

Clackamas County Draft TSDC Project List 2017

#	Location	Project	Segment/Location	Description	AUTO				PEDESTRIAN			BIKE			SDC ELIGIBLE	
					Total Project Cost	Total Auto Cost	% Auto SDC Eligible	\$ Auto SDC Eligible	Total Ped Cost	% Ped SDC Eligible	\$ Ped SDC Eligible	Total Bike Cost	% Bike SDC Eligible	\$ Bike SDC Eligible	Total % SDC Eligible	Total \$ SDC Eligible
1004	Urban	122nd Ave	Sunnyside Rd to Timber Valley Dr	Add bikeways and turn lanes at major intersections	\$3,010,000	\$292,448	100.00%	\$292,448	\$0	40.60%	\$0	\$2,717,552	57.96%	\$1,575,048	62.04%	\$1,867,496
1006	Urban	142nd Ave	Sunnyside Rd to OR 212	Add bikeways and pedways	\$14,060,000	\$0	na	\$0	\$5,206,995	40.60%	\$2,114,237	\$8,853,005	57.96%	\$5,131,054	51.53%	\$7,245,291
2017	Rural	362nd Ave	Skogan Rd to OR 211 (excludes state facilities)	Add paved shoulders	\$5,980,000	\$5,980,000	29.40%	\$1,758,120	\$0	40.60%	\$0	\$0	57.96%	\$0	29.40%	\$1,758,120
AI S1	Urban	82nd Avenue	82nd Ave/Hinkley (excludes state facilities)	convert accesses at SE Hinkley at Columbia Bank/Union 76 on east side of 82nd Avenue to right-in/right-out. Create new circulation to route traffic to signal at SE Lindy.	\$4,182	\$4,182	24.00%	\$1,009	\$0	41.00%	\$0	\$0	58.00%	\$0	24.00%	\$1,009
AI S2	Urban	82nd Avenue	82nd Ave MP 8.50 (excludes state facilities)	In the vicinity of MP 8.50 put in enhanced pedestrian crossing to connect east side pedestrian ramp with walkway to neighborhood to west.	\$82,000	\$0	0.00%	\$0	\$82,000	9.00%	\$7,786	\$0	58.00%	\$0	9.00%	\$7,786
AI S4	Urban	82nd Avenue	82nd Ave North entrance to Clackamas Town Center (excludes state facilities)	North entrance to Clackamas Town Center on 82nd make right in, right out only and remove signal. Perform traffic analysis as needed to evaluate traffic diversion to adjacent roadways and intersections.	\$69,700	\$69,700	24.00%	\$16,503	\$0	41.00%	\$0	\$0	58.00%	\$0	24.00%	\$16,503
AI S5	Urban	82nd Avenue	Sunnyside to 82nd Ave (excludes state facilities)	southbound 82nd Ave (east to south). Add median island for pedestrian crossing. Standardize NB right-turn lane 82nd to	\$734,891	\$468,017	100.00%	\$468,017	\$81,554	9.00%	\$7,744	\$185,320	58.00%	\$107,408	79.00%	\$583,169
AI S7	Urban	82nd Avenue	Sunnyside Rd to Sunnyside Dr	Install traffic separator from Sunnyside Rd to Sunnyside Dr (MP 9.15), advance street names.	\$17,712	\$17,712	24.00%	\$4,185	\$0	41.00%	\$0	\$0	58.00%	\$0	24.00%	\$4,185
AI S8	Urban	82nd Avenue	(excludes state facilities)	Harmony/Sunnyside.	\$98,400	\$98,400	24.00%	\$23,299	\$0	41.00%	\$0	\$0	58.00%	\$0	24.00%	\$23,299
1008	Urban	82nd Dr	OR 212 to Lawnfield Rd	Fill in bikeways and pedways gaps	\$680,000	\$0	na	\$0	\$680,000	40.60%	\$276,106	\$0	57.96%	\$0	40.60%	\$276,106
1009	Urban	85th Ave	Causey Ave to Monterey Ave	Pedestrian Safety Audit to verify lighting,	\$30,000	\$0	na	\$0	\$17,608	40.60%	\$7,149	\$12,392	57.96%	\$7,182	47.77%	\$14,332
