

**BEFORE THE BOARD OF COUNTY COMMISSIONERS
OF COWLITZ COUNTY, WASHINGTON**

In the Matter of the Cowlitz County) Six-Year Transportation Improvement) Program for the Years 2025 through) 2030, as set forth in RCW 36.81.121) and WAC 136-14 and WAC 136-20-060))	RESOLUTION NO. <u>24-095</u> ADOPTING SIX-YEAR TRANSPORTATION IMPROVEMENT PROGRAM
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WHEREAS, the County Engineer has submitted her recommendations for road construction for the years 2025 through 2030, as set forth in RCW 36.81.121 and in accordance with WAC 136-14; and

WHEREAS, pursuant to WAC 136-14-050 and 136-20-060, this Board has had access to the County Engineer's priority array and report with respect to deficient bridges during the preparation and adoption of said road construction program; and

WHEREAS, the recommendations of the Engineer have met with the approval of this Board of County Commissioners, a public hearing has been held and the program accepted.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Cowlitz County, Washington, that the Six-Year Transportation Improvement Program for the period of 2025 through 2030, as submitted, be and the same is hereby approved and adopted, subject to revision by a majority of the Board at any time following a public hearing thereon, in accordance with RCW 36.81.121.

ADOPTED this 3rd day of December, 2024.

ATTEST:

Signed by:

Kelly Grayson

AC359B2400C0492...

Kelly Grayson, Clerk of the Board

Signed by:



BOARD OF COUNTY COMMISSIONERS
OF COWLITZ COUNTY, WASHINGTON

Signed by:

Richard Dahl

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Richard R. Dahl, Chairman

DocuSigned by:

Arne Mortensen

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Arne Mortensen, Commissioner

DocuSigned by:

Dennis Weber

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Dennis Weber, Commissioner



**SIX YEAR TRANSPORTATION IMPROVEMENT PROGRAM
2025-2030**

Costs in \$1,000's

Priority	Project Identification	Improvement	Status	Total Length	Utility Codes	Phase	Phase Start	Federal Funding			State Funding		Expenditure Schedule (Year)							
								Fund Code	Federal Cost by Phase	State Fund Code	State Funds	Local Funds	Total Funds	2025	2026	2027	2028	2029 & 2030		
1	South Cloverdale Road MP 0.13 to MP 0.76	4	S	0.63	COPTW	PE	2024	STP-R	CRAB											
			S			RW	2024													
			S			CN	2025		2128	CRAB	1250	2875.2	6253.2	6253.2						
			S			CN	2025		300											
								Totals	2128		1250	2875.2	6253.2	6253.2						
2	South Cloverdale Road-Confer Road Intersection MP 0.76 to MP 0.87 - South Cloverdale Road MP 0.00 to MP 0.08 - Confer Road	21	S	0.19	COPTW	PE	2024													
			S			RW	2024													
			S			CN	2025		300			625.5	925.5	925.5						
								Totals	300			625.5	925.5	925.5						
3	Erick Creek Culvert - Abernathy Creek Road MP 5.30 to MP 5.40	6	S	0.10	PT	PE	2024													
			S			RW	2024													
			S			CN	2025		100											
								Totals	100											
4	Countywide Guardrail Various Locations throughout County	21	S	Varies	CGOPTSW	PE	2025													
			S			CN	2025		509.2											
								Totals	509.2											
5	Countywide Delineators Various Locations throughout County	21	S	Varies	CGOPTSW	PE	2025													
			S			CN	2025		170											
								Totals	170											
6	Allender Road Bridge Replacement MP 0.68 to MP 0.80 Structure ID 08013300	11	S	0.12	PT	PE	2025													
			S			RW	2024		8.6			1.4	10	10						
			S			CN	2025		1467			229	1696	1696						
								Totals	1475.6			230.4	1706	1706						
7	Garlock Road Box Culvert Replacement MP 0.67 to MP 0.77	11	S	0.10	PT	PE	2025													
			S			RW	2025			FISH		20	20	20						
			S			CN	2025			FISH	1649	291	1940	1940						
								Totals			1649	321	1970	1970						
8	Dike Road Reconstruction - Phase 2 MP 3.05 to MP 5.32	6	S	2.27	PT	PE	2025													
			S			RW	2025			CRAB	18	17	35	35						
			S			CN	2025			CRAB	1602	1898	3500	3500						
								Totals			1620	1975	3595	3595						
9	Rock Creek Culvert - Tower Road MP 4.50 to MP 4.54	8	S	0.04	PT	PE	2024													
			S			RW	2024			COM	1000	3000	4000	4000						
			S			CN	2025													
								Totals			1000	3000	4000	4000						



**SIX YEAR TRANSPORTATION IMPROVEMENT PROGRAM
2025-2030**

Costs in \$1,000's

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								Fund Code	Federal Cost by Phase	State Fund Code	State Funds	Local Funds	Total Funds	2025	2026	2027
10	Westside Highway Slide Repair Westside Highway MP 4.06 to MP 4.11	6	S	0.05	PT	PE	2025	ARP				85				85
			S			RW	2025				10					10
			S			CN	2025				350					
								Totals			445					445
11	Pleasant Hill Road Culvert Replacement MP 4.67 to MP 4.73	6	S	0.06	PT	PE	2025	FEMA	100	DEM	25	25				150
			S			RW	2024									
			S			CN	2025			100						
								Totals	1900	DEM	125	100	125			2000
12	Butte Hill Slide Repair MP 0.25 to 0.27	6	S	0.02	PT	PE	2025	FEMA	45	DEM	2.5	2.5				50
			S			RW	2024									
			S			CN	2025			10						
								Totals	225	DEM	12.5	12.5	10			250
13	Italian Creek Culvert MP 1.7 to 2.1	11	S	0.40	PT	PE	2025	FEMA	45	DEM	2.5	2.5				50
			S			RW	2024									
			S			CN	2025			25						
								Totals	495	DEM	27.5	27.5	25			550
14	Allender Road Repair MP 0.78 to MP 0.82	6	S	0.04	PT	PE	2025					50				50
			S			RW	2025				5					5
			S			CN	2025				250					
								Totals			305	305				305
15	South Toutle Road Culvert Headwall Repair MP 1.07 to 1.09	6	S	0.02	PT	PE	2025					50				50
			S			RW	2025				5					5
			S			CN	2025				250					
								Totals			305	305				305
16	Rose Valley Road Culvert Rose Valley Road MP 7.70 to MP 7.74	11	S	0.04	PT	PE	2025	ER	173			27				175
			S			RW	2025				50					35
			S			CN	2026				175					
								Totals	1298		252	1550	210			1340
17	Gilmore Road Studebaker Creek Culvert Replacement Milepost 0.09 to 0.19	6	S	0.1	CPT	PE	2025	PROTECT	500							400
			S			RW	2025				50					50
			S			CN	2026				2900					
								Totals	3450			3450	450			3000
18	Delameter Road Culvert Replacements MP 4.05 to 4.15 and MP 4.32 to 4.52	6	S	0.2	CPT	PE	2025	PROTECT	850							830
			S			RW	2025				100					100
			S			CN	2026				5800					
								Totals	6750			6750	930			5820



**SIX YEAR TRANSPORTATION IMPROVEMENT PROGRAM
2025-2030**

Costs in \$1,000's

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								Fund Code	Federal Cost	by Phase	State Fund Code	State Funds	Local Funds	Total Funds	2025	2026	2027	2028	2029 & 2030		
19	Owl Creek Bridge Replacement Old 99 S MP 0.95 to 1.05 Structure ID 08156600	11	S	0.10	COPT	PE	2025	STP(BR)	960					850	110						
								RW					50		50						
								CN	6158						6158				1000	5158	
								Totals	7118				50	7168	900	1110	5158				
20	Rose Valley Road Culverts Replacement MP 11.76 to MP 11.84	6	S	0.08	CGOPTSW	PE	2025	CRAB			54		60								
								RW				20		20							
								CN	446			54		500							
								Totals	500			80	580								
21	Bates Road Embankment Repair MP 0.30 to 0.36	6	S	0.06	PT	PE	2025	FEMA	90	DEM	5		90	10							
								RW				20		20							
								CN	360	DEM	20		400								
								Totals	450		25	45	520	110	410						
22	Allender Road Culvert No. 1 Replacement MP 0.31 to MP 0.41	6	S	0.10	PT	PE	2025	FISH			187		220	20							
								RW				100		50							
								CN	2941			459		3400							
								Totals	3128		612	3740	270	3470							
23	Burma Road Ext (Toutle Park Road Replacement)	4	S	COPT	PE	2025						200	150	50							
							RW				500		400								
							CN	750	DEM	125		1000									
							Totals	750		125	825	1700	550	1150							
24	Kalama River Road Slide Mitigation MP 13.2 to 13.8	6	S	0.04	PT	PE	2025					125	300	190	10						
								RW				100		100							
								CN	1125	DEM	187		1500								
								Totals	1500		187	413	2100	300	290	1510					
25	N Goble Creek Road Box Culvert Replacement MP 1.26 to MP 1.30	6	S	0.04	PT	PE	2025	FISH			382.5		250	200							
								RW				50		50							
								CN	2380			420		2800							
								Totals	2762.5		537.5	3300	250	250	2800						
26	Powell Road Drainage Improvement MP 0.56 to MP 0.66	6	S	0.10	CGOPTSW	PE	2025	CRAB			49		40	15							
								RW				20		10							
								CN	446			354		800							
								Totals	495		380	875	50	825							
27	Coal Creek Road - Phase 1 MP 1.44 to MP 2.00	4	S	0.56	CPT	PE	2025	CRAB	260	CRAB	100		125	200	75						
								RW				100		100							
								CN	1900	CRAB	900		300		3100						
								Totals	2160		1000	440	3600	125	300	3175					



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								Fund Code	Federal Cost	by Phase	State Fund Code	State Funds	Local Funds	Total Funds	2025	2026	2027	2028	2029 & 2030
28	Cloverdale Road Drainage Improvement MP 1.75 to MP 1.81	6 S	S	0.06	COPT	PE	2025				CRAB	49	6	55	50	5			
			S			RW	2025						50	50	40	10			
			S			CN	2026				CRAB	446	554	1000	1000				
												495	610	1105	90	1015			
29	Rose Valley Bridge No. 2 Scour Repair MP 1.13 to MP 1.15	14 S	S	0.02	CPT	PE	2025						50	50	40	10			
			S			RW	2026						10	10	10	10			
			S			CN	2026						200	200	200	200			
													260	260	40	220			
30	Chapman Road Drainage	4 S	P		PT	PE	2025						100	100	50	40	10		
			P			RW	2026						50	50	50	50			
			P			CN	2026						550	550	550	550			
													700	700	50	90	560		
31	S Toutle Road Culvert Replacement - Studebaker Creek Crossing MP 1.05 to MP 1.11	6 P	P	0.08	PTW	PE	2025				FISH	340	60	400	50	330	20		
			P			RW	2026						100	100	100	100			
			P			CN	2027				FISH	1275	225	1500	1500	1500	1500		
												1615	385	2000	50	430	1520		
32	Lapham Road Culvert Replacement MP 0.72 to 0.76	6 P	P	0.04	PT	PE	2025				FISH		400	400	50	340	10		
			P			RW	2026						100	100	100	100			
			P			CN	2027				FISH	1275	225	1500	1500	1500	1500		
												1275	725	2000	50	440	1510		
33	Hazel Dell Road Leckler Creek Culvert Replacements MP 1.18 and MP 1.83	6 P	P	0.12	COPT	PE	2025						90	940	10	830	100		
			P			RW	2027						40	40	40	40			
			P			CN	2028						315	6300	6300	6300			
													445	7280	10	830	140	6300	
34	S Toutle Road Culvert Replacement - Outlet Creek Crossing MP 0.18 to 0.22	6 P	P	0.05	PT	PE	2025				FISH	153	27	180	75	100	5		
			P			RW	2026						50	50	50	50			
			P			CN	2027				FISH	1275	225	1500	1500	1500	1500		
												1428	302	1730	75	150	1505		
35	Fish Pond Road and Duncan Road Drainage Improvements MP 1.87 to MP 1.91 - Fish Pond Road MP 0.00 to MP 0.08 - Duncan Road	6 P	P	0.19	PT	PE	2026				PROTECT	270	30	300	100	190	10		
			P			RW	2027						100	100	100	100			
			P			CN	2028				PROTECT	1800	200	2000	2000	2000	2000		
													330	2400	100	290	2010		
36	Westover/Lomor Drainage Improvements MP 0.00 to MP 0.20	6 P	P	0.20	CGPTSW	PE	2026				HMA	50	50	400	200	100	100		
			P			RW	2028				HMA	50	50	400	400	400	400		
			P			CN	2028				HMA	125	125	1000	1000	1000	1000		
												225	225	1800	200	100	1500		



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								Federal Fund Code	Federal Cost by Phase	State Fund Code	State Funds	Local Funds	Total Funds	2025	2026	2027	2028	2029 & 2030
37	I-5 Emergency Bypass	1	P	0.02	CGPTSW	PL	2026	WSDOT	400			100	100	100	300			
								2028	PE	850		150	1000	100	100	100	900	
								Totals	1250			250	1500	1500	400	900		
38	PH 10 Culvert Replacement MP 3.23 to MP 3.27	6	P	0.02	PT	PE	2026			CRAB	54	6	60	60	15			
												CRAB	446	50	50	50	50	
												CRAB	500	54	500	54	500	500
								Totals			500	110	610	45	65	500		
39	S Goble Creek Box Replacement MP 1.46 to MP 1.50	6	P	0.40	PT	PE	2027			FISH	255	45	300	300	250	50		
												FISH	1700	50	50	50	50	
												FISH	1955	300	2000	300	2000	2000
								Totals			1955	395	2350	250	100	2000		
40	Abernathy Creek Road Repair MP 4.89 to 4.94	6	P	0.05	PT	PE	2027					40	40	40	35	5		
														20	20	20	20	
														250	250	250	250	250
								Totals				310	310	55	255			
41	Young Road Widening Project MP 0.0 to MP 0.88	3	P	0.88	PT	PE	2027					220	220	220	110	100		
														250	250	250	100	50
														880	880	880	880	880
								Totals				1350	1350	210	200	940		
42	Fibre Way Bridge and Mill Creek Bridge #3 Repairs Fibre Way MP 0.35 to MP 0.37; Mill Creek MP 1.64 to 1.67	14	P	0.05	COPT	PE	2027	STP(BR)	65			10	75	75	65	10		
														632	632	632	632	
														697	697	697	697	642
								Totals				10	707	65	642			
43	Paradise Acres Culvert Replacement MP 0.10 to MP 0.12	6	P	0.02	PTW	PE	2027					75	75	75	65	10		
														50	50	50	10	
														900	900	900	900	900
								Totals				1025	1025	105	920			
44	Nevada Drive Safety Improvements MP 0.00 to MP 1.43	21	P	1.43	CPTSW	PE	2027					100	100	100	80	20		
														50	50	50	40	
														315	315	315	315	350
								Totals				185	500	90	410			
45	South Silver Lake Road MP 1.45 to MP 2.84	4	P	1.39	CPT	PE	2027			CRAB	287	143	430	430	150	30		
														125	125	125	125	
														1687	1687	1687	4300	4300
								Totals			2400	1955	4855	250	275	4330		



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								Fund Code	Federal Cost by Phase	State Fund Code	State Funds	2025	2026	2027	2028	2029 & 2030				
46	Kalama River Road Slope/Rockfall/Debris Flow Protection Various Locations MP 0.80 to MP 14.2	21	P	13.4	PT	PE	2027	450		250		150	100	250						
															HSIP	450	50	50	50	250
47	Holcomb-Ostrander Bypass	1	P	1.25	PE	2027			800		200	400	200	4000						
															HSIP		350	150	400	200
48	Whitewater Road Curve Improvements MP 0.24 to MP 0.30	21	P	0.06	PT	PE	2027	63		7		70								
															HSIP		20	20	20	5
49	Bodine Road Realignment MP 0.6 to MP 0.7	21	P	0.10	CPT	PE	2027		45	45	40	5								
															HSIP		20	20	20	300
50	Mill Creek Road/Oak Point Road Intersection Improvements Mill Creek Rd MP 0.04 to MP 0.10 Oak Point Rd MP 0.00 to MP 0.10	21	P	0.16	PT	PE	2027		40	40	30	10								
															HSIP		10	10	5	280
51	North Bodine Drainage Improvements MP 0.64 to MP 0.68	6	P	0.04	PT	PE	2027		80	80	60	20								
															HSIP		10	10	520	520
52	Kalama River Road Turn Lane MP 4.35 to MP 4.38	21	P	0.03	PT	PE	2027		30	30	20	10								
															HSIP		5	5	150	150
53	Ostrander Rd. Bridge Replacement MP 0.35 to MP 0.45	11	P	0.10	CGPTW	PE	2027	240	60	300	150	150								
															HSIP		100	100	2000	500
54	Pacific Way Drainage Improvement MP 2.09 to MP 2.11	6	P	0.02	CGPTSW	PE	2027		30	30	30	250								
															HSIP		250	250	280	280



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								Fund Code	Federal Cost by Phase	State Fund Code	State Funds	2025	2026	2027	2028	2029 & 2030	
55	Kalama River Road Curve Improvements MP 14.95 to MP 15.05	21	P	0.10	PT	PE RW CN	2027 2027 2028					70	10	10	450		
								Totals				530	70	460			
56	Allen Street Drainage Improvement MP 2.50 to MP 2.80	6	P	0.30	PT	PE RW CN	2027 2027 2028	110				40	140	10			
								BRIC				50	50	600			
								Totals				240	190	610			
57	Martins Bluff Embankment Repair MP 0.04 to MP 0.10	6	P	0.06		PE RW CN	2027 2027 2028					60	40	20			
												10	5	5			
								Totals				470	45	425			
58	Bodine Road Culvert Replacement MP 0.70 to MP 0.74	6	P	0.04	PT	PE RW CN	2027 2027 2028					50	40	10			
												10	10	440			
								Totals				500	50	450			
59	Italian Creek Road Drainage and Roadway Improvements MP 2.86 to MP 2.90	6	P	0.04	PT	PE RW CN	2027 2027 2028					45	35	10			
												10	5	5			
								Totals				325	325	325			
60	Bridge Rail Upgrades Countywide	21	P		CPGSTW	PE CN	2028 2028	171				19	190				
								HSIP				100	750	250			
								Totals	1071			119	940	250			
61	Wren Loop/SR411 Intersection Improvements MP 0.00 to MP 0.10 - Wren Loop Road	21	P	0.10	CPTO	PE RW CN	2028 2028 2029	45				5	40	10			
								HSIP				10	10	300			
								Totals	315			45	360	50	310		
62	S Pekin Rd/ Pinkerton Dr Intersection Improvements MP 0.00 to MP 0.05 - Pinkerton Dr MP 0.90 to MP 1.00 - S Pekin Rd	21	P	0.15	PT	PE RW CN	2028 2028 2029					100	75	25			
												30	10	20			
								Totals				600	600	600			
63	Coal Creek Road Culverts Replacement MP 0.20 to MP 0.25	6	P	0.05	CPT	PE RW CN	2028 2028 2030					730	85	645			
												120	100	20			
								Totals				800	5	800			
								Totals				925	105	820			



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								Fund Code	Federal Cost by Phase	State Fund Code	State Funds	Local Funds	Total Funds	2025	2026	2027	2028	2029 & 2030	
64	Kalama River Road Realignment (@Old Spreadborough) MP 3.68 to MP 3.78	21	P	0.10	PT	PE	2028	HSIP	54			6	60				50	10	
			P			RW	2028				20	20					20		
			P			CN	2029		378		42	420							420
Totals									432			68	500			70	430		
65	Coal Creek Road - Phase 2 MP 2.00 to MP 2.50	4	P	0.50	CPTW	PE	2029					240	240					240	
			P			RW	2029				100	100						100	
			P			CN	2030				1600	1600							1600
Totals											1940	1940					1940		
66	Primrose Road Culverts and Surface Upgrade MP 0.05 to MP 0.48	6	P	0.43	PT	PE	2028					75	75				55	20	
			P			RW	2028				10	10						5	
			P			CN	2029				500	500							500
Totals											585	585			60	525			
67	Englert Culvert MP 0.64 to MP 0.68	6	P	0.04	PT	PE	2028					50	50				40	10	
			P			RW	2029				20	20						20	
			P			CN	2029				500	500							500
Totals											570	570			40	530			
68	Greenwood Rd Culvert Replacement MP 0.02 to MP 0.06	6	P	0.04	PT	PE	2028					80	80				40	40	
			P			RW	2028				10	10						5	
			P			CN	2029				500	500							500
Totals											590	590			45	545			
69	Ostrander Road /Pacific Avenue N Intersection Improvements MP 0.00 to MP 0.12 - Ostrander Road MP 3.50 to MP 3.70 - Pacific Ave N	7	P	0.20	CGOPTW	PE	2028					120	120				100	20	
			P			RW	2028				10	10						5	
			P			CN	2029				800	800							800
Totals											930	930			105	825			
70	Delameter Road MP 2.33 to MP 3.33	4	P	1.00	CPT	PE	2028					310	310				260	50	
			P			RW	2028				100	100						100	
			P			CN	2030				3100	3100							3100
Totals											3510	3510			360	3150			
71	South Silver Lake Road MP 4.5 to MP 5.5	4	P	1.00	CPST	PE	2028					500	500				350	150	
			P			RW	2029				100	100							100
			P			CN	2030			CRAB	2500	3500							3500
Totals										1000	4100	4100			350	3750			
72	Allen Street Improvements MP 1.06 to MP 1.95	4	P	0.89	CPT	PE	2029					400	400				400	400	
			P			RW	2029				100	100							100
			P			CN	2030				2700	2700							2700
Totals											3200	3200					3200		



