



APPENDIX B

PROJECT FACT SHEETS

PRIORITIZATION RESULTS

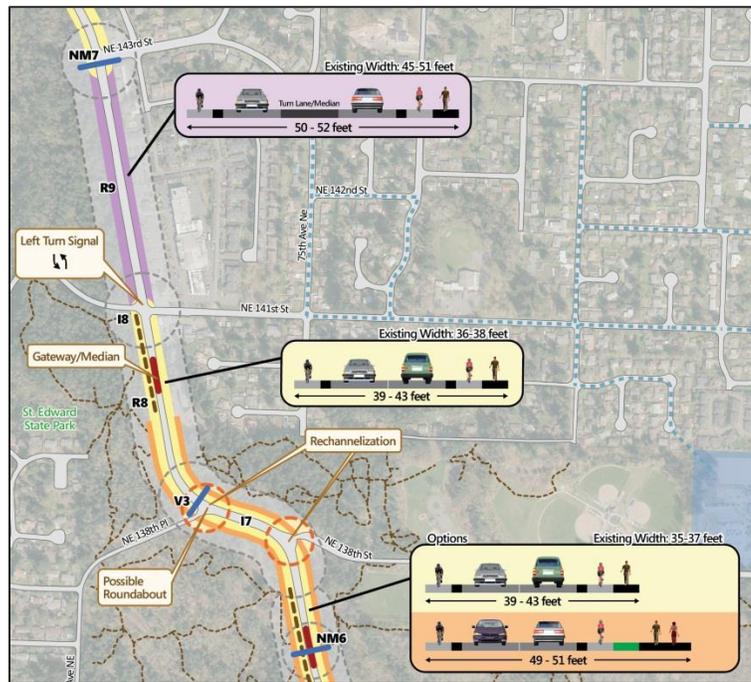
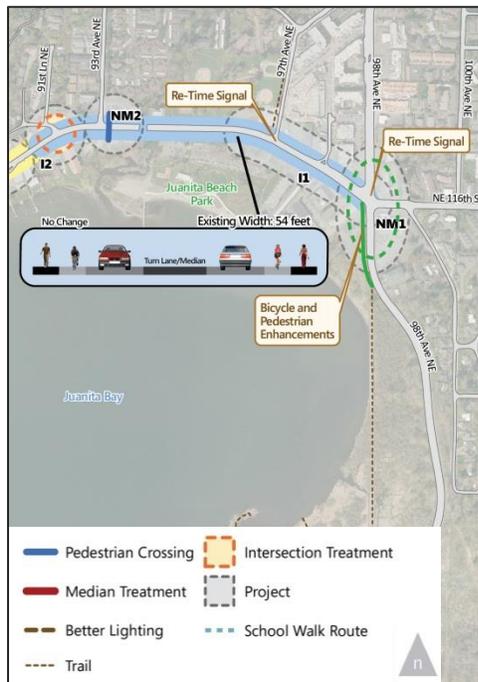
COST ESTIMATES

JUANITA DRIVE Corridor Study



Project Group 1 – Corridor Pedestrian Treatments – This project group includes crosswalk and other pedestrian infrastructure improvements.

ID	Location	Description/Justification
NM1	Juanita Drive / 98 th Avenue NE intersection	Pedestrian and bicycle enhancements. Widen sidewalk connection with Old Market Street Trail to the south. Add bike box on south intersection approach.
NM2	Juanita Drive / 93 rd Avenue NE intersection	Add flashing crosswalk to existing crosswalk.
NM6	Juanita Drive, approximately 600 feet south of NE 138 th Street	Construct mid-block Flashing crosswalk to connect Big Finn Hill Park trails on the east and west sides of Juanita Drive.
NM7	Juanita Drive / NE 143 rd Street intersection	Construct flashing crosswalk at intersection to connect residential neighborhood on the east side of the street with St. Edward State Park on the west.



ID	Capital Cost (in 1,000s)		Priority ^a	Challenges to be resolved
	Basic	Options		
NM1	\$83	--	M	No width on south approach for bike lane; widened sidewalk may require right-of-way.
NM2	\$90	--	M	Minimal
NM6	\$203	--	H	Integrate with full cross-section treatment, which may come later.
NM7	\$90	--	L	Minimal
Total	\$466	--		

^a H = high ; M = medium ; L = low



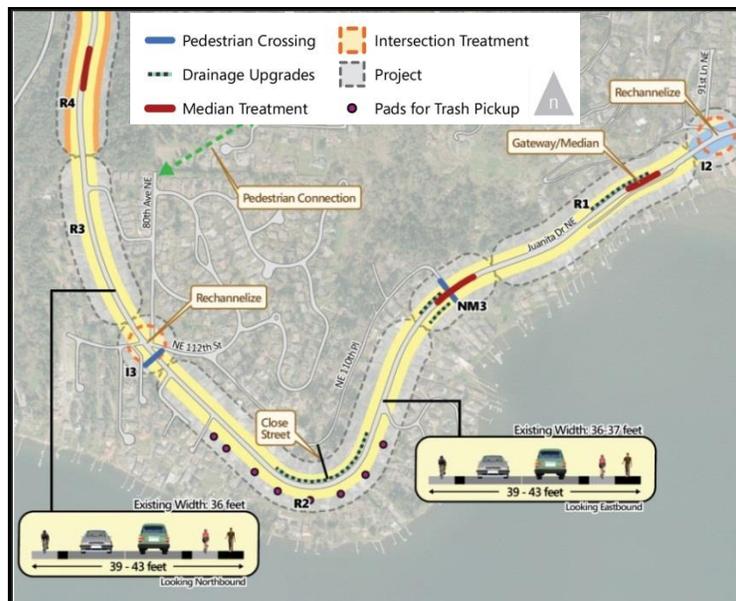
JUANITA DRIVE Corridor Study



Project Group 3 – South Corridor: Juanita Lane to NE 120th Street – This project group includes cross-section improvements to the south corridor of Juanita Drive from Juanita Lane to NE 120th Street.