1010	Urban	92nd Ave	Johnson Creek Blvd to Emmert View Ct	Fill gaps in pedways	\$480,000	\$0	na	\$0	\$480,000	40.60%	\$194,898	\$0	57.96%	\$0	40.60%	\$194,898
AI S12	Urban	97th Avenue	Sunnybrook Blvd to Mather Rd	fog lines, and rumble striping. Verify lighting, drainage, surface friction. From Sunnybrook	\$49,200	\$49,200	35.00%	\$17,193	\$0	41.00%	\$0	\$0	58.00%	\$0	35.00%	\$17,193
1049	Rural	Amisigger Rd / Kelso Rd	OR 224 to Kelso / Richey Rd (excludes state facilities)	Amisigger/OR 212 and Kelso/Richey; smooth curves.	\$13,010,000	\$13,010,000	57.05%	\$7,422,839	\$0	na	\$0	\$0	14.33%	\$0	57.05%	\$7,422,839
2029	Rural	Arndt Rd Extension	Barlow to OR 99E (excludes state facilities)	Construct new 2 or 3 lane roadway	\$17,040,000	\$17,040,000	100.00%	\$17,040,000	\$0	40.60%	\$0	\$0	57.96%	\$0	100.00%	\$17,040,000
2030	Rural	Barlow Rd	Knights Bridge Rd to OR 99E	Add paved shoulders	\$5,400,000	\$5,400,000	19.97%	\$1,078,492	\$0	40.60%	\$0	\$0	57.96%	\$0	19.97%	\$1,078,492
1097	Rural	Beavercreek Rd	Henrici Rd to Yeoman Rd/Steiner Rd	Add paved shoulders and turn lanes at major intersections	\$11,630,000	\$11,630,000	16.25%	\$1,890,216	\$0	na	\$0	\$0	14.33%	\$0	16.25%	\$1,890,216
AI S9	Urban	Bob Schumacher Road	Bob Schumacher Road	centerline rumble stripe.	\$49,200	\$49,200	30.00%	\$14,765	\$0	41.00%	\$0	\$0	58.00%	\$0	30.00%	\$14,765
1081	Rural	Borland Rd	Tualatin city limits to Stafford Rd	Active Transportation Plan and turn lanes at major intersections	\$5,680,000	\$5,680,000	30.59%	\$1,737,528	\$0	40.60%	\$0	\$0	57.96%	\$0	30.59%	\$1,737,528
1082	Rural	Borland Rd	Stafford Rd to West Linn city limits	Add paved shoulders	\$10,290,000	\$10,290,000	43.23%	\$4,448,713	\$0	na	\$0	\$0	14.33%	\$0	43.23%	\$4,448,713
1013	Urban	Boyer Dr / 85th Ave / Spencer Dr	OR 213 to I-205 bike path (excludes state facilities)	Add bikeways	\$40,000	\$0	na	\$0	\$0	40.60%	\$0	\$40,000	57.96%	\$23,183	57.96%	\$23,183
1099	Rural	Canby-Marquam Highway	Canby-Marquam Hwy / Lone Elder Rd intersection	Reconstruct intersection; install northbound left-turn lane and southbound right-turn lane	\$3,850,000	\$3,850,000	30.77%	\$1,184,615	\$0	na	\$0	\$0	14.33%	\$0	30.77%	\$1,184,615
1014	Urban	Causey Ave	Fuller Rd to I-205 (excludes state facilities)	Add bikeways and shared facility markings in accordance with the Active Transportation Plan.	\$50,000	\$0	na	\$0	\$0	40.60%	\$0	\$50,000	57.96%	\$28,979	57.96%	\$28,979
AI S6	Urban	Causey Avenue	Causey Ave/85th Ave	Pedestrian Safety Audit - verify lighting, crosswalk striping, signing, at Causey Ave/85th Ave	\$30,750	\$0	0.00%	\$0	\$30,750	9.00%	\$2,920	\$0	58.00%	\$0	9.00%	\$2,920
1101	Rural	Clarkes Four Corners Intersection	Beavercreek Rd / Unger Rd	Reconstruct intersection	\$4,490,000	\$4,490,000	17.14%	\$769,714	\$0	na	\$0	\$0	14.33%	\$0	17.14%	\$769,714

