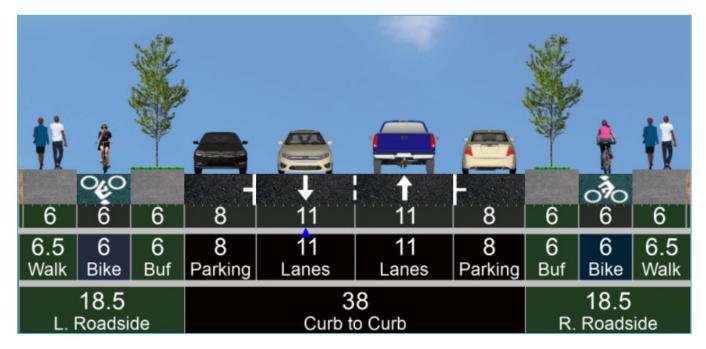
Kingston Terrace Collector Street Cross-sections (from Draft King City Transportation System Plan)

Cross-section to use for East/West Circulation Alternatives between Elsner Road and point of connection to existing city streets (provide for transition to existing city street as appropriate)

TSP Figure 33: Typical City Collector, Neighborhood Route, and Local Street cross-section Major Pedestrian, Major Bicycle and Transit route designation



Cross-section to assume on bridges or culverts

Assume two 11-foot vehicle travel lanes with the bicycle/pedestrian cross-section shown below on both sides of the structure. Assume there will be a transition from the collector road cross-section which includes parking to a cross-section that does not include parking on the bridge.

TSP Figure 30: SEPARATED Pedestrian and Bicycle Facility Designs

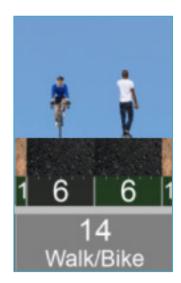


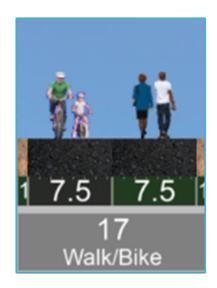
Note: * For short segments, a low use accessway or shared use path can be as narrow as 8 feet wide, with a 1-foot shoulder on each side and a total right-of-way of 10 feet. Cross-section to assume on Multi-use Pathway

Choice of cross-section depends on where the pathway would be located and the level of activity expected.

TSP Figure 30: SEPARATED Pedestrian and Bicycle Facility Designs

Typical Shared Use Path Design





High Demand Shared

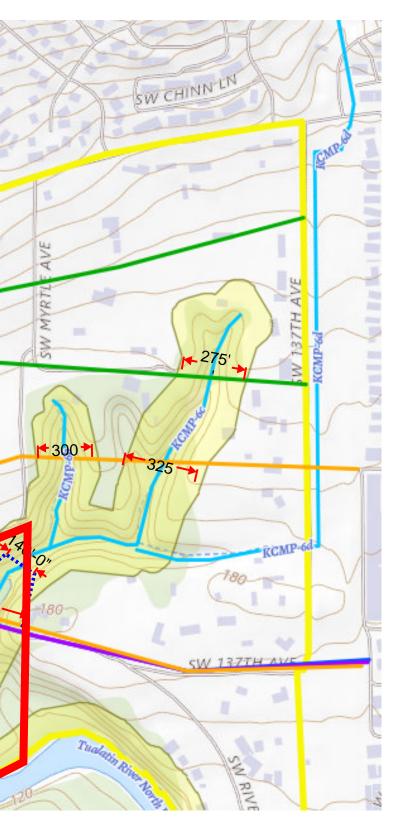
Use Path Design

Kingston Terrace East / West Circulation Alterantives

ROSARIO UN SW TAYLOR LN APRIL LN SW MS SWV JULBERRY DR SW BEEF BEND RD KC 50' V + 225 50 150 4 SUTHAVE ŝ 50' 50 250,000 300' 300. MEVER LN 4 5 160'-0" 100'-0" 350 100'-0 Meyer Riverside Airpan SWL 150TH A 15 · 180 Multi-use path -390' alternative, typ. 425 Tualatin River North Bank Tualatin River North Bank Tualatin River Tualatin River