ID	Location	Description/Justification
R1	NE 116 th Place to 86 th Avenue NE	Widen and reconfigure cross-section to include buffered bike lanes on both sides of street and walkway on north side of street. Improve downhill drainage.
R2	86 th Avenue NE to NE 112 th Street	Widen and reconfigure cross-section to include buffered bike lanes on both sides of street and walkway on north side of street. Close 83 rd Avenue NE intersection to vehicle traffic. Improve inside curve for bicycle and pedestrian passage. Create pads for trash pickups.
R3	NE 112 th Street to 79 th Way NE	Widen and reconfigure cross-section to include buffered bike lanes on both sides of street and walkway on east side of street.
R4	79 th Way NE to NE 120 th Street	Widen and reconfigure cross-section to include buffered bike lanes on both sides of street and walkway on east side of street. ¹
I2	Juanita Drive / NE 116 th Place intersection	Restripe intersection to improve vehicle sight distance and enhance safety for bicyclists and pedestrians.

¹ option to add separated pathway on east side through park



ID	Capital Cost (in 1,000s)		Priority ^a	Challenges to be resolved
	Basic	Options		
R1	\$4,994 ^b	--	M	Steep slopes, sloughing, proximity of Juanita Lane, drainage
R2	\$972 ^c	--	M	Steep slopes, drainage, frequent driveways, trash cans in shoulder
R3	\$1,051	--	L	Moderately steep slopes
R4	\$550	\$980 ^d	L	Steep slopes limits widening options without high costs
I2	\$125	--	L	Minimal
Total	\$7,692	\$980		

^a H = high ; M = medium ; L = low

^b drainage portion of cost is approximately \$98,000

^c drainage portion of cost is approximately \$98,000

^d adds multi-purpose trail



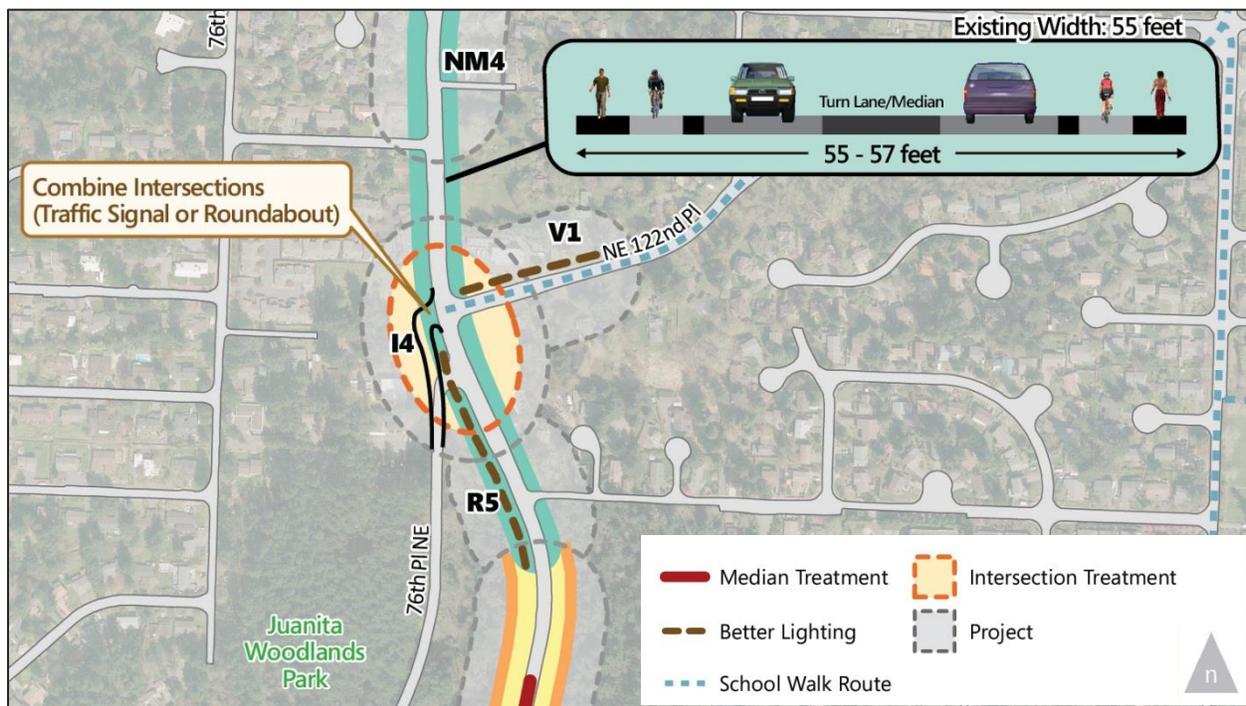
JUANITA DRIVE Corridor Study



Project Group 4 – Holmes Point Drive / NE 122nd Place Intersection – This project group includes intersection improvements and other upgrades in the vicinity of the Holmes Point Drive / NE 122nd Place intersection.

