersection to increase driver awareness of bicyclists.	~	~
SE Monroe and SE 78th Ave	Formalize a paved path connection for pedestrians and bicyclists.	√	√
SE 142nd Ave to Pfeifer Park	Construct shared use path from SE 142nd Ave and SE Sieben Creek Drive to Pfeifer Park, with crosswalk and signage at intersection.	-	√
SE Sunnyside Rd and SE Stevens Rd	Install separated bike lane at intersection approach to mitigate conflicts between bicyclists and automobiles.	-	√

Figure 12. Projects in unincorporated Clackamas County, Greater Clackamas Regional Center

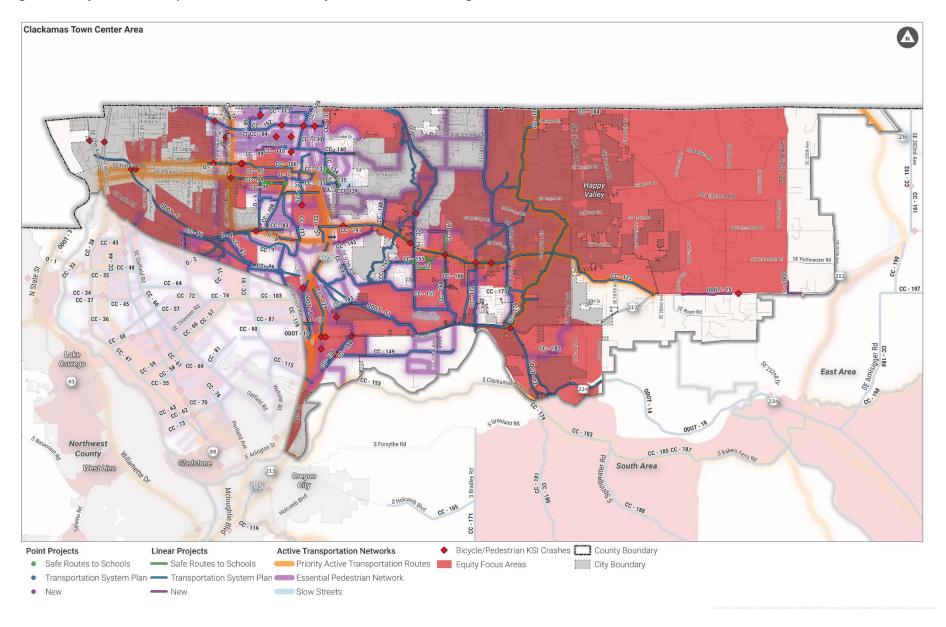


Figure 13. Sidewalk Presence, Greater Clackamas Regional Center

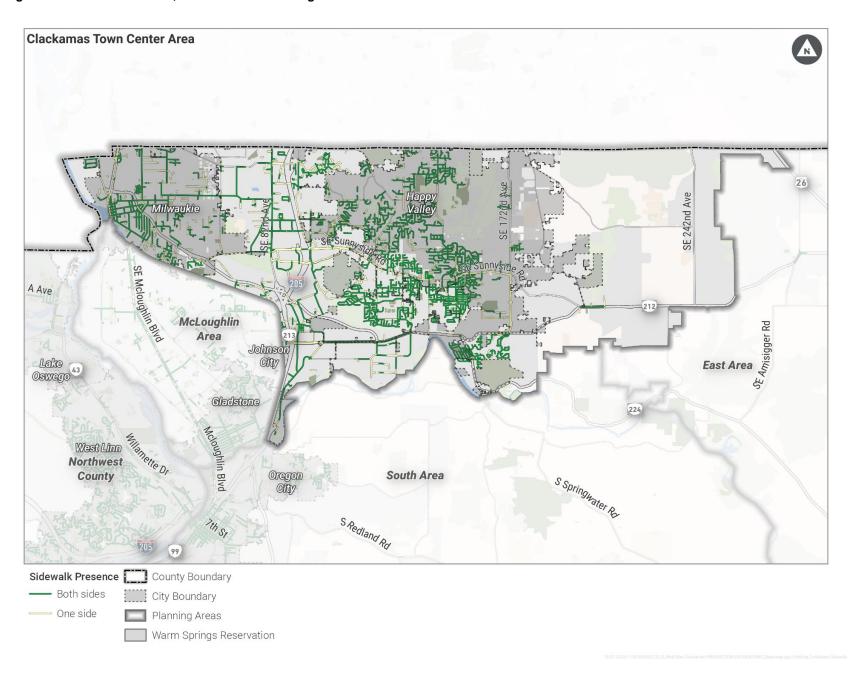


Figure 14. Bicycle Level of Traffic Stress, Greater Clackamas Regional Center

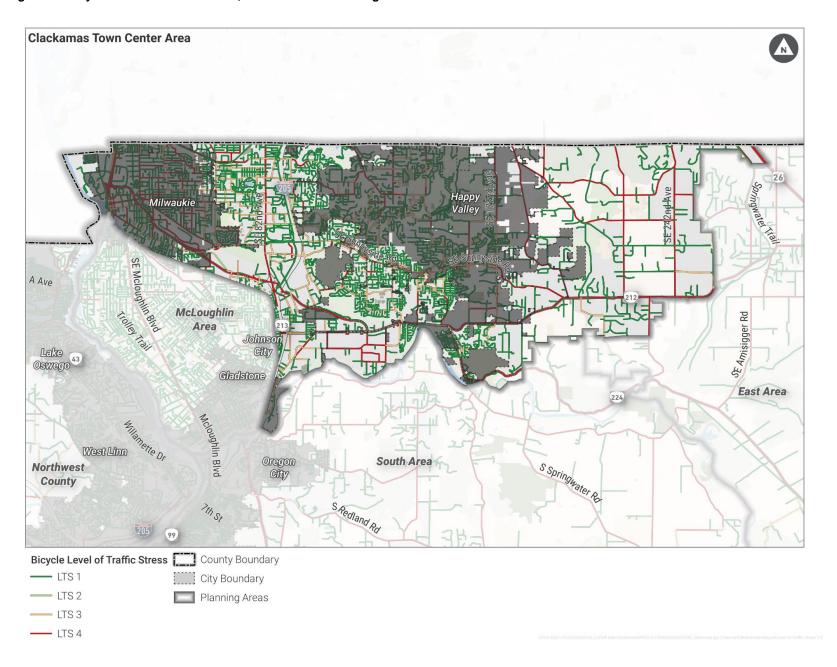


Table 10. Linear Projects in the Greater Clackamas Regional Center

Project ID					
(New)	Name	Extent 1	Extent 2	Miles	Description
			Milwaukie city		Add pedestrian facilities and turn lanes at major
CC - 71	Lake Rd	OR 224 west	limits	0.45	intersections
					Add bikeways in accordance with the Active
CC - 77	Flavel Dr	Alberta Ave	County boundary	0.22	Transportation Plan.
CC - 78	Johnson Creek Blvd	55th Ave	Bell Ave	0.74	Add bikeways and pedestrian facilities
		Milwaukie City			
CC - 82	Lake Rd	limits east	OR 224	0.74	Fill gaps in pedestrian facilities
					Construct bikeways and pedestrian facilities.
					Linwood Ave to Aquatic Center, construct in
					accordance with the Active Transportation Plan.
					Provide left turn movement for cyclists from
	_	Clackamas			Harmony Rd to CCC Harmony Campus and a
CC - 83	Harmony Rd	Community College	OR 224	1.25	pedestrian crossing.
CC - 86	Bell Ave / Alberta St / 72nd Ave	Johnson Creek Blvd.	County line	0.55	Add bikeways and pedestrian facilities
	Monroe St / 72nd Ave /				
CC - 88	Thompson Rd	Linwood Ave	Fuller Rd	0.96	Add pedestrian facilities
	_	Milwaukie City			Fill gaps in pedestrian facilities in accordance with
CC - 92	King Rd	Limits	Spencer Dr	1.79	the Active Transportation Plan
	Monroe St / 72nd Ave /				Add bikeways and traffic calming in accordance
CC - 93	Thompson Rd / Fuller Rd	Linwood Ave	Causey Ave	1.14	with the Active Transportation Plan.
CC - 96	Lake Rd	Johnson Rd	Webster Rd	0.58	Fill gaps in pedestrian facilities and bikeways
	North Clackamas Regional Park				
CC - 97	Trail	OR 213	Linwood Ave	1.26	Construct multi-use path
66 00	SE Drew Ave/SE 73rd Ave/SE	CE 70+1- A	CE 02 - 1 4 -	0.45	Locate II et de con II e
CC - 99	Otty St	SE 70th Ave	SE 82nd Ave	0.45	Install sidewalks
CC - 101	Michael Dr	72nd Ave	Fuller Ave	0.36	Fill gaps in pedestrian facilities