**SIX YEAR TRANSPORTATION IMPROVEMENT PROGRAM
2025-2030**

Costs in \$1,000's

Priority Number	Project Identification	Improvement	Status	Total Length	Utility Codes	Phase	Phase Start	Federal Funding		State Funding		Expenditure Schedule (Year)							
								Fund Code	Federal Cost by Phase	State Fund Code	State Funds	Local Funds	Total Funds	2025	2026	2027	2028	2029 & 2030	
73	Allen Street/PG Sweet Intersection Improvements MP 1.92 to MP 1.98 - Allen Street MP 0.00 to MP 0.05 - PG Sweet Rd	21	P	0.11	CPT	PE	2029	HSIP	41.2			8.8	50						
													20	20					
													300	300					
								Totals	341.2			28.8	370						
74	Headquarters Road Climbing Lane Varies	21	P	VARIES	CPST	PE	2029					150	150						
													100	100					
													1000	1000					
								Totals				1250	1250						
75	Canal Road Dual Culvert Replacement MP 0.86 to MP 0.88	6	P	0.02	PT	PE	2029					100	100						
													10	10					
													900	900					
								Totals				1010	1010						
76	Withebe Rd Intersection Improvements MP 0.0 to MP 0.5	21	P	0.50	PTC	PE	2029	HSIP	94.5			10.5	105						
													30	30					
													373.5	415					
								Totals	468			82	550						
77	Tower Road Bridge Scour Repair MP 2.9	14	P	0.02	PT	PE	2029					50	50						
													350	350					
													400	400					
								Totals				400	400						
78	Coal Creek Road - Phase 3 MP 2.50 to MP 3.50	4	P	1.0	CPTW	PE	2029					310	310						
													100	100					
													3100	3100					
								Totals				3510	3510						
79	West Canyon View Drive Reconstruction MP 0.00 to MP 0.15	4	P	0.15	CPTSW	PE	2029					60	60						
													400	400					
													460	460					
								Totals				460	460						
80	S Louma Road Turnaround MP 0.16 to MP 0.18	4	P	0.02	CPTSW	PE	2030					60	60						
													100	100					
													250	250					
								Totals				410	410						
81	Tower Road Improvements MP 0.00 to MP 1.50	4	P	1.5	PT	PE	2030					300	300						
													50	50					
													350	350					
								Totals				350	350						



**SIX YEAR TRANSPORTATION IMPROVEMENT PROGRAM
2025-2030**

Costs in \$1,000's

Priority Number	Project Identification	Improvement	Status	Total Length	Utility Codes	Phase	Phase Start	Federal Funding			State Funding		Expenditure Schedule (Year)					
								Federal Fund Code	Federal Cost by Phase	State Fund Code	State Funds	Local Funds	Total Funds	2025	2026	2027	2028	2029 & 2030
82	ADA Upgrades Location varies	28 S	S	VARIABLE	CGOPSTW	PE	2025					120	120	20	20	20	20	40
		S	S		RW	RW	2025					30	30	5	5	5	5	10
		S	S		CN	CN	2025					1050	1050	175	175	175	175	350
								Totals				1200	1200	200	200	200	200	400
83	Drainage Improvements Location varies	6 S	S	VARIABLE	CGOPSTW	PE	2025					300	300	50	50	50	50	100
		S	S		RW	RW	2025					120	120	20	20	20	20	40
		S	S		CN	CN	2025					1500	1500	300	300	300	300	600
								Totals				1920	1920	70	370	370	370	740
84	Safety Improvements Projects on various roads that addresses guardrail, sight distance, shoulders, delineators, signs, etc.	21 P	P	VARIABLE	CGOPSTW	PE	2027					200	200					100
		P	P		RW	RW	2027					80	80					40
		P	P		CN	CN	2027					1200	1200					600
								Totals				1480	1480					740
85	Slide Improvements Location varies	6 P	P	VARIABLE	CGOPSTW	PE	2027					400	400					200
		P	P		RW	RW	2027					80	80					40
		P	P		CN	CN	2027					1200	1200					600
								Totals				1680	1680					840
Grand Totals								49651	24799.5	63558.4	138008.9	27093.9	23655	22368	23622	41270		

Phase

- PL - Planning
- PE - Design Engineering
- RW - Right of Way
- CN - Construction

Status

- S - Funding secured.
- P - Planned -funding has not been secured.

Federal and State Funding Codes

- FHWA - Federal Highway Administration
- STP(BR) - Highway Bridge Program
- ER - Emergency Relief Program
- HSIP - Highway Safety Improvement Program
- HRRRP - High Risk Rural Roads Program
- STP - Surface Transportation Program - (R) - rural, (S) - safety, (U) - urban
- CRAB - County Road Administration Board - Rural Arterial Program
- FISH - Washington Recreation - Fish Barrier Removal Grant
- DEM - Washington State Department of Emergency Management
- WSDOT - Washington State Department of Transportation
- FEMA - Federal Emergency Management Administration
- USAOP - USDOT National Culvert Removal, Restoration and Replacement
- IFRA - Infrastructure for Rebuilding America
- BRIC - Building Resilient Infrastructure in Communities
- NOAA - NOAA fish passage barrier
- PROTECT - Promoting Resilient Operations for Transformative , Efficient tand Cost Saving Transportation

Improvement Codes

- 1 - New Construction Roadway
- 3 - Reconstruction - Added Capacity
- 4 - Reconstruction - No Added Capacity
- 5 - 4R Maintenance Resurfacing
- 6 - 4R Maintenance - Restoration and Rehabilitation
- 7 - 4R Maintenance, Relocation
- 8 - Bridge, New Construction
- 11 - Bridge Replacement - No Added Capacity
- 14- Bridge Rehabilitation - No Added Capacity
- 15 - Preliminary Engineering
- 21 - Safety
- 28 - Facilities for Pedestrians and Bicycles

Utilities

- C - Cable
- G - Gas
- O - Other
- P - Power
- T - Telephone
- S - Sanitary Sewer
- W-Water



DEPARTMENT OF PUBLIC WORKS

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Washington Relay Service 711 or (888) 833-8633

Board of County Commissioners
Arne Mortensen District 1
Dennis P. Weber District 2
Richard R. Dahl District 3

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SIX-YEAR TRANSPORTATION IMPROVEMENT PROGRAM

2025-2030

TIP Priority No. 1 ~ Project Summary

South Cloverdale Road

Project Limits: Mileposts 0.13 to 0.76
(Todd Road to Confer Road)

Federal Classification: Rural Minor Collector (08)

Project Description: Reconstruct roadway to include two 12-foot wide travel lanes with 6-foot shoulders. Includes horizontal/vertical alignment improvements. The existing culverts will be replaced and sized to meet current standards.

Basis for Project: The existing roadway is narrow with minimal shoulders. Sections of the roadway have poor visibility due to horizontal/vertical alignment. The Kalama area is developing, and traffic is increasing on this roadway.



Environmental/Safety Considerations: All of the culverts will be analyzed for replacement based on age and barrier requirements. The new culverts will be sized to remove fish barriers if any are found and/or to pass the large storm events to minimize culvert clogging and roadway flooding. All work will be designed to minimize the impact on wetland areas. At a minimum the culvert conveying Bybee Creek will be upgraded to meet fish passage requirements.

During design the horizontal and vertical curves will be analyzed to develop any needed roadway geometry changes to improve driver safety. In addition, wider shoulders will be added to allow use by bicyclists and pedestrians to remove them from travel lanes.

Funding Sources: This project is being funded with a CRAB RAP grant, STP-R grant and local road funds.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$0	County Funds:	\$575,200
Right-of-Way:	\$0	State Grants:	\$1,250,000
Construction:	<u>\$6,253,200</u>	Federal Grants:	\$2,128,000
Total:	\$6,253,200	ARPA:	<u>\$2,300,000</u>
		Total:	\$6,253,200
		Engineering:	2024
		Right-of-Way:	Complete
		Construction:	2025

TIP Priority No. 2 ~ Project Summary

South Cloverdale Road-Confer Road Intersection Improvements

Project Limits: Mileposts 0.76 to 0.87 – S Cloverdale Rd
Milepost 0.00 to 0.08 - Confer Rd

Federal Classification: Rural Minor Collector (08)

Project Description: Improve vertical curve sight distance south of the intersection of Confer Road with South Cloverdale Road by lowering the roadway at the vertical curve.

Basis for Project: Current vertical alignment limits sight distance for vehicles turning onto Confer Road or continuing on South Cloverdale Road.



Environmental/Safety Considerations: This intersection has a sight distance issue that decreases driver safety.

Funding Sources: This project will be funded with local road funds. It will be completed at the same time as the South Cloverdale Road Project to minimize the disruption to drivers and to take advantage of pricing benefits that generally occur with larger projects.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$0	County Funds:	\$625,500
Right-of-Way:	\$0	State Grants:	\$0
Construction:	<u>\$925,500</u>	Federal Grants:	<u>\$300,000</u>
Total:	\$925,500	Total:	\$925,500
		Engineering:	2024
		Right-of-Way:	Complete
		Construction:	2024-2025

TIP Priority No. 3 ~ Project Summary

Erick Creek Culvert – Abernathy Creek Road

Project Limits: Mileposts 5.30 to 5.40

Federal Classification: Rural Local Access (09)

Project Description: This project will replace the existing 10-foot diameter culvert with a new culvert to meet the current fish passage and the WSDOT Hydraulic Manual requirements.

Basis for Project: This project is needed to replace a deteriorated existing culvert that does not meet fish passage requirements. The culvert is rusted through allowing water to run under the culvert.

Environmental/Safety Considerations: This culvert presents a fish blockage; therefore its removal will provide a positive benefit to the environment. As with any in-stream work it will be performed during the appropriate fish window and all impacts caused by wetland disturbance will be mitigated.

The existing culvert is at the end of its useful life and if not replaced could collapse damaging the roadway surface or if complete collapse occurs, create a sinkhole large enough to damage a vehicle and/or block the roadway.

Funding Sources: This project is being funded with local road funds (design and right of way) and a PROTECT grant.



Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$0	County Funds:	\$0
Right-of-Way:	\$0	State Grants:	\$0
Construction:	<u>\$100,000</u>	Federal Grants:	<u>\$100,000</u>
Total:	\$100,000	Total:	\$100,000
		Engineering:	Complete
		Right-of-Way:	Complete
		Construction:	2024 - 2025

TIP Priority No. 4 ~ Project Summary

Countywide Guardrail

Project Limits: Various locations throughout the County

Federal Classification: Various Classifications

Project Description: This project will install new guardrail or upgrade existing guardrails to current standards on various roadways.

Basis for Project: There are many locations within the County where existing guardrail does not meet current standards or drop-offs exist next to the roadway. Guardrail increases safety by helping to keep vehicles on the roadway. Completing safety projects is an emphasis within the transportation industry to move us towards the target of zero fatal accidents.



Environmental/Safety Considerations: Upgraded guardrail improves driver safety by preventing roadway runoff accidents. Roadway runoff accidents have a higher frequency of injury or death than accidents where a car strikes a guardrail.

Funding Sources: This project is receiving funding from the Federal Highway Safety Improvement Program (HSIP). This program funds 90% of the project construction.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$0	County Funds:	\$0
Right-of-Way:	\$0	State Grants:	\$0
Construction:	<u>\$509,200</u>	Federal Grants:	<u>\$509,200</u>
Total:	\$509,200	Total:	\$509,200
		Engineering:	Complete
		Right-of-Way:	N/A
		Construction:	2025

TIP Priority No. 5 ~ Project Summary

Countywide Delineators

Project Limits: Various locations throughout the County

Federal Classification: Various Classifications

Project Description: This project will install roadside delineators on roadways throughout the County. These delineators will be installed to increase visibility of curves.

Basis for Project: Currently there is an emphasis on accident prevention by completion of low-cost projects. Roadside delineators have been shown to decrease runoff the road accidents which is a leading type of accident on rural roads within the County.



Environmental/Safety Considerations: The goal statewide is to reduce fatal and serious injury accidents to zero and by installing roadside delineators the number of run off the road accidents should be reduced.

Funding Sources: This project is receiving funding from the Federal Highway Safety Improvement Program (HSIP). This program funds 90% of the construction costs.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$0	County Funds:	\$0
Right-of-Way:	\$0	State Grants:	\$0
Construction:	\$170,000	Federal Grants:	\$170,000
Total:	\$170,000	Total:	\$170,000
		Engineering:	Complete
		Right-of-Way:	N/A
		Construction:	2025

TIP Priority No. 6 ~ Project Summary

**Allender Road Bridge Replacement
Structure ID 08013300**

Project Limits: Milepost 0.68 to 0.80

Federal Classification: Rural Local Access (09)

Project Description: This project will replace the existing bridge and bridge approaches.

Basis for Project: This bridge was constructed in 1958 and at the projected construction date will be 66 years old. The bridge has a current sufficiency rating of 43.52 which indicates that it is nearing the end of its service life. The bridge is used by residential traffic and log trucks that access the adjacent timber land. The bridge is currently load restricted for 8 types of trucks. This restricts the loads on log trucks and other truck that use this roadway. The bridge is narrow and does not meet current roadway standards.



Environmental/Safety Considerations: The replacement of this bridge will allow for the unrestricted movement of legal loads through the area which benefits the economy and increases safety because otherwise legal loads that do not meet the bridge load rating standards will no longer be illegally using the bridge and increasing the damage to the structure. If the damage reaches the point of failure, there are approximately one dozen homes that would be isolated from emergency services.

The work would need to meet all permitting requirements to work in and around water which would include mitigation for disturbed wetlands, working during the prescribed fish window and correction of fish passage barriers. WDFW SalmonScope website lists the stream as potential habitat for chinook, coho and steelhead.

Funding Sources: This project has been selected for funding through the Federal Bridge Program. The match will come from local road funds.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$10,000	County Funds:	\$230,400
Right-of-Way:	\$0	State Grants:	\$0
Construction:	<u>\$1,696,000</u>	Federal Grants:	<u>\$1,475,600</u>
Total:	\$1,706,000	Total:	\$1,706,000
		Engineering:	2025
		Right-of-Way:	Complete
		Construction:	2025

TIP Priority No. 7 ~ Project Summary

Garlock Road Box Culvert Replacement

Project Limits: Milepost 0.67 to 0.77

Federal Classification: Rural Local Access (09)

Project Description: This project will replace the existing box culvert with a new culvert sized to meet current fish passage requirements.

Basis for Project: The existing box culvert is reaching the end of its useful life and has been identified as a fish barrier.



Environmental/Safety Considerations: This culvert presents a fish blockage so its removal will provide access to upstream habitat to Chinook, Coho, Steelhead, resident Trout and other resident aquatic species. As with any in-stream work it will be performed during the appropriate fish window and all impacts for wetland disturbance will be mitigated.

The existing culvert is at the end of its useful life and if not replaced it could collapse damaging the roadway surface or if complete collapse occurs creating a sinkhole large enough to damage a vehicle and/or block the roadway.

Funding Sources: This project will be funded with local road funds and potentially a Washington State Recreation and Conservation Office, Fish Barrier Removal Board Grant Funding if received in the next funding cycle.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$20,000	County Funds:	\$321,000
Right-of-Way:	\$10,000	State Grants:	\$1,649,000
Construction:	\$1,940,000	Federal Grants:	\$0
Total:	\$1,970,000	Total:	\$1,970,000
		Engineering:	2025
		Right-of-Way:	2025
		Construction:	2025

TIP Priority No. 8 ~ Project Summary

Dike Road Reconstruction – Phase 2

Project Limits: Milepost 3.05 to 5.32

Federal Classification: Rural Minor Collector (08)

Project Description: This project will reconstruct the roadway section to improve the structural strength of the roadway. This will be completed using full-depth reclamation (FDR) as the construction method. Shoulder rock will be placed, and the roadway restriped. The clear zone will be reviewed, and issues addressed.



Basis for Project: Increased truck traffic has caused severe damage to the roadway because this roadway has an inadequate roadway section to support frequent fully loaded trucks. It is anticipated that this increase in truck traffic will continue as the port develops.

Environmental/Safety Considerations: This area is developing including more industrial uses replacing farms and vacant land outside of the levee. The original roadway was not constructed to a roadway standard, so the increased traffic loading is detrimental to the roadway structure. The large areas of distressed pavement and potholes create hazardous driving conditions increasing the probability of accidents along this roadway.

Funding Sources: This project is being funded with local road funds and CRAB RAP grant funds.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$35,000	County Funds:	\$1,975,000
Right-of-Way:	\$60,000	State Grants:	\$1,620,000
Construction:	<u>\$3,500,000</u>	Federal Grants:	<u>\$0</u>
Total:	\$3,595,000	Total:	\$2,095,000
		Engineering:	2025
		Right-of-Way:	2025
		Construction:	2025

TIP Priority No. 9 ~ Project Summary

Rock Creek Culvert – Tower Road

Project Limits: Milepost 4.50 to 4.54

Federal Classification: Rural Collector (07)

Project Description: This project will remove the temporary bridge on Tower Road and install a permanent bridge over Rock Creek.

Basis for Project: On February 28, 2022 the existing dual culverts that transported Rock Creek under Tower Road were washed out. A temporary narrow bridge has been installed to reestablish traffic on Tower Road. The permanent bridge will be designed to carry all of the traffic that uses the roadway.



Environmental/Safety Considerations: The temporary bridge is narrow and does not allow for the passage of two large vehicles decreasing driver safety. The Rock Creek channel is reestablishing itself to pre 1980 eruption levels that will allow fish access to Rock Creek beyond Tower Road.

Funding Sources: This project will be funded using local road funds, State directed funding and ARPA money.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$0	County Funds:	\$1,000,000
Right-of-Way:	\$0	ARPA:	\$2,000,000
Construction:	<u>\$4,000,000</u>	State Grants:	\$1,000,000
Total:	\$4,000,000	Federal Grants:	<u>\$0</u>
		Total:	\$4,000,000
		Engineering:	2025
		Right-of-Way:	2025
		Construction:	2025

TIP Priority No. 10 ~ Project Summary

Westside Highway Slide Repair

Project Limits: Milepost 4.06 to 4.11

Federal Classification: Rural Collector (07)

Project Description: This project will construct a rock buttress on the cut slope to prevent future slides.

Basis for Project: On February 28, 2022, the cut slope above the roadway became saturated and slid onto the roadway.



Environmental/Safety Considerations: If this cut slope is not repaired it will continue to release debris into the roadway creating unsafe driving conditions.

Funding Sources: This project is going to be funded using local Road Fund dollars and ARPA revenue replacement dollars.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$85,000	County Funds:	\$10,000
Right-of-Way:	\$10,000	ARPA:	\$435,000
Construction:	<u>\$350,000</u>	State Grants:	\$0
Total:	\$445,000	Federal Grants:	<u>\$0</u>
		Total:	\$445,000
		Engineering:	2025
		Right-of-Way:	2025
		Construction:	2025

TIP Priority No. 11 ~ Project Summary

Pleasant Hill Road Culvert Replacement

Project Limits: Milepost 4.67 to 4.73

Federal Classification: Rural Minor Collector (08)

Project Description: This project will replace the existing culvert that failed in 2021.

Basis for Project: The 10' diameter corrugated metal culvert failed creating a large pothole in the roadway. In the fall of 2021, the failed culvert was removed and the County's temporary bridge was installed to allow traffic to utilize the roadway. This project will design a permanent structure to replace the culvert and allow for fish passage.



Environmental/Safety Considerations: The failed culvert caused a large sinkhole which required Pleasant Hill Road to be closed to thru traffic. This closure forces emergency services to detour around the area potentially increasing response times.

The work will need to meet all permitting requirements to work in and around water which would include mitigation for disturbed wetlands, working during the prescribed fish window and correction of fish passage barriers.