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2001	Urban	Clatsop St / Luther Rd	72nd Ave to Fuller Rd	Add turn lanes and signals at OR 213 intersection; add bikeways, pedways and traffic calming	\$8,118,000	\$1,001,719	100.00%	\$1,001,719	\$7,116,281	40.60%	\$2,889,479	\$0	57.96%	\$0	47.93%	\$3,891,198
1062	Urban	Concord Rd	River Rd to Oatfield Rd	Fill gaps in pedway	\$7,410,800	\$0	na	\$0	\$7,410,800	40.60%	\$3,009,065	\$0	57.96%	\$0	40.60%	\$3,009,065
1063	Urban	Courtney Ave	OR 99E to Oatfield Rd (excludes state facilities)	Fill gaps in pedestrian facilities and bikeways	\$1,860,000	\$0	na	\$0	\$975,466	40.60%	\$396,076	\$884,534	57.96%	\$512,661	48.86%	\$908,737
1064	Urban	Courtney Ave	River Rd to OR 99E (McLoughlin Blvd) (excludes state facilities)	Construct pedestrian facilities / complete gaps on the south side; add bikeways	\$5,010,000	\$0	na	\$0	\$4,352,245	40.60%	\$1,767,176	\$657,755	57.96%	\$381,224	42.88%	\$2,148,400
2034	Rural	Dryland Rd	Macksburg Rd S to Macksburg Rd N	Realign to form one intersection at Dryland Rd add paved shoulders and turn lanes at major intersection; investigate speed zone south of Currin Rd	\$3,400,000	\$3,400,000	26.25%	\$892,500	\$0	40.60%	\$0	\$0	57.96%	\$0	26.25%	\$892,500
1055	Rural	Eagle Creek Rd	Currin Rd to Duus Rd	add paved shoulders and turn lanes at major intersection; investigate speed zone south of Currin Rd	\$10,500,000	\$10,500,000	53.43%	\$5,610,294	\$0	na	\$0	\$0	14.33%	\$0	53.43%	\$5,610,294
2018	Rural	Eagle Creek Rd	OR 211 to Duus Rd (excludes state facilities)	Add paved shoulders	\$14,780,500	\$14,780,500	21.67%	\$3,202,442	\$0	na	\$0	\$0	14.33%	\$0	21.67%	\$3,202,442
2002	Urban	Evelyn St	OR 224 to Jennifer St (excludes state facilities)	Add bikeways and pedways	\$1,681,000	\$0	na	\$0	\$1,657,667	40.60%	\$673,075	\$23,333	57.96%	\$13,523	40.84%	\$686,599
2019	Rural	Firwood Rd	Wildcat Mountain Dr to US 26	intersections.	\$16,840,000	\$16,840,000	17.50%	\$2,947,000	\$0	40.60%	\$0	\$0	57.96%	\$0	17.50%	\$2,947,000
1019	Urban	Flavel Dr	Alberta Ave to County boundary	Add bikeways in accordance with the Active Transportation plan	\$2,410,000	\$0	na	\$0	\$0	40.60%	\$0	\$2,410,000	57.96%	\$1,396,796	57.96%	\$1,396,796
1085	Urban	French Prairie Bridge	(excludes state facilities)	Transportation Plan	\$9,790,000	\$0	na	\$0	\$4,895,000	20.78%	\$1,017,121	\$4,895,000	20.78%	\$1,017,121	20.78%	\$2,034,242
1020	Urban	Fuller Rd	Otty St to Johnson Creek Blvd	parking, central median and landscaping.	\$7,580,000	\$3,892,432	88.24%	\$3,434,499	\$2,458,378	40.60%	\$998,195	\$1,229,189	57.96%	\$712,418	67.88%	\$5,145,111
2035	Rural	Hattan Rd	Fischers Mill Rd to Gronlund Rd	Add paved shoulders and turn lanes at major intersections	\$15,426,300	\$15,426,300	45.50%	\$7,018,339	\$0	na	\$0	\$0	14.33%	\$0	45.50%	\$7,018,339
1108	Rural	Henrici Rd	Beavercreek Rd to Ferguson Rd	Add paved shoulders and turn lanes at major intersections. Remove horizontal and vertical curves	\$4,900,000	\$4,900,000	46.15%	\$2,261,538	\$0	40.60%	\$0	\$0	57.96%	\$0	46.15%	\$2,261,538
2036	Rural	Henrici Rd	(excludes state facilities)	intersections	\$5,196,800	\$5,196,800	44.67%	\$2,321,284	\$0	na	\$0	\$0	14.33%	\$0	44.67%	\$2,321,284