ID	Location	Description/Justification
R5	NE 120 th Street to NE 122 nd Lane	Widen and reconfigure cross-section to include center turn lane, bike lanes and walkway on east side of street.
I4	76 th Place NE and NE 122 nd Street intersections with Juanita Drive	Realign offset intersection to create single signalized intersection or roundabout. ¹
V1	NE 122 nd Place	Upgrade street-lighting in the vicinity of Juanita Drive

¹ roundabout an option to traffic signal



ID	Capital Cost (in 1,000s)		Priority ^a	Challenges to be resolved
	Basic	Options		
R5	\$309	--	H	Minimal
I4	\$1,184 ^b	\$193 ^b	M	Difficult configuration if fire station stays at this location
V1	\$50	--	H	Minimal
Total	\$1,543	\$193		

^a H = high ; M = medium ; L = low

^b basic = signal; option = additional for roundabout



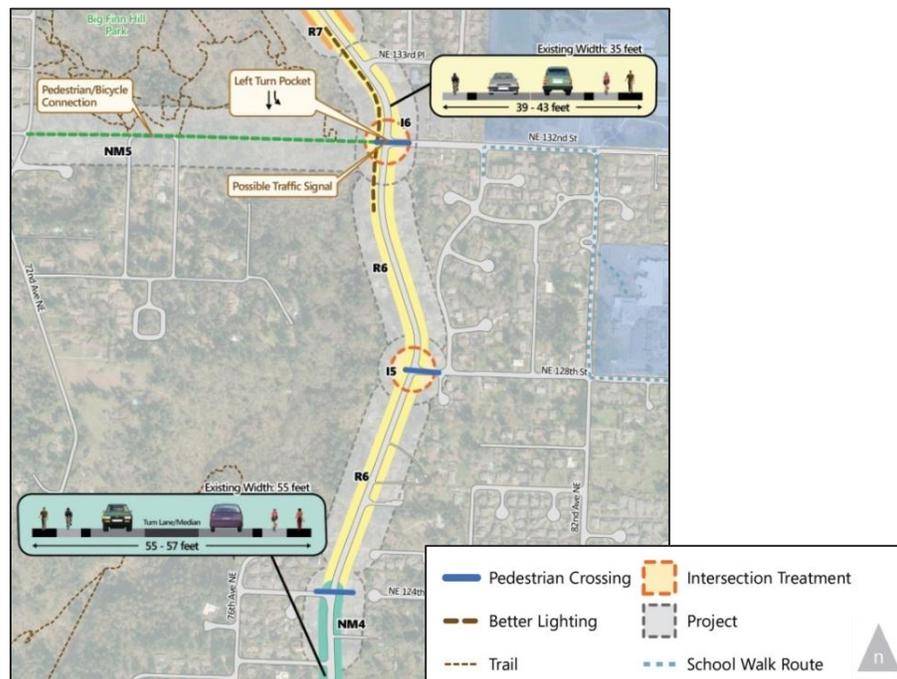
JUANITA DRIVE Corridor Study



Project Group 5 – Central Corridor: NE 124th Street to NE 133rd Street – This project group includes cross-section improvements to the central portion of Juanita Drive from NE 124th Street to NE 133rd Street.

ID	Location	Description/Justification
R6	NE 124 th Street to NE 132 nd Street	Widen cross section to include buffered bike lanes on both sides of street and walkway on east side of street.
I5	Juanita Dr / NE 128 th Street intersection	Widen southbound approach of Juanita Drive to include left turn lane. Construct flashing crosswalk at intersection.
I6	NE 132 nd Street to NE 133 rd Place	Widen southbound approach to NE 128 th Street to include left turn lane. Construct walkway to east side of street and pedestrian bridge west of Juanita Drive across [ravine]. Construct flashing crosswalk at intersection.
NM4	Juanita Drive / NE 124 th Street intersection	Construct flashing crosswalk at intersection. Improve walkway on west side of street from NE 124 th Street to NE 123 rd Street.
NM5	NE 132 nd Street to 72 nd Avenue NE	Construct pedestrian/bicycle pathway along existing easement. Build a nonmotorized bridge across Denny Creek.

¹ roundabout an option to traffic signal



ID	Capital Cost (in 1,000s)		Priority ^a	Challenges to be resolved
	Basic	Options		
R6	\$985	--	M	Some slopes
I5	\$1,082 ^b	--	H	Drainage on west side
I6	\$878	--	H	Lighting; link to nonmotorized path (NM5)
NM4	\$143	--	H	Tie to NE 124 th Street cul-de-sac
NM5	\$316	--	M	Bridge construction; interface with existing streets
Total	\$3,404	--		