Funding Sources: This project is being funded with FEMA Emergency funds (90%) and State DEM funds (5%). The remaining match will come from local road funds.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$150,000	County Funds:	\$125,000
Right-of-Way:	\$0	State Grants:	\$125,000
Construction:	<u>\$2,000,000</u>	Federal Grants:	<u>\$1,900,000</u>
Total:	\$2,150,000	Total:	\$2,150,000
		Engineering:	2025
		Right-of-Way:	2025
		Construction:	2025

TIP Priority No. 12 ~ Project Summary

Butte Hill Slide Repair

Project Limits: Milepost 0.25 to 0.27

Federal Classification: Rural Local Access (09)

Project Description: The roadway embankment will be stabilized by constructing a rock embankment benched into the existing embankment.

Basis for Project: During the January 6, 2022 event, the embankment became saturated and slid down to the toe of the slope.



Environmental/Safety Considerations: Embankment instability can lead to failure within the traveled way posing threats to driver safety.

Funding Sources: This project will be funded by local road funds, and FEMA emergency funds with a state match.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$50,000	County Funds:	\$12,500
Right-of-Way:	\$0	State Grants:	\$12,500
Construction:	<u>\$200,000</u>	Federal Grants:	<u>\$225,000</u>
Total:	\$250,000	Total:	\$250,000
		Engineering:	2025
		Right-of-Way:	2024
		Construction:	2025

TIP Priority No. 13 ~ Project Summary

Italian Creek Culvert Replacement

Project Limits: Milepost 1.7 to 2.1

Federal Classification: Rural Local Access (09)

Project Description: The culvert will be replaced to accommodate higher flows and to include passage of aquatic life. In addition, the embankment will be reconstructed.

Basis for Project: During the January 6, 2022, storm event the existing culvert became overwhelmed and the roadway embankment became eroded and the culvert was damaged.



Environmental/Safety Considerations: Replacement of the culvert will prevent water from flowing over the road increasing driver safety during unfavorable weather conditions.

Funding Sources: This project will be funded by local road funds, and FEMA emergency funds with a state match.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$50,000	County Funds:	\$27,500
Right-of-Way:	\$0	State Grants:	\$27,500
Construction:	<u>\$500,000</u>	Federal Grants:	<u>\$495,000</u>
Total:	\$550,000	Total:	\$550,000
		Engineering:	2025
		Right-of-Way:	2025
		Construction:	2025

TIP Priority No. 14 ~ Project Summary

Allender Road Repair

Project Limits: Milepost 0.78 to 0.82

Federal Classification: Rural Local Access (09)

Project Description: The roadway embankment will be stabilized by constructing a installing riprap and large woody debris to meet WDFW requirements.

Basis for Project: The creek at the toe of the embankment is undermining the roadway causing the pavement to crack and narrowing the roadway.



Environmental/Safety Considerations: Embankment instability can lead to failure within the traveled way posing threats to driver safety.

Funding Sources: This project will be funded by local road funds.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$50,000	County Funds:	\$0
Right-of-Way:	\$5,000	State Grants:	\$0
Construction:	<u>\$250,000</u>	Federal Grants:	<u>\$305,000</u>
Total:	\$305,000	Total:	\$305,000
		Engineering:	2025
		Right-of-Way:	2025
		Construction:	2025

TIP Priority No. 15 ~ Project Summary

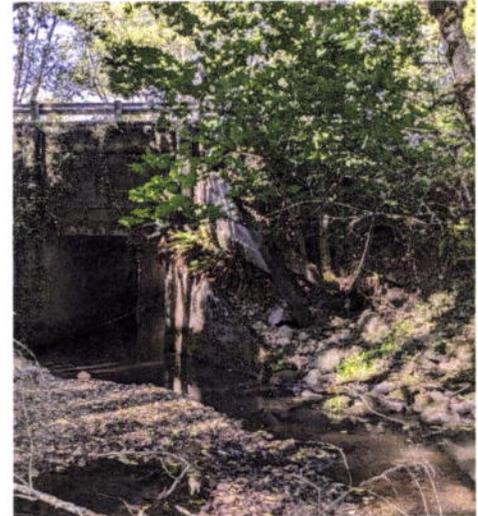
South Toutle Road Headwall Repair

Project Limits: Milepost 0.25 to 0.27

Federal Classification: Rural Major Collector (07)

Project Description: The headwall will be reconstructed, and the embankment stabilized.

Basis for Project: During an inspection in September 2023, the wooden supplemental headwall was found to be failing and the embankment to the east of the culvert was being scoured due to a sand and gravel bar that has developed just upstream of the culvert.



Environmental/Safety Considerations: Failure of the upper headwall or the embankment could encroach into the driving lane causing an increased probability of head on collisions.

Funding Sources: This project will be funded by local road funds.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$50,000	County Funds:	\$305,000
Right-of-Way:	\$5,000	State Grants:	\$0
Construction:	<u>\$250,000</u>	Federal Grants:	<u>\$0</u>
Total:	\$305,000	Total:	\$305,000
		Engineering:	2025
		Right-of-Way:	2025
		Construction:	2025

TIP Priority No. 16 ~ Project Summary

Rose Valley Road Culvert

Project Limits: Milepost 7.70 to 7.74

Federal Classification: Rural Major Collector (07)

Project Description: The temporary repair completed during the winter of 2022 permit required that the entire culvert be replaced to current standards. This work will include replacing the culvert and rebuilding the roadway embankment.

Basis for Project: On January 6, 2022, heavy rains caused the stream to scour and undermine the outlet, resulting in sections of the culvert breaking off leaving a nearly vertical down from the shoulder leaving hanging guardrail posts. A contractor was hired to complete a temporary repair and stabilize the embankment.



Environmental/Safety Considerations: The new culvert will allow fish passage and maintain roadway safety for the drivers.

Funding Sources: This project will be funded with Federal Emergency Relief funds and local road funds.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$200,000	County Funds:	\$252,000
Right-of-Way:	\$50,000	State Grants:	\$0
Construction:	<u>\$1,300,000</u>	Federal Grants:	<u>\$1,298,000</u>
Total:	\$1,550,000	Total:	\$1,550,000
		Engineering:	2025
		Right-of-Way:	2025
		Construction:	2025

TIP Priority No. 17 ~ Project Summary

Gilmore Road – Studebaker Creek Culvert Replacement

Project Limits: Milepost 0.09 to 0.19

Federal Classification: Rural Local Access (09)

Project Description: The existing box culvert will be removed and replaced with a large open bottom structure or small bridge.

Basis for Project: This box culvert is undersized and reaching the end of expected life.



Environmental/Safety Considerations: This box culvert is a documented partial fish passage barrier. Replacement of the structure with a structure designed to meet the Department of Fish and Wildlife criteria will open up approximately 5.6 miles of potential fish habitat.

Funding Sources: This project will be funded by the State PROTECT fund at 100%.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$500,000	County Funds:	\$0
Right-of-Way:	\$50,000	State Grants:	\$0
Construction:	<u>\$2,900,000</u>	Federal Grants:	<u>\$3,450,000</u>
Total:	\$3,450,000	Total:	\$3,450,000
		Engineering:	2025
		Right-of-Way:	2025
		Construction:	2026

TIP Priority No. 18 ~ Project Summary

Delameter Road Culvert Replacements

Project Limits: Milepost 4.05 to 4.15 and 4.32 to 4.52

Federal Classification: Rural Collector (07)

Project Description: The existing box culverts will be removed and replaced with new large culverts or bridges (to be determined during preliminary design).

Basis for Project: These culverts are at the end of life and are undersized.



Environmental/Safety Considerations: Without replacement this structure will continue to deteriorate and eventually fail. The box culverts are documented partial fish barriers. Replacement of the structures designed to meet the Department of Fish and Wildlife design criteria will open up approximately 1.5 miles of habitat to the next barrier.

Funding Sources: This project will be funded by State PROTECT funds at 100%.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$850,000	County Funds:	\$0
Right-of-Way:	\$100,000	State Grants:	\$0
Construction:	<u>\$5,800,000</u>	Federal Grants:	<u>\$6,750,000</u>
Total:	\$6,750,000	Total:	\$6,750,000
		Engineering:	2025
		Right-of-Way:	2025
		Construction:	2026

TIP Priority No. 19 ~ Project Summary

**Owl Creek Bridge Replacement
(Old 99 S)**

Project Limits: Milepost 0.95 to 1.05

Federal Classification: Minor Arterial (06)

Project Description: The existing bridge will be removed and replaced with a new bridge capable of carrying the current traffic loading..

Basis for Project: This bridge is actually two bridges that have reached the end of life. There is concrete cracking and spalling, and the bridge is load restricted which causing oversize vehicles to take alternate routes.



Environmental/Safety Considerations: Without replacement this structure will continue to deteriorate and eventually fail.

Funding Sources: This project will be funded by State Bridge funds at 100% (excluding right of way) if construction is obligated by September 30, 2026. If this deadline is not met the County will be required to provide a 13.5% match from local road funds.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$960,000	County Funds:	\$50,000
Right-of-Way:	\$50,000	State Grants:	\$0
Construction:	<u>\$6,158,000</u>	Federal Grants:	<u>\$7,118,000</u>
Total:	\$7,168,000	Total:	\$7,168,000
		Engineering:	2025
		Right-of-Way:	2025
		Construction:	2026-2027

TIP Priority No. 20 ~ Project Summary

Rose Valley Road Culverts Replacement

Project Limits: Milepost 11.76 to 11.84

Federal Classification: Rural Major Collector (07)

Project Description: The existing undersized and damaged culverts will be replaced with a single structure to accommodate higher flows and to include passage of aquatic life.

Basis for Project: The existing culverts are frequently plugged, the end sections are damaged, the materials are reaching end of life, and water overtops the roadway during large storm events.



Environmental/Safety Considerations: Replacement of the culverts will prevent water from flowing over the road increasing driver safety during unfavorable weather conditions.

Funding Sources: This project will be funded by local road funds, and CRAB RAP funds.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$60,000	County Funds:	\$80,000
Right-of-Way:	\$20,000	State Grants:	\$500,000
Construction:	<u>\$500,000</u>	Federal Grants:	<u>\$0</u>
Total:	\$580,000	Total:	\$580,000
		Engineering:	2025
		Right-of-Way:	2025
		Construction:	2025

TIP Priority No. 21 ~ Project Summary

Bates Road Embankment Repair

Project Limits: Milepost 0.30 to 0.36

Federal Classification: Rural Local Access (09)

Project Description: The project will reinforce the embankment with a combination of relocating the roadway away from the Kalama River and reinforcement of the embankment.

Basis for Project: The main flow of the Kalama River has shifted to the south eroding the embankment of the roadway. The erosion has reached the shoulder and is moving into the pavement.

Environmental/Safety Considerations: The continued erosion of the embankment will reduce driver safety by decreasing the driving surface potentially creating conditions prone to head on collisions.

Funding Sources: This project will be funded by local road funds, and FEMA emergency funds with a state match.



Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$100,000	County Funds:	\$45,000
Right-of-Way:	\$20,000	State Grants:	\$25,000
Construction:	<u>\$400,000</u>	Federal Grants:	<u>\$450,000</u>
Total:	\$520,000	Total:	\$520,000
		Engineering:	2025
		Right-of-Way:	2025
		Construction:	2026

TIP Priority No. 22 ~ Project Summary

Allender Road Culvert No. 1 Replacement

Project Limits: Milepost 0.31 to 0.41

Federal Classification: Rural Local Access (09)

Project Description: Replace existing box culvert with a new box culvert or bridge. The structure will be constructed to allow passage of large storm events and the associated debris and correct the fish passage barrier that can be seen in the photograph.



Basis for Project. This is the first bridge along Allender Road that needs to be replaced. This 30’ long box culvert was constructed in 1958 and is approaching its natural end of service life. The bridge is used by residential traffic and log trucks that access the adjacent timber land. The bridge is currently load restricted for 8 types of trucks. This restricts the loads on log trucks and other trucks that use this roadway. The bridge is narrow and does not meet current roadway standards

Environmental/Safety Considerations: The replacement of this bridge will allow for the unrestricted movement of legal loads through the area which benefits the economy and increases safety because otherwise legal loads that do not meet the bridge load rating standards will no longer be illegally using the bridge and increasing the damage to the structure. If the damage reaches the point of failure, there are approximately one dozen homes that would be isolated from emergency services.

The work would need to meet all permitting requirements to work in and around water which would include mitigation for disturbed wetlands, working during the prescribed fish window and correction of fish passage barriers. WDFW SalmonScape website lists the stream as potential habitat for chinook, coho and steelhead.

Funding Sources: The construction funding is not secured but the project is currently ranked number 1 on the Brian Abbott Fish Barrier Board funding list. The funding should be secured in the summer of 2025 and cover 85% of the costs with a 15% local match.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$240,000	County Funds:	\$612,000
Right-of-Way:	\$100,000	State Grants:	\$3,128,000
Construction:	<u>\$3,400,000</u>	Federal Grants:	<u>\$0</u>
Total:	\$3,740,000	Total:	\$3,740,000
		Engineering:	2025
		Right-of-Way:	2025
		Construction:	2026

TIP Priority No. 23 ~ Project Summary

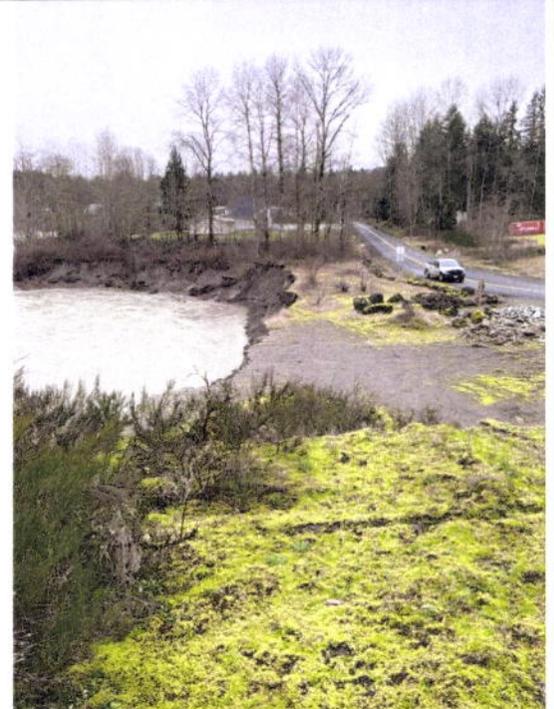
Burma Road Extension (Toutle Park Road Replacement)

Project Limits: Milepost 0.59 to 0.97

Federal Classification: Rural Local Access (09)

Project Description: Establish a new entrance to the gun range and the end of Toutle Park Road by establishing an extension off of Burma Road.

Basis for Project: The Toutle River is eroding its bank. This erosion is approaching Toutle Park Road. Due to the height of the riverbank and the erosive nature of the soils the repair is estimated to span a large section of the river. As an alternative a new roadway will be established north of this location off the end of Burma Road.



Environmental/Safety Considerations: If the Toutle River continues to move towards the roadway the residents and the gun range will be cut off from emergency services and access to town. The establishment of this alternate route will protect the health and safety of the residents.

Funding Sources: This project will be funded by local funds unless FEMA BRIC funding is obtained for a portion of the construction.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$200,000	County Funds:	\$825,000
Right-of-Way:	\$500,000	State Grants:	\$125,000
Construction:	<u>\$1,00,000</u>	Federal Grants:	<u>\$750,000</u>
Total:	\$1,700,000	Total:	\$1,700,000
		Engineering:	2025
		Right-of-Way:	2025
		Construction:	2026

TIP Priority No. 24 ~ Project Summary

Kalama River Road Slide Mitigation

Project Limits: Milepost 13.2 to 13.8

Federal Classification: Rural Collector (07)

Project Description: Currently the County has a geotechnical monitoring project occurring on the roadway. There are inclinometers and a piezometer installed. Readings are being recorded over a minimum of one year. This data will be used to develop an option to minimize future movement. This option will move into design and construction.



Basis for Project: Kalama River Road frequently slides at this location. The roadway must be frequently maintained and is not a full two lanes. A technical memorandum was completed in 2023 recommending site exploration to determine the final mitigation option.

Environmental/Safety Considerations: This portion of the roadway slides creating an uneven and potentially unsafe driving surface. It is currently maintained as gravel.

Funding Sources: This project will be funded by local road funds during the exploration phase. Once a stabilization method is recommended the County will apply for a BRIC grant to contribute to the construction expenses.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$500,000	County Funds:	\$413,000
Right-of-Way:	\$100,000	State Grants:	\$187,000
Construction:	<u>\$1,500,000</u>	Federal Grants:	<u>\$1,125,000</u>
Total:	\$2,100,000	Total:	\$2,100,000
		Engineering:	2025
		Right-of-Way:	2026
		Construction:	2027

TIP Priority No. 25 ~ Project Summary

N Goble Creek Road Box Culvert Replacement

Project Limits: Milepost 1.26 to 1.30

Federal Classification: Rural Local Access (09)

Project Description: This project will replace the existing concrete box culvert with a new structure with a simulated stream bottom that will pass large storm events and provide a passable channel for aquatic organisms during all flow conditions.

Basis for Project: The existing concrete box culvert is reaching end of life and is overwhelmed during large storm events.



Environmental/Safety Considerations: This culvert is considered a blockage to fish trying to swim through the area in different conditions.

During the large storm events the culvert can be overwhelmed, and the roadway can be flooded causing hazardous driving conditions.

Funding Sources: This project will be funded by local funds and Brian Abbott Fish Barrier Removal Board grant.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$450,000	County Funds:	\$537,500
Right-of-Way:	\$50,000	State Grants:	\$2,762,500
Construction:	<u>\$2,800,000</u>	Federal Grants:	<u>\$0</u>
Total:	\$3,300,000	Total:	\$3,300,000
		Engineering:	2025
		Right-of-Way:	2026
		Construction:	2027

TIP Priority No. 26 ~ Project Summary

Powell Road Drainage Improvement

Project Limits: Milepost 0.56 to 0.66

Federal Classification: Rural Major Collector (07)

Project Description: Replace undersized culverts and construct other improvements to improve drainage and address ongoing deposition.

Basis for Project. Existing culverts fill with sediment causing roadway flooding.



Environmental/Safety Considerations: Roadway flooding increases the hazard to drivers and increases the potential for severe accidents.

Funding Sources: This project will be funded by CRAB funds and local road funds.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$55,000	County Funds:	\$380,000
Right-of-Way:	\$20,000	State Grants:	\$495,000
Construction:	<u>\$800,000</u>	Federal Grants:	<u>\$0</u>
Total:	\$875,000	Total:	\$875,000
		Engineering:	2025
		Right-of-Way:	2025
		Construction:	2026

TIP Priority No. 27 ~ Project Summary

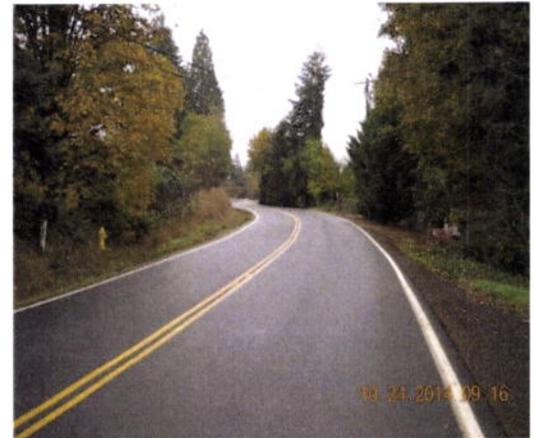
Coal Creek Road – Phase I

Project Limits: Milepost 1.44 to 2.00

Federal Classification: Rural Minor Collector (06)

Project Description: This project will reconstruct the roadway to include two 12-foot wide travel lanes with widened shoulders. Work will include horizontal/vertical alignment improvements where they are needed and practicable. Culverts will be replaced as needed along the roadway.

Basis for Project. Coal Creek Road is the main arterial that connects West Longview to the City of Castle Rock. This roadway is used for timber hauling and access to the timberlands for recreational purposes. These drivers do not have the familiarity with the roadway that the residents have.



Coal Creek Road narrows from 36 feet to 24 feet at this location, increasing the conflict between vehicles and bicyclists/pedestrians. There are various curves both horizontal and vertical that have poor sight distance.

Environmental/Safety Considerations: The existing roadway does not meet current design standards and needs to be upgraded for safety.

In addition, all of the culverts will be reviewed to determine if it is at the end of its useful life, the ability to pass large storm events without overtopping the roadway. At a minimum there is one culvert that is considered a fish passage barrier (Stewart Creek) and will be replaced.

