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DIRECTOR

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT  
DEVELOPMENT SERVICES BUILDING  
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November 14, 2019

Board of County Commissioners  
Clackamas County

Members of the Board:

**Approval of the 5-year Transportation Capital Improvement Program**  
**Fiscal Years: 2019/20-2023/24**

<b>Purpose/Outcomes</b>	Approves the 5-year Transportation Capital Improvement Program (5-year CIP), which identifies planning, design and construction projects that have secured funding between the fiscal years of 2019/20-2023/24.
<b>Dollar Amount and Fiscal Impact</b>	Total cost estimate for all projects in the 5-Year CIP: \$83.4 million Estimated County Road Fund match: \$15.7 million
<b>Funding Source</b>	There are various funding sources for the projects listed in the 5-year CIP, including state and federal grants, the Development Agency resources and the Road Fund. County Road Fund will provide funding for approximately \$15.7 million of the 5-year CIP projects over the next five years.
<b>Duration</b>	This 5-Year CIP is for projects identified for FY 2019/20 to FY2023/24
<b>Previous Board Action</b>	09/24/19: A BCC Policy Session was held to review and provide input into 5-Year CIP document.
<b>County Counsel Review</b>	The staff report and resolution were reviewed and approved by County Counsel on 11/5/19
<b>Strategic Plan Alignment</b>	<ol style="list-style-type: none"> <li>1. Build a strong infrastructure.</li> <li>2. Build public trust through good government</li> <li>3. Ensure safe, healthy and secure communities</li> </ol>
<b>Contact Person</b>	Karen Buehrig, Long Range Planning Manager, 503-742-4683

The proposed 5-year Capital Improvement Program (5-year CIP) is composed of projects from the 20-year Transportation System Plan (TSP), which was adopted by the Board in January 2014. The 5-year CIP includes only projects for which funding has been identified, and are scheduled to be underway in the next five years. It includes fully funded projects and those funded only for preliminary planning and design.

The 5-year CIP includes major construction projects needed to improve safety and enhance capacity, roughly divided into the following categories:

- Upgrade
- Bridge/culverts
- Safety
- Active transportation
- Intelligent transportation systems (ITS)
- Capital repairs

Projects in the 5-year CIP have already been identified as needed in previous plans (the TSP, the Transportation Safety Action Plan [TSAP], the Intelligent Transportation System [ITS] Plan), or identified through the bridge and culvert review system, or emerged because of needed repairs. The projects have been reviewed and previously approved by the BCC through review of grant applications submittals, or the Development Agency work program or other project funding requests.

**RECOMMENDATION:**

Staff respectfully recommends approval of the 5-year Transportation Capital Improvement Program for FY2019/20-2023/24 and sign the attached resolution.

Respectfully submitted,

Karen Buehrig  
Long Range Planning Manager

**BEFORE THE BOARD OF COUNTY COMMISSIONERS  
OF CLACKAMAS COUNTY, STATE OF OREGON**

A Resolution to approve the 5-year  
Transportation Capital  
Improvement Program (5-year  
CIP)



Resolution No. \_\_\_\_\_

*Page 1 of 2*

**WHEREAS**, in 2014 the Board of County Commissioners adopted the County's Transportation System Plan (TSP) into the County's Comprehensive Plan; and

**WHEREAS**, the TSP identifies the transportation improvement projects needed to accommodate and appropriately manage future transportation capital needs over the next twenty years; and

**WHEREAS**, the TSP directs the County to maintain a current and complete 5-Year Capital Improvement Program (CIP), which contains the programmed transportation projects, with estimated costs and assigned responsibility for funding; and

**WHEREAS**, the 5-year Capital Improvement Program (5-year CIP) is composed of projects from the 20-year Transportation System Plan and includes only projects for which funding has been identified, and are scheduled to be underway in the next five years; and

**WHEREAS**, the 5-year CIP includes major construction projects needed to improve safety and enhance capacity by upgrading existing roads, improving bridges and culverts, implementing Intelligent Transportation System (ITS) projects and undertaking major capital repairs; and

**WHEREAS**, the 5-year CIP is the exclusive mechanism for funding and building transportation capital improvement projects, which are transportation improvement projects with costs that are reasonably expected to exceed \$50,000; and

**WHEREAS**, staff attended the Pedestrian and Bikeway Committee on August 6, 2019 to share information and receive input. No changes were recommended through this process; and

**WHEREAS**, the Board of County Commissioners reviewed the 5-year CIP in a BCC Policy Session on September 24, 2019.

**BEFORE THE BOARD OF COUNTY COMMISSIONERS  
OF CLACKAMAS COUNTY, STATE OF OREGON**

A Resolution to approve the 5-  
year Transportation Capital  
Improvement Program (5-year  
CIP)



Resolution No. \_\_\_\_\_  
*Page 2 of 2*

**NOW THEREFORE, the Clackamas County Board of County  
Commissioners resolves as follows:**

1. To approve the Transportation 5-year Capital Improvement Program for fiscal years 2019/20 – 2023/24.

**DATED** this \_\_\_\_\_ day of November, 2019.

**BOARD OF COUNTY COMMISSIONERS**

\_\_\_\_\_  
Chair

\_\_\_\_\_  
Recording Secretary



# Five-Year Transportation Capital Improvement Program



FISCAL YEARS: 19/20 – 23/24



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## TRANSPORTATION SYSTEM PLANNING AND PROJECT PROGRAMMING

Clackamas County is responsible for an extensive transportation network throughout the County. This network is part of a larger regional transportation system that supports the needs of the people and businesses in the County. The vast majority of the County road system (96%) is located outside of cities. Approximately 43 miles of County roads are maintained inside cities with the largest portion of these roads in Happy Valley.

The public ownership of roads in Clackamas County is as follows:

- City -- 823 miles
- County -- 1,413 miles
- State -- 265 miles

There are also many miles of local access roads, private roads and forest service roads maintained largely by property owners and the National Forest Service.

The entire County maintained transportation network encompasses a variety of structures as shown below, as well as a substantial system of sidewalks and bike lanes.

- 1,413 miles of road
- 750 miles of road striping
- 2,372 miles of gravel shoulder
- 28,045 traffic signs
- 113,837 feet of guardrail
- 186 bridges
- 8,254 culverts
- 2,010 manholes
- 9,664 catch basins
- 1 ferry
- 172 traffic signals
- 70 school zone flashers
- 34 traffic surveillance cameras
- 35 miles of fiber optic cable

The major capital improvements needed for the transportation system, including projects needed to increase road capacity, relieve congestion, improve safety, serve new development, support economic growth and provide options to traveling by automobile, are identified within the Clackamas County Transportation System Plan (TSP), which is Chapter 5 of the County Comprehensive Plan and updated about every 10 years. As defined by the TSP, transportation capital projects are primarily located on arterial and collector roads. Similarly, federal transportation funding is only available for capital improvement projects located on roads that are classified as arterials and collectors, with an emphasis on maintaining the operations of the principal arterial system.

### 20-Year Capital Improvement Plan (20-Year CIP)

The 20-Year CIP was developed and adopted by the Board of County Commissioners (BCC) as a part of the TSP, which is in the Comprehensive Plan (<http://www.clackamas.us/planning/comprehensive.html>). It is divided into three lists, reflecting the expectation that there will not be enough funding for all projects within the 20-year time frame. The criteria for assigning projects to the lists below is in the TSP background material and can be obtained by contacting Clackamas County Transportation and Development at 503-742-4400.

- **20-Year Capital Projects:** The prioritized list of needed transportation projects that can reasonably be undertaken given the current estimates of available funding.
- **Preferred Capital Projects:** A second group of needed, prioritized transportation projects that the County would undertake if additional funding becomes available during the next

20 years. Additional funding includes grants that are more suitable for specific projects in the Preferred Capital list as opposed to the 20-Year Capital list.

- **Long-Term Capital Projects:** The remainder of the transportation projects meet the transportation needs of the County in the next 20 years, but not expected to be funded or constructed by the County, unless suitable grant funding becomes available and is successfully matched.

### 5-Year Capital Improvement Program (5-Year CIP)

The 5-Year CIP list contains all projects from the 20-Year CIP for which funding has been identified or is anticipated over the next five years. This list includes fully funded projects as well as those that are funded only for preliminary planning and design. It details the schedule for all capital project work in the next five years, creating the five-year program. In addition, it specifies the funding source for each project, connecting transportation planning to the County's capital construction budget. The 5-Year CIP is the exclusive mechanism for funding and building transportation capital projects, which are projects with costs that are reasonably expected to exceed \$50,000.

The BCC adopts the 5-Year CIP with the understanding and acknowledgement that there are limited funds available for needed capital transportation projects within the County. The 5-Year CIP is the BCC's expression of policies, directives, and goals adopted through the transportation system planning process upon recommendation of County staff. County staff on behalf of the BCC have considered, evaluated, and prioritized all known capital transportation projects within County roadways and intersections. Professional expertise and discretion is used to find outside funding (see Funding Sources and Future Projects, below) for the needed projects, and to use limited Road Funds to maximize public dollars and work towards a safer, more efficient transportation system. Not all known deficiencies can be mitigated due to funding shortages. The 5-Year CIP contains the BCC's discretionary policy decision as to which capital transportation projects will be constructed and is the exclusive list of such projects that will be pursued. The 5-Year CIP includes some projects identified in the 20-Year CIP, the Transportation Safety Action Plan (TSAP), the Intelligent Transportation System (ITS) Plan, the bridge and culvert review system, the ADA Transition Plan projects that emerge because of emergency repairs and through the Transportation Maintenance Work Program. These other plans are reviewed by the BCC through separate processes. Additional information is provided in the appendices of the 5-Year CIP.

The 5-Year CIP is updated periodically to provide a more detailed implementation of the capital project priorities identified in the TSP, TSAP, ITS and other plans. Policy 5.CC.2 of the TSP directly addresses this need:

*Maintain a current and complete 5-Year Capital Improvement Program (CIP), which contains the programmed transportation projects in priority order, with estimated costs and assigned responsibility for funding. Update and adopt the 5-Year Capital Improvement Program periodically.*

Finally, the 5-Year CIP supports the County's concurrency policy (ZDO Section 1007.09, 1/18/2017). The transportation portion of this policy states that "approval of a development shall be granted only if transportation facilities are adequate or will be made adequate in a timely manner," requiring that the

needed improvements be fully funded in the five-year program and scheduled for construction within three years of land use approval.

## Capital Project Categories

The broadly defined capital project descriptions used in the TSP, the 20-Year CIP and the 5-Year CIP allow for the development of individual projects within a larger project. These project categories are loosely based on the road user or system that the project benefits or impacts (e.g., bicycle project, pedestrian project or transit project), as follows:

1. **Upgrade** -- Projects that add vehicle capacity to an existing roadway or intersection. This may require the reconstruction of any existing sidewalks and/or bicycle lanes. Other examples include adding intersection turn lanes or installing a traffic signal. In the 20-year CIP, the upgrade projects are separated into urban and rural, depending on whether they are located inside or outside the Portland Metropolitan Urban Growth Boundary (UGB).

Some projects have a “new roadway” designation, when an extension or a new road is needed to accommodate vehicle capacity or needed connectivity.

2. **Bridge/Culverts** – Constructing, replacing or upgrading a bridge or culvert.
3. **Safety** – Projects or studies focused on reducing crashes and/or the risk for crashes, including railroad crossings. The Clackamas County Transportation Safety Action Plan (TSAP) (<https://dochub.clackamas.us/documents/drupal/ae811741-789e-465c-9b79-9fba2261ccd0>) outlines a strategy to build and implement a county-wide safety culture with the ultimate goal of reducing transportation-related injuries and fatalities. The TSAP was updated and adopted in March 2019. Policy and action items set forth in the plan will achieve the desired goals when implemented; however, successful implementation depends upon a number of factors, including strong safety leadership at all levels, cohesive safety partnerships, funding and working together toward a common goal. Success will result in reduced injuries and fatalities on County roadways.

Appendix A is a list of projects that support the TSAP. In order to make the needed investments, these projects will have to be matched to a funding source so that they can be programmed into the 5-Year Capital Improvement Program.

4. **Active Transportation** - Projects located in both the urban and rural area that related to pedestrian and bicyclists. Active Transportation upgrade projects in the UGB add needed sidewalks, bicycle lanes or multi-use paths. Projects outside the UGB include those that add paved shoulders or multi-use paths. There are also more general projects that add needed facilities such as way-finding signage.
5. **Intelligent Transportation Systems (ITS)** – Projects that incorporate ITS treatments such as coordinated signal systems. The Clackamas County ITS Action Plan includes a range of projects that address the needs of the region, grouped into the following categories:
  - Traffic Management and Operations (TMO)
  - Multimodal Operations (MMO)
  - Traveler Information (TI)
  - Data Collection and Management (DCM)
  - Incident and Emergency Management (IM)

- Maintenance and Construction Management (MCM)
- 6. **Repairs** – Capital repairs of major damage caused by storms, flooding, landslides or other natural events that damage portions of the transportation system
- 7. **Study** – Future transportation studies to be undertaken as part of the implementation of the TSP. The TSP identifies a number of transportation planning efforts needed to provide additional details on capital project needs in specific areas of the County.



**Table A: 5-Year Capital Improvement Program Project List -- FY 19/20 - FY 23/24**

Project Category	Map ID	TSP ID	Prospectus #	Project Name	Project Extent	Description	Funding Source	Cost Estimate (\$2019)	Anticipated Road Fund Match	FY-19/20	FY-20/21	FY-21/22	FY-22/23	FY-23/24
1-Upgrade	CRC 2	1034 2008	TBD	Linwood Ave Improvements	Johnson Creek Boulevard to Monroe Street	Improve to minor arterial standards; add sidewalks, bicycle lanes and stormwater control.	Tax Increment Financing	\$6,000,000	\$0	X	X			
1-Upgrade	CRC 3	1035 1036	30324	Monroe St Improvements	Linwood Ave to Fuller Road	Improve to minor arterial standards; add sidewalks, bicycle lanes and stormwater control. First Phase Project Planning.	Tax Increment Financing; TGM Grant	\$7,500,000	\$0	X	X			
1-Upgrade	C 3	1106 1000	22286	Clackamas County I-5/I-205 ICM Project	I-5 and I-205	Engage stakeholders and develop a collection of operation strategies and advanced technologies to collaboratively manage transportation corridor as a multimodal system	Surface Transportation Program; Road Fund	\$400,000	\$41,080	X	X	X		
2-Bridge/Culvert	CRC 1	3020	TBD	Johnson Creek Crossing on Linwood Ave	Linwood Ave	Reconstruct and widen to accommodate sidewalks and bike lanes	Tax Increment financing	TBD	\$0		X	X		
2-Bridge/Culvert	CRC 5	1029 1031	TBD	Johnson Creek Crossing on Bell Ave	Bell Ave	Reconstruct and widen to accommodate sidewalks and bike lanes	Tax Increment financing (Cost TBD)	TBD	\$0		X	X		
2-Bridge/Culvert	East 5	NA	22144	Salmon River (Elk Park Rd) Bridge Replacement	Elk Park Road	Replace existing one-lane bridge with new two lane bridge.	Highway Bridge Replacement & Rehab Grant; Road Fund	\$4,797,113	\$930,436	X				
2-Bridge/Culvert	SW 4	NA	22257	Bear Creek (Canby Marquam Hwy) Bridge Replacement	On Canby Marquam Hwy near Barnards	Replace bridge	Highway Bridge Replacement & Rehab Grant; Road Fund	\$2,319,417	\$243,244	X	X	X		
2-Bridge/Culvert	SW 1	NA	22277	Woodcock Ck (Wright Rd) Bridge Protection	Wright Rd.	The existing Wright Road Bridge over Woodcock Creek is experiencing significant scour and evaluation of repair or replacement is required	Road Fund	\$544,881	\$544,881	X	X	X	X	X
2-Bridge/Culvert	SW 5	NA	22276	Woodcock Ck (Grimm Rd) Bridge Protection	Grimm Rd.	The existing Gromm Road Bridge over Woodcock Creek is experiencing significant scour and evaluation of repair or replacement is required	Road Fund	\$485,154	\$485,154	X	X	X	X	X
2-Bridge/Culvert	East 2	NA	22283	Milk Creek (Bonney Rd) Bridge Protection	Bonney Rd.	Evaluate options for bank stabilization and scour repair at the footing	Road Fund	\$460,000	\$460,000	X	X	X	X	X
2-Bridge/Culvert	NW 4	NA	22259	Tualatin River (SW Petes Mtn Rd) Bridge Approaches	SW Petes Mtn Rd.	Repair the asphalt concrete approaches	Road Fund	\$142,499	\$142,499	X				
2-Bridge/Culvert	SW 11	NA	TBD	Molalla River (Knights Bridge Rd) Bridge Rehab	Knights Bridge	Bridge rehab	Local Bridge Program (LBP); Road Fund	\$3,154,839	\$315,484				X	X
3-Safety	DMB 1	NA	TBD	SE 242nd Ave and SE 222nd Dr RSA Implementation	OR 212 to County line	Implement RSA recommendations	Damascus Road Fund	\$200,000	\$200,000	X				
3-Safety	DMB 2	NA	22279	242nd / Borges Realignment	SE 242nd Ave / SE Borges Rd	Realign/regrade intersection of SE 242nd & SE Borges Rd	Damascus Road Fund	\$510,000	\$510,000	X	X			
3-Safety	CRC 7	1024 2014 4031 1025 1046	30003 30098	CRC Mobility Project	In the area between Sunnyside Rd, Sunnybrook Blvd, Fuller Rd and Stevens Rd	33 discrete or interconnected projects that improve safety and operations of motor vehicle, transit, freight, and pedestrian and bicycle facilities	Tax Increment Financing	\$26,000,000	\$0	X	X			
3-Safety	NW 1	3097	22149	Edminston / Wilsonville AWSC	Edminston Rd / Wilsonville Rd	Convert to all-way stop control	Road Fund	\$171,126	\$171,126	X				
3-Safety	SW 6	NA	22254	Central Point / New Era	Central Point / New Era	Changes in traffic control / intersection enhancements	Road Fund	\$1,368,145	\$1,368,145	X	X			
3-Safety	NW 2	1087 1090	TBD	RSA - Stafford Rd Implementation	Boeckman to Rosemont	Implement RSA recommendations along corridor	Road Fund	\$200,000	\$200,000		X	X		
3-Safety	SW 3	1099	TBD	RSA - Canby Marquam RSA Recommendations	13th to Highway 211	Intersection improvements at Lone Elder, Macksburg and Gribble, and other corridor work	Road Fund	\$250,000	\$250,000		X	X		
3-Safety	SW 7	1097	TBD	RSA -Beavercreek Recommendations	OC Limits to Ferguson	Finish RSA implementation work, primarily shoulder work	Road Fund	\$50,000	\$50,000		X	X		
3-Safety	C 1	1001	22271	ODOT All Road Transportation Safety (ARTS) Rural Systemic Safety Countermeasures	Countywide	Rural corridor systemic: curve warning signs; rural intersection systemic: enhanced warning signs	ARTS; Road Fund	\$1,770,170	\$117,061	X	X			

**Table A: 5-Year Capital Improvement Program Project List -- FY 19/20 - FY 23/24**

Project Category	Map ID	TSP ID	Prospectus #	Project Name	Project Extent	Description	Funding Source	Cost Estimate (\$2019)	Anticipated Road Fund Match	FY-19/20	FY-20/21	FY-21/22	FY-22/23	FY-23/24
3-Safety	M 8	1069	22238	ADA Ramps Project #1: Oak Grove Blvd.	Oak Grove Blvd.	In accordance with the Americans with Disabilities Act, implement curb ramp upgrades at various intersections.	System Development Charges (SDCs); Fee in Lieu of Construction (FILO); Road Fund	\$593,715	\$557,179	X				
3-Safety	CRC 4	3027	22280	ADA Ramps Project #2: Sunnyside Rd. 132nd Ave.-162nd Ave.	132nd to 162nd Ave.	Twelve (12) non-signalized intersections to have curb ramp retrofits, along with twenty-four (24) signalized corners to have signal modifications	Road Fund	\$1,855,000	\$1,855,000	X	X			
3-Safety	East 1	1001	22273	Duus Rd. Guardrail Project	Duus Rd.	Removal and replacement of damaged portions of guardrail	Road Fund	\$97,500	\$97,500	X				
3-Safety	SW 1	1001	22272	Dryland Rd Guardrail	Dryland Rd.	Design and install guardrail and end treatments on 400 ft of Dryland Rd; fun acquisition of right of way	Road Fund	\$93,730	\$93,730	X				
3-Safety	C 2	1001	22285	Rural Systemic Horizontal Alignment Signs	Countywide	Design and install horizontal alignment warning signs	Road Fund	\$250,000	\$250,000	X				
3-Safety	CRC 9	1001	TBD	Sunnybrook Blvd ARTS Systemic & Hot Spot Signals and Illumination Project (#36)	Sunnybrook Boulevard from Oak Bluff Blvd to 97th Ave	Install supplemental signal heads, coordinated or adaptive signal timing, and actuated advance warning dilemma zone along Sunnybrook Blvd at Oak Bluff Blvd, 93rd Ave, I-205 southbound, I-205 northbound, and 97th Ave	Highway Safety Improvement Program (HSIP); Road Fund	\$306,100	\$23,875	X	X			
3-Safety	CRC 10	1045	TBD	Sunnyside Rd ARTS Systemic & Hot Spot Signals and Illumination Project (#37)	Sunnyside Rd from Valley View Terr to 132nd Ave	Install urban green bike lanes at conflict points, supplemental signal heads, and actuated advance warning dilemma zone protection systems along Sunnyside Rd at Valley View Terrace, 117th Ave, 119th Ave, and 132nd Ave	Highway Safety Improvement Program (HSIP); Road Fund	\$214,500	\$16,731	X	X			
3-Safety	CRC 11	1031	TBD	Johnson Creek Blvd ARTS Systemic & Hot Spot Signals and Illumination Project (#38)	Johnson Creek Blvd from Fuller Road to 92nd Ave	Install pedestrian countdown timers, coordinated/adaptive signal timing, and dilemma zone protection system along Johnson Creek Blvd at Fuller Rd, I-205 southbound ramp, I-205 northbound ramp, and 92nd Ave	Highway Safety Improvement Program (HSIP); Road Fund	\$285,200	\$22,245	X	X			
3-Safety	M 6	1070	TBD	Oatfield Rd ARTS Systemic & Hot Spot Signals and Illumination Project (#39)	Oatfield Rd. from Oak Grove Blvd to Jennings Ave	Install supplemental signal heads and pedestrian countdown timers along Oatfield Rd at Oak Grove Blvd, Concord Rd, Thiessen Rd, Roethe Rd, and Jennings Rd. Replace doghouses at Roethe Rd with flashing yellow arrow.	Highway Safety Improvement Program (HSIP); Road Fund	\$293,000	\$22,854	X	X			
3-Safety	CRC 12	1045	TBD	SE Sunnyside Rd at 122nd Ave ARTS Systemic & Hot Spot Signals and Illumination Project (#148H)	SE Sunnyside Road at SE 122nd Ave	Add green conflict markings in bike lane, east of the intersection at entrance to strip mall, in area of dropped through lane; Add merge arrows to drop lane; Relocate lane drop sign; Add supplemental signal head for eastbound left turn on existing NE signal pole riser; Add supplemental signal head for westbound left turn on existing SW signal pole riser; Install advance warning dilemma zone radar detection units for east and west approaches on NW and SE existing signal poles; Add one eastbound through signal head on existing SE signal pole mast arm and rearrange existing heads over travel lanes	Highway Safety Improvement Program (HSIP); Road Fund	\$72,700	\$5,670	X	X			
4-Active Transportation	M 1	1078	22243	Torbank Sidewalks	River Rd - Oak Grove Elementary	Construct sidewalks	Fee-in-Lieu; Road Fund	\$706,000	\$279,000	X				
4-Active Transportation	M 4	1066	22248	Portland Avenue Pedestrian Improvements	Portland Ave from Jennings Ave to Hull Ave	Construct sidewalks	CDBG; Road Fund	\$970,523	\$796,151	X				
4-Active Transportation	SW 2	NA	22239	S Ivy Street Pedestrian Intersection Improvements	Hwy 99E in Canby	Construct bike lanes and sidewalks.	STIP - Enhance; Road Fund	\$2,595,117	\$406,302	X	X	X	X	X



**Table A: 5-Year Capital Improvement Program Project List -- FY 19/20 - FY 23/24**

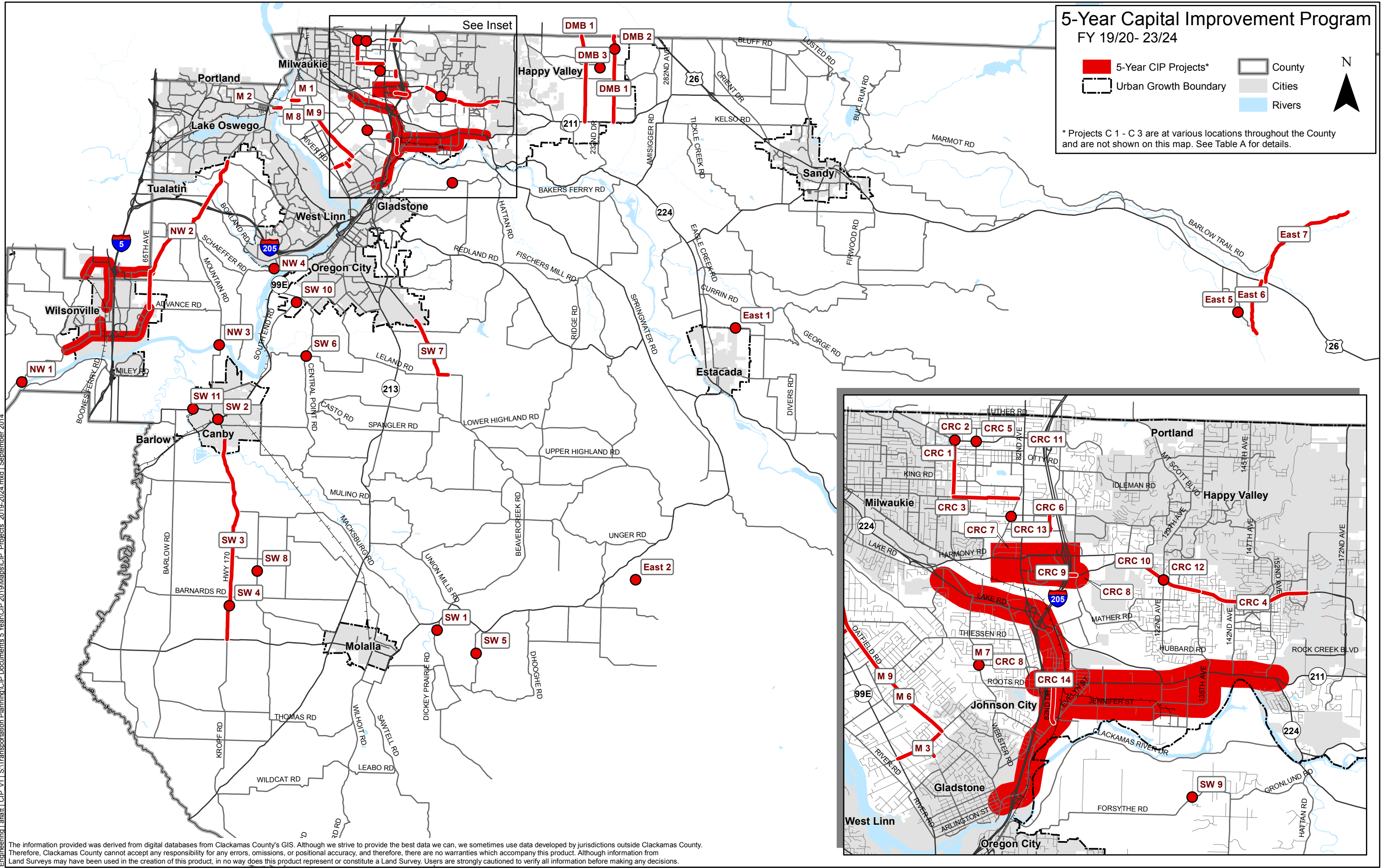
Project Category	Map ID	TSP ID	Prospectus #	Project Name	Project Extent	Description	Funding Source	Cost Estimate (\$2019)	Anticipated Road Fund Match	FY-19/20	FY-20/21	FY-21/22	FY-22/23	FY-23/24
4-Active Transportation	M 3	1068	22234	Jennings Ave - Sidewalk and Bike lanes	McLoughlin Blvd to Oatfield	Construct curb-tight sidewalk on the north side of Jennings Ave and bike lanes on both sides. Widening the roadway to accommodate bike lanes and sidewalk will require general excavation, rock excavation and new water quality and detention facilities, including new storm water collection infrastructure, removal and construction of a retaining wall and replacement of a guardrail.	MTIP - Regional Flexible Funds; Road Fund	\$4,040,213	\$414,098	X	X	X		
4-Active Transportation	M 7	1076	22261	Bilquist School Zone Flashers	Webster Rd. & Clackamas Rd.	Replace existing school zone signage with five (5) hardwired flashing school zone beacons.	Road Fund	\$150,844	\$150,844	X				
4-Active Transportation	CRC 13	1136	TBD	Fuller Rd-Causey Ave Crosswalk	Fuller Rd. & Causey Ave	Construct a crosswalk across Fuller Rd. at Causey Ave/Harmony Dr. with signage, RRFB, pedestrian refuge & ADA compliant curb ramps	ODOT Safe Routes to School Infrastructure Grant; Road Fund	\$185,588	\$37,118		X	X		
4-Active Transportation	M 2	1064	TBD	Oak Grove-Lake Oswego Bridge Feasibility Study	West Oak Grove and Lake Oswego	Analyze the feasibility of a bike/ped bridge over the Willamette River between Oak Grove and Lake Oswego	METRO Project Development Funds	\$806,000	\$0	X	X	X	X	X
5-ITS	CRC 8	1000	22218	Clackamas County Regional Freight ITS Project Phase 1 – Planning and Design and Phase 2 A/B- Construction	Clackamas Industrial Area to Wilsonville	Construct ITS improvements in the following freight corridors/employment areas: 1) OR 224 (Milwaukie Expressway); 2) OR 212 / 224 Clackamas Highway; 3) 82nd Drive between the Gladstone Interchange and OR 213 (82nd Avenue); 4)The City of Wilsonville; and 5) Other areas identified in the planning process	MTIP - Regional Flexible Funds; Road Fund	\$2,105,193	\$240,047	X	X	X	X	
5-ITS	NW 3	1000	22235	Canby Ferry ITS Project	Canby Ferry	Extend fiber optic cable from the existing County fiber from Advance Road to Ferry signals, add up to two pan-tilt-zoom CCTV cameras to view the ferry and have images posted on the County's Travel Information website; upgrade ferry notification signs to display green "OPEN" and red "CLOSED"	FHWA Ferry Boat Discretionary Program; Road Fund	\$674,139	\$144,835	X	X	X	X	
5-ITS	CRC 14	1000	22287	Fiber Communication on 82nd Drive Project	82nd Dr.	Expand fiber optic communication to three (3) County-owned traffic signals	Road Fund	\$60,000	\$60,000	X				
5-ITS	M 9	1000	22288	Fiber Communication Project on Oatfield Rd	Oatfield Rd.	Expand fiber optic communication to three (3) County-owned traffic signals	Road Fund	\$130,000	\$130,000	X				
6-Repairs	CRC 6	NA	22252	90th Ave Reconstruction	Monterey Ave to Causey Ave	Road reconstruction	STP; Road Fund	\$2,424,260	\$2,366,704	X	X			
6-Repairs	East 6	NA	22274	E Salmon River Rd Surface Preservation	US 26 to Welches Rd	Paving, surface preservation and guardrail adjustment	Federal Lands Access Program; Road Fund	\$750,000	\$550,000	X	X			
6-Repairs	East 7	NA	22275	Lolo Pass Rd Paving	US 26 to near Muddy Fork Rd	Improving and preserving the road surface and extending a revetment	Federal Lands Access Program; Road Fund	\$4,067,403	\$825,481	X	X	X	X	X
6-Repairs	DMB 3	NA	22269	232nd Drive at MP 0.3	232nd Dr.	Install a deep patch of pavement with improved drainage	FHWA Emergency Relief Grant; Road Fund	\$607,000	\$91,053	X	X	X		
6-Repairs	SW 10	NA	22270	South End Rd at MP 3.8	South End Rd.	Construct a permanent fix to slope instability	FHWA Emergency Relief Grant; Road Fund	\$2,740,000	\$281,398	X	X	X		

# 5-Year Capital Improvement Program FY 19/20- 23/24

- 5-Year CIP Projects\*
- County
- Urban Growth Boundary
- Cities
- Rivers



\* Projects C 1 - C 3 are at various locations throughout the County and are not shown on this map. See Table A for details.



Engineering | Lafatt | CIP\_v1 | S:\Transportation Planning\CIP Documents 5 Year CIP 2019\Maps\CIP Projects\_2019-2024.mxd | September 2014

The information provided was derived from digital databases from Clackamas County's GIS. Although we strive to provide the best data we can, we sometimes use data developed by jurisdictions outside Clackamas County. Therefore, Clackamas County cannot accept any responsibility for any errors, omissions, or positional accuracy, and therefore, there are no warranties which accompany this product. Although information from Land Surveys may have been used in the creation of this product, in no way does this product represent or constitute a Land Survey. Users are strongly cautioned to verify all information before making any decisions.

## FUNDING SOURCES AND FUTURE PROJECTS

Projects in the 5-Year CIP are funded through a variety of sources, connecting transportation planning to the County's capital construction budget. To be on the 5-Year CIP list, a project must have an identified funding source.

A 20-year funding forecast was completed in October 2012 as a part of the TSP update process. The funding forecast memo outlines funding expected to be received over the next 20 years. One of the key themes is that ***the County Road Fund is only anticipated to play a minor role (as match money for other funding sources) in future capital projects.***

Since the Road Fund will be used only to match funds from other sources, reliance upon other funding sources for capital projects has increased. To help match projects to appropriate funding sources, recently used sources are reviewed below and potential projects for the next funding cycle are identified. **Table B: Key Projects Matched with Potential Grant Funding Sources** highlights projects in the TSP that should be considered when the next grant cycle is open. While identification of potential projects is needed as the programs become open for applications, ultimately the selection of appropriate projects will be determined when the application is developed.

### Local Funding Sources

#### Clackamas County Road Fund

The County Road Fund is made up of revenue received through the Oregon State Highway Trust Fund from state gas tax, weight-mile tax, vehicle registration fees (VRF) and vehicle titling fees. In 2018, the passage of the Keep Oregon Moving House Bill 2017 is projected to earmark nearly \$100 million to the County Road fund over the next 15 years. These funds are distributed to the County based on allocation schedules set out in state law.

The state constitution and Oregon Revised Statutes require State Highway Trust Fund revenue to be used "...for the construction, reconstruction, improvement, repair, maintenance, operation and use of public highways, roads, and streets..." (including a mandatory minimum 1% annual expenditure on bicycle and pedestrian facilities). Road fund money is often used as the local contribution (match) for projects funded by federal, state and other local funding programs.

The County Road Fund also includes federal funds from the Secure Rural Schools program. Since 2001, approximately 17.6% of funding for rural transportation projects and 3.4% of funding for urban transportation projects has come from the Road Fund.

#### Transportation System Development Charges (TSDCs)

TSDCs are one-time assessments on new developments based on the number of vehicle trips the developments are forecast to generate. This equitably spreads the cost of increased capacity road projects to new development because new and expanding developments rely on improvements to the road network provided through the County's capital improvement program. These funds are dedicated to projects that improve capacity, may not be used for maintenance projects, and are restricted to projects on an adopted list within a geographic area.

Improved capacity can include operational efficiencies (e.g., signalization) that increase the number of travelers accommodated by the system or added facility miles.

### **Urban Renewal (Tax Increment Financing [TIF])**

Urban renewal raises money for public improvements through Tax Increment Financing (TIF) in blighted areas. Local investments focus on creating jobs, helping businesses, improving communities and increasing the tax base to result in long-term financial stability for local service providers and property owners. The use of funds from urban renewal districts is customized to meet the needs of the approved plan for the urban renewal area.

Expenditures are restricted to making improvements within the geographic limits of the urban renewal area in which the funds were raised, and focus on funding infrastructure consistent with the adopted urban renewal plan. Urban renewal frequently provides matching funds for money from federal, state, regional and other local sources.

There are three County urban renewal districts. Only one, the North Clackamas Revitalization Area (NCRA), still collects revenue and two, the Clackamas Town Center District and the NCRA, are forecast to invest revenue in transportation projects over the next 20 years.

### **Drive to Zero**

*Reducing injuries and fatalities in Clackamas County* is the mission of the Clackamas Drive to Zero program, emphasizing transportation-related crashes as a leading injury prevention issue. The program's approach to crash reduction includes using the "5E's" (Education, Enforcement, Engineering, Emergency Medical Response and Evaluation). Efforts include selected enforcement, safety education and safety projects.

### **Fee in Lieu of (FILO)**

Clackamas County Code 1007.10 provides for a fee in lieu of (FILO) required frontage improvements on County roads. The frontage improvement requirement is primarily for sidewalks. FILO is typically used when a development is being proposed in an area with few or no sidewalks present. Instead of the developer building the required sidewalk improvements on the frontage, a fee is paid instead. The intent is for the County to build continuous sidewalk once enough fees are collected.

## **Federal, State and Regional Funding Sources**

### **Federal Highway Trust Fund-Fixing America's Surface Transportation Act (FAST Act)**

Projects on National Highway System facilities can access federal funding. Periodically, federal legislation reauthorizes federal highway, transit and transportation safety programs funded through the Highway Trust Fund. Between 2012 and 2015, MAP-21 was the reauthorization law. The current reauthorization, FAST Act, was enacted in 2016 and is set to expire in 2022. FAST Act contains the following federal aid highway programs and mass transit funding:

- National Highway Performance Program
- Surface Transportation Block Grant Program (STBGP)
- Highway Safety Improvement Program (HSIP)



- Congestion Mitigation & Air Quality Improvement Program (CMAQ)
- Metropolitan Transportation Planning
- Surface Transportation Program (STP)

Local projects on the National Highway System can apply for funding through programs managed directly by federal agencies (BUILD and Federal Lands Access), the state (the STIP, Highway Safety Program and the Highway Bridge Program) or programs directed through the local Metropolitan Planning Organization (Metro), such as the Metropolitan Transportation Improvement Program (MTIP).

### **Better Utilizing Investments to Leverage Development (BUILD) Transportation Grant**

The BUILD program provides a unique opportunity for the US Department of Transportation to invest in road, rail, transit and port projects that promise to achieve critical national objectives. Previously known as TIGER Discretionary Grants, Congress has dedicated more than \$7.1 billion for 10 rounds of TIGER/BUILD to fund projects since 2009 that have a significant impact on the nation, a region or a metropolitan area.

Each project needs to be multi-modal, multi-jurisdictional or otherwise challenging to fund through existing programs. BUILD uses a rigorous process to select projects with exceptional benefits that explore ways to deliver projects faster and save on construction costs, and that invest in the nation's infrastructure to make communities more livable and sustainable. In urban areas, the minimum project amount is \$5 million; in rural areas the minimum project amount is \$1 million. Projects must be regionally significant and closely aligned with economic benefits.

Underinvestment in rural transportation systems has allowed a slow and steady decline in the transportation routes connecting rural communities. To address these needs, a greater share of BUILD grant funding awards are designed to go toward projects located in rural areas compared to TIGER. At least 30% (\$450 million) of funding is to be utilized for rural projects

### **Western Federal Lands Access Program (FLAP)**

The Federal Lands Access Program was created by MAP-21 to improve access to federal lands. The program is directed towards public highways, roads, bridges, trails and transit systems that are under state, county, town, township, tribal, municipal or local government jurisdiction or maintenance and provide access to federal lands. The following activities are eligible for consideration:

- Preventive maintenance, rehabilitation, restoration, construction and reconstruction
- Adjacent vehicular parking areas
- Acquisition of necessary scenic easements and scenic or historic sites
- Provisions for pedestrians and bicycles
- Environmental mitigation in or adjacent to federal land to improve public safety and reduce vehicle/wildlife mortality while maintaining habitat connectivity
- Construction and reconstruction of roadside rest areas, including sanitary and water facilities

- Operation and maintenance of transit facilities

Proposed projects must be located on a public highway, road, bridge, trail or transit system that is located on, is adjacent to or provides access to federal lands for which title or maintenance responsibility is vested in a state, county, town, township, tribal, municipal or local government.

### **FHWA Accelerated Innovation Deployment (AID) Demonstration Program**

AID provides funding as an incentive for eligible entities to accelerate the implementation and adoption of innovation in highway transportation. FHWA encourages the use of AID Demonstration funds to promote the deployment of the *Every Day Counts* (EDC) initiatives, which provide ways to improve highway planning, design, construction and operation.

This program is one aspect of the multi-faceted Technology and Innovation Deployment Program (TIDP) approach that provides funding and other resources to offset the risk of trying an innovation. AID Demonstration funds are available for any project eligible for assistance under Title 23, United States Code. Eligible projects may involve any aspect of highway transportation that addresses TIDP goals, and must include proven innovative practices or technologies such as those included in the EDC initiative. Innovations may include infrastructure and non-infrastructure strategies or activities that the applicant or sub-recipient intends to implement and adopt as a significant improvement from the conventional practice.

### **FHWA Emergency Relief Program**

Title 23, United States Code, Section 125, authorizes a special program from the Highway Trust Fund for the repair or reconstruction of federal-aid highways and roads on federal lands that have suffered serious damage as a result of natural disasters or catastrophic failures from an external cause. This program, commonly referred to as the emergency relief or ER program, supplements the commitment of resources by states, their political subdivisions or other federal agencies to help pay for unusually heavy expenses resulting from extraordinary conditions.

The applicability of the ER program to a natural disaster is based on the extent and intensity of the disaster. Damage to highways must be severe, occur over a wide area and result in unusually high expenses to the highway agency. Applicability of ER to a catastrophic failure is based on the criteria that the failure was not the result of an inherent flaw in the facility, but was sudden, caused a disastrous impact on transportation services and resulted in unusually high expenses to the highway agency.

This program has been used to fund projects in Clackamas County needed due to federal emergencies, such as Lolo Pass / Zig Zag River bridge, South End Road at milepost 3.8, 232<sup>nd</sup> Drive at milepost .3 and E. Barlow Trail Road.

### **FHWA Ferry Boat Discretionary (FBD) Program**

The FBD program provides funding for ferry facilities that are on a non-Interstate public road and are publicly owned, publicly operated or majority publicly owned providing substantial public benefits. Projects selected for funding under this program are funded at 80 percent Federal share.

## Statewide Transportation Improvement Program (STIP)

The Statewide Transportation Improvement Program, known as the STIP, is Oregon's four-year transportation capital improvement program. The STIP identifies the funding for, and scheduling of, transportation projects and programs on federal, state, city and county transportation systems, multimodal projects (highway, passenger rail, freight, public transit, bicycle and pedestrian) and projects in the National Parks, National Forests and Indian tribal lands.

The STIP includes a process for identifying projects that receive federal funds (FAST Act programs) as well as a portion of Oregon State Highway Fund. The current STIP process divides funding into two main categories -- Enhance and Fix-it.

- *Enhance*: Enhance, expand or improve the transportation system. Project activities eligible include bicycle and/or pedestrian facilities; Development STIP (D-STIP); modernization projects that add capacity to the system; most projects previously eligible for Transportation Enhancement funds; projects eligible for Flex Funds; protective right-of-way purchases; public transportation; Safe Routes to Schools; Scenic Byways; Transportation Alternatives, and Transportation Demand Management (TDM).
- *Fix-It*: Includes all the capital funding categories that maintain or fix ODOT's portion of the transportation system. The categories do not include non-capital maintenance and operations programs because they are not included in the STIP.