CC - 102	Johnson Creek Blvd	Bell Ave	OR 213	0.69	Add bikeways and pedestrian facilities
					Construct pedestrian facility between 72nd Ave.
CC - 105	Thompson Road	SE 72nd Ave	SE Fuller Rd	0.4	and Fuller Rd. along north side of road

Project ID					
(New)	Name	Extent 1	Extent 2	Miles	Description
		Springwater	45.461057, -		
CC - 107	SE Luther Rd	Corridor Trail	122.583526	0.05	Install sidewalk connection to trail
					Install pedestrian crossings near Boyer Dr, Causey
CC - 108	Fuller Rd	Boyer Dr	Sunnyside Dr	0.86	Ave, Stephanie Ct and Southgate St.
					Add pedestrian facilities with a crossing near 77th
					Ct, restripe for bikeways. Analyze for turn lane
CC - 112	Johnson Creek Blvd	OR 213	92nd Ave	1.2	improvements at 92nd Ave.
					Add turn lanes and signals at OR 213 intersection;
00 440		70 14	5 11 5 1	0.04	add bikeways, pedestrian facilities and traffic
CC - 113	Clatsop St / Luther Rd	72nd Ave	Fuller Rd	0.84	calming
CC - 116	SE Sunnybrook Blvd	SE 82nd Ave	SE 84th Ave	0.1	Install separated bike lane, green crossbike treatments, and left turn boxes at intersection
CC - 110	SE Suffrybrook Bivu	3E 62110 AVE	North Clackamas	0.1	treatments, and left turn boxes at intersection
CC - 117	Phillips Creek Multi-Use Path	Causey Ave	Regional Parks Trail	2.13	Construct multi-use path
CC - 121	84th Ave	Sunnyside Rd	Sunnybrook Blvd	0.23	Fill in bikeways and pedestrian facilities gaps
00 121		Sumyside Na	Janny Stock Biva	0.20	Add pedestrian facilities; connect to I-205 Multi-
CC - 122	Cornwell Ave	OR 213	Fuller Rd	0.31	Use Path
					Add bikeways and shared facility markings in
CC - 123	Causey Ave	Fuller Rd	I-205	0.6	accordance with the Active Transportation Plan.
					Add pedestrian facilities, turn lanes, on-street
CC - 124	Fuller Rd	Otty St	Johnson Creek Blvd	0.38	parking, central median and landscaping.
					Add sidewalks and bikeways. Perform Pedestrian
					Safety Audit to verify lighting, crosswalk striping
CC - 125	85th Ave	Causey Ave	Monterey Ave	0.21	and signing at Causey Ave.
CC - 126	Fuller Rd	Johnson Creek Blvd	County line	0.73	Add pedestrian facilities
CC - 127	Boyer Dr / 85th Ave / Spencer Dr	OR 213	I-205 bike path	0.47	Add bikeways
					Improve consistent with Fuller Road Station Plan;
					improve curb radius; add turn lanes, on-street
					parking, central median, landscaping, bikeways and
CC 130	Otto Dd	OD 212	Oand Avo	0.53	pedestrian facilities. Install pedestrian crossing
CC - 128	Otty Rd	OR 213	92nd Ave	0.52	between Fuller Rd and I-205 and near 91st Ave.
CC - 129	82nd Dr	OR 212	Lawnfield Rd	0.8	Fill in bikeways and pedestrian facilities gaps
CC - 131	92nd Ave	Johnson Creek Blvd	Emmert View Ct	0.06	Fill gaps in pedestrian facilities