Funding Sources: This project will be funded by a combination of Federal funds, state funds and local road funds.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$400,000	County Funds:	\$440,000
Right-of-Way:	\$100,000	State Grants:	\$1,000,000
Construction:	<u>\$3,100,000</u>	Federal Grants:	<u>\$2,160,000</u>
Total:	\$3,600,000	Total:	\$3,600,000
		Engineering:	2025
		Right-of-Way:	2026
		Construction:	2027

TIP Priority No. 28 ~ Project Summary

Cloverdale Road Drainage Improvements

Project Limits: Milepost 1.75 to 1.81

Federal Classification: Rural Minor Collector (08)

Project Description: This project will replace an existing undersized 5’ box culvert with “bottomless” culvert to safely pass large events.

Basis for Project: Existing culvert is undersized; it regularly has water backed up and has led to water crossing Cloverdale Road.



Environmental/Safety Considerations: When water crosses the roadway it causes safety issues for drivers and can damage the roadway surface.

The frequent backup of water on the face of the embankment erodes the embankment and weakens the structure by saturating the roadway embankment.

This culvert is not documented as a fish barrier, but WDFW SalmonScape indicates that there is potentially steelhead and coho present in the stream.

All work below the ordinary high-water mark will be permitted and work completed per the permit requirements.

Funding Sources: This project will be funded using local road funds and CRAB funding.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$55,000	County Funds:	\$610,000
Right-of-Way:	\$50,000	State Grants:	\$495,000
Construction:	<u>\$1,000,000</u>	Federal Grants:	<u>\$0</u>
Total:	\$1,105,000	Total:	\$1,105,000
		Engineering:	2025
		Right-of-Way:	2025
		Construction:	2026

TIP Priority No. 29 ~ Project Summary

Rose Valley Road Bridge No. 2 Scour Repair

Project Limits: Milepost 1.13 to 1.15

Federal Classification: Rural Major Collector (07)

Project Description: The bridge footing will be stabilized to maintain the integrity of the bridge.

Basis for Project: During the September 2023 inspection of the bridge there was noted an increase in the scour to the western footing of the bridge. A gravel bar has developed on the eastern footing directing the flow towards the western footing. If the scour continues there is the potential of the bridge losing stability and causing a roadway collapse.



Environmental/Safety Considerations: If the bridge collapses the roadway will need to be closed causing drivers including emergency response to be required to find alternate routes. A bridge collapse would block the movement of aquatic organisms.

Funding Sources: This project will be funded by local road funds.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$50,000	County Funds:	\$260,000
Right-of-Way:	\$10,000	State Grants:	\$0
Construction:	<u>\$200,000</u>	Federal Grants:	<u>\$0</u>
Total:	\$260,000	Total:	\$260,000
			Engineering: 2025
			Right-of-Way: 2025
			Construction: 2025

TIP Priority No. 82 ~ Project Summary

ADA Upgrades

Project Limits: Various Locations

Federal Classification: Various Roadway Classifications

Project Description: Replace existing curb ramps with new ramps that meet ADA requirements and install new ramps at intersections that do not include curb ramps.

Basis for Project: The existing sidewalk infrastructure does not meet all of the current ADA requirements. These locations have been identified in the ADA Transition Plan adopted by the County. The first priority will be the ramps in the Lexington area.



Environmental/Safety Considerations: The inadequate curb ramps are a passage barrier for people with disabilities.

Funding Sources: This project will be funded by local road funds.

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$120,000	County Funds:	\$1,200,000
Right-of-Way:	\$30,000	State Grants:	\$0
Construction:	<u>\$1,050,000</u>	Federal Grants:	<u>\$0</u>
Total:	\$1,200,000	Total:	\$1,200,000
		Engineering:	2025
		Right-of-Way:	2025
		Construction:	2025

TIP Priority No. 83 ~ Project Summary

Drainage Improvements

Project Limits: Various Locations

Federal Classification: Various Roadway Classifications

Project Description: Existing mid-sized culverts will be replaced.

Basis for Project: A large number of existing culverts that are midsized (18-inches to 36-inches) are reaching the end of life. For various reasons, (depth, traffic, etc.) these pipes are difficult for the road crew to replace. These culverts will be prioritized as they are identified by the road crews and the culvert inventory.



Environmental/Safety Considerations: If the culverts are not replaced, they could collapse causing roadway failure.

Funding Sources: This project will be funded by local road funds.

Potential Project List: Pacific Way MP 2.10
 Bodine Road MP 0.72
 Englert Road MP 0.66

Financial Summary		Expenditure Schedule	
Expenditures		Funding	
Engineering:	\$300,000	County Funds:	\$1,920,000
Right-of-Way:	\$120,000	State Grants:	\$0
Construction:	<u>\$1,200,000</u>	Federal Grants:	<u>\$0</u>
Total:	\$1,920,000	Total:	\$1,920,000
			Engineering: 2025
			Right-of-Way: 2025
			Construction: 2026

Projects to be constructed after 2026 are summarized in the following table.

Priority No.	Project	Project Type	Project Cost	Construction Year
30	Chapman Road Drainage	Drainage	\$700,000	2027
31	S Toutle Road Culvert Replacement – Studebaker Creek Crossing	Drainage	\$2,000,000	2027
32	Lapham Road Culvert Replacement	Drainage	\$2,000,000	2027
33	Hazel Dell Road Leckler Creek Culvert Replacements	Drainage	\$7,280,000	2028
34	S Toutle Road Culvert Replacement – Outlet Creek Crossing	Drainage	\$1,730,000	2027
35	Fishpond Road and Duncan Road Drainage Improvements	Bridge	\$2,400,000	2028
36	Westover/Lomar Drainage Improvements	Drainage	\$1,800,000	2028
37	I-5 Emergency Bypass (Planning and Design)	Roadway	\$1,500,000	After 2030
38	PH10 Culvert Replacement	Drainage	\$610,000	2028
39	S Goble Creek Box Culvert Replacement	Bridge	\$2,350,000	2029
40	Abermathy Creek Road Repair	Restoration	\$310,000	2028
41	Young Road Widening	Roadway	\$1,350,000	2029
42	Fibre Way Bridge and Mill Creek Bridge #3 Repairs	Bridge	\$707,000	2027
43	Paradise Acres Culvert Replacement	Drainage	\$1,025,000	2028
44	Nevada Drive Safety Improvements	Safety	\$500,000	2028
45	South Silver Lake Road Reconstruction (MP 1.45 to 2.84)	Roadway	\$4,855,000	2029
46	Kalama River Road Slope/Rockfall/ Debris Flow Protection	Safety	\$800,000	2028
47	Holcomb – Ostrander Bypass	Roadway	\$5,150,000	2029
48	Whitewater Road Curve Improvements	Safety	\$440,000	2027
49	Bodine Road Realignment	Safety	\$365,000	2028
50	Mill Creek Road/Oak Point Intersection Improvements	Safety	\$330,000	2028
51	North Bodine Road Drainage Improvements	Drainage	\$610,000	2028
52	Kalama River Road Turn Lanes	Safety	\$185,000	2028
53	Ostrander Road Bridge Replacement	Bridge	\$2,400,000	2028
54	Pacific Way Drainage Improvements	Drainage	\$280,000	2028
55	Kalama River Road Curve Improvements	Safety	\$530,000	2028
56	Allen Street Drainage Improvement	Drainage	\$800,000	2028
57	Martins Bluff Embankment Repair	Landslide	\$470,000	2028
58	Bodine Road Culvert Replacement	Drainage	\$500,000	2028
59	Italian Creek Road Drainage and Roadway Improvements	Drainage	\$380,000	2028
60	Bridge Rail Upgrades	Safety	\$1,190,000	2028
61	Wren Loop/SR 411 Intersection Improvements	Safety	\$360,000	2029

Priority No.	Project	Project Type	Project Cost	Construction Year
62	S Pekin Rd/Pinkerton Dr Intersection Improvements	Safety	\$730,000	2029
63	Coal Creek Road Culverts Replacement	Drainage	\$925,000	2029
64	Kalama River Road Realignment	Safety	\$500,000	2029
65	Coal Creek Road – Phase 2	Roadway	\$1,940,000	2030
66	Primrose Road Culverts and Surface Upgrade	Drainage	\$585,000	2029
67	Englert Culvert Replacement	Drainage	\$570,000	2029
68	Greenwood Road Culvert Replacement	Drainage	\$590,000	2029
69	Ostrander Road/Pacific Avenue N Intersection Improvements	Safety	\$930,000	2029
70	Delameter Road Reconstruction	Roadway	\$3,510,000	2030
71	South Silver Lake Road Reconstruction	Roadway	\$4,100,000	2030
72	Allen Street Improvements	Roadway	\$3,200,000	2030
73	Allen Street/ PG Sweet Intersection Improvements	Safety	\$370,000	2030
74	Headquarters Road Climbing Lane	Safety	\$1,250,000	2030
75	Canal Road Dual Culvert Replacement	Drainage	\$1,010,000	2030
76	Witherbe Road Intersection Improvements	Safety	\$550,000	2030
77	Tower Road Bridge Scour Repair	Bridge	\$400,000	2030
78	Coal Creek Road Reconstruction – Phase 3	Roadway	\$3,510,000	2030
79	West Canyon View Drive Reconstruction	Roadway	\$460,000	2029
80	S Louma Road Turnaround	Roadway	\$410,000	2030
81	Tower Road Improvements (Design only)	Roadway	\$350,000	2030
84	Safety Improvements	Safety	\$1,480,000	2028
85	Slide Improvements	Landslide	\$1,680,000	2028



Cowlitz County Department of Public Works

2024

ANNUAL BRIDGE REPORT



Tower Road – Rock Creek Temporary Bridge

Susan E. Eugenis, P.E.
County Engineer
November 2024



**ANNUAL BRIDGE REPORT
TABLE OF CONTENTS**

INTRODUCTION	Page 1
I. BRIDGE INSPECTIONS	Page 2
II. SCOUR AND LOAD RATINGS	Page 5
III. BRIDGE MAINTENANCE AND REPLACEMENT PROGRAM	Page 6
IV. CRITICAL DAMAGE AND EMERGENCY REPAIRS	Page 9
GLOSSARY OF BRIDGE TERMINOLOGY	Page 11
APPENDICES	Page 13
APPENDIX A – Bridge List***	Page 14
APPENDIX B – Fracture Critical Bridges, Routine Inspections Using Ubit, Underwater Inspection Special Features Bridge List And Scour Critical Bridges***	Page 15

***Included as indicated but numbered independently.

INTRODUCTION

This bridge inspection report is prepared by the Cowlitz County Department of Public Works (CCPW) to fulfill requirements of the Washington Administrative Code (WAC) 136-20-060. This WAC requires the County Engineer's report of bridge inspections as follows:

"Each county engineer shall furnish the county legislative authority with a written resume of the findings of the bridge inspection effort. This report shall be made available to said authority and shall be consulted during the preparation of the proposed six-year transportation program revision. The report shall include the county engineers' recommendations as to replacement, repair or load restriction for each deficient bridge. The resolution of adoption of the six-year transportation program shall include assurances to the effect that the county engineer's report with respect to deficient bridges was available to said authority during the preparation of the program. It is highly recommended that deficient short span bridges, drainage structures, and large culverts be included in said report."

Federal requirements for bridge inspections as documented in the National Bridge Inspection Standards (NBIS) mandate that public agencies inspect and report on all bridges (vehicle-carrying structures with a centerline length of over 20 feet) at least once every twenty-four months. These bridges are referred to as NBIS bridges. Included in the definition of a bridge are culverts that have an opening of greater than 20 feet.

This report summarizes the County's 2024 bridge program which consists of maintaining a bridge inventory, conducting inspections, and performing maintenance and repairs. The bridge program forms an integrated and comprehensive strategy to maintain and preserve the county's bridges and the continuity of the roadway network. The goal of the bridge program is to keep the bridges open, reliable, safe for public use, and to maximize useful life. This report covers the time period from November 1, 2023, through October 31, 2024.

CCPW inspects and inventories a total of 67 County roadway NBIS bridges; see Appendix A. Included in this count are temporary bridges on Pleasant Hill Road and Tower Road. In addition, CCPW inspects 8 NBIS bridges for the Cities of Castle Rock, Kalama, Kelso and Longview and one, the East CC Street/Lewis River Bridge that is located within the City of Woodland and Clark County.

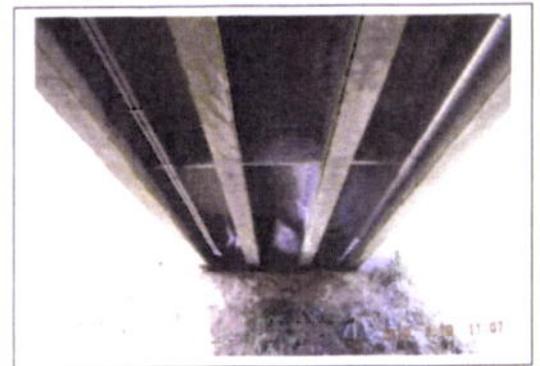
Throughout the report, several references are made to specific bridges, each of which is uniquely identified by name. The complete NBIS bridge inventory and location descriptions are included in Appendix A.

I. BRIDGE INSPECTIONS

As mentioned previously, federal requirements for bridge inspections, as documented in the National Bridge Inspection Standards (NBIS), mandate that public agencies inspect and report on all bridges (vehicle-carrying structures with a centerline length of over 20 feet). The inspection frequency is at least once every twenty-four months. The bridge owner is required to document and report the current condition of each bridge, determine the degree of wear and deterioration, and recommend repairs or needed services. A certified bridge inspector is required to be present at the regularly scheduled inspections. The County has three engineers who are certified bridge inspectors. There are four types of regularly scheduled inspections: Routine, Underwater, Fracture Critical and Special Feature. In addition to the regularly scheduled inspections are Inventory Inspections.

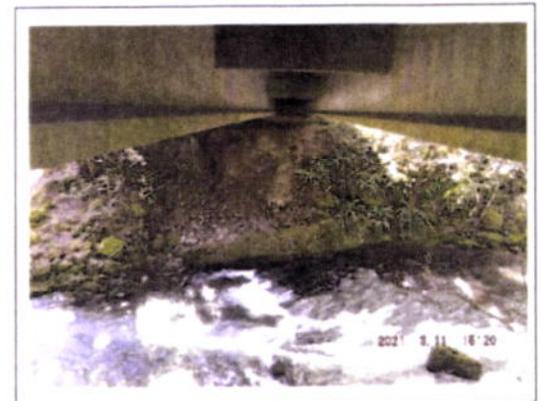
A. Inventory Report and Initial Routine Inspection

Inventory reports document the elements and quantity that make up the bridge such as type of superstructure, girders, deck, bridge rail, substructure, bearings, etc. These elements are determined from the plans. An initial routine inspection is the first inspection at the bridge and verifies the items in the Inventory Report and the baseline condition of the elements. The initial routine inspection is required within 90 days of the completion of construction. There was one Inventory Report and Initial Routine Inspection. This was for the Ostrander Bridge #2 which replaced the Ostrander Box Culvert.



B. Routine Bridge Inspections

The NBIS definition of a routine bridge inspection is a “regularly scheduled inspection consisting of observations and/or measurements needed to determine the physical and functional condition of the bridge, to identify any changes from initial or previously recorded conditions, and to ensure that the structure continues to satisfy present service requirements.” The typical interval for routine inspections is 24 months. For bridges that are not accessible by ladder or simple means, the County contracts with the Washington State Department of Transportation (WSDOT) to utilize an Under Bridge Inspection Truck (UBIT) and crew at a 24, 48 or 72 month frequency in place of the standard routine inspection in those years.



Examples of inaccessible bridges – requires UBIT –
Carlton Loop Bridge I and Gobar Creek Bridges

During routine bridge inspections, inspectors make an in-depth evaluation of the condition of the bridge structure and record information about any observable defects such as cracks in the structure, spalls in concrete, corrosion, wood rot, or scour. When the inspection reveals a deficiency, a repair notation is included with the bridge inspection report. Urgent structural or safety concerns are promptly addressed. Bridge inspection reports are then catalogued and filed with CCPW and WSDOT. Bridges that are outside of Cowlitz County's jurisdiction and owned by local cities receive the same inspections as county-owned bridges under an agreement with the local cities. Reports on these bridges are sent to the city along with any defects or deficiencies observed and recommended repairs. It is then the responsibility of the city to incorporate the recommended bridge maintenance into its budget.



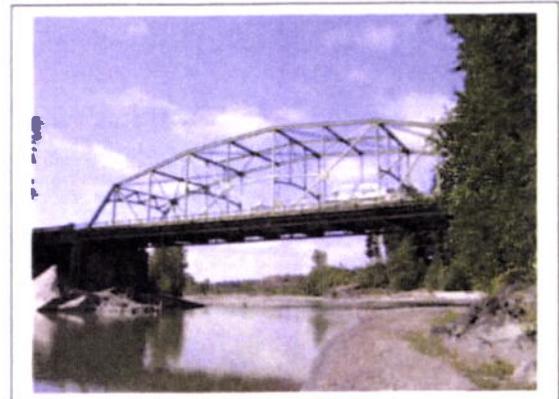
Measuring abutment scour during routine bridge inspection

The inspection and maintenance repair records developed over years of observation enable the engineers to make an assessment of the long-term performance of the structure.

A total of seven routine bridge inspections were conducted on County owned bridges between November 1, 2023 and October 31, 2024. Of these, one routine inspection was completed by WSDOT. Comments, if any, from the bridge inspections are included in the Appendix A Bridge List.

C. Underwater Inspections

Underwater inspections of bridges are required when bridge elements are in water too deep to permit visual inspection. Inspection of the underwater elements of a bridge is required by the NBIS at least once every five years but can be more frequent if scour or damage is evident. Three bridges require underwater inspections. These are the Lexington Bridge, the Lewis River Bridge and the Tower Road Bridge. The Tower Road Bridge has underwater inspections scheduled for every two years. CCPW contracts with WSDOT for the underwater inspections. There were no underwater inspections required during the time period covered by this report.



Toutle River Bridge – fracture critical bridge inspected with UBIT every two years

D. Non-Redundant Steel Tension Member (NSTM) Inspections

Special inspections are required every two years on steel structures that have non redundant steel tension members that is, steel members under tension that could cause partial or total collapse of the bridge if they failed. Cowlitz County has identified a total of two bridges in this category, the Toutle River Bridge and Modrow Road Bridge. The inspection frequency for NSTM bridge inspections is also listed in Appendix B. All the NSTM inspections require the use of a UBIT and are contracted with WSDOT. There were no NSTM inspections completed during this reporting period.

E. Special Feature Inspections

Bridges with special features require inspection of those features. The Lewis River Bridge has a redundant pin – hanger component that requires inspection by UBIT every two years, with ultrasonic testing every four years. Even though it is not considered a ‘special feature’ the Modrow Road Bridge has two pins with ultrasonic testing every two years. These bridges were inspected by WSDOT in 2023 and are scheduled again for inspection in 2025.

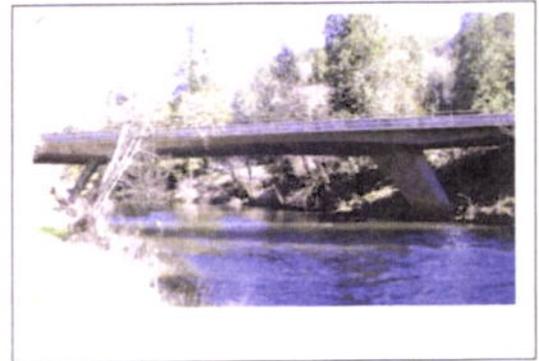


Lewis River Bridge – pin/hanger assembly

F. Other Inspections

The Bridge Monitoring Program tracks any changes to specific bridge members that are of concern or found to be deficient or deteriorating during an inspection. Careful monitoring of bridge deficiencies minimizes disruption to the road network, conserves resources by scheduling repairs when needed, and provides assurance that the bridge is capable of carrying the traffic loads using it.

Two bridges, the Fallert Road Bridge and Rose Valley Road’s White House Bridge are currently in the Monitoring Program. The Fallert Road Bridge is located in an area with unstable soils. Dewatering pumps have been installed to control the groundwater elevation to increase the stability of the soils. Pump operations are checked monthly. The deck on the White House Bridge has a slight



White House Bridge on Rose Valley Road

sag that was discovered in previous inspections. This has been monitored, yearly, for the last several years with no changes noted. This will continue to be surveyed every two years.

Other inspections are carried out as needed. These include inspections of bridges after flood events, after significant seismic events, for structural damage from collisions, and for effects of vandalism and theft such as theft of bridge rail. In addition to inspection by the bridge inspectors, the area road crew supervisors and county personnel provide valuable day to day assistance.

G. Short Span Bridges

Short span bridges are defined as structures having a span of 20’ or less, and generally have a span of at least 6’. The CCPW has been developing an inventory of short span bridges. This inventory is approximately 95% complete.