## Oregon State Highway Fund

Highway revenues in the State of Oregon have several major sources:

- Motor vehicle registration and title fees
- Driver's license fees
- Motor vehicle fuel taxes
- Weight-mile taxes

Net revenues from the above taxes and fees are deposited into an account known as the State Highway Fund. With minor exceptions, the [Oregon Constitution \(Article IX, Section 3a\)](#) dedicates highway revenues for the construction, improvement, maintenance, operation and use of public highways, roads, streets and roadside rest areas.

## Keep Oregon Moving (HB 2017)

HB 2017, which passed the legislature in 2017, increases the gas tax, as well as vehicle title and registration fees over a seven year period. When all taxes and fees are in place in 2024, HB 2017 will produce \$500 million in State Highway Fund revenue annually along with investments in public transportation, walking and biking.

ODOT will receive about half of the money for roads and bridges, after taking \$10 million per year off the top for Safe Routes to School (rising to \$15 million in 2023) and \$30 million per year off the top for the I-5 Rose Quarter Project string in 2022. About half of the additional State Highway Fund resources provided by HB 2017 will go to local governments, who will receive a 50% increase in the amount they get from the State Highway Fund to fund local road and street maintenance and

improvements. The bill also sets aside \$5 million of county funds each year to ensure counties with small populations but many miles of roads receive an adequate amount to maintain their roads.

Incorporated with this funding is the former Jobs and Transportation Act (JTA) passed in 2009 by the Oregon Legislature. The JTA was designed to address funding shortfalls for some long-standing transportation needs, including the first phase of the Sunrise Project, which was completed in June of 2016.

### **Highway Safety Improvement Program (HSIP)**

This ODOT program has been continued under FAST Act to incorporate the functions and funding that were previously contained in the High Risk Rural Roads Program. The HSIP is focused on projects on local agency roads (non-ODOT facilities) and ODOT facilities. The goal is to increase awareness of safety on all roads, promote best practices for infrastructure safety, complement behavioral safety efforts, and focus limited resources to reduce fatal and serious injury crashes. The program is data-driven to achieve the greatest benefits in crash reduction and was developed to be blind to jurisdiction. While ODOT is currently working to transition the safety program, the completed jurisdictionally-blind safety program is expected to start in 2017. During the transition, funding for local agency roads will be allocated to primarily focus on a few systemic low-cost fixes that can be implemented in the shorter timeframe.

### **Highway Bridge Program (HBP)**

This program is a part of the National Highway Performance Program and the Surface Transportation Program. Bridge improvement and replacement is a major priority of ODOT. To qualify for this funding, a bridge typically needs to have a sufficiency rating of less than 50.

### **Oregon Watershed Enhancement Board (OWEB)**

The OWEB is a state agency that provides grants to help Oregonians take care of local streams, rivers, wetlands and natural areas. Community members and landowners use scientific criteria to decide jointly what needs to be done to conserve and improve rivers and natural habitat in the places where they live. OWEB grants are funded from the Oregon Lottery, federal dollars and salmon license plate revenue.

OWEB will be accepting applications for restoration, technical assistance and land acquisition. These grants support voluntary efforts by Oregonians to protect and restore healthy watersheds, including actions in support of the Oregon Plan for Salmon and Watersheds, and the Oregon Conservation Strategy.

### **Fish America Foundation**

Fish America, in partnership with the NOAA Restoration Center, awards grants to local communities and government agencies to restore habitat for marine and anadromous fish species. Successful proposals have community-based restoration efforts with outreach to the local communities. These grants are small, but help with bridge scour projects.



## National Fish Passage Program - US Fish and Wildlife

The U.S. Fish and Wildlife Service National Fish Passage Program is a voluntary, non-regulatory conservation assistance program that provides financial and technical support to remove or bypass artificial barriers that impede the movement of fish and other aquatic species and contribute to their decline. The program implements fish passage improvement-based, cost-shared projects to protect, restore or enhance habitats that support fish and other aquatic species and their populations. All or a portion of project funds may be transferred to partner organizations through cooperative agreements if the Service lacks the capability to implement a project.

## Connect Oregon

Connect Oregon is a lottery bond-based initiative to invest in air, rail, marine and bicycle/pedestrian infrastructure to ensure Oregon's transportation system is strong, diverse and efficient. Connect Oregon projects are eligible for up to 80% of project costs for grants and 100% for loans. A minimum 20% cash match is required from the recipient for all grant-funded projects. Projects eligible for funding from state fuel tax revenues are not eligible. If a highway or public road element is essential to the complete functioning of the proposed project, applicants are encouraged to work with their ODOT region, city or county to identify the necessary funding sources.

With the passage of HB 2017, public transit projects are no longer included in Connect Oregon. HB 2017 also directed the Oregon Transportation Commission to distribute Connect Oregon funds to four specific projects: Treasure Valley Intermodal Facility (\$26 million), Rail expansion in East Beach Industrial Park at the Port of Morrow (\$6.55 million), Brooks rail siding extension (\$2.6 million), Mid-Willamette Valley Intermodal Facility (\$25 million). With funding going to these projects, it's not anticipated there will be available funding in the 2017-2019 biennium for a competitive program, but that may return in 2019-2021 or 2021-2023 biennia.

## Immediate Opportunity Funds (IOF)

The IOF supports primary economic development in Oregon through construction and improvement of streets and roads. The 1987 Legislature created state funding for immediate economic opportunities with certain motor vehicle gas tax increases. Access to this fund is discretionary and the fund may only be used when other sources of financial support are unavailable or insufficient. The IOF is not a replacement or substitute for other funding sources. The IOF is designed to meet the following objectives:

- Provide needed street or road improvements to influence the location, relocation or retention of a firm in Oregon
- Provide procedures and funds for the Oregon Transportation Commission (OTC) to respond quickly to economic development opportunities
- Provide criteria and procedures for the Oregon Economic and Community Development Department, other agencies, local governments and the private sector to work with ODOT in providing road improvements needed to ensure specific job development opportunities for Oregon, or to revitalize business or industrial centers

The use of the IOF is limited to:

- Type A: Specific economic development projects that affirm job retention and job creation opportunities
- Type B: Revitalization of business or industrial centers to support economic development
- Type C: Preparation of Oregon Certified Project-Ready Industrial Sites

### **Special Public Works Fund (SPWF)**

The Special Public Works Fund (SPWF) provides funds for publicly owned facilities that support economic and community development in Oregon. Funds are available to public entities for:

- planning;
- designing;
- purchasing;
- improving and constructing publically owned facilities;
- replacing publically owned essential community facilities; and
- emergency projects as a result of a disaster.

### **Metropolitan Transportation Improvement Program (MTIP)**

MTIP is the federally-mandated four-year schedule of expenditures of federal transportation funds and significant state and local funds in the Portland metropolitan region. The MTIP provides the upcoming four-year implementation schedule of transportation projects in the Portland region.

For projects to receive federal transportation funding, they must be included in the Regional Transportation Plan (RTP). MTIP coordinates spending of federal and state transportation funds for four different public agencies: Metro, ODOT, TriMet and South Metro Area Transit District.

More information can be found on Metro's website:

<http://www.oregonmetro.gov/metropolitan-transportation-improvement-program>

### **Regional Flexible Fund Allocation (RFFA)**

The regional flexible fund allocation (RFFA) process is used to determine which locally identified priorities are awarded funding to advance the goals of the RTP. Regional flexible funds are distributed to Metro from three federal grant programs: the Surface Transportation Program, the Congestion Mitigation/Air Quality Program, and the Transportation Alternatives Program. Metro then distributes those funds to cities and counties in the region for projects designed to make getting around the region easier and safer. The RFFA process typically takes place on a two-year funding cycle to match closely with the MTIP update schedule.

More information can be found on Metro's website:

<http://www.oregonmetro.gov/public-projects/regional-flexible-funding-transportation-projects>

**Table B: Key Unfunded Projects Matched with Possible Grant Funding Sources**

<b>Project Name (TSP Number)</b>	<b>Description</b>	<b>Possible Funding Source</b>
Sunrise Project Phase II (4036)	Extend the Sunrise Project to 172 <sup>nd</sup> Avenue	STIP Enhance / Federal Grant
I-205 Bottleneck Project (4016)	Improvement to I-205 between the Stafford interchange and the east end of the Abernethy Bridge to address congestion issues	STIP Enhance / BUILD
Arndt Rd Connection (1106)	Planning study to develop transportation alternatives and alternative project alignments to provide improved access between I-5 / Wilsonville and Canby	STIP Enhance / HB 2017
US 26 (4093)	Add multi-use path on south side of US 26 between Wildwood Recreation Site to Salmon River Rd	FLAP
Holly St (1109)	Add paved shoulders	STIP Enhance
Courtney Ave (1064)	Construct pedestrian facilities and complete gaps on the south side; add bikeways, improve ADA access, increase transit accessibility	MTIP / RFFA
OR 211 (4040)	Canby Marquam Hwy/ OR 211 intersection – intersection improvements	STIP Fix-it / HSIP
97 <sup>th</sup> Ave / Mather Rd (1011)	Add bikeways, pedestrian facilities and east-bound left turn lanes at Mather Rd / Summers Lane	RFFA
Alberta St / 72 <sup>nd</sup> Ave (2000)	Add sidewalks, bicycle lanes and stormwater	TIF
Luther Rd (2001)	Add sidewalks, bicycle lanes and stormwater	TIF
Oak Grove – Lake Oswego (OGLO) Bridge (2022)	Construct bike/pedestrian crossing over the Willamette River	Connect Oregon
Newland Creek (Advance Rd) Bridge (2027)	Replace culverts and roadway embankment with a bridge on the same approximate vertical and horizontal alignment that will improve fish passage to the site.	FHWA AID Demonstration
Bull Run Truss (3038)	Replace bridge	STIP / HBR / BUILD
Badger Creek (Rugg Rd) Culvert	Rugg Road / Springwater Trail culvert replacement	OWEB / ODFW
Overland St	Add sidewalks, bicycle lanes and stormwater	TIF
172 <sup>nd</sup> Ave / 190 <sup>th</sup> Ave Connector	Environmental assessment and project construction to connect 172 <sup>nd</sup> Avenue to 190 <sup>th</sup> Avenue as envisioned in the 172 <sup>nd</sup> / 190 <sup>th</sup> Corridor Management Plan	MTIP
Woodcock Creek (Grimm Rd) Bridge	Bridge replacement	HBR/ OWEB / National Fish Passage
Aschoff Rd	Culvert repair project	OWEB / National Fish Passage
OR 212 Freight Mobility Corridor Improvement	Freight mobility improvements on OR 212 between Rock Creek Junction and US 26	MTIP / STIP

## TRANSPORTATION SAFETY ACTION PLAN 2019

### PROJECTS

Transportation Safety Action Plan Projects

# Appendix A

**APPENDIX A: Transportation Safety Action Plan Projects**

CIP Category	Link to Project code	Project Name	Description/Application	Cost Estimate	Potential Funding Source	Annual Cost
<b>ITS</b>						
ITS	1000 - ITS Plan	FYA (only 5-section heads "doghouse" to FYA)	All signalized intersections with 5-section (doghouse) signals	\$ 120,000	RF, TG	\$ 120,000
ITS	1000 - ITS Plan	Reflective strips on backplates	Signalized intersection with a high crash history	\$ 150,000	RF, TG, JC	\$ 150,000
ITS Year 1	1001 - ITS Plan	Support County-wide master plan		\$ 10,000		\$ 10,000
ITS	1000 - ITS Plan	Red/Green Light Extension Project	Signalized intersection with high red-light crashes	\$ 30,000	RF, TG, JC	\$ 30,000
ITS	1000 - ITS Plan	Johnson Creek Blvd & Linwood - Bike & Ped Improvement Signal Project	Upgrade signal and intersection and accommodate bike signal, safety evaluation	\$ 1,000,000	RF, TG	\$ 250,000
ITS Year 4	1000 - ITS Plan	Supplemental signal heads (left turn/through, far side and/or near side)	Signalized intersection with high left-turn and red-light crash history	\$ -	RF, TG	\$ -
ITS Years 1 - 3	1000 - ITS Plan	Advance Ped Crossing - Upgrade all push buttons at all signalized intersections to a new standard accessible pedestrian signal (APS) Buttons	At all signalized intersections	\$ 1,000,000	RF, JC, TG	\$ 333,333
ITS Years 1 - 4	1000 - ITS Plan	Advance Ped Crossing - install pedestrian countdown heads	At all signalized intersections	\$ 500,000	RF, JC, TG	\$ 125,000
ITS	1000 - ITS Plan	School zone beacon signs	Evaluate 7-5 school zones and replace static <i>School Zones</i> with <i>When Flashing School Zones</i> when warranted	\$ 750,000	RF, TG, JC	\$ 150,000
ITS	1000 - ITS Plan	Changeable message signs at school zones	Install radar reader signs approaching a school zone. Traffic calming.	\$ 750,000	RF, TG, JC	\$ 150,000
ITS	1000 - ITS Plan	Advance Ped Crossing - Install rectangular rapid-flashing beacons at mid-block crossings	All crossings near school frontage and mid-block locations based on an evaluation.	\$ 400,000	RF, TG, JC	\$ 80,000
ITS Years 2 - 4	1000 - ITS Plan	Improve Bike Detection - deploy radar or bike loops at all signals	At all signalized intersections with bike lanes	\$ 2,500,000	RF, TG	\$ 833,333
ITS Years 2 - 5	1000 - ITS Plan	Illumination (convert incandescent to LED to match the corridor and add illumination at location without lighting)	Signalized intersections	\$ 520,000	RF, TG	\$ 130,000
<b>Safety Programs</b>						
Safety Programs	1001	Neighborhood Traffic Calming	Use mobile radar reader signs placed in neighborhoods - requiring staff time to move radar speed signs every other month on requested roadways throughout County	\$ 250,000		\$ 50,000
Safety Programs	1001	Traffic Calming Program - Collector Streets	Develop a program to support traffic calming on collector streets in the urban area	\$ 30,000		\$ 15,000
<b>Safety ADA</b>						
Safety ADA	1025	I-205 Multi-Use Path Connection	Construct ADA compliant access to the commercial area from the I-205 Multi-Use Path	\$ 80,000		\$ 26,667
Safety ADA	1000 - ITS Plan	ADA sidewalk ramp improvements at push button locations and mid-block crossing locations	At all non-compliant sidewalk ramps at/near push buttons and mid block crossings	\$ 3,000,000	RF, DA, TG	\$ 600,000
<b>Safety RSA</b>						
Safety RSA Year 4	1052	RSA - Compton Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements	\$ 45,000		\$ 11,250
Safety RSA Year 4	1048	RSA - 282nd Ave	Perform road safety audit or transportation safety review to identify appropriate safety improvements	\$ 40,000		\$ 10,000

Safety RSA Year 5	1045	RSA - Sunnyside Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements	\$ 40,000		\$ 40,000
Safety RSA Year 5	1054	RSA - Eagle Creek Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements	\$ 45,000		\$ 45,000
Safety RSA Recommendations	1001	RSA - Beavercreek/Unger Intersection	<u>Low cost recommended improvement options</u> - Install signage "Hill Blocks View" to warn northbound and southbound drivers of sight limitation at Unger with a 45 rider, upgrade pavement markings, relocate advanced warning signage, install delineators and/or RPMs <u>Medium cost improvement options</u> - install intersection beacon or vehicle activated warning system *Please see full RSA report for more detail and long term/high cost recommendations	\$ 400,000		\$ 400,000
<b>Safety SPIS</b>						
Safety SPIS	1097 / 1108 / 2036	SPIS - Beaverck Rd/Henrici Rd	Evaluate intersection safety and make improvements	\$ 50,000		\$ 50,000
Safety SPIS	1067 / 1068	SPIS - Jennings Av/Addie Rd	Regrade Jennings (lower) to create improved sight distance	\$ 800,000		\$ 400,000
Safety SPIS	1044	Springwater Rd/Hattan Rd	Evaluate intersection safety and make improvements	\$ 100,000		\$ 50,000
Safety SPIS	3046	SPIS - Kelso Rd/312th Av	Evaluate intersection safety and make improvements	\$ 25,000		\$ 12,500
Safety SPIS	3089	Ladd Hill Rd/Bell Ave	Vegetation/fix object removal to improve safety and sight distance	\$ 100,000		\$ 50,000
Safety SPIS	1130	SPIS - Thiessen Rd/Oetkin Rd	Evaluate intersection safety and make improvements	\$ 250,000		\$ 83,333
Safety SPIS	3101	SPIS - Bakers Ferry Rd/Barton Park Rd	Realign intersection to improve safety and clarity	\$ 500,000		\$ 166,667
Safety SPIS	1005	SPIS - Sunnyside Rd/132nd Ave	Evaluate intersection safety and make improvements	\$ 50,000		\$ 16,667
Safety SPIS	1003 / 2009 / 3022	SPIS - SE 122nd/Mather Rd	Evaluate intersection safety and make improvements	\$ 2,000,000		\$ 2,000,000
Safety SPIS	1092 / 3081 / 3089	362/Deming and Wilsonville@Ladd Hill	Remove crest vertical curve to improve sight distance	\$ 1,100,000		\$ 1,100,000
Safety SPIS	1081	Borland Rd/Ek Rd	Reconfigure intersection for improved safety and operations	\$ 1,100,000		\$ 1,100,000
<b>Safety Study</b>						
Safety Study	1001	Bike / ped facilities	Systemic review of urban collectors and arterials for possible reallocation of space for bike/ped facilities	\$ 200,000	RF	\$ 40,000
Safety Study	1001	DTZ - CPO safety RSA grant program	Grants for CPO's to conduct RSA/HIA within their boundaries	\$ 200,000		\$ 40,000
Safety Study	1001	DTZ - DDACTS - neighborhood safety - crime prevention by environmental design	Data driven crime-safety analysis to identify linkage between high crash/safety concern areas and crime - set up system	\$ 40,000	CCSO, JC, RF, SC	\$ 8,000
Safety Study	1001	DTZ - Transportation options for transportation disadvantaged	Work with transit partners to maximize ability to transport people who need rides - reduce driving of elderly/others by providing alternative transportation	\$ 25,000	JC	\$ 5,000
Safety Study	1001	DTZ - Young Driver Education Program	Outreach to young drivers (ages 15-25); one of top 3 TSAP risk factors	\$ 50,000	JC, SC	\$ 10,000
Safety Study	1001	DTZ-TSAP-Safety Outreach	Community outreach/PSA's - PCN work with the public	\$ 250,000	JC, SC, RF, TG, HG	\$ 50,000
Safety Study	1001	Systemic - "T" Intersection sign/markings treatments	Create standard list of treatments to improve safety at all T-intersections County-wide, focusing first on rural area and evaluating need at intersections in the urban area	\$ 750,000		\$ 150,000
Safety Study	1001	Systemic - 2-way stop controlled intersection treatments	Create standard list of treatments to improve safety at all 2-way stop-controlled intersections County-wide, focusing first in rural area and evaluating need at intersections in the urban area	\$ 900,000		\$ 180,000
Safety Study	1001	Systemic - School zone evaluations/safety upgrades	Evaluate all school zones and implement improvements when necessary including sidewalks, curb ramps, crosswalks, radar speed signs, flashers, rapid flashing beacons, traffic calming	\$ 4,000,000		\$ 800,000
Safety Study	1001	Systemic- All-way stop-controlled intersection treatments	Create standard list of treatments to improve safety at all all-way stop-controlled intersections County-wide, focusing first in rural area and evaluating the need at intersections in urban area	\$ 150,000	RF, JC, TG	\$ 30,000
<b>Safety - Fix-It Programs</b>						
Safety Fix-it	1001	Maintenance - Buttons	Annual program to support installation/maintenance of centerline buttons on all rural collectors and arterials	\$ 400,000	RF, JC	\$ 80,000
Safety Fix-it	1001	Maintenance - Guardrails	Annual program to support installation/removal/ maintenance/cleaning/repair and delineation of guardrails	\$ 750,000	RF, JC	\$ 150,000
Safety Fix-it	1001	Maintenance - Roadway General	Shoulders, safety edge, centerline rumble strips, pavement markings, clear zone	\$ 750,000	RF, JC	\$ 150,000
Safety Fix-it	1001	Maintenance - Signs	Clean, repair and/or replace if not current with MUTCD requirements	\$ 200,000	RF, JC, TG	\$ 40,000
Safety Fix-it	1001	Maintenance - Vegetation	Remove overgrown vegetation inhibiting sight distance along all roads	\$ 250,000	RF, JC	\$ 50,000

# Appendix B

## TRANSPORTATION SYSTEM PLAN 2013

### PROJECTS

Table 5-3a, 20-Year Capital Projects

Table 5-3b, Preferred Projects

Table 5-3c, Long-Term Capital Projects

Table 5-3d, Regional Capital Projects

### MAPS

Map 5-11a, Greater Clackamas Regional Center / Industrial Area

Map 5-11b, East County

Map 5-11c, Greater McLoughlin Area

Map 5-11d, Northwest County

Map 5-11e, Southwest County-Northern Portion

Map 5-11f, Southwest County-Southern Portion

**Table 5-3a 20-Year Capital Projects**

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
1000	County-wide	ITS Plan Program	N/A	Develop a program to support the implementation of the County's ITS Plan and support the County's efforts to make improvements to traffic operations based on the ITS Plan. Deploy traffic responsive signal timing, ramp metering, traffic management equipment for better routing of traffic during incidents along the three key ODOT corridors - I-205, I-5, 99E. Install signal controller upgrades and update County ITS plan.
1001	County-wide	Transportation Safety Action Plan Program	N/A	Develop a program to support the implementation of the County's TSAP and support the County's efforts to make improvements based on the outcomes of the road safety audits and other safety studies.
1002	5-11a	122nd Ave	Eagle Glen Dr to Hubbard Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1003	5-11a	122nd Ave	Sunnyside Rd to Hubbard Rd	Fill gaps in pedestrian facilities, turn lanes at Mather Rd
1004	5-11a	122nd Ave	Sunnyside Rd to Timber Valley Dr	Add bikeways and turn lanes at major intersections
1005	5-11a	132nd Ave	Sunnyside Rd to OR 212	Add bikeways, pedestrian facilities, traffic calming and turn lanes at major intersections
1006	5-11a	142nd Ave	Sunnyside Rd to OR 212	Add bikeways and pedestrian facilities
1007	5-11a	72nd Ave Multi-Use Path Connection	Thompson Rd to Harmony Rd	Construct multi-use path
1008	5-11a	82nd Dr	OR 212 to Lawnfield Rd	Fill in bikeways and pedestrian facilities gaps
1009	5-11a	85th Ave	Causey Ave to Monterey Ave	Add sidewalks and bikeways. Perform Pedestrian Safety Audit to verify lighting, crosswalk striping and signing at Causey Ave.
1010	5-11a	92nd Ave	Johnson Creek Blvd to Emmert View Ct	Fill gaps in pedestrian facilities
1011	5-11a	97th Ave / Mather Rd	Lawnfield Rd to Summers Ln	Add bikeways, pedestrian facilities and eastbound left turn lanes at Mather Rd / Summers Ln
1012	5-11a	Boyer Dr	OR 213 to Fuller Rd	Construct new 2 lane roadway with turn lanes at OR 213 and Fuller Rd, bikeways and pedestrian facilities; install flashing yellow arrow for left turns on northbound and southbound approaches at OR 213 intersection.
1013	5-11a	Boyer Dr / 85th Ave / Spencer Dr	OR 213 to I-205 bike path	Add bikeways
1014	5-11a	Causey Ave	Fuller Rd to I-205	Add bikeways and shared facility markings in accordance with the Active Transportation Plan.
1015	5-11a	Clackamas Industrial area multi-modal improvements	N/A	Complete bike and pedestrian connections within the Clackamas Industrial area on Jennifer St., Evelyn St., 106 <sup>th</sup> Ave, 122 <sup>nd</sup> Ave, 130 <sup>th</sup> Ave and 135 <sup>th</sup> Ave.
1016	5-11a	Clackamas Regional Center Bike/Pedestrian Corridors	N/A	Construct pedestrian and bike improvements as described in the Clackamas Regional Center Pedestrian / Bicycle Plan
1017	5-11a	Clackamas Town Center Alternative Performance Standards Study	Clackamas Regional Center	Develop alternative performance standards for the intersections within the Clackamas Regional Center.
1018	5-11a	Clackamas Town Center Circulation Plan	West of the Town Center	Study area circulation and create plan
1019	5-11a	Flavel Dr	Alberta Ave to County boundary	Add bikeways in accordance with the Active Transportation Plan.
1020	5-11a	Fuller Rd	Otty St to Johnson Creek Blvd	Add pedestrian facilities, turn lanes, on-street parking, central median and landscaping.
1021	5-11a	Fuller Rd / King Rd Improvements	Fuller Rd / King Rd intersection	Restrict access to right-in/right-out only



**Table 5-3a 20-Year Capital Projects**

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
1022	5-11a	Harmony Rd	OR 213 to OR 224	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 Harmony Rd to CCC Harmony Campus and a pedestrian crossing.
1023	5-11a	Harmony Rd	Railroad Ave / Linwood Ave / Harmony Rd	Railroad crossing and intersection improvements based on further study of intersection operations including bikeways and pedestrian facilities to be undertake jointly by the City of Milwaukie and the County
1024	5-11a	Harmony Rd / Sunnyside Rd	Harmony Rd / Sunnyside Rd / OR 213 intersection	Extend queue storage and double left turn lanes on westbound approach and rebuild median, including pedestrian island; extend queue storage on eastbound approach and install median; convert to right-in-right-out accesses on frontage road.
1025	5-11a	I-205 Multi-Use Path Connection	Between Sunnyside Rd and Sunnybrook Blvd	Construct ADA compliant access to the commercial area from the I-205 Multi-Use Path
1026	5-11a	I-205 Multi-Use Path Gap	OR 224/OR 213 to OR 212	Study the I-205 multi-use path gap to create a plan for connection and path completion in accordance with the Active Transportation Plan
1027	5-11a	Johnson Creek Blvd	55th Ave to I-205	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1028	5-11a	Johnson Creek Blvd	Johnson Creek Blvd near 79th Pl	Add signal to either Johnson Creek Blvd and 79th Pl or 80th Ave
1029	5-11a	Johnson Creek Blvd	55th Ave to Bell Ave	Widen to 3 lanes with bikeways and pedestrian facilities
1030	5-11a	Johnson Creek Blvd	Johnson Creek Blvd / OR 213 intersection	Extend westbound left-turn lane and rebuild median; install dual northbound and southbound left-turn lanes
1031	5-11a	Johnson Creek Blvd	OR 213 to 92nd Ave	Add pedestrian facilities with a crossing near 77th Ct, restripe for bikeways. Analyze for turn lane improvements at 92nd Ave.
1032	5-11a	Johnson Rd	SE Lake Rd to North Clackamas Park Trail	Identify bike/pedestrian connections to fill gaps along 82nd Ave
1033	5-11a	Lake Rd	Lake Rd / International Way intersection	Add northbound right-turn lane
1034	5-11a	Linwood Ave	Monroe St to Johnson Creek Blvd	Add pedestrian facilities in accordance with the Active Transportation Plan.
1035	5-11a	Monroe St	72nd Ave to Fuller Rd	Add bikeways, pedestrian facilities and traffic calming in accordance with the Active Transportation Plan.
1036	5-11a	Monroe St / 72nd Ave / Thompson Rd / Fuller Rd	Linwood Ave to Causey Ave	Add bikeways and traffic calming in accordance with the Active Transportation Plan.
1037	5-11a	Monterey Ave	Stevens Rd to Bob Schumacher Rd	Construct collector roadway with bikeways and pedestrian facilities
1038	5-11a	Monterey Ave	OR 213 to Fuller Rd	Construct new 2 lane extension with pedestrian facilities and bikeways. Install flashing yellow arrow for left-turns on northbound and southbound approaches at OR 213 intersection.
1039	5-11a	North Clackamas Regional Park Trail	Linwood Ave to North Clackamas Park Complex	Construct multi-use path
1040	5-11a	North Clackamas Regional Parks Trail	OR 213 to Linwood Ave	Construct multi-use path
1041	5-11a	Otty Rd	OR 213 to 92nd Ave	Improve to minor arterial standard consistent with Fuller Road Station Plan; improve curb radius; add turn lanes, on-street parking, central median, landscaping, bikeways and pedestrian facilities. Install pedestrian crossings between Fuller Rd and I-205 and near 91st Ave.
1042	5-11a	Otty St	Otty St / OR 213 / Otty Rd	Realign Otty St with Otty Rd at OR 213; install dual westbound left-turn lanes; install flashing yellow arrow for left-turns on northbound and southbound approaches.
1043	5-11a	Southwest Connector Multi-Use Path	North Clackamas Aquatic Center access road to 82nd Ave	Construct multi-use path in accordance with the Active Transportation Plan.

**Table 5-3a 20-Year Capital Projects**

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
1044	5-11a	Springwater Rd	OR 224 to Hattan Rd	Widen to 3 lanes with shoulders (in accordance with the Active Transportation Plan between Clackamas River Dr and Gronlund Rd) and pedestrian facilities; bridge remains two lanes
1045	5-11a	Sunnyside Rd	93rd Ave to 126th Ave	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1046	5-11a	Sunnyside Rd	Sunnyside Rd / Stevens Rd intersection	Intersection improvements, such as additional turn lanes, turn lane extensions, and/or signal timing modifications
1047	5-11a	Tolbert St Overcrossing	82nd Dr to Industrial Way	Construct new 2 lane overcrossing with bikeways and pedestrian facilities
1048	5-11b	282nd Ave	US 26 to OR 212	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1049	5-11b	Amisigger Rd / Kelso Rd	OR 224 to Kelso / Richey Rd	Add paved shoulders; turn lanes at Amisigger/OR 212 and Kelso/Richey; smooth curves.
1050	5-11b	Arrah Wanna Blvd	US 26 to Fairway Ave	Add paved shoulders. In the interim, add 4-foot paved shoulders.
1051	5-11b	Cazadero Multi-Use Trail	Community of Boring to City of Estacada	Construct multi-use path in accordance with the Active Transportation Plan.
1052	5-11b	Compton Rd	US 26 to 352nd Ave	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1053	5-11b	Dodge Park Rd Bridge	~192 feet south of Pipeline Rd	Replace bridge nearing the end of its useful life and include paved shoulders
1054	5-11b	Eagle Creek Rd	Firwood Rd to Duus Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1055	5-11b	Eagle Creek Rd	Currin Rd to Duus Rd	Remove horizontal curve, relocate intersection, add paved shoulders and turn lanes at major intersection; investigate speed zone south of Currin Rd
1056	5-11b	Fairway Ave	Arrah Wanna Blvd to Salmon River Rd	Add paved shoulders
1057	5-11b	OR 211	OR 211 / Judd Rd intersection	Realign roadway
1058	5-11b	Richey Rd	Kelso Rd to OR 212	Add paved shoulders and left turn lane at Richey Rd and OR 212
1059	5-11b	Welches Rd	US 26 to Birdie Ln	Add paved shoulders; add pedestrian facilities in Welches rural center; evaluate pedestrian crossing near Stage Stop Rd; add multi-use path. Improve pedestrian crossing near Fairway Ave with advance signs and split flashing beacons
1060	5-11c	Aldercrest Dr	Thiessen Rd to Oatfield Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1061	5-11c	Concord Rd	River Rd to Oatfield Rd	Fill gaps in pedestrian facilities
1062	5-11c	Concord Rd	River Rd to Oatfield Rd	Add turn lanes at major intersections
1063	5-11c	Courtney Ave	OR 99E to Oatfield Rd	Fill gaps in pedestrian facilities and bikeways
1064	5-11c	Courtney Ave	River Rd to OR 99E (McLoughlin Blvd)	Construct pedestrian facilities / complete gaps on the south side; add bikeways
1065	5-11c	Harold Ave	Concord Rd to Roethe Rd	Add pedestrian facilities and traffic calming
1066	5-11c	Hull Ave	Wilmot St to Tims View Ave	Fill gaps in pedestrian facilities
1067	5-11c	Jennings Ave	Webster Rd to OR 99E	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1068	5-11c	Jennings Ave	River Rd to Oatfield Rd	Widen to 2-lane urban minor arterial standard with bikeway and pedestrian facilities infill
1069	5-11c	Oak Grove Blvd	Oatfield Rd to River Rd	Fill gaps in pedestrian facilities and bikeways
1070	5-11c	Oatfield Rd	Jennings Ave to Lake Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1071	5-11c	Oatfield Rd	Oatfield Rd / Park Rd intersection	Install traffic signal and add turn lanes

**Table 5-3a 20-Year Capital Projects**

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
1072	5-11c	Oatfield Rd	Oatfield Rd / McNary Rd intersection	Add southbound and eastbound left-turn lanes
1073	5-11c	Park Ave	River Rd to OR 99E (McLoughlin Blvd)	Add pedestrian facilities
1074	5-11c	River Rd	Lark St to Courtney Ave	Add pedestrian facilities
1075	5-11c	River Rd	Oak Grove Blvd to Risley Ave	Fill gaps in bikeways in accordance with the Active Transportation Plan and fill gaps in pedestrian facilities
1076	5-11c	School Pedways	Johnson Rd / Clackamas Rd / Webster Rd	Fill gaps in pedestrian facilities on Johnson Rd, Clackamas Rd and Webster Rd within 1/4 mile of schools
1077	5-11c	Thiessen Rd	Thiessen Rd / Aldercrest Rd intersection	Add turn lanes on Thiessen Rd; consider converting to two-way stop controlled
1078	5-11c	Torbank Rd	River Rd to Trolley Trail	Fill gaps in pedestrian facilities
1079	5-11d	65th Ave	65th Ave / Elligsen Rd / Stafford Rd intersection	Construct roundabout
1080	5-11d	Advance Rd	53rd Ave to 43rd Dr	Grade and sight distance improvements
1081	5-11d	Borland Rd	Tualatin city limits to Stafford Rd	Add paved shoulders in accordance with the Active Transportation Plan and turn lanes at major intersections
1082	5-11d	Borland Rd	Stafford Rd to West Linn city limits	Add paved shoulders in accordance with the Active Transportation Plan
1083	5-11d	Carman Dr	Lake Oswego city limits to Roosevelt Ave	Add bikeways and pedestrian facilities; analyze for turn lanes
1084	5-11d	Childs Rd	Sycamore Ave to 65th Ave	Transfer roadway to local jurisdiction
1085	5-11d	French Prairie Bridge	Willamette River near I-5	Construct a bridge in accordance with the Active Transportation Plan
1086	5-11d	Rosemont Rd	Stafford Rd to West Linn	Add paved shoulders and turn lanes at major intersections
1087	5-11d	Stafford Rd	I-205 to Boeckman Rd / Advance Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1088	5-11d	Stafford Rd	Rosemont Rd to I-205	Add paved shoulders in accordance with the Active Transportation Plan and turn lanes at major intersections
1089	5-11d	Stafford Rd	Stafford Rd / Childs Rd intersection	Install traffic signal and southbound and northbound turn lanes or roundabout
1090	5-11d	Stafford Rd	Rosemont Rd to I-205	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1091	5-11d	Tonquin Trail	Willamette River through Wilsonville	Construct bike / pedestrian facilities pursuant to the Tonquin Trail Master Plan
1092	5-11d	Wilsonville Rd / Ladd Hill Rd	Wilsonville Rd / Ladd Hill Rd	Install Collision Countermeasure System
1093	5-11e	Airport Rd	Airport Rd / Miley Rd intersection	Install traffic signal
1094	5-11e	Barlow Rd	Barlow Rd / OR 99E intersection	Add dual left-turn lanes on southbound Barlow Rd
1095	5-11e	Beavercreek Rd	Lower Highland Rd to Butte Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1096	5-11e	Beavercreek Rd	Ferguson Rd to Spangler Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1097	5-11e	Beavercreek Rd	Henrici Rd to Yeoman Rd/Steiner Rd	Add paved shoulders in accordance with the Active Transportation Plan and turn lanes at major intersections.
1098	5-11e	Beavercreek Rd	Beavercreek Rd / Leland Rd / Kamrath Rd intersection	Construct roundabout with additional analysis

**Table 5-3a 20-Year Capital Projects**

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
1099	5-11e	Canby-Marquam Highway	Canby-Marquam Hwy / Lone Elder Rd intersection	Reconstruct intersection; install northbound left-turn lane and southbound right-turn lane
1100	5-11e	Canby-Marquam Highway	~1,900 ft south of Barnards Rd	Replace bridge nearing the end of its useful life with 2-lane structure including paved shoulders
1101	5-11e	Clarks Four Corners Intersection	Beavercreek Rd / Unger Rd	Reconstruct intersection
1102	5-11e	Emerald Necklace Trail	To Canby Ferry	Extend Molalla Forest Rd to Locust St in accordance with the Active Transportation Plan.
1103	5-11e	Ferguson Multi-Use Path	Thayer Rd to Ferguson Rd	Multi-use path to connect Ferguson Rd to Thayer Rd
1104	5-11e	Fischers Mill Rd	Fischers Mill / Hattan Rd intersection	Install eastbound left-turn lane
1105	5-11e	Graves Rd/Passmore Rd/Mulino Rd/ OR 213	Graves Rd/Passmore Rd/Mulino Rd/ OR 213	Work in conjunction with the Molalla River School District, ODOT and community stake-holders to complete a safety audit to look at all options for the safe movement of Mulino Elementary School students in relation to the adjacent transportation system. Utilize the results from the audit to develop a list of projects and/or programs to maximize safety for all users.
1106	5-11e	Greater Arndt Rd/I-5/Canby Access Feasibility Study	Southwest County in the vicinity of Arndt Rd/I-5/Canby	Conduct an alternatives analysis and land use study to identify and consider roadway improvements to address access to I-5 within the Southwest County and address capacity deficiencies.
1107	5-11e	Hattan Rd	Hattan Rd / Gronlund Rd intersection	Install southbound right-turn lane
1108	5-11e	Henrici Rd	Beavercreek Rd to Ferguson Rd	Add paved shoulders and turn lanes at major intersections. Remove horizontal and vertical curves
1109	5-11e	Holly St	Territorial Rd to Canby Ferry	Add paved shoulders in accordance with the Active Transportation Plan.
1110	5-11e	Hult Rd	OR 211 to Unger Rd	Re-open and improve Hult Rd
1111	5-11e	Klang's Mill Bridge	~1,000 ft north of OR 211	Replace bridge nearing the end of its useful life
1112	5-11e	Lone Elder Rd Bridge	~5,800 feet east of Barlow Rd	Replace bridge (nearing the end of its useful life) and include paved shoulders
1113	5-11e	Maplelane Rd	Beavercreek Rd to Ferguson Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1114	5-11e	Meridian Rd	Meridian Rd / Whiskey Hill Rd intersection	Limit access/egress points to and from school on NE corner of intersection
1115	5-11e	Molalla Ave Flooding	Just south of city of Molalla	Construct bridge to resolve flooding issues
1116	5-11e	Mulino Rd	Mulino Rd / 13th Ave	Relocate intersection to south away from railroad trestle
1117	5-11e	OR 170	OR 99E to Macksburg Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1118	5-11e	Redland Rd	OR 213 to Hattan Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1119	5-11e	Redland Rd	Redland Rd / Springwater Rd intersection	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1120	5-11e	Redland Rd	Redland Rd / Holly Rd intersection	Install traffic signal and westbound and northbound left-turn lanes or roundabout
1121	5-11e	Redland Rd	Redland Rd / Ferguson Rd intersection	Construct roundabout
1122	5-11e	Ridge Rd	~1 miles north of Lower Highland Rd	Fix sinkhole
1123	5-11e	Springwater Rd	Springwater Rd / Clackamas River Dr intersection	Install signal at Clackamas River Dr

**Table 5-3a 20-Year Capital Projects**

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
1124	5-11e	Springwater Rd	400 ft east of Hattan Rd	Construct bridge to accommodate paved shoulders
1125	5-11e	Springwater Rd	Hattan Rd to Bakers Ferry Rd	Add paved shoulders in accordance with the Active Transportation Plan and turn lanes at major intersections
1126	5-11e	Township Rd	Central Point Rd to Canby City limit	Add paved shoulders and turn lanes at major intersections
1127	5-11e	Union Mills Rd	OR 213 to OR 211	Add turn lanes at major intersections
1128	5-11e	Union Mills Rd	OR 213 to OR 211	Construct a shoulder on the south side of the roadway
1129	5-11e	Upper Highland Rd	Beavercreek Rd to Lower Highland Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements
1130	5-11c	Oetkin Rd - Naef Rd	Thiessen Rd to River Rd	Construct bike boulevard consistent with the Active Transportation Plan
1131	5-11c	River Rd	Park Ave to Glen Echo Ave	Construct buffered bike lane in accordance with the Active Transportation Plan.
1132	5-11a	Bob Schumacher Rd	Otty Rd to Sunnyside Rd	Investigate improved striping including centerline rumble stripe.
1133	5-11a	97th Ave	Sunnybrook Blvd to Mather Rd	Investigate improved striping including outside fog lines and rumble striping. Verify lighting, drainage and surface friction.
1134	5-11a	92nd Ave	Phillips Pl	Install a pedestrian crossing near Phillips Pl
1135	5-11a	Otty St	80th Ave	Install a pedestrian crossing near 80th Ave
1136	5-11a	Fuller Rd	Boyer Dr to Sunnyside Dr	Install pedestrian crossings near Boyer Dr, Causey Ave, Stephanie Ct and Southgate St
1137	5-11b	Brightwood Loop Rd	US 26 to US 26	Add 4-foot paved shoulders

**Table 5-3b Preferred Projects**

<b>Project ID</b>	<b>Map</b>	<b>Project Name / Street Name</b>	<b>Segment / Locations</b>	<b>Project Description</b>
2000	5-11a	Bell Ave / Alberta St / 72nd Ave	King Rd to County line	Add bikeways and pedestrian facilities
2001	5-11a	Clatsop St / Luther Rd	72nd Ave to Fuller Rd	Add turn lanes and signals at OR 213 intersection; add bikeways, pedestrian facilities and traffic calming
2002	5-11a	Evelyn St	OR 224 to Jennifer St	Add bikeways and pedestrian facilities
2003	5-11a	Evelyn St / Mangan Dr	Jennifer St to Water Ave	Add bikeways
2004	5-11a	Hubbard Rd	122nd Ave to 132nd Ave	Fill gaps in pedestrian facilities
2005	5-11a	Jennifer St	82nd Dr to 135th Ave	Add pedestrian facilities
2006	5-11a	Lake Rd	Milwaukie City limits east to OR 224	Fill gaps in pedestrian facilities
2007	5-11a	Linwood Ave	Linwood Ave / Monroe St intersection	Add curbs/sidewalks, improve horizontal alignments
2008	5-11a	Linwood Ave	Queen Rd to Johnson Creek Blvd	Add bikeways in accordance with the Active Transportation Plan
2009	5-11a	Mather Rd	Summers Ln Rd to 122nd Ave	Add bikeways, pedestrian facilities and eastbound left turn lanes at Mather Rd / 122nd Ave
2010	5-11a	Monroe St / 72nd Ave / Thompson Rd	Linwood Ave to Fuller Rd	Add pedestrian facilities
2011	5-11a	Scouters Mountain / Mt Scott Loop Trail	Loop trail through Happy Valley, Damascus, Clackamas County and Portland	Construct multi-use path in accordance with the Active Transportation Plan
2012	5-11a	Stevens Rd / Stevens Way	Causey Ave to Idleman Rd	Add pedways and optional traffic calming
2013	5-11a	Strawberry Ln	Strawberry Ln / 82nd Dr intersection	Install traffic signal and eastbound turn lane
2014	5-11a	Sunnybrook Blvd	Sunnybrook Blvd / 82nd Ave intersection	Add dual southbound left-turn lanes, extend queue storage for southbound lefts and westbound lefts
2015	5-11a	Sunnyside Rd	OR 213 to 97th Ave	Modified boulevard treatment including lane redesign, medians, beautification, curb extensions, reconstructed sidewalks, landscaping, south side bikeways. Consider flashing yellow arrow for left-turns at signalized intersections.
2016	5-11b	282nd Ave	282nd / Haley Rd intersection	Install traffic signal and reduce speed limit on 282nd
2017	5-11b	362nd Ave	Skogan Rd to OR 211	Add paved shoulders
2018	5-11b	Eagle Creek Rd	OR 211 to Duus Rd	Add paved shoulders
2019	5-11b	Firwood Rd	Wildcat Mountain Dr to US 26	Add paved shoulders and turn lanes at major intersections.
2020	5-11c	Clackamas Rd	Johnson Rd and Webster Rd	Fill gaps in bikeways and pedestrian facilities
2021	5-11c	Jennings Ave	Oatfield Rd to Webster Rd	Widen to 2-lane urban minor arterial standard with bikeway and pedestrian facilities infill
2022	5-11c	Lake Oswego to Milwaukie Bridge	Between Sellwood and Oregon City	Construct bike/pedestrian crossing over the Willamette River in accordance with the Active Transportation Plan
2023	5-11c	Roots Rd	Webster Rd to McKinley Rd	Add pedestrian facilities