Project ID					
(New)	Name	Extent 1	Extent 2	Miles	Description
					Add bikeways in accordance with the Active
CC - 132	93rd Ave	Sunnyside Rd	Sunnybrook Blvd	0.27	Transportation Plan
CC - 134	Stevens Rd / Stevens Way	Causey Ave	Idleman Rd	0.7	Add pedways and optional traffic calming
CC - 135	Hillcrest St	92nd Ave	Stevens Rd	0.19	Add pedestrian facilities
					Fill gaps in existing bikeway between SE Hillcrest Rd
CC - 136	SE Stevens Way	SE 92nd Ave	SE Hillcrest Rd	0.32	and SE 92nd Ave.
					Construct sidewalks along the east side of SE
					Stevens Way between SE Hillcrest Rd and SE 92nd
CC - 137	SE Stevens Way	SE 92nd Ave	SE Hillcrest Rd	0.35	Ave.
CC - 138	Evelyn St / Mangan Dr	Jennifer St	Water Ave	0.24	,
CC - 140	Idleman Rd	92nd Ave	Westview Ct	0.53	Fill gaps in bikeways and pedestrian facilities
					Maintain as pedestrian facilities and bikeway.
CC - 143	Mather Rd	Industrial Way	98th Ave	0.25	Construct undercrossing at Sunrise Expressway.
CC - 144	Evelyn St	OR 224	Jennifer St	0.39	Add bikeways and pedestrian facilities
CC - 145	SE Sunnybrook Blvd	Hwy. 213	I-205	0.74	Install bikeway with buffer from traffic
CC - 147	97th Ave / Mather Rd	Lawnfield Rd	Summers Ln	0.85	Add bikeways, pedestrian facilities.
CC - 148	Valley View Terrace	Sunnyside Rd	Otty Rd	0.45	Add bikeways and pedestrian facilities
CC - 149	Jennifer St	82nd Dr	135th Ave	2.38	Add pedestrian facilities
CC - 150	Jennifer St	106th Ave	130th Ave	0.65	Add bikeways
					Add bikeways, pedestrian facilities and eastbound
CC - 151	Mather Rd	Summers Ln Rd	122nd Ave	0.71	left turn lanes at Mather Rd / 122nd Ave
CC - 154	122nd Ave	Sunnyside Rd	Timber Valley Dr	0.24	Add bikeways and turn lanes at major intersections
					Fill gaps in pedestrian facilities, turn lanes at
CC - 156	122nd Ave	Sunnyside Rd	Hubbard Rd	1.03	Mather Rd
		30 ft east of SE			
CC - 159	Huron Street	122nd Ave	SE 126th Ave	0.22	Construct continuous sidewalks
CC - 162	Opal Way	SE 125th Ave	SE 128th Ave	0.17	Construct continuous sidewalks
CC - 164	Hubbard Rd	122nd Ave	132nd Ave	0.53	Fill gaps in pedestrian facilities
CC - 167	132nd Avenue	SE 132nd Ave	SE Scenic Ridge Rd	0.58	Construct continuous sidewalks
					Add bikeways, pedestrian facilities, traffic calming
CC - 168	132nd Ave	Sunnyside Rd	OR 212	1.21	and turn lanes at major intersections

Project ID					
(New)	Name	Extent 1	Extent 2	Miles	Description
		Loop trail through Happy Valley, Damascus,			
	Scouters Mountain / Mt Scott	Clackamas County			Construct multi-use path in accordance with the
CC - 169	Loop Trail	and Portland		27.63	Active Transportation Plan
66 170	Name	CF 142 and A	Dfaife a David	0.13	Construct shared use path from SE 142nd Ave and SE Sieben Creek Drive to Pfeifer Park, with
CC - 170	New trail	SE 142nd Ave	Pfeifer Park	0.13	crosswalk and signage at intersection.
CC - 172	142nd Ave	Sunnyside Rd	OR 212	1.03	Add bikeways and pedestrian facilities
CC - 173	Sunnyside Rd	93rd Ave	OR 212	5.87	Add pedestrian facilities and bikeways in accordance with the Active Transportation Plan
CC - 176	152nd Ave Phase 2	Sunnyside Rd	OR 212	1.14	Add bikeways, pedestrian facilities and turn lanes at major intersections
CC - 178	162nd Ave	Sager Rd north	County line	0.25	Add bikeways, pedestrian facilities, turn lanes at major intersections
CC - 182	New trail	SE Eckert Lane	SE Bolivar Street	0.1	Install pedestrian and bicycle connection through neighborhood
CC - 184	Cheldelin Rd	Foster Rd	190th Dr	0.65	Add bikeways and pedestrian facilities

Table 11. Point Projects in the Greater Clackamas Regional Center/Industrial Area