^a H = high ; M = medium ; L = low

^b drainage portion of cost is approximately \$98,000



JUANITA DRIVE Corridor Study

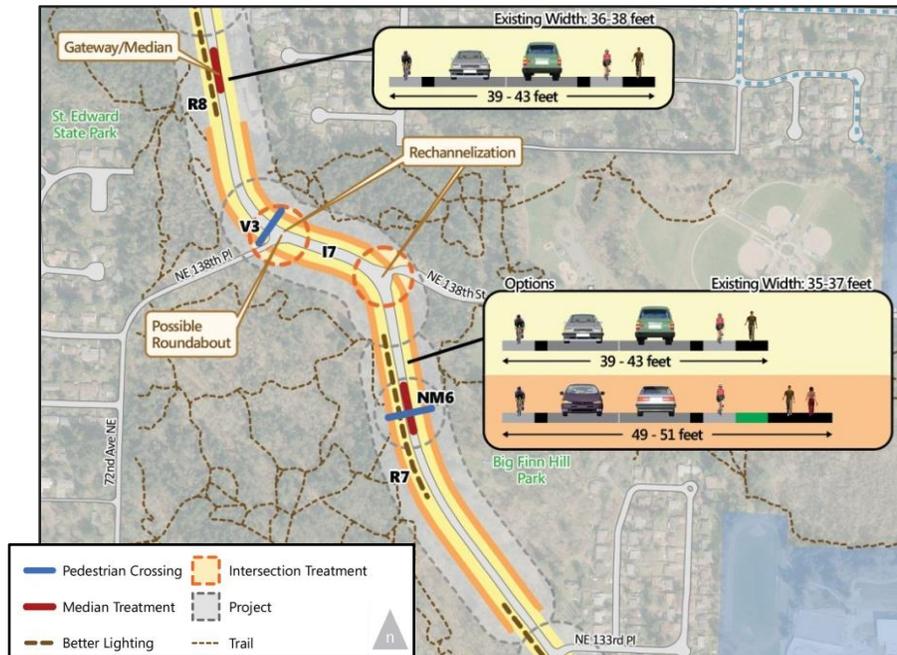


Project Group 6 – North Corridor: Big Finn Hill Park to NE 140th Street – This project group includes cross-section improvements to the north corridor of Juanita Drive from Big Finn Hill Park to NE 140th Street.

ID	Location	Description/Justification
R7	NE 133 rd Place to south of NE 138 th Street	Widen cross section to include buffered bike lanes on both sides of street and walkway on east side of street ¹ .
R8	NE 138 th Street to north of NE 138 th Place	Widen cross section to include buffered bike lanes on both sides of street, rechannelize both NE 138 th intersections and construct walkway on east side of street ¹ .
I7	NE 138 th Place	Construct roundabout (option)
R9	NE 138 th Place to south of NE 141 st Street	Widen cross section and construct gateway median south of NE 141 st Street ² .
V3	Juanita Drive / NE 138 th Place Intersection	Reconfigure cross section directly north of intersection to include a refuge/merge lane for traffic turning left onto Juanita Drive from NE 138 th Place. (Interim treatment)

¹ option to construct separated multi-purpose trail through park section

² refer to Project V5 for Gateway sign project



ID	Capital Cost (in 1,000s)		Priority ^a	Challenges to be resolved
	Basic	Options		
R7	\$781	\$901 ^b	H	Steep slopes; park right-of-way and trees
R8	\$497	\$806 ^b	H	Steep slopes; park right-of-way and trees.
I7	--	\$1012 ^c	H	Slopes; regrading
R9	\$449	\$575 ^b	M	Steep slopes; park right-of-way and trees
V3	\$41	\$41	M	Minimal
Total	\$1,768	\$4,613		