**Table 5-3b Preferred Projects**

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
2024	5-11c	Thiessen Rd	Oatfield Rd to Webster Rd	Add bikeways and pedestrian facilities. For the Oetkin Rd to Webster Rd section, construct in accordance with the Active Transportation Plan
2025	5-11c	Webster Rd	OR 224 to Gladstone	Fill gaps in bikeways and pedestrian facilities
2026	5-11d	Advance Rd	~2,900 ft west of Mountain Rd	Realign roadway and grade improvements
2027	5-11d	Advance Rd	65th Ave to Mountain Rd	Add paved shoulders
2028	5-11d	Stafford Rd / 65th Ave	I-205 to Boeckman Rd / Advance Rd	Add paved shoulders in accordance with the Active Transportation Plan and turn lanes at major intersections
2029	5-11e	Arndt Rd Extension	Barlow to OR 99E	Construct new 2 or 3 lane roadway
2030	5-11e	Barlow Rd	Knights Bridge Rd to OR 99E	Add paved shoulders
2031	5-11e	Beavercreek Multi-Use Path	Loder Rd to Ferguson Rd	Construct multi-use path consistent with the Beavercreek Road Concept Plan
2032	5-11e	Boones Ferry Rd	Boones Ferry Rd / Butteville Rd intersection	Remove bank, remove/decrease horizontal curve
2034	5-11e	Dryland Rd	Macksburg Rd S to Macksburg Rd N	Realign to form one intersection at Dryland Rd
2035	5-11e	Hattan Rd	Fischers Mill Rd to Gronlund Rd	Add paved shoulders and turn lanes at major intersections
2036	5-11e	Henrici Rd	OR 213 to Beavercreek Rd	Add paved shoulders and turn lanes at major intersections
2037	5-11e	Henrici Rd	Ferguson Rd to Redland Rd	Add paved shoulders and turn lanes at major intersections. Remove horizontal and vertical curves
2038	5-11e	Molalla Forest Rd	City of Canby to City of Molalla	Pave to provide bicycle access in accordance with the Active Transportation Plan
2039	5-11e	Mulino Rd (13th St segment)	Canby city limits to OR 213	Add paved shoulders and turn lanes at major intersections
2040	5-11e	Newell Creek Trail / Oregon City Loop Trail	Loop around the perimeter of Oregon City	Construct Oregon City Loop Trail and Newell Creek Trail in accordance with the Active Transportation Plan
2041	5-11e	Redland Rd	Redland Rd / Bradley Rd intersection	Install eastbound left-turn lane
2042	5-11e	Redland Rd	Redland Rd / Fischers Mill Rd / Henrici Rd intersection	Install eastbound left-turn, eastbound right-turn and westbound right-turn lanes at Henrici Rd
2043	5-11e	Springwater Rd	Springwater Rd / Bakers Ferry Rd intersection	Install southbound left-turn lane; realign intersection to fix skew
2044	5-11b	Sleepy Hollow Rd	Barlow Trail Rd to US 26	Add 4-foot paved shoulders

**Table 5-3c Long Term Capital Projects**

Project ID	Map	Project Name / Street Name	Segment/ Locations	Project Description
3000	5-11a	106th Ave	OR 212 to Jennifer St	Add bikeways and pedestrian facilities
3001	5-11a	152nd Ave Phase 2	Sunnyside Rd to OR 212	Add bikeways, pedestrian facilities and turn lanes at major intersections
3002	5-11a	162nd Ave	Sager Rd north to County line	Add bikeways, pedestrian facilities, turn lanes at major intersections
3003	5-11a	172nd Ave Bridge	N140 feet south of Troge Rd	Replace bridge nearing the end of its useful life
3004	5-11a	82nd Dr	OR 212 to Gladstone	Widen to Slane with bikeways and pedestrian facilities
3005	5-11a	84th Ave	Sunnyside Rd to Sunnybrook Blvd	Fill in bikeways and pedestrian facilities gaps
3006	5-11a	93rd Ave	Sunnyside Rd to Sunnybrook Blvd	Add bikeways in accordance with the Active Transportation Plan
3007	5-11a	Cheldelin Rd	Foster Rd to 190th Dr	Add bikeways and pedestrian facilities
3008	5-11a	Cheldelin Rd (Clatsop St extension)	172nd Ave to Foster Rd	Construct new two lane roadway with bikeways and pedestrian facilities
3009	5-11a	Cornwell Ave	OR 213 to Fuller Rd	Add pedestrian facilities; connect to 1-205 Multi-Use Path
3010	5-11a	Fuller Rd	Otty Rd to King Rd / OR 213	Construct new 2 lane extension with pedestrian facilities and bikeways
3011	5-11a	Fuller Rd	Johnson Creek Blvd to County line	Add pedestrian facilities
3012	5-11a	Hillcrest St	92nd Ave to Stevens Rd	Add pedestrian facilities
3013	5-11a	1-205 Pedestrian / Bike Overpass	Between Causey Ave and Sunnyside Rd	Construct a bike / pedestrian crossing over 1-205 to connect transit services, businesses and residents in accordance with the Active Transportation Plan
3014	5-11a	Idleman Rd	92nd Ave to Westview Ct	Fill gaps in bikeways and pedestrian facilities
3015	5-11a	Jennifer St	106th Ave to 130th Ave	Add bikeways
3016	5-11a	Johnson Creek Blvd	Bell Ave to OR 213	Widen to 3 lanes from Bell Ave to 76th Ave and 5 lanes from 76th Ave to 82nd Ave ; add bikeways and pedestrian facilities
3017	5-11a	King Rd	Milwaukie City Limits to Spencer Dr	Fill gaps in pedestrian facilities in accordance with the Active Transportation Plan
3018	5-11a	Lake Rd	OR 224 west to Milwaukie city limits	Add pedestrian facilities and turn lanes at major intersections
3019	5-11a	Lake Rd	Johnson Rd to Webster Rd	Fill gaps in pedestrian facilities and bikeways
3020	5-11a	Linwood Ave Bridge over Johnson Creek	Bridge	Construct bridge with bike lanes and sidewalks in accordance with the Active Transportation Plan
3021	5-11a	Luther Rd Bridge	Bridge crossing Johnson Creek	Replace bridge
3022	5-11a	Mather Rd	Mather Rd / 122nd Ave intersection	Install traffic signal or compact roundabout
3023	5-11a	Mather Rd	122nd Ave to 132nd Ave	Construct new 2 lane roadway with pedestrian facilities and bikeways
3024	5-11a	Mather Rd	Industrial Way to 98th Ave	Maintain as pedestrian facilities and bikeway. Construct undercrossing at Sunrise Expressway.



**Table 5-3c Long Term Capital Projects**

Project ID	Map	Project Name / Street Name	Segment/ Locations	Project Description
3025	5-11a	Michael Dr	72nd Ave to Fuller Ave	Fill gaps in pedestrian facilities
3026	5-11a	Phillips Creek Multi-Use Path	Causey Ave to North Clackamas Regional Parks Trail	Construct multi-use path
3027	5-11a	Sunnyside Rd Adaptive Signal Timing	OR 213 to 172nd Ave	Add adaptive timing to traffic signals
3028	5-11a	Valley View Terrace	Sunnyside Rd to Otty Rd	Add bikeways and pedestrian facilities
3029a	5-11a	West 82nd Ave Parallel Road	Luther Rd to Johnson Creek Blvd	Construct collector road parallel to OR 213 with bikeways and pedestrian facilities
3029b	5-11b	West 82nd Ave Parallel Road	Johnson Creek Blvd. to King Rd	Construct collector road parallel to OR 213 with bikeways and pedestrian facilities
3030	5-11b	282nd Ave	282nd Ave /OR 212 intersection	Add second right-turn lane on 282nd Ave and additional intersection improvements as needed
3031	5-11b	282nd Ave	OR 212 to Multnomah County line	Add paved shoulders
3032	5-11b	352nd Ave /Dunn Rd	Bluff Rd to Bluff Rd	Add paved shoulders
3033	5-11b	362nd Dr	Colorado Rd to Dubarko Rd	Remove or decrease horizontal and vertical curves
3034	5-11b	362nd Dr	362nd Ave /Deming Rd intersection	Remove or decrease vertical curve, relocate intersection
3035	5-11b	Barlow Trail Rdl Lolo Pass Rd	Between communities of Timberline, Welches and ZigZag	Add paved shoulders in accordance with the Active Transportation Plan. In the interim, install 4-foot shoulders or 4-foot shoulders at specific areas with limited sight distance or steep uphill sections.
3036	5-11b	Bluff Rd	City of Sandy to County line	Add paved shoulders in accordance with the Active Transportation Plan
3037	5-11b	Bull Run Rd	Ten Eyck Rd to Multnomah County line	Add paved shoulders and turn lanes at major intersections.
3038	5-11b	Bull Run Truss	Bull Run truss between Waterworks Rd and Bowman Rd	Replace bridge nearing the end of its useful life
3039	5-11b	Coalman Rd / Cherryville Dr	Ten Eyck Rd to US 26	Add paved shoulders. In the interim, add 4-foot paved shoulders .
3040	5-11b	Compton Rd	US 26 to 352nd Ave	Remove vertical curve near Orient Dr and relocate intersection; add paved shoulders
3041	5-11b	Coupland Rd	Estacada City limits to Divers Rd	Add paved shoulders and turn lanes at major intersections
3042	5-11b	Eagle Creek Rd	Keegan Rd to Currin Rd	Realign Eagle Creek Rd to remove or decrease downgrade
3043	5-11b	Firwood Rd	Firwood Rd /Trubel Rd intersection	Realign Trubel Rd to remove or decrease downgrade
3044	5-11b	Hayden Rd	Springwater Rd to OR 211	Add paved shoulders in accordance with the Active Transportation Plan

*Clackamas County Comprehensive Plan*  
**Table 5-3c Long Term Capital Projects**

Project ID	Map	Project Name / Street Name	Segment/ Locations	Project Description
3045	5-11b	Howlett Rd	OR 211 to Wildcat Mountain Dr	Add paved shoulders
3046	5-11b	Kelso Rd	Richey Rd to Orient Dr	Add paved shoulders
3047	5-11b	Kelso Rd	Orient Dr to Sandy Urban Growth Boundary	Remove vertical curve, relocate intersection, add paved shoulders and turn lanes at major intersections; investigate speed zone
3048	5-11b	Lolo Pass Rd	US 26 to Barlow Trail Rd	Safety analysis; add paved shoulders in accordance with the Active Transportation Plan
3049	5-11b	Mt Hood Aerial Transportation Link	Between Ski Bowl, Government Camp Village and Timberline Lodge	Aerial transportation link
3050	5-11b	Orient Dr	US 26 north to County line	Add paved shoulders
3051	5-11b	Porter Rd Bridge over Delph Creek	-100ft east of Wilcox Rd	Replace bridge
3052	5-11b	Salmon River Rd	US 26 to Welches Rd	Add paved shoulders. Between US 26 and Fairway Ave, add paved shoulders or multi-use path
3053	5-11b	Springwater Rd	Hayden Rd to OR 211	Add paved shoulders
3054	5-11b	TenEyck Rd	Lusted Rd to City of Sandy	Remove vertical curve, relocate intersection, add paved shoulders, turn lanes at major intersections; investigate speed zone. For paved shoulders between City of Sandy and Marmot Rd, refer to the Active Transportation Plan
3055	5-11b	Tickle Creek Trail	Springwater Corridor to Sandy city limits	Construct multi-use path in accordance with the Active Transportation Plan
3056	5-11b	Welches Rd	Birdie Ln to Salmon River Rd	Add paved shoulders <i>or</i> add multi-use path
3057	5-11b	Wildcat Mountain Dr	OR 224 to Firwood Rd	Add paved shoulders
3058	5-11c	Aldercrest Dr	Thiessen Rd to Oatfield Rd	Add pedestrian facilities to one side of the road and bikeways
3059	5-11c	Clackamas Rd	Clackamas Rd / 1-205 interchange	Construct bike/pedestrian bridge over 1-205
3060	5-11c	Hill Rd	Oatfield Rd to Thiessen Rd	Add bikeways and pedestrian facilities
3061	5-11c	Johnson Rd / McKinley Rd	OR 224 to 1-205 multi-use path	Bikeway and pedestrian facilities infill. From Thiessen Rd to 1-205 Multi-use Path, construct in accordance to the Active Transportation Plan
3062	5-11c	McNary Rd / Mabel Ave	Oatfield Rd to Webster Rd	Add bikeways and pedestrian facilities
3063	5-11c	Naef Rd	Oatfield Rd to River Rd	Add pedestrian facilities in accordance with the Active Transportation Plan
3064	5-11c	Oatfield Rd	Oatfield Rd / Hill Rd intersection	Add left-turn lanes, install signal if warranted
3065	5-11c	Oatfield Rd	Milwaukie city limits to Gladstone city limits	Fill gaps in pedestrian facilities and bikeways

**Table 5-3c Long Term Capital Projects**

Project ID	Map	Project Name / Street Name	Segment/ Locations	Project Description
3066	5-11c	Oatfield Ridge Connection	Between Jennings Ave and Thiessen Ave over Oatfield Ridge	Construct multi-use path
3068	5-11c	Portland Ave	Jennings Ave to Hull Ave	Fill gaps in pedestrian facilities
3069	5-11c	Risley Ave	Arista Dr to Hager Rd	Fill gaps in pedestrian facilities
3070	5-11c	River Rd	Courtney Ave to Oak Grove Blvd	Add pedestrian facilities
3071	5-11c	River Rd	Risley Ave to Rinearson Rd	Add pedestrian facilities
3072	5-11c	Roethe Rd	River Rd to OR 99E (Mcloughlin Blvd)	Add bikeways, pedestrian facilities and traffic calming
3073	5-11c	Rusk Rd	OR 224 South to Aldercrest Rd	Add pedestrian facilities on one side of the roadway and bikeways
3074	5-11c	Strawberry Ln	Webster Rd to 82nd Dr	Add pedestrian facilities and fill bikeway gaps
3075	5-11c	Thiessen Rd	Thiessen Rd / Hill Rd intersection	Add right-turn lane on Thiessen Rd; consider converting to two-way stop controlled or installing roundabout
3076	5-11c	View Acres Rd	Oatfield Rd to Hill Rd	Add pedestrian facilities and traffic calming
3077	5-11c	Webster Rd	Webster Rd / Jennings Ave and Webster Rd / Roots Rd intersections	Construct traffic signals, turn lanes
3078	5-11c	Webster Rd	Webster Rd / Strawberry Ln intersection	Add signal; construct southbound and westbound left-turn lane
3079	5-11d	65th Ave	Stafford Rd to Tualatin city limits	Add paved shoulders
3080	5-11d	Baker Rd	Tooze Rd to County line	Add paved shoulders
3081	5-11d	Bell Rd	Ladd Hill Rd to Wilsonville Rd	Add paved shoulders
3082	5-11d	Bonita Rd	Carman Dr to 1-5	Add bikeways and pedestrian facilities
3083	5-11d	Childs Rd	Stafford Rd to Lake Oswego city limits	Add pedestrian facilities, bikeways and turn lanes at major intersections
3084	5-11d	Graham's Ferry Rd	County line to Westfall Rd	Add paved shoulders
3085	5-11d	Graham's Ferry Rd	Wilsonville Rd to Wilsonville city limits	Add paved shoulders
3086	5-11d	Hoffman Rd / Peach Cove Rd / Riverwood Rd	Mountain Rd to Tualatin River	Add paved shoulders
3087	5-11d	Homesteader Rd	Stafford Rd to Mountain Rd	Add paved shoulders
3088	5-11d	Johnson Rd	Stafford Rd to West Linn city limits	Add paved shoulders and turn lanes at major intersections

**Table 5-3c Long Term Capital Projects**

Project ID	Map	Project Name / Street Name	Segment/ Locations	Project Description
3089	5-11d	Ladd Hill Rd	Wilsonville Rd to Washington County line	Add paved shoulders and turn lanes at major intersections
3090	5-11d	Mountain Rd	Stafford Rd to Canby Ferry	Add paved shoulders in accordance with the Active Transportation Plan
3091	5-11d	Petes Mountain Rd	West Linn city limits to Hoffman Rd	Add paved shoulders and turn lanes at major intersections
3092	5-11d	Pleasant Hill Rd / McConnell Rd / Tooze Rd	Ladd Hill Rd to Westfall Rd	Add paved shoulders
3093	5-11d	Schaeffer Rd	Mountain Rd to Petes Mountain Rd	Add paved shoulders
3094	5-11d	Schatz Rd / 55th Ave / Meridian Way	65th Ave to Stafford Rd	Add paved shoulders
3095	5-11d	Tualatin / Lake Oswego Pedestrian and Bicycle Bridge	Tualatin River Bridge	Construct bike / pedestrian bridge
3096	5-11d	Wilsonville Rd	Wilsonville Rd / Bell Rd intersection	Realign roadway and grade improvements
3097	5-11d	Wilsonville Rd	Wilsonville Rd / Edminston Rd intersection	Remove bank, remove horizontal curve, relocate intersection
3098	5-11d	Wilsonville Rd Bridge	-300 feet south of Bell Rd	Replace bridge nearing the end of its useful life
3099	5-11d	Wisteria Rd / Woodbine Rd	Rosemont Rd to Johnson Rd	Add paved shoulders
3100	5-11e	Airport Rd	Arndt Rd to Miley Rd	Add turn lanes at major intersections
3101	5-11e	Bakers Ferry Rd	Springwater Rd to OR 224	Add paved shoulders in accordance with the Active Transportation Plan and turn lanes at major intersections; remove horizontal curve and relocate intersection from Eaden Rd to OR 224
3102	5-11e	Barnards Rd	Meridian Rd to Canby-Marquam Hwy	Add paved shoulders
3103	5-11e	Barnards Rd	Needy Rd to Stuwe Rd	Reconstruct bridge and widen to 36 feet
3104	5-11e	Beavercreek Rd	Yeoman Rd to Steiner Rd to OR 211	Add paved shoulders
3105	5-11e	Bradley Rd	Redland Rd to Holcomb Blvd	Add turn lanes at major intersections
3106	5-11e	Bradley Rd	Gronlund Rd to Redland Rd	Add paved shoulders
3107	5-11e	Buckner Creek Rd	Gard Rd to Cochell Rd	Add paved shoulders
3108	5-11e	Canby-Marquam Highway	OR 170 / Macksburg Rd intersection	Reconstruct intersection; install southbound left-turn lane and northbound right-turn lane
3109	5-11e	Canby-Marquam Highway	City of Canby to OR 211	Add paved shoulders
3110	5-11e	Carus Rd	Central Point Rd to Beavercreek Rd	Add paved shoulders in accordance with the Active Transportation Plan
3111	5-11e	Casto Rd	Spangler Rd to Central Point Rd	Add paved shoulders and turn lanes at major intersections

**Table 5-3c Long Term Capital Projects**

Project ID	Map	Project Name / Street Name	Segment/ Locations	Project Description
3112	5-11e	Central Point Rd	Parrish Rd to Mulino Rd	Smooth curves; add paved shoulders (Parrish Rd to Bremer Rd in accordance with the Active Transportation Plan)
3113	5-11e	Clackamas River Dr	Oregon City limits to Springwater Rd	Construct bikeway in accordance with the Active Transportation Plan. Add turn lanes at Springwater Rd and Forsythe Rd.
3114	5-11e	Fellows Rd	Redland Rd to Lower Highland Rd	Add paved shoulders and turn lanes at major intersections
3115	5-11e	Ferguson Rd	Beavercreek Rd and Henrici Rd	Reduce the speed limit and install traffic calming
3116	5-11e	Fischers Mill Rd	Redland Rd to Springwater Rd	Add paved shoulders in accordance with the Active Transportation Plan
3118	5-11e	Forsythe Rd	Oregon City limit to Bradley Rd	Add center turn lane and paved shoulders
3119	5-11e	Forsythe Rd	Forsythe Rd / Victory Rd intersection	Realign, widen Victory Rd; remove or decrease curves along Forsythe Rd; relocate intersection
3120	5-11e	Gard Rd	-100 ft south of Old Clarke Rd	Reconstruct bridge to accommodate paved shoulders
3121	5-11e	Gronlund Rd / Hattan Rd	Bradley Rd to Springwater Rd	Add paved shoulders and turn lanes at major intersections
3122	5-11e	Henrici Rd	Between Driftwood Dr and Shore Vista Dr	Widen bridge to accommodate paved shoulders
3123	5-11e	Holcomb Blvd	Edenwild Ln to Bradley Rd	Add paved shoulders and turn lanes at Holcomb Blvd / Bradley Rd
3124	5-11e	Kamrath Rd	Carus Rd to Spangler Rd	Safety analysis at Carus Rd, add paved shoulders, remove or decrease horizontal curves north of Spangler Rd
3125	5-11e	Knights Bridge Rd Bridge	-3,200 feet east of Barlow Rd	Replace bridge (nearing the end of its useful life)
3126	5-11e	Leland Rd	Oregon City line to Beavercreek Rd	Add paved shoulders
3127	5-11e	Leland Rd	-1,000 ft north of Warnock Rd	Reconstruct bridge to accommodate paved shoulders
3128	5-11e	Lone Elder Rd	County line to Canby-Marquam Hwy	Add paved shoulders
3129	5-11e	Lower Highland Rd	Beavercreek Rd to Fellows Rd	Add paved shoulders and turn lanes at major intersections
3130	5-11e	Macksburg Rd	Canby Marquam Hwy to OR 213	Add paved shoulders and turn lanes at major intersections
3131	5-11e	Maplelane Rd	1,800 ft west of Walker Rd	Add paved shoulders
3132	5-11e	Maplelane Rd	Oregon City Urban Growth Boundary to Ferguson Rd	Add paved shoulders
3133	5-11e	Mattoon Rd	Fischers Mill Rd to Redland Rd	Add paved shoulders in accordance with the Active Transportation Plan and turn lanes at major intersections; remove vertical curves, remove horizontal curves north of Redland Rd
3134	5-11e	Meridian Rd	Lone Elder Rd to OR 211	Add paved shoulders
3135	5-11e	Meridian Rd	Elliott Prairie Rd to Barlow Rd	Add paved shoulders; remove or decrease horizontal and vertical curves

**Table 5-3c Long Term Capital Projects**

Project ID	Map	Project Name / Street Name	Segment/ Locations	Project Description
3136	5-11e	Miley Rd	Airport Rd to Eilers Rd	Add paved shoulders
3137	5-11e	Molalla Ave	OR 213 to Molalla City limits	Add paved shoulders
3138	5-11e	New Era Rd / Haines Rd	OR 99E to Ieland Rd	Add paved shoulders
3140	5-11e	Redland Rd	900 ft west of Holly Ln	Reconstruct bridge to include shoulders and bikeways
3141	5-11e	Redland Rd	-400ft west of Holly Ln	Reconstruct bridge to include shoulders and bikeways
3142	5-11e	Redland Rd	Henrici Rd to Oregon City limit	Add paved shoulders and bikeway in accordance with the Active Transportation Plan
3143	5-11e	Redland Rd	Henrici Rd to Springwater Rd	Add paved shoulders and turn lanes at major intersections. For the section between Mattoon Rd and Jubb Rd, see the Active Transportation Plan.
3144	5-11e	Ridge Rd	Lower Highland Rd to Redland Rd	Add paved shoulders
3145	5-11e	Rock Creek (Kropf Rd) Bridge	3,500 ft north of Gibson Rd	Replace bridge
3146	5-11e	S Killdeer Rd	Ferguson Road and Yeoman Road	Extend S Killdeer Rd to connect with S. Ivel Rd. and provide bike/pedestrian access
3147	5-11e	South End Rd	Oregon City limits to OR 99E	Smooth curves; add paved shoulders
3148	5-11e	Spangler Rd	Casto Rd to Beaver Creek Rd	Add paved shoulders and turn lanes at major intersections
3149	5-11e	Springwater Rd	Bakers Ferry Rd to Hayden Rd	Add paved shoulders and turn lanes at major intersections. For paved shoulders between Eaden Rd and Hayden Rd, see the Active Transportation Plan.
3150	5-11e	Thayer Rd/Ferguson Rd	Oregon City line to Redland Rd	Add paved shoulders
3151	5-11e	Toliver Rd	Dryland Rd to Molalla city Limits	Add paved shoulders in accordance with the Active Transportation Plan
3152	5-11e	Unger Rd	Beaver Creek Rd to OR 211	Add paved shoulders and turn lanes at major intersections
3153	5-11e	Union Hall Rd	Central Point Rd to El Dorado Rd	Add paved shoulders
3154	5-11f	Bird Rd	Groshong Rd to Wilhoit Rd	Add paved shoulders and turn lanes at major intersections
3155	5-11f	Blair Rd	Groshong Rd to Maple Grove Rd	Add paved shoulders and turn lanes at major intersections
3156	5-11f	Callahan Rd S / Ramsby Rd	Dickey Prairie Rd to Fernwood Rd	Add paved shoulders and turn lanes at major intersections
3157	5-11f	Dhooghe Rd	OR 211 to Fernwood Rd	Add paved shoulders and turn lanes at major intersections
3158	5-11f	Fernwood Rd	Dhooghe Rd to Callahan Rd	Add paved shoulders and turn lanes at major intersections
3159	5-11f	Gray's Hill Rd	Green Mountain Rd to OR 211	Add paved shoulders
3160	5-11f	Maple Grove Rd	Nowlens Bridge Rd to Sawtell Rd	Add paved shoulders and turn lanes at major intersections

**Table 5-3c Long Term Capital Projects**

Project ID	Map	Project Name / Street Name	Segment/ Locations	Project Description
3161	5-11f	Nowlens Bridge Rd	OR 213 to Maple Grove Rd	Add paved shoulders and turn lanes at major intersections
3162	5-11f	Sawtell Rd	Maple Grove Rd to Wilhoit Rd	Add paved shoulders and turn lanes at major intersections
3163	5-11f	Wildcat Rd	Wilhoit Rd to OR 213	Add paved shoulders and turn lanes at major intersections
3164	5-11f	Wright Rd	OR 211 to Callahan Rd	Add paved shoulders
3165	5-11a	Sunnyside Rd	93rd Ave to OR 212	Add pedestrian facilities and bikeways in accordance with the Active Transportation Plan
3167	5-11b	Marmot Rd	Ten Eyck to Barlow Trail Rd	Add paved shoulders in accordance with the Active Transportation Plan. In the interim, widen to 4-feet within Wildwood/Timberline, Zigzag, Rhododendron and Wemme/Welches .
3168	5-11c	Thiessen Rd	Webster Rd to Johnson Rd	Add pedestrian facilities and bikeways in accordance with the Active Transportation Plan
3169	5-11d	Willamette River Greenway	Lake Oswego north to County Line	Construct multi-use path in accordance with the Active Transportation Plan.
3170	5-11d	Willamette River Greenway	Canby Ferry to City of Wilsonville	Construct multi-use path in accordance with the Active Transportation Plan.
3171	5-11e	Bremer Rd	Central Point Rd to Haines Rd	Add paved shoulders in accordance with the Active Transportation Plan
3172	5-11e	Butteville Rd	Willamette River to County line	Add paved shoulders in accordance with the Active Transportation Plan
3173	5-11e	Dryland Rd	Macksburg Rd to Toliver Rd	Add paved shoulders in accordance with the Active Transportation Plan
3174	5-11e	Eaden Rd	Bakers Ferry Rd to Springwater Rd	Add paved shoulders in accordance with the Active Transportation Plan
3175	5-11e	Haines Rd	Bremer Rd to Territorial Rd	Add paved shoulders in accordance with the Active Transportation Plan
3176	5-11e	Harms Rd	Kraxberger Rd to Macksburg Rd	Construct bikeway in accordance with Active Transportation Plan
3177	5-11e	Hwy 170 /Kraxberger Rd	City of Canby to Harms Rd	Add paved shoulders in accordance with the Active Transportation Plan
3178	5-11e	Jubb Rd	Redland Rd to Springwater Rd	Add paved shoulders in accordance with the Active Transportation Plan
3179	5-11e	Kamrath Rd	Leland Rd to Carus Rd	Add paved shoulders in accordance with the Active Transportation Plan
3180	5-11e	Knights Bridge Rd / Barlow Rd /Arndt Rd	Canby boundary to Airport Rd	Add bikeway in accordance with the Active Transportation Plan
3181	5-11e	Territorial Rd	Haines Rd to OR 99E	Add bikeways in accordance with the Active Transportation plan
3182	5-11e	Willamette River Greenway	Oregon City to Canby	Construct multi-use path in accordance with the Active Transportation Plan.

**Table 5-3d Regional Capital Projects**

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description	Priority
4000	County-wide	TSP Refinement	State facility locations applicable where mobility target is not met in 2035	TSP Refinement to develop alternative mobility targets for state facilities consistent with Oregon Highway Plan (OHP) 1F3.	High
4001	5-11a	I-205 / Sunnyside Road interchange	I-205 / Sunnyside Road interchange	Add dual northbound right-turns; install bike signal; construct sidewalk extension / bulb to accommodate pedestrians and bicyclists around signal pole.	High
4002	5-11a	OR 212	OR 212 / 172nd Ave intersection	Add second eastbound left-turn lane	High
4003	5-11a	OR 212	SE 162nd to Anderson Rd	Add bikeways, pedestrian facilities ways, and landscape pedestrian facilities buffer; widen to 6 lanes within Happy Valley; add center turn lane within Damascus	High
4004	5-11a	OR 213	Sunnybrook Blvd to Portland City Limits	Extend fiberoptic communications, CCTV at key intersections and adaptive signal timing	High
4005	5-11a	OR 224	OR 224 / Lake Rd / Webster Rd intersection	Add turn-lanes, including second left-turn lane on westbound OR 224, second left-turn lane and right-turn lane on northbound SE Webster Rd, and second left-turn lane on southbound SE Lake Rd	High
4006	5-11a	OR 224	OR 224 / Johnson Rd intersection	Add second left-turn lane on westbound OR 224	High
4007	5-11a	OR 224	OR 224 / Hubbard Rd / 135th Ave intersection	Add intersection improvements, including right-turn lanes	High
4008	5-11a	OR 224	Springwater Rd / OR 224 intersection	Add signal and turn lanes on all approaches	High
4009	5-11a	OR 224	Rock Creek Junction to Midway St	Widen to four lanes; add bikeways.	High
4010	5-11a	Sunrise Project - Preliminary Engineering	Webster Rd/ OR 224 to 172nd Ave / OR 212	Preliminary engineering from Webster Rd to 172nd Ave	High
4011	5-11a	Sunrise Project - Right-of-Way	Webster Rd/ OR 224 to 172nd Ave / OR 212	Acquire right-of-way to accommodate 6 lane expressway plus auxiliary lanes	High
4012	5-11a	SunriseProject - Multi-use Path	122nd to Rock Creek Junction	Construct multi-use path from 122nd to Rock Creek Junction parallel to the Sunrise project consistent with FEIS.	High
4013	5-11b	OR 224	OR 224 /232nd Ave intersection	Install traffic signal or roundabout	High
4014	5-11b	OR 224	Eaglecreek Rd / OR 224 intersection	Install signal	High
4015	5-11c	OR 99E	Milwaukie city limit to Gladstone city limit	Add bikeways, pedestrian facilities ways, median enhancements, crosswalks and pedestrian facilities refuges	High
4016	5-11d	I-205	Stafford Rd to OR 99E	Work with ODOT, Metro, Oregon City, West Linn and any other effected jurisdictions to analyze and develop a solution to the transportation bottle neck on I-205 between Oregon City and I-205 / Stafford Road Interchange. Possible solutions include widening to 3-lanes in each direction.	High
4017	5-11e	I-205	Willamette River to West Linn city limit	Add southbound truck climbing lane	High
4018	5-11e	I-205	I-205 Corridor	Corridor-wide operational improvements	High
4019	5-11e	OR 211	Beavercreek Rd, Union Hall Rd to Dhooghe Rd	Widen to include shoulders, bikeways, add passing lanes where needed and turn lanes at major intersections	High
4020	5-11e	OR 213	OR 213 / Spangler Rd intersection	Install traffic signal to replace existing two-way stop	High



**Table 5-3d Regional Capital Projects**

<b>Project ID</b>	<b>Map</b>	<b>Project Name / Street Name</b>	<b>Segment / Locations</b>	<b>Project Description</b>	<b>Priority</b>
4021	5-11e	OR 213	OR 213 / Henrici Rd intersection	Install traffic signal or roundabout and additional intersection improvements as needed	High
4022	5-11e	OR 213	OR 213 / Leland Rd intersection	Add northbound through auxiliary lane	High
4023	5-11e	OR 213	Leland Rd / Union Hall Rd intersection	Add southbound auxiliary lane	High
4024	5-11e	OR 213	Mulino to Molalla	Perform road safety audit or transportation safety review to identify appropriate safety improvements	High
4025	5-11e	OR 99E	OR 99E / Barlow Rd intersection	Add left-turn lane on southbound Barlow Rd - To widen Barlow Rd to add a southbound left turn lane on the north approach would need to modify the existing railroad crossing warning system	High
4026	5-11a	I-205 / Johnson Creek Blvd interchange	I-205 / Johnson Creek Blvd interchange	Add loop ramp and northbound on-ramp; realign southbound off-ramp and install dual right-turn lanes	Medium
4027	5-11a	I-205 / OR 212/224 Interchange	In vicinity of Roots Rd and McKinley Ave	Connect bikeways in accordance with the Active Transportation Plan	Medium
4028	5-11a	OR 212	Rock Creek Junction to 172nd	Construct climbing lane	Medium
4029	5-11a	OR 212	OR 212 / SE 162nd Ave intersection	Add left-turn pockets and traffic signal	Medium
4030	5-11a	OR 213	Sunnyside Rd to Sunnybrook Rd	Widen to 7 lanes with boulevard treatments	Medium
4031	5-11a	OR 213	OR 213 / Harmony Rd / Sunnyside Rd intersection	Add bikeways, pedestrian facilities ways, dual northbound and southbound left-turn lanes, and lighting; convert driveways north of intersection to right-in / right-out	Medium
4032	5-11a	OR 224	OR 224 / Rusk Rd off-ramp	Extend right-turn lane on OR 224	Medium
4033	5-11a	OR 224	Milwaukie city limits to I-205	Construct multi-use path as parallel route to OR 224	Medium
4034	5-11a	OR 224	Lake Rd / Johnson Rd / Pheasant Ct	Realign Lake Rd / Johnson Rd to provide southern OR 224 access via Pheasant Ct; add turn lanes at OR 224 / Pheasant Ct intersection; close access at Lake / Webster south of OR 224	Medium
4035	5-11a	OR 99E	OR 99E / Jennings Ave intersection	Determine safe connection of Trolley Trail at OR 99E / Jennings Ave intersection	Medium
4036	5-11a	Sunrise Project	I-205 to 172nd Ave	Construct improvements to 172nd	Medium
4037	5-11b	OR 211	Hayden Rd to OR 224	Widen to rural arterial standard with shoulders, bikeways in accordance with the Active Transportation Plan and turn lanes at major intersections	Medium
4038	5-11b	US 26	Govt. Camp Loop W to OR 35	Implement Finding of Mt Hood Multimodal Study including phased safety improvements	Medium
4039	5-11b	US 26	OR 35 Junction to Wasco County line	Widen roadway to include bikeways /shoulders, add passing lanes where needed and turn lanes at major intersections	Medium
4040	5-11e	OR 211	OR 170 (Canby-Marquam Hwy) / OR 211 intersection	Install eastbound and westbound left-turn lanes, and eastbound right-turn lane; remove or decrease horizontal curve	Medium
4041	5-11e	OR 211	Marion County line to OR 170 (Canby-Marquam Hwy)	Widen to include shoulders, bikeways, add passing lanes where needed and turn lanes at major intersections	Medium
4042	5-11e	OR 99E	Barlow Rd to Marion County line	Four lane widening with median, left-turn lanes from mile post 24.05	Medium
4043	5-11e/f	OR 213	Oregon City boundary to Marion County line	Add shoulders and bikeways	Medium

**Table 5-3d Regional Capital Projects**

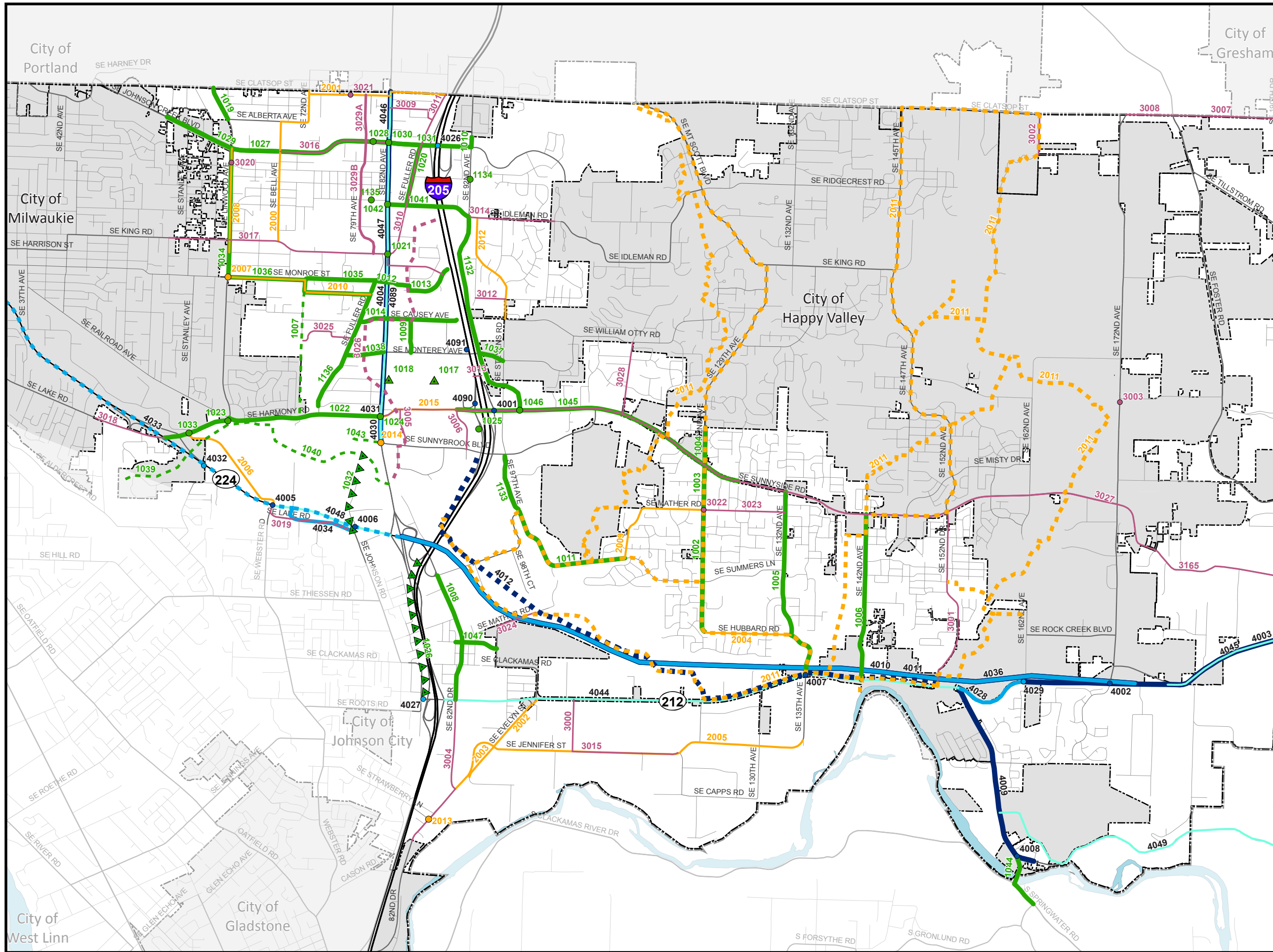
Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description	Priority
4044	5-11a	OR 212	I-205 to OR 224	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4045	5-11a	OR 212	Within the Damascus City Limits (Armstrong Cr to 257th)	Obtain right-of-way for future 4 lane facility with planted median and 5 lanes at major intersections; build as major development occurs and apply access management to reduce number of driveways.	Low
4046	5-11a	OR 213	Clatsop St to Sunnyside Rd	OR 213/82nd Avenue Boulevard Design Improvements - Widen to add sidewalks, lighting, central median, planting strips and landscaping; fill gaps in the bike and pedestrian facilities network. Add pedestrian crossings in the vicinity of Luther Rd, Glencoe Rd and south of Boyer Dr. Install access management median Hinkley Ave to Lindy St and Monterey Ave to Harmony Rd. Install advanced street name signs from Sunnyside Rd to Sunnyside Dr. Remove signal at north entrance of Clackamas Town Center and evaluate traffic diversion. 2014 ODOT OR 213 paving project programmed King to OR 224.	Low
4047	5-11a	OR 213 (82nd Ave)	Luther Road to Sunnybrook Blvd	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4048	5-11a	OR 224	Webster Rd and 82nd Ave	Provide frontage connection on the north side of OR 244	Low
4049	5-11a	OR 224	Springwater Rd to 232nd Dr	Shoulder widening, horizontal realignment, realignment of roadway to bluff	Low
4050	5-11b	OR 211	OR 224 to eastbound US 26	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4051	5-11b	OR 211	OR 224 to Hillcockburn Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4052	5-11b	OR 211	Tickle Creek Rd/OR 211 intersection	Remove or decrease horizontal curve, relocate intersection	Low
4053	5-11b	OR 211	362nd Dr / OR 211 intersection	Remove or decrease vertical curve and remove vegetation	Low
4054	5-11b	OR 211	Eagle Creek Rd to Tickle Creek Rd	Widen to include bikeways /shoulders and add passing /climbing lanes where needed	Low
4055	5-11b	OR 211	0.14 miles east of Coop Rd to Jackknife Rd	Widen to add shoulder / bikeways; realign to remove horizontal and vertical curves	Low
4056	5-11b	OR 211	Tickle Creek Rd to 362nd Dr	Widen to include bikeways /shoulders and add passing /climbing lanes where needed	Low
4057	5-11b	OR 211	Bornstedt Rd to City of Sandy	Add shoulders and bikeways	Low
4058	5-11b	OR 224	232nd Ave to OR 211	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4059	5-11b	OR 224	Fish Creek Rd to National Forest Rd 46	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4060	5-11b	OR 224	Bakers Ferry Rd / OR 224 intersection	Add eastbound right-turn lane	Low
4061	5-11b	OR 224	Amisigger Rd / OR 224 intersection	Install traffic signal; add southbound and eastbound left-turn lanes and westbound right-turn lane	Low
4062	5-11b	OR 224	Heiple Rd / OR 224 intersection	Add southbound right-turn lane	Low
4063	5-11b	OR 224	OR 212 to Estacada city limits	Widen to include shoulders and bikeways; add passing lanes where needed	Low
4065	5-11b	US 26	US 26 / Haley Rd intersection	Develop a plan to address to address access and safety issues on US 26 at this intersection and implement that plan	Low