Project				
ID (New)	Name	Extent 1	Extent 2	Description
CC - 79	SE Linwood Ave/SE Overland St	SE Linwood Ave	SE Overland St	Install crossing
				Railroad crossing and intersection improvements
				based on further study of intersection operations
		Railroad Ave /		including bikeways and pedestrian facilities to be
		Linwood Ave /		undertake jointly by the City of Milwaukie and the
CC - 80	Harmony Rd	Harmony Rd		County
CC - 84	SE Overland St/SE Bell Ave	SE Bell Ave	SE overland St	Install crossing
CC - 85	SE Alberta Ave/SE 70th Ave	SE Alberta Ave	SE 70th Ave	Install crossing
			239 ft east of SW	
CC - 94	Thompson Road	SE Thompson Rd	72nd Ave	Place temporary Radar Speed Monitor Sign
				Improvements include installing a high-visibility
				crosswalk. Explore the possibility of a signal such as
				a rectangular rapid flashing beacon (RRFB) or a
				HAWK signal, or additional traffic control measures.
				Install ADA compliant curb ramps. Consider
				reducing rub radii at SE Cook Ct. Install green
				crossbike markings through the intersection for
				enhancing visibility of bike lane. Consider feasibility
CC - 95	SE King Rd/SE Cook Ct	SE King Rd	SE Cook Ct	of median.
			43 ft west of SE	
CC - 98	Thompson Road	SE Thompson Rd	74th Ave	Install School Zone Flashing Beacon
		0.5.51	83 ft west of SE	
CC - 104	Thompson Road	SE Thompson Rd	74th Ave	Install traffic calming (speed cushions)
				Improvements include installing a high visibility
				crosswalk and ADA compliant curb ramps. Explore
				the possibility of a signal such as a rectangular rapid
				flashing beacon (RRFB) or a HAWK signal, or
				additional traffic control measures. Install green
				crossbike markings through the intersection to enhance visibility of bike lane. Consider feasibility
CC 106	SE Ving Pd//SE 77+h Avg	SE Vina Dd	SE 77th Avo	of median.
CC - 106	SE King Rd//SE 77th Ave	SE King Rd	SE 77th Ave	Of fileulati.

Project ID				
(New)	Name	Extent 1	Extent 2	Description
CC - 110	Otty St	80th Ave		Install a pedestrian crossing near 80th Ave
				Install crosswalk at Fuller Rd. along south side of
CC - 111	Thompson Road	SE Fuller Rd	SE Thompson Rd	road
CC - 130	92nd Ave	Phillips Pl		Install a pedestrian crossing near Phillips Pl
				Construct sidewalks with ADA-compliant curb cuts on the east and west side of SE 92nd Ave between
CC - 133	SE 92nd Ave	SE Stevens Way	SE Hillcrest Rd	SE Hillcrest Rd and SE Stevens Way.
			121 ft north of SE	Add a raised median pedestrian refuge at the mid-
CC - 139	SE Stevens Road	SE Stevens Rd	Top O'Scott St	block crossing in front of the school
	Sunnyside Hosp-Mt Scott Med			Install separated bike lane at intersection approach
	Tc/SE Sunnyside Rd/SE Stevens			to mitigate conflicts between bicyclists and
CC - 141	Rd	SE Sunnyside Rd	SE Stevens Road	automobiles.
	Sunnyside Hosp-Mt Scott Med			Consider leading pedestrian interval (LPI) for
	Tc/SE Sunnyside Rd/SE Stevens			walking signal and signage to allow bicyclists to
CC - 142	Rd	SE Sunnyside Rd	SE Stevens Road	cross with LPI.
				Install crosswalk at Mather Rd. Install signal or
CC - 155	122nd Avenue	SE Mather Rd	SE 122nd Ave	roundabout.
CC - 157	SE 122nd Ave/SE Summers Ln	SE Summers Lane	SE 122nd Ave	Enhance crosswalks
CC - 166	132nd Avenue	SE 132nd Ave	SE Normandy Dr	Install crosswalk at Normandy Dr.
				Construct new crosswalk at Pioneer Dr., south side
CC - 174	SE 152nd Ave	SE 152nd Dr	SE Pioneer Dr	of intersection.
				Construct new crosswalk with Pedestrian median,
				RRFB and advance warning signs at intersection
CC - 175	SE Pioneer Dr	SE 152nd Dr	SE Pioneer Dr	with SE 152nd Ave.

Southwest County

Previously Proposed Projects

In the Southwest planning area, there are equity focus areas outside of Oregon City, northeast of Oregon City, and west and east of Molalla. Only a few PAT routes overlap with equity focus areas, namely south of Oregon City. Similarly, very few EPN routes that are also proposed projects overlap with equity focus areas.

Gap Areas in Need of Project Identification

Overall, there are several equity focus areas that do not have existing projects and contain gaps and deficiencies. A small area bordering Molalla on the east includes EPN routes and a high-stress bikeway, but lacks identified walking or bicycling projects. The equity focus area adjacent to Molalla has identified significant difficulties crossing South Mathias Road, on the border of Molalla and the unincorporated county. This road has also been identified as a BLTS 4. Intersecting South Mathias Road is South Feyrer Park Road, located in unincorporated Clackamas County, which also had a high number of stressful pedestrian crossings and was identified as a high stress bikeway.

In the equity focus area east of Molalla, a short segment of South Beavercreek Road from South Union Mills Road to South Salo Road has multiple challenging crossings and is a high stress bikeway. This stretch of less than half a mile road would connect to other projects identified in the TSP.

South Monte Cristo Road between South Barlow Road and Marquam Canby Road includes multiple high-stress crossings (PxLTS 4). This 2.5-mile stretch of road is located within a high equity focus area; it is not on the EPN. South Barlow Road also has a high number of stressful crossings (PxLTS 4) from South Monte Cristo Road to South Barnards Road, a 5-mile stretch.