H. Bridge Inspection Reports

CCPW maintains the inspection results in a database called Bridgeworks developed by WSDOT. Periodic updates are sent to WSDOT Local Programs who in turn verify compliance with the NBIS and report to the Federal Highway Administration (FHWA). In addition, CCPW maintains a file for

each bridge that includes the inspection reports, bridge inventory, photos, load rating and additional documents relevant to the bridge such as scour reports, scour plan of actions, critical damage reports, etc.

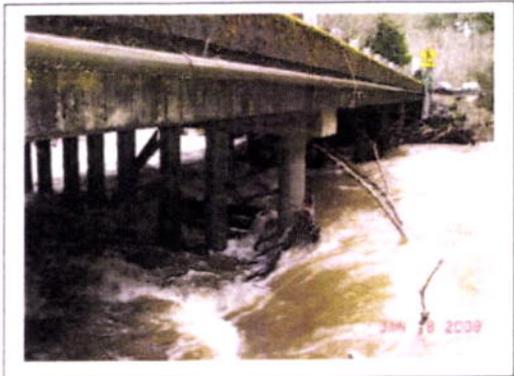
I. FHWA Compliance Review

FHWA along with the WSDOT Local Programs Bridge Engineer conducted a spot check of two bridges in 2023. We provided them with the information requested.

II. SCOUR AND LOAD RATINGS

A. Scour Evaluation

In 1988, federal requirements for bridge inspections were updated to include mandatory scour evaluations for all bridges that cross water. The update, which was implemented in response to the 1987 collapse of the Schoharie Bridge in New York, focused national attention on the issue. Scour evaluations examine bridge abutments and piers that may be damaged as a result of debris buildup or water surging around the structure and eroding foundation soils.



Mill Creek Bridge #1 - high water

The implementation of the federally mandated scour evaluation program in the State of Washington requires all agencies responsible for bridges to complete scour evaluations. If a bridge is determined to be susceptible to scour damage, it is designated as “scour critical”, and a scour plan of action is developed.

Of Cowlitz County’s bridges, 4 have been determined to be “scour critical.” Appendix B has a list of scour critical bridges. These bridges are monitored during or immediately after high water events and scour conditions are reviewed at each inspection.

B. Load Rating

A 1988 amendment to the NBIS by the FHWA required that all bridges be load rated and that load-restricted bridges be posted. The American Association of State Highway and Transportation Officials (AASHTO) publishes standard practices for load rating bridges. A bridge load rating is the measure of a bridge’s load-carrying capacity. There are two capacity levels: the Inventory Rating and the Operating Rating. The Inventory Rating is the load that a bridge can safely carry for an indefinite number of loading cycles (vehicles) without detriment to the bridge. The Operating Rating is the maximum load that can be carried on an infrequent basis without detriment to the bridge.

In addition, bridges have been load rated for three standard size vehicles, specialized haul vehicles (SHV) and two overload vehicles. Overload vehicles are required to obtain permits for travel on roadways and bridges. CCPW issues permits for overload and oversize vehicles.

A requirement from FHWA is that the SHV vehicles be load rated. FHWA guidance divided the bridges into two Groups based on bridge length and existing load ratings. All County bridges have been load rated per the FHWA requirements.

C. Current Status of Load-Restricted Bridges

There are thirteen Cowlitz County bridges with posted load restrictions. This total increased from three to ten in 2018 with an additional three bridges being added to the list with the latest load ratings. Whenever feasible, the load-carrying capacity of a bridge is increased so that it can carry legally loaded trucks. The thirteen load limited bridges are Abernathy Creek Bridge #2, Allender Road Bridge, Allender Road Culvert, Barnes Drive Bridge, Cline Road Bridge, Goble Creek Bridge, Holcomb Road Bridge, Modrow Road Bridge, Ostrander Road Bridge, Owl Creek Bridge, Slide Creek Road Bridge #1, Toutle River Bridge and Wren Loop Road Bridge. The Pacific Avenue North Half Bridge has been replaced and load posting is no longer needed. The Owl Creek Bridge has been selected for replacement. The Allender Road Bridge Replacement project is being designed. The Allender Road Culvert has received funding for the construction of a replacement through Fish Recovery Funds. The remainder of the bridges either receive little traffic or the bridge posting is close to legal loads and generally does not restrict normal traffic. The Holcomb Road and Goble Creek bridges are posted for one truck at a time.



Bridge load posting

III. BRIDGE MAINTENANCE AND REPLACEMENT PROGRAM

Funding for the replacement or rehabilitation of a bridge occurs primarily through a federal grant program for funding bridge replacement projects, on occasion with funds to remove fish passage barriers and with County funds. In addition, FEMA or FHWA emergency funds may be available if the bridge was damaged in an eligible disaster.

Bridge structures are built to provide service for an estimated service life. The expected service life of a bridge is based on design type, construction materials, environmental conditions, and truck traffic and is generally considered to be 50 to 75 years. Additional maintenance and rehabilitation can extend the life of the bridge longer. Thirty-five County bridges were built in 1974 or earlier and are 50 years old or older, with three of these bridges being older than 81 years, seven being between 71 and 80 years old, eighteen being between 61-70 years old, and seven bridges being between 50 and 60 years old. This aging of infrastructure will result in additional maintenance, rehabilitation and replacement costs in the near future. Since funding sources have



Box culvert that restricts fish passage

been unpredictable, it would be prudent to prepare for the replacement or rehabilitation of approximately one bridge per year, as more bridges attain 75 years of life.

The main federal funding program available to the County had formerly been called BRAC funding in reference to the Bridge Replacement Advisory Committee (BRAC). Federal funds from the Highway Bridge Program (HBP) were made available through this state-managed program. This funding is now through the Surface Transportation Block Grant program with a 'set-aside' for Off-system bridges. Off-system bridges are local agency bridges that are off the federal aid system, generally the lower volume roadways. This program will be referred to as STP(BR) from now on in this document. WSDOT manages these federal funds and issues a "Call for Bridge Projects" once annually or every other year. Bridges eligible for replacement have the deck, substructure or superstructure rated 4 or less (poor or worse condition) or structural condition or waterway adequacy rated 2 or less (floods frequently or very restrictive load rating). These bridges are not inherently unsafe, it typically requires more maintenance or monitoring or truck restrictions.

Funding is also available for major maintenance (such as bridge painting), seismic retrofits and scour repairs. The federal program does not always pay for 100% of the cost. Replacement/rehabilitation of bridges currently requires a 10% local match, while preventative maintenance projects do not require a local match.

Another federal funding program (PROTECT) was utilized to design a replacement culvert on Abernathy Creek Road at Erick Creek. The construction is currently in progress. Three more culvert replacements are in the design phase using this funding source.

A. Bridge Replacement

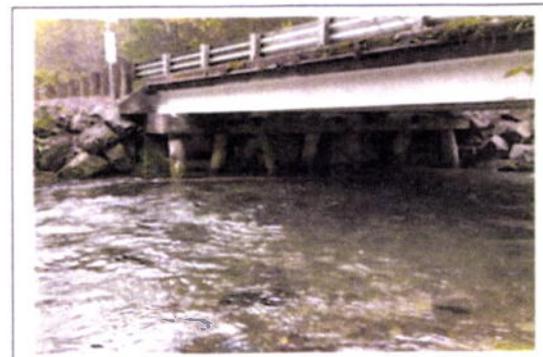
The STP(BR) program funds bridge replacement for deficient bridges that are over 20 feet in length. The Pacific Avenue North half bridge replacement was completed in 2023. The Allender Road Bridge has been selected for replacement funding with



Culvert that provides fish passage



Owl Creek Bridge - Concrete Beam Deterioration



Abernathy Creek Road Bridge #2 - Painting Project Completed

construction scheduled for 2024. It is in the design, permitting and right of way stage. The Owl Creek Bridge has also been selected for replacement funding, with design beginning in 2024.

B. Major Maintenance

Major maintenance is also a part of the STP(BR) program. There is one project active at this time for major maintenance. The Abernathy Creek Bridge #2 painting project was selected for maintenance funding as of December 30, 2019. This maintenance project has been completed.

C. Seismic Retrofit

Cowlitz County had four bridges whose superstructures were identified as being vulnerable to collapse in the event of a significant seismic event. The Toutle River Bridge was retrofitted in 2003. The South Toutle, Meeker Drive (now within the City of Kalama) and Lewis River Bridges were retrofitted in 2005. The retrofit is designed to prevent collapse of the superstructure, but damage may still occur to the bridge. Inspections of bridges are required after a significant seismic event. There have not been any additional seismic retrofits since 2005 and no additional bridge superstructures have been identified as being vulnerable to collapse due to a seismic event.



Lewis River Bridge Seismic Retrofit

D. Non-federal and County Funded Capital Improvement Projects

If outside funding is not available, then County Funds are required to complete improvements to a bridge or construction of new bridges. In addition, new bridges or existing box culverts may be funded by various agencies to promote fish passage. Several County projects have been funded for fish barrier removal projects in the last couple of years. These are the Turner Creek culvert on Rose Valley Road, a bridge on Coyote Lane over Baxter Creek, a new culvert on Garlock Road at Delameter Creek and a new culvert on Ostrander Road near McGeary Road at Ostrander Creek.

Construction of the Turner Creek Culvert, Coyote Lane Bridge over Baxter Creek, and the Ostrander Road culvert are complete. The Garlock Road Culvert design is complete and construction is scheduled for 2025. Additional culvert projects are being pursued with Allender Road and N Goble Creek Road Culverts being selected for funding.

E. Bridge Maintenance Projects

Proper maintenance on all bridges is critical to achieving the full-service life each bridge was designed to provide.

CCPW preserves the county's bridges by employing effective maintenance and repair techniques. CCPW implements repairs primarily using county maintenance crews and through construction contracts.



Mill Creek Road Bridge #1 deck damage

Routine and special inspections reveal deficiencies in bridges including steel corrosion, rotten timbers, wear and tear on the bridge decks, bank erosion, and cracked and spalled concrete, as well as damaged guardrail from vehicle impacts. Problems are identified by bridge inspectors during inspections and are documented in each bridge inspection report.

The causes of bridge deficiencies in Cowlitz County's inventory include scour from stream flow, normal use and weathering, increasing amounts of traffic on roads, and heavier and more frequent truck traffic.

IV. CRITICAL DAMAGE AND EMERGENCY REPAIRS

A bridge is considered to have 'Critical Damage' when a bridge fails, a temporary lane or bridge closure is required due to damage or an inspection result in the temporary load posting of the bridge. Critical Damage – Bridge Repair Reports must be completed if this situation arises. There was one critical damage report required in 2021 for the South Toutle Road Bridge when anchor bolts tying down one end of the bridge failed. The County's on-call engineer designed a repair and an emergency contract to implement the repair was completed in March 2022.



South Toutle Road Bridge Anchor bolt fracture

Emergency repairs due to damage sustained during federally declared disasters are eligible for either FEMA or FHWA Emergency Repair (ER) funding. When FEMA and FHWA participate in the repair or reconstruction of damaged facilities the local agency is required to match up to 13.5% of the federal funds with local funds. A 10' diameter culvert on Pleasant Hill Road failed due to high water in 2021. The culvert was removed and a temporary bridge installed to reopen the road. A permanent bridge will be designed to replace the temporary bridge. This project will be funded by FEMA.



Pleasant Hill Road Culvert Failure



Pleasant Hill Road Temporary Bridge

In addition to the Pleasant Hill Road Culvert failure in 2021, a pair of culverts along with the roadway were washed out where Rock Creek crosses under Tower Road. Unfortunately, this project was not eligible for federal funding. The County used emergency procedures to purchase another temporary bridge and hire a contractor to install the temporary bridge. This bridge is 140 feet long and 16' wide. The temporary bridge was installed in January 2023.



Rock Creek Culvert failure on Tower Road.

GLOSSARY OF BRIDGE TERMINOLOGY

Abutment – A substructure supporting the end of a single span, or the extreme end of a multispan superstructure, and in general, retaining or supporting the approach fill.

Backwall – The top-most portion of an abutment functioning primarily as a retaining wall to contain approach roadway fill.

Bent – A supporting unit of the beams of a span made up of one or more column or column-like members connected at their top-most ends by a cap, strut, or other horizontal member.

Bracing – A system of tension or compression members, or a combination of these, connected to the parts to be supported or strengthened by a truss or frame. It transfers wind, dynamic, impact, and vibratory stresses to the substructure and gives rigidity throughout the complete assemblage. Can also refer to diagonal members that tie two or more columns of a bent together.

Cap – The horizontally-oriented, top-most piece or member of a bent serving to distribute the beam loads upon the columns and to hold the beams in their proper relative positions.

Chord – In a truss, the upper-most and the lower-most longitudinal members, extending the full length of the truss.

Compression – A type of stress involving pressing together; tends to shorten a member; opposite of tension.

Deck – Portion of a bridge that provides direct support for vehicular and pedestrian traffic.

Elastomeric pads – Rectangular pads made of neoprene, found between the sub- and superstructure that bears the entire weight of the superstructure. Elastomeric pads can deform to allow for thermal movements of the superstructure.

Endwall – The wall located directly under each end of a bridge that holds back approach roadway fill. The endwall is part of the abutment.

Non-redundant steel tension member (NSTM) – A member in tension or with a tension element whose failure would probably cause a portion of or the entire bridge to collapse.

Pier – A structure composed of stone, concrete, brick, steel, or wood that supports the ends of the spans of a multispan superstructure at an intermediate location between abutments. A pier is usually a solid structure as opposed to a bent, which is usually made up of columns.

Pile – A rod or shaft-like linear member of timber, steel, concrete, or composite materials driven into the earth to carry structure loads into the soil.

Post or column – A member resisting compressive stresses, in a vertical or near vertical position.

PROTECT – Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation Program

Scour – Erosive action of removing streambed material around bridge substructure due to water flow. Scour is of particular concern during high-water events.

Soffit – The underside of the bridge deck or sidewalk.

Spall – A concrete deficiency wherein a portion of the concrete surface is popped off from the main structure due to the expansive forces of corroding steel rebar underneath or due to impact. This is especially common on older concrete bridges.

Stringer – A longitudinal beam (less than 30' long) supporting the bridge deck, and in large bridges, framed into or upon the floor beams.

Substructure – The abutment, piers, or other structure built to support the span or spans of a bridge superstructure. Includes abutments, piers, bents, and bearings.

Superstructure – The entire portion of a bridge structure which primarily receives and supports traffic loads and in turn transfers the reactions to the bridge substructure; usually consists of the deck and beams or in the case of a truss bridge, the entire truss.

Tension – Type of stress involving an action which pulls apart.

Trestle – A bridge structure consisting of beam spans supported upon bents. Trestles are usually made of timber and have numerous diagonal braces, both within each bent and from bent to bent.

Wheelrail – A timber curb fastened directly to the deck, most commonly found on all-timber bridges.

Wingwall – Walls that slant outward from the corners of the overall bridge or that run parallel to the roadway that support roadway fill of the approach.

APPENDICES

Appendix A - Bridge list

**Appendix B - Fracture Critical, UBIT, Underwater Inspection, Special Features
Bridge List and Scour Critical Bridges**

APPENDIX A

BRIDGE LIST

Bridge List

Road Name	Milepost	Road Number	Bridge Name	Year Built	Structure Type	Comments
Abernathy Creek Road	1.40	20930	Abernathy Creek Bridge 1	2005	CONCRETE prestressed girder.	
Abernathy Creek Road	4.34	20930	Abernathy Creek Bridge 2	1962	STEEL girder with concrete slab.	Bridge painting is completed. Posted for weight restrictions.
Abernathy Creek Road	5.62	20930	Abernathy Creek Bridge 3	1976	CONCRETE prestressed girder.	
Allender Road	0.36	28000	Allender Rd Culvert 1	1953	CONCRETE double 10' x 12' Box Culvert.	Posted for weight restrictions. Add guardrail. Monitor scour under downstream concrete apron. Funding has been secured to design a replacement structure.
Allender Road	0.74	28000	Allender Rd Bridge	1958	CONCRETE slab on timber piling.	Posted for weight restrictions. Funding has been secured to replace the bridge.
Allender Road	0.97	28000	Allender Rd Culvert 2	1955	CONCRETE double 10' x 10' Box Culvert.	Add guardrail and remove debris.
Barnes Drive	4.23	57490	Barnes Dr Bridge	1923	CONCRETE continuous slab.	Posted for weight restrictions. Monitor cracks in bottom of slab.
Cameron Creek Road	1.28	20850	Cameron Creek Bridge	1997	CONCRETE prestressed girder.	
Carlton Loop Road	0.06	22570	Carlton Loop Rd Bridge 1	1976	CONCRETE prestressed girder.	Perform scour evaluation. Monitor erosion at wing walls.
Carlton Loop Road	1.22	22570	Carlton Loop Rd Bridge 2	1963	STEEL girder with concrete slab.	Monitor erosion under block wall on northwest side of bridge.
Cline Road	0.57	25510	Cline Rd Bridge	1959	CONCRETE continuous slab.	Posted for weight restrictions. Monitor erosion at south abutment.
Coyote Lane	0.16	27120	Baxter Creek Bridge	2020	CONCRETE prestressed girder.	
Delameter Road	0.59	20901	Arkansas Creek Culvert	1953	CONCRETE double 10' x 12' Box Culvert with 12' Diam. CMP overflow pipe.	Monitor CMP pipe for corrosion.
Delameter Road	0.91	20901	Delameter Bridge	1958	CONCRETE continuous slab on timber piles.	
Delameter Road	1.56	20901	Delameter Culvert	1954	CONCRETE double 12' x 15' Box Culvert.	Monitor erosion at end of wing wall.
Delameter Road	2.74	20901	Monahan Creek Culvert	2003	METAL Bottomless Arch Culvert.	
Duncan Road	0.30	42600	Duncan Rd Bridge 2	2003	CONCRETE prestressed slab.	Monitor hydraulic capacity under bridge due to aggradation of streambed.
East CC Street	0.14	93030	Lewis River Bridge	1966	STEEL continuous girders with concrete slab.	Located in City of Woodland and Clark County.
Fallert Road	0.03	35600	Fallert Rd Bridge	1985	CONCRETE post-tensioned tee beam girder.	North abutment is monitored for movement due to landslide.

Bridge List

Road Name	Milepost	Road Number	Bridge Name	Year Built	Structure Type	Comments
Fibre Way	0.36	10310	Fibre Way Bridge	2002	CONCRETE prestressed girder.	Repair concrete spalls at abutment. Repair settling at approach
Goble Creek Loop Road South	1.48	49671	Goble Creek Culvert	1949	CONCRETE triple 10' x 8' Box Culvert.	Monitor for debris buildup during high water events.
Growlers Gulch Road	0.27	27100	Growlers Gulch Rd Culvert	1953	CONCRETE double 10' x 12' Box Culvert.	Replace guardrail. Remove debris from upstream end.
Hackett Road	0.30	22830	Hackett Rd Bridge	1975	CONCRETE rib deck.	Monitor erosion behind southeast wingwall.
Hansen Road	0.55	58890	Hansen Rd Culvert	1969	CONCRETE triple 10' x 8' Box Culvert.	Monitor scour under downstream concrete apron.
Harmony Drive	0.35	21810	Harmony Dr Bridge 1	1953	CONCRETE continuous slab.	
Holcomb Road	4.79	52920	Holcomb Rd Bridge	1968	STEEL continuous girder with concrete slab.	Posted for one truck at a time.
Inglewood Drive	1.59	18100	Inglewood Dr Bridge	1997	CONCRETE slab.	
Kalama River Road	14.16	40000	Summers Creek Bridge	2010	CONCRETE prestressed tee beam.	
Kalama River Road	16.11	40000	Wild Horse Creek Bridge	2001	CONCRETE prestressed tee beam.	
Kalama River Road	16.67	40000	Gobar Creek Bridge	1975	CONCRETE prestressed girder.	Monitor erosion of slope under bridge at each inspection.
Lexington Bridge Drive	0.19	19500	Lexington Bridge	2007	CONCRETE continuous prestressed girder.	
Maple Hill Road South	0.04	42450	Maple Hill Rd S Culvert	1954	CONCRETE double 10' x 6' Box Culvert.	
Miekler Road	0.08	57400	Miekler Rd Bridge	2007	CONCRETE slab.	
Mill Creek Road	0.19	20570	Mill Creek Bridge 1	1958	CONCRETE continuous slab on concrete piles.	Monitor deck condition.
Mill Creek Road	1.47	20570	Mill Creek Bridge 2	1960	CONCRETE continuous slab on concrete piers.	
Mill Creek Road	1.66	20570	Mill Creek Bridge 3	1960	CONCRETE continuous slab on concrete piles.	
Modrow Road	0.01	35350	Modrow Rd Bridge	1958	STEEL arch with concrete slab.	Posted for weight restrictions.
Nevada Drive	1.26	13860	Nevada Dr Bridge	2000	CONCRETE prestressed slab.	