^a H = high ; M = medium ; L = low

^b adds multi-purpose trail

^c roundabout incremental cost

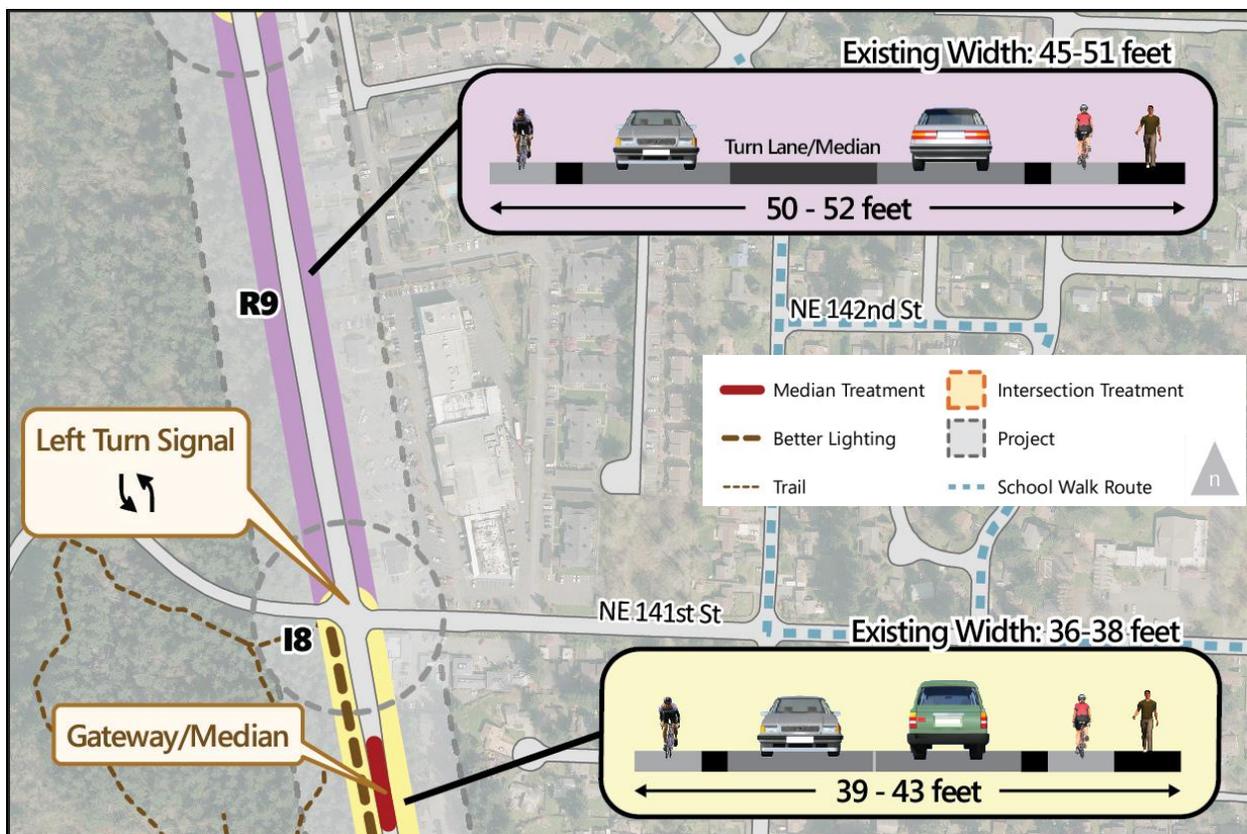


JUANITA DRIVE Corridor Study



Project Group 7 – North Corridor: NE 140th Street to NE 143rd Street – This project group includes cross-section improvements to the north corridor of Juanita Drive from NE 140th Street to NE 143rd Street.

ID	Location	Description/Justification
I8	Juanita Drive / NE 141 st Street Intersection	Modify signal head to accommodate protected northbound and southbound left turns.
R10	NE 141 st Street to NE 143 rd Street	Reconfigure cross section to include bike lanes on both sides of street.
NM7	NE 143 rd Street	Provide flashing crosswalk



ID	Capital Cost (in 1,000s)		Priority ^a	Challenges to be resolved
	Basic	Options		
I8	\$55	--	L	Minimal
R10	\$63	--	L	Could affect parking on east side south of NE 143 rd Street
NM7	\$90	--	L	
Total	\$208	--		

^a H = high ; M = medium ; L = low





Project Group 8 – Corridor Bicycle Lane and Safety Treatments – This project group includes short-term corridor treatments to improve comfort and safety for bicyclists and motorists.

ID	Location	Description/Justification
NM8	Selected locations along corridor ¹	Construct interim “bicycle safety treatments” at pinch-points along corridor. Could include restriping, signing, barriers (e.g. candles, rumble strips)
NM9	Corridor	Rechannelize existing roadway to include northbound buffered bike lane.
NM10	Corridor	Add bicycle signs for northbound bike lane
V2	Selected locations along corridor ¹	Add center line rumble strips to help prevent drivers from veering out of travel lane

¹ to be determined during design

ID	Capital Cost (in 1,000s)		Priority ^a	Challenges to be resolved
	Basic	Options		
NM8	\$129	--	H	Identify key locations
NM9	\$377 ^b	--	H	Determine minimal cross section to achieve buffered bike lane. Interim treatment.
NM10	\$187	--	H	
V2	\$50	--	H	Identify key locations
Total	\$743	--		

^a H = high ; M = medium ; L = low

^b portion of this project could be included in full cross section design

JUANITA DRIVE Corridor Study



Project Group 9 – Corridor ITS Integration – This project group includes intelligent transportation systems (ITS) upgrades for the Juanita Drive corridor and traffic signal timing.

ID	Location	Description/Justification
V4	Corridor – Signalized intersection from 98 th Avenue NE to NE 141 st Street	Integrate intersection signals with intelligent transportation systems (ITS) technology.
I1	98 th Avenue NE and 97 th Avenue NE intersections with Juanita Drive	Retime traffic signals to improve traffic operations at east end of corridor ¹ .

ID	Capital Cost (in 1,000s)		Priority ^a	Challenges to be resolved
	Basic	Options		
V4	\$1,050	\$1,200 ^b	L	Determine overhead or underground design
I1	\$105 ^c	--	L	Minimal
Total	\$1,155	\$1,200		

^a H = high ; M = medium ; L = low

^b underground utilities

^c tie to city's traffic signal and safety project underway in 2013/14

Prioritization Criteria

Use to prioritize corridor projects
 Combination of quantitative and qualitative criteria
 Build from Guiding Principles

GUIDING PRINCIPLES

- Address safety needs for all travel modes.
- Maintain corridor unique identity and natural landscape.
- Engage community in shared vision for future improvements.
- Protect the extraordinary natural environment.
- Provide financially feasible, strategic and realistic priorities for the corridor.

Criterion	Description	Weight*	Rating		
			Low	Medium	High
Safety	Addresses existing corridor safety problem	3	Limited or no effect	Direct safety benefit	Improves High collision location
Accessibility	Provides access to activities within the corridor	2	Limited or no effect	Improves single mode	Improves multiple modes
Identity	Consistency with corridor identity and surrounding land uses	3	Diminishes identity	Neutral effect	Enhances identity
Environment	Protection of natural environment	2	Degrades environment	Neutral effect	Enhances environment
Financial	Cost	2	High (>\$1.5 M)	Medium (\$500K-\$1.5M)	Low (<\$500K)
Fundable	Available funding sources	3	Low likelihood of funding	Likely to compete for city funds	Good potential for grant/ other funding
Phasing	Ability to phase project	2	Minimal ability to phase	Some phasing potential	High ability to phase; interim options available
Plan Consistency	Consistency with plans adopted by city and other jurisdictions	1	Not consistent	Generally consistent	Highly consistent
Public Support	Identified public support	2	Limited support	Good support	Strong support

*Weighting based on perceived importance of criterion matched to guiding principle