Figure 15. Projects in unincorporated Clackamas County, Southwest area

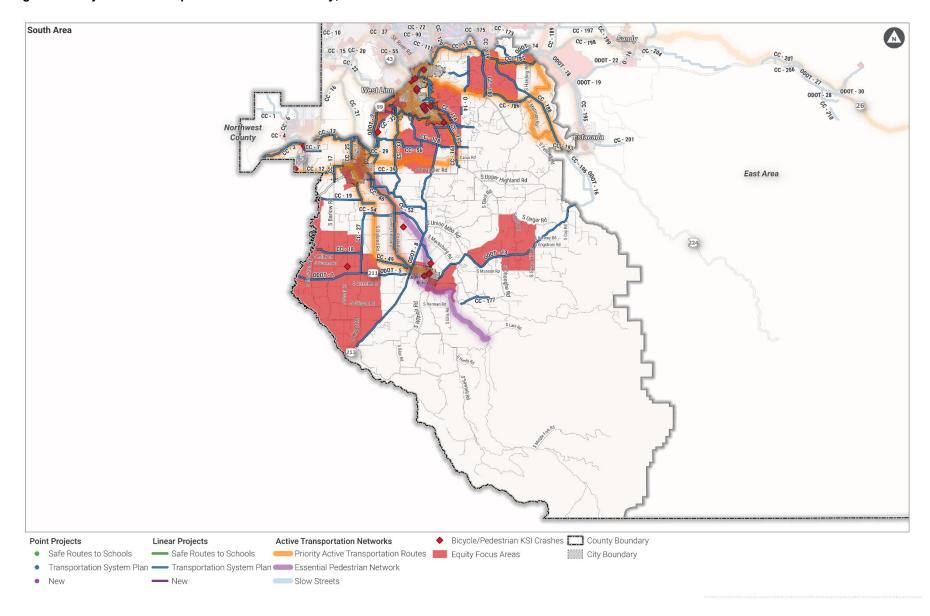


Figure 16. Sidewalk Presence, Southwest area

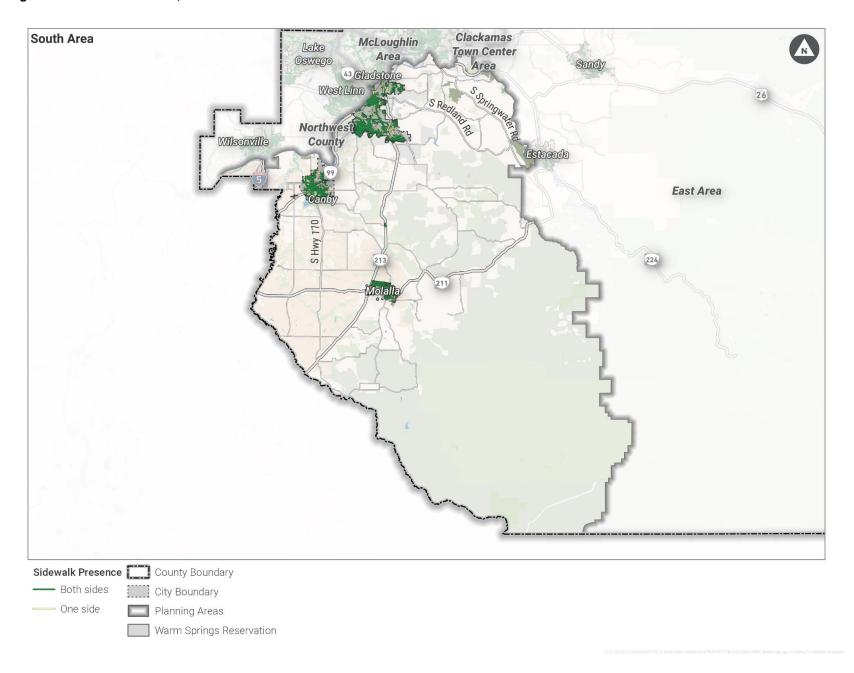


Figure 17. Bicycle Level of Traffic Stress, Southwest area

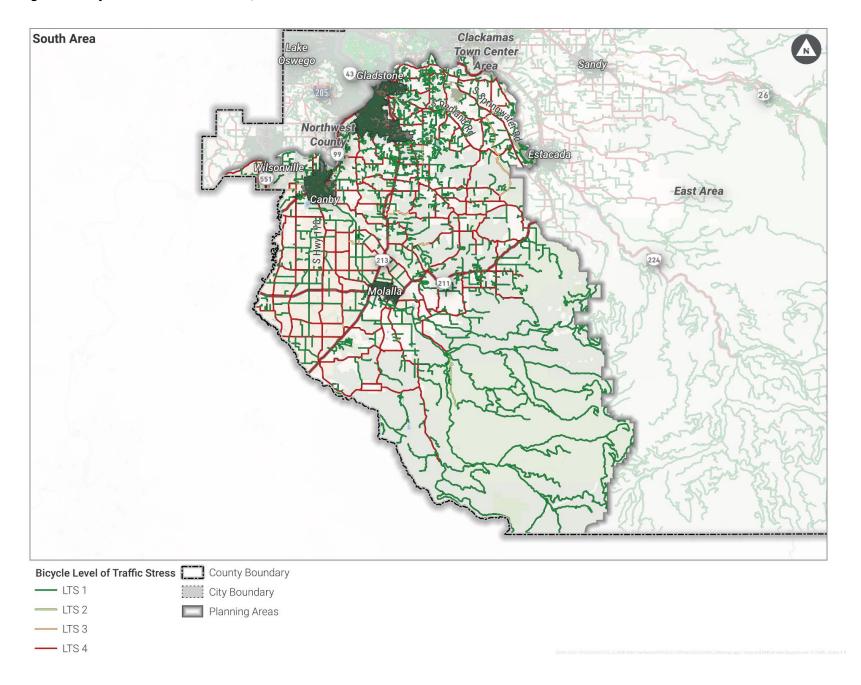


Table 12. Linear Projects in the Southwest County area.