**Table 5-3d Regional Capital Projects**

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description	Priority
4066	5-11b	US 26	Kelso Rd to Duncan Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4067	5-11b	US 26	Duncan Rd to Langensand Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4068	5-11b	US 26	Firwood Rd to Sleepy Hollow Dr	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4069	5-11b	US 26	Rhododendron to OR 35	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4070	5-11b	US 26	US 26 / Firwood Rd intersection	Add eastbound right-turn lane	Low
4071	5-11b	US 26	US 26 / Brightwood Loop W	Add westbound right-turn lane	Low
4072	5-11b	US 26	US 26 / Brightwood Loop E	Add westbound right-turn lane	Low
4073	5-11b	US 26	Lolo Pass Rd to Govt. Camp Loop Rd. W	Implement Finding of Mt Hood Multimodal Study including ITS approach with variable speed signage; construct multi-use path between Lolo Pass Rd and John Lake Rd; add enhanced pedestrian crossing, sidewalks, curbs, gutters, pedestrian refuge island, pedestrian illumination and access management in Rhododendron; construct multi-use path connecting Mt. Hood Express transit stop and Pioneer Bridle Trailhead	High
4074	5-11c	OR 99E	Park Ave to Gladstone city limits	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4075	5-11d	OR 43	Lake Oswego to Portland	Develop active transportation connection in accordance with the Active Transportation Plan.	Low
4076	5-11e	OR 211	Dhooghe Rd / OR 211 intersection	Remove or decrease horizontal curve, relocate intersection	Low
4077	5-11e	OR 211	OR 170 (Canby-Marquam Hwy) to City of Molalla	Add shoulders and bikeways	Low
4078	5-11e	OR 211	Needy Rd to 0.6 miles west of Needy Rd	Remove or decrease vertical curve to allow passing zone, add passing lane in one or both directions, possible relocation of intersection	Low
4079	5-11e	OR 211	Molalla city limits to Hayden Rd	Widen to rural arterial standard (2 lanes) with shoulders and bikeways	Low
4080	5-11e	OR 211	Beavercreek Rd to Upper Highland Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4081	5-11e	OR 213	OR 213 / Carus Rd intersection	Install traffic signal to replace existing two-way stop See U339	Low
4082	5-11e	OR 213	OR 213 / Beavercreek Rd intersection	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4083	5-11e	OR 213	Carus Rd / OR 213 intersection	Install southbound left-turn and right-turn lanes	Low
4085	5-11e	OR 99E	Oregon City to Canby	Add shoulders and bikeways	Low
4086	5-11e	OR 99E	Sequoia Parkway to Lone Elder Rd	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4087	5-11e	OR 99E	Territorial Rd to Metro boundary	Perform road safety audit or transportation safety review to identify appropriate safety improvements	Low
4088	5-11b	Government Camp Loop Rd	US 26 to US 26	Add bikeways through Government Camp in accordance with the Active Transportation Plan	High
4089	5-11a	OR 213	Causey Ave to King Rd	Work with TriMet and ODOT to evaluate the Business Access Transit lane and identify projects / approaches to improve safety and enhance transit operation.	High

**Table 5-3d Regional Capital Projects**

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description	Priority
4090	5-11a	I-205 MUP	I-205 SB Ramp / Sunnyside Rd	Travelling south on the I-205 multi-use path, install a pedestrian signal to cross the I-205 southbound / Sunnyside right turn lane. Perform traffic analysis to evaluate impacts to vehicle queuing. Modification subject to ODOT approval.	High
4091	5-11a	I-205 MUP	Monterey Ave	Install parabolic mirror and/or signage to resolve limited sight distance issues at the intersection of the I-205 MUP and the path extension at Monterey Ave.	High
4092	5-11b	US 26	Arrah Wanna Blvd to Welches Rd	Add multi-use path on north side of US 26	High
4093	5-11b	US 26	Main Park Rd to Salmon River Rd	Add multi-use path on south side of US 26	High
4094	5-11b	US 26 / Welches Rd	US 26 / Welches Rd	Pedestrian and ADA improvements at signal, including crossing improvements on the north side of the intersection.	Medium
4095	5-11b	US 26 / Arrah Wanna Blvd	US 26 / Arrah Wanna Blvd	Install a continental style crosswalk, accompanied by roadway and streetscape improvements	Medium
4096	5-11b	US 26 / Salmon River Rd	US 26 / Salmon River Rd	Install an enhanced pedestrian crossing	High



# Capital Improvement Plan

Greater Clackamas Regional Center / Industrial Area

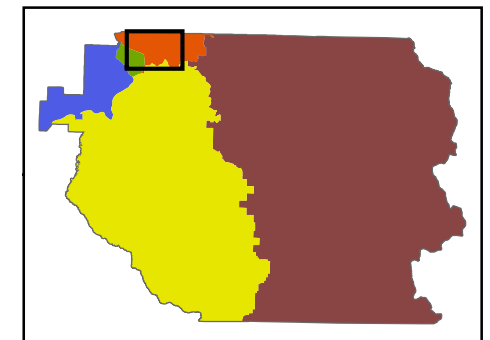
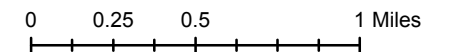
- Priority**
- 20-Year Capital Projects (Table 5-3a)
  - Preferred Capital Projects (Table 5-3b)
  - Long-Term Capital Project Needs (Table 5-3c)

**Projects on Non-County Facilities**

- Priority**
- High (Table 5-3d)
  - Medium (Table 5-3d)
  - Low (Table 5-3d)

- ▲ Study\*
- Multi-Use Path\*
- Metro Urban Growth Boundary
- Incorporated City

\*Symbol color consistent with Priority symbologies shown above



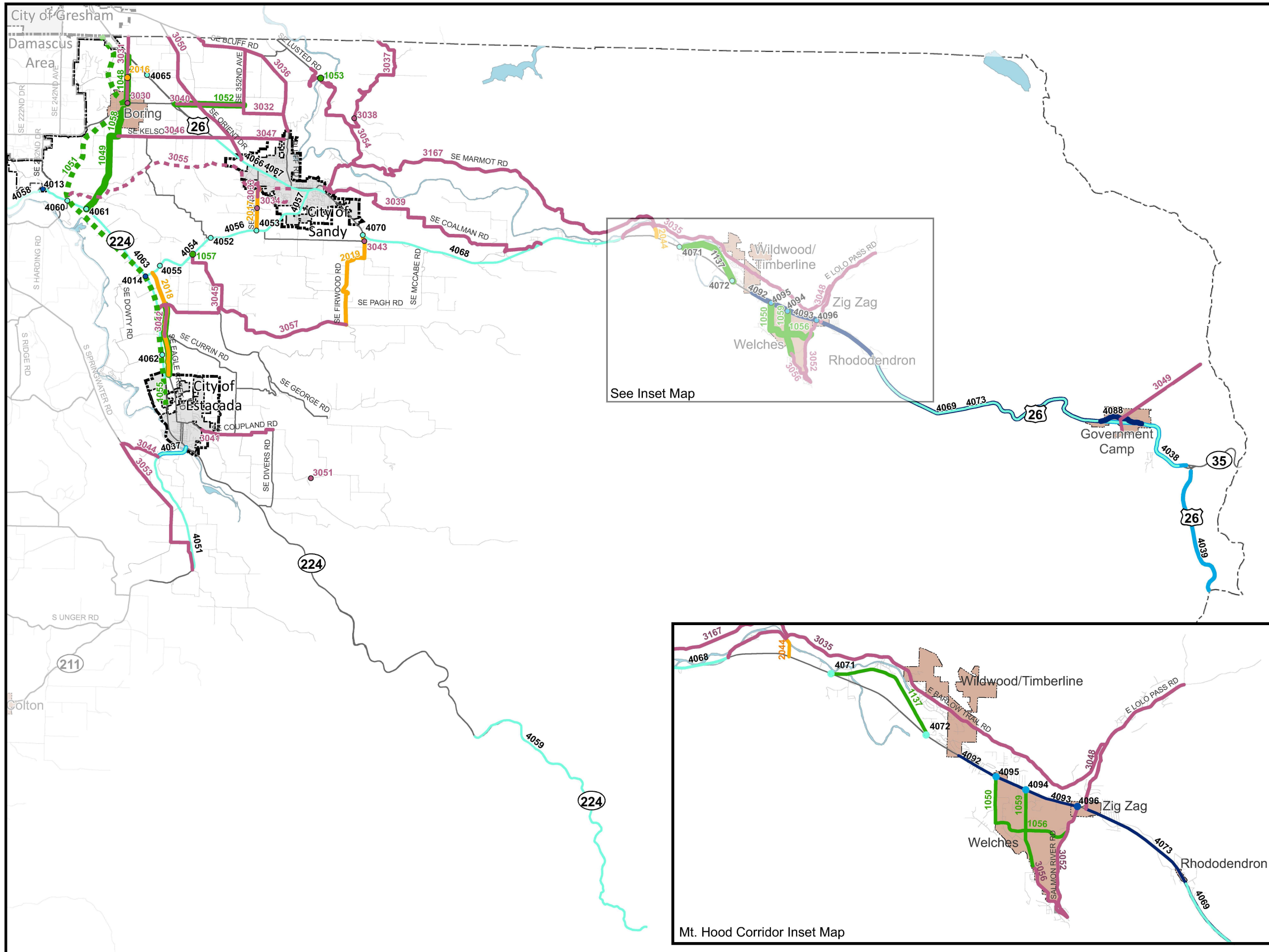
Last Updated November 27, 2018



CLACKAMAS COUNTY COMPREHENSIVE PLAN

**MAP 5-11a**





# Capital Improvement Plan

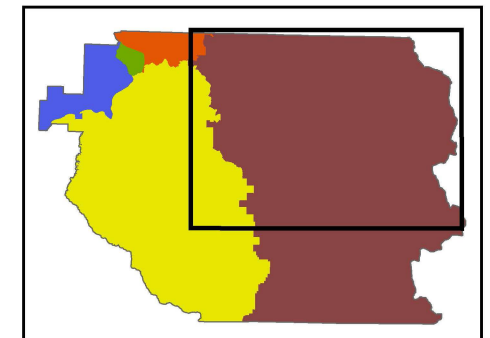
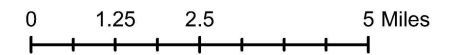
East County

- Priority**
- 20-Year Capital Projects (Table 5-3a)
  - Preferred Capital Projects (Table 5-3b)
  - Long-Term Capital Project Needs (Table 5-3c)

**Projects on Non-County Facilities**

- Priority**
- High (Table 5-3d)
  - Medium (Table 5-3d)
  - Low (Table 5-3d)

- ▲ Study\*
  - Multi-Use Path\*
  - Metro Urban Growth Boundary
  - Incorporated City
- \*Symbol color consistent with Priority symbologies shown above



Last Amended May 9, 2017

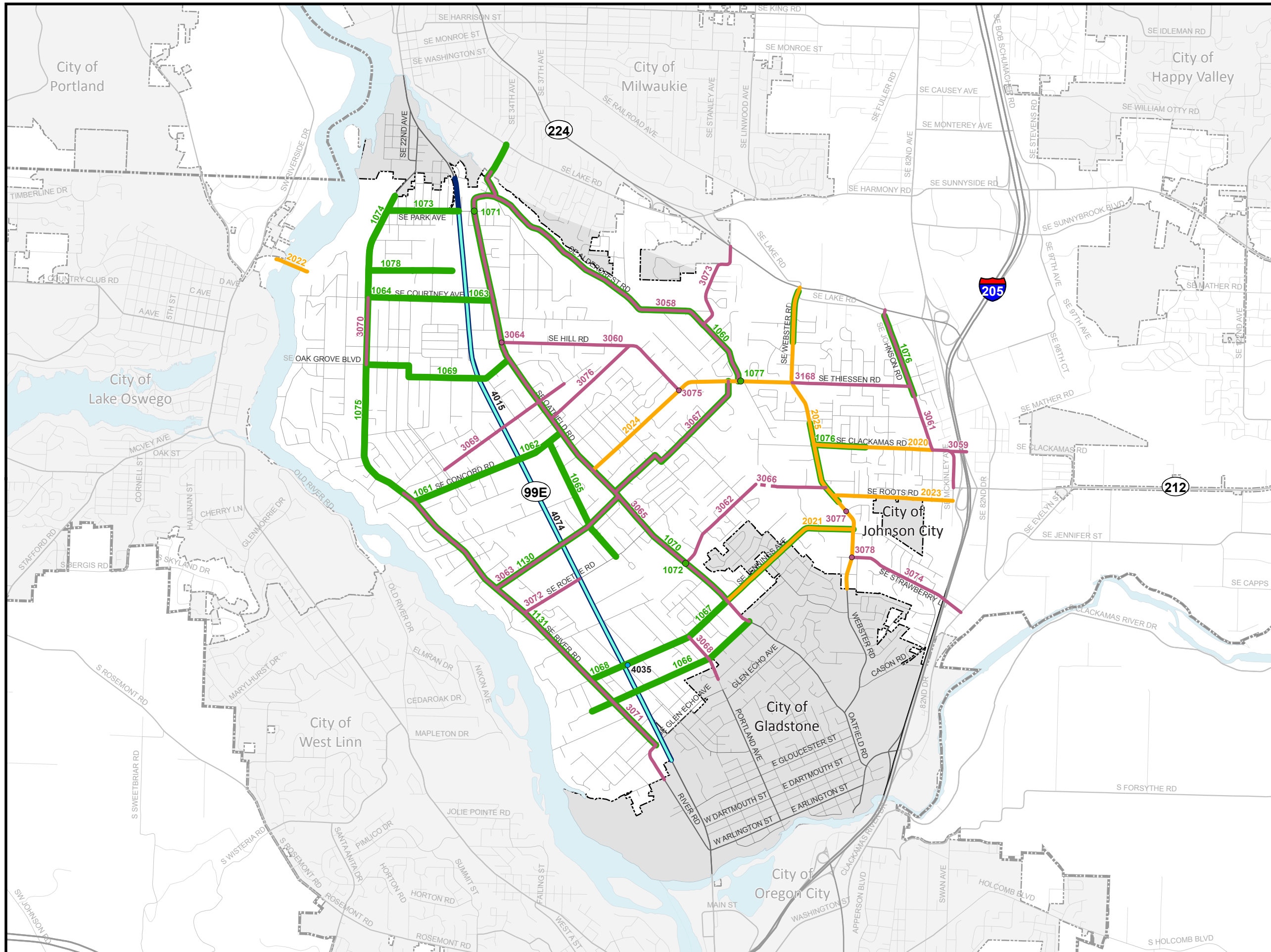


Department of Transportation & Development  
150 Beaver Creek Rd Oregon City, OR 97045

CLACKAMAS COUNTY  
COMPREHENSIVE PLAN

**MAP 5-11b**

Mt. Hood Corridor Inset Map



# Capital Improvement Plan

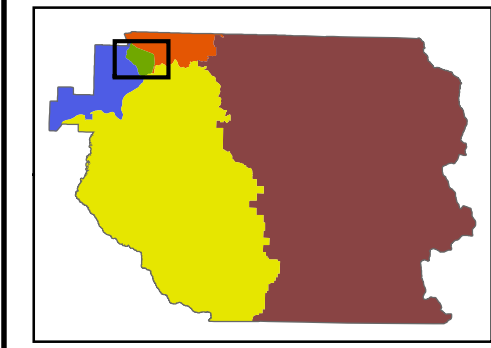
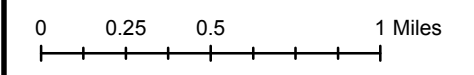
Greater McLoughlin Area

- Priority**
- 20-Year Capital Projects (Table 5-3a)
  - Preferred Capital Projects (Table 5-3b)
  - Long-Term Capital Project Needs (Table 5-3c)

**Projects on Non-County Facilities**

- Priority**
- High (Table 5-3d)
  - Medium (Table 5-3d)
  - Low (Table 5-3d)

- ▲ Study\*
  - Multi-Use Path\*
  - Metro Urban Growth Boundary
  - Incorporated City
- \*Symbol color consistent with Priority symbologies shown above



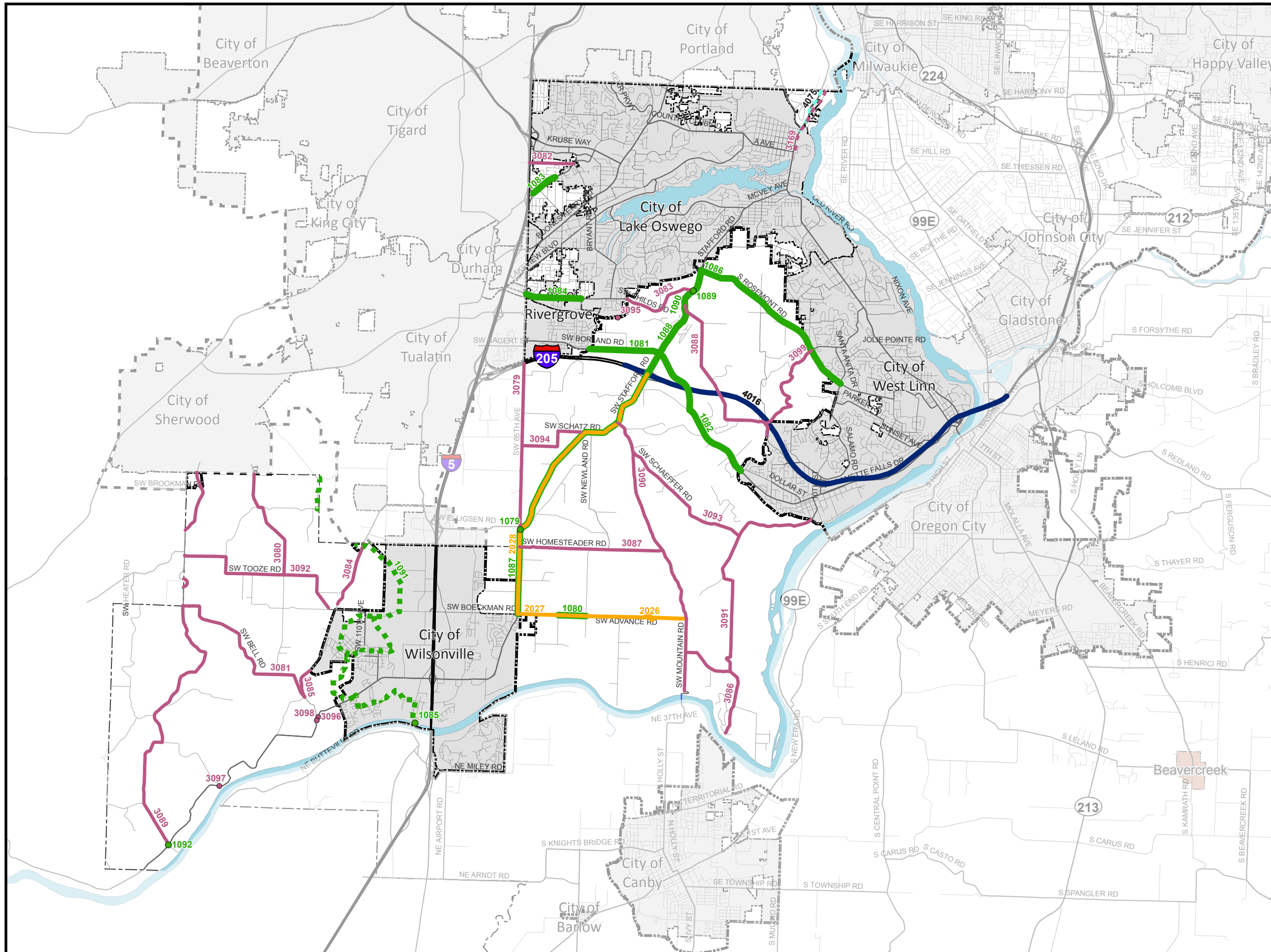
Last Amended June 1, 2015



CLACKAMAS COUNTY  
COMPREHENSIVE PLAN

**MAP 5-11c**





# Capital Improvement Plan

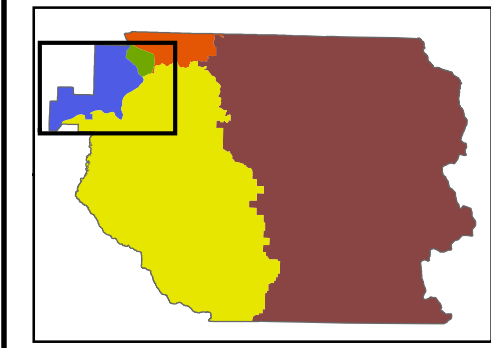
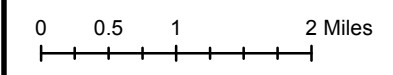
Northwest County

- Priority**
- 20-Year Capital Projects (Table 5-3a)
  - Preferred Capital Projects (Table 5-3b)
  - Long-Term Capital Project Needs (Table 5-3c)

**Projects on Non-County Facilities**

- Priority**
- High (Table 5-3d)
  - Medium (Table 5-3d)
  - Low (Table 5-3d)

- ▲ Study\*
  - Multi-Use Path\*
  - Metro Urban Growth Boundary
  - Incorporated City
- \*Symbol color consistent with Priority symbologies shown above



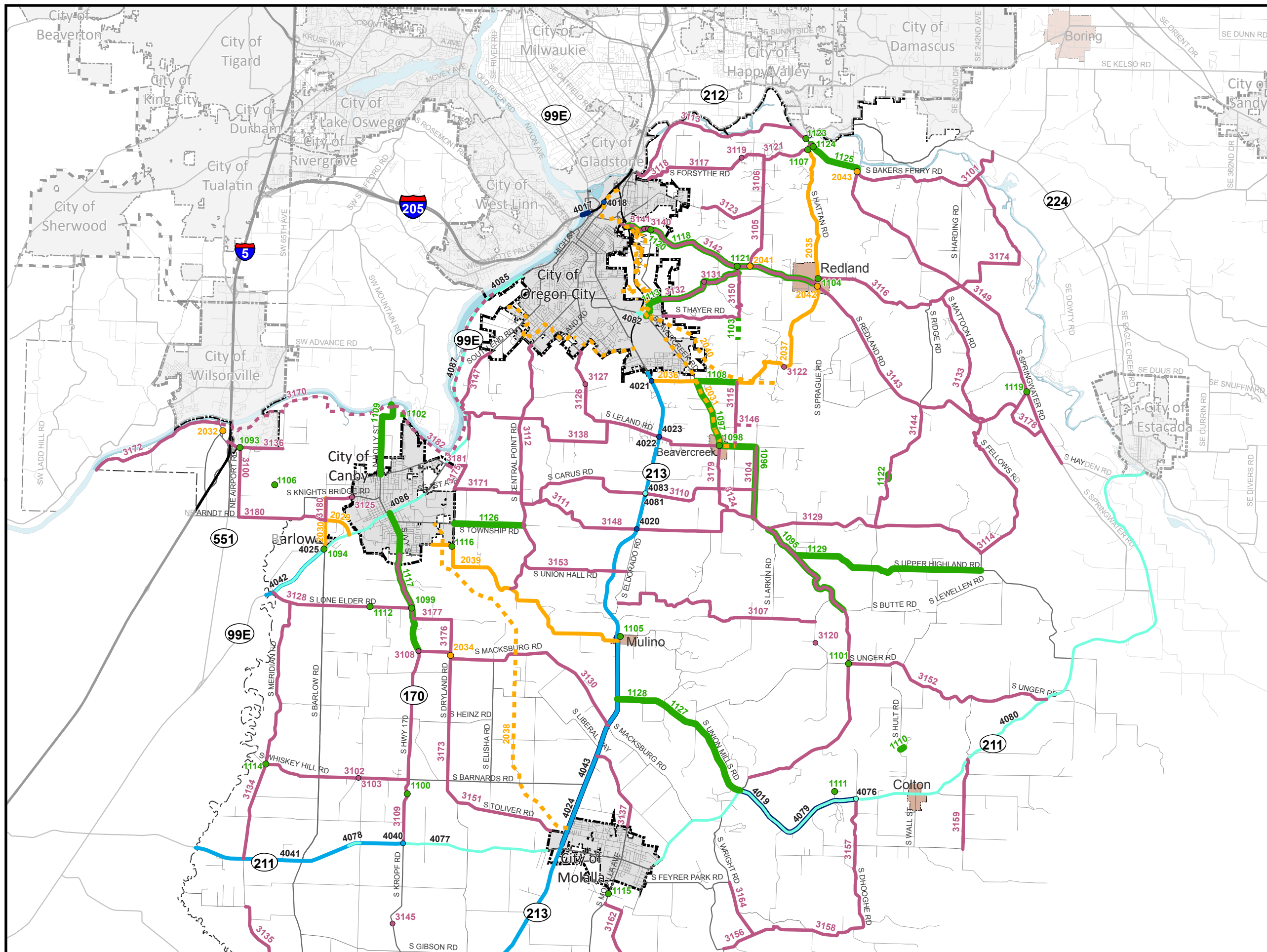
Last Amended June 1, 2015



CLACKAMAS COUNTY  
 COMPREHENSIVE PLAN

**MAP 5-11d**





# Capital Improvement Plan

Southwest County - Northern Portion

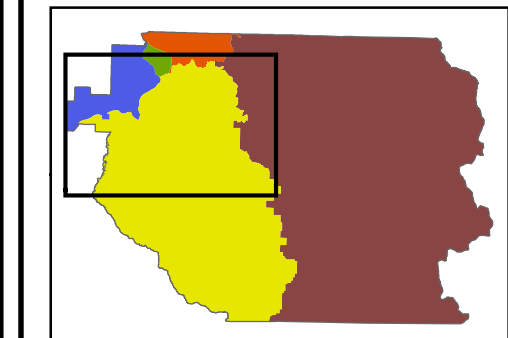
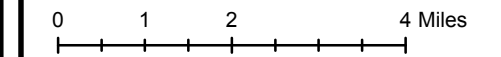
- Priority**
- 20-Year Capital Projects (Table 5-3a)
  - Preferred Capital Projects (Table 5-3b)
  - Long-Term Capital Project Needs (Table 5-3c)

**Projects on Non-County Facilities**

- Priority**
- High (Table 5-3d)
  - Medium (Table 5-3d)
  - Low (Table 5-3d)

- ▲ Study\*
- Multi-Use Path\*
- Metro Urban Growth Boundary
- Incorporated City

\*Symbol color consistent with Priority symbolologies shown above

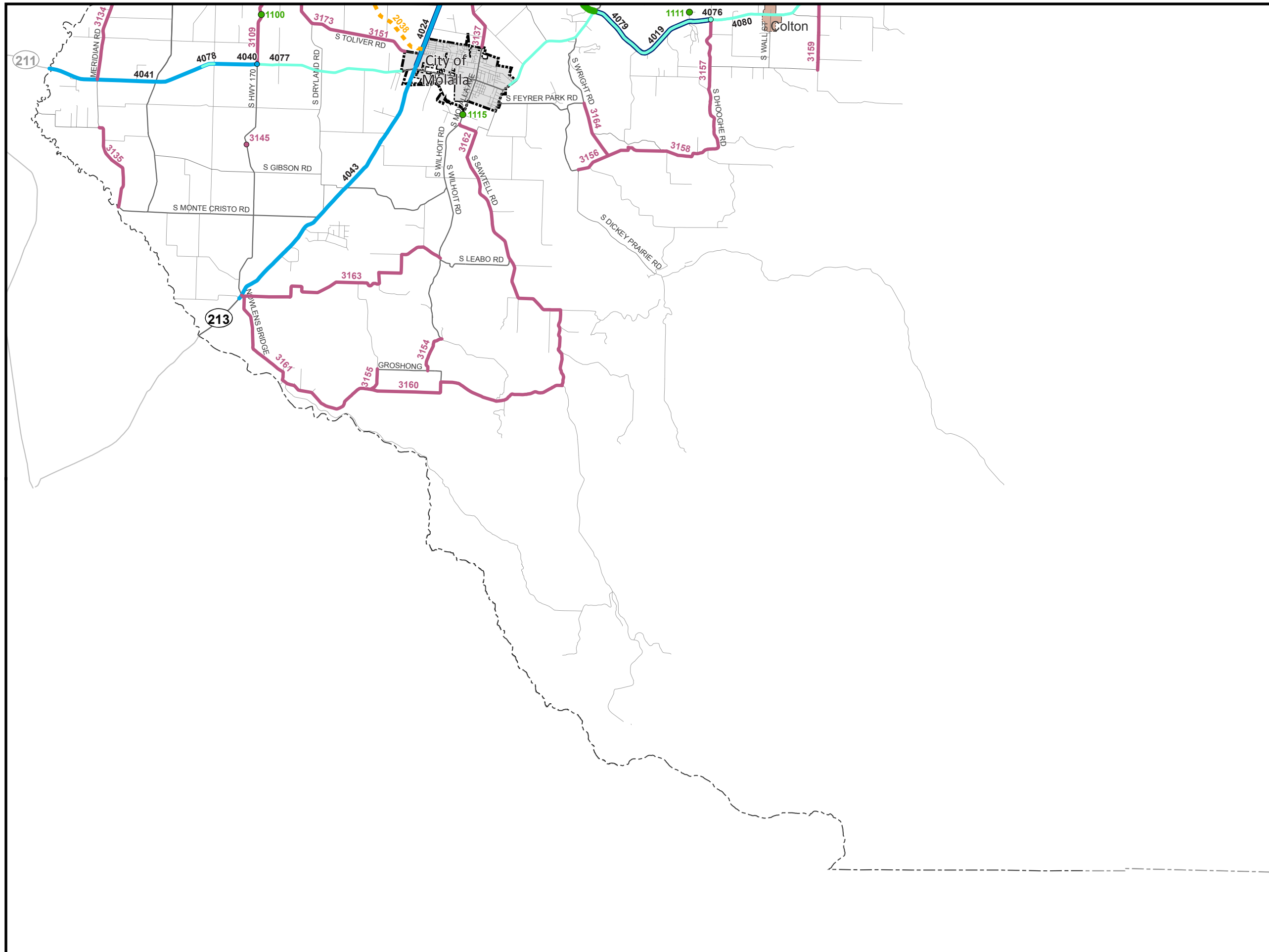


Last Amended June 1, 2015



CLACKAMAS COUNTY  
 COMPREHENSIVE PLAN

**MAP 5-11e**



# Capital Improvement Plan

Southwest County - Southern Portion

## Priority

- 20-Year Capital Projects (Table 5-3a)
- Preferred Capital Projects (Table 5-3b)
- Long-Term Capital Project Needs (Table 5-3c)

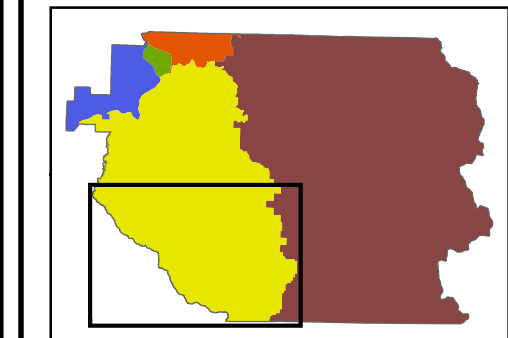
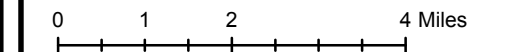
## Projects on Non-County Facilities

### Priority

- High (Table 5-3d)
- Medium (Table 5-3d)
- Low (Table 5-3d)

- ▲ Study\*
- Multi-Use Path\*
- Metro Urban Growth Boundary
- Incorporated City

\*Symbol color consistent with Priority symbologies shown above



Last Amended June 1, 2015



CLACKAMAS COUNTY  
COMPREHENSIVE PLAN

**MAP 5-11f**

**Prepared by:**

Clackamas County

Department of Transportation & Development

150 Beavercreek Rd., Oregon City, OR 97045

[www.Clackamas.us/transportation/](http://www.Clackamas.us/transportation/)

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**Project Team**

**Karen Buehrig**, Transportation Planning  
Supervisor

**Brett Setterfield**, Transportation Planner

**Mike Bezner**, Assistant Director  
Transportation Engineering

**Dan Johnson**, Director  
Department of Transportation &  
Development

**Board of Commissioners**

Jim Bernard, Chair

Paul Savas

Martha Schrader

Ken Humberston

Sonya Fischer

**Administrator:** Gary Schmidt



**DAN JOHNSON**  
DIRECTOR

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT  
DEVELOPMENT SERVICES BUILDING  
150 BEAVERCREEK ROAD OREGON CITY, OR 97045

Board of County Commissioners  
Clackamas County

Members of the Board:

**Approval of a Contract with Cardno, Inc. for the Engineering Services of 232<sup>nd</sup> Drive at MP 0.3**

<b>Purpose/Outcomes</b>	Execution of the contract allows Clackamas County to proceed with the design to repair and stabilize the roadway on 232 <sup>nd</sup> Drive at Milepost 0.3.
<b>Dollar Amount and Fiscal Impact</b>	The contract amount is not to exceed \$306,654.39
<b>Funding Source</b>	Federal Surface Transportation Program (STP) and County Road Funds.
<b>Duration</b>	December 31, 2021
<b>Previous Board Action</b>	07/12/18: BCC Approval of Supplemental Project Agreement No. 32533 for 232 <sup>nd</sup> Drive at MP 0.3 with the Oregon Department of Transportation. 01/05/17: BCC Approval of Master Certification Agreement No. 30923 for County implementation of federally funded projects.
<b>Strategic Plan Alignment</b>	This project will “Build a strong infrastructure” and “Ensure safe, healthy and secure communities” by performing preventative maintenance to increase life expectancy of road.
<b>Counsel Review</b>	October 30, 2019
<b>Contact Person</b>	Mike Ward, Project Manager 503-742-4688

**Background:**

Clackamas County obtained Federal Emergency Relief Program (ERP) funds to repair and stabilize the roadway on 232<sup>nd</sup> Drive at Milepost 0.3. The road was damaged in March of 2017 as a result of heavy rains that occurred during the spring of 2017 and saturated soils supporting the road. A state emergency declaration, which included Clackamas County, was signed by the governor allowing Clackamas County to be eligible for the ERP funding. The County received \$515,947.50 in funding thru the ERP for design and construction, with the remaining costs to be funded by the Road Fund.

The tasks associated with this contract include providing project management, surveying, geotechnical, stormwater design, roadway design, right-of-way, archeological, historical, environmental, and final engineering design services for the Project.

**Procurement Process:**

This project was advertised in accordance with ORS and LCRB Rules on March 14, 2019. Proposals were opened on April 17, 2019. The County received two (2) Proposals: Cardno, Inc.,

and David Evans and Associates, Inc. An evaluation committee of DTD personnel originally scored David Evans and Associates, Inc.'s proposal the highest. However, after months of negotiations DTD was unsuccessful in reaching a final agreement with David Evans and Associates, Inc. and terminated any further discussions. In accordance with the published RFP, the contract was awarded to the next highest scoring proposer, Cardno, Inc. Upon Contract award, the final statement of work was negotiated and finalized. Project fees were negotiated and based upon existing Oregon Department of Transportation ("ODOT") Negotiated Billing Rates.

**Recommendation:**

Staff respectfully recommends that the Board approve and execute the Engineering and Related Services Contract with Cardno, Inc. for the Engineering Services for 232<sup>nd</sup> Drive at MP 0.3.

Sincerely,

Mike Ward,  
Project Manager

Placed on the BCC Agenda \_\_\_\_\_ by Procurement and Contract Services

**ENGINEERING AND RELATED SERVICES CONTRACT**  
**Contract Number: 2021 (RFP 22269-01/2019-13)**

<b>Project Title: 232<sup>ND</sup> Drive at MP 0.3</b>	<b>County Project Number: 22269-01</b>
<b>Project Location: Clackamas County</b>	<b>Associated RFP Number: 01</b>
<b>Federal Aid Number: 19641</b> <b>Federal Aid Emergency Relief Number: ER-C005(109)</b>	<b>DBE Goal: 8.5% (see Exhibit E)</b>
<b>Total Not-to-Exceed (“NTE”) amount for this Contract.</b> This total includes: a) all allowable costs and expenses, profit, and fixed-fee amount, if any; and b) \$19,298.17 for contingency tasks, each of which must be separately authorized by County.	<b>\$ 306,654.39</b>

This Contract is between Clackamas County, hereafter called “County” and **Cardno, Inc.**, an Oregon corporation, hereafter called “Consultant.” County and Consultant together are also referred to as “Parties” and individually referred to as “Party.” The primary contacts for this Contract are identified in Exhibit J, Contact Information and Key Persons.

This Contract includes Federal Highway Administration (“FHWA”) funding coordinated through the Oregon Department of Transportation (“ODOT”). See Section 18 - Compliance with Applicable Law.

For purposes of this Contract:

- a) “business days” means calendar days, excluding Saturdays, Sundays and all State of Oregon recognized holidays;
- b) “calendar days” means any day appearing on the calendar, whether a weekday, weekend day, national holiday, State of Oregon holiday or other day;
- c) “Engineering” Services means architectural, engineering, photogrammetric mapping, transportation planning or land surveying services that must be procured using qualifications based selection procedures [see ORS 279C.100 and ORS 279C.110]; and
- d) “Related Services” has the meaning provided in ORS 279C.100.

**TERMS AND CONDITIONS**

**Contract Effective Date and Term.** This Contract is effective on the date it has been signed by the parties and all required approvals have been obtained. No work or compensation under the Contract is authorized until notice to proceed has been issued in writing (email acceptable) by the County. Unless otherwise amended or terminated, this Contract shall expire **December 31, 2021**.

**2. Statement of Work.** Consultant shall perform all Services and deliver all deliverables as described in Exhibit A, Statement of Work (the “Services”). The required schedule for performance under the Contract is specified in the Statement of Work.

**3. Compensation.** The maximum NTE amount, which includes the total of all allowable and reimbursable costs and expenses (and contingency tasks, if any) payable to Consultant under this Contract, is set forth in the table above and detailed further in Exhibit B, Compensation. County reserves the right, in its sole discretion, to amend this Contract to increase this amount for additional Services within the scope of the procurement. If this Contract was awarded as a Direct Appointment, amendments to increase the maximum amount payable are subject to limitations and additional requirements as set forth in applicable Federal, State and local laws. The payment methodology and basis for payment to Consultant is described in Exhibit B, Compensation. Consultant and any subconsultants are subject to the requirements and limitations of 48 CFR Part 31 - Contract Cost Principles and Procedures.

**4. Contract Exhibits.** This Contract includes the following exhibits, each of which is incorporated into this Contract as though fully set forth herein:

- Exhibit A - Statement of Work
- Exhibit B - Compensation



- Exhibit C - Insurance
- Exhibit D - Title VI Non-Discrimination Provisions
- Exhibit E - Disadvantaged Business Enterprise (“DBE”) Provisions
- Exhibit F - Special Terms & Conditions
- Exhibit G - RESERVED
- Exhibit H - RESERVED
- Exhibit I - Errors & Omissions (“E&O”) Claims Process
- Exhibit J - Contact Information and Key Persons

**5. Order of Precedence.** Unless a different order is required by law, this Contract shall be interpreted in the following order of precedence: this Contract (including all amendments, if any) less all Exhibits, attachments and other documents/information incorporated into this Contract, then the Statement of Work and Payment Schedule, then all other Exhibits, then any other attachments or documents/information incorporated into this Contract by reference.

**6. Independent Contractor; Conflict of Interest; Responsibility for Taxes and Withholding; Consultant Oversight.**

- a. Consultant, by its signature on the Contract, certifies that it is an independent contractor as defined in ORS 670.600 and as described in IRS Publication 1779, which is available at the following link: <https://www.irs.gov/pub/irs-pdf/p1779.pdf>. Consultant shall perform all required Services as an independent contractor. Although County reserves the right (i) to determine the delivery schedule (as mutually acceptable to County and Consultant) for the Services to be performed and (ii) to evaluate the quality of the completed performance, County cannot and will not control the means or manner of Consultant's performance. Consultant is responsible for determining the appropriate means and manner of performing the Services. Consultant is not an "officer", "employee", or "agent" of County, as those terms are used in ORS 30.265.
- b. Consultant, by its signature on the Contract, certifies that: (i) Consultant and, to the best of its information, knowledge and belief, its Associates have made any disclosures required under the COI Disclosure Form (available at: [https://www.oregon.gov/ODOT/Business/Procurement/DocsLPA/COI\\_LPA.docx](https://www.oregon.gov/ODOT/Business/Procurement/DocsLPA/COI_LPA.docx)) or any applicable law; and (ii) if a conflict of interest is discovered during the term of the Contract, Consultant shall timely submit a COI Disclosure Form to County disclosing the conflict(s).
- c. Consultant shall be responsible for all Federal or State of Oregon (“State”) taxes applicable to compensation or payments paid to Consultant under the Contract and, unless Consultant is subject to backup withholding, County will not withhold from such compensation or payments any amount(s) to cover Consultant's Federal or State tax obligations. Throughout the duration of the Contract, Consultant shall submit an updated W-9 form (<https://www.irs.gov/pub/irs-pdf/fw9.pdf>) to County whenever Consultant's backup withholding status or any other information changes. Consultant is not eligible for any social security, unemployment insurance or workers' compensation benefits from compensation or payments paid to Consultant under the Contract, except as a self-employed individual.
- d. Consultant shall not be responsible for or have control over the means, manner, methods or techniques required of or used by other consultants or contractors under contract with County, unless otherwise expressly agreed to in writing by the Parties. The Parties agree, however, that these Section 6.d. provisions do not in any way revise or adjust Consultant's professional responsibility to report to County any information that comes to Consultant's attention (during performance of this Contract) pertaining to a project, or to performance by other consultants or contractors on a project, that would adversely affect County or a particular project.

**7. Subcontracts and Assignment; Successors and Assigns**

- a. Consultant shall obtain County's written consent prior to entering into any subcontracts for any of the Services required by the Contract, or in any manner assigning, selling or transferring any of its rights or interest under the Contract or delegate any of its duties or performance under the Contract. In addition to any other provisions County may require, Consultant shall include, in any permitted subcontract under the Contract, contractual provisions that shall require any

subcontractor (which may also be referred to as “subconsultant”) to comply with Sections 9, 10, 11, 12, 13, 16, 17, 18, 19, 23, 27 and 29 of these Contract provisions, the limitations of **Exhibit B - Compensation**, Exhibit D - Title VI Nondiscrimination Provisions, and the requirements and sanctions of ORS Chapter 656, Workers’ Compensation, in the performance of the subcontractor’s Services on the project that is the subject of the Contract, as if the subcontractor were the Consultant. County’s consent to any subcontract shall not relieve Consultant of any of its duties or obligations under the Contract, including with respect to any Services, whether performed or to be performed by Consultant or a subcontractor.

- b. The provisions of the Contract shall be binding upon and shall inure to the benefit of the Parties hereto, and their respective successors and permitted assigns, if any.
- c. Any purported assignment, delegation or disposition in violation of subsection “a.” above is void.

**8. Third Party Beneficiaries.** The State of Oregon, the Oregon Transportation Commission (OTC) and ODOT, are intended third-party beneficiaries of the Contract with express independent authority to enforce the terms and conditions of the Contract. Otherwise, there are no third-party beneficiaries of the Contract.

**9. Representations and Warranties.** Consultant represents and warrants to County that (i) Consultant has the power and authority to enter into and perform the Contract, (ii) the Contract, when executed and delivered is a valid and binding obligation of Consultant, enforceable in accordance with its terms, (iii) the Services under the Contract will be performed in accordance with the professional standard of care set forth in Section 10 below; (iv) Consultant is duly licensed to perform the Services, and if there is no licensing requirement for the profession or Services, is duly qualified and professionally competent to perform the Services; and (v) Consultant is an experienced firm having the skill, legal capacity, professional ability and resources necessary to perform all the Services required under the Contract. The warranties set forth in this Section are in addition to, and not in lieu of, any other warranties provided.

**10. Professional Standard of Care; Responsibility of Consultant; Design Within Funding Limit**

**a. Professional Standard of Care.**

Consultant shall perform all Services under the Contract in accordance with the degree of skill and care ordinarily used by competent practitioners of the same professional discipline when performing similar services under similar circumstances, taking into consideration the contemporary state of the practice and the project conditions.