2037	Rural	Henrici Rd	Ferguson Rd to Redland Rd	intersections. Remove horizontal and vertical	\$17,870,000	\$17,870,000	43.79%	\$7,824,507	\$0	40.60%	\$0	\$0	57.96%	\$0	43.79%	\$7,824,507
1066	Urban	Hull Ave	Wilmot St to Tims View Ave	Fill gaps in pedestrian facilities	\$4,130,000	\$0	na	\$0	\$4,130,000	40.60%	\$1,676,936	\$0	57.96%	\$0	40.60%	\$1,676,936
3013	Urban	I-205 Ped / Bike Overpass	Between Causey Ave and Sunnyside Rd	connect transit services, businesses and	\$4,900,000	\$0	0.00%	\$0	\$2,450,000	20.78%	\$509,080	\$2,450,000	20.78%	\$509,080	20.78%	\$1,018,160
2005	Urban	Jennifer St	82nd Dr to 135th Ave (excludes state facilities)	Add pedways	\$16,082,300	\$0	na	\$0	\$16,082,300	40.60%	\$6,530,022	\$0	57.96%	\$0	40.60%	\$6,530,022
2021	Urban	Jennings Ave	Oatfield Rd to Webster Rd	Widen to 2-lane urban minor arterial standard with bikeway and pedway infill	\$13,659,827	\$4,553,276	100.00%	\$4,553,276	\$4,553,276	40.60%	\$1,848,802	\$4,553,276	57.96%	\$2,639,002	66.19%	\$9,041,080
1030	Urban	Johnson Creek Blvd	(excludes state facilities)	median; install dual northbound and southbound	\$890,000	\$890,000	100.00%	\$890,000	\$0	40.60%	\$0	\$0	57.96%	\$0	100.00%	\$890,000
AI MV3	Urban	Johnson Creek Boulevard	92nd/Johnson Creek Blvd	Turn lane improvements at 92nd/Johnson Creek Boulevard	\$467,400	\$467,400	14.00%	\$66,545	\$0	41.00%	\$0	\$0	58.00%	\$0	14.00%	\$66,545
2022	Urban	Lake Oswego to Milwaukie Bridge	Between Sellwood and Oregon City	Willamette River in accordance with the Active Transportation Plan	\$10,130,000	\$0	na	\$0	\$5,065,000	20.78%	\$1,052,445	\$5,065,000	20.78%	\$1,052,445	20.78%	\$2,104,890
2006	Urban	Lake Rd	Milwaukie City limits east to OR 224 (excludes state facilities)	Fill gaps in pedways	\$5,670,000	\$0	na	\$0	\$5,670,000	40.60%	\$2,302,234	\$0	57.96%	\$0	40.60%	\$2,302,234
2007	Urban	Linwood Ave	Linwood Ave / Monroe St intersection	Add curbs/sidewalks, improve horizontal alignments	\$7,605,500	\$3,684,425	21.89%	\$806,624	\$3,921,075	40.60%	\$1,592,105	\$0	57.96%	\$0	31.54%	\$2,398,729
1112	Rural	Lone Elder Rd Bridge	~5,800 feet east of Barlow Rd	and include paved shoulders	\$450,000	\$450,000	15.00%	\$67,500	\$0	na	\$0	\$0	14.33%	\$0	15.00%	\$67,500
1115	Rural	Molalla Ave Flooding	Just south of city of Molalla	Construct bridge to resolve flooding issues	\$720,000	\$720,000	44.86%	\$322,971	\$0	40.60%	\$0	\$0	57.96%	\$0	44.86%	\$322,971
2010	Urban	Monroe St / 72nd Ave / Thompson Rd	Linwood Ave to Fuller Rd	Add pedestrian facilities	\$3,970,000	\$0	na	\$0	\$3,970,000	40.60%	\$1,611,970	\$0	57.96%	\$0	40.60%	\$1,611,970
AI MV2	Urban	Monterey Ave	Monterey Ave	and Monterey Ave	\$4,258,545	\$4,258,545	100.00%	\$4,258,545	\$0	41.00%	\$0	\$0	58.00%	\$0	100.00%	\$4,258,545
2039	Rural	Mulino Rd (13th St segment)	Canby city limits to OR 213 (excludes state facilities)	Add paved shoulders and turn lanes at major intersections	\$24,890,000	\$24,890,000	54.23%	\$13,498,038	\$0	40.60%	\$0	\$0	57.96%	\$0		\$13,498,038
1069	Urban	Oak Grove Blvd	Oatfield Rd to River Rd	Fill gaps in pedways and bikeways	\$2,590,000	\$0	na	\$0	\$2,036,109	40.60%	\$826,737	\$553,891	57.96%	\$321,026	44.32%	\$1,147,763
1071	Urban	Oatfield Rd	Oatfield Rd / Park Rd intersection	Install traffic signal and add turn lanes	\$1,060,000	\$1,060,000	32.56%	\$345,116	\$0	40.60%	\$0	\$0	57.96%	\$0	32.56%	\$345,116