Project ID (New)	Name	Extent 1	Extent 2	Miles	Description
ID (IVEW)	Name	Extent 1	Extent 2	Willes	Add paved shoulders in accordance with the Active
CC - 3	Butteville Rd	Willamette River	County line	3.28	Transportation Plan
CC - 7	Miley Rd	Airport Rd	Eilers Rd	1.34	Add paved shoulders
	Knights Bridge Rd/Barlow				Add bikeway in accordance with the Active
CC - 12	Rd /Arndt Rd	Canby boundary	Airport Rd	3.27	Transportation Plan
			City of		Construct multi-use path in accordance with the
CC - 13	Willamette River Greenway	Canby Ferry	Wilsonville	5.08	Active Transportation Plan
CC - 17	Barlow Rd	Knights Bridge Rd	OR 99E	1.18	Add paved shoulders
			Canby-Marquam		
CC - 18	Barnards Rd	Meridian Rd	Hwy	3.41	Add paved shoulders
			Canby-Marquam		
CC - 19	Lone Elder Rd	County line	Hwy	3.3	Add paved shoulders
CC - 24	N Holly St	NE 37th Ave	NE 22nd Ave	0.8	Study the feasibility of an advisory bike lane
					Add paved shoulders in accordance with the Active
CC - 25	Holly St	Territorial Rd	Canby Ferry	1.88	Transportation Plan.
CC - 27	Canby-Marquam Highway	City of Canby	OR 211	4.56	Add paved shoulders
					Add paved shoulders in accordance with the Active
CC - 28	Hwy 170/Kraxberger Rd	City of Canby	Harms Rd	2.47	Transportation Plan
66 20	To all of the last	III. San Bil	00.005	0.54	Add bikeways in accordance with the Active
CC - 29	Territorial Rd	Haines Rd	OR 99E	0.51	Transportation plan Add paved shoulders in accordance with the Active
CC - 30	Haines Rd	Bremer Rd	Territorial Rd	0.61	Transportation Plan
CC - 30	S South End Rd	South Highway 99E	S Rocky Bluff Ln	0.68	Install paved shoulder for bike facility
CC - 32	South End Rd	Oregon City limits	OR 99E	1.54	add paved shoulders
		,			•
CC - 39	Township Rd	Central Point Rd	Canby City limit	1.61	Add paved shoulders
CC 40	S Beutel Rd	S Beutel Road	Parrish Road	0.79	Install sidewalk and shared lane markings and signage for bicycles
CC - 40	3 Deutei Nu	3 DEULEI NUdü	railisii KUdU	0.79	Pave to provide bicycle access in accordance with the
CC - 46	Molalla Forest Rd	City of Canby	City of Molalla	8.68	Active Transportation Plan
	IVIOIGIIG I OICSCING	City of Carry	Molalla city	0.00	Add paved shoulders in accordance with the Active
CC - 49	Toliver Rd	Dryland Rd	Limits	2.32	Transportation Plan

Project ID (New)	Name	Extent 1	Extent 2	Miles	Description
ID (New)	Mulino Rd (13th St	Extent 1	Extent 2	willes	Description
CC - 52	segment)	Canby city limits	OR 213	5.88	Add paved shoulders
	,	, ,			Add paved shoulders (Parrish Rd to Bremer Rd in
CC - 53	Central Point Rd	Parrish Rd	Mulino Rd	6.22	accordance with the Active Transportation Plan)
CC - 54	Macksburg Rd	Canby Marquam Hwy	OR 213	5.46	Add paved shoulders
CC - 56	New Era Rd/Haines Rd	OR 99E	Leland Rd	4.94	Add paved shoulders
CC - 114	Newell Creek Trail / Oregon City Loop Trail	Loop around the perimeter of Oregon City		16.81	Construct Oregon City Loop Trail and Newell Creek Trail in accordance with the Active Transportation Plan
CC - 118	Leland Rd	Oregon City line	Beavercreek Rd	4.88	Add paved shoulders
CC - 120	Molalla Ave	OR 213	Molalla City limits	2	Add paved shoulders
		00040			Add paved shoulders and turn lanes at major
CC - 146	Henrici Rd	OR 213	Beavercreek Rd	1.04	intersections
CC - 152	Beavercreek Multi-Use Path	Loder Rd	Ferguson Rd	3.23	Construct multi-use path consistent with the Beavercreek Road Concept Plan
CC - 132	ratii	Lodel Nu	reiguson ku	3.23	Construct bikeway in accordance with the Active
CC - 153	Clackamas River Dr	Oregon City limits	Springwater Rd	4.94	Transportation Plan
CC - 158	Henrici Rd	Beavercreek Rd	Ferguson Rd	0.94	Add paved shoulders
			Yeoman		Add paved shoulders in accordance with the Active
CC - 160	Beavercreek Rd	Henrici Rd	Rd/Steiner Rd	2.47	Transportation Plan.
CC - 161	S Kamrath Rd	S Leland Rd	S Carus Rd	1	Install edge striping, signage, and paved shoulders for bike facilities
CC - 163	Kamrath Rd	Carus Rd	Spangler Rd	0.63	Add paved shoulders
CC - 165	Holcomb Blvd	Edenwild Ln	Bradley Rd	1.56	Add paved shoulders.
CC - 171	Bradley Rd	Gronlund Rd	Redland Rd	2.68	Add paved shoulders
CC - 177	Callahan Rd S/Ramsby Rd	Dickey Prairie Rd	Fernwood Rd	2.28	Add paved shoulders and turn lanes at major intersections
CC - 179	Springwater Rd	OR 224	Hattan Rd	0.35	Add pedestrian facilities; bridge remains two lanes
CC - 180	Carver Rd/SE Hattan Rd	S Redland Schools Rd	S Springwater Rd	3.31	Install paved shoulder for bicycle facility; add signage
CC - 181	Hattan Rd	Fischers Mill Rd	Gronlund Rd	3.16	Add paved shoulders
00 105		5.1		4.0.	Add paved shoulders in accordance with the Active
CC - 183	Springwater Rd	Hattan Rd	Bakers Ferry Rd	1.34	Transportation Plan

Project					
ID (New)	Name	Extent 1	Extent 2	Miles	Description
			Clackamas River		
CC - 185	Rt 224/Clackamas Hwy	S Latourette Rd	Dr	4.66	Improve bikeway by adding paved shoulder
					Add paved shoulders in accordance with the Active
CC - 186	Fischers Mill Rd	Redland Rd	Springwater Rd	3.94	Transportation Plan
					Add paved shoulders in accordance with the Active
CC - 187	Bakers Ferry Rd	Springwater Rd	OR 224	3.98	Transportation Plan
					Add paved shoulders. For paved shoulders between
					Eaden Rd and Hayden Rd, see the Active
CC - 188	Springwater Rd	Bakers Ferry Rd	Hayden Rd	8.88	Transportation Plan.