**b. Responsibility of Consultant.**

- (i) Consultant shall be responsible for the professional quality, technical accuracy, and coordination of all designs, drawings, specifications, and other Services furnished by Consultant under the Contract. Consultant shall, without additional compensation, correct or revise any errors or deficiencies in its designs, drawings, specifications and other Services.
- (ii) County’s review, approval or acceptance of, or payment for, the Services required under the Contract shall not be construed to operate as a waiver of any rights under the Contract or of any cause of action arising out of the performance of the Contract, and Consultant shall be and remain liable to County in accordance with applicable law for all damages to County caused by Consultant’s negligent performance of any of the Services furnished under the Contract or negligent failure to perform any of the Services under the Contract.
- (iii) The rights and remedies of County provided for under the Contract are in addition to any other rights and remedies provided by law.
- (iv) If Consultant is comprised of more than one legal entity (for example, a joint-venture or partnership), each such entity shall be jointly and severally liable under the Contract.

**c. Design Within Funding Limit.**

When the Services under the Contract include preparation of design plans for the project:

- (i) Consultant shall accomplish the design Services required under the Contract so as to permit construction of the project within County’s budget for construction. **County’s budget for construction of the project is \$408,965.** Consultant shall promptly advise County’s Contract Administrator if it finds that the project being designed will exceed or is likely to exceed the



- funding limitations and it is unable to design a usable project within these limitations. Upon receipt of such information, the Contract Administrator will review Consultant's revised estimate of construction cost. County may, if it determines that the estimated construction contract price set forth in this Section is so low that award of a construction contract not in excess of such estimate is improbable, authorize a change in scope or materials as required to reduce the estimated construction cost to an amount within the estimated construction contract price set forth in this Section, or County may adjust such estimated construction contract price.
- (ii) Prior to releasing the bid for the construction contract, County will prepare an estimate of constructing the design submitted. If County's estimator(s) determines Consultant's design exceeds County's budget for the construction contract as set forth in Section (i) above {and as may be revised per Section (i) above}, then Consultant shall perform such redesign and other Services as are necessary to permit contract award within the funding limitation. These additional Services shall be performed at no increase in the price of the Contract. However, Consultant shall not be required to perform such additional Services at no cost to County if Consultant's design exceeds County's budget {as set forth in Section (i) above} as a result of conditions beyond Consultant's reasonable control.

## 11. Ownership of Work Product

- a. **Definitions.** The following terms have the meanings set forth below:
- (i) "Consultant Intellectual Property" means any intellectual property owned by Consultant and developed independently from the Contract.
  - (ii) "Third Party Intellectual Property" means any intellectual property owned by parties other than County or Consultant.
  - (iii) "Work Product" means every invention, discovery, work of authorship, trade secret or other tangible or intangible item, and all intellectual property rights therein, that Consultant is required to deliver to County pursuant to the Contract.
- b. **Work Product.** All Work Product created by Consultant pursuant to the Contract, including derivative works and compilations, and whether or not such Work Product is considered a "work made for hire," shall be the exclusive property of County. County and Consultant agree that Work Product that constitutes original works of authorship (the "Original Work Product") is "work made for hire" of which County is the author within the meaning of the United States Copyright Act. If for any reason Original Work Product created pursuant to the Contract is not "work made for hire," Consultant hereby irrevocably assigns to County any and all of its rights, title, and interest in all Original Work Product created pursuant to the Contract, whether arising from copyright, patent, trademark, trade secret, or any other State or Federal intellectual property law or doctrine. Upon County's reasonable request, Consultant shall execute such further documents and instruments necessary to fully vest such rights in Original Work Product in County. Consultant forever waives any and all rights relating to Original Work Product created pursuant to the Contract, including without limitation, any and all rights arising under 17 USC §106A or any other rights of identification of authorship or rights of approval, restriction or limitation on use or subsequent modifications. However, see Sections 11.c and 11.d immediately below, for provisions applicable to Consultant Intellectual Property, Third Party Intellectual Property, Consultant Intellectual Property derivative works and Third Party Intellectual Property derivative works.
- c. **Consultant and Third Party Intellectual Property.** In the event that any Work Product is Consultant Intellectual Property or Third Party Intellectual Property (Consultant Intellectual Property or Third Party Intellectual Property that is applicable to the Services being performed by Consultant under the Contract or included in Work Product deliverable to County under the Contract), or in the event any Consultant Intellectual Property or Third Party Intellectual Property is needed by County to reasonably enjoy and use any Work Product, Consultant hereby agrees that it will grant to, or obtain for, the County an irrevocable, non-exclusive, non-transferable, perpetual, royalty-free license to use, reproduce, prepare derivative works based upon, distribute copies of, perform and display Consultant Intellectual Property and or Third Party Intellectual Property, including the right of County to authorize contractors, consultants and others to do the same on County's behalf. This obligation of the Consultant does not apply to a situation involving a third party who enters a license agreement directly with the County. At the request of Consultant, County shall take reasonable steps to protect the confidentiality and proprietary interests of Consultant in any

Consultant Intellectual Property licensed under this Section, within the limits of the Oregon Public Records Law (ORS 192.410 through 192.505) and the Oregon Uniform Trade Secrets Act (ORS 646.461 to 646.475).

- d. **Consultant and Third Party Intellectual Property-Derivative Work.** In the event that Work Product created by Consultant under the Contract is a derivative work based on Consultant Intellectual Property or Third Party Intellectual Property, or is a compilation that includes Consultant Intellectual Property or Third Party Intellectual Property, Consultant hereby agrees to grant to, or obtain for, County an irrevocable, non-exclusive, non-transferable, perpetual, royalty-free license to use, reproduce, prepare derivative works based upon, distribute copies of, perform and display the pre-existing elements of Consultant Intellectual Property or Third Party Intellectual Property employed in the Work Product, including the right of County to authorize others to do the same on County's behalf.
- e. **Consultant Use of Work Product.** Notwithstanding anything to the contrary in this Section 11, Consultant may refer to the Work Product in its brochures or other literature that Consultant utilizes for advertising purposes and, unless specified otherwise in Exhibit A - Statement of Work, County hereby grants to Consultant a non-exclusive, non-transferable, royalty-free license to use, reproduce, prepare derivative works based upon, distribute copies of, perform and display County-owned Work Product on other unrelated projects, except for any "Confidential Information" protected from disclosure under the provisions of Section 12 below, pertaining to Confidentiality and Non-Disclosure.

**12. Confidentiality and Non-Disclosure.** Consultant and its subcontractors, and their respective employees and agents, shall keep confidential all information, in whatever form, produced, prepared, observed or received to the extent that such information is designated as confidential by the County, by law, or by this Contract. In the event Consultant is required to disclose Confidential Information pursuant to a subpoena or other legal process, Consultant shall immediately notify County of such subpoena or other legal process, provide County with copies of any subpoena, other legal process and any other written materials supporting the subpoena or other legal process, and otherwise cooperate with County in the event County decides to oppose the disclosure of the Confidential Information. In the event County decides not to oppose such subpoena or other legal process or County's decision to oppose the subpoena or legal process has not been successful, Consultant shall be excused from the confidentiality provisions of this Section, to the extent necessary to meet the requirements of the subpoena or other legal process controlling the required disclosure.

### **13. Indemnity**

- a. **Claims for Other Than Professional Liability.** Consultant shall indemnify, defend, save, and hold harmless the County, State of Oregon, the OTC and ODOT, and their respective officers, members, agents and employees from any and all claims, suits, actions, losses, liabilities, damages, costs and expenses, including attorney fees, of whatsoever nature, resulting from or arising out of the acts or omissions of Consultant or its subcontractors, or their respective agents or employees, under the Contract.
- b. **Claims for Professional Liability.** Consultant shall indemnify, defend, save, and hold harmless the County, State of Oregon, the OTC and ODOT, and their respective officers, members, agents and employees from any and all claims, suits, actions, losses, liabilities, damages, costs and expenses, including attorney fees, of whatsoever nature, resulting from or arising out of the professionally negligent acts, errors or omissions of Consultant or its subcontractors, or their respective agents or employees, in the performance of Consultant's professional services under the Contract.
- c. **Indemnity for Infringement Claims.** Without limiting the generality of section 13(a) or 13(b), Consultant expressly agrees to indemnify, defend, save and hold harmless the County, State of Oregon, the OTC and ODOT, and their respective officers, members and their agencies, subdivisions, officers, directors, agents, and employees from any and all claims, suits, actions, losses, liabilities, damages, costs and expenses, including attorney fees, arising out of or relating to any claims that Consultant's services, the Work Product or any other tangible or intangible items delivered to the County by Consultant that may be the subject of protection under any state or federal intellectual property law or doctrine, or the County's use thereof,

infringes any patent, copyright, trade secret, trademark, trade dress, mask work, utility design, or other proprietary right of any third party; provided, County shall provide Consultant with prompt written notice of any infringement claim. Provided, however, Consultant shall not be obligated to indemnify, defend, save and hold harmless the County (or other entities identified above) under this section 13(c), based solely on the following: Consultant's compliance with County specifications or requirements, including, but not limited to the required use of tangible or intangible items provided by County.

- d. **Defense Qualification.** Neither Consultant nor any attorney engaged by Consultant shall defend or purport to defend a claim in the name of the County, the State of Oregon, the OTC or ODOT without first receiving from the applicable entity, authority to act as legal counsel, nor shall Consultant settle any claim on behalf of the foregoing entities without the approval of these entities. The County, the State of Oregon, the OTC or ODOT may, at their election and expense, assume their own defense and settlement.
- e. **County's Acts or Omissions.** This section 13 does not include indemnification by Consultant of the County, the State of Oregon, the OTC and ODOT, and their respective officers, members, agents and employees, for the acts or omissions of these entities and their respective officers, members, agents and employees, whether within the scope of the Contract or otherwise.

14. **Insurance.** Consultant shall carry insurance as required on **Exhibit C**.

15. **Termination**

- a. **Termination by Mutual Consent.** The Contract may be terminated at any time, in whole or in part, by mutual written consent of the Parties.
- b. **County's Right to Terminate for Convenience.** County may, at its sole discretion, terminate the Contract, in whole or in part, upon 30 calendar days prior written notice to Consultant.
- c. **County's Right to Terminate for Cause.** County may terminate the Contract, in whole or in part, immediately upon written notice to Consultant or at such later date as County may establish in such notice, upon the occurrence of any of the following events:
  - (i) County fails to receive appropriations, limitations or other expenditure authority sufficient to allow County, in the exercise of its reasonable administrative discretion, to continue to make payments for Consultant's Services. Payments under this Contract and continuation of this Contract beyond the current biennium are subject to and contingent upon sufficient funds being appropriated, budgeted, and otherwise made available from current funding sources. The County may terminate this Contract, and Consultant waives any and all claims for damages, effective immediately upon receipt of written notice, or any date specified therein, if for any reason the County's funding from local, state and/or federal sources is not appropriated or is withdrawn, limited or impaired;
  - (ii) Federal, State or local laws, regulations or guidelines are modified or interpreted in such a way that either the Services under the Contract are prohibited or County is prohibited from paying for such Services from the planned funding source;
  - (iii) Consultant no longer holds any license or certificate that is required to perform the Services; or
  - (iv) Consultant commits any material breach or default of any covenant, warranty, obligation or agreement under the Contract, fails to perform the Services under the Contract within the time specified or any extension thereof, or so fails to perform the Services as to endanger Consultant's performance under the Contract in accordance with its terms, and such breach, default or failure is not cured within 14 calendar days after County's notice to Consultant, or such longer period as County may specify in such notice.
- d. **Consultant's Right to Terminate for Cause.**
  - (i) Consultant may terminate the Contract by giving written notice to County if County fails to pay Consultant pursuant to the terms of the Contract and if County fails to cure within 14 calendar days after receipt of Consultant's written notice, or such longer period of cure as Consultant may specify in such notice.
  - (ii) Consultant may terminate the Contract, for reasons other than nonpayment, if County commits any material breach or default of any covenant, warranty, obligation or agreement under the Contract, fails to perform under the Contract within the times specified, or so fails to perform as to endanger Consultant's performance under the Contract, and such breach,

default or failure is not cured within 14 calendar days after Consultant's notice to County, or such longer period as Consultant may specify in such notice.

**e. Remedies.**

- (i) In the event of termination pursuant to Sections 15(a), 15(b), 15(c)(i), 15(c)(ii) or 15(d), Consultant's sole remedy (except as otherwise required by applicable State or Federal law) shall be a claim for payment of the satisfactory Services actually rendered up to the time of termination, less previous amounts paid and any claim(s) which State has against Consultant, except in the event of a termination under Section 15(c)(i) where no payment will be due and payable for Services performed or costs incurred after the last day of the current biennium. If previous amounts paid to Consultant exceed the amount due to Consultant under this subsection, Consultant shall pay all excess to County upon demand.
- (ii) In the event of termination pursuant to Section 15(c)(iii) or 15(c)(iv), County shall have any remedy available to it in law or equity. If it is determined for any reason that Consultant was not in default under Section 15(c)(iii) or 15(c)(iv), the rights and obligations of the Parties shall be the same as if the Contract was terminated pursuant to Section 15(b).

- f. Consultant's Tender Upon Termination/Retained Remedies of County.** Upon receiving a notice of termination of the Contract, Consultant shall immediately cease all activities under the Contract, unless County expressly directs otherwise in such notice of termination. Upon termination of the Contract, Consultant shall deliver to County all documents, information, works-in-progress and other property that are or would be deliverables had the Contract been completed. Upon County's request, Consultant shall surrender to anyone County designates, all documents, information, research, works-in-progress, Work Product and other property, that are deliverables or would be deliverables had the Contract been completed, that are in Consultant's possession or control and may be needed by County to complete the Services.

**16. Records Maintenance; Access.** Consultant, and its subconsultants, shall maintain all fiscal records relating to the Contract in accordance with generally accepted accounting principles. In addition, Consultant shall maintain all other records pertinent to the Contract and the project and shall do so in such a manner as to clearly document Consultant's performance. The County, ODOT, the Oregon Secretary of State's Office (OSS), FHWA and the Comptroller General of the United States (CGUS) and their respective, duly authorized representatives shall have access, and Consultant shall permit the aforementioned entities and individuals access, to such fiscal records and other books, documents, papers, plans and writings of Consultant that are pertinent to the Contract to perform examinations and audits and make excerpts and transcripts. Consultant shall retain and keep accessible all such fiscal records, books, documents, papers, plans, and writings for a minimum of 6 years, or such longer period as may be required by applicable law, following final payment and expiration or termination of the Contract, or until the conclusion of any audit, controversy or litigation arising out of or related to the Contract, whichever date is later. Any cost data submitted by Consultant pursuant to this Contract may be shared with ODOT, FHWA, OSS and CGUS, as necessary, for audit purposes. County, ODOT and FHWA shall have the right to review or examine the work in progress for any Services performed under the Contract.

**17. Performance Evaluations.** County will conduct performance evaluation(s) on the Consultant and its subconsultants during the term of the Contract, which will be compiled and maintained by County, and become a written record of Consultant's performance. Generally, the performance evaluations will include criteria related to, but not limited to, quality and technical performance, adherence to contract scope and budget, schedule performance, and business relations (including communications and negotiations performance). County will provide a copy of the performance evaluation results to Consultant within 14 calendar days following completion. Consultant may respond, in writing, or may request a meeting to address any or all findings contained in the completed performance evaluation within 30 calendar days following receipt. County may adjust evaluation score(s) upon County's finding of good cause. County may provide copies of any performance evaluation documentation to ODOT, FHWA, and other parties unless lawfully exempt from disclosure. County may use performance evaluation findings and conclusions in any way deemed necessary, including, but not limited to, corrective action, requiring submittal of performance improvement plan by Consultant and withholding

of retainage. County and ODOT may use Consultant performance under previous contracts as a selection criterion for future contracts.

**18. Compliance with Applicable Law.** Consultant shall comply with all Federal, State and local statutes, regulations, administrative rules, executive orders, ordinances and other laws applicable to the Services under the Contract, in effect at the time the Contract is executed and as may be amended, revised, enacted or adopted thereafter. Changes in these legal requirements after the execution of the Contract may or may not be the basis for modifications to Consultant's schedule, scope and fee, depending on a reasonable assessment of the nature of the change, the extent to which the change was anticipated by Consultant or the Parties, and other circumstances then existing. Without limiting the generality of the foregoing, Consultant expressly agrees to comply with: (i) Title VI of the Civil Rights Act of 1964; (ii) Section V of the Rehabilitation Act of 1973; (iii) the Americans with Disabilities Act of 1990 and ORS 659a.142; (iv) the Clean Air Act (42 U.S.C. 7401-7671q); (v) the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387); (vi) Executive Order 11738; (vii) Environmental Protection Agency regulations (40 CFR part 15); (viii) and all applicable standards, orders, regulations and administrative rules established pursuant to the foregoing laws. County's performance under the Contract is conditioned upon Consultant's compliance with, and Consultant shall comply with, the obligations applicable to public contracts and intended for contractors under ORS 279C.505-279C.580, which are incorporated by reference herein. All rights and remedies available to County under applicable federal, state and local laws are also incorporated by reference herein and are cumulative with all rights and remedies under the Contract. If Consultant discovers a conflict among Federal, State and local statutes, regulations, administrative rules, executive orders, ordinances and other laws applicable to the Services under the Contract, Consultant shall in writing request County to resolve the conflict (in collaboration with ODOT and FHWA as applicable). Consultant shall specify if the conflict(s) create a problem for the design or other Services required under the Contract. If County concludes there is a conflict among the applicable laws, Federal laws shall govern among the others; State laws shall govern over the others except Federal. The resolution of the conflict of the applicable laws by County shall be final and not subject to further review or challenge.

**19. Permits and Licenses**

- a. **Permits and licenses to conduct business.** Unless otherwise specified in **Exhibit A**, Statement of Work, Consultant shall obtain, hold, maintain and fully pay for during the term of the Contract all permits and licenses required by law for Consultant to conduct its business and perform the Services under the Contract.
- b. **Permits and licenses required for the project.** Unless otherwise specified in **Exhibit A**, Statement of Work, Consultant shall obtain, hold and maintain during the term of the Contract all permits and licenses required for the project (for example, permits from regulatory authorities and use permits or licenses from owners of real and personal property), but County shall pay for such permits and licenses. Consultant shall review the project site, if applicable, and the nature of the Services that Consultant shall perform under the Contract. Consultant shall advise County throughout the course of the project as to the necessity of obtaining all project permits and licenses, the status of the issuance of any such permits and licenses, and any issues or impediments related to the issuance or continuation of any such permits and licenses.

**20. Foreign Contractor.** If Consultant is not domiciled in or registered to do business in the State of Oregon, Consultant shall promptly provide to the Oregon Department of Revenue and the Secretary of State Corporation Division all information required by those agencies relative to the Contract.

**21. Force Majeure.** Neither County nor Consultant shall be held responsible for delay or default in the performance of its obligations due to a cause beyond its reasonable control, including, but not limited to, fire, riot, acts of God, terrorist acts or other acts of political sabotage, or war where such cause was beyond the reasonable control of County or Consultant, respectively. Consultant shall, however, make all reasonable efforts to remove or eliminate such a cause of delay or default and shall, upon the cessation of the cause, diligently pursue performance of its obligations under the Contract.

**22. Survival.** All rights and obligations shall cease upon termination or expiration of the Contract, except for the rights and obligations set forth in Sections 5, 9, 10, 11, 12, 13, 15(e), 15(f), 16, 22, 23, 26, 27 and 29 and all other rights and obligations which by their context are intended to survive.

**23. Time is of the Essence.** Consultant agrees that time is of the essence in Consultant's performance of its obligations under the Contract.

**24. Notice.** Except as otherwise expressly provided in the Contract, any communications between the Parties hereto or notices to be given hereunder shall be given in writing by e-mail, by personal delivery, facsimile, or mailing the same, postage prepaid, to Consultant or County at the e-mail address, the delivery address or facsimile number set forth in the Contract, or to such other addresses or numbers as either Party may hereafter indicate in writing to the other. Any notice or day-to-day communication sent by e-mail shall be deemed received when it is sent. **The recipient of any notice sent by e-mail shall reply by e-mail to confirm receipt of such notice.** Any communication or notice made by personal delivery shall be deemed to be received when actually delivered. Any communication or notice properly addressed and mailed shall be deemed received 5 calendar days after the date of mailing. Any communication or notice delivered by facsimile shall be deemed received on the date of the notice of successful transmission generated by the transmitting machine. To be effective, such facsimile transmission must be confirmed by telephone notice to County's Contract Administrator or Consultant's representative, as applicable.

**25. Severability.** The Parties agree that if any term or provision of the Contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected, and the rights and obligations of the Parties shall be construed and enforced as if the Contract did not contain the particular term or provision held to be invalid.

**26. Dispute Resolution and Errors & Omissions Claims Process.** In the event of a dispute between the Parties regarding any aspect of the Contract or performance under the Contract, the Parties agree to attempt in good faith to investigate and resolve any such dispute through direct communications and negotiations.

- a. **Errors & Omissions Related.** In the event those good faith efforts do not resolve disputes related to potential Errors and Omissions, the Parties agree to make good faith efforts to resolve the matter pursuant to **Exhibit I, Errors & Omissions Claims Process.**
- b. **Other Disputes.** In the event good faith efforts do not resolve disputes unrelated to Errors & Omissions, the Parties agree to make a good faith effort to resolve any such dispute through fact finding and non-binding mediation prior to resorting to litigation. The mediator shall be selected by mutual agreement of the Parties. If the Parties fail to agree on a mediator, each Party shall select a mediator and those two persons shall agree on a third-party, who will be the sole mediator. The cost of the mediator shall be split equally between the Parties.
- c. **Notification to ODOT.** County shall immediately notify ODOT of any disputes that seek resolution with the Errors & Omissions Claims Process or mediation.

**27. Governing Law; Venue; Consent to Jurisdiction.** The Contract shall be governed by, and construed and enforced in accordance with, the laws of the State of Oregon, without regard to principles of conflicts of law. Any claim, action, suit or proceeding (collectively, "Claim") between County (or any agency or department of the State of Oregon) and Consultant that arises from or relates to the Contract shall be brought and conducted solely and exclusively within the Circuit Court located in the County in which the Project is located; provided, however, if a Claim must be brought in a Federal forum, then it shall be brought and conducted solely and exclusively within the United States District Court for the District of Oregon. In no event shall this Section be construed as a waiver by the County or State of Oregon of any form or defense or immunity, whether based on sovereign immunity, governmental immunity, immunity based on the Eleventh Amendment to the United States Constitution, or otherwise. **CONSULTANT, BY EXECUTION OF THE CONTRACT, HEREBY CONSENTS TO THE IN PERSONAM JURISDICTION OF SAID COURTS.**

**28. Amendments.** County may amend the Contract to the extent permitted by applicable statutes, administrative rules and ordinances and as mutually agreed upon by County and Consultant. County may agree to appropriate increases in the maximum compensation payable under the Contract, should any County-approved increase occur in the scope, character, schedule or complexity of Services as outlined in the Statement of Work. Consultant shall not commence any Services authorized under an amendment, and the amendment is not effective, unless it is in writing, signed by the Parties and all approvals required by applicable law have been obtained.

**29. False Claims**

- a. Consultant understands and acknowledges it is subject to the Oregon False Claims Act ([ORS 180.750 to 180.785](#)) and to any liabilities or penalties associated with the making of a false claim under that Act. By its execution of the Contract, Consultant certifies the truthfulness, completeness, and accuracy of any statement or claim it has made, it makes, it may make, or cause to be made that pertains to the Contract or the Project for which the Services are being performed, including but not limited to Consultant's statement of proposal and any invoices, reports, or other deliverables.
- b. Consultant shall immediately disclose (in writing) to County whenever, in connection with the award, performance or closeout of the Contract, or any subcontract thereunder, Consultant has credible evidence that a principal, employee, agent, or subcontractor of Consultant has committed—
  - (i) A violation of the Oregon False Claims Act; or
  - (ii) A violation of State or Federal criminal or civil law involving fraud, conflict of interest, bribery, gratuity or similar misconduct.
- c. Consultant must include subsections (a) and (b) of this section in each subcontract Consultant may award in connection with the performance of the Contract. In doing so, Consultant may not modify the terms of those subsections, except to identify the subcontractors or sub grantee that will be subject to those provisions.

**30. Certified Small Businesses.** Respecting certification as a disadvantaged business enterprise, minority-owned business, woman-owned business, business that a service-disabled veteran owns or an emerging small business under ORS 200.055, as and when applicable, the Consultant shall maintain the certifications, and require in its subcontracts that subcontractors maintain the certifications required by Section 2, Chapter 325, Oregon Laws 2015, as amended by Section 26, Chapter 565, Oregon Laws 2015 as a material condition of the Contract. If the Consultant or subcontractor was awarded the Contract or subcontract, as applicable, in the course of County carrying out an affirmative action goal, policy or program under ORS 279A.100, and fails to maintain the required certification, County may terminate the Contract, require the Consultant to terminate the subcontractor, or exercise any of remedies reserved for breach of the Contract.

**31. Merger Clause; Waiver; Interpretation.** The Contract, including everything incorporated by reference, constitutes the entire agreement between the Parties on the subject matter hereof. There are no understandings, agreements, or representations, oral or written, not specified herein regarding the Contract. No waiver, consent, modification or change of terms of the Contract shall bind either Party, unless such waiver, consent, modification or change of terms is in writing and signed by the Parties, and all necessary State of Oregon governmental approvals have been obtained. Such a waiver, consent, modification or change, if made, shall be effective only in the specific instance and for the specific purpose given. Either Party's failure to enforce any provision of the Contract shall not constitute a waiver by that Party of that or any other provision. The characterization of provisions of the Contract as material provisions or the failure to comply with certain provisions as a material breach of the Contract shall in no way be construed to mean that any other provisions of the Contract are not material or that failure to comply with any other provisions is not a material breach of the Contract.

**CONSULTANT CERTIFICATIONS**

**A. Any individual signing on behalf of Consultant hereby certifies under penalty of perjury:**

- (1) Consultant has provided its correct TIN to County;

- (2) Consultant is not subject to backup withholding because (a) Consultant is exempt from backup withholding, (b) Consultant has not been notified by the IRS that Consultant is subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified Consultant that Consultant is no longer subject to backup withholding; and
- (3) s/he is authorized to act on behalf of Consultant, s/he has authority and knowledge regarding Consultant's payment of taxes, and to the best of her/his knowledge, Consultant is not in violation of any Oregon Tax Laws. For purposes of this certification, "Oregon Tax Laws" means a State tax imposed by ORS 320.005 to 320.150 and 403.200 to 403.250, ORS Chapters 118, 314, 316, 317, 318, 321, and 323; and local taxes administered by the Department of Revenue under ORS 305.620.

**B. Any individual signing on behalf of Consultant hereby certifies they are authorized to sign this Contract and that:**

- (1) **Consultant has read this Contract, understands it, and agrees to be bound by its terms and conditions.**
- (2) Consultant understands and agrees that various documents are not physically attached, but are incorporated by reference and have the same force and effect as if fully set forth herein.
- (3) Consultant understands and has provided to all Associates the COI Disclosure Form available at: <https://www.oregon.gov/ODOT/Business/Procurement/Pages/LPA.aspx>. Consultant and (to the best of the undersigned's information, knowledge and belief) Consultant's Associates are in compliance with the disclosure requirements of the COI Disclosure Form and have no conflicts of interest to disclose. If disclosures regarding this Contract or the related Project are required per the COI Disclosure Form, Consultant has made such disclosures to County on a properly prepared and submitted form and, if determined necessary by County or ODOT, a mitigation plan has been approved by County and ODOT.
- (4) (a) No Federal appropriated funds have been paid or will be paid, by or on behalf of Consultant, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.  
(b) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.  
(c) This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.  
(d) Consultant shall require that the language of this certification be included in all subcontracts in excess of \$100,000 at all tiers and that all such subcontractors shall certify and disclose accordingly.
- (5) Consultant is an independent contractor as defined in ORS 670.600 and as described in IRS Publication 1779.
- (6) In the event that Consultant is a general partnership or joint venture, Consultant signature(s) on this Contract constitutes certifications to the above statements pertaining to the partnership or joint venture, as well as certifications of the above statements as to any general partner or joint venturer signing this Contract.

No Payment shall be made for Services that are performed before all necessary governmental approvals have been obtained, the Contract is fully executed, and Notice-To-Proceed has been issued by County.



**Counterparts:** The Contract may be executed in several counterparts, all of which when taken together shall constitute one agreement binding on all Parties, notwithstanding that all Parties are not signatories to the same counterpart. Each copy of the Contract so executed shall constitute an original.

**CONSULTANT SIGNATURE(s)**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name: \_\_\_\_\_ Title: \_\_\_\_\_

**CLACKAMAS COUNTY BOARD OF COUNTY COMMISSIONERS**

Chair: \_\_\_\_\_

Date: \_\_\_\_\_

Recording Secretary: \_\_\_\_\_

**COUNTY LEGAL REVIEW (Approved as to Form):**

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**EXHIBIT A**  
**STATEMENT of WORK and DELIVERY SCHEDULE**  
232<sup>nd</sup> Drive at MP 0.3  
Contract #2021 (RFP 22269-01/ #2019-13)

**A. PROJECT DESCRIPTION and OVERVIEW of SERVICES**

Clackamas County (the “County” or “Agency”) is contracting with Consultant for Services in connection with the following project (the “Project”): 232<sup>nd</sup> Drive at MP 0.3 Project.

Clackamas County obtained Federal Emergency Relief Program (ERP) funds to repair and stabilize the roadway on 232<sup>nd</sup> Drive at Milepost 0.3. The road was damaged in March of 2017 as a result of heavy rains that occurred during the spring of 2017. A state emergency declaration, which included Clackamas County, was signed by the governor allowing Clackamas County to be eligible for the ERP funding.

Agency is contracting with Consultant for Services to prepare preliminary and final roadway and stormwater designs, construction cost estimates, identify all necessary environmental permits, identify right-of-way and easement acquisitions, and perform all services necessary to acquire environmental permits and right-of-way and easements associated with the incorporation of the roadway embankment stabilization and repairs related to the March 2017 landslide damage.

The tasks associated with this RFP include providing project management, surveying, geotechnical, stormwater design, roadway design, right-of-way, archeological, historical, environmental, and final engineering design services for the Project. The work covered by this RFP includes the preparation of reports, permit applications, and final engineering documents. All documents and other deliverables are to be completely described in the English system unit of measure. A Project Location Map is attached as Exhibit A. The limits of improvement for the Project are shown in Figure 1 below.



Figure 1 – Approximate limits of improvement for the Project.

**General Expectations**

Consultant commits to provide Services to obtain the greatest long-term value for Agency, and to promote prudent expenditure of public funds within the constraints of the Project, program, context, budget and cost-effective sustainability principles. Consultant shall: (i) avoid expenditures for aesthetic effect which are disproportionate to the Project as a whole; (ii) use recycled/recyclable products to the maximum extent economically feasible in the performance of this Contract, and (iii) apprise Agency throughout the Project concerning any issues or decisions with potential economic impact to the Project.

**Project Phasing**

This Project is divided into 2 phases:

- Preliminary Design, Right of Way and Final Design Phase
- Construction Engineering, Inspection and Construction Contract Administration Phase

This statement of work (“SOW”) addresses the first phase of the Project. Following completion of a given phase, Agency may, at its discretion:

- Amend this Contract to add the next phase (or various elements), or
- Elect to complete subsequent phase tasks with in-house staff, or
- Assign subsequent phase tasks to another consulting firm.

Agency and Consultant shall negotiate the detailed tasks, deliverables, schedule and costs for each phase Agency elects to add. Each added phase will be authorized only by written Contract amendment with all required approvals and signatures.

## Agency Responsibilities

- Agency review periods do not exceed 3 weeks.
- Agency will be primary point of contact with ODOT regarding CONTRACT and design aspects of this Project.

## Acronyms and Definitions

AASHTO ....American Association of State Highway and Transportation Officials

ADA.....Americans with Disabilities Act of 1990

ADT .....Average Daily Traffic

APE.....Area of Potential Effect

API.....Area of Project Impact

APM.....Agency Project Manager (Clackamas County)

APWA.....American Public Works Association

ASTM .....American Society for Testing and Materials

BA.....Biological Assessment

BMP .....Best Management Practice

BO.....Biological Opinion

CADD .....Computer Automated Drafting and Design

CE .....Categorical Exclusion

CFR.....Code of Federal Regulations

Corps.....US Army Corps of Engineers

CPM .....Critical Path Method

DAP.....Design Acceptance Package

DBE.....Disadvantaged Business Enterprise

DEQ .....Department of Environmental Quality

DOE .....Determination of Eligibility

DSL.....Department of State Lands

DTM.....Digital Terrain Model

EFH.....Essential Fish Habitat

ESA.....Endangered Species Act

ETWP.....Exploration and Testing Work Plan

FHWA.....Federal Highway Administration

GIN .....General Information Notice

GIS .....Geographic Information System

GLO .....General Land Office

GPS .....Global Positioning System

HAER.....Historic American Engineering Record

HEC.....Hydraulic Engineering Circular

HEC-RAS ...Hydrologic Engineering Center – River Analysis System

HMCA.....Hazardous Materials Corridor Assessment

JPA.....Joint Permit Application

LAL .....Local Agency Liaison

MUTCD .....Manual on Uniform Traffic Control Devices

MWESB.....Minority, Women, and Emerging Small Business

NE.....No Effects

NEPA .....National Environmental Policy Act

NMFS.....National Marine Fisheries Service

NRHP.....National Register of Historic Places

NTP .....Notice to Proceed

NWI/LWI...National/Local Wetland Inventory

OAR .....Oregon Administrative Rule

ODA .....Oregon Department of Agriculture  
 ODFW .....Oregon Department of Fish and Wildlife  
 ODOT .....Oregon Department of Transportation  
 OHWM .....Ordinary High Water Mark  
 ONHD .....Oregon Natural Heritage Database  
 ORBIC .....Oregon Biodiversity Information Center  
 ORS .....Oregon Revised Statutes  
 PCE .....Programmatic Categorical Exclusion  
 PA .....Price Agreement  
 PCE .....Programmatic Categorical Exclusion  
 PDT .....Project Development Team  
 POR .....Professional of Record  
 PSA .....Project Study Area  
 PS&E .....Plans, Specifications, and Estimate  
 QA/QC .....Quality Assurance/Quality Control  
 REC .....Regional Environmental Coordinator  
 ROE .....Right of Entry  
 ROW .....Right of Way  
 SHPO .....State Historic Preservation Office  
 SLOPES IV .Standard Local Operating Procedures for Endangered Species (SLOPES) IV  
 SOW .....Statement of Work  
 T&E .....Threatened & Endangered  
 USACE .....U.S. Army Corps of Engineers  
 USFS .....United States Forest Service

## **B. STANDARDS and GENERAL REQUIREMENTS**

### **1. Standards**

The following standards and general requirements shall apply to this SOW:

#### **1. Standards**

##### ***General***

- Oregon Standard Specifications for Construction, ODOT 2018 Standard Specifications
- ODOT Local Agency Guidelines

##### ***Environmental***

- Wetland Delineation Manual, United States Corp of Engineers/Environmental Protection Agency (USCOE/EPA) 1987

##### ***Geotechnical***

- Soil and Rock Classification Manual, ODOT 1986
- Geotechnical Design Manual, ODOT April 2011

##### ***Hydraulic***

- Hydraulic Manual, Part I & II, ODOT 2008

##### ***Roadway***

- AASHTO A Policy on Geometric Design of Highways and Streets
- Clackamas County Roadway Standards

- Manual of Uniform Traffic Control Devices
- Standards Manual of the Oregon Utilities Coordinating Council

**Structural**

- ODOT Geotechnical Design Manual

**Right-of-Way**

- ODOT Right of Way Manual
- Real Estate Acquisition Guide for Local Public Agencies
- Uniform Standards of Professional Appraisal Practice (USPAP)
- Uniform Appraisal Standards for Federal Land Acquisition

**2. Software Requirements**

Consultant shall develop the design concepts utilizing AutoCAD Civil 3D version 2015 or newer.

**3. RESERVED**

**4. General Requirements**

- The APM (or such other individual identified in specific tasks or as designated in writing to Consultant) is the primary contact on behalf of Agency for this Project.
- To the extent possible, all transmittals from Consultant to Agency must include as applicable the Contract#2019-13, 232<sup>nd</sup> Drive at MP 0.3, and Project key number K21221.
- Consultant shall represent Project and Agency in an appropriate and professional manner in public.
- **Endorsement of Data.** Consultant shall place their official Oregon Registered Engineer seal and signature on all engineering design drawings and specifications furnished to Agency, as well as any other materials where professional standards require such seal and signature.
- **Safety Equipment.** Consultant shall provide and use all safety equipment including (but not limited to) hard hats, safety vests and clothing if required by State and Federal regulations and Agency policies and procedures for the Services under the Contract.

**5. RESERVED**

**6. ADA Compliance – Assessment, Design, Inspection.** When the Services under this SOW include **assessment or design (or both)** for curb ramps, sidewalks or pedestrian-activated signals (new, modifications or upgrades), Consultant shall:

- a. Utilize ODOT standards to assess and ensure Project compliance with the Americans with Disabilities Act of 1990 (“ADA”), including ensuring that all sidewalks, curb ramps, and pedestrian-activated signals meet current ODOT Highway Design Manual standards; and shall
- b. Follow ODOT’s processes for design, modification, upgrade, or construction of sidewalks, curb ramps, and pedestrian-activated signals, including using the ODOT Highway Design Manual, ODOT Design Exception process, ODOT Standard Drawings, and ODOT Construction Specifications, and providing a temporary pedestrian accessible route plan and current ODOT Curb Ramp Inspection Form.

When the Services under this SOW include **inspection** of curb ramps, sidewalks or pedestrian-activated signals (new, modifications or upgrades), all such inspections shall include inspection for compliance with the standards and requirements in a. and b. above. In addition, at Project completion, Consultant shall send an ODOT Curb Ramp Inspection Form 734-5020 to the address on the form as well as to ODOT’s Project Manager for each curb ramp constructed, modified, upgraded, or improved as part of the Project. The completed form is the documentation required to show that each curb ramp meets

ODOT standards and is ADA compliant. ODOT's fillable Curb Ramp Inspection Form and instructions are available at the following address: <http://www.oregon.gov/ODOT/Forms/Pages/default.aspx>

Above references to curb ramps, sidewalks or pedestrian-activated signals also include, when applicable, shared use paths, transit stops, park-and-rides and on-street parking.

**7. Project Cooperation.** Consultant shall only be responsible for those obligations and deliverables identified as being assigned to Consultant (or its subconsultants) in this Contract and the Statement of Work. All work assigned to other entities, other than subconsultants, is not subject to this Contract, but shall be the subject of separate Intergovernmental Agreements or contracts which will contain the obligations of those entities. Any tasks or deliverables assigned to a subconsultant shall be construed as being the responsibility of Consultant. Any Consultant tasks or deliverables which are contingent upon receiving information, resources, assistance, or cooperation in any way from another entity (other than subconsultants) as described in this Statement of Work shall be subject to the following guidelines:

- a. At the first indication of non-cooperation, Consultant shall provide written notice to County's Contract Administrator of the specific acts or inaction indicating non-cooperation and of any deliverables that may be delayed due to such lack of cooperation by other entities referenced in the Statement of Work.
- b. County's Contract Administrator shall contact the non-cooperative entity/s to discuss the matter and attempt to correct the problem and expedite items determined to be delaying Consultant/project.

If Consultant has followed the notification process described in section "a", and delinquency or delay of any deliverable is found to be a result of the failure of other referenced entities to provide information, resources, assistance, or cooperation, as described in the Statement of Work, Consultant will not be found in breach or default with respect to delinquencies beyond any reasonable control of Consultant; nor shall Consultant be assessed or liable for any damages arising as a result of such delinquencies. Neither shall County be responsible or liable for any damages to Consultant as the result of such non-cooperation by other entities. County's Contract Administrator will negotiate with Consultant in the best interest of the government, and may revise the delivery schedule to allow for delinquencies beyond any reasonable control of Consultant. Revised delivery dates beyond the expiration date require an amendment to the Contract.

#### **C. REVIEW, COMMENT and SCHEDULE OVERVIEW**

- Consultant shall submit all deliverables to APM or designee unless otherwise noted in specific tasks.
- Consultant shall make revisions to address Agency review comments and submit revised deliverable(s) to APM within 10 business days of receipt of Agency review comments, unless a different timeframe is specified for specific tasks or otherwise agreed to in writing by Agency.

#### **D. FORMAT REQUIREMENTS**

- Consultant shall submit draft deliverables in electronic format via email (and hard copy if requested).
- Consultant shall also submit all graphic files accompanying reports separately in .jpg or .tif formats unless specified differently by Agency.
- Each draft and final text-based or spreadsheet-based deliverable shall be provided in MS Office file formats (i.e., MS Word, Excel, etc.) and must be fully compatible with version used by Agency.



- Additional format requirements may be listed with specific tasks/deliverables throughout the SOW or in the PA/Contract.

## **E. TASKS, DELIVERABLES and SCHEDULE**

Consultant shall complete all tasks and provide all deliverables (collectively, the “Services”) included in this SOW, unless specifically stated otherwise in a particular task. Consultant shall provide all labor, equipment and materials to manage, coordinate, and complete the work in accordance with the performance and delivery schedules identified in this SOW.

**Task Numbering:** For purposes of standardization, task numbers in this SOW may be non-sequential and do not necessarily begin with “1” on the first task.

### **TASK 1 – PROJECT MANAGEMENT**

Consultant shall provide management and coordination of Services under this SOW for delivery of tasks and deliverables according to the agreed upon delivery schedule.

#### **1.1 Administration & Record Keeping**

Consultant shall:

- If Consultant does not have a [QA/QC plan on file with ODOT](http://www.oregon.gov/ODOT/HWY/OPL/docs/SEOPL/Consultant_Quality_Plan_Model.doc), prepare a Quality Assurance/Quality Control (“QA/QC”) Plan for Agency review and approval. The QA/QC Plan must be developed consistent with requirements of Agency’s “Guidance/Template for Consultants” available online at:  
[http://www.oregon.gov/ODOT/HWY/OPL/docs/SEOPL/Consultant\\_Quality\\_Plan\\_Model.doc](http://www.oregon.gov/ODOT/HWY/OPL/docs/SEOPL/Consultant_Quality_Plan_Model.doc);
- Prepare a Project design schedule using the Critical Path Method (“CPM”). The Project schedule must include, but is not limited to: all major authorized tasks as agreed upon by the parties, Project design team meetings, and milestones (type and date) specified in this SOW and required to complete all Services under this WOC. Updates to the Project schedule shall be made during the course of the Project if milestone dates are modified. For budgeting purposes, it is assumed that up to four (4) Project schedule updates will be necessary;
- Prepare invoices and progress reports according to the Invoice Requirements Guide referenced in the Contract under Section H.5 - Invoices. Each progress report must:
  - Include a summary of the previous period’s activities and the planned activities for the upcoming period;
  - Identify percentage completed of each task/deliverable;
  - Reconcile the budget with the actual amount billed to date; and
  - Identify unresolved issues and concerns that may affect the SOW, schedule and/or budget for Services.
- Develop and maintain a Project file to include survey and engineering computations, assumptions, meeting agendas and summary notes, working drawings, quality control and review documentation, correspondence, and memoranda. (See Price Agreement Part II Terms & Conditions No. 12 Records Maintenance; Access).

#### **1.1 Consultant Deliverables and Schedule**

Consultant shall provide:

- Project Design Schedule submitted within 7 calendar days of NTP (submit electronically to the APM in PDF and provide an electronic file in Microsoft Project format to the APM);
- Updated Project Design Schedule, as necessary, via timeline agreed to by APM (submit electronically to the APM in PDF and provide an electronic file in Microsoft Project format to the APM); and



- Up to 20 progress reports and invoices submitted electronically to APM no later than the 20th calendar day of the month following the reporting period.