JUANITA DRIVE Corridor Study



Project ID ¹	Project Location	Project Description	Safety	Accessibility	Identity	Environment	Criteria Weight					Public Support	Total Priority Rating	Rating
							Fundable	Phasing	Plan Consists	Financial	Fundable			
I1	97th Ave NE/ 98th Ave NE Intersections	Re-time signals	1	2	2	2	3	3	3	3	3	1	43	L
I2	NE 116th Pl Intersection	Re-channelize	2	1	2	2	3	2	2	3	2	2	41	L
I3	112th Ave NE Intersection	Re-channelize Intersection/ Pedestrian	3	3	3	2	1	3	2	3	3	3	52	H
I4	76th Pl NE/ NE 122nd Pl Dual Intersections	Re-channelize/ combine intersections with signal (L) or roundabout (H)	2	3	2.5	2	2	2	2	3	3	3	46.5	M
I5	NE 128th St Intersection	Left turn pocket/ pedestrian crossing	3	3	3	2	2	3	2	3	3	3	54	H
I6	NE 132nd St Intersection to NE 133rd Pl	Left turn pocket/ pedestrian crossing/	3	3	3	2	2	3	3	3	3	3	56	H
I8	NE 138th to South of NE 141st Pl Intersection	Cross Section/ Intersection Channelization at NE 138th Pl and NE 138th St												
I7	NE 138th Pl Intersection	Roundabout Option (Add to cost of Project R8)	2	3	3	2	2	2	3	3	3	3	50	H
I8	NE 141st St Intersection	Add left turn signals	1	2	2	2	3	3	2	3	2	2	43	L
NM1	98th Ave NE Intersection	Pedestrian/ Bicycle enhancements	2	2	2	2	3	3	2	3	3	1	44	M
NM2	93rd Ave NE Intersection	Pedestrian Crossing	2	2	2	2	3	3	2	3	2	2	46	M
NM3	86th Ave NE Intersection	Pedestrian Crossing/ Drainage	2	2	2	2	2	3	3	3	3	3	48	M
NM4	NE 124th St Intersection	Pedestrian Crossing/ walkway to NE 123rd St	2	2	3	2	3	3	2	3	2	2	49	H
NM5	NE 132nd St- Juanita Drive to 72nd Ave NE	Pedestrian/ Bicycle Corridor treatment	2	2	3	2	3	3	3	3	2	2	47	M
NM6	Big Finn Hill Park	Pedestrian crossing/ trail connection	2	2	3	3	3	3	2	3	2	2	51	H
NM7	NE 143rd St Intersection	Pedestrian Crossing	2	1	2	2	3	3	2	2	2	2	43	L
NM8	Corridor	Bicycle safety treatments	3	2	3	2	3	3	3	3	3	3	56	H
NM9	Corridor	Create northbound bicycle lane	3	2	3	2	2	2	2	3	3	3	49	H
NM10	Corridor	Bicycle Signs for northbound bicycle lane												
R1	NE 116th Pl to 86th Ave NE	Cross Section/ Drainage Improvements/ Gateway median	2	3	3	2	1	2	2	3	3	3	46	M
R2	86th Ave NE to NE 112th St	Cross Section/ close 83rd Ave NE	2	3	3	2	2	2	2	3	2	2	46	M
R3	NE 112th St to 79th Way NE	Cross Section	2	3	2	2	2	2	1	2	1.5	3	39	L
R4	79th Way NE to NE 120th St	Cross Section	2	3	3	2	1	2	1	3	2	2	42	L
R5	NE 120th St to NE 122nd Lane	Extend 3rd lane/ walkway on east side	3	3	3	2	3	2	2	3	2	2	51	H
R6	NE 124th St to NE 132nd St	Cross section	1	3	3	2	3	2	2	3	2	2	45	M
R7	NE 133rd Pl to south of NE 138st St	Cross section	2	3	3	1.5	2	3	2	3	3	3	50	H
R9	NE 138th Pl to NE 141st St	Cross section/ Gateway Median	2	2	2	2	3	3	1	3	2	2	44	M
R10	NE 141st St to NE 143rd St	Cross Section	1.5	2	2	2	3	3	1	3	2	2	42.5	L
V1	NE 122nd Pl	Lighting Upgrade	2	3	3	2	3	3	2	3	2	2	51	H
V2	Corridor- selected locations	Center line Rumble Strips	3	1	2	2	3	3	3	3	2	2	49	H
V3	NE 138th Pl Intersection	Left turn refuge for EB to NB movement	2	2	2	2	3	3	2	2	2	2	45	M
v4	Corridor	ITS Integration- Signals	2	1	2	2	2	3	2	2	2	2	41	L