Bridge Lengths

Bankston Easement



		Alterna	ative 1 Plannir	ng Level Cost Estimat	e		
Item Description	Unit Price	Unit	Quantity	Total Cost	Assumptions	Total Length: 643	7ft
		Full Width				Bridge Length	1715
Roadway	\$388.00	LF	4642	\$1,801,096.00		Shared Use Path	0
Environmental Mitigation	\$90,054.80	LS	1	\$90,054.80	5% roadway total	Roadway Full Width	4642
		ay Taper				Roadway Taper	80
Taper	\$304.00	LF	80	\$24,320.00			
Environmental Mitigation	\$1,216.00	LS	1	\$1,216.00	5% roadway total		
		dge					
Bridge	\$26,000,000.00	LS	1	\$26,000,000.00			
	Bridge I	Roadway					
Roadway	\$139.00	LF	1715	\$238,385.00			
Environmental Mitigation	\$11,919.25	LS	1	\$11,919.25	5% roadway total		
	Shared	Use Path					
Path	\$64.00	LF	0	\$0.00	_		
Environmental Mitigation	\$0.00	LS	1	\$0.00	5% roadway total		
	Lands	scaping					
Buffer	\$360.00	LF	1715	\$617,400.00	_		
Constr	uction Phase Tota	l (1)		\$28,784,391.05			
		nwater					
Stormwater	\$2,878,439.11	LS	1	\$2,878,439.11	10% phase total (1)		
Constr	uction Phase Tota	l (2)		\$31,662,830.16			
	Mohil	lization			1		
Mobilization	\$2,533,026.41	LS	1	\$2,533,026.41	8% phase total (2)		
	uction Phase Tota	_	-	\$34,195,856.57			
Const				<i>vol</i> , <i>vol</i> , <i>vol</i> , <i>vol</i> , <i>v</i>	_		
Constr	uction Phase 1	Total		\$34,195,856.57	1		
	ry Contingenc			\$13,678,342.63	1		

\$47,874,199.19

Alternative Total

		Alten					
Item Description	Unit Price	Unit	Quantity	Total Cost	Assumptions	Total Length: 643	37ft
	Roadwa	y Full Widt	h			Bridge Length	515
Roadway	\$388.00	LF	0	\$0.00		Shared Use Path	5922
Environmental Mitigation	\$0.00	LS	1	\$0.00	5% roadway total	Roadway Full Width	0
	Road	way Taper				Roadway Taper	0
Taper	\$304.00	LF	0	\$0.00	_		
Environmental Mitigation	\$0.00	LS	1	\$0.00	5% roadway total		
	В						
Bridge	\$3,000,000.00	LS	1	\$3,000,000.00			
	Bridge	e Roadway					
Roadway	\$139.00	LF	0	\$0.00			
Environmental Mitigation	\$0.00	LS	1	\$0.00	5% roadway total		
	Shared	d Use Path					
Path	\$64.00	LF	6437	\$411,968.00			
Environmental Mitigation	\$20,598.40	LS	1	\$20,598.40	5% roadway total		
	Land	dscaping					
Buffer	\$360.00	LF	6437	\$2,317,320.00			
Constr	ruction Phase Tot	al (1)		\$5,749,886.40			
					_		
	Stor	rmwater					
Stormwater	\$574,988.64	LS	1	\$574,988.64	10% phase total (1)		
Constr	ruction Phase Tot	al (2)		\$6,324,875.04			
		oilization					
Mobilization	\$505,990.00	LS	1	\$505,990.00	8% phase total (2)		
Constr	ruction Phase Tot	al (3)		\$6,830,865.04			
					_		
Constr	ruction Phase	Total		\$6,830,865.04			
Prelimina	ary Contingen	cy (40%)		\$2,732,346.02			

\$9,563,211.06

Alternative Total

Alternative 1 Trail - Planning Level Cost Estimates

		AI		Ining Level Cost Estim			
Item Description	Unit Price	Unit	Quantity	Total Cost	Assumptions	Total Length: 61	40ft
	Roadwa	y Full Widt	h			Bridge Length	1175
Roadway	\$388.00	LF	4865	\$1,887,620.00	_	Shared Use Path	0
Environmental Mitigation	\$94,381.00	LS	1	\$94,381.00	5% roadway total	Roadway Full Width	4865
	Roady	way Taper				Roadway Taper	100
Taper	\$304.00	LF	100	\$30,400.00			
Environmental Mitigation	\$1,520.00	LS	1	\$1,520.00	5% roadway total		
	В						
Bridge	\$18,000,000.00	LS	1	\$18,000,000.00			
	Bridge	Roadway					
Roadway	\$139.00	LF	1175	\$163,325.00			
Environmental Mitigation	\$8,166.25	LS	1	\$8,166.25	5% roadway total		
	Shared	Use Path					
Path	\$64.00	LF	0	\$0.00			
Environmental Mitigation	\$0.00	LS	1	\$0.00	5% roadway total		
		dscaping					
Buffer	\$360.00	LF	1175	\$423,000.00	_		
Constr	ruction Phase Tot	al (1)		\$20,608,412.25			
					_		
		mwater					
Stormwater	\$2,060,841.23	LS	1	\$2,060,841.23	10% phase total (1)		
Constr	ruction Phase Tot	al (2)		\$22,669,253.48			
					_		
		oilization					
Mobilization	\$1,813,540.28	LS	1	\$1,813,540.28	8% phase total (2)		
Constr	ruction Phase Tot	al (3)		\$24,482,793.75			
					-		
Constr	uction Phase	Total		\$24,482,793.75			
Prelimina	ary Contingen	cy (40%)		\$9,793,117.50			