## **1.2 Coordination**

Consultant shall:

- Coordinate with the APM as the main point of contact for coordination and management of Consultant Services under the SOW;
- Contact other Agency staff, other LPA staff, and regulatory agency staff, if necessary throughout the SOW, to gather any additional information needed for the Project, Project site, regulations and guidance;
- Provide overall management, direction and coordination of staff (including sub-consultants, if any) to include any necessary internal Consultant staff meetings;

### **1.2 Consultant Deliverables and Schedule**

Consultant shall provide:

- On-going coordination and communication as needed to appropriately manage the Services under this SOW (no tangible deliverables for this task).

## **1.3 Project Meetings**

### **1.3.1 Project Kickoff Meeting**

Consultant shall organize, conduct, prepare for and attend a Project kickoff meeting. The Project kickoff meeting will be held at Clackamas County's Office (150 Beaver Creek Road, Oregon City) with Agency, ODOT LAL, Consultant's project manager and other necessary Consultant staff in attendance. Consultant shall prepare the Meeting Agenda with input from the APM. The purpose of the Project kickoff meeting is to review Project issues such as the SOW, work products and deliverables, schedules, budgets, right of way, utility coordination/design, design criteria, guidance documents and standards, and quality control. Consultant shall schedule Project kickoff meeting within 10 business days of Notice to Proceed (NTP). Consultant shall prepare Draft Meeting Summary Notes for review. For budgeting purposes, it is assumed that up to 3 Consultant staff shall attend the 1.5-hour-long Project kickoff meeting.

### **1.3.2 Project Development Team Meetings**

Consultant shall organize, conduct, prepare for and attend up to 4 Project Development Team (PDT) Meetings; 2 via telephone (90% and 100% milestones) and 2 in-person meetings (30% and 60% milestones). Each in-person PDT meeting will be held at Clackamas County's Office (150 Beaver Creek Road, Oregon City) with Agency, Consultant's project manager and other necessary Consultant staff in attendance. Consultant shall prepare the Meeting Agenda with input from the Agency. Consultant shall prepare Draft and Final Meeting Summary Notes. For budgeting purposes, it is assumed that up to 3 Consultant staff shall attend each 1.5-hour-long PDT meeting.

### **1.3 Consultant Deliverables and Schedule**

For each meeting, Consultant shall provide:

- Meeting Agenda submitted electronically to APM, and all other meeting participants 2 business days prior to meeting.
- Draft Meeting Summary Notes submitted electronically to APM no later than 5 business days after the meeting, and
- Final Meeting Summary Notes submitted electronically to APM no later than 5 business days after receiving comments from the APM.

## **TASK 2 SURVEY**

Consultant shall survey this Project for the areas as described in Section A of this SOW for areas related to the Project limits along 232<sup>nd</sup> Drive unless otherwise noted in specific tasks. Deliverables are to be scheduled as per Task 1, Project Management.

### **Right of Entry (“ROE”)**

Agency will obtain the one ROE required for Consultant’s survey and other field reconnaissance work. Agency and Consultant acknowledge that once requests to owners are sent out, it can take up to 3 weeks to receive the ROE authorization back from the landowners due to schedules and availability.

If ROEs are required for geotechnical boring outside of the right of way, Consultant shall provide a map identifying the approximate location of the proposed boring(s) on the parcel. This map will be included in the Agency’s mailing to the affected property owner to assist the owner in understanding the proposed work. Consultant shall allow adequate time for Agency to obtain this additional ROE.

In addition to the Project ROE referenced above, Consultant shall notify land owners as required by ORS 672.047 (Right of Entry by Land Surveyor). Entry notifications by mail require 7 days advance notice from time of mailing.

### **2.1 Research**

Consultant shall obtain the research data for the area as described in Section A of this SOW.

Consultant shall perform data research as necessary to prepare for and support Project activities, and to produce Project maps and reports as called for in subsequent tasks. The typical records required for research are, but not limited to: vesting deeds, land sales contracts, Agency assessor plats and road records, subdivision plats, General Land Office plats, ODOT ROW drawings, railroad maps, county surveys, and road dedications and vacations.

#### **Existing Vesting Deeds and Property Ownerships**

Consultant shall obtain a “Trio listing kit” (typically provided by a title company). Consultant shall obtain a Preliminary Title Report from the title company if the “Trio Listing Kit” is insufficient to thoroughly identify property ownership. Consultant shall identify property ownership within and adjacent to the Project site by investigating property deeds and county tax records. Consultant shall itemize and report property ownership and owner contact information to APM. Consultant shall submit each deed in its own electronic file. Consultant shall include all vesting deeds referenced in the property vesting deeds if needed to resolve the property boundary.

#### **Existing Right of Way Records**

Consultant shall research and obtain copies of surveys, subdivision plats, and land partition plats filed in the county surveyor’s office related to the properties potentially impacted by the Project. This information is used to find monuments that might be impacted by the Project and establish property lines for area calculations when new ROW is acquired.

Consultant shall research and obtain copies of county assessor maps, General Land Office plats, and county road records related to the properties potentially impacted by the Project.

Consultant shall research and obtain available data about Government Public Lands Survey Corners and their references in the Project area as defined in the SOW.

### Existing Horizontal/Vertical Control Stations

Consultant shall research and obtain data about horizontal and vertical control points as required for the Project area including triangulation stations, GPS stations, benchmarks, and prior Project control surveys from Agency, federal, county, city, and other governmental agencies.

### Existing Utility Records

Consultant shall research and obtain available facility maps and as-built construction plan data pertaining to utilities in or near the Project area from Agency, One-Call Service, county, city, or other governmental agencies and utility companies.

### Existing Water Way Data

Consultant shall research and obtain maps and data about rivers, creeks, and streams, springs or flowing water in or near the Project area from Agency, federal, and other governmental agencies. Consultant shall include items such as but not limited to: FEMA Flood maps, tide gage data and stream navigability per Division of State Lands designation.

## **2.1 Consultant Deliverables and Schedule**

Consultant shall incorporate information from this task into the deliverables listed in Tasks 2.4 and 2.5 as required for delivery of documents in subsequent tasks.

## **2.2 Horizontal and Vertical Control Network**

The purpose of this task is to provide the means by which the Project can be located relative to horizontal and vertical datum, map projection, and coordinate systems. Consultant shall establish a horizontal and vertical control network using the Oregon Coordinate Reference System, Portland Zone horizontal datum and NAVD88 vertical datum unless otherwise specified by Agency.

Consultant shall establish horizontal control according to Agency standards using Terrestrial (Theodolite and EDM), GPS (Static or Rapid Static) or a combination of both. Consultant shall set and adjust control points in conformance with Agency guidelines. A control traverse will be established along 232<sup>nd</sup> Drive for topography and monument ties.

Consultant shall use 5/8 inch rebar with plastic caps, or other Agency approved control point, for the GPS and network points. Consultant shall establish a minimum of 3 GPS control points through the length of the survey.

Consultant shall establish vertical control using differential leveling. Consultant shall get Agency approval before using other methods such as trigonometric leveling and elevations derived from GPS.

## **2.2 Consultant Deliverables and Schedule**

Consultant shall:

- Place control points in the ground at the Project location; and
- Incorporate the information listed below into the deliverables listed in Tasks 2.4 and 2.5 as required for delivery of documents in subsequent tasks:
  - An adjustment report for one or more of the following, Least Squares adjustment for networks, an approved traverse adjustment method for traverses and/or a GPS adjustment report when using GPS.;
  - An ASCII file containing the coordinates for every network point set and found;
  - If the levels were electronically processed then one copy each of the following: original raw level file as collected in the field, ASCII file showing level closure data, ASCII file with elevations on all network points and/or an ASCII file showing the level rod readings;

- Original field notes for the control network and one scanned copy of the original field notes in “.pdf” format;
- An AutoCAD design file (\*.dwg) containing all the set and tied control points to show elevations; and
- An AutoCAD file (\*.dwg) containing all vertical and horizontal control points stored as cogo points to show elevations.

### **2.3 Monument Recovery**

The purpose of this task is to address the requirements of ORS 209.150 and 209.155, and other survey-related statutes for construction Projects.

Consultant shall survey for but not limited to the following: government corners, geodetic control stations, bench marks, ROW monuments, property boundary markers, and roadway alignment markers.

#### **Identify, Search and Recover Monuments**

Consultant shall recover existing monuments to preserve the locations of any monuments of record that are endangered by any activity related to the Project and to resolve roadways and property lines.

Consultant shall provide a record (field notes) of monuments searched for, the date of the search, and the results of the search.

#### **Field Survey of Recovered Monuments**

Consultant shall locate, measure, and document the location of survey markers and monuments of record for property boundaries and/or ROW needed within the areas.

### **2.3 Consultant Deliverables and Schedule**

Consultant shall incorporate the information gathered in this task, including field notes, into the deliverables listed in Tasks 2.4 and 2.5 as required for delivery of documents in subsequent tasks.

### **2.4 Topographic Data, Detailed Base Map and Digital Terrain Model (DTM)**

The purpose of this task is to collect the existing topographic features and create a detailed basemap and DTM for the Project.

#### **Topographic Data Collection**

Consultant shall collect topographic data between the boundaries described in Section A of this SOW. Consultant shall collect and tie topographic data of man-made and/or natural features using a variety of Agency-approved methods. These methods include, but are not limited to: collecting the data using terrestrial (Theodolite and EDM), GPS (RTK), 3D Laser Scanning, or station and offset. Topographic data collected will include: trees of 6 inches in diameter and larger at chest height including genus, species and size; existing roadway striping and signing; and driveways located within the project limits.

Consultant shall contact Oregon Utility Notification Center to request pre-survey utility locates. Consultant shall keep the locate request number and ticket information in the Project file.

Consultant shall record in the field notes the utility ownership when describing the line data points. Consultant shall record all visible utility identifications in the field notes, such as: numbers shown on power and/or telephone poles; vault tags; telephone pedestals (aka risers); cabinets, meters, fences or screened enclosures for gas regulators; and sanitary sewer pump stations. This data is needed for Agency or Consultant to communicate where the facility may be in conflict with the Project.

Consultant shall measure and record all utility facility structures (e.g., concrete pads, top slab of vaults, pump station housing, barrier screens or fenced enclosures). Consultant shall make a request to the utility owner to pull the cover whenever a manhole is found locked or bolted.

Consultant shall collect any hydraulic or culvert information in accordance with the “ODOT Hydraulics Manual” on streams and rivers that pass under or are parallel to any roadways in the area.

Consultant shall tie environmental and archaeological features that have been identified within the Project area. These features include, but are not limited to, wetlands, high water mark, Threatened and Endangered (“T&E”) species, hazmat sites, archaeology sites and sensitive plants.

Consultant shall tie improvements or vegetation within proposed easement boundaries and within close proximity of proposed easement boundaries where the proximity to the improvement has the potential to cause the improvement to suffer damage.

Consultant shall survey up to two cross sections of the road and downhill slope to support slope stability analyses. The cross sections will extend from approximately 8 feet up the uphill slope to approximately 8 feet from the toe of the downhill slope.

Consultant shall provide flaggers for safety when working in or along 232<sup>nd</sup> Drive due to the narrow width of road, minimal or nonexistent shoulder, and limited sightlines.

#### Detailed Basemap

Consultant shall take applicable topographic data collected in this subtask and create a detailed basemap file. A detailed basemap has all features and is drafted according to criteria provided by Agency.

#### Digital Terrain Model (DTM)

Consultant shall create a three-dimensional digital terrain surface using all relevant topographical data collected in this subtask.

Consultant shall collect the topographical data to create points and break lines in adequate quantity and in proper placement, to accurately represent the surface of the ground for generating contours described below. Consultant shall collect confidence points in the field and generate a confidence point report. The topographical data and confidence points must meet Agency criteria. Consultant shall generate 0.2-foot minor contours and 1-foot major contours for road surfaces, and 1-foot minor contours and 5-foot major contours for ground surfaces throughout the DTM for a QC analysis of the surface.

### **2.4 Consultant Deliverables and Schedule**

Consultant shall provide:

- the following deliverables and submit them electronically (.PDF) to the APM within 45 calendar days of NTP:
  - 1 copy of field notes
  - Copy of the AutoCAD Files (\*.dwg) Detailed Base Map with Civil 3D DTM
  - All files for the network control points in (ASCII) format
  - Files of listing kits
  - Files of survey research
  - Files of tax maps
  - Confidence Point Report
  - Control Point Worksheet with datum used and descriptions of control points found and set

## **2.5 Existing ROW and Boundary Resolution**

The purpose of this task is to identify the location of the existing Centerline(s), ROW lines and property line(s) as necessary, to perpetuate the location of the monuments found, to document the control used for this Project area, and establish property lines for area calculations when new ROW is acquired. This task addresses the requirements of ORS 209.150 and 209.155 and other survey-related statutes.

### **Resolve ROW and Property Boundaries**

Consultant shall resolve the location of the ROW within the present Project limits as described in this SOW.

Consultant shall resolve identified ROW centerlines alignments, ROW lines and property boundaries abutting the roadway and along the proposed route of construction, using accepted concepts and rationale methods of survey professional judgment. Consultant shall evaluate the available evidence for relevance, adequacy, and reliability; use professional judgment in determining the type and quantity of evidence available, and the influence given each factor; and determine a best-fit with the evidence and probable location of ROW alignments and property boundaries for the area as described. Consultant shall provide a detailed narrative of available evidence, desirable evidence not available, rationale for decisions made, and a summary of the conclusions in the establishment of the ROW centerline, ROW lines (including all jogs), and property boundary lines.

### **Control, Recovery, and Retracement Record of Survey**

If the Project will impact property or existing survey monuments, Consultant shall create a Record of Survey (ROS) which meets Agency and ORS requirements. The survey or surveys must be prepared for 18-inch by 24-inch sheet plots. The “**Control**” survey must consist of Geodetic and Terrestrial points set for the Project. The “**Recovery**” is the documentation of the monuments recovered for the Project. The “**Retracement**” is a record of resolved ROW centerlines, ROW lines and/or property boundaries. These surveys may be combined or separate surveys as directed by Agency.

Consultant shall submit a draft ROS to LPA for review. Consultant shall address comments received from the LPA and submit the final ROS for filing to the Agency in the format required.

### **2.5. Consultant Deliverables and Schedule**

Consultant shall provide:

- Draft ROS to Agency and Agency’s Survey Office within 120 calendar days of NTP.
- Final ROS to Agency within 14 calendar days of receipt of comments from Agency and Agency’s Survey Office.

## **2.6 Right Of Way Engineering (Mapping & Descriptions)**

The purpose of this subtask is to prepare right of way engineering products used in the acquisition of property. The estimated number of right of way files is 2. These products are:

- Right of Way acquisition impact maps
- AutoCAD file used to prepare the acquisition map
- Right of Way legal descriptions and exhibits

The right of way acquisition impact maps, exhibits and legal descriptions shall be prepared in accordance with Agency requirements. Agency will provide an example for Consultant to follow. Right of way impact maps shall show, to scale, all improvements existing in the right of way acquisition areas and all improvements within close proximity of the right of way acquisition areas and have potential to be damaged by the acquisition. The impact maps will be needed for the appraisal and acquisition process and shall be submitted to the APM for review and revisions to Agency’s satisfaction. The

exhibits and legal descriptions shall be submitted to the APM for review and revisions shall be made to Agency's satisfaction. The exhibits and legal descriptions shall be first used by Agency for the Resolution of Necessity and shall be produced as early as possible for this purpose.

## **2.6 Consultant Deliverables and Schedule**

Consultant shall provide in accordance with Project Schedule developed in Task 1:

- Legal descriptions and exhibits in electronic (.PDF) and hard copy to the APM.
- Right of Way impact maps, one for each property from which right of way or easements will be acquired in electronic format.
- Final Right of Way acquisition map in electronic (.PDF and CADD) and hard copy to the APM.

## **TASK 3 ENVIRONMENTAL SERVICES**

Consultant shall complete necessary field and literature investigations to provide the Agency and ODOT environmental documentation and permits required for completion of this Project. Consultant shall complete the following environmental investigations, documentation, and permits for this Project, unless marked as a CONTINGENCY TASK, which Consultant shall complete only following Agency's and Consultant's written agreement on cost and receipt of NTP from Agency:

- Final National Environmental Policy Act ("NEPA") Categorical Exclusion ("CE") and Programmatic CE Documentation
- Archaeological Resources Literature Review/Field Reconnaissance/Baseline Report
- Phase 1 Archaeological Investigation with Technical Report (Contingency)
- Historic Resources Baseline Report
- Hazardous Materials Corridor Assessment
- Endangered Species Act (ESA) No Effect Memorandum
- Federal-Aid Highway Program ("FAHP") ESA Programmatic Documentation
- Wetland/Waters of the U.S./State Fieldwork and Determination Memo

For all of Task 3, the Project Area is the same as described in Section A of this SOW unless otherwise noted and described in specific Task 3 subtasks.

Agency is responsible for obtaining all Rights-of Entry ("ROE"). Consultant shall not conduct any fieldwork outside of Agency ROW and/or property until all ROEs for private property have been obtained and are in field staff's possession.

### **3.1 NEPA CE and Programmatic CE ("PCE") and Supporting Documentation**

Consultant shall provide technical assistance and services necessary to meet FHWA NEPA classification documentation requirements for NEPA CE projects ("Class 2 Projects").

#### **3.1.1 RESERVED**

#### **3.1.2 RESERVED**

#### **3.1.3 Final NEPA CE and PCE Documentation**

Consultant shall compile data completed in Tasks 3.2 through 3.6 to complete a draft PCE Approval or CE Closeout Document and submit to Agency for review and approval. Consultant shall coordinate with Agency on compiling data completed during Project development to deliver the draft PCE Approval or CE Closeout Document to Agency to finalize and approve.

Only after all relevant Tasks 3.2 through 3.6 have been completed and approved by Agency can this task be completed. In the draft PCE Approval or CE Closeout Document, Consultant shall follow the specific protocols in the CE/PCE Procedures to complete drafts of the following:

- After Agency has accepted tasks 3.2 through 3.6, complete each of the resource narrative sections using protocols and standard language contained in the “Procedures for Completing NEPA for Categorical Exclusion and Programmatic Categorical Exclusion Projects with Oregon Division Federal-Aid Highway Program Nexus” (known as the CE/PCE Procedures, available here: [http://www.oregon.gov/ODOT/GeoEnvironmental/Docs\\_NEPA/NEPA\\_CE-PCE-Procedures.pdf](http://www.oregon.gov/ODOT/GeoEnvironmental/Docs_NEPA/NEPA_CE-PCE-Procedures.pdf))
- Include the supporting documents required as per the CE/PCE Procedures, as applicable to the Project (e.g., Endangered Species Act [“ESA”] approvals, cultural resources documentation, hazardous materials, etc.). If submittal of the draft PCE or CE document requires supporting documentation not developed under this SOW, it will be provided by APM.

Agency and ODOT Environmental staff will review all draft PCE Approval and CE Closeout Documents, and send them back to Consultant for any revisions needed. ODOT staff will approve, on behalf of FHWA, the accepted PCE Approval document as per the PCE Agreement, or ODOT will submit the accepted CE Closeout Document to FHWA Oregon Division for FHWA review and approval.

### **3.1.3 Consultant Deliverables and Schedule**

Consultant shall prepare and submit:

- 1 electronic copy of the Draft PCE Approval or CE Closeout Document and supporting documentation to APM for review per Task 1 Project Design Schedule, and
- 1 electronic copy of the Final Agency accepted Draft PCE Approval or CE Closeout Document and supporting documentation to APM 2 weeks following receipt of draft review comments.

## **3.2 Archaeological Resources**

All archaeological sub tasks must be completed by registered professional archaeologists who meet the Secretary of the Interior's professional standards for Archaeology ([36 Code of Federal Regulations \[CFR\] 61, Appendix A](#)) and who have been “qualified” through the [Agency’s Cultural Resources Consultant Qualification Training Program](#).

### **3.2.1 Literature Review/Field Reconnaissance/Baseline Report**

The purpose of this task is for the Consultant to conduct archival and background research in combination with field reconnaissance to determine the presence or absence of high probability landforms or archaeological sites within the Area of Potential Effect (“APE”) and to make recommendations for further archaeological review.

Consultant shall conduct a Literature Review for the APE, and include a description of the APE, detailed historic context and ethno-historic information, methodology, recommendations for future work, detailed bibliography, maps, and photos. Consultant shall provide the APM with a minimum of 5 business days’ advance notice prior to Field Reconnaissance.

Consultant shall examine the following data bases and/or documents:

- The State Historic Preservation Office (“SHPO”) database in Salem, OR, and/or appropriate Tribal Historic Preservation Office (“THPO”) database if the APE is within a recognized reservation boundary;
- General Land Office (“GLO”) maps;



- Sanborn Fire Insurance Maps; and
- Other records archives (i.e., historical societies; tribal archives) for known/potential prehistoric and historic archaeological resources within a 1 mile radius of the APE.

Field Reconnaissance must include a pedestrian survey. Consultant shall conduct pedestrian surveys within the APE and must include areas where ground will be disturbed by Project construction including temporary access roads, as well as staging areas, material sources, disposal sites, detours, etc.

Pedestrian survey methods must be consistent with the latest updated [SHPO guidelines](#). The recommended maximum spacing of transects will be 20 meters apart and may vary depending on terrain features and/or ground visibility. Consultant shall determine transect spacing based on professional judgment to help ensure that all probable site locations are discovered. All cultural resources observable on the surface and in exposed subsurface profiles must be identified and recorded. Field Reconnaissance must enable Consultant to identify areas of high and low probability for archaeological resources and to determine the appropriate level of survey or subsurface exploratory probing.

Consultant shall prepare a Baseline Report that must contain the following:

- A completed Oregon SHPO Archaeological Report Cover Page
- A purpose statement and full Project description including:
  1. Agency Key Number and Federal Aid Number
  2. Location and legal description
  3. General environmental description
  4. Historic context
  5. Proposed construction activities
  6. Defined APE and APE map
  7. Total acreage of impact
- Results of SHPO/THPO database search including:
  1. Brief summary of previous archaeological research completed within 1 mile of APE
  2. Brief summary of recorded archaeological features within one mile of APE, including eligibility discussion if available.
- Results of GLO and Sanborn map review including:
  1. Brief summary of features (trails, buildings, etc.) depicted on maps and within APE, including eligibility discussion if available.
- Description of pedestrian survey methods including date of survey, types of transects used, and names and duties of personnel conducting the survey
- Findings of pedestrian survey including ground conditions (percent visibility) and difficulties encountered, if any
- Identification of areas of high and low probability for archaeological resources within the APE
- Recommendations for appropriate level of additional survey and/or subsurface exploratory probing, if any
- Site and isolate forms (hard copies) for newly discovered archaeological sites and isolates; Consultant shall also complete the SHPO online site form.
- List of references cited
- Location map at 1:24,000 scale; aerial image (Google map acceptable) showing APE; and representative digital images of current conditions within APE

### **3.2.1 Consultant Deliverables and Schedule**

Consultant shall prepare and submit:

- 1 electronic copy (in Microsoft Word format) of the Draft Baseline Report to APM for review per Task 1 Project Design Schedule, and

- 1 electronic copy (in Word and PDF format) of the Final Baseline Report to APM 2 weeks following receipt of draft review comments.

**Assumptions:**

- County will provide ODOT-determined APE prior to initiating survey. Consultant will assist with defining the APE.
- Consultant assumes APE will consist of direct (e.g., work areas) and indirect (e.g., visual/auditory) effects.
- Consultant will complete Literature Review for the APE and a 1-mile buffer around the APE.

**3.2.2 Phase I Archaeological Investigation with Technical Report (CONTINGENCY TASK – See Section F)**

The purpose of this task is for Consultant to establish the presence or absence of archaeological sites in, or eligible for the National Register of Historic Places (“NRHP”), which may be in the APE for the Project. Investigations under this task must comply with Guidelines for Conducting Field Archaeology in Oregon, The Phase I investigation must comply with the latest updated SHPO guidelines for Reporting on Archaeological Investigations. These investigations must include pedestrian survey and/or subsurface exploratory probing. Subsurface probing must be conducted in areas where ground visibility is low and in areas of high probability for archaeological resources, unless documented proof of previous fill is available i.e., as-builts/or geomorphological work.

Consultant shall conduct record searches and literature review for the APE provided by Agency, within a 1-mile radius, prior to any fieldwork. Consultant shall, at a minimum, examine the following databases and documents:

- SHPO database in Salem, OR;
- Appropriate THPO database if APE is within a recognized reservation boundary;
- GLO maps;
- Historic topographic maps;
- Sanborn Fire Insurance Maps; and
- Other records archives (i.e., historical societies and tribal archives) for known/potential prehistoric and historic archaeological resources within a 1-mile radius of the APE.

Consultant shall conduct pedestrian field surveys within the APE and must include areas where ground will be disturbed by Project construction including temporary access roads, as well as staging areas, material sources, disposal sites, detours, etc. Consultant shall provide the Agency Archaeologist with a minimum of 5 business days advance notice prior to conducting a pedestrian survey. Pedestrian survey methods must be consistent with the latest updated SHPO guidelines. The recommended maximum spacing of transects will be 20 meters apart and no more than 30 meters apart; and may be as close as 10 meters apart, depending on terrain features and/or ground visibility. Consultant shall determine transect spacing based on professional judgment to ensure that all probable sites are discovered. All cultural resources observable on the surface and in exposed subsurface profiles during the inventory must be identified and recorded.

Consultant shall obtain all required excavation permits and conduct subsurface exploratory probing in the APE. Copies of the draft excavation permits must be provided to the Agency Archaeologist prior to submittal to SHPO. Consultant shall provide the Agency Archaeologist with a minimum of 5 business days advance notice of exploratory probing. Subsurface exploratory probing field methodology must be consistent with the latest updated SHPO guidelines.

Probing must be based on an established research design. Probes must be at least 30 centimeters in diameter and dug to sterile (at least two levels void of cultural material) or to 50 cm and two sterile

levels where possible, or as appropriate based on varying field conditions. Materials must be screened with a 1/8-inch mesh screen (1/4-inch as needed, see SHPO guidelines). Up to 10 discovery probes will be excavated under this task.

Auguring may be used, to establish soil stratigraphy or depth of archeological deposits and may be incorporated into the research design, if approved by Agency Archaeologist. Up to 20 discovery probes will be excavated under this task.

Consultant shall prepare Phase I Archaeological Investigation Report. The Report must include:

- A purpose statement and full Project description including:
  1. Agency Key Number and Federal Aid Number
  2. Location and legal description
  3. General environmental description
  4. Historic context
  5. Proposed construction activities
  6. Defined APE and APE map
  7. Total acreage of impact
  8. Anticipated direct, indirect and cumulative impacts
- Results of SHPO/THPO data base searches including:
  1. Brief summary of previous archaeological research completed within 1 mile of APE with eligibility description if available.
  2. Brief summary of recorded archaeological features within 1 mile of APE with an eligibility description if available.
- Results of GLO and Sanborn map review including:
  1. Brief summary of features (trails, buildings, etc.) depicted on maps and within APE
- Discussion of ethno-historic information and historic context of APE and surrounding environment
- Description of pedestrian survey methods including date(s) of survey, types of transects used, and names and duties of personnel conducting the survey
- Results of pedestrian survey including ground conditions (percent visibility) and difficulties encountered, if any, and descriptions of any archaeological artifacts encountered and other pertinent information
- Description of subsurface exploratory probing methodology including date(s) of probing, and names and duties of personnel completing probes
- Results of subsurface exploratory probing, including descriptions of soil conditions and any archaeological artifacts encountered and other pertinent information. (negative findings must be reported also
- Summary of Tribal consultation(s), to be provided by Agency
- A summary with recommendations that must include a discussion of the site(s) identified and whether or not they meet NRHP criteria and maintain integrity
- List of references cited
- Location map at 1:24,000 scale; aerial image (Google map acceptable) showing APE; and representative digital images of current conditions within APE
- Site forms and isolate forms (hard copies) for newly discovered archaeological sites and isolates. Consultant shall also complete the SHPO online site form
- Site update forms for previously identified archaeological sites
- A modified [Determination of Eligibility \(DOE\)](#), a maximum of 2 to 3 pages long, which must be included in the appendix for historic sites with no subsurface component; this Appendix must include a short discussion on boundaries (vertical and horizontal), integrity, as well as statement

of significance and discussion of the NRHP criteria. Consultant shall provide enough information to write a detailed DOE.

- Maps, photos and an artifact catalogue

Establishing eligibility without testing for prehistoric sites may be difficult; however, this is possible with historic sites if sufficient historic documentation is provided. Please refer to the SHPO guidelines.

Consultant shall provide final Phase I Technical Report and site forms in PDF format; digital images of each photo and illustration; raw GPS files (\*.ssf and \*.cor), and edited Geographic Information System (“GIS”) files (\*.shp, \*.shx, and \*.dbf).

### **3.2.2 Consultant Deliverables and Schedule**

Consultant shall prepare and submit:

- 1 electronic copy (in Microsoft Word format) of the Draft Phase I Technical Report with site forms and/or isolate forms to APM for review per Task 1 Project Design Schedule, and
- 1 electronic copy (in PDF format) of the Final Phase I Technical Report with site forms and/or isolate forms to APM 2 weeks following receipt of draft review comments.

### **3.3 Historic Resources**

All historic resources sub tasks must be completed by professional historians who meet the Secretary of the Interior's professional standards for architectural history and/or history ([36 CFR 61, Appendix A](#)) and who have been “qualified” through the [ODOT Cultural Resources Consultant Qualification Training Program](#).

#### **3.3.1 Historic Resources Baseline Report**

The purpose of the Agency Historic Resource Baseline Report is to identify and characterize the historic resource issues using the APE to determine what may be impacted by a transportation project. The Historic Resources Baseline Report is a scoping report that is not intended to be a comprehensive technical report. As part of developing the Historic Resources Baseline Report, Consultant shall review the SHPO Statewide Inventory and conduct an on-site reconnaissance of the Project Area.

The Historic Resources Baseline Report must include, but is not limited to:

- Project description and a description of the APE;
- Photographs of resources that are 45 years old or older;
- Descriptions of historic resources that are 45 years old or older, including a discussion of each potential NRHP eligibility (A-D); and
- Map that identifies the location of each potential historic resource within the APE

It is anticipated that fewer than 2 resources will be identified in the baseline report.

#### **3.3.1 Consultant Deliverables and Schedule**

Consultant shall prepare and submit:

- 1 electronic copy (in Microsoft Word format) of the Draft Historic Resources Baseline Report to APM and LAPM for review per Task 1 Project Design Schedule, and
- 1 electronic copy (in Word and PDF format) of the Final Historic Resources Baseline Report to APM and LAPM 2 weeks following receipt of draft review comments.

### Task 3.4 Hazardous Materials Study and Services

The purpose of this task is to facilitate Agency compliance with environmental regulations pertaining to site cleanup and waste management. The services to be provided shall include:

- Conduct a Hazardous Materials Corridor Study to identify potential sources of contamination that could impact property acquisition or construction.

Consultant shall conduct all tasks in accordance with ODOT’s HazMat Program Procedures Guidebook (March 2010) and applicable industry standards. Consultant shall submit deliverables in an electronic format (native file and \*.pdf) version using Microsoft Word.

#### **3.4.1 Hazardous Materials Corridor Study**

Consultant shall conduct a Hazardous Materials Corridor Study (HMCS) according to the following standards and guides:

- “Hazardous Waste Guide for Project Development” (1990), by the American Association of State Highway and Transportation Officials (AASHTO) Special Committee on Environment, Archaeology and Historic Preservation.
- “ODOT Hazmat Program Procedures Guidebook,” 2010, Oregon Department of Transportation.
- “Level 1 Corridor Study” report template, Oregon Department of Transportation.
- And the requirements listed below.

Consultant shall conduct a site reconnaissance to identify potential sources of contamination that could impact construction or result in Agency acquiring contaminated property.

Consultant shall review available federal and state environmental databases to identify sites that could potentially impact the project, using the minimum search radii listed below.

Environmental Database	Search Radius
State-Equivalent NPL List (ECSIS)	0.25 mile
Oregon Permitted Landfill List	0.25 mile
State Leaking (L)UST List	0.25 mile
Federal RCRA Generators List	Site and Adjoining
State Fire Marshal’s Spill Response List	Site and Adjoining
State Certified UST List	Site and Adjoining

Consultant shall review DEQ files, available using DEQ’s Facility Profiler web site at [DEQ Facility Profiler](#), to determine whether contamination from adjacent facilities is likely to impact project construction. Alternatively, this review may be conducted using commercially available database reports such as provided by EDR (Environmental Data Resources).

Consultant shall review the Oregon Water Resources Department on-line database at [OWRD Well Database](#) to determine if water wells or monitoring wells are located on or adjacent to the project corridor.

Consultant shall review project files at the DEQ Northwest Region office in Portland, OR for all facilities considered to be high risk for impacting project construction. Consultant shall use DEQ file information to delineate contaminated areas within the project corridor and identify if that information is sufficient to develop construction plans and specifications without additional sampling.

Consultant shall conduct historical research to identify past uses of the project corridor and adjacent properties, using one or more of the following resources:

- Sanborn Fire Insurance Maps
- Aerial Photographs
- Reverse City Directories
- Historic property ownership/occupancy records or building permits

The resource(s) selected must, if possible, provide historic information regarding land use back to 1935 at 10 year intervals, or the Consultant must demonstrate that such information is not readily available.

Consultant shall review pertinent records that may be made available by the Agency as they relate to the environmental condition of the project corridor.

Consultant shall assess if soil sampling is necessary to determine if soil excavated from the project corridor shall meet DEQ clean fill screening levels for contaminants-of-concern including pesticides, herbicides, metals, polynuclear aromatic hydrocarbons, petroleum hydrocarbons, and solid waste.

Consultant shall prepare a HMCS report summarizing the information obtained through the activities listed above, using ODOT's Corridor Report Template available at [ODOT Report Template](#).

The report must include photographs documenting project corridor observations. The report must include conclusions that identify specific sources of contamination that could impact project construction and recommendations for further investigation, if needed.

**Deliverables/Schedule:** Consultant shall provide:

- Draft HMCS report to the Agency within eight weeks following Notice to Proceed (NTP).
- Final HMCS report within one week following receipt of Agency comments.

### **3.4.2 RESERVED**

### **3.4.3 RESERVED**

### **3.4.4 RESERVED**

### **3.4.5 RESERVED**

## **3.5 Biological Resources Compliance and Permitting**

Consultant shall complete the appropriate biological resources tasks presented below based on the 60% construction plans. General biological work shall be executed by a qualified biologist who meets the following minimum qualifications: 3 full years of environmental analysis or resource project management experience and a Bachelor's degree that included 30-quarter or 20-semester hours in biology, environmental science, natural science, or closely related field. An individual who makes determinations of effect under the ESA and prepares ESA documentation must also be an ESA-qualified biologist in accordance with ODOT Technical Services Bulletin GE14-03(B) or most current ([http://www.oregon.gov/ODOT/Engineering/Doc\\_TechnicalGuidance/GE14-03b.pdf](http://www.oregon.gov/ODOT/Engineering/Doc_TechnicalGuidance/GE14-03b.pdf)).

### **3.5.1 ESA No Effects Memorandum**

When Agency determines or approves Consultant's determination that a proposed action will not affect state or federal ESA listed or proposed species or critical habitat, a No Effects Memorandum ("NE



Memo”) is prepared to document compliance with the state and federal ESAs. The NE Memo must be completed by an ESA-qualified biologist as described above.

Consultant shall:

- Perform an inspection of the API to evaluate suitable habitat for listed species;
- Conduct Oregon Department of Agriculture (“ODA”), Oregon Department of Fish and Wildlife (“ODFW”), National Marine Fisheries Service (“NMFS”), and U.S. Fish and Wildlife Service (“USFWS”) database searches to acquire ESA information for the Project Area;
- Contact the Agency and/or Oregon Biodiversity Information Center (“ORBIC”) to obtain data regarding listed threatened and endangered species as well as those proposed for listing under the federal and state ESA that may occur within the API. Consultant shall determine if Federally-listed species and their habitat will be affected by the Project.
- Make ESA effects determinations following the analysis of gathered ESA information. (if a determination is “No Effects” for at least one listed or proposed species, obtain Agency concurrence on the No Effects determination);
- Coordinate with design staff and Agency to develop appropriate measures (i.e., construction special provisions) to avoid impacting listed species proposed for coverage in the NE Memo if avoidance measures are necessary to obtain the No Effects determination.
- Prepare draft NE Memo for the Project Area using the most recent Agency-provided form, and provide to Agency and APM for review and comment.
- Prepare final NE Memo for Agency acceptance.
- Notify Agency immediately if Consultant determines that an ESA determination of No Effects is no longer appropriate.

### **3.5.1 Consultant Deliverables and Schedule**

Consultant shall prepare and submit:

- 1 electronic PDF copy of the Draft NE Memo to APM for review per Task 1 Project Design Schedule.
- 1 electronic PDF copy of the Final NE Memo to APM within 2 weeks following receipt of draft review comments.
- 1 electronic PDF copy of the Draft construction special provisions relevant to NE determination to APM and LAPM for review per Task 1 Project Design Schedule.
- Final construction special provisions relevant to No Effects determination to APM within 2 weeks following receipt of draft review comments.

### **3.5.2 Federal-Aid Highway Program (“FAHP”) ESA Programmatic Documentation**

Consultant shall coordinate and document compliance with the federal ESA for NMFS trust species and USFWS trust species using the FAHP Programmatic. The FAHP ESA Programmatic is appropriate for most projects with Federal-Aid funding. ESA documentation must be completed by a qualified biologist. All documentation for the Project design phase must follow procedures contained in the most recent version of the ODOT FAHP Programmatic User’s Guide available on the ODOT Biology ESA website: (<http://www.oregon.gov/ODOT/GeoEnvironmental/Pages/ESA.aspx>). FAHP ESA programmatic documentation must be completed by an ESA qualified biologist as described above.

Consultant shall:

- Facilitate early coordination with NMFS and/or USFWS according to Section 2.3 of the FAHP Programmatic User’s Guide.
- Coordinate with the APM and Agency biologist to complete the FAHP Project Stakeholder List as shown in Table 4 of the FAHP Programmatic User’s Guide.



- Utilizing the latest template available on the FAHP Programmatic website, prepare and submit the Project Initiation Form to the ODOT Regional Environmental Coordinator (“REC”) for the Project.
- Contact the Agency biologist via phone or email for site-specific information on ESA species including but not limited to background reports and ORBIC special status species lists.
- Contact via phone or email ODA, ODFW, NMFS and/or USFWS for additional site-specific information on ESA species.
- Review all ESA information provided or obtained.
- Facilitate and attend 1 site visit with the Agency and USFWS and/or NMFS to discuss Project impacts, applicable FAHP Programmatic standards, and possible modifications to the Project to meet FAHP Programmatic standards; Consultant shall prepare site visit meeting notes that include topics discussed and recommendations.
- Prepare and submit all required FAHP Programmatic forms to the Agency REC for the Project, utilizing the latest templates available on the Agency ESA website. In addition to the Stakeholder List and Initiation Form detailed above, the following forms are required as part of the FAHP Project Notification documents:
  - Notification Form
  - Additional Info
  - Additional Stormwater
  - Change Form

### **3.5.2 Consultant Deliverables and Schedule**

Consultant shall prepare and submit:

- Draft Site Visit Meeting Notes within 1 week of the meeting to APM and ODOT REC
- Final Site Visit Meeting Notes within 1 week of receiving comments to APM and ODOT REC
- Draft FAHP Programmatic Project Initiation Form within 2 weeks of Kickoff Meeting to APM and ODOT REC
- Final FAHP Programmatic Project Initiation Form within 1 week of receiving comments to APM and ODOT REC
- Draft FAHP Programmatic Project Notification documents per Task 1 Project Design Schedule to APM and ODOT REC
- Final FAHP Programmatic Project Notification documents 2 weeks of receiving comment to APM and ODOT REC

## **3.6 WETLAND AND WATER RESOURCES**

Consultant shall research and prepare documentation necessary to satisfy the requirements of Section 404 of the Clean Water Act and Oregon’s Removal Fill Law (ORS 196.795-196.990).

### **3.6.1 Wetland/Waters of the U.S./State Fieldwork and Determination Memo**

Consultant shall complete a wetland field determination and ordinary high water mark “(OHWM)” demarcation for the Project Study Area (“PSA”).

Consultant shall use available data (including but not limited to: soil surveys, aerial photos, National/Local Wetland Inventory [“NWI/LWI”] maps), as well as data gathered in the field to document the presence or absence of wetlands within the PSA.

Consultant shall:

- Determine wetland boundaries within the PSA in accordance with the criteria and methods described in the *1987 Corps of Engineers Wetland Delineation Manual (Environmental Laboratory Technical Report Y-87-1)* and appropriate Regional Supplements.
- Use field methods and collect data that meets the U.S. Army Corps of Engineers (“USACE”) and DSL technical requirements for wetland delineations and ordinary high water demarcations, and collect and record wetland delineation data on approved wetland determination data sheets for possible inclusion with a wetland delineation report.
- Place flags in the field to show the Wetland Boundary and OHWM elevation of all jurisdictional surface waters. Coordinate with survey team to locate flagging. Use of handheld GPS is allowed if it has the accuracy necessary for the regulatory agencies and the staff are willing to escort Agency representatives on a field site tour; and
- Consultant shall notify Agency if wetlands are present and will be impacted.

Consultant shall prepare 1 Wetland Determination Technical Memo. The memo must include:

- Description of the PSA;
- Summary of existing available information, noting the standard information that is not available (i.e., if no Agency soil survey coverage exists for the area, then it must be stated);
- Field reconnaissance methods;
- Results of field reconnaissance;
- Data Sheets;
- Color photographic record depicting on-the-ground conditions; and
- Sketch mapping depicting locations of wetlands or waterways within the study area.

### **3.6.1 Consultant Deliverables and Schedule**

Consultant shall prepare and submit:

- Sketch map of approximate wetland and waters boundaries to Agency (if present) per the schedule in Task 1;
- Notification to Agency (via email) if wetlands are present and will be impacted per the schedule in Task 1;
- Electronic copy (Word) of the draft Wetland Determination Technical Memo to APM for review per the schedule in Task 1; and
- Electronic copy (PDF) of the Final Wetland Determination Technical Memo to APM 2 weeks following receipt of draft review comments.

### **3.6.2 Wetland/Waters of the U.S./State Delineation Report (CONTINGENCY – See Section F)**

If wetlands are found to be within the defined API during Task 3.6.1 and if they may potentially be impacted by the Project, Consultant shall prepare a Wetland/Waters of the U.S./Delineation Report (Wetland Delineation Report) in accordance with DSL and USACE requirements and standards. The Wetland Delineation Report must include all required information outlined in Oregon Administrative Rules (OAR) 141-090-035, as well as all wetland data sheets obtained in the field under Task 3.6.1.

Consultant shall prepare appropriate graphics required by USACE and DSL to accompany the Wetland Delineation Report. This shall include a site location map, tax lot map, National Wetland Inventory or Local Wetland Inventory map (if available), soil survey map, and aerial overlay map. Consultant’s Wetland Delineation Report must also include wetland delineation boundary mapping (figures) as finalized by Consultant and as per the requirements of DSL, and a color photographic record depicting existing conditions.

Consultant shall also complete the appropriate DSL cover page for submitting the Wetland Delineation Report to for review and approval. Consultant shall attend one site visit with Agency representatives if determined necessary by USACE and/or DSL, and shall respond to their comments.

Consultant will submit the Wetland Delineation Report to DSL and USACE. Consultant will be responsible for signing the wetland delineation report cover page. Consultant will be responsible for payment of any associated fees. Agency and ODOT will review the draft Wetland Delineation Report and will provide comments to Consultant within three weeks of receipt of the draft. Consultant shall make appropriate modifications to the draft Wetland Delineation Report in response to the comments and shall prepare the final for submittal.