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						Total Auto Cost	% Auto SDC Eligible	\$ Auto SDC Eligible	Total Ped Cost	% Ped SDC Eligible	\$ Ped SDC Eligible	Total Bike Cost	% Bike SDC Eligible	\$ Bike SDC Eligible	Total % SDC Eligible	Total \$ SDC Eligible
1072	Urban	Oatfield Rd	Oatfield Rd / McNary Rd intersection	Add southbound and eastbound left-turn lanes Plan; improve curb radius; add turn lanes, on-street parking, central median, landscaping,	\$570,000	\$570,000	20.16%	\$114,912	\$0	40.60%	\$0	\$0	57.96%	\$0	20.16%	\$114,912
1041	Urban	Otty Rd	Fuller Rd to 92nd Ave		\$1,216,000	\$428,768	50.00%	\$214,384	\$333,544	40.60%	\$135,431	\$453,688	57.96%	\$262,950	50.39%	\$612,765
1073	Urban	Park Ave	River Rd to OR 99E (McLoughlin Blvd)	Add pedestrian facilities	\$1,750,000	\$0	na	\$0	\$1,750,000	40.60%	\$710,566	\$0	57.96%	\$0	40.60%	\$710,566
2042	Rural	Redland Rd	Redland Rd / Fischers Mill Rd / Henrici Rd intersection	Install eastbound left-turn, eastbound right-turn and westbound right-turn lanes at Henrici Rd	\$860,000	\$860,000	39.78%	\$342,141	\$0	40.60%	\$0	\$0	57.96%	\$0	39.78%	\$342,141
1058	Rural	Richey Rd	Kelso Rd to OR 212 (excludes state facilities)	Add paved shoulders and left turn lane at Richey Rd and OR 212	\$4,200,000	\$4,200,000	49.52%	\$2,079,756	\$0	na	\$0	\$0	14.33%	\$0	49.52%	\$2,079,756
1074	Urban	River Rd	Lark St to Courtney Ave	Add pedways	\$4,880,000	\$0	na	\$0	\$4,880,000	40.60%	\$1,981,465	\$0	57.96%	\$0	40.60%	\$1,981,465
1075	Urban	River Rd	Oak Grove Blvd to Riskey Ave	Fill gaps in bikeways and pedways	\$5,710,000	\$0	na	\$0	\$5,204,369	40.60%	\$2,113,171	\$505,631	57.96%	\$293,055	42.14%	\$2,406,226
2023	Urban	Roots Rd	Webster Rd to McKinley Rd	Add pedways	\$4,838,000	\$0	na	\$0	\$4,838,000	40.60%	\$1,964,411	\$0	57.96%	\$0	40.60%	\$1,964,411
1086	Rural	Rosemont Rd	Stafford Rd to West Linn	intersections	\$8,790,000	\$8,790,000	29.28%	\$2,573,402	\$0	na	\$0	\$0	14.33%	\$0	29.28%	\$2,573,402