\$34,275,911.25

Alternative Total

Alternative 2 - Planning Level Cost Estimates

		,					
Item Description	Unit Price	Unit	Quantity	Total Cost	Assumptions	Total Length: 65	01ft
	Roadwa	y Full Widt	h			Bridge Length	1275
Roadway	\$388.00	LF	5106	\$1,981,128.00		Shared Use Path	0
Environmental Mitigation	\$99 <i>,</i> 056.40	LS	1	\$99,056.40	5% roadway total	Roadway Full Width	5106
	Roady	way Taper				Roadway Taper	120
Taper	\$304.00	LF	120	\$36,480.00			
Environmental Mitigation	\$1,824.00	LS	1	\$1,824.00	5% roadway total		
	В	ridge					
Bridge	\$20,000,000.00	LS	1	\$20,000,000.00			
	Bridge	Roadway					
Roadway	\$139.00	LF	1275	\$177,225.00			
Environmental Mitigation	\$8,861.25	LS	1	\$8,861.25	5% roadway total		
	Shared	l Use Path					
Path	\$64.00	LF	0	\$0.00			
Environmental Mitigation	\$0.00	LS	1	\$0.00	5% roadway total		
	Land	Iscaping					
Buffer	\$360.00	LF	1275	\$459,000.00			
Constr	ruction Phase Tot	al (1)		\$22,763,574.65			
					_		
		mwater					
Stormwater	\$2,276,357.47	LS	1	\$2,276,357.47	10% phase total (1)		
Consti	ruction Phase Tot	al (2)		\$25,039,932.12			
					_		
		oilization					
Mobilization	\$2,003,194.57	LS	1	\$2,003,194.57	8% phase total (2)		
Constr	ruction Phase Tot	al (3)		\$27,043,126.68			
				1	_		
Constr	uction Phase	Total		\$27,043,126.68			
Prelimina	ary Contingen	c <mark>v (40%</mark>)		\$10,817,250.67			
	,	, ,		,. , . ,			

\$37,860,377.36

Alternative Total

Alternative 3 North - Planning Level Cost Estimate

Item Description	Unit Price	Unit	Quantity	Total Cost	Assumptions	Total Length: 6	515ft
	Roadway	y Full Widt	h			Bridge Length	1075
Roadway	\$388.00	LF	5340	\$2,071,920.00	_	Shared Use Path	0
Environmental Mitigation	\$103,596.00	LS	1	\$103,596.00	5% roadway total	Roadway Full Width	5340
	Roadv	vay Taper				Roadway Taper	100
Taper	\$304.00	LF	100	\$30,400.00			
Environmental Mitigation	\$1,520.00	LS	1	\$1,520.00	5% roadway total		
	Ві						
Bridge	\$16,000,000.00	LS	1	\$16,000,000.00			
	Bridge	Roadway					
Roadway	\$139.00	LF	1075	\$149,425.00			
Environmental Mitigation	\$7,471.25	LS	1	\$7,471.25	5% roadway total		
	Shared	Use Path					
Path	\$64.00	LF	0	\$0.00			
Environmental Mitigation	\$0.00	LS	1	\$0.00	5% roadway total		
		lscaping					
Buffer	\$360.00	LF	1075	\$387,000.00	_		
Constr	uction Phase Tota	al (1)		\$18,751,332.25			
					_		
		mwater					
Stormwater	\$1,875,133.23	LS	1	\$1,875,133.23	10% phase total (1)		
Constr	uction Phase Tota	al (2)		\$20,626,465.48			
					_		
		ilization					
Mobilization	\$1,650,117.24	LS	1	\$1,650,117.24	8% phase total (2)		
Constr	uction Phase Tota	al (3)		\$22,276,582.71			
					-		
Constr	uction Phase	Total		\$22,276,582.71			
Prelimina	ry Contingend	cy (40%)		\$8,910,633.09			
Alt	ernative Tota	I		\$31,187,215.80			