### **3.6.2 Consultant Deliverables and Schedule**

Consultant shall prepare and submit:

- Electronic copy (Word) of the Draft Wetland Delineation Report to Agency for review per the schedule in Task 1.
- Electronic copy (PDF) of the Final Wetland Delineation Report to Agency two weeks following receipt of draft review comments per the schedule in Task 1.
- Final Wetland Delineation Report to DSL and the USACE per the schedule in Task 1.

## **TASK 4 PUBLIC INVOLVEMENT SUPPORT**

Agency will have responsibility for the Project public involvement and outreach program. Due to the emergency nature of the proposed work, public involvement will be limited. Project information and status will be provided on the Agency's website.

### **4.1 RESERVED**

### **4.2 Public Involvement Information**

Agency intends to display consultant plans or exhibits on its website. Consultant shall prepare:

- Project fact sheet,
- An aerial graphic of the proposed project,

### **4.2 Consultant Deliverables and Schedule:**

Consultant shall:

- Provide up to 1 fact sheet, 1 aerial graphic of the proposed project within 5 business days of completion of final DAP. The files will be provided in draft and final forms in PDF. The PDF's will be placed on the County's website.

## **TASK 5 - UTILITIES**

Consultant shall perform the coordination of all utility facilities within the Project limits in accordance with the *Oregon Utility Relocation Manual*.

If any utility is nonresponsive or uncooperative, Consultant shall notify Agency, and Agency will communicate with the utility to affect a solution.

### **5.1 Utility Location and Coordination**

Consultant shall perform utility coordination and liaison activities with utility owners/operators for the Project. Consultant shall comply with the current version of the Utility coordination policy requirements as described in the *Oregon Utility Relocation Manual*. This work includes reviewing utilities that may be in conflict with the Project work and utility relocation coordination with the utility owners to resolve those potential conflicts. Additionally, Consultant shall obtain system mapping from utilities located

within the Project limits. The Consultant shall use this information to confirm the survey map as developed under Task 2, Surveying.

### **Assumptions**

- Based on feedback from Agency, it is assumed that the private water line within the project area is not located within a private easement and does not have a County permit. For the purpose of the Project, the water line coordination will be treated as if it is located within the County right of way by permit.

### **5.1 Consultant Deliverables and Schedule**

Consultant shall provide:

- Existing utility information gathered in Task 5.1 to be included in the survey map/base map; and
- Record of communications with each utility within the Project limits; copies of communication record must be provided to APM within 3 business days of request.

### **5.2 Utility Report**

Consultant shall prepare a draft and final Utility Report for those utilities located within the Project limits. The Utility Report should include as many of the following items that are known and applicable:

- Description of utilities located within the Project limits,
- Utility facility's structure dimension,
- Probable buried depth of cover or aerial lowest height of wire,
- General description of utility facility structure material,
- Reliance upon other utilities in the vicinity (joint use facility),
  - Description of the means used to verify facility location and limits of conflict (test hole data a.k.a. "pothole" verification),
- Proposed project construction requirements,
- Potential utility conflicts, and
- Probable conflict resolution (relocation or adjustment concept).

### **5.2 Consultant Deliverables and Schedule**

Consultant shall provide:

- Draft Utility Report to be submitted with Design Acceptance Package ("DAP") under Task 13, and
- Final Utility Report to be submitted to APM within 10 business-days receipt of comments on draft document.

### **5.3 Utility Coordination Meetings**

To facilitate the development of each utility relocation plan, Consultant shall organize, conduct, prepare for and attend the following utility coordination meetings with utilities within the Project limits:

- Utility kickoff meeting to begin utility coordination. The meeting must address known facilities, potential for impact, design alternatives to address conflicts, timing requirements for potential relocations, and initial information on reimbursable requirements.
- Up to 1 individual meetings with potentially affected utilities.
- 1 on-site group utility meeting, to coordinate relocation plan, construction constraints, means and methods, work sequence and schedule limitations.

Consultant shall prepare a meeting agenda and meeting summary notes summarizing the discussions at the group meeting.

For budgeting purposes it is assumed that up to 2 Consultant staff shall attend each 3 hour meeting, including travel time.

### **5.3 Consultant Deliverables and Schedule**

For each meeting Consultant shall provide to APM:

- Meeting agenda and meeting summary note for each meeting; agenda due within 2 business days prior to meeting;
- Meeting summary notes due within 5 business days after meeting

### **5.4 Utility Relocations**

Consultant shall coordinate the efforts of the utility agencies in developing and executing a plan for relocating utilities to resolve conflicts with the Project design. As part of that effort, Consultant shall complete the following:

- Preparation of Project Notification Letter(s)/Utility Conflict Notices
- Review of Utility Relocation Plans and Preparation of Relocation Time Requirement Letters

#### **5.4.1 Utility Notices**

For those utilities where no conflict is anticipated, Consultant shall provide a Project Notification (first notice per Oregon Administrative Rule [“OAR”] 734-055-045). Consultant shall use the Project Notification letter template located at: :

<https://www.oregon.gov/ODOT/ROW/Pages/Utility-Forms.aspx>

The Project Notification letter must include plan sheets indicating location of existing utilities in relationship to proposed Project.

For those utilities where a conflict is anticipated, Consultant shall provide a Conflict Notice (first notice per OAR 734-055-045). Consultant shall use the Conflict Notice located at:

<https://www.oregon.gov/ODOT/ROW/Pages/Utility-Forms.aspx>

Consultant's coordination schedule must allow each utility a 30-day calendar period to respond with a proposal from date of the notice. Multiple notices or revised notices must be created and delivered to a utility owner when additional facility conflicts become apparent and the utility owner's response time may be shortened to 7 calendar days.

#### **5.4.1 Consultant Deliverables and Schedule**

Consultant shall provide:

- Project Notification letter(s) and Conflict Notice(s) with enclosures to utilities; due within 10 business days after submittal of Preliminary plans to Agency; and
- 1 electronic copy (PDF) of Project Notification/Utility Conflict letters with enclosures to APM, LAPM and, State Utility Liaison (SUL).

#### **5.4.2 RESERVED**

#### **5.4.3 Review Utility Relocation Plans and Relocation Time Requirement Letters**

Consultant shall examine all received utility relocation plans for completeness and accuracy. If relocation plans do not resolve utility conflict, Consultant shall provide comments to the utility for correction and re-submittal.

Consultant shall negotiate with each utility a utility construction work schedule that conforms to the project construction schedule. Consultant shall deliver a Time Requirement Letter (second

notice) to each utility owner accepting or modifying the required utility facility construction time.

#### **5.4.3 Consultant Deliverables and Schedule**

Consultant shall provide:

- The final utility relocation plan(s) submitted to the Agency within 10 business days after acceptance; and
- Time Requirement Letter(s) submitted to each utility and SUL within 20 business days after submittal of Advance Plans to Agency.

#### **5.6 Utility Certification**

Consultant shall complete and sign the Utility Certification verifying that all utility work has been completed or that all necessary arrangements have been made for it to be undertaken and completed as required for proper coordination with the physical construction schedule.

If an exception is required, Consultant shall prepare, for the APM's signature, a Public Interest Finding as part of the Utility Certification including facts regarding the cause for the exception, an action plan and time table in securing a utility agreement (i.e., the Time Requirements letter).

#### **5.6 Consultant Deliverables and Schedule**

Consultant shall provide:

- 1 electronic copy (PDF) of the Utility Certification sent to the State Utility Liaison for co-signature due 10 business days prior to PS&E; and
- 1 hard copy of signed Utility Certification form to be incorporated into PS&E package.

### **TASK 6 GEOTECHNICAL SERVICES**

Consultant shall conduct geotechnical field investigation to explore the following:

- Surface and subsurface conditions in proposed improvement areas, including roadway subgrade and existing roadway structural section.
- Surface and subsurface conditions in areas of existing slope instability
- Existing soil types and characteristics

Consultant shall provide documentation which summarizes and presents the results of the investigation, analyses, and recommendations.

#### **6.1 Data Review / Reconnaissance**

##### **Data Review:**

Consultant shall review available existing information to evaluate the following:

- Geologic conditions and hazards along the proposed Project alignment, such as geologic units, historic land use, and fill materials
- Pavement construction history

Consultant shall review available information from the following sources (as applicable):

- Existing published and unpublished literature from Agency records;
- Previous geology and/or geotechnical reports from Agency, and federal, city, county, or other officials, consultants, groups or individuals pertinent to the Project; and
- Maintenance records.

Reconnaissance:

Consultant shall conduct a pavement, geologic, and geotechnical reconnaissance of the site consisting of up to 2 separate site visits. Consultant shall identify Geologic conditions at the Project site, any geologic hazards present and their impacts to the proposed Project elements

As part of the site reconnaissance work, Consultant shall

- Observe surface conditions that may be indicative of subsurface conditions of concern, as well as past or ongoing geologic processes (e.g., areas of seeps or springs, erosion, unstable slopes, shallow groundwater, roadway settlement, offsets and depressions, existing earthwork performance, exposed soil and bedrock units);
- Identify site constraints, staging concerns (for exploration and construction), and environmental considerations;
- Identify potential exploration and/or monitoring locations; and
- Locate boring and stake or paint on the ground proposed boring locations.

**6.1 Consultant Deliverables and Schedule:**

Information from this task shall be incorporated into deliverables for Tasks 6.2 and 6.7.

**6.2 Exploration and Testing Work Plan**

Consultant shall prepare an Exploration and Testing Work Plan (ETWP) prior to beginning field work. No field work is to be performed, other than initial site reconnaissance, before review and approval by Agency of the ETWP.

The ETWP shall address the proposed drilling (geotechnical boring), site access, exploration and sampling procedures, preliminary laboratory testing plan, safety plan, and the traffic control plan. The traffic control plan must address minor road encroachments as well as lane and/or shoulder closures for activities associated with drilling.

Consultant shall obtain required Utility Placement Permit from Agency for exploration locations in public ROW prior to beginning field work.

Agency will obtain required Right-of-Entry Agreements from the property owners under Task 14.1 prior to beginning field work.

**6.2 Consultant Deliverable and Schedule:**

Consultant shall provide:

- ETWP in MS Word format at least 5 business days prior to beginning field work to APM.

**6.3 Geotechnical and Pavement Explorations**

Consultant shall conduct field investigation work in accordance with the most current versions of the ODOT Geotechnical Design Manual and the ODOT Pavement Design Guide.

All field explorations shall be performed in conformance with the approved ETWP developed in Task 6.2.

Consultant shall perform subsurface explorations to estimate and characterize the *in situ* soils for the purposes of addressing foundation support and other geotechnical or geological considerations for the following:

- Slope stability
- Embankment subgrade



The anticipated subsurface explorations to be performed for the Project are shown in the following table:

TEST METHOD	EST # OF TESTS	DEPTH(S) OF EXPLORATION(S)
Drilled Borings, and install slope inclinometer	1	20-ft to 30-ft

Consultant shall provide an experienced engineer or geologist to supervise the field operations for *in situ* data gathering.

Consultant shall provide an experienced engineer or geologist, as applicable, to supervise the field operations.

Consultant shall perform the exploration work while following additional requirements as follows:

- Boring locations that have restrictions must have boring performed in conformance with the permit requirements.
- The drill cuttings and drilling mud must be collected in sealable steel drums and removed from the site, unless otherwise coordinated with Agency.
- The borings must be abandoned and backfilled according to Oregon Water Resources Department regulations.
- All borings and core holes through pavement must be patched with cold patch asphalt emulsion, quick set PCC, or as approved by Agency.
- Inclinometer and vibrating wire installations will include flush-mounted monuments.

**6.3 Consultant Deliverables and Schedule:**

Information from this task shall be incorporated into deliverables for Task 6.7.

**6.4 Laboratory Testing**

Consultant shall perform laboratory tests on disturbed and/or undisturbed soil samples obtained from the explorations in order to:

- Characterize the subgrade and subsurface soils;
- Develop engineering soil parameters for the pavement and embankment design,
- Assist with determining engineering geologic unit boundaries, and
- Check field soil description and identification.

The laboratory testing program shall be performed in accordance with standard ASTM and Agency practices and may include the following (as appropriate):

- Moisture/density;
- Atterberg limits;
- Gradation (minus No. 200 sieve wash);
- Organic content;
- Consolidation;
- Soil unconfined compressive strength;
- Triaxial resilient modulus test;
- Torvane shear strength test
- Direct shear strength testing (if applicable)

**6.4 Consultant Deliverables and Schedule:**

Information from this task shall be incorporated into deliverables for Task 6.7.

## **6.5 Geotechnical Monitoring**

Consultant shall collect data from the inclinometers and vibrating wire piezometers twice during the winter months (including the initial reading) and once during the spring months.

## **6.6 Geotechnical Design Analysis**

Consultant shall perform the slide mitigation design analysis for the Project. Consultant will evaluate reinforced soil slope design for the Project. The detailed SOW is as follows:

- Evaluate regional and site-specific geologic hazards,
- Estimate soil residual shear strength along the landslide failure planes,
- Evaluate reinforced soil slope design,
- Meet with Agency to discuss findings and potential mitigation design alternatives, and
- Develop the reinforced soil slope mitigation recommendations.

### **6.6 Consultant Deliverables and Schedule:**

Information from this task shall be incorporated into deliverables for Task 6.7.

## **6.7 Geotechnical Report and Foundation/Geotechnical Data Sheets**

Consultant shall prepare a Geotechnical Report according to the ODOT Geotechnical Design Manual criteria for submittal to Agency and LPA for review. The Geotechnical Report must:

- Summarize the geotechnical design and construction recommendations.
- Identify general specification criteria for the construction contract and provide recommendations for special provisions, if required.
- Summarize the results of the geotechnical analyses.

### **6.7 Consultant Deliverables and Schedule:**

Consultant shall provide:

- Draft Geotechnical and Pavement Design Report in Microsoft Word and PDF format to be incorporated into the DAP delivered under Task 13.
- Final Geotechnical and Pavement Design Report in PDF format to APM as part of the Advance PS&E submittal.

## **6.8 Review of Geotechnical-related Plans and Specifications**

Consultant shall review geotechnical-related plans and specifications to confirm that the landslide mitigation design plans and specifications are consistent with the geotechnical design and construction recommendations provided in the Geotechnical and Pavement Design Report.

### **6.8 Consultant Deliverables and Schedule:**

The review comments will be provided by using tracked changes in the Word document, and sketches on the plans.

## **TASK 7 HYDRAULICS RELATED SERVICES**

Consultant shall provide stormwater management and hydraulic related design services under this SOW for delivery of Tasks and Deliverables according to the agreed upon delivery schedule.

### **7.1 RESERVED**

### **7.2 RESERVED**

## **7.5 Stormwater Management Design**

The purpose of this subtask is to design stormwater systems for the conveyance and treatment of drainage in the Project.

### **Stormwater Conveyance**

The purpose of this subtask is to provide design of stormwater conveyance facilities that collect and carry highway runoff per local agency, ODOT Hydraulics Manual, and/or FAHP Programmatic Biological Opinion, whichever standard is most strict.

Consultant shall:

- Determine the locations of flow entering and leaving the Project ROW.
- Review existing conditions downstream of locations where flow is leaving the Project ROW for deficiencies and document observations.
- Delineate on-site drainage basins, calculate peak flow rates for design, model the proposed pipe network, and calculate hydraulic grade line to check that proper freeboard design requirements are being met.
- Check inlet capacity and inlet spacing, calculate gutter flow to check spread, and provide design recommendations for inlet locations.
- Provide design recommendations for pipe network, associated pipe sizes, pipe material recommendations, and manhole access design recommendations (i.e., spacing, location within a travel lane, etc.).
- Provide manhole diameter design recommendations based upon analysis of pipe connections at each manhole.
- Compare pipe network against known utilities in the Project area and provide design recommendations to minimize utility conflicts or to adjust existing utilities.
- Provide Stormwater Outfall design and energy dissipater design recommendations in compliance with applicable Project permits.

### **Roadside Channel Conveyance**

Consultant shall model ditches to calculate water surface elevation, depth, and velocity and provide channel lining design recommendations per HEC-15, Design of Roadside Channels with Flexible Linings.

### **Stormwater Quality Design**

The purpose of this subtask is to provide design of stormwater management facilities that provide water quality treatment of highway runoff per local agency standards, ODOT Hydraulics Manual, and/or FAHP Programmatic Biological Opinion, whichever standard is most strict.

Consultant shall:

- Define Contributing Impervious area.
- Delineate on-site drainage sub-basins.
- Identify treatment Best Management Practice (“BMP”) types applicable for the site.
- Identify potential locations to site facilities within and outside the existing right-of-way.
- Estimate facility size, type and space needs at each of the potential locations.
- Evaluate constraints to siting a stormwater facility (i.e.-drainage area, adjacent grades, roadway safety, presence of existing utilities, protected resource areas, etc.).
- Prepare up to three stormwater management strategies that combine potential stormwater facilities into a comprehensive solution for meeting the needs of the Project.
- Compare alternative stormwater management strategies and recommend a preferred strategy.

## **Stormwater Quantity Design**

The Project is not anticipated to trigger requirements for stormwater quantity management. The design assumes that no stormwater quantity analysis is necessary for the Project, because there is no change to impervious area. There will be coordination with NMFS to provide an overview of the design to get concurrence.

## **7.6 Stormwater Design Memo**

The purpose of this subtask is to provide preliminary stormwater design recommendations and document the final stormwater facility design recommendations.

Consultant shall prepare a preliminary version of the Project Stormwater Design Memo per FAHP guidelines containing preliminary stormwater facility design recommendations.

Consultant shall prepare a final Stormwater Design Memo to reflect Agency review comments on stormwater facility design recommendations, changes to stormwater facility design due to advancement of the overall Project design, and supporting documentation of the final stormwater facility design.

### **7.6 Consultant Deliverables and Schedule:**

Consultant shall provide:

- Draft Stormwater Design Memo in PDF file format, along with a Microsoft Word file containing the report narrative, and 3 hard copies, due with the Design Acceptance Package.
- Final Stormwater Design Memo, PDF file of complete report, and 3 hard copies, due with the Final Plans.

## **7.7 Stormwater Operation and Maintenance (O&M) Manual**

The purpose of this subtask is to provide Operations and Maintenance Manual documentation of all proposed stormwater management facilities so that the agency has a record of the stormwater facilities that need to be as-built, operated and how to maintain them after the Project is constructed. The manual must be developed using the Agency templates referenced in the Agency Hydraulics Manual. The general outline described in the Hydraulics Manual shall be followed unless agreed to otherwise by the APM, as follows:

- 1) Identification
  - a) Facility Type
  - b) Location
- 2) Facility Contact Information. This section provides a general summary of contacts for operational clarification, maintenance clarification, and repair or restoration assistance. This section requires no or little modification.
- 3) Construction
- 4) Storm Drain System and Facility Overview
- 5) Auxiliary Outlet (High Flow Bypass)
- 6) Maintenance Requirements
- 7) Waste Material Handling
- 8) Operations and Maintenance Appendices A, B, and C

Consultant shall prepare up to 1 Draft Operation and Maintenance Manuals, 1 for each stormwater facility anticipated for the Project, per Chapter 4, Section 4.6.6 of the Hydraulics Manual (latest edition).

Consultant shall prepare operational plans as outlined in Technical Bulletin GE 16-01 (B) titled "Stormwater Control Facility Operation and Maintenance Plan Development Drafting Guidance".

### **7.7 Consultant Deliverables and Schedule:**

Consultant shall provide:

- 1 copy of each Draft O&M manual in Microsoft Word and Adobe “pdf” format to the APM with Advanced Plans.
- 1 copy of each draft operational plan in AutoCAD format (\*.DWG file) to the APM with Advanced Plans.

### **TASK 8 TRAFFIC ENGINEERING & MANAGEMENT**

Consultant shall provide traffic analysis and design Services under this SOW for delivery of Tasks and Deliverables according to the agreed upon delivery schedule.

### **8.5 Permanent Pavement Markings**

Consultant shall prepare plans, specifications, and construction cost estimates for the permanent pavement markings associated with the proposed improvements. The design must be completed in accordance with applicable Manual on Uniform Traffic Control Devices (“MUTCD”) and Agency standards.

### **8.5 Consultant Deliverables and Schedule**

Consultant shall provide:

- 30% Permanent Pavement Marking plans and cost estimate included in DAP (Task 13)
- Preliminary Permanent Pavement Marking plans, specifications, and cost estimate included in Preliminary PS&E submittal (Task 15.1)
- Advance Permanent Pavement Marking plans, specifications, and cost estimate included in Advance PS&E submittal (Task 15.2)
- Final Permanent Pavement Marking plans, specifications, and cost estimate included in Final PS&E Package submittal (Task 15.3)

### **8.7 Temporary Traffic Mobility**

Consultant shall prepare a draft Project-level Traffic Management Plan (“TMP”) per the requirements of the ODOT TMP Guidance Document located on the Agency web page. The TMP must include such elements as: work zone traffic analysis, construction staging, work zone restrictions, detours, mobility issues, mitigation measures, and concurrence from Agency on the staging approach and lane restrictions. Where road closures and detours are anticipated, Consultant shall, in coordination with Agency and other stakeholders, build consensus for a recommended detour route. Anticipated speed zone reductions must be identified in the TMP. Consultant will provide lane closure charts or supporting traffic analysis showing recommended lane closure restrictions for Project area roadways. Consultant shall coordinate with Agency for any specific restrictions on lane closures or detour routes. Consultant shall prepare Project Mobility Consideration checklist and provide to APM for review.

### **8.7 Consultant Deliverables and Schedule**

Consultant shall provide:

- Draft TMP and Project Mobility Consideration checklist submitted as part of Task 13 deliverables
- Final TMP submitted as part of Task 15 deliverables

### **8.8 Traffic Control Plans (TCPs)**

Consultant shall prepare and submit PS&E for temporary traffic control to accommodate the public during construction. Plans and specifications shall be developed to accommodate vehicle, bicycle and pedestrian traffic during construction. ODOT standard plans must be referenced where possible.

Consultant's TCPs shall indicate such elements as traffic control sequencing, work zone limits, transitions, traffic control devices, signage, detours and staging cross sections (where applicable), and work zone details for vehicles, bicycles and pedestrians.

### **8.8 Consultant Deliverables and Schedule**

Consultant shall provide:

- 30% TCPs and cost estimate included in DAP (Task 13)
- Preliminary TCPs, specifications, and cost estimate included in Preliminary PS&E submittal (Task 15.1)
- Advance TCPs, specifications, and cost estimate included in Advance PS&E submittal (Task 15.2)
- Final TCPs, specifications, and cost estimate included in Final PS&E Package submittal (Task 15.3)

### **TASK 9 RESERVED**

### **TASK 10 ROADWAY DESIGN**

Consultant shall provide roadway design Services under this SOW for delivery of tasks and deliverables according to the agreed-upon delivery schedule.

### **10.1 Design Criteria**

Consultant shall prepare draft and final design criteria. Design criteria shall be consistent with Clackamas County Roadway Standards. Consultant shall present the design criteria in a table or matrix format listing all conditions, assumptions and minimum standards for the roadway design elements of the Project. This includes:

- Obtain functional classification facility based on current Transportation System Plan
- Determine design vehicles
- Obtain existing and design year Average Daily Traffic ("ADT") from traffic report or Project Prospectus provided by Agency
- Determine design speed
- Review crash data / history provided by Agency
- Determine roadside design requirements (clear zone)
- Determine sight distance considerations
- Determine cross slope, horizontal curves, and super-elevation
- Determine maximum grade, vertical curves
- Determine cross section elements:
  - Number and width of travel lanes
  - Shoulders
  - Curbs
  - Side slopes
  - Ditches or swales (drainage facilities)

### **10.1 Consultant Deliverables and Schedule:**

Consultant shall provide:

- Draft design criteria electronically to APM within 4 weeks from Notice to Proceed (NTP).
- Final design criteria electronically to APM within 2 weeks from receipt of Agency comments.

### **10.3 Roadway Design Exceptions (CONTINGENCY TASK – See Section F)**

Consultant shall prepare up to 3 draft Roadway Design Exception Request(s) for the Project. The Design Exception Request(s) must be prepared using the standard Design Exception Request form defined in the Highway Design Manual. The final Design Exception Request(s) for the Project must be stamped and signed by the engineer of record. The Agency will coordinate final approval of the Design Exception Request(s).

#### **10.3 Consultant Deliverables and Schedule:**

Consultant shall provide:

- 1 electronic copy in Microsoft Word format to APM of draft Design Exception Request(s) within 2 weeks of DAP or TS&L or Approved Alternative from Task 10.2
- 1 hard copy and 1 electronic copy in Word and PDF format to APM of final Design Exception Request(s) no later than 2 weeks of receipt of comments from Agency.

### **TASK 11 RESERVED**

### **TASK 12 LOCAL PERMITS**

Consultant shall provide local agency permitting Services under this SOW for delivery of Tasks and Deliverables according to the agreed upon delivery schedule.

#### **12.1 Permit Research**

Consultant shall evaluate permit requirements for the Project. Consultant's evaluation shall include permit requirements from local agencies for the Project.

Based on Project information and available Clackamas County zoning and land use information, Consultant shall determine the required land use, environmental, or transportation permits and processes. The proposed Project activities shall occur within the jurisdiction of Clackamas County.

Consultant shall prepare a technical memorandum detailing permits required, agency staff contacted, and the cited respective code sections that require them. Consultant's permitting technical memorandum shall outline the procedure for obtaining these permits and approximate timeframes associated with them. Consultant's permitting technical memorandum shall include specific conditions listed in those code sections which may apply to the Project. Consultant shall contact by phone or email APM to verify the required permits, processes, standards, and criteria.

#### **12.1 Consultant Deliverables and Schedule**

Consultant shall provide:

- Draft Permitting Technical Memorandum due with DAP, Task 13 per Task 1 Project Schedule in electronic (Microsoft Word) format.
- Final Permitting Technical Memorandum submitted in electronic (Word and PDF formats). Consultant shall perform 1 set of revisions due 10 business days after receiving Agency comments on draft Technical Memorandum.

### **TASK 13 - DESIGN ACCEPTANCE PACKAGE (30%)**

The objective of the DAP is to identify the size of the Project footprint, required design exceptions and any required environmental permits prior to preparing the Preliminary, Advance and Final Plans.

Consultant shall prepare a DAP that includes design plans (30%), cost estimate and a design narrative that addresses the following:

- Description of the purpose, need, and design solution for the Project;



- Summary of existing conditions, (i.e., Project location, roadway classification, lanes, ADT, posted speed, and other design standards pertinent to the Project);
- Summary of design exceptions that will be necessary
- Summary of roadway alignment and typical section alternatives considered, including recommendations;
- Outline of Project constraints such as topography, environmental, permits, ROW, utilities and cost (NOTE: these may be executive summaries prepared by Consultant for other deliverables associated with this Project);
- Environmental impacts and mitigation measures;
- Environmental permitting requirements;
- Utility conflicts;
- Description of geotechnical subsurface conditions;
- Draft Geotechnical Report;
- Draft Stormwater Management Plan;
- Draft Hydraulics Report;
- Description of drainage features;
- ROW needs;
- Local permit needs;
- Construction staging, temporary detours, and temporary protection and direction of traffic during construction;
- Design acceptance checklist

Consultants shall prepare DAP plan sheets according to the following table:

<b>Name of Sheet</b>	<b>Estimated # of Sheets</b>
Title sheet	1
Typical sections	1
Details	2
Roadway plans	1
Roadway profiles	1
Roadway cross sections	1
Temporary Detour	1
Drainage/stormwater plan/profiles	1
Drainage/water quality details	2

Consultant shall summarize and reference in the DAP all of the reports and technical memoranda pertinent to the Project. Consultant shall prepare and submit design plans and a cost estimate as appendices to the DAP. Drawings submitted with the DAP must be marked as "Design Acceptance Plans for Review." Both the DAP and the design plans must bear the responsible engineer's seal. Consultant shall prepare the Title sheet in accordance with Agency standards and provide an index to the drawing set.

Agency will provide comments on the DAP. Consultant shall address Agency comments. Consultant shall attend a DAP Plan Review Meeting to communicate and discuss resolution to Agency review comments. Consultant shall provide written responses to address review comments received from Agency after attending the DAP Plan Review Meeting.

For budgeting purposes it is assumed that up to 2 Consultant staff shall attend the 3 hour DAP Plan Review Meeting, including travel time.

### **13 Consultant Deliverables and Schedule:**

Consultant shall provide:

- 1 electronic copy of DAP in PDF format to APM within 12 weeks of NTP.
- 1 electronic copy of written responses to DAP review comments to APM within 1 week of the DAP Plan Review Meeting.

### **TASK 14 RIGHT OF WAY (ROW)**

Consultant shall conduct the ROW activities for all properties in accordance with the most current version of the following:

- ROW Services Agreement specific to the Project
- “*ODOT Right of Way Manual*”;
- “*ODOT Guide to Appraising Real Property*”;
- “*ODOT Right of Way & Rail/Utility Coordination Contractor Services Guide*”;
- Oregon Revised Statute 35, with reference to the “*Uniform Appraisal Standards for Federal Land Acquisitions*”; and
- Agency ROW acquisition policies and procedures

Consultant shall use Agency versions of all forms, spreadsheets, brochures and pamphlets referenced in the “*ODOT Right of Way Manual*” and needed to complete work associated with Task 14. These forms, spreadsheets, brochures and pamphlets shall not be altered without written permission from the Agency. They may be obtained through the Agency Right of Way Manager or Designee.

Consultant shall track status for all parcel files to be acquired for ROW purposes in the format provided by Agency. Consultant should coordinate the details of this process with the Agency Right of Way Manager or Designee at the Project Kickoff meeting.

For estimating purposes, up to 2 files are anticipated for this project.

### **14.1 RESERVED**

### **14.2 Title Reports and Document Requests**

Consultant shall obtain preliminary title reports for each impacted property. Consultant shall obtain all title reports from one Title Company.

### **14.2 Consultant Deliverables and Schedule**

Consultant shall provide:

- Digital copies of Preliminary title reports for 2 files per the schedule developed in Task 1 Project Management.

### **14.3 RESERVED**

### **14.4 Right of Way Programming Estimate**

Consultant shall prepare a ROW programming estimate for use by ODOT and Agency to program funds for property acquisition. Consultant shall obtain the most current version of the Programming Estimate form to be used from the Agency Right of Way Manager or Designee. The programming estimate shall include the Project name and county in which the Project is located and all Project ROW costs, including separate Consultant, Agency, and ODOT ROW costs as outlined in the Right of Way Services

Agreement with the LPA. The ROW programming estimate shall include dollar amounts for the following items: Land and Improvements; Damages/Cost to Cure; Relocation; Demolition; Personnel and Administration; Legal and Contingencies and totals for all Items. The programming estimate shall be submitted to the appropriate Agency Right of Way Manager or Designee for review.

Consultant shall revise and re-submit the programming estimate, incorporating comments received from Agency and ODOT.

#### **14.4 Consultant Deliverables and Schedule**

Consultant shall provide:

- 1 draft programming estimate for delivery electronically to Agency Right of Way Manager or Designee and APM per the schedule developed in Task 1 Project Management.
- 1 final programming estimate for delivery electronically to Agency Right of Way Manager or Designee and APM per the schedule developed in Task 1 Project Management.

**PLEASE NOTE: Consultant shall not perform any services described in Tasks 14.4 through 14.6 below until Agency issues NTP for the ROW phase of the Project.**

#### **14.5 Preliminary Activities**

Upon receipt of authorization to proceed with ROW Acquisition, Consultant shall set up ROW parcel files and deliver a General Information Notice (“GIN”), acquisition and relocation brochures, and a copy of the applicable portion of the ROW Acquisition map (marked Preliminary and showing the parcel(s) to be purchased) to all owners and occupants of affected properties. Consultant shall send GIN via certified with return receipt request. Proof of delivery will be kept in the parcel file. Consultant shall use Agency GIN form.

Consultant shall prepare and maintain a Diary of Personal Contact for each file. The Diary of Personal Contact must include dates associated with the mailing and receipt of delivery of the GIN in addition to the date, place of contact, parties contacted, a summary of what was discussed for all contact with affected property owners and/or their representatives

#### **14.5 Consultant Deliverables and Schedule**

Consultant shall provide:

- GINs, 1 hard copy to each property owner and 1 electronic copy each to Agency within 20 business days following NTP for the ROW acquisition phase.
- 1 digital copy of the certified mail receipt and returned receipt request for each property with the Final Report Package or RC Package.

#### **14.6 Appraisal and Appraisal Review**

Consultant shall use appraisers who are licensed or certified in the State of Oregon, experienced and competent in eminent domain appraising, and on ODOT’s Qualified Appraisers List.

Consultant shall provide one real estate appraisal for each property *or properties that constitute the “larger parcel” as described in the ODOT Right of Way Manual* from which an interest is to be acquired. If identification of the larger parcel is problematic, Consultant shall resolve the issue in consultation with the Agency Right of Way Manager or Designee.

All real estate appraisals provided by the Consultant shall be prepared using forms or formats of, or approved by, the Agency's ROW Section. The types of appraisal reports shall fall into the following categories:

- Taking and damages appraisals for simple takings, and
- Detailed (before/after) appraisals for complex takings.

Consultant shall prepare all reports and estimates necessary to value specialty items to be acquired or to support cost-to-cure estimates.

Consultant shall provide not fewer than 15 days written notice to owners of the planned appraisal inspections. The property owner and designated representative, if any, shall be invited to accompany the appraiser on any inspection of the property for appraisal purposes. Consultant shall send this notice via certified mail with return receipt request. Proof of delivery shall be kept in the parcel file.

Special Benefits, if any, must be quantified by the appraiser whether or not there are any compensable damages to the property.

Consultant shall perform independent reviews of appraisals. Consultant shall forward both the appraisal and the review to Agency for final approval.

Agency will establish just compensation for each property owner and will notify the Consultant.

Consultant shall continue documentation in the Diary of Personal Contact (Diary) for each file. The Diary must include dates associated with the delivery of the written notice of appraisal inspection and a record of other personal contacts conducted during the appraisal process.

#### **14.6 Consultant Deliverables and Schedule**

Consultant shall provide:

- 15 day notice of appraisal inspection to each property owner and an electronic copy to Agency's ROW Section and APM per the schedule developed in Task 1 Project Management.
- A photo copy of certified mail receipt and signed return receipt request for each 15-Day Notice.
- Diary to Agency ROW Section and APM within 3 business days of request.
- Two hard copies and one digital copy of each Appraisal and one digital copy of each Appraisal Review and Specialty Report, if used, for each file to Agency ROW Section and APM and a hard copy format to Agency ROW Section, in accordance with the Project Design Schedule developed under Task 1.

#### **Assumptions**

- It is assumed that these are taking and damages appraisals. If appraisals needed are more complex in nature, fees and schedules will be adjusted accordingly.

#### **14.7 Acquisition Services – CONTINGENCY**

All ROW shall be acquired in the name of Agency as easement, if a partial acquisition, and as fee, if a whole acquisition is required. Consultant shall conduct negotiations, on behalf of the Agency, in good faith and in compliance with all federal and state laws and regulations and Agency policies and procedures. Consultant shall conduct negotiations for acquisition of real property based on Just Compensation issued by Agency.

Consultant shall use Acquisition Agents who are licensed in the State of Oregon to conduct real estate transactions, experienced and competent in negotiating for eminent domain acquisitions, and approved by ODOT to conduct ROW acquisitions for Federally Funded projects.

Consultant shall consult with Agency to determine the extent to which Consultant will be responsible for clearing title encumbrances identified on the Preliminary Title Report or making the offer subject to clearing title encumbrances. Consultant shall present any requests for taking title subject to one or more outstanding interests to Agency for approval. Fee owners' and contract purchasers' ownership interests must be addressed. When impacted by the taking, lessees' interests must also be addressed.

Consultants shall prepare and present to Agency the draft Offer Packets. All offers will be made on Agency letterhead, will include Agency contact information, and will be signed by Agency. These Offer Packets shall include, but shall not be limited to, acquisition and relocation brochures, offer-benefit letter, acquisition and relocation summary statements, County Obligations Agreement (if applicable), copy of appraisal or ADJC (Appraisal Waiver), map of acquisition, instruments of conveyance, and W-9 form (if money is exchanged).

To every reasonable extent possible, Consultant shall make offers in person, if at all reasonably possible, especially where the acquisition involves either a major impact to the property or the displacement of persons occupying the property. If this is deemed not reasonably possible, Consultant shall send offer package via certified mail with return receipt. Proof of delivery must be documented in the Diary and file.

Consultant shall make every reasonable effort to acquire the ROW expeditiously by negotiation. Consultant shall give property owners reasonable opportunity to consider the offer (statutorily 40 calendar days) and to present material the owner believes is relevant to determining the value of the property. Consultant shall attempt to negotiate an approved administrative settlement, but shall not advance the time of condemnation, or defer negotiations or condemnation or the deposit of funds with the court, or take any other coercive action in order to induce an agreement on the price to be paid for the property (49 CFR 24.102(h)).

- IF the OFFER is ACCEPTED, Consultant shall present a Final Report Packet covering the acquisition of ROW to Agency for final approval, acceptance, payment, conveyance of title and recording. Consultant shall use Agency's Transmittal of Executed Documents and Final Report form for this purpose. The Final Report Packet shall include Agency's Final Report and Transmittal of Documents form and all other documentation associated with the ROW activities conducted for this file. Consultant shall include satisfactory documentation of signer's authority to sign if Grantor is a Trust, Corporation, Partnership, or Non-Profit.
- IF a COUNTER OFFER is received, Consultant shall submit the proposed COUNTER OFFER (exceeding the estimate of just compensation) with a justification letter and owner supplied supporting documentation to Agency for approval. If accepted see above.
- IF an acceptable agreement is not reached within the timeframe set by Agency, Consultant shall prepare and submit a Recommendation for Condemnation (RC) Packet. The RC Packet shall include Agency's RC form and all other documentation associated with the ROW activities conducted for this file. and transmit the Agency required file contents to Agency.

Consultant shall continue documenting the Diary for each file. The Diary must include a dated record in chronological order of all contact with property owners and or their representatives and all occupants and or their representatives, including but not limited to the means by which the communication took

place (email, fax, telephone, in person, etc.), the location of the contact, efforts to achieve amicable settlements; owners' suggestions for changes in plans; responses to owners' counterproposals etc.

No communications with property owners or occupants and or their representatives are to be made via text.

**14.7 Consultant Deliverables and Schedule:**

Consultant shall provide the following per the Project Design Schedule developed under Task 1:

- Draft Offer Packet for review for each file to Agency ROW Manager (if deemed necessary by Agency on a case by case basis).
- Final Offer Packet for review and signature to Agency ROW Manager.
- Final Report Packets one for each file, containing the file contents and a Final Report (Agency form) to Agency ROW Manager.
- If applicable, proposed counter offers with justification information to Agency ROW Manager.
- If applicable, Recommendation for Condemnation to Agency ROW Manager.

**Assumptions:**

- Consultant to secure and pay for all title reports
- Agency will provide conveyance document forms
- Agency will approve GIN and Offer documents. GINs and Offer letters will be on Agency letterhead and will be signed by the Agency.
- Agency will disperse payment to property owners and record all documents.
- Number of parcels 2 is based on preliminary alignment and is subject to change. If more or less, payment for this scope of services may be adjusted up or down by negotiation.
- There is no relocation.
- Agency will complete any condemnation activities as needed.

**TASK 15 - PLANS, SPECIFICATIONS, AND ESTIMATE (PS&E)**

Consultants shall prepare plan sheets according to the following table:

Table 15

<b>Name of Sheet</b>	<b>Estimated # of Sheets</b>	<b>60% PS&amp;E Submittal</b>	<b>Advanced Submittal</b>	<b>Final Submittal</b>
Title sheet	1	X	X	X
Typical sections	1	X	X	X
Details	2	X	X	X
Temporary protection and direction of traffic (including bicycle and pedestrian traffic)	1		X	X
Roadway plans	1	X	X	X
Roadway profiles	1	X	X	X
Drainage plan/profiles	2	X	X	X
Erosion control	1		X	X
Drainage details	2	X	X	X
Striping plans	1		X	X

### **15.1 Preliminary PS&E (60%)**

Consultant shall prepare preliminary (60%) documents for the Project incorporating comments from DAP review (Task 13).

Consultant shall prepare drawings, according to Table 15 above and:

- Reference Agency standard drawings and details;
- Prepare the 2018 Bid Booklet and Special Provisions Document Assembly form; and
- Prepare construction cost estimate quantities and unit costs utilizing Agency standard bid items. Consultant shall prepare the estimate to include mobilization, contingency, and construction engineering (the percentages will be agreed to by both parties). The estimate must be based on unit prices utilizing Agency and Consultant's historical bid information and considering a 2020 bid letting.

The APM will submit a Preliminary PS&E Review Comment Log as a single electronic file to Consultant.

Consultant shall address comments received and communicate with the APM the proposed resolution to the comments. Consultant shall provide written response to address review comments received from the APM and LAPM on the Preliminary PS&E.

### **15.1 Consultant Deliverables and Schedule**

Consultant shall submit the following to the APM within 8 weeks of the APM written approval (e-mail acceptable) of the final DAP (Task 13):

- Preliminary Plans (PDF)
- Special Provisions Document Assembly Form (PDF)
- Preliminary Construction Cost Estimate in Excel/Table format (PDF)

Consultant shall submit Preliminary PS&E Review Comment Log with initial responses to the APM within 2 weeks of receipt of comments.

### **15.2 Advance PS&E (90%)**

This task includes preparation of advance plans, Special Provisions, construction cost estimate, risk assessment, and quality control reviews, as well as incorporating comments from previous reviews.

#### Advance Plans:

Consultant shall prepare drawings, per Table 15 above and reference Agency standard drawings and details, and other related drawings.

#### Advance Special Provisions:

Consultant shall update Project Special Provisions based on changes and clarifications to the Project design, as determined at DAP and in accordance with 2018 *Oregon Standard Specifications for Construction as amended* and *Agency Specification and Writing Style Manual*. Consultant shall prepare the Special Provisions to the 90% level (the "Advance Special Provisions") in MS Word utilizing "Track Changes".

The Advance Special Provisions must incorporate the Agency's boilerplate Special Provisions corresponding with the Project bid date. If a bid date has not been identified, Consultant shall use the most current boilerplate Special Provisions. Boilerplates, by bid date, can be found at the following website:

[https://www.oregon.gov/ODOT/Business/Pages/Standard\\_Specifications.aspx](https://www.oregon.gov/ODOT/Business/Pages/Standard_Specifications.aspx)



Consultant shall obtain concurrence from the proper Agency technical resource for any unique special provisions or changes made to the boilerplate special provisions, beyond fill-in-the-blank changes. Consultant shall document the changes made to the Special Provisions and technical resource concurrence using Agency's Special Provision Summary Form. The list of Agency technical resources and corresponding special provision can be found at the following website:

<http://www.oregon.gov/ODOT/HWY/SPECS/Pages/index.aspx>

Consultant shall submit the Agency Civil Rights Request for Goals Worksheet to the Agency Office of Civil Rights and incorporate the appropriate Disadvantaged Business Enterprise ("DBE") goals, Minority, Women, and Emerging Small Business ("MWESB") aspirational target values, and On the Job Training hours into the Project Special Provisions.

Consultant shall submit the Agency risk assessment form to the APM and incorporate the resulting insurance information into the Special Provisions.

Advance Cost Estimate:

Consultant shall update the construction cost estimate quantities and unit costs utilizing Agency standard bid items to support the Advance Plans (the "Advance Cost Estimate"). Consultant shall prepare the estimate to include mobilization, contingencies, and construction engineering. The estimate must be based on unit prices utilizing Agency and Consultant historic bid information and anticipating a 2020 bid letting. Consultant shall prepare the final cost estimate using Agency's Trns\*port Estimator software.