1125	Rural	Springwater Rd	Hattan Rd to Bakers Ferry Rd	Add paved shoulders and turn lanes at major intersections	\$6,330,000	\$6,330,000	33.54%	\$2,123,279	\$0	na	\$0	\$0	14.33%	\$0	33.54%	\$2,123,279
1088	Rural	Stafford Rd	Rosemont Rd to I-205 (excludes state facilities)	Add paved shoulders and turn lanes at major intersections	\$8,600,000	\$8,600,000	35.62%	\$3,062,991	\$0	na	\$0	\$0	14.33%	\$0	35.62%	\$3,062,991
2028	Rural	Stafford Rd / 65th Ave	I-205 to Boeckman Rd / Advance Rd (excludes state facilities)	Add paved shoulders and turn lanes at major intersections	\$22,078,500	\$22,078,500	46.18%	\$10,196,598	\$0	na	\$0	\$0	14.33%	\$0	46.18%	\$10,196,598
AI MV1	Urban	Stevens Road	Stevens Rd to High Creek Rd	High Creek Road. Include sidewalk and bike lanes	\$9,414,874	\$5,697,547	100.00%	\$5,697,547	\$3,247,726	41.00%	\$1,318,700	\$469,601	58.00%	\$272,173	77.00%	\$7,288,420
1077	Urban	Thiessen Rd	Thiessen Rd / Aldercrest Rd intersection	Add turn lanes on Thiessen Rd; consider converting to two-way stop controlled	\$570,000	\$570,000	20.42%	\$116,366	\$0	40.60%	\$0	\$0	57.96%	\$0	20.42%	\$116,366
2024	Urban	Thiessen Rd	Oatfield Rd to Webster Rd	Add bikeways and pedways	\$24,425,800	\$0	na	\$0	\$10,009,831	40.60%	\$4,064,370	\$14,415,969	57.96%	\$8,355,255	50.85%	\$12,419,625
2025	Urban	Webster Rd	OR 224 to Gladstone (excludes state facilities)	Fill gaps in bikeways and pedways	\$19,485,300	\$0	na	\$0	\$12,903,624	40.60%	\$5,239,359	\$6,581,676	57.96%	\$3,814,629	46.47%	\$9,053,989
1059	Rural	Welches Rd	US 26 to Birdie Ln (excludes state facilities)	Add paved shoulders; add pedestrian facilities in Welches rural center; evaluate pedestrian crossing near Stage Stop Rd; add multi-use path	\$6,360,000	\$5,299,938	15.38%	\$815,375	\$1,060,062	40.60%	\$430,425	\$0	57.96%	\$0	19.59%	\$1,245,800
Total Project Count			74		\$461,181,481	\$276,625,009	45.85%	\$126,827,145	\$127,549,659	38.63%	\$49,269,257	\$57,006,813	49.86%	\$28,426,213	44.35%	\$204,522,615