Notes: Low = 1, Medium = 2, High = 3



Juanita Drive Transportation Improvements

Project ID	Rating	Project Location	Project Description	Total Cost Basic Section (in 1000s)	Add'l Cost for Options (in 1000s)	Option Description
I1	L	97th Ave NE/ 98th Ave NE Intersections	Retime signals	105		
I2	L	NE 116th Pl Intersection	Rechannelize	125		
I3	H	112th Ave NE Intersection	Rechannelize Intersection/ Pedestrian Crossing	1,894		
I4	M	76th Pl NE/ NE 122nd Pl Dual Intersections	Rechannelize/ combine intersections with signal (L) or roundabout (H)	1,184	193	Roundabout
I5	H	NE 128th St Intersection	Left turn pocket/ pedestrian crossing	1,082		
I6	H	NE 132nd St Intersection to NE 133rd Place	Left turn pocket/ pedestrian crossing/ walkway	878		
I7	H	NE 138th Pl Intersection	Roundabout Option (Add to cost of Project R8)		1,012	Roundabout
I8	L	NE 141st St Intersection	Add left turn signals	55		
NM1	M	98th Ave NE Intersection	Pedestrian/ Bicycle enhancements	83		
NM2	M	93rd Ave NE Intersection	Pedestrian Crossing	90		
NM3	M	86th Ave NE Intersection	Pedestrian Crossing/Drainage	525		
NM4	H	NE 124th St Intersection	Pedestrian Crossing/ walkway to NE 123rd St	143		
NM5	M	NE 132nd St- Juanita Drive to 72nd Ave NE	Pedestrian/Bicycle Corridor treatment	316		
NM6	H	Big Finn Hill Park	Pedestrian crossing/ trail connection	203		
NM7	L	NE 143rd St Intersection	Pedestrian Crossing	90		
NM8	H	Corridor	Bicycle safety treatments	129		
NM9	H	Corridor	Create northbound bicycle lane	377		
NM10	H	Corridor	Bicycle Signs for northbound bicycle lane	187		
R1	M	NE 116th Pl to 86th Ave NE	Cross Section/ Drainage Improvements/ Gateway median	4,994		
R2	M	86th Ave NE to NE 112th St	Cross Section/ close 83rd Ave NE	972		
R3	L	NE 112th St to 79th Way NE	Cross Section	1,051		
R4	L	79th Way NE to NE 120th St	Cross Section	550	980	Widen for Multipurpose Trail
R5	H	NE 120th St to NE 122nd Lane	Extend 3rd lane/ walkway on east side	309		
R6	M	NE 124th St to NE 132nd St	Cross section	985		
R7	H	NE 133rd Pl to south of NE 138st St	Cross section	781	901	Widen for Multipurpose Trail
R8	H	NE 138th to South of NE 141st Pl intersection	Cross Section/ Intersection Channelization at NE 138th Pl and NE 138th St	497	806	Widen for Multipurpose Trail
R9	L	NE 138th Pl to NE 141st St	Cross section/ Gateway Median	449	575	Widen for Multipurpose Trail
R10	L	NE 141st St to NE 143rd St	Cross Section	63		
V1	H	NE 122nd Pl	Lighting Upgrade	50		
V2	H	Corridor- selected locations	Center line Rumble Strips	38		
V3	M	NE 138th Pl Intersection	Left turn refuge for EB to NB movement	41		
V4	L	Corridor	ITS Integration- Signals	1,050	1,200	Undergrounding of ITS Utilities
V5	L	Corridor	Gateway Signs- North and South End	40		
				19,336	5,667	

Notes: Low = 1 ; Medium = 2 ; High = 3

Roundabout Option

1,205

Widen for Multipurpose Trail

3,262

ITS Undergrounding

1,200

Preliminary Level Opinion of Cost						
City of Kirkland: Juanita Dr. Corridor Study						
13-Dec-13						
Perteet Project # 20110185						
ITEM	UNITS	UNIT PRICE	PROJECT NM1 - QUANTITY	PROJECT NM1 - AMOUNT	PROJECT I1 - QUANTITY	PROJECT I1 - AMOUNT
PREPARATION						
Mobilization (10%)	LS	\$ 1	4,000	\$ 4,000	5,000	\$ 5,000
Roadway Surveying (2%)	LS	\$ 1	1,000	\$ 1,000		\$ -
Structure Surveying (5%)	LS	\$ 1		\$ -		\$ -
Removal of Structures & Obstructions (1%)	LS	\$ 1	1,000	\$ 1,000		\$ -
Clearing and Grubbing	AC	\$ 7,000	0.04	\$ 300		\$ -
GRADING						
Roadway Excavation Incl. Haul	CY	\$ 15	100	\$ 1,500		\$ -
Gravel Borrow Incl. Haul	TON	\$ 16	130	\$ 2,100		\$ -
STORM SEWER						
Drainage Systems	LS	\$ 1		\$ -		\$ -
SURFACING						
Portland Cement Concrete Sidewalk	SY	\$ 20	560	\$ 11,200		\$ -
HMA CL 1/2 IN. PG 64-22	TON	\$ 100		\$ -		\$ -
Crushed Surfacing Base Course	TON	\$ 35	130	\$ 4,600		\$ -
EROSION CONTROL AND PLANTING						
Temporary Water Pollution & Erosion Control (6%)	LS	\$ 1	2,000	\$ 2,000		\$ -
TRAFFIC						
Project Traffic Control	EST	\$ 1	3,000	\$ 3,000		\$ -
Traffic Signal Systems	EST	\$ 1		\$ -	50,000	\$ 50,000
Cement Conc Curb and Gutter	LF	\$ 15		\$ -		\$ -
Cement Conc Curb Ramps	EA	\$ 1,500	2	\$ 3,000		\$ -
Illumination System	EST	\$ 1		\$ -		\$ -
Striping	LF	\$ 3	3,000	\$ 9,000		\$ -
OTHER						
Retaining Walls	SF	\$ 60		\$ -		\$ -
CONSTRUCTION SUB TOTAL						
				\$ 43,000		\$ 55,000
Construction Contingencies (30%)				\$ 20,000		\$ 20,000
CONSTRUCTION TOTAL				\$ 63,000		\$ 75,000
ENGINEERING SERVICES						
Preliminary Engineering (15%)				\$ 10,000		\$ 20,000
Construction Engineering (12%)				\$ 10,000		\$ 10,000
Total Preliminary Opinion of Cost				\$ 83,000		\$ 105,000