Bridge List

Road Name	Milepost	Road Number	Bridge Name	Year Built	Structure Type	Comments
North Hendrickson Drive	1.92	34650	N Hendrickson Dr Bridge	2001	STEEL girder with conc. deck. Conc. girder on approach spans.	
Old 99 South	1.00	41000	Owl Creek Bridge	1922	CONCRETE tee beam girder / slab.	Posted for weight restrictions. Spalling, cracks and exposed rebar in girders and columns. Replacement funding has been secured.
Old Pacific Hwy North	2.48	56930	Toutle River Bridge	1935	STEEL thru-truss.	Posted for weight restrictions.
Ostrander Road	0.39	53700	Ostrander Bridge	1962	STEEL girder with concrete deck.	Posted for weight restrictions. Repair scour at west abutment. Remove debris, clean bearings.
Ostrander Road	0.66	53700	Ostrander Bridge 2	2024	Concrete prestressed girder with cast in place deck.	New bridge completed in 2024.
Pacific Avenue North	1.84	52030	Pacific Ave N Bridge 1	2023	CONCRETE prestressed tee beam with asphalt surface.	
Pacific Avenue North	2.24	52030	Pacific Ave N Bridge	1994	CONCRETE continuous prestressed tee beam girder.	
Pleasant Hill Road	4.68	50500	Temporary Bridge	2021	Steel Girder	Temporary bridge installed in 2021 to replace failed 10' diameter culvert. Permanent bridge is being designed.
Quick Road	0.63	26300	Quick Rd Culvert	1999	CONCRETE prestressed culvert.	
Rose Valley Road	1.04	40110	Rose Valley Rd Bridge 1	1957	CONCRETE slab.	
Rose Valley Road	1.14	40110	Rose Valley Rd Bridge 2	1957	CONCRETE slab.	Monitor scour at west abutment.
Rose Valley Road	3.78	40110	Turner Creek Culvert	2020	METAL Bottomless Arch Culvert.	
Rose Valley Road	5.65	40110	Goble Creek Bridge	1958	CONCRETE slab.	Posted for weight restrictions.
Rose Valley Road	9.41	40110	White House Bridge	1974	CONCRETE continuous slab.	Sag in deck being monitored every two years. No change has been noted to date.
Rose Valley Road	11.91	40110	Mulholland Creek Bridge	2008	CONCRETE prestressed girder.	
Sightly Road	0.03	58990	Slightly Rd Culvert	1956	CONCRETE double 10' x 12' Box Culvert.	Monitor scour under downstream apron.
Slide Creek Road	0.05	21010	Slide Creek Rd Bridge 1	1952	TIMBER girder and deck with asphalt surface.	Posted for weight restrictions.
Slide Creek Road	1.19	21010	Slide Creek Rd Bridge 2	1978	CONCRETE slab.	Monitor hydraulic capacity under bridge.

Bridge List

Road Name	Milepost	Road Number	Bridge Name	Year Built	Structure Type	Comments
South Toutle Road	0.21	51700	South Toutle Rd Culvert	1950	CONCRETE double 10' x 12' Box Culvert.	Monitor scour under downstream apron. There is exposed reinforcing steel in culvert bottom.
South Toutle Road	1.16	51700	South Toutle Bridge	1971	STEEL continuous girder with concrete deck.	Monitor scour at pier 3. Anchor bolts have been retrofitted at Abutment 1 and 4.
Spruce Creek Road	0.01	20410	Spruce Creek Rd Bridge 1	2004	CONCRETE prestressed girders.	
Spruce Creek Road	0.59	20410	Spruce Creek Rd Bridge 2	1966	CONCRETE prestressed slab.	Monitor for scour of abutments and footings.
Tower Road	4.52	51200	Rock Creek Temporary Bridge	2023	Steel truss	Temporary bridge to replace washed out culvert and roadway. Permanent bridge is being designed.
Tower Road	2.92	51200	Tower Rd Bridge	1981	CONCRETE continuous prestressed girder.	Monitor scour at Pier 3 until scour prevention measures are installed. Underwater inspections scheduled every two years. Bridge superstructure built in 1981 on top of year 1948 piers.
West Kalama River Road	0.13	40300	W Kalama River Rd Bridge	1976	CONCRETE continuous prestressed girder.	Center piers and girders inspected with UBIT by WSDOT in 2022.
West Side Highway	7.24	26000	Olequa Creek Bridge	1978	CONCRETE continuous prestressed girder.	Perform scour evaluation.
Wiest Road	0.01	21150	Wiest Rd Bridge 1	1993	CONCRETE prestressed tee beam girder.	
Wiest Road	0.70	21150	Wiest Rd Bridge 2	1972	CONCRETE slab.	
Wren Loop Road	0.52	24510	Wren Loop Rd Bridge	1960	CONCRETE continuous slab on concrete piling.	Posted for weight restrictions.

APPENDIX B

FRACTURE CRITICAL BRIDGES, ROUTINE INSPECTIONS USING UBIT, UNDERWATER INSPECTION SPECIAL FEATURES BRIDGE LIST AND SCOUR CRITICAL BRIDGES

NSTM BRIDGES

<u>INSPECTION FREQUENCY (MONTHS)</u>	<u>BRIDGE NAME</u>	<u>NEXT INSPECTION DATE</u>
24	Modrow Road Bridge	03-2025
24	Toutle River Bridge	03-2025

ROUTINE INSPECTIONS USING UBIT

<u>INSPECTION FREQUENCY (MONTHS)</u>	<u>BRIDGE NAME</u>	<u>NEXT UBIT INSPECTION DATE</u>
24	Lewis River Bridge	03-2025
24	Slide Creek Bridge 1	05-2026
48	Holcomb Road Bridge	03-2027
48	N. Hendrickson Drive Bridge	03-2025
48	South Toutle Bridge	03-2025
72	Carlson Loop Road Bridge 1	03-2029
72	Fallert Road Bridge	03-2029
72	Gobar Creek Bridge	03-2029
72	Lexington Bridge	08-2026
72	Olequa Creek Bridge	03-2029
72	Tower Road Bridge	03-2029
72	White House Bridge	03-2029

UNDERWATER INSPECTION

<u>INSPECTION FREQUENCY (MONTHS)</u>	<u>BRIDGE NAME</u>	<u>NEXT INSPECTION DATE</u>
24	Tower Road Bridge	07-2025
60	Lewis River Bridge	09-2027
60	Lexington Bridge	07-2028

SPECIAL FEATURE

<u>INSPECTION FREQUENCY (MONTHS)</u>	<u>BRIDGE NAME</u>	<u>NEXT INSPECTION DATE</u>
24	Lewis River Bridge	03-2025
24	Modrow Road Bridge	03-2025

SCOUR CRITICAL BRIDGES

<u>BRIDGE NAME</u>
Modrow Road Bridge
Ostrander Road Bridge
South Toutle Road Bridge
Tower Road Bridge

END OF REPORT

2025-2030 TRANSPORTATION IMPROVEMENT PROGRAM

PRIORITY ARRAY

PRIORITY RANKING	ROAD #	ROAD NAME	COUNTY SHOP	FUNCTIONAL CLASS	LOCATION		VOLUME			ROAD GEOMETRICS										SURFACE				CALCULATIONS						SCORING				PRIORITY RANKING				
					BEGINNING LIMIT	ENDING LIMIT	BEGINNING MILEPOST	ENDING MILEPOST	YEAR	ADT	PDO	INJURY	FATAL	REQUIRED ROADWAY WIDTH	TOTAL ROADWAY WIDTH	PWMT WIDTH	SHOULDER WIDTH (LEFT)	SHOULDER WIDTH (RIGHT)	CURB/GUTTER	SIDEWALKS	MINIMUM DESIGN SPEED	SAFE SPEED	SLOPE DROP-OFF	SLOPE	PERCENTAGE	GUARDRAIL (YES, NO)	PAVEMENT (AC, PCC, BST, GRAVEL)	SHOULDER (LEFT)	SHOULDER (RIGHT)	STRUCTURAL RATING	SEGMENT COMPLETED TO FULL BUILD-OUT	SAFETY CALC	ROADWAY WIDTH CALC		ALIGNMENT SCORE	SLOPE CALC	STRUCTURAL CALC	(MAX. 30 POINTS)
1	40000	KALAMA RIVER RD	KALAMA	07	NORRIS PIT ROAD	MODROW ROAD	1.23	15	2139	1	0	0	0	36	38	28	1.8	8.5	NONE/NONE	40	25	5	NO	BST	GRAVEL/GRAVEL	FAIR	NO	7.84	0.00	0.38	7.00	10.00	10	5	36.4	21.4	628	1
2	40110	ROSE VALLEY RD	KELSO	07	06 mi before NW GASLINE	CUNNINGHAM RD INTER	1.61	17	3028	4	0	0	0	36	31	29	0	2.5	NONE/NONE	40	20	1.25	YES	BST	GRAVEL/GRAVEL	GOOD	NO	8.10	5.00	0.50	10.00	0.00	0	5	45.4	0.0	504	2
3	22740	COAL CREEK RD	LONG	16	STEWART CREEK RD	WOODSIDE DRIVE	2.09	18	2937	4	0	0	0	44	34	30	2	2.5	NONE/NONE	50	35	5	YES	BST	GRAVEL/GRAVEL	GOOD	NO	13.42	10.00	0.30	5.00	0.00	0	5	44.1	0.0	491	3
4	40110	ROSE VALLEY RD	KELSO	07	CUNNINGHAM ROAD	2124 ROSE VALLEY ROAD	2.28	17	1756	4	0	0	0	36	28	27	0	0.5	NONE/NONE	40	20	1.25	NO	BST	GRAVEL/GRAVEL	GOOD	NO	15.00	10.00	0.50	10.00	4.25	0	5	42.6	0.0	476	4
5	21810	HARMONY DR	LONG	16	COAL CREEK RD	02 mi NW HARMONY BR	0.00	0.37	2236	1	0	0	0	44	36	33	2	1	NONE/NONE	40	25	5	YES	BST	GRAVEL/GRAVEL	GOOD	NO	3.31	10.00	0.33	7.00	0.00	0	5	36.0	0.0	430	5
6	50400	MT BRYNION RD	KELSO	07	KELSO CITY LIMITS	NW NATURAL GAS LINE	0.14	17	1389	4	0	0	0	36	21	19	2	0	RIGHT/NONE	30	20	5	NO	BST	GRAVEL/GRAVEL	GOOD	NO	4.99	10.00	0.33	7.00	0.00	0	5	37.5	0.0	425	6
7	22740	COAL CREEK RD	LONG	16	PACIFIC WAY	STEWART CREEK RD	0.27	0.09	15	4420	14	0	0	40	42	34	4	4	BOTH/NONE	40	35	5	NO	BST	GRAVEL/GRAVEL	GOOD	YES	13.62	3.00	0.30	5.00	10.00	0	5	79.6	0.0	423	7
8	11030	46TH AVE	LONG	17	LV CITY LIMITS	OCEAN BEACH HWY	0.52	0.55	18	2750	3	0	0	40	39	39	0	0	BOTH/NONE	40	25	0	NO	BST	GRAVEL/GRAVEL	GOOD	NO	99.30	1.00	0.38	7.00	0.00	0	20	22.1	0.0	421	8
9	41000	OLD 99 S	KELSO	17	LAUREL ROAD	OLSON ROAD	1.70	2.28	15	4319	6	5	0	40	33	33	0	0	BOTH/NONE	40	30	1.25	NO	BST	GRAVEL/GRAVEL	GOOD	YES	17.50	10.00	0.25	5.00	2.25	0	5	74.5	0.0	398	9
10	11401	COLUMBIA HEIGHTS RD	LONG	16	LV CITY LIMITS	ROSE VALLEY ROAD	0.91	1.05	15	6247	2	4	0	44	39	37	13	9	NONE/NONE	50	35	3	NO	BST	GRAVEL/GRAVEL	GOOD	YES	31.33	0.00	0.20	3.00	8.00	0	10	68.7	0.0	394	10
11	20901	DELAMETER RD	CR	07	CLINE ROAD	MELTON ROAD	0.90	2.33	22	1145	7	1	0	36	32	26	2	4	NONE/NONE	50	35	3.75	YES	BST	GRAVEL/GRAVEL	POOR	NO	15.06	5.00	0.30	5.00	0.00	20	5	11.5	22.9	394	11
12	11000	PACIFIC WAY	LONG	16	LV CITY LIMITS	38TH AVENUE	1.52	1.92	15	6413	13	2	0	44	38	26	5.25	7.25	NONE/NONE	35	35	0	NO	BST	GRAVEL/GRAVEL	GOOD	NO	24.21	10.00	0.00	1.00	0.00	0	5	70.5	0.0	378	12
13	13660	NEVADA DR	LONG	17	COLUMBIA HEIGHTS RD	WEST SIDE HWY	0.00	1.43	18	6043	8	11	0	40	27	27	0	0	BOTH/NONE	40	25	3.75	YES	BST	GRAVEL/GRAVEL	GOOD	YES	14.22	10.00	0.38	7.00	0.00	0	5	68.7	0.0	369	13
14	40110	ROSE VALLEY RD	KELSO	08	2124 ROSE VALLEY ROAD	GOBLE CREEK LOOP RD	3.32	5.66	23	1888	10	5	0	30	29	24	4	0	NONE/NONE	40	25	3.75	NO	BST	GRAVEL/GRAVEL	GOOD	NO	12.40	1.00	0.38	7.00	8.75	0	5	31.6	0.0	366	14
15	40000	KALAMA RIVER RD	KALAMA	07	MODROW ROAD	FALLERT CRK HATCHERY	1.23	3.09	15	1396	5	4	0	36	33	24	4.6	4	NONE/NONE	40	25	5	YES	BST	GRAVEL/GRAVEL	FAIR	NO	13.72	5.00	0.38	7.00	0.00	10	5	16.8	14.0	357	15
16	53700	OSTRANDER RD	KELSO	08	13 mi before NW GASLINE	ROLLINGWOOD DRIVE	0.92	2.19	23	1214	10	5	0	30	28	19	5	4	NONE/NONE	30	20	5	NO	BST	GRAVEL/GRAVEL	GOOD	NO	35.54	3.00	0.33	7.00	10.00	0	10	24.3	0.0	343	16
17	10310	FIBRE WAY	LONG	17	LV CITY LIMITS	E MILL RD	0.30	0.50	15	4166	0	0	0	40	38	30	2.75	5	NONE/NONE	50	35	0	NO	A.C.	GRAVEL/GRAVEL	GOOD	NO	0.00	3.00	0.30	5.00	0.00	0	0	33.5	0.0	335	17
18	11402	LONE OAK RD	LONG	17	PACIFIC WAY	SUNSET WAY	0.00	0.49	15	1086	4	0	0	40	28	28	0	0	NONE/NONE	30	20	3.75	NO	BST	GRAVEL/GRAVEL	GOOD	NO	20.99	10.00	0.33	7.00	8.75	0	5	28.0	0.0	330	18
19	45320	HAZEL STREET	KELSO	16	S PACIFIC AVE	KELSO CITY LIMITS	0.00	0.37	17	1283	4	1	0	44	38	34	2	2	BOTH/NONE	40	25	0	NO	BST	PCC	PCC	NO	34.63	5.00	0.38	7.00	0.00	10	5	21.8	0.0	318	19
20	20902	WOODSIDE DR	LONG	07	1110 WOODSIDE	DELAMETER ROAD	1.38	2.95	15	765	3	0	0	36	32	29	2.5	0.5	NONE/NONE	50	35	5	NO	BST	GRAVEL/GRAVEL	FAIR	NO	6.84	5.00	0.50	10.00	10.00	10	5	19.1	7.7	318	20
21	30152	DIKE RD	LONG	07	CAPLES ROAD	DIKE ACCESS ROAD	4.68	6.40	15	586	2	5	0	30	29	21	4	4	NONE/NONE	50	25	2.5	NO	BST	GRAVEL/GRAVEL	POOR	NO	32.62	1.00	0.50	10.00	5.50	20	10	9.7	11.7	314	21
22	21660	STELLA RD	LONG	07	DIEBERT RD	HARMONY DR	2.90	4.79	16	856	7	0	0	36	24	22	1	1	NONE/NONE	40	15	5	NO	BST	GRAVEL/GRAVEL	GOOD	NO	11.85	10.00	0.63	10.00	10.00	0	5	25.7	0.0	307	22
23	10100	WILLOW GROVE RD	LONG	07	WILLOW GRV CONNECT	BARLOW POINT RD	0.00	0.56	20	2004	0	1	0	36	41	35	3.5	2	NONE/NONE	50	35	2.5	YES	BST	GRAVEL/GRAVEL	GOOD	NO	4.88	0.00	0.30	5.00	7.50	0	5	25.1	0.0	301	23
24	11401	COLUMBIA HEIGHTS RD	LONG	17	OLSON ROAD	GRANDVIEW TERRACE	2.28	2.88	15	3212	1	4	0	40	27	27	0	0	BOTH/NONE	40	25	5	YES	BST	PCC	PCC	NO	10.97	10.00	0.38	7.00	0.00	0	5	54.6	0.0	293	24
25	20450	CATHLAMET RD	LONG	07	5 mi up CATHLAMET RD	COUNTY LINE	0.50	0.80	16	159	0	1	0	36	28	19	6	3	NONE/NONE	30	20	5	NO	BST	GRAVEL/GRAVEL	GOOD	NO	114.87	10.00	0.33	7.00	10.00	0	25	4.3	0.0	286	25
26	31340	DIKE ACCESS RD	KALAMA	08	ROBINSON ROAD	DIKE ROAD	0.48	1.83	15	1083	4	2	0	30	33	24	3	5.6	NONE/NONE	50	25	1.25	NO	BST	GRAVEL/GRAVEL	FAIR	NO	14.99	0.00	0.50	10.00	2.25	10	5	13.3	10.8	291	26
27	32920	CLOVERDALE RD	KALAMA	08	S CLOVERDALE RD	KALAMA CITY LIMITS	1.05	2.50	16	1392	7	2	0	30	30	33	2.5	6	NONE/NONE	40	35	1.25	NO	BST	GRAVEL/GRAVEL	FAIR	NO	14.93	0.00	0.13	3.00	4.25	10	5	10.1	13.9	290	27
28	30000	WHALEN RD	KALAMA	08	KUHNS ROAD	S. PEKIN ROAD	1.43	1.97	20	1574	3	0	0	30	26	22	2	2	NONE/NONE	50	25	0	NO	BST	GRAVEL/GRAVEL	GOOD	NO	9.67	5.00	0.50	10.00	0.00	0	5	23.6	0.0	286	28
29	56340	POWELL RD	CR	07	DOLGHERTY ROAD	BOND ROAD	0.51	0.66	18	662	3	0	0	36	29	18	3	8	NONE/NONE	40	35	1.25	YES	BST	GRAVEL/GRAVEL	GOOD	NO	82.77	5.00	0.13	3.00	0.00	0	20	8.6	0.0	286	29
30	53700	OSTRANDER RD	KELSO	17	PACIFIC AVENUE N	13 mi before NW GASLINE	0.00	0.92	23	1563	4	2	0	40	25	19	4	2	NONE/NONE	50	35	2.5	YES	BST	GRAVEL/GRAVEL	GOOD	NO	15.24	10.00	0.30	5.00	0.00	0	5	23.4	0.0	284	30
31	42050	FISHPOUND RD	KELSO	07	OLD 99 S	KOOL ROAD	0.00	0.42	15	1171	1	0	0	36	33	25	4.5	3.5	NONE/NONE	40	25	3	NO	A.C.	GRAVEL/GRAVEL	GOOD	NO	5.57	5.00	0.38	7.00	8.00	0	5	23.4	0.0	284	31
32	52030	PACIFIC AVE N	KELSO	16	KELSO CITY LIMIT	HOLCOMB AVENUE	0.75	1.62	17	2656	9	1	0	44	36	21	8	7	NONE/NONE	50	35	1.25	NO	A.C.	GRAVEL/GRAVEL	GOOD	NO	13.04	10.00	0.30	5.00	5.00	0	5	51.1	0.0	281	32
33	10100	WILLOW GROVE RD	LONG	07	BARLOW POINT RD	.41 mi E of SAND PIT	0.56	3.31	20	1835	3	2	0	36	48	31	9.75	7	NONE/NONE	50	35	2.5	NO	BST	GRAVEL/GRAVEL	GOOD	NO	3.80	0.00	0.30	5.00	7.50	0	5	22.9	0.0	279	33
34	52030	PACIFIC AVE N	KELSO	17	LEXINGTON BRIDGE DR	0.22 mi NW OSTRANDER RD	2.99	3.83	17	3860	6	1	0	40	34	28	4	2	NONE/NONE	40	40	5	YES	A.C.	GRAVEL/GRAVEL	GOOD	YES	6.76	10.00	0.20	3.00	0.00	0	5	50.2	0.0	27	