East County

Previously Proposed Projects

In the East County planning area, there are large equity focus areas north and west of Sandy, and a small equity focus area bordering Sandy to the south. The two larger equity focus areas contain PAT routes, with a large number of projects from the TSP. To note, four crashes that involved a person walking or bicycling occurred in Sandy and three occurred northwest of Sandy, most of which are not on the PAT routes nor the EPN.

Gap Areas in Need of Project Identification

In the equity focus area north of Sandy, SE Lusted Road northeast of Cottrell has three high-stress crossings and is identified as a high-stress bikeway. There are no TSP projects on this road, although it does connect with other projects.

The equity focus area south of Sandy is bordered by SE Trubel Road, which includes a number of high-stress pedestrian crossings and is identified as a high-stress bicycle route.

To the west of Sandy, an equity focus area at the junction of Highway 224 and Highway 211 includes TSP projects along those larger routes, as well as on the parallel Cazadero Trail maintained by Oregon State Parks. However, there are not many proposed projects that would improve pedestrian or bicycle facilities on other lower-classification streets through the area.

Opportunities for Agency Partner Collaboration

Opportunities to improve streets in collaboration with agency partners include:

Highway 211 from SE Bornstedt Road to SE 367th Avenue, in the equity focus area south of Sandy. This
highway is identified as a high-stress route to bike (Bicycle Level of Traffic Stress 4) and lacks identified
projects.