Construction Schedule:

Consultant shall prepare a construction schedule, using the Critical Path Method, or CPM, (Microsoft Project and PDF formats) that outlines a reasonable Project construction sequence and time frames. The schedule must include anticipated material lead times, Project milestones and anticipated construction phasing and staging.

Advance PS&E Revisions/Corrections:

The APM will submit a single electronic file of Advance PS&E Comment Log review comments to Consultant.

Consultant shall address comments received and communicate with the APM the proposed resolution to the comments. Consultant shall provide written response to address review comments received from the APM on the Advance PS&E.

**15.2 Consultant Deliverables and Schedule**

Consultant shall submit the following to the APM within 8 weeks of the APM's written approval (e-mail acceptable) of the Preliminary PS&E:

- Advance Plans (PDF)
- Advance Special Provisions in electronic format (Microsoft Word, utilizing "Track Changes")
- Advance Construction Cost Estimate in electronic format (Trns\*port files, Excel and PDF)
- Construction schedule in electronic format (Microsoft Project and PDF)
- Comment response log for plans and specifications (In an Excel document)
- Agency risk assessment form
- Special Provisions summary form

- Civil Rights request for goals worksheet

Consultant shall submit the Advance PS&E Review Comment Log with initial responses to the APM within 2 weeks of receipt of comments.

### **15.3 Final PS&E Package (100%)**

This task includes preparation of the Final PS&E package for bidding purposes. The final plans, Special Provisions, and construction cost estimate must incorporate all revisions agreed to and documented on the Advance PS&E Review Comment Log (Task 15.2).

Consultant shall coordinate with the APM to provide deliverables listed on the most current Final PS&E Submittal and Completeness checklists. Refer to the latest version of the Final PS&E checklists at: [http://www.oregon.gov/odot/hwy/opl/pages/manuals\\_forms\\_etc.aspx](http://www.oregon.gov/odot/hwy/opl/pages/manuals_forms_etc.aspx)

Agency will review final plan sheets and note any final revisions needed prior to preparation and submittal of Professional of Record (POR)-signed Final Plans within 2 weeks of receipt of documents from Consultant. Consultant shall incorporate final revisions into POR-signed Final Plans.

Upon request from Agency, Consultant shall resolve comments from the Office of Pre-letting.

### **15.3 Consultant Deliverables and Schedule**

Consultant shall submit the following, 4 weeks prior to the PS&E due date to Agency:

Description	To APM		To LAPM	
	Electronic	Paper	Electronic	Paper
Un-signed Final Design Plans (11 x 17)	PDF	X	PDF	X
Project Special Provisions	Word & PDF	X	PDF	X
POR Certification with all Special Provisions sections stamped	PDF			
Signed Special Provision Integrity Certification	PDF			
Special Provision Summary Form	Excel			
Email from Civil Rights noting Applicable DBE goals, MWESB targets and OJT hours		X		
Cost Estimate	PDF, .est & .dat	X	Excel	X
CPM Construction Schedule (11 x 17 in color)	PDF	X	PDF	X
Fuel Escalation Worksheet	Excel			
Steel Escalation Worksheet	Excel			
Project Risk Assessment Summary		X		
Project Mobility Considerations Checklist	PDF			
NEPA Approval Documentation (delivered under Task 3)				

ROW Certification (delivered under Task 14)				
Utilities Certification (delivered under Task 5)				

Consultant shall submit the following to APM, no later than 1 week prior to the PS&E due date to the Agency Office of Project Letting:

- POR-signed Final Plans printed on 11 x 17 paper, 2 copies
- POR-signed Final Plans in PDF format

Consultant shall submit the following to APM, no later than 1 week prior to the PS&E due date to the Agency Office of Project Letting:

- POR-signed Final Plans printed on 11 x 17 paper, 1 copy
- POR-signed Final Plans in PDF format

**TASK 16 BID AND AWARD ASSISTANCE**

This task includes preparing addenda, as needed, and responding to questions during the bidding phase. Consultant shall respond to questions from Agency and Construction Contractors about the plans and specifications during the bidding process. The duties of the Consultant Project Manager in the Bid and Award phase are summarized in the ODOT Construction Manual, Chapter 6 – Examination of Project Site or Data by Bidders. This document can be found at <http://www.oregon.gov/ODOT/HWY/CONSTRUCTION/Pages/CAIndex.aspx>. This document is revised and updated from time to time. Consultant will review this chapter and develop a scope of work that reflects the responsibilities of the PM as detailed in Chapter 6 of the ODOT Construction Manual and will revise the scope of work as necessary to fit the needs of the Project.

Consultant shall prepare all required Contract addenda to provide clarification to the bid documents. Consultant shall submit the addenda to Agency for distribution to bidders.

**16.1 Questions during Bidding**

Consultant’s Project Manager, or Consultant’s designee(s) approved by Agency, shall assist Agency with questions regarding the bid documents and bid process. Consultant shall respond to all questions in writing within 3 day(s) to Agency Project Manager.

Consultant shall, during the bidding process, assist Agency with the communications with Construction Contractors and suppliers in a manner that ensures that no Construction Contractor or supplier is provided with information not in the bidding documents and that could provide a bidding advantage or disadvantage. Consultant shall prepare a written log to document conversations and questions asked by construction contractors or suppliers and the answers provided to the Agency. Consultant shall maintain the written log in the project file and provide it upon request of the APM or Agency.

**16.1 Consultant Deliverables and Schedule**

Consultant shall provide:

- Written log of conversations, questions and answers, provided to APM Agency upon request.

**16.2 Addenda to the Bid Documents (Contingency)**

This task identifies specific deliverables that Agency at its discretion may elect to authorize Consultant to produce. Consultant shall only complete this Task 16.2 and the identified deliverables if written

(email acceptable) NTP is issued by Agency. The not-to-exceed amount for completing this contingency task is \$4,000 and is only billable if authorized.

Consultant shall prepare up to 1 bid addenda to provide interpretation of construction documents.

If Agency chooses to authorize this work, Consultant shall submit addendum documents within 5 calendar days from NTP unless a different timeframe is agreed to and stated in the NTP (prior to expiration of SOW).

Consultant shall prepare and deliver the addenda text in a Microsoft Word file. Consultant shall prepare and deliver stamped drawings in PDF and 11” x 17” paper. Consultant shall coordinate reviews of addenda by APM prior to submittal. Consultant shall not be responsible for distributing addenda to bidders. Agency will issue and distribute all addenda.

**16.2 Consultant Deliverables and Schedule**

Consultant shall provide:

- Bid document addenda; stamped PDF and paper drawings; or special provision revisions

**F. CONTINGENCY TASKS**

The table below is a summary of contingency tasks that Agency, at its discretion, may authorize Consultant to perform. Details of the contingency tasks and associated deliverables are stated in the Task section of the SOW. Consultant shall complete only the specific contingency task(s) identified and authorized via written (email acceptable) Notice-to-Proceed (“NTP”) issued by Agency's APM. If requested by Agency, Consultant shall submit a detailed cost estimate for the agreed-to contingency Services {within the not-to-exceed or “NTE” amount(s) in the Contingency Task Summary Table} within the scope of the contingency task.

If Agency chooses to authorize some or all of these tasks, Consultant shall complete the authorized tasks and deliverables per the schedule identified for each task. The NTP will include the contingency task name and number, agreed-to due date for completion and NTE for the authorized contingency task.

Each contingency task is only billable (up to the NTE amount identified for the task) if specifically authorized per NTP. In the table below, the “NTE for Each” amount for a contingency task includes all labor, overhead, profit, and expenses for the task. The funds budgeted for contingency tasks may not be applied to non-contingency tasks without an amendment to the Contract. The total amount for all contingency tasks authorized shall not exceed the maximum identified in the table below. Each authorized contingency task must be billed as a separate line item on Consultant’s invoice.

**CONTINGENCY TASK SUMMARY**

Contingency Task Description	NTE for Each	Max Quantity	Method of Compensation	Total NTE Amount
C.3.2.2 Phase I Archaeological Investigation with Technical Report		1	T&M	\$8,710.68
C.3.6.2 Wetland/Waters of the U.S./State Delineation Report		1	T&M	\$4,513.04
C.10.3 Roadway Design Exceptions		1	T&M	\$203.04
C.14.7 Acquisition Services		1	T&M	\$3,192.15
C.16.2 Addenda to the Bid Documents		1	T&M	\$2,679.26
<b>Total NTE For All Contingency Tasks:</b>				<b>\$19,298.17</b>

## EXHIBIT B - COMPENSATION

### Definitions:

**CPFF** - Cost Plus Fixed Fee

**FCCM** - Facilities Capital Cost of Money

**NBR** - Negotiated Billing Rates. NBRs are fully loaded billing rates used by firms that do not have an audited, approved overhead rate. NBRs are inclusive of direct salary, indirect expenses and profit.

**NTE** - Not to Exceed Amount

**T&M** - Time and Materials

### A. METHOD of COMPENSATION

Payment will be made for completion of, or acceptable monthly progress on, tasks and deliverables in conformance with Contract requirements and all applicable standards. Consultant shall complete all Services and provide all deliverables as defined in the Contract. If the applicable compensation is exhausted, but Services and deliverables are not complete, Consultant shall complete the Services and provide the deliverables to County's satisfaction without additional compensation.

The amount payable under the Contract may be adjusted by County or renegotiated to:

- Reduce the NTE, Fixed-Price or Fixed-Fee amount associated with Tasks/Deliverables that were not authorized by County or not performed by Consultant;
- Reduce the NTE, Fixed-Price or Fixed-Fee amount commensurate with deductive amendments to reduce the risk associated with the project or to reduce the scope of work required under the Contract;
- Increase the NTE, Fixed-Price or Fixed-Fee amount for additional Tasks/Deliverables added to the scope of work via amendment to the Contract.

#### 1. Time and Materials with Not-To-Exceed (T&M)

County will pay Consultant for completion of Services required under the Contract on the basis of T&M, up to the NTE amount established in the Contract. Billable items include:

- **Loaded Costs**- the NBR (which is inclusive of profit and overhead costs); or the actual direct salary rate paid to the specific employee(s) (up to the maximum rate approved in the Contract for the employee's classification) productively engaged in work to complete the Services required under the Contract, plus profit and the approved overhead.
- **Direct Non-Labor Costs** (without mark-up) - Approved travel costs (up to the rates established in Section B of this Exhibit) and other approved direct-non labor expenses that are not included in overhead.
- **Subcontractor Costs** (without mark-up, unless County notifies Consultant otherwise in writing) - the hourly labor rates and direct non-labor costs (as described above) that have been billed to Consultant and recognized by Consultant as valid, undisputed and payable.

**The dollar amount for T&M Services is: \$ 306,654.39**

### B. PAYMENT OPTIONS

Payments will occur only after County has determined that Consultant has completed, and County has accepted, the required Services (including defined deliverables) for which payment is sought via a properly submitted and correct invoice.

**(For CPFF and T&M) - Progress Payments for Acceptable Progress.** County will pay Consultant monthly progress payments for actual costs, up to the Contract NTE amount, for Consultant's acceptable (and verifiable) progress on tasks and deliverables included in the invoice.

**(For Fixed-Price) - Progress Payments for Percentage of Services Completed.** County will pay Consultant monthly progress payments based on a percentage of the total agreed fixed price. Monthly progress payments shall be limited to an amount commensurate with the percentage of the total Services and deliverables that were completed in the month invoiced.

**Payment upon Milestone (or other Unit) Completion.** County will pay Consultant the fixed price per milestone amount(s), or all amounts due as actual costs up to the Contract NTE amount per milestone, but only after Consultant completes and County accepts all Services and deliverables required under the Contract for a given milestone (or other unit) as listed below:

**Payment upon Full Completion.** County will pay Consultant the fixed price amount, or all amounts due as actual costs up to the Contract NTE amount, but only after Consultant completes and County's accepts all Services and deliverables required under the Contract.

### **C. TRAVEL**

The Fixed Price amount(s) in this Contract includes all travel, lodging, per diem, and mileage expenses. County will not reimburse Consultant separately for travel, lodging, per diem, or mileage expenses.

Travel costs are allowable only if they are authorized under the Contract and if the travel is essential to the normal discharge of County's responsibilities and is related to official County business. **All travel shall be conducted in the most efficient and cost-effective manner that results in the best value for the State.** Personal expenses shall not be authorized at any time. The following guidelines shall apply to the Contract:

- The travel, lodging, and per diem rates referenced in this Section C are the maximums that Consultant's estimate (or reimbursement, if applicable) may be based on. Travel rates other than those referenced in this Section C may be negotiated in the Contract, however, under no circumstance shall travel, lodging and per diem rates exceed the maximums set forth by the State Controller at <https://www.oregon.gov/DAS/SCD/SARS/policies/oam/40.10.00.PO.pdf> .
- Mileage - For compensation based on Cost-Plus-Fixed-Fee or Time and Materials (or Fixed Price or Price Per Unit when travel reimbursement is approved and mileage is compensated separately), all mileage approved by County will be reimbursed according to the rates set forth by the State Controller at <https://www.oregon.gov/DAS/SCD/SARS/policies/oam/40.10.00.PO.pdf> that are in effect on the date when the travel occurs.
- For compensation based on Cost-Plus-Fixed-Fee or Time and Materials, Consultant shall submit receipts for travel-related expenses billed to County, such as but not limited to, lodging, rental vehicles, and air fare. If lodging is shared by two or more travelers, the lodging receipt must indicate the names of any travelers on official State business who shared the room.

### **D. INVOICES**

Consultant shall submit invoices in the format required by County (and with supporting documentation to substantiate charges on the invoice, including a detailed line-item breakdown of labor and direct non-labor costs by task/subtask) no more frequently than once per month. The address for invoice submittal is set forth in Exhibit J. In addition to all other applicable invoice requirements in this section D, each invoice must include the following information:

- The County's Contract number
- The County's project number

**Progress Reports:** Each monthly invoice must include a progress report. The monthly progress report must cover the period invoiced and, at minimum, must:

- Describe the previous month's project activities and the planned activities for the next month;

- For each task/deliverable identify the percentage completed during the month and the cumulative percentage completed;
- Reconcile progress of each task/deliverable with the schedule identified for each.
- Identify issues/concerns that may affect the project Statement of Work, schedule or budget.

#### **“Paid Summary Report”**

Consultant shall complete and submit to APM [Paid Summary Report\(s\)](#) [form 734-2882] per the instructions on the form. Consultant must report payment information for all subcontractors and suppliers used under the Contract throughout the period of performance. **This reporting is required for all Contracts that include subs, regardless of funding or whether or not a DBE goal or Certified Small Business Aspirational Target is assigned.**

#### **CPFF and T&M Compensation:**

- Consultant shall prepare invoices based on the actual hourly rates, up to the maximums for each respective classification approved in the Contract, of the employees (or subconsultants) that performed the Services.
- Consultant shall provide documentation in each invoice to itemize all reimbursable actual labor costs and direct non-labor expenses for which Consultant seeks reimbursement, including a breakdown by task of the number of labor hours for each employee, employee names and classifications. Include copies of all invoices, similarly detailed, from authorized subconsultants.
- County will reimburse Consultant for approved travel expenses incurred in accordance with **Exhibit B**, Section C of the Contract, if County has agreed to reimburse Consultant for travel expenses.

**Fixed-Price Compensation.** Consultant shall prepare invoice(s) based on the payment option identified in Section B of this Exhibit:

- For Contracts using “Payment upon Full Completion” payment option, Consultant shall submit a single invoice requesting payment for the full Fixed-Price amount after all Services have been completed and all Deliverables have been accepted by County.
- For Contracts using “Progress Payments for Percentage of Services Completed” payment option, Consultant invoices shall be limited to an amount commensurate with the percentage of the total Services (including Deliverables) that were completed in the month invoiced.

County may request a full written itemization of and receipts for, but not limited to, any or all labor and direct costs billed by Consultant. Consultant shall provide written itemization and receipts to County within 5 business days of County’s request. County will not make payment to Consultant under the applicable invoice until County has received all requested supporting documentation from Consultant and County has approved the invoiced amounts. Any overdue payments to Consultant by County for an approved invoice are subject to ORS 293.462.

#### **E. PAYMENT TERMS**

Payment will be made to Consultant no later than 45 calendar days from receipt of invoice completed in conformance with all contractual requirements. County will endeavor to notify Consultant within 10 business days of receipt of invoice regarding any necessary revisions or corrections to the invoice. If revisions are necessary, payment will be made no later than 45 calendar days from receipt of the revised invoice. Any interest for overdue payment will be in conformance with Oregon law.

#### **F. CORRECTIVE WORK**

Consultant shall complete all Services, including Deliverables, as required in the Contract to County’s satisfaction. If County, using reasonable discretion, determines that the Services or associated deliverables, or both, are unacceptable, County shall notify Consultant in writing of the deficiency. Within 7 calendar days (unless a different timeframe is agreed to by the Parties) of receipt of the deficiency notification Consultant shall respond to County outlining how the deficiency shall be corrected.



Consultant shall correct any deficiencies in the Services and Deliverables to County's satisfaction without further compensation. County will not unreasonably withhold payment.

#### **G. WITHHOLDING/RETAINAGE**

County reserves the right to initiate, at any time during the Contract, withholding of payment equal to 5% of the amount of each invoice submitted to County under the Contract. County will make final payment of any balance due to Consultant promptly upon verification of completion and acceptance of all Services by County and will pay interest as required on retainage.

#### **H. PAYMENT REDUCTION**

County, or its duly authorized agents, may audit Consultant's fiscal records, including certified payroll and overhead records at any time. If County finds previously undisclosed inaccurate or improper costs have been invoiced and paid, County will notify Consultant and seek clarification. County, in its sole discretion, may reduce the payment for Services by withholding the inaccurate or improper amounts from any future payment to Consultant, withhold the inaccurate or improper amounts from final payment to Consultant, or may use any other means to seek recovery of already paid but improperly calculated amounts.

#### **I. SPECIFIC LIMITATIONS and UNALLOWABLE CHARGES**

##### **Specific Limitations**

For cost reimbursement compensation such as CPFF or T&M, Consultant shall invoice County only for actual productive time Consultant personnel spend on Services by any level of Consultant's staff (up to the established not-to-exceed amount). Consultant's general supervisors or personnel who are responsible for more than one County project shall charge only for actual productive time spent directly on the project identified in the Contract.

County will pay Consultant only up to the hourly rates set forth in the Contract that are commensurate with the type of Services performed regardless of the classification, title, or level of experience of the individual performing those Services. However, under no circumstances shall Consultant invoice County based on higher direct salary rates than the actual amount paid to its employees.

**Discriminatory Pricing.** Direct and indirect costs as applied to work performed under County contracts and subcontracts may not be discriminatory against the County. It is discriminatory against the County if employee (or owner/sole proprietor) compensation (in whatever form or name) is in excess of that being paid for similar non-County work under comparable circumstances.

**Discriminatory Wage Rates.** Pursuant to ORS 279C.520, Consultant shall comply with the prohibitions set forth in ORS 652.220. Failure to comply is a breach that entitles the County to terminate the Contract for cause.

**Employee Discussions Regarding Compensation.** Consultant shall not prohibit any of its employees from discussing the employee's rate of wage, salary, benefits or other compensation with another employee or another person and may not retaliate against an employee who discusses the employee's rate of wage, salary, benefits or other compensation with another employee or another person {see ORS 279C.520(1)}.

##### **Unallowable Charges**

County will not pay for direct or indirect costs that are unallowable under the provisions of [48 CFR Part 31](#).

Costs or direct charges for, but not limited to, the following are not reimbursable:

- Costs for negotiation of the Contract or Contract amendments, including but not limited to proposal preparation, BOC preparation, preparation for negotiations, and negotiation of level of effort/budget.

- Costs related to disputes or E&O Claims, including but not limited to discussions, meetings and preparation of any dispute or claim related documentation.
- Mark-up on subcontractors or direct non-labor costs.
- Transfer of knowledge and information related to Key Person replacements.
- Correcting or making adjustments to incorrect or improper invoices.
- Direct compensation for items included in firm's indirect costs (unless properly credited back to indirect cost).
- Premium costs incurred as a result of working overtime or holidays. (Premium time should normally be charged to overhead. In accordance with ORS 279C.520, employees shall be paid at not less than time and one-half for all overtime worked and for work on legal holidays, except for individuals who are excluded from receiving overtime under personal services contracts pursuant to ORS 653.010 to 653.261 or under 29 U.S.C. 201 to 209.)

**J. INDIRECT COSTS; SALARY and BILLING RATE SCHEDULES**

**1. Approved cost data on file with ODOT** - If Consultant or its subconsultants have current, approved overhead, salary, or NBR rate schedules on file at ODOT, Consultant and its subconsultants will submit those approved rate schedules and any required certifications (or County may obtain rate schedules from ODOT) as required in subsections 2 and 3 below for use under the Contract.

**2. Overhead Schedule** - If Consultant or subconsultants calculate overhead as part of their normal business practice, the overhead schedules shall be prepared and submitted in accordance with ODOT's Billing Rate Policy (as may be revised from time to time by ODOT) available at: <https://www.oregon.gov/ODOT/Business/Procurement/DocsPSK/brPolicy.pdf>. Consultant Certification of compliance with Federal Cost Principles is required per FHWA directive 4470.1a: <https://www.fhwa.dot.gov/legsregs/directives/orders/44701a.htm>. A signed [Certification of Final Indirect Costs form](#) must be submitted with the overhead schedule.

In order to assess the adequacy of an audited overhead rate for use in fair and reasonable price negotiation, County and/or ODOT may evaluate a firm's financial capability, internal control structure, and overhead schedule. This includes a determination as to the applicability of historical overhead rates to the anticipated future contract period, performing financial ratio analysis, evaluating overhead account trends and utilization rates for reasonableness.

**3. Salary and Billing Rate Schedules**

Consultant shall, and shall cause all of its subconsultants to submit electronically to County the applicable rate schedules described below.

**Direct Salary Rate Schedule** - includes the name, classification and actual direct salary rate as approved for each employee that may be used under the Contract. This schedule is required for firms that calculate an overhead rate. This schedule will not be included in the Contract but will be retained by County.

**Negotiated Billing Rate Schedule** - may be required for Consultants or subconsultants that do not have a cognizant or acceptable independent audit for overhead rates (or do not calculate overhead as part of their normal accounting practice) and County determines it is in the public's best interest to negotiate specific billing rates. Instead of calculating a billing rate using a formula that applies overhead, profit, and FCCM to the direct salary rate, this schedule lists negotiated rates that are fully inclusive of profit, overhead and any cost of living or merit raises. The billing rates invoiced under the Contract must not exceed the rates per classifications listed in the schedule and may be no greater than the lowest rates charged to other public or private clients.

**Direct Non-Labor Rate Schedule** - is an optional schedule used to list actual costs of reimbursable items that are not included in the firm's overhead rate (or that are properly applied as a credit in overhead calculation).

**Approved Rate Schedules** - The rate schedules approved for the Contract and the BOC are incorporated into this Contract. Prior to approval of additional subconsultants, Consultant shall provide to County any requested documentation of qualifications and experience of the prospective subconsultant and its staff.

#### **K. RATE REVISIONS**

The hourly rates (including escalations, if any) approved for use under this Contract shall remain in effect throughout the duration of the Contract unless revisions are approved by County. Any approved revisions to the hourly rates allowable under the Contract shall not cause an increase in the Contract NTE amount (exceptions may be approved by County on a case by case basis).

#### **L. BREAKDOWN OF COSTS (BOC)**

Prior to execution of the Contract or any amendments that add Services, Consultant shall prepare and submit a BOC based on the approved overhead and actual direct salary rates (and approved NBRs as applicable) for each classification to be used under the Contract. Consultant shall include names of proposed staffing in the BOC.

The BOC must include a detailed breakdown of the costs for each element of the work regardless of compensation method. The BOC must identify:

- a) the proposed staff assignments (classifications and names) and hours per task and sub-task;
- b) an itemization with documentation (estimates from vendors shall be provided upon request) to support rental equipment, flaggers, travel and other direct non-labor expenses; and
- c) the estimate for Services as provided by each subconsultant that shows the assigned staff and hours per task and sub-task and itemized direct non-labor costs. County may ask for qualifications of any staff assigned to work on a project if they were not included in Statement of Proposal originally submitted for solicitation.
- d) the certification status of any disadvantaged business enterprise, minority-owned business, woman-owned business, service-disabled veteran-owned business or emerging small business subcontractors included in the BOC.
- e) **Contingency Tasks.** Amounts for any contingency tasks must be shown as a separate line-item for each task. The amount for a contingency task must include all labor, overhead, profit, and expenses for the task. Expenses for contingency tasks must not be included in an overall amount for direct non-labor expenses applied to the budget for the non-contingency tasks. Enter the agreed to unit and extended amounts for contingency tasks in the Contingency Task Summary table.

**The final BOC agreed to by the Parties is incorporated by this reference**

## EXHIBIT C - INSURANCE

All insurance required by this Contract shall be maintained with insurers with an A.M. Best Financial Strength Rating of no less than A-. Insurers must be legally authorized to transact the business of insurance and issue coverage in the State of Oregon. Consultant shall be financially responsible for all pertinent deductibles, self-insured retentions and self-insurance. Prior to beginning work and during the term of this Contract, including any extensions or warranty period, Consultant shall maintain in force at its own expense each insurance set forth below:

1. **Workers' Compensation** insurance in compliance with ORS 656.017, which requires subject employers to provide Oregon workers' compensation coverage for all their subject workers (Consultants with one or more employees, unless exempt under ORS 656.027).
2.  **Required by County**  **Not required by County.**  
**Professional Liability** insurance with a per claim, incident or occurrence limit, or the equivalent, of not less than  \$1,000,000, or  \$2,000,000. Any annual aggregate limits must not be less than  \$1,000,000, or  \$2,000,000. This insurance must cover damages caused by negligent acts, errors or omissions of Consultant and Consultant's subcontractors, agents, officers or employees related to the professional Services to be provided under the Contract. If this insurance is provided on a "claims made" basis, Consultant shall continue the same coverage for  2 years,  3 years, or  6 years after completion of the Services or acquire "tail" coverage or an Extended Reporting Period endorsement for the foregoing extended period beyond Contract expiration or termination. Evidence of any required extended period coverage will be a condition of final payment under the Contract.
3.  **Required by County**  **Not required by County.**  
**Commercial General Liability** insurance must be issued on an occurrence basis with per occurrence limit, or the equivalent, of not less than \$1,000,000 covering "bodily injury" and "property damage." Any annual aggregate limits shall not be less than \$2,000,000.
4.  **Required by County**  **Not required by County.**  
**Automobile Liability** insurance covering Consultant's business-related automobile use, with a combined single limit, or the equivalent, of not less than \$1,000,000 each occurrence for "bodily injury" and "property damage," including coverage for all owned, non-owned, rented or hired vehicles.
5. **Notice of change or cancellation.** There shall be no cancellation, material change (one that would adversely impact the protection of County provided through the insurance coverages required in this Exhibit C), reduction of limits or intent not to renew the insurance coverage(s) without 30 calendar days prior written notice from Consultant or its insurer(s) to County. **All policies and certificates of insurance, including Workers' Compensation, must include a notice of cancellation or nonrenewal clause as required under ORS 742.700 to 742.710.**
6. **Certificates of Insurance.** As evidence of the insurance coverages required by this Contract, Consultant shall furnish acceptable insurance certificates to County prior to Contract execution. Throughout the life of this Contract, Consultant shall submit updated certificates of insurance prior to the policy expiration date(s) indicated for the required coverages. If requested by County, Consultant shall either: a) provide complete copies of insurance policies, endorsements, self-insurance documents and related insurance documents to County; or b) make such insurance policies, endorsements, self-insurance documents and related insurance documents available for inspection by County's representatives at a location in the State of Oregon that is reasonably convenient for County's representatives responsible for verification of the insurance coverages required under the Contract.
7. **Additional Insureds.** Insurance certificates for Automobile and Commercial General Liability must include an endorsement physically attached to the certificate specifying the County, the State of Oregon, the OTC, the Oregon Department of Transportation, and their respective officers, members, agents and employees as Additional Insureds and must expressly provide that the interest of the Additional Insureds shall not be affected by Consultant's breach of policy provisions.
8. **Subcontractors.** Consultant shall: (i) obtain proof of the above insurance coverages, as applicable, from any subcontractor providing Services related to this Contract, or (ii) include subcontractors within Consultant's coverage for the duration of the subcontractor's Services related to this Contract.

## EXHIBIT D - TITLE VI NON-DISCRIMINATION PROVISIONS

During the performance of this Contract, Consultant, for itself, its assignees and successors in interest (hereinafter referred to as the "Consultant") agrees as follows:

- a. **Compliance with Regulations:** Consultant shall comply with the Regulations relative to nondiscrimination in Federally-assisted programs of the Department of Transportation Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this Contract.
- b. **Nondiscrimination:** Consultant, with regard to the work performed by it during the Contract, shall not discriminate on the grounds or race, color, sex, or national origin in the selection and retention of subconsultants, including procurements of materials and leases of equipment. Consultant shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the Contract covers a program set forth in Appendix B of the Regulations.
- c. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations either by competitive bidding or negotiation made by Consultant for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subconsultant or supplier shall be notified by Consultant of Consultant's obligations under this Contract and the Regulations relative to nondiscrimination on the grounds of race, color, sex, or national origin.
- d. **Information and Reports:** Consultant shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the County, ODOT, FHWA or the Federal Transit Administration (FTA) as appropriate, to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of Consultant is in the exclusive possession of another who fails or refuses to furnish this information, Consultant shall so certify to County, ODOT, FHWA or FTA as appropriate, and shall set forth what efforts it has made to obtain the information.
- e. **Sanctions for Noncompliance:** In the event of Consultant's noncompliance with the nondiscrimination provisions of this Contract, County shall impose such Contract sanctions as it, ODOT, FHWA or FTA may determine to be appropriate, including, but not limited to:
  - (i) Withholding of payments to Consultant under the Contract until Consultant complies, and/or
  - (ii) Cancellation, termination or suspension of the Contract, in whole or in part.
- f. **Incorporation of Provisions:** Consultant shall include the provisions of paragraphs (a) through (e) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. Consultant shall take such action with respect to any subcontract or procurement as County, ODOT, FHWA or FTA may direct as a means of enforcing such provisions including sanctions for non-compliance: Provided, however, that, in the event Consultant becomes involved in, or is threatened with, litigation with a subconsultant or supplier as a result of such direction, Consultant may request County, ODOT, and, in addition, Consultant may request the United States to enter into such litigation to protect the interests of the United States.

## EXHIBIT E - DISADVANTAGED BUSINESS ENTERPRISE (“DBE”) PROVISIONS (Goal)

The DBE program is administered by the ODOT Office of Civil Rights (“OCR”). As the County is entering into this Contract under authority granted by ODOT, the DBE Provisions apply the same as if ODOT were the contracting agency.

“Consultant” and “Contractor” are hereinafter referred to as “Contractor”. **See sections d and i for specific documentation and reporting requirements of Contractor.**

**a. Policy and Program Authorities:** ODOT and Contractor agree to abide by and take all necessary and reasonable steps to comply with these DBE Provisions and the following, which are incorporated in this Contract with the same force and effect as though fully set forth in this Contract:

- [ODOT DBE Policy Statement](#)
- [ODOT DBE Program Plan](#), and
- Requirements of [Title 49, Code of Federal Regulations, Part 26](#) - Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs.

ODOT’s DBE Program authorities are set forth in the ODOT DBE Program Plan.

**b. DBE Goals:** ODOT’s overall goal for DBE participation is 11.6% for FHWA funded contracting and 6% (proposed) for FTA funded contracting. For FHWA funded contracting, ODOT may assign DBE Contract goals to increase participation by DBEs. For any Contract with an assigned DBE goal, Contractor shall select a portion of work available under the Contract for DBE participation. Contractor may use DBE subcontractors, suppliers, manufacturers, or Professional Services and Related Services providers to fulfill the assigned DBE Contract goal as long as the DBE is certified in the types of work selected. The assigned DBE Contract goal remains in effect throughout the life of the Contract. Dollar values of participation shall be credited toward meeting the assigned DBE Contract goal based on DBE gross earnings.

- **A separate DBE Contract goal, as set forth on page 1 of the WOC or project-specific Contract (as applicable), has been assigned for this procurement.**

**c. Nondiscrimination Requirement:** Contractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Contract. Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of this DOT-assisted Contract. Failure by Contractor to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as ODOT deems appropriate. Each subcontract the Contractor signs with a subcontractor must include the assurance in this paragraph (see 49 CFR § 26.13(b)).

**d. Documentation of Proposed Participation:** Contractor shall document sufficient DBE participation to meet an assigned Contract goal or, alternatively, document adequate good faith efforts to do so (see 49 CFR § 26.53). All work committed to a DBE firm toward meeting the assigned participation goal must be performed under a written subcontract. The subcontract must fully describe any work committed to be performed by the DBE and shall include all required flow-down provisions of the primary Contract. Contractor must complete and submit the following documentation, as applicable:

1. **Subcontractor Solicitation and Utilization Report (SSUR)** - submitted with proposal in response to formal and informal Requests for Proposals (RFPs).
2. **Breakdown of Costs (“BOC”) or (“BOC-NBR”), as applicable** - submitted prior to negotiation and execution of the Contract and each amendment that changes the scope of work and costs under the Contract. The BOC forms and BOC Requirements are available from the

Internet at: <https://www.oregon.gov/ODOT/Business/Procurement/Pages/PSK.aspx>. The BOC or BOC-NBR must clearly list any tasks or subtasks to be performed by subcontractors (DBEs and non-DBEs), each subcontractor's Federal Tax ID and identification of any required personnel. Include in the Expense Detail tab any required equipment and supplies furnished by the DBE, any of the prime contractor's resources that will be provided for the DBE's use, and identification of any second or lower tier subcontractors with the dollar amounts for each.

3. **Committed DBE Breakdown and Certification Form(s)-AE.** Required for all Contracts with assigned goals and completed prior to Contract execution and any proposed substitution. See submittal instructions on the Instructions tab of the form.
  4. **Subcontractor Reporting:** Complete and submit an initial **Paid Summary Report** [form 734-2882] per the instructions on the form.
- e. **Good Faith Efforts:** Contractor shall make good faith efforts, as set forth in 49 CFR § 26.53, Appendix A to Part 26, and ODOT DBE Program Plan, to obtain and support DBE participation that could reasonably be expected to produce and maintain a level of DBE participation sufficient to meet the Contract goal. Good faith efforts are required during solicitation, upon Contract award, and continue throughout the performance of the Contract to maximize DBE participation. The Agency (or local agency when applicable) Project Manager ("APM") may request Contractor to submit evidence of good faith efforts prior to Contract execution or at any time during the course of the Contract and Contractor shall promptly submit such evidence. Contractor shall use the specific DBEs listed in the Committed DBE Breakdown and Certification form(s) to perform the work and supply the materials for which each is listed unless the contractor obtains ODOT's prior written consent to terminate and replace a DBE as provided in section j. below. Contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBEs as required by this provision.
- f. **Commercially Useful Function ("CUF"):** Contractor is responsible to ensure the DBE performs a commercially useful function on the Contract. A DBE performs a CUF when it is responsible for execution of the work of the Contract/subcontract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. Additional detail regarding CUF requirements and other conditions for counting participation by DBE contractors is set forth in 49CFR § 26.55. The APM will review the proposed DBE participation and may provide written comments as to whether the activities and type of work identified for DBEs complies with program regulations. In those instances where proposed activity and type of work violates applicable regulations, written comments will be offered as to corrective action required in order to comply with the regulations. ODOT may perform a CUF review at any time during the performance of the Contract.
- g. **Changes in Work Committed to DBE:** ODOT will consider the impact on DBE participation in instances where the prime Contract is amended to reduce, or delete work committed to the DBE. In such instances, Contractor shall not be required to replace the work but is encouraged to do so to the maximum extent practicable.
- h. **Prompt Payment and Retainage:** Contractor shall pay each subcontractor for satisfactory performance under its contract no later than 10 calendar days from receipt of each payment Contractor receives from ODOT (or local agency when applicable) for the subcontracted work. In addition, within 10 calendar days of receipt of retainage from ODOT (or local agency when applicable), Contractor shall pay to each subcontractor the retainage that pertains to the work of that subcontractor.
- i. **Reporting Requirements:** Contractor must report payment information for all subcontractors and suppliers used under the Contract throughout the period of performance. Contractor shall complete and submit initial, interim and final Paid Summary Report(s) [form 734-2882] per the instructions included on the form.
- j. **Termination of DBE Notification Requirement:** Contractor shall comply with all requirements set forth in 49 CFR § 26.53 regarding termination of DBEs including, without limitation, documentation of good cause, 5-day notice to the DBE subcontractor and ODOT, DBE responses, ODOT's prior



written consent of DBE termination, and replacement of DBEs. ODOT will provide such written consent only if it agrees the prime contractor has good cause to terminate the DBE in accordance with 49 CFR 26.53(f)(3).

- k. **Remedies:** Contractor's failure to comply with these DBE Provisions and the requirements of 49 CFR Part 26 may result in one or more of the following administrative actions as deemed appropriate by ODOT: non-compliance documented in ODOT evaluation of Contractor performance, a corrective action plan prepared by Contractor, ODOT (or local agency when applicable) withholding of retainage, suspension of work, reporting of non-compliance to the federal System for Award Management ("SAM") available at <https://sam.gov>, any other remedies provided under the Contract.
- l. **Information/Questions:** The DBE program is administered by the ODOT Office of Civil Rights ("OCR"). Questions related to the DBE Program may be sent via email to [ocrinfoquest@odot.state.or.us](mailto:ocrinfoquest@odot.state.or.us) or otherwise directed to: Oregon Department of Transportation Office of Civil Rights 3930 Fairview Industrial Drive SE (MS 23), Salem, OR 97302; Phone: 503-986-4350 Fax: 503-986-6382.
- m. **Directory of Certified Firms:** A searchable database for active certified firms (by NAICS code, NIGP code, ODOT code, certification type, location or project ethnicity goals) is available on line at: <https://oregon4biz.diversitysoftware.com/FrontEnd/VendorSearchPublic.asp>.

#### Related Web Sites:

All forms, documents and CFR citations referenced or linked in these DBE Provisions are available on line at:

- o **Forms:** <https://www.oregon.gov/ODOT/Business/OCR/Pages/Forms.aspx>
- o **Documents:** <https://www.oregon.gov/ODOT/Business/OCR/Pages/Disadvantaged-Business-Enterprise.aspx>
- o **49 CFR Part 26:** <https://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=34ea04c7ed3d45b0e41f82a5646f1c15&rqn=div5&view=text&node=49:1.0.1.1.2.0&idno=49>

#### Acronyms & Definitions Applicable to Exhibit E

APM	ODOT's or local agency's Project Manager
BOC	Breakdown of Costs
BOC-NBR	Breakdown of Costs for Negotiated Billing Rates
CFR	Code of Federal Regulations
CUF	Commercially useful function
DBE	Disadvantaged Business Enterprise
OCR	ODOT Office of Civil Rights
ODOT	Oregon Dept. of Transportation
RFP	Request for Proposals
SSUR	Subcontractor Solicitation and Utilization Report
USDOT	United States Department of Transportation

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## EXHIBIT F - SPECIAL TERMS & CONDITIONS

Provisions in this Exhibit F are in addition to and do not supersede the terms and conditions set forth in the Contract.

[The following provision is required for all FHWA-funded contracts that include:

- preliminary and final design services in a single contract for a project with pending NEPA decision documents;
- NEPA Document preparation, preliminary engineering, final design and/or CA/CEI services in a single contract; or final design services under a single contract for which the final design solicitation will be published prior to the NEPA decision date.]:

The following provision is required if NEPA Document preparation is combined with preliminary engineering, final design and/or CA/CEI services:

## EXHIBIT G - RESERVED

## EXHIBIT H - RESERVED

## EXHIBIT I - ERRORS & OMISSIONS (“E&O”) CLAIMS PROCESS

**Exhibit I** is not physically attached but is incorporated into this Contract with the same force and effect as though fully set forth herein. For purposes of this Contract, the term “Agency”, as used in the E&O Claims Process, means “local public agency”. The E&O Claims Process (as may be revised from time to time by ODOT) is available at the following Web address as Exhibit I:

<http://www.oregon.gov/ODOT/Business/Procurement/DocsPSK/xbti.pdf>

**EXHIBIT J - CONTACT INFORMATION and KEY PERSONS**

**1. Party Contact Information.**

<b>a.1 * County's Project Manager (APM) Name:</b>	Jon Hangartner
<b>Ph:</b>	503-742-4649
<b>E-mail:</b>	<a href="mailto:jhangartner@clackamas.us">jhangartner@clackamas.us</a>

**a.2 \*: County Contract Administrator for contractual matters:**

<b>Name:</b>	Mike Ward
<b>Ph:</b>	503-742-4688
<b>E-mail:</b>	<a href="mailto:mward@clackamas.us">mward@clackamas.us</a>

**a.3 County's address for invoicing:**

<b>Mailing Address:</b>	150 Beaver Creek Road, Oregon City, OR 97045
<b>E-mail:</b>	<a href="mailto:jhangartner@clackamas.us">jhangartner@clackamas.us</a>

**b. \*\*Consultant's Project Manager (PM) for this Contract is:**

<b>Name:</b>	Jim Harper, PE
<b>Ph:</b>	503-419-2511
<b>E-mail:</b>	<a href="mailto:Jim.harper@cardno.com">Jim.harper@cardno.com</a>

**c. Consultant's remit address for payments and contact for billings:**

<b>Name:</b>	Cardno, Inc.
<b>Address:</b>	6720 SW Macadam Ave., Suite 200 Portland, Oregon 97219
<b>Ph:</b>	503-419-2500
<b>E-mail:</b>	<a href="mailto:Jim.harper@cardno.com">Jim.harper@cardno.com</a>

\* County may change the Contract Administrator or Project Manager designation by promptly sending written notice (e-mail acceptable) to Consultant, with a copy to ODOT Procurement Office.

\*\*Any changes to Consultant's Project Manager must be approved in writing (e-mail acceptable) by County.

**2. Key Persons**

Consultant acknowledges and agrees that County selected Consultant, and is entering into the Contract because of the special qualifications of Consultant's key personnel ("Key Persons" or "Key Personnel"),

which may include specific staff agreed to during Contract negotiations. In particular, County, through the Contract is engaging the expertise, experience, judgment and personal attention of the Key Persons identified in the Contract.

Each Key Person shall not delegate performance of any management powers or other responsibilities he or she is required to provide under the Contract to another of Consultant's or subconsultant's personnel without first obtaining the written consent of County. Further, Consultant shall not re-assign or transfer any Key Person to other duties or positions such that the Key Person is no longer available to provide County with his or her expertise, experience, judgment, and personal attention according to any schedule established under the Contract without first obtaining County's prior written consent to such re-assignment or transfer. Notification of request to change a Key Person shall be in writing (via e-mail or other form as may be required by County.) Throughout the term of the Contract, Consultant shall provide updated information (if requested by County) to demonstrate the continuing qualifications of any staff working on County projects, including those approved as Key Persons.

In particular, County, through the Contract is engaging the expertise, experience, judgment and personal attention of the following Key Persons:

Name	Role
Jim Harper, PE	Project Manager
Cedomir Jesic, PE	QA/QC
Eric Lynch, PE	Land Survey

**3. Reassignment or Transfer of Key Person**

In the event Consultant requests that County approve a reassignment or transfer of a Key Person:

- Consultant shall provide a resume for the proposed substitute demonstrating that the proposed replacement has qualifications that are equal to or better than the qualifications of the person being replaced.
- County shall have the right to interview, review the qualifications of, and approve or disapprove the proposed replacement(s) for the Key Person.
- Any substitute or replacement for a Key Person must be approved in writing (e-mail acceptable) and shall be deemed to be a Key Person under the Contract.

Consultant agrees that the time/costs associated with the transfer of knowledge and information for a Key Person replacement is not a cost borne by County and shall not be billed to County. This includes labor hours spent reviewing project documentation, participation in meetings with personnel associated with the Contract/project, and participating in site visits to become familiar with the project.