Alternative 3 South - Planning Level Cost Estimate

		/					
Item Description	Unit Price	Unit	Quantity	Total Cost	Assumptions	Total Length: 599)3ft
	Roadwa	y Full Width	1			Bridge Length	285
Roadway	\$388.00	LF	5648	\$2,191,424.00		Shared Use Path	0
Environmental Mitigation	\$109,571.20	LS	1	\$109,571.20	5% roadway total	Roadway Full Width	5648
	Roady	way Taper				Roadway Taper	60
Taper	\$304.00	LF	60	\$18,240.00			
Environmental Mitigation	\$912.00	LS	1	\$912.00	5% roadway total		
	В	ridge					
Bridge	\$4,000,000.00	LS	1	\$4,000,000.00			
	Bridge	e Roadway					
Roadway	\$139.00	LF	285	\$39,615.00			
Environmental Mitigation	\$1,980.75	LS	1	\$1,980.75	5% roadway total		
	Shared	d Use Path					
Path	\$64.00	LF	0	\$0.00	_		
Environmental Mitigation	\$0.00	LS	1	\$0.00	5% roadway total		
	Land	dscaping					
Buffer	\$360.00	LF	285	\$102,600.00			
Const	ruction Phase Tot	al (1)		\$6,464,342.95			
		mwater					
Stormwater	\$646,434.30	LS	1	\$646,434.30	10% phase total (1)		
Const	ruction Phase Tot	al (2)		\$7,110,777.25			
		oilization					
Mobilization	\$568,862.18	LS	1	\$568,862.18	8% phase total (2)		
Const	ruction Phase Tot	al (3)		\$7,679,639.42			
				T	_		
Consti	ruction Phase	Total		\$7,679,639.42			
Prelimina	ary Contingen	cv (40%)		\$3,071,855.77			
	,	/ /		1-7- 7			

\$10,751,495.19

Alternative Total

Alternative 4 North - Planning Level Cost Estimate

		74100			201111410		
Item Description	Unit Price	Unit	Quantity	Total Cost	Assumptions	Total Length: 59	50ft
	Roadwa	y Full Widt	h			Bridge Length	485
Roadway	\$388.00	LF	5385	\$2,089,380.00		Shared Use Path	0
Environmental Mitigation	\$104,469.00	LS	1	\$104,469.00	5% roadway total	Roadway Full Width	5385
	Roady	way Taper				Roadway Taper	80
Taper	\$304.00	LF	80	\$24,320.00			
Environmental Mitigation	\$1,216.00	LS	1	\$1,216.00	5% roadway total		
	В	ridge					
Bridge	\$7,000,000.00	LS	1	\$7,000,000.00			
	Bridge	e Roadway					
Roadway	\$139.00	LF	485	\$67,415.00			
Environmental Mitigation	\$3,370.75	LS	1	\$3 <i>,</i> 370.75	5% roadway total		
	Shared	d Use Path					
Path	\$64.00	LF	0	\$0.00			
Environmental Mitigation	\$0.00	LS	1	\$0.00	5% roadway total		
		dscaping					
Buffer	\$360.00	LF	485	\$174,600.00	_		
Consti	ruction Phase Tot	al (1)		\$9,464,770.75			
					_		
		rmwater					
Stormwater	\$946,477.08	LS	1	\$946,477.08	10% phase total (1)		
Constr	ruction Phase Tot	al (2)		\$10,411,247.83			
					_		
		oilization					
Mobilization	\$832,899.83	LS	1	\$832,899.83	8% phase total (2)		
Constr	ruction Phase Tot	al (3)		\$11,244,147.65			
• • •					-		
Constr	uction Phase	Total		\$11,244,147.65			
Prelimina	ary Contingen	су (40%)		\$4,497,659.06			