Figure 18. Projects in unincorporated Clackamas County, East area

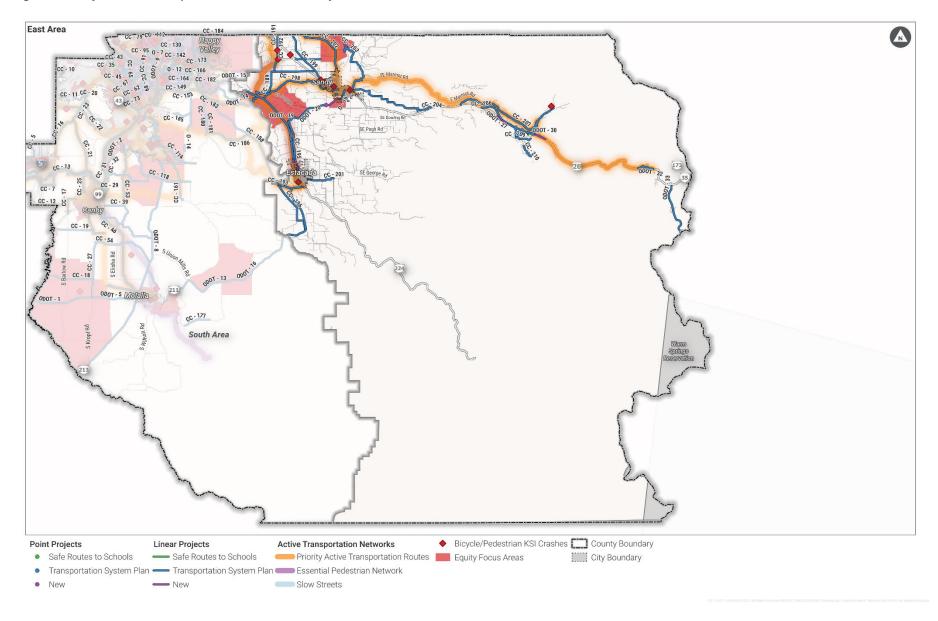


Figure 19.Sidewalk presence, East area

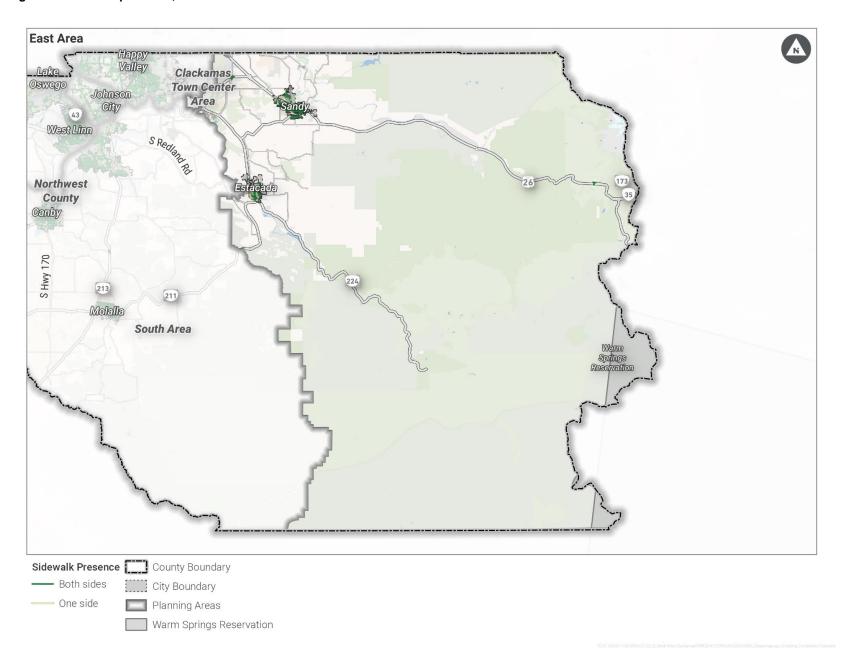


Figure 20. Bicycle Level of Traffic Stress, East area

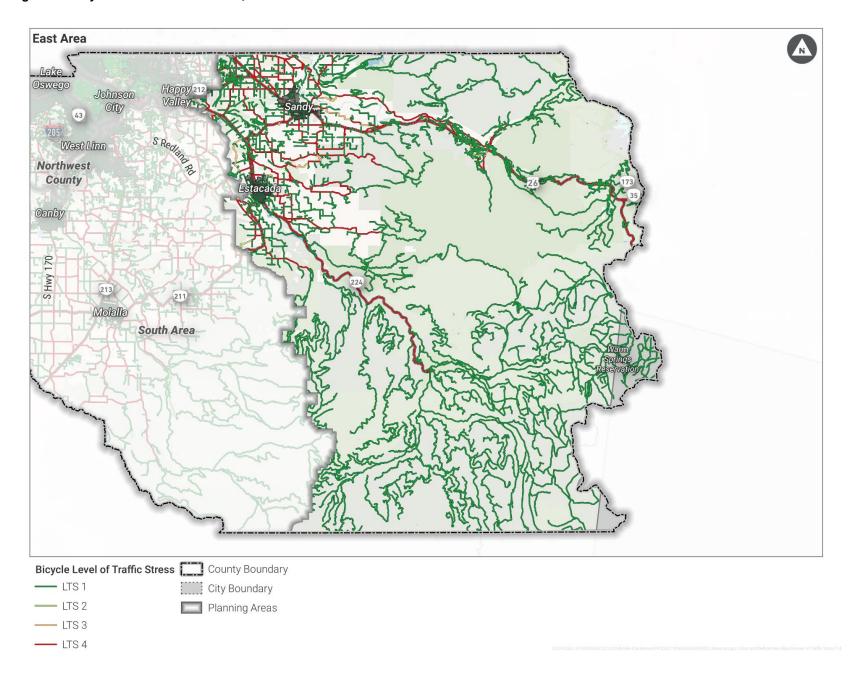


Table 13. Linear Projects in the East County area.

Project		5	5		
ID (New)	Name	Extent 1	Extent 2	Miles	Description
CC - 189	Amisigger Rd / Kelso Rd	OR 224	Kelso / Richey Rd	2.64	Add paved shoulders.
CC - 190	Richey Rd	Kelso Rd	OR 212	0.83	Add paved shoulders
CC - 130	Richey Nu	Keiso Ku	Multnomah	0.83	Add paved shoulders
CC - 191	282nd Ave	OR 212	County line	1.99	Add paved shoulders
CC - 192	SE 282nd Ave	Boring Rd	Boring Rd	0.24	Install sidewalk
					Add paved shoulders in accordance with the Active
CC - 193	Hayden Rd	Springwater Rd	OR 211	1.2	Transportation Plan
CC - 194	Eagle Creek Rd	OR 211	Duus Rd	3.17	Add paved shoulders
		Eagle Creek Sandy			Add paved shoulder as alternative bikeway to Clackamas
CC - 195	SE Eagle Creek Rd	Highway	NW Hill Way	4.11	Highway
CC - 196	Springwater Rd	Hayden Rd	OR 211	4.85	Add paved shoulders
CC - 197	Kelso Rd	Richey Rd	Orient Dr	3.38	Add paved shoulders
					Construct multi-use path in accordance with the Active
CC - 198	Tickle Creek Trail	Springwater Corridor	Sandy city limits	7.8	Transportation Plan
CC - 199	Orient Dr	US 26 north	County line	4.44	Add paved shoulders
CC - 200	Compton Rd	US 26	352nd Ave	2.01	add paved shoulders
CC - 201	Coupland Rd	Estacada City limits	Divers Rd	2.3	Add paved shoulders
					Add paved shoulders in accordance with the Active
CC - 202	Bluff Rd	City of Sandy	County line	4.63	Transportation Plan
CC - 203	Ten Eyck Rd	Lusted Rd	City of Sandy	7.14	Add paved shoulders.
	Coalman Rd /				Add paved shoulders. In the interim, add 4-foot paved
CC - 204	Cherryville Dr	Ten Eyck Rd	US 26	7.85	shoulders
CC - 205	Sleepy Hollow Rd	Barlow Trail Rd	US 26	0.32	Add 4-foot paved shoulders
66 366	Brightwood Loop	110.00	116.26	2.40	
CC - 206	Rd	US 26	US 26	2.19	Add 4-foot paved shoulders
		Dotugon communities			Add paved shoulders in accordance with the Active
	Barlow Trail Rd/	Between communities of Timberline, Welches			Transportation Plan. In the interim, install 4-foot shoulders or 4-foot shoulders at specific areas with limited sight
CC - 207	Lolo Pass Rd	and Zig Zag		10.73	distance or steep uphill sections
30 207	25.0 . 005 . 0			23.73	Add paved shoulders. In the interim, add 4-foot paved
CC - 208	Arrah Wanna Blvd	US 26	Fairway Ave	0.77	shoulders.

Project					
ID (New)	Name	Extent 1	Extent 2	Miles	Description
CC - 209	Fairway Ave	Arrah Wanna Blvd	Salmon River Rd	1.35	Add paved shoulders
					Add paved shoulders or add multi-use path; improve
					crossing at The Resort at the Mountain with advance signs
CC - 210	Welches Rd	Birdie Ln	Salmon River Rd	1.16	and split flashing beacons
			300 ft south of E		
CC - 211	Woodsey Way	Mount Hood Highway	Huckleberry Dr	0.15	Construct/improve sidewalks connecting to the school
					Safety analysis; add paved shoulders in accordance with the
CC - 212	Lolo Pass Rd	US 26	Barlow Trail Rd	1.16	Active Transportation Plan