Cost Estimate Assumptions

Date: January 7, 2013 **Project #:** 11732

To: Project Management Team

From: Susan L. Wright, P.E.; Marc A. Butorac, P.E., P.T.O.E.; Kelly M. Laustsen; and Erin M. Ferguson, P.E.; Kittelson & Associates, Inc; Gary Alfson, Otak

Project: Clackamas County Transportation System Plan Update

Subject: Cost Estimate Assumptions

The following list documents the assumptions made in preparing cost estimates for the projects on the Master List for the Clackamas County Transportation System Plan (TSP) Update.

- The unit costs for each roadway classification was computed per lineal foot based on the classification provided in the Functional Classification and Urban or Rural columns in the KAI master spreadsheet and the attached table (Roadway Cost Estimates.xlsx) prepared by Otak.
- The total project costs have been estimated based on the length and roadway classification data provided in the KAI spreadsheet.
- Roadway costs were computed assuming reconstruction of the existing roadway when upgrading to full standards.
- Intersection improvement costs have been estimated using 500 feet per leg of the side street using the Rural Arterial classification section. This length was doubled for state highway intersections.
- Added turn lane costs have been estimated using 500 feet of a left turn lane of Rural Arterial classification, widening only one side of the existing roadway for right turn lanes and both sides for left turn lanes. This length was doubled for state highway intersections.
- For projects that included “turn lanes at major intersections,” it was assumed the project will include left turns at all side streets of arterial and collector classifications. The intersections at the beginning and end of the segment were included.
- Driveways and private drives have not been included.

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- Projects listed as bikeways have been estimated using the “Bike lane widening, urban” classification, unless otherwise noted. The cost for this item also includes the construction of landscape strips and sidewalks.
 - Projects listed as pedways have been estimated using the “Sidewalk widening, urban” classification, unless otherwise noted.
 - Projects that listed the percentage of bikeway and pedways already completed have a percentage assigned to the overall length of improvements as follows:
 - 1-25% complete: improve 87.5% of project length
 - 26-50% complete: improve 62.5% of project length
 - 51-75% complete: improve 37.5% of project length
 - Not specified : improve 100% of project length.
 - Safety audit costs have been input at \$30,000 per mile in urban areas, \$15,000 per miles in rural areas.
 - Road closure costs have been input at \$30,000 each.
 - The costs for vertical realignment have not been included.
 - The cost for horizontal realignment has not been included beyond the length of the roadway improvements or the 500 foot long leg of intersection improvements.
 - The costs for right-of-way have not been included.
 - Water quality or detention facilities are not included.
 - Wetland impacts or sensitive area mitigation not included.
 - The estimated project costs have been taken from the “cost estimate from existing plans” or have not been provided when there is a lack of adequate information to estimate the project.
 - Estimates do not include traffic signal retrofit work, irrigation, culvert crossings, retaining walls, or sound walls. These could add significant costs to the project.
 - Bridge locations and lengths were estimated from Google Earth images when no other resource was available.
 - The undercrossing projects have been estimated using the bridge unit cost.

- Costs for public or franchise utilities are not included (water, sanitary sewer, power, natural gas, cable, telephone).
- Striping assumes thermoplastic materials.
- Signing frequency set at 200' o.c. in urban areas, 400' o.c. in rural areas.
- Earthwork based on 1.25' excavation/embankment across entire ROW. No rock excavation. Assumes 12" stripping (haul-off)
- Pavement section is assumed and may vary based on geotechnical recommendations and traffic volumes.