\$15,741,806.71

Alternative Total

Alternative 4 South - Planning Level Cost Estimate

Item Description	Unit Price	Unit	Quantity	Total Cost	Assumptions	Total Length: 3340	ft
		y Full Width		10101 0051	Austriptions	Bridge Length	400
Roadway	\$388.00	LF	2580	\$1,001,040.00		Shared Use Path	0
Environmental Mitigation	\$50,052.00	LS	1	\$50,052.00	5% roadway total	Roadway Full Width	2580
		way Taper				Roadway Taper	60
Taper	\$304.00	LF	60	\$18,240.00			
Environmental Mitigation	\$912.00	LS	1	\$912.00	5% roadway total		
	В						
Bridge	\$6,120,000.00	LS	1	\$6,120,000.00			
	Bridge	e Roadway					
Roadway	\$139.00	LF	400	\$55,600.00			
Environmental Mitigation	\$2,780.00	LS	1	\$2,780.00	5% roadway total		
	S	Signal					
Signal	\$390,000.00	LS	1	\$390,000.00			
	Landscaping						
Buffer	\$360.00	LF	2640	\$950,400.00			
Constr	ruction Phase Tot	al (1)		\$8,589,024.00			
					_		
	Stormwater						
Stormwater	\$858,902.40	LS	1	\$858,902.40	10% phase total (1)		
Constr	ruction Phase Tot	al (2)		\$9,447,926.40			
					_		
	Mobilization						
Mobilization	\$755,834.11	LS	1	\$755,834.11	8% phase total (2)		
Constr	ruction Phase Tot	al (3)		\$10,203,760.51			

No Direct Connection Scenario - Planning Level Cost Estimate

Construction Phase Total	\$10,203,760.51
Preliminary Contingency (40%)	\$4,081,504.20
Alternate Total	\$14,285,264.72

	Allemative 5					
Item Description	Unit Price	Unit	Quantity	Total Cost	Assumptions	Total Length: 1100 ft
	Roadwa	y Full Widt	h			
Roadway	\$388.00	LF	1100	\$426,800.00		
Environmental Mitigation	\$21,340.00	LS	1	\$21,340.00	5% roadway total	
	Land					
Buffer	\$360.00	LF	1100	\$396,000.00		
Constr	uction Phase Tot	al (1)		\$844,140.00		
	Stor	rmwater				
Stormwater	\$84,414.00	LS	1	\$84,414.00	10% phase total (1)	
Constr	uction Phase Tot	al (2)		\$928,554.00		
	Mot	oilization				
Mobilization	\$74,284.32	LS	1	\$74,284.32	8% phase total (2)	
Constr	uction Phase Tot	al (3)		\$1,002,838.32		

Alternative 3 North Planning Level Cost Estimate - Increment on 137th Avenue

Construction Phase Total	\$1,002,838.32
Preliminary Contingency (40%)	\$401,135.33
Alternate Total	\$1,403,973.65

	Allemative 4					
Item Description	Unit Price	Unit	Quantity	Total Cost	Assumptions	Total Length: 1470 ft
	Roadwa	y Full Widt	h			
Roadway	\$388.00	LF	1470	\$570,360.00		
Environmental Mitigation	\$28,518.00	LS	1	\$28,518.00	5% roadway total	
	Land					
Buffer	\$360.00	LF	1470	\$529,200.00		
Constr	uction Phase Tot	al (1)		\$1,128,078.00		
	Stor	mwater				
Stormwater	\$112,807.80	LS	1	\$112,807.80	10% phase total (1)	
Constr	uction Phase Tot	al (2)		\$1,240,885.80		
	Mob	oilization				
Mobilization	\$99,270.86	LS	1	\$99,270.86	8% phase total (2)	

Alternative 4 South Planning Level Cost Estimates - Increment on 137th Avenue

Construction Phase Total	\$1,340,156.66
Preliminary Contingency (40%)	\$536,062.67
Alternate Total	\$1,876,219.33

Item Description	Unit Price	Unit	Quantity	Total Cost	Assumptions	Total Length: 2140 ft
Roadway Full Width						
Roadway	\$388.00	LF	2140	\$830,320.00	_	
Environmental Mitigation	\$41,516.00	LS	1	\$41,516.00	5% roadway total	
Landscaping						
Buffer	\$360.00	LF	2140	\$770,400.00		
Construction Phase Total (1) \$1,642,236.00						
					_	
Stormwater						
Stormwater	\$164,223.60	LS	1	\$164,223.60	10% phase total (1)	
Construction Phase Total (2)			\$1,806,459.60			
Mobilization						
Mobilization	\$144,516.77	LS	1	\$144,516.77	8% phase total (2)	
Construction Phase Total (3)		\$1,950,976.37				

Alternative 4 North Planning Level Cost Estimates - Increment on 137th Avenue

Construction Phase Total	\$1,950,976.37
Preliminary Contingency (40%)	\$780,390.55
Alternate Total	\$2,731,366.92