2025-2030 TRANSPORTATION IMPROVEMENT PROGRAM

PRIORITY ARRAY

PRIORITY RANKING	LOCATION			VOLUME				ROAD GEOMETRICS										SURFACE				CALCULATIONS					SCORING			PRIORITY RANKING										
	ROAD #	ROAD NAME	COUNTY SHOP	FUNCTIONAL CLASS	BEGINNING LIMIT	ENDING LIMIT	BEGINNING MILEPOST	ENDING MILEPOST	YEAR	ADT	PDO	INJURY	FATAL	REQUIRED ROADWAY WIDTH	REQUIRED PAVT WIDTH	SHOULDER WIDTH (LEFT)	SHOULDER WIDTH (RIGHT)	CURB/GUTTER	SIDEWALKS	MINIMUM DESIGN SPEED	SAFE SPEED	SLOPE DROP-OFF	SLOPE	GUARDRAIL (YES, NO)	PAVEMENT (A.C., PCC, BST, GRAVEL)	SHOULDER (LEFT)	SHOULDER (RIGHT)	STRUCTURAL RATING	SEGMENT COMPLETED TO FULL BUILD-OUT		SAFETY CALC	ROADWAY WIDTH	ALIGNMENT CALC	ALIGNMENT SCORE	SLOPE CALC	STRUCTURAL CALC	SAFETY SCORE (MAX 30 POINTS)	GEOMETRICS SCORE	STRUCTURAL SCORE	TOTAL SCORE
56	53640	POWELL RD	CR	08	CR CITY LIMITS	DOUGHERTY DR	0.25	0.51	18	868	2	0	1	30	26	24	1	1	NONE	NONE	40	35	1.25	3	YES	BST	BST	GOOD	NO	60.70	5.00	0.13	3.00	0.00	0	15	6.9	0.0	219	56
57	50400	MT BRYNION RD	KELSO	08	NW NATURAL GAS LINE	NORDSTROM LANE	1.72	2.67	17	807	6	0	0	30	28	24	2	2	NONE	NONE	30	20	5	5	NO	BST	GRAVE GRAVE	GOOD	NO	21.44	3.00	0.33	10.00	0.00	0	5	16.1	0.0	211	57
58	22740	COAL CREEK RD	LONG	08	WOODSIDE DRIVE	HACKETT RD	3.48	5.01	15	398	2	0	0	30	32	22	0	0	NONE	NONE	40	35	2.5	5	NO	BST	GRAVE GRAVE	POOR	NO	5.26	10.00	0.13	3.00	7.50	20	5	8.2	8.0	211	58
59	34910	SPENCER CREEK RD	KALAMA	08	KALAMA CITY LIMITS	MODROW ROAD	0.96	3.15	16	476	2	0	0	30	33	25	7	1.5	NONE	NONE	30	25	3.75	5	YES	BST	GRAVE GRAVE	BAD	NO	5.26	10.00	0.17	3.00	0.00	30	5	14	14.3	207	59
60	41000	OLD 98 S	KELSO	07	ROSE VALLEY ROAD	MT. PLEASANT ROAD	1.05	3.12	15	2761	6	7	1	36	40	29	6	5	NONE	NONE	50	40	5	5	NO	BST	GRAVE GRAVE	GOOD	YES	11.03	0.00	0.20	3.00	10.00	0	5	35.9	0.0	204	60
61	51200	TOWER RD	CR	07	BRIDGE	BASIE ROAD	2.92	6.15	22	725	3	2	0	36	30	23	2	5	NONE	NONE	40	25	1.25	3	NO	A.C.	GRAVE GRAVE	GOOD	NO	8.19	10.00	0.36	7.00	4.25	0	5	15.4	0.0	204	61
62	30500	GREEN MTN RD	KALAMA	08	CLOVERDALE RD	CLOVERDALE RD	9.62	10.25	16	702	3	1	0	30	25	22	3	0	NONE	NONE	30	35	3.75	5	NO	BST	GRAVE GRAVE	GOOD	NO	30.97	5.00	-0.17	1.00	8.75	0	10	10.4	0.0	204	62
63	11401	COLUMBIA HEIGHTS RD	LONG	17	GRANDVIEW TERRACE	LOME OAK ROAD	2.98	3.72	15	3212	2	1	0	40	27	25	0	2	LEFT	NONE	30	15	5	5	YES	BST	PCC	GRAVE	GOOD	4.61	10.00	0.00	1.00	0.00	0	5	35.3	0.0	202	63
64	20450	CATHLAMET RD	LONG	07	SPRUCE CREEK RD	.5 MI UP CATHLAMET RD	0.00	0.50	16	159	2	0	0	36	20	18	1	1	NONE	NONE	30	15	5	5	NO	BST	GRAVE GRAVE	GOOD	NO	68.92	10.00	0.50	10.00	10.00	0	15	4.8	0.0	188	64
65	11680	48TH AVE	LONG	17	DIKE RD INTERSECTION	PACIFIC WAY	0.40	0.49	18	827	3	0	0	40	36	34	1	1.25	BOTH	RIGHT	40	25	2.5	3	NO	A.C.	GRAVE GRAVE	GOOD	YES	110.43	5.00	0.36	7.00	5.50	0	25	14.5	0.0	197	65
66	11402	LONE OAK RD	LONG	17	SUNSET WAY	COLUMBIA HEIGHTS RD	0.49	2.30	15	835	6	1	0	40	40	23	21	1	NONE	NONE	30	20	2.5	5	YES	BST	GRAVE GRAVE	GOOD	NO	14.50	10.00	0.33	7.00	0.00	0	5	14.2	0.0	192	66
67	40000	KALAMA RIVER RD	KALAMA	07	FALLERT CRK HATCHERY	MT. VIEW ROAD	3.09	4.55	15	785	5	1	0	36	33	25	3.6	4.5	NONE	NONE	40	30	5	5	YES	BST	GRAVE GRAVE	FAIR	NO	16.73	3.00	0.25	5.00	0.00	10	5	6.3	7.8	191	67
68	20570	MILL CREEK RD	LONG	07	OCEAN BEACH HWY	SPRUCE CREEK INTER	0.00	1.00	22	648	5	1	0	36	31	25	6	0	NONE	NONE	40	25	5	5	YES	BST	GRAVE GRAVE	GOOD	NO	29.60	5.00	0.36	7.00	0.00	0	10	7.8	0.0	178	68
69	20901	DELAMETER RD	CR	07	MCKEE ROAD	WOODSIDE DRIVE	4.32	5.90	15	848	3	0	0	36	40	27	0	6	NONE	NONE	50	35	5	5	NO	BST	GRAVE GRAVE	GOOD	NO	6.13	0.00	0.30	5.00	10.00	0	5	12.7	0.0	177	69
70	40110	GREEN VALLEY RD	KELSO	07	BEGIN ONE-LANE ROAD	8206 ROSE VALLEY ROAD	10.79	13.80	23	423	2	1	0	36	27	27	0	0	NONE	NONE	30	25	5	5	NO	BST	GRAVE GRAVE	GOOD	NO	8.61	10.00	0.50	10.00	10.00	0	5	12.7	0.0	177	70
71	30500	GREEN MTN RD	KALAMA	08	VINEYARD VIEW	MARTINS BLUFF RD	1.86	4.81	15	330	8	2	0	30	28	22	0	6	NONE	NONE	30	15	5	5	NO	BST	GRAVE GRAVE	GOOD	NO	33.77	3.00	0.50	10.00	10.00	0	10	7.6	0.0	176	71
72	51700	S TOUTLE RD	CR	07	SPIRIT LAKE HWY	FRANK SMITH ROAD	0.00	1.09	23	926	4	0	0	36	32	26	3.6	2.5	NONE	NONE	40	25	5	5	NO	BST	GRAVE GRAVE	GOOD	NO	10.86	5.00	0.00	7.50	0.00	0	5	12.5	0.0	175	72
73	10270	WEST PORT WAY	LONG	17	LV CITY LIMITS	EAST PORT WAY	0.02	0.47	18	680	3	0	0	40	40	38	28	5	NONE	NONE	50	30	0	1	NO	A.C.	GRAVE GRAVE	GOOD	NO	26.86	3.00	0.40	7.00	1.50	0	10	7.5	0.0	175	73
74	21300	HAZEL DELL RD	CR	07	HAZEL DELL MOBIL HMI PK	DELAMETER ROAD	1.56	5.36	19	572	5	2	0	36	21	18	1.5	1	NONE	NONE	40	35	3.75	5	NO	BST	GRAVE GRAVE	GOOD	NO	11.34	10.00	0.13	3.00	8.75	0	5	12.4	0.0	174	74
75	55440	S SILVER LAKE RD	CR	07	ELWOOD ROAD	HEADQUARTERS ROAD	1.39	3.92	23	276	2	5	0	36	25	23	1.6	0	NONE	NONE	50	20	3.75	3	NO	BST	GRAVE GRAVE	GOOD	NO	47.08	10.00	0.60	10.00	6.75	0	10	7.4	0.0	174	75
76	30500	GREEN MTN RD	KALAMA	08	JE JOHNSON RD	CLOVERDALE RD	7.83	9.62	16	684	2	2	0	30	25	23	0	2	NONE	NONE	30	25	5	5	NO	BST	GRAVE GRAVE	GOOD	NO	13.43	5.00	0.17	3.00	10.00	0	5	12.3	0.0	173	76
77	40110	OLYMPIA WAY	KELSO	07	GOBLE CREEK LOOP RD	END TWO-LAND ROAD	5.66	10.79	23	752	6	3	0	36	32	26	3	3	NONE	NONE	25	30	5	5	NO	BST	GRAVE GRAVE	GOOD	NO	8.52	5.00	-0.20	1.00	10.00	0	5	12.0	0.0	170	77
78	11670	OLYMPIA WAY	LONG	17	46TH AVENUE	48TH AVENUE	0.00	0.42	18	1197	6	1	0	40	40	26	26	0	BOTH	BOTH	40	20	0	0	NO	A.C.	GRAVE GRAVE	GOOD	YES	43.60	10.00	0.50	10.00	0.00	0	10	23.9	0.0	170	78
79	18750	BEACON HILL DR	LONG	17	WESTSIDE HWY	ALDERWOOD LANE	0.00	0.27	21	2263	1	0	0	40	42	40	0	1	BOTH	NONE	40	35	3.75	5	YES	BST	GRAVE GRAVE	GOOD	YES	13.69	10.00	0.13	3.00	0.00	0	5	28.9	0.0	168	79
80	10310	FIBRE WAY	LONG	17	E MILL RD	END OF COUNTY ROAD	0.50	1.41	21	2366	1	0	0	40	40	42	40	1	NONE	NONE	50	35	0	0	NO	A.C.	GRAVE GRAVE	GOOD	NO	1.27	0.00	0.30	5.00	0.00	0	5	11.8	0.0	168	80
81	22740	COAL CREEK RD	LONG	16	OCEAN BEACH HWY	PACIFIC WAY	0.00	0.27	15	4420	4	5	0	44	47	40	3.5	3.5	NONE	NONE	50	35	3.75	5	YES	BST	GRAVE GRAVE	GOOD	YES	32.14	0.00	0.30	5.00	0.00	0	10	22.1	0.0	161	81
82	51700	S TOUTLE RD	CR	07	LAPHAM ROAD	LUBKE ROAD	2.09	2.77	15	767	2	0	0	36	42	37	3.3	2.3	NONE	NONE	40	20	1.25	3	NO	BST	GRAVE GRAVE	GOOD	NO	10.51	0.00	0.50	10.00	4.25	0	5	10.9	0.0	156	82
83	20410	SPENCER CREEK RD	LONG	07	MILL CREEK RD	HUNTER RD	0.00	0.57	22	341	0	1	0	36	31	23	3	3	NONE	NONE	40	35	1.25	3	NO	BST	GRAVE GRAVE	GOOD	NO	42.29	10.00	0.13	3.00	4.25	0	10	5.9	0.0	156	83
84	30150	DIKE RD	KALAMA	08	WHALEN ROAD	CAPLES ROAD	3.05	4.68	17	374	0	2	0	30	29	22	7	0	NONE	NONE	50	40	1	3	NO	BST	GRAVE GRAVE	POOR	NO	17.98	1.00	0.20	3.00	4.50	20	5	3.2	7.5	157	84
85	11000	PACIFIC WAY	LONG	16	38TH AVENUE	48TH AVENUE	1.82	3.24	15	5229	12	6	1	44	47	36	7.5	2.75	BOTH	NONE	30	35	2.5	5	YES	BST	GRAVE PCC	GOOD	YES	9.96	0.00	0.30	5.00	0.00	0	5	26.1	0.0	156	85
86	10530	TENNANT WAY	LONG	17	SR 432 RW	LONGVIEW CITY LIMITS	0.00	0.36	19	915	0	1	0	40	40	36	0	0	NONE	NONE	30	30	0	1	YES	A.C.	GRAVE GRAVE	GOOD	NO	37.43	5.00	0.00	1.00	0.00	0	10	5.5	0.0	155	86
87	11000	PACIFIC WAY	LONG	16	PACIFIC TERRACE	COAL CREEK ROAD	3.77	4.98	15	1700	3	1	0	44	38	36	1.5	0	RIGHT	NONE	30	35	5	5	YES	BST	GRAVE GRAVE	GOOD	YES	6.66	10.00	0.30	5.00	0.00	0	5	25.5	0.0	153	87
88	18750	BEACON HILL DR	LONG	17	09 MI W ALPHA DR	04 MI W NIBLETT WY	1.24	1.35	17	969	0	0	0	40	40	30	0	0	BOTH	NONE	40	25	0	0	NO	BST	GRAVE GRAVE	GOOD	NO	0.00	10.00	0.36	7.00	0.00	0	0	14.8	0.0	148	88
89	36500	LITTLE KALAMA RIVER	KALAMA	08	SR 503	AHO C./W.D.LND HEIGHTS	0.00	0.29	16	734	4	0	0	30	24	20	2	2	NONE	NONE	30	25	5	5	YES	A.C.	GRAVE GRAVE	GOOD	NO	5.55	10.00	0.17	3.00	0.00	0	5	9.5	0.0	145	89
90	52030	PACIFIC AVE N	KELSO	16	HOLCOMB AVENUE	PACIFIC AVENUE SPUR	1.62	2.29	23	947	4	2	0	44	27	21	6	0	RIGHT	NONE	25	25	5	5	YES	A.C.	GRAVE GRAVE	GOOD	YES	34.54	10.00	0.50	10.00	0.00	0	10	16.9	0.0	145	90
91	55440	S SILVER LAKE RD	CR	07	SPIRIT LAKE HWY	ELWOOD ROAD	0.00	1.39	19	585	1	0	0	36	36	29	4.5	5.25	NONE	NONE	50	25	2.5	3	NO	BST	GRAVE GRAVE	GOOD	NO	3.37	0.00	0.50	10.00	5.50	0	5	9.1	0.0	141	91
92	55440	S SILVER LAKE RD	CR	08	HEADQUARTERS ROAD	END OF COUNTY ROAD	3.92	5.51	19	528	2	0	0	30	32	24	5	3.3	NONE	NONE	50	25	3.75	3	NO	BST	GRAVE GRAVE	GOOD	NO	6.53	0.00	0.50	10.00	6.75	0	5	8.8	0.0	138	92
93	48720	GRM ROAD	KELSO	17	CRESTWOOD LN	KELSO CITY LIMITS	0.00	0.05	17	127	1	0	0	40	40	28	24	2	0																					

2025-2030 TRANSPORTATION IMPROVEMENT PROGRAM

PRIORITY ARRAY

PRIORITY RANKING	LOCATION			VOLUME ACCIDENTS				ROAD GEOMETRICS										SURFACE				CALCULATIONS					SCORING			PRIORITY RANKING											
	ROAD #	ROAD NAME	COUNTY SHOP	FUNCTIONAL CLASS	BEGINNING LIMIT	ENDING LIMIT	BEGINNING MILEPOST	ENDING MILEPOST	YEAR	ADT	PDO	INJURY	FATAL	REQUIRED ROADWAY WIDTH	TOTAL ROADWAY WIDTH	PWMT WIDTH	SHOULDER WIDTH (LEFT)	SHOULDER WIDTH (RIGHT)	CURB/GUTTER	SIDEWALKS	MINIMUM DESIGN SPEED	SAFE SPEED	SLOPE DROP-OFF	SLOPE	GUARDRAIL (YES, NO)	PAVEMENT (AC, PCC, BST, GRAVEL)	SHOULDER (LEFT)	SHOULDER (RIGHT)	STRUCTURAL RATING		SEGMENT COMPLETED TO FULL BUILD-OUT	SAFETY CALC	ROADWAY WIDTH	ALIGNMENT CALC	ALIGNMENT SCORE	SLOPE CALC	STRUCTURAL CALC	SAFETY SCORE (MAX. 30 POINTS)	GEOMETRICS SCORE	STRUCTURAL SCORE	TOTAL SCORE
111	20530	ABERNATHY CREEK RD	LONG	08	WIEST RD	END OF COUNTY ROAD	3.20	5.79	22	110	2	0	0	30	30	24	4	2	NONE	NONE	40	35	1.25	3	NO	BST	GRAVE	GRAVE	GOOD	NO	38.47	1.00	0.13	3.00	4.25	0	10	0.9	0.0	106	111
112	52030	PACIFIC AVE N	KELSO	16	PACIFIC AVENUE SPUR	LEXINGTON BRIDGE DR	2.29	2.99	17	1281	0	1	0	44	28	28	0	0	NONE	NONE	50	40	5	3	YES	A.C.	GRAVE	GRAVE	GOOD	NO	6.11	10.00	0.20	3.00	0.00	0	5	16.7	0.0	106	112
113	39350	OLD PACIFIC HWY	KALAMA	07	KALAMA CITY LIMITS	RIVER RIDGE LANE	0.75	1.67	16	1613	3	1	0	36	34	30	1	2	NONE	NONE	30	35	1.25	1	NO	BST	GRAVE	GRAVE	GOOD	YES	9.76	3.00	0.30	5.00	2.25	0	5	16.5	0.0	108	113
114	34300	CHINA GARDENS RD	KALAMA	08	KALAMA CITY LIMITS	GORE ROAD	1.17	1.82	16	523	1	1	0	30	34	21	1	2	NONE	NONE	30	35	5	5	YES	BST	GRAVE	GRAVE	GOOD	NO	22.45	10.00	-0.17	1.00	0.00	0	5	5.8	0.0	108	114
115	32840	TODD RD	KALAMA	08	S. CLOVERDALE ROAD	OLD PACIFIC HWY	0.00	0.61	15	2146	2	0	0	30	38	36	1	1	NONE	NONE	40	30	1.25	1	NO	BST	GRAVE	GRAVE	GOOD	YES	4.19	0.00	0.29	5.00	2.25	0	5	15.6	0.0	103	115
116	30500	GREEN MTN RD	KALAMA	08	8405 GREEN MNTN RD	VINEYARD VIEW	1.34	1.86	15	1581	0	0	0	30	36	29	4	3	NONE	NONE	30	30	3.75	3	NO	BST	GRAVE	GRAVE	GOOD	NO	0.00	0.00	0.00	1.00	5.50	0	0	10.3	0.0	103	116
117	30500	GERMANY CREEK RD	LONG	07	FALL CREEK RD	END OF COUNTY ROAD	1.86	5.18	16	197	1	0	0	36	29	27	0	2	NONE	NONE	40	25	3.75	5	NO	BST	GRAVE	GRAVE	GOOD	NO	4.18	10.00	0.38	7.00	8.75	0	5	5.1	0.0	101	117
118	11680	48TH AVE	LONG	17	OLYMPIA WAY	DIKE RD INTERSECTION	0.00	0.40	18	890	0	1	0	40	37	34	1.5	1.5	BOTH	BOTH	40	20	0	0	NO	A.C.	GRAVE	PCC	GOOD	YES	13.84	5.00	0.50	10.00	0.00	0	5	14.9	0.0	96	118
119	18410	ALPHA DR	LONG	17	CDR VILLY TRAILER PRK	BEACON HILL DRIVE	0.44	1.14	17	867	0	1	0	40	26	26	0	0	NONE	NONE	40	25	3.75	3	YES	BST	GRAVE	GRAVE	GOOD	YES	9.03	10.00	0.38	7.00	0.00	0	5	14.7	0.0	96	119
120	11350	38TH AVE	LONG	16	PACIFIC WAY	LV CITY LIMITS	0.00	0.44	14	2943	1	0	0	44	44	24	12	8	BOTH	RIGHT	40	30	0	0	NO	BST	PCC	PCC	GOOD	YES	8.46	0.00	0.25	5.00	0.00	0	5	14.7	0.0	96	120
121	30200	CAPLES RD	KALAMA	08	VISTA DRIVE	DIKE ROAD	0.76	2.23	15	513	2	2	0	30	30	24	3.5	3	NONE	NONE	50	35	1.25	3	NO	BST	GRAVE	GRAVE	GOOD	NO	21.80	0.00	0.30	5.00	4.25	0	5	4.7	0.0	97	121
122	51700	S TOUTLE RD	CR	07	FRANK SMITH ROAD	LAPHAM ROAD	1.09	2.09	23	906	2	2	0	36	38	35	1	2.6	NONE	NONE	40	30	0	0	NO	BST	GRAVE	GRAVE	GOOD	NO	18.14	0.00	0.29	5.00	0.00	0	5	4.5	0.0	96	122
123	51700	S TOUTLE RD	CR	07	LUEBKE ROAD	END OF COUNTY ROAD	2.77	6.94	15	1500	2	0	0	36	30	23	1.5	2	NONE	NONE	40	20	5	5	NO	BST	GRAVE	GRAVE	GOOD	NO	8.76	10.00	0.50	10.00	10.00	0	5	4.5	0.0	96	123
124	19505	LEXINGTON BRIDGE DR	LONG	17	H-S RW	PACIFIC AVENUE	0.46	0.48	07	4400	1	0	0	40	44	40	2	2	NONE	NONE	30	35	0	1	NO	A.C.	GRAVE	GRAVE	GOOD	YES	3.113	0.00	-0.17	1.00	1.00	0	10	6.8	0.0	94	124
125	56930	OLD PACIFIC HWY N	CR	08	LAUGHLIN ROAD	BARNES DR	2.00	2.86	23	986	1	0	0	30	45	36	5	4	NONE	NONE	50	35	1.25	5	NO	A.C.	GRAVE	GRAVE	GOOD	YES	3.23	0.00	0.30	5.00	8.75	0	5	13.6	0.0	93	125
126	30000	WHALEN RD	KALAMA	08	DIKE ROAD	KUHNS ROAD	0.00	1.43	20	400	2	1	0	30	25	21	3	1	NONE	NONE	50	40	1.25	1	NO	BST	GRAVE	GRAVE	GOOD	NO	19.16	5.00	0.20	3.00	2.25	0	5	4.1	0.0	91	126
127	19505	LEXINGTON BRIDGE DR	LONG	17	SPARKS DR	H-S RW	0.00	0.29	23	13095	2	4	0	40	40	24	8	8	BOTH	NONE	40	35	2	2	YES	A.C.	A.C.	A.C.	GOOD	YES	7.21	0.00	-0.17	1.00	0.00	0	5	13.1	0.0	96	127
128	58960	SIGHTLY RD	CR	08	SPIRIT LAKE HWY	CANAL ROAD	0.00	1.81	23	472	1	2	0	30	42	34	4.6	3.25	NONE	NONE	40	40	2.5	5	NO	BST	GRAVE	GRAVE	GOOD	NO	16.03	0.00	0.00	1.00	7.50	0	5	4.0	0.0	90	128
129	40000	KALAMA RIVER RD	KALAMA	08	WEYERHAEUS RD	6354 KALAMA RVR RD	8.98	13.10	15	148	1	0	0	30	41	24	1	16	NONE	NONE	40	25	5	5	NO	BST	GRAVE	GRAVE	FAIR	NO	4.49	0.00	0.38	7.00	10.00	10	5	2.5	1.5	90	129
130	50700	ABERNATHY CREEK RD	LONG	08	OCEAN BEACH HWY	W. MCADAMS INTERSEC	0.00	1.20	16	566	3	1	0	30	30	28	2.5	4	NONE	NONE	40	25	3.75	5	YES	BST	GRAVE	GRAVE	GOOD	NO	20.17	0.00	0.38	7.00	0.00	0	5	4.0	0.0	90	130
131	20300	HEADQUARTERS RD	CR	07	FIRLANE ROAD	S SILVERLAKE ROAD	2.76	3.99	16	895	0	1	0	36	24	18	2	4	NONE	NONE	40	25	3.75	5	YES	BST	GRAVE	GRAVE	GOOD	NO	0.00	10.00	0.38	7.00	8.75	0	17.9	0.0	89	131	
132	40400	MT PLEASANT RD	KELSO	07	HALE BARBER RD	KOOL ROAD	1.88	3.97	22	492	3	1	0	36	35	26	6.5	3.5	NONE	NONE	30	20	5	5	YES	BST	GRAVE	GRAVE	GOOD	NO	13.32	1.00	0.33	7.00	0.00	0	5	3.9	0.0	89	132
133	40000	KALAMA RIVER RD	KALAMA	07	ITALIAN CREEK RD	WEYERHAEUSER RD	7.18	8.98	15	322	1	0	0	36	32	28	2.6	1	NONE	NONE	40	25	5	5	NO	BST	GRAVE	GRAVE	GOOD	NO	4.73	5.00	0.38	7.00	0.00	0	5	3.9	0.0	89	133
134	56930	OLD PACIFIC HWY N	CR	08	CR CITY LIMITS	LAUGHLIN ROAD	0.09	2.00	19	1198	6	2	0	30	41	32	5	4	BOTH	NONE	50	35	2.5	3	NO	A.C.	GRAVE	GRAVE	GOOD	YES	11.97	0.00	0.30	5.00	5.50	0	5	12.6	0.0	88	134
135	40000	KALAMA RIVER RD	KALAMA	07	WOOLFORD RD	ITALIAN CREEK RD	5.80	7.18	15	322	1	0	0	36	26	26	0	0	NONE	NONE	40	40	5	5	YES	BST	GRAVE	GRAVE	GOOD	NO	18.50	10.00	0.00	1.00	0.00	0	5	3.5	0.0	85	135
136	40110	ROSE VALLEY RD	KELSO	07	OLD 99 S	06 mi before NW GASLINE	0.00	1.61	23	3754	5	5	0	36	42	36	3	3	NONE	NONE	40	35	5	5	YES	BST	GRAVE	GRAVE	GOOD	YES	6.80	0.00	0.33	3.00	0.00	0	5	11.3	0.0	81	136
137	32680	TOTEFF RD	CR	07	CHAPMAN RD	CASEY RD	1.48	5.43	16	1552	10	13	0	36	44	28	8	8	NONE	NONE	50	45	0	1	NO	A.C.	GRAVE	GRAVE	GOOD	NO	16.08	0.00	0.10	1.00	1.00	0	5	3.1	0.0	81	137
138	32680	TOTEFF RD	KALAMA	07	HENDRICKSON RD	END OF RD/PORT	0.20	0.40	18	316	0	0	0	36	24	22	1	1	NONE	NONE	50	15	1.25	3	NO	BST	GRAVE	GRAVE	GOOD	NO	0.00	10.00	0.70	10.00	4.25	0	7.7	0.0	77	138	
139	58670	HALL RD	CR	07	SPIRIT LAKE HWY	STREETER ROAD	0.00	0.73	19	1358	1	0	0	30	36	36	6	6	BOTH	BOTH	40	35	1.25	3	NO	A.C.	A.C.	A.C.	GOOD	YES	8.29	0.00	0.13	3.00	4.25	0	5	9.8	0.0	74	139
140	21700	P.H.#10	CR	08	WESTSIDE HWY	CLINE ROAD	0.72	1.83	15	1156	4	2	0	30	34	27	2.5	4	NONE	NONE	40	40	0	0	NO	BST	GRAVE	GRAVE	GOOD	NO	17.08	1.00	0.00	1.00	0.00	0	5	2.3	0.0	73	140
141	42050	FISHPOND RD	KELSO	07	KOOL ROAD	CORNWELL ROAD	0.42	1.19	15	571	1	1	0	36	34	27	2.5	4	RIGHT	NONE	30	25	5	5	NO	A.C.	GRAVE	PCC	GOOD	YES	18.69	3.00	0.17	3.00	10.00	0	5	9.1	0.0	71	141
142	21660	STELLA RD	LONG	07	FALL CREEK RD	DIEBERT RD	0.87	2.90	16	330	4	0	0	36	35	27	6	1.5	NONE	NONE	30	25	5	5	YES	BST	GRAVE	GRAVE	GOOD	NO	16.36	3.00	0.17	3.00	0.00	0	5	2.0	0.0	70	142
143	57460	BARNES DRIVE	CR	08	OLD PACIFIC HWY/I-5	COUNTY LINE	0.00	4.82	19	825	6	4	0	30	29	22	4																								

2025-2030 TRANSPORTATION IMPROVEMENT PROGRAM

PRIORITY ARRAY

PRIORITY RANKING	LOCATION				VOLUME ACCIDENTS					ROAD GEOMETRICS												SURFACE				CALCULATIONS						SCORING			PRIORITY RANKING						
	ROAD #	ROAD NAME	COUNTY SHOP	FUNCTIONAL CLASS	BEGINNING LIMIT	ENDING LIMIT	BEGINNING MILEPOST	ENDING MILEPOST	YEAR	ADT	PDO	INJURY	FATAL	REQUIRED ROADWAY WIDTH	TOTAL ROADWAY WIDTH	PVMT WIDTH	SHOULDER WIDTH (LEFT)	SHOULDER WIDTH (RIGHT)	CURB/GUTTER	SIDEWALKS	MINIMUM DESIGN SPEED	SAFE SPEED	SLOPE DROP-OFF	SLOPE	PERCENTAGE	GUARDRAIL (YES/NO)	PAVEMENT (AC, PCC, BST, GRAVEL)	SHOULDER (LEFT)	SHOULDER (RIGHT)	STRUCTURAL RATING	SEGMENT COMPLETED TO FULL BUILD-OUT	SAFETY CALC	ROADWAY WIDTH CALC	ALIGNMENT CALC		ALIGNMENT SCORE	SLOPE CALC	STRUCTURAL CALC	SAFETY SCORE	GEOMETRICS SCORE (MAX. 30 POINTS)	STRUCTURAL SCORE
166	40000	KALAMA RIVER RD	KALAMA	08	6354 KALAMA RVR RD	WEYCO 6100	13.10	15.06	15	57	0	0	0	30	37	24	5.75	8	NONE	NONE	40	25	5	5	NO	BST	GRAVE	GRAVE	GOOD	NO	0.00	0.00	0.38	7.00	10.00	0	0	1.0	0.0	10	166
167	48650	CRESTWOOD LN	KELSO	17	ALMA DR	GRIM RD	0.00	0.09	18	106	0	0	0	40	28	24	2	2	BOTH	NONE	40	25	0	0	NO	BST	BST	BST	GOOD	YES	0.00	10.00	0.38	7.00	0.00	0	0	1.8	0.0	9	167
168	48570	ALMA DRIVE	KELSO	17	KELSO CITY LIMITS	CRESTWOOD LN	0.03	0.27	17	24	0	0	0	40	28	26	1	1	LEFT	NONE	40	25	0	0	NO	BST	PCC	PCC	GOOD	YES	0.00	10.00	0.38	7.00	0.00	0	0	0.4	0.0	2	168
169	51200	TOWER RD	CR	07	STORM ROAD	SPIRIT LAKE HWY	9.56	12.89	15	168	0	0	0	36	44	34	5.5	4.5	NONE	NONE	40	40	3.75	5	YES	BST	GRAVE	GRAVE	GOOD	NO	0.00	0.00	0.00	1.00	0.00	0	0	0.2	0.0	2	169

* - Jersey Barrier

221.45

CULVERT REPLACEMENTS - PRIORITY LISTING

Priority	Score	Area	Road No	Road Name	MP	T	R	S	Exist. Size	Prop. Size	Trib. Area (acres)	100-yr Flow (cfs)	Water Body	Fish Passage	Floods	Damage	ADT	ADT Year	Approx. Project Costs	REMARKS
1	20.7	CR	51200	Tower Road	4.52	10N	2W	36		Bridge	2200	505	Rock Creek	10	0	10	727	2023	\$ 4,000,000	Replace temporary bridge. FEMA funding secured
2	19.6	CR	21700	PH10	3.25	9N	2W	5	18"	8'	140	47	Trib to Arkansas Creek	10	3	6	562	2015	\$ 600,000	No anadromous per WRIA 26 LFA report - approx. 12' fill - just east of ida lane (private road)
3	17.2	KEL	49670	Goble Creek Rd	1.54	7N	1W	2	10'	20'	8000	1536	North Fork Goble Creek	10	3	4	246	2017	\$ 3,300,000	Backs up during high flows and causes scour. Should be bridge.
4	16.2	KEL	49670	Goble Creek Road	1.48	7N	1W	2	BOX	Bridge	8000	1536	S Goble Creek	3	3	10	246	2017	\$ 2,350,000	
5	16.0	CR	28000	Allender Road	0.36	10N	3W	3	BOX	Bridge	7300	1420	Stillwater Creek	10	0	6	14	2015	\$ 3,740,000	Load Rating and Fish Passage Issue. RCO grant for fish passage secured for design
6	15.0	KAL	41010	Greenwood Rd	0.04	6N	1E	6	72"	16'	2000	465	Italian Creek	6	3	6	35	2015	\$ 590,000	Flows at capacity (to top of road) each year - no anadromous
7	14.8	KEL	40110	Rose Valley Rd	7.73	8N	1W	23	36"	12'	512	144	Trib to Coweeman River	6	3	5	753	2023	\$ 1,550,000	Undersized and approaching failure.
8	14.4	KAL	32920	Cloverdale Rd	1.78	6N	1W	21	BOX	14'	1050	267	Second Creek	6	5	2	1392	2016	\$ 1,100,000	Creek backs up from culvert impacting private property
9	14.2	CR	59150	Lapham Road	0.74	10N	01E	28	10'	Bridge	7187	1401	Wyant Creek	6	2	6	202	2015	\$ 2,000,000	Pipe is approaching failure.
10	13.9	KEL	40110	Rose Valley Rd	4.55	7N	1W	3	36" & 48"	10'	400	116	Nye Creek	10	1	1	1882	2023	\$ 1,547,000	Probably need bridge here.
11	13.6	CR	21700	PH10	3.33	9N	2W	5	36"	8'	160	53	Trib to Arkansas Creek	10	1	2	562	2015	\$ 610,000	West of Ida Lane, mapped as a fish blockage
12	13.4	CR	50500	Pleasant Hill Road	4.70	8N	02W	11	Temp Bridge	Bridge	5460	1105	Salmon Creek	0	3	10	417	2008	\$ 2,500,000	Replace temporary bridge. FEMA funding secured
13	12.2	KEL	42880	North Bodine Rd	0.66	7N	1W	15	36"	8'	121	41	Creek	3	4	5	181	2017	\$ 610,000	Plugs with slide debris
14	11.4	KEL	42800	Bodine Rd	0.72	7N	1W	9	18"	8'	145	48	Trib to Turner Creek	3	4	4	444	2015	\$ 500,000	Floods and scours shoulder each year
15	11.3	CR	51700	S Toutle Road	1.08	10N	1E	30	5' & 8' Box	Bridge	6080	1213	Studebaker Creek	6	1	3	1277	2015	\$ 2,000,000	
16	10.7	KEL	42050	Fish Pond Rd	1.89	7N	1W	17	10'	20'	2880	637	Owl Creek	0	10	0	674	2015	\$ 1,000,000	Culvert is filling up with streambed material. Consider a bridge.
17	10.6	KEL	40110	Rose Valley Rd	11.80	8N	01E	18	18" & 24"	8'	200	64	Trib to Coweeman River	3	3	4	580	1996	\$ 580,000	CRAB funding
18	10.3	CR	51700	S Toutle Road	0.20	10N	1E	30	BOX	20'	26000	4244	Outlet Creek	3	0	6	1277	2015	\$ 1,730,000	Box is damaged and has a fish blockage drop
19	9.1	KAL	33650	Paradise Acres	0.12	6N	1W	21	72"	20'	900	234	Trib to Schoolhouse Crk	0	3	6	61	1984	\$ 1,025,000	Channel has moved damaging roadway
20	9.0	KEL	41740	Primrose Rd	0.47	7N	1W	29	36"	8'	115	40	Trib to Pin Creek	0	3	6	33	2002	\$ 500,000	Culvert is failing and is half filled with sediment
21	8.7	CR	56190	Powell/Bond Int.		9N	2W	11	30", (2)24"	8'	185	60	Trib to Salmon Creek	0	4	4	665	2015	\$ 880,000	Cleaned culvert and dredged channel with emergency HPA November 2006 - continues to fill up. Unknown barrier
22	8.2	LV	11000	Pacific Way	2.11	8N	2W	18	36"	42"	78	60	Trib to Longview Ditch	0	3	0	5229	2015	\$ 280,000	Replace storm drain - 3 inlets, 350' storm drain pipe, curb & gutter
23	8.1	KEL	50000	Allen Street	2.62, 2.74	8N	1W	31	24", 18"	8'	140	47	Trib's to Coweeman River	0	3	4	1083	2017	\$ 800,000	Replace 2 culverts and excavate ditch from outlet to coweeman river. Consider raising road.
24	8.1	CR	59030	Gilmore Rd	0.14	10N	01E	29	BOX	Bridge	5800	1165	Studebaker Creek	6	0	2	64	1983	\$ 3,500,000	Box is damaged and is a fish blockage
25	7.9	CR	21300	Hazel Dell Road	1.18	8N	02W	3	BOX	Box	2850	631	Leckler Creek	6	0	1	947	2009	\$ 3,640,000	Box is damaged and is a fish blockage

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26	7.5	KAL	33520	Sauer Rd	0.86	6N	1W	22	48"	12'	875	228	Schoolhouse Creek	6	1	0	496	2016	\$ 600,000	Blockage at I-5 and railroad per WRIA 27 LFA report
27	7.4	LV	22740	Coal Creek Road	0.23	8N	3W	14	12' & 12'	12'	Pump	750	Coal Creek Slough	0	0	3	4420	2015	\$ 925,000	Pipes are rusting through
28	7.1	CR	23200	Garlock Road	0.64	9N	2W	17	BOX	Bridge	5800	1165	Delameter Creek	6	1	0	117	2015	\$ 1,970,000	Fish Recovery Board Project
29	6.7	CR	20900	Delameter Road	4.10	9N	2W	15	BOX	Bridge	4650	963	Delameter Creek	6	0	0	663	1999	\$ 3,400,000	Box is damaged and is a fish blockage
30	6.7	CR	20900	Delameter Road	4.42	9N	2W	15	BOX	Bridge	4325	904	Delameter Creek	6	0	0	663	1999	\$ 3,375,000	Box is damaged and is a fish blockage
31	5.2	KAL	37370	Englert Rd	0.66	5N	1E	1	48"	12'	375	110	Trib to Lewis River	0	2	3	217	2010	\$ 570,000	48" is damaged and is a fish blockage
32	4.9	CR	21300	Hazel Dell Road	1.83	8N	02W	3	Box	Box	2450	554	Leckler Creek	3	0	1	947	2009	\$ 3,640,000	Box is damaged and is a fish blockage
33	4.2	CR	57830	Carnine Road	0.39, 0.43	9N	1W	6	24", 18"	12'	375	110	Trib to Silver Lake	0	1	3	202	2002	\$ 1,200,000	140 ac with 6.5 bankfull Q of 47 and 375 Ac, 9.9 bankfull and flow of 110. Unknown passage status
34	3.7	KAL	36330	Butte Hill Rd	0.09	6N	1E	2	5' box 24", 18"	16', 36", 24"	1920	449	Ross Creek	3	0	0	740	2016	\$ 500,000	Potential SRFB Project
35	3.1	KAL	32510	Dupont Rd	0.30	6N	1W	28	18"	24"	180	58	Trib to Schoolhouse Crk	0	3	0	136	2018	\$ 200,000	Raise road about 2 ft to reduce flooding by backwater from railroad culvert
36	3.1	CR	58930	Moore Rd	0.06	9N	1E	6	18", 24"	10'	385	112	Trib to Hemlock Creek	0	3	0	96	2009	\$ 400,000	Need to raise road - within ohwm of silver lake
37	3.0	CR	58960	Canal Road	0.87	9N	1E	6	12' & 12'	12'	8500	1619	Hemlock Creek	0	0	3	20	2008	\$ 1,000,000	Pipes are rusting through

Rating: Flooding

- 10 Floods homes (backs up)
- 5 Floods up to homes (backs up)
- 4 Floods each year
- 3 Floods every couple of years
- 2 Floods seldom
- 1 Flooded during extreme events

Damage

- 10 Damage to entire roadway
- 8 Damage to one lane
- 6 Failing
- 5 Risk of washout
- 4 Damaged shoulder
- 3 Rusted
- 2 Damage to roadway embankment
- 1 End broken off

Fish Passage

- 10 Blockage >75%
- 6 Blockage 51% to 75%
- 3 Blockage 10%-50%
- 0 No blockage

$$Q(100) = 0.809 * (A/640)^{0.862} * (MAP=55)^{1.26} * 1.381$$