Project Details	Location	Project Description
Project NM1	98th Ave NE Intersection	Bicycle and Pedestrian enhancements beginning at the SW corner of the Juanita Dr & Ne 98th Ave NE intersection and continuing south along the west side of 98th Ave NE for ~500 LF. Additional striping will be done to creat a bike box at the NB LT lane of 98th Ave NE to Juanita Dr.
Project I1	97th Ave NE/98th Ave NE Intersections	Retiming of esisting signal systems at the intersection of Juanita Dr & 97th Ave NE and the intersection of Juanita Dr & 98th Ave NE

Preliminary Level Opinion of Cost						
City of Kirkland: Juanita Dr. Corridor Study						
13-Dec-13						
Perteet Project # 20110185						
ITEM	UNITS	UNIT PRICE	PROJECT NM2 - QUANTITY	PROJECT NM2 - AMOUNT	PROJECT I2 - QUANTITY	PROJECT I2 - AMOUNT
PREPARATION						
Mobilization (10%)	LS	\$ 1	7,000	\$ 7,000	5,000	\$ 5,000
Roadway Surveying (2%)	LS	\$ 1	2,000	\$ 2,000	1,000	\$ 1,000
Structure Surveying (5%)	LS	\$ 1		\$ -	2,000	\$ 2,000
Removal of Structures & Obstructions (1%)	LS	\$ 1	1,000	\$ 1,000	1,000	\$ 1,000
Clearing and Grubbing	AC	\$ 10,000	0.03	\$ 300	0.03	\$ 300
GRADING						
Roadway Excavation Incl. Haul	CY	\$ 15		\$ -	60	\$ 900
Gravel Borrow Incl. Haul	TON	\$ 16		\$ -		\$ -
STORM SEWER						
Drainage Systems	LS	\$ 1		\$ -	2,000	\$ 2,000
SURFACING						
Portland Cement Concrete Sidewalk	SY	\$ 20		\$ -		\$ -
HMA CL 1/2 IN. PG 64-22	TON	\$ 90		\$ -		\$ -
Crushed Surfacing Base Course	TON	\$ 25		\$ -		\$ -
EROSION CONTROL AND PLANTING						
Temporary Water Pollution & Erosion Control (6%)	LS	\$ 1	4,000	\$ 4,000	3,000	\$ 3,000
TRAFFIC						
Project Traffic Control (10%)	EST	\$ 1	7,000	\$ 7,000	5,000	\$ 5,000
Traffic Signal Systems	EST	\$ 1		\$ -		\$ -
Cement Conc Curb and Gutter	LF	\$ 15		\$ -		\$ -
Cement Conc Curb Ramps	EA	\$ 1,500	2	\$ 3,000	1	\$ 1,500
Illumination System	EST	\$ 1		\$ -	5,000	\$ 5,000
Striping	LF	\$ 3	500	\$ 1,500	500	\$ 1,500
OTHER						
Retaining Walls (SEW)	SF	\$ 60		\$ -	600	\$ 36,000
Utility Coordination	EST	\$ 1		\$ -		\$ -
Enhanced Pedestrian Crossing	EST	\$ 1	60,000	\$ 60,000		\$ -
CONSTRUCTION SUB TOTAL				\$ 86,000		\$ 65,000
Construction Contingencies (30%)				\$ 30,000		\$ 20,000
CONSTRUCTION TOTAL				\$ 116,000		\$ 85,000
ENGINEERING SERVICES						
Preliminary Engineering (15%)				\$ 20,000		\$ 20,000
Construction Engineering (12%)				\$ 20,000		\$ 20,000
Total Preliminary Opinion of Cost				\$ 156,000		\$ 125,000
Cost reduced by packaging with other crossings				\$ 90,000		

Project Details	Location	Project Description
Project NM2	93rd Ave NE Intersection	Restriping of 93rd Ave NE & Juanita Dr intersection. Improving pedestrian and bicycle safety. Installation of enhanced pedestrian crossing just to the east of 93rd Ave NE
Project I2	NE 116th PI Intersection	Restriping of NE 116th PI & Juanita Dr intersection. Improving sight distances and pedestrian/bicycle safety.

Preliminary Level Opinion of Cost				
City of Kirkland: Juanita Dr. Corridor Study				
21-Nov-13				
Perteet Project # 20110185				
ITEM	UNITS	UNIT PRICE	PROJECT NM3 QUANTITY	PROJECT NM3 AMOUNT
PREPARATION				
Mobilization (10%)	LS	\$ 1	5,000	\$ 5,000
Roadway Surveying (2%)	LS	\$ 1	1,000	\$ 1,000
Removal of Structures & Obstructions (1%)	LS	\$ 1	1,000	\$ 1,000
STORM SEWER				
Drainage Systems	LS	\$ 1	20,000	\$ 20,000
SURFACING				
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	\$ 1	24,300	\$ 24,300
EROSION CONTROL AND PLANTING				
Temporary Water Pollution & Erosion Control (6%)	LS	\$ 1	3,000	\$ 3,000
TRAFFIC				
Project Traffic Control (10%)	EST	\$ 1	5,000	\$ 5,000
CONSTRUCTION SUB TOTAL				\$ 60,000
Construction Contingencies (30%)				\$ 20,000
CONSTRUCTION TOTAL				\$ 80,000
ENGINEERING SERVICES				
Preliminary Engineering (15%)				\$ 20,000
Construction Engineering (12%)				\$ 10,000
Total Preliminary Opinion of Cost				\$ 110,000

Project Details	Location	Project Description
Project NM3	86th Ave NE Intersection	This project will install drainage improvements aimed at the existing groundwater issues just to the west of 86th Ave NE, at 86th Ave NE on Juanita Dr. Project Limits are Sta 144+00 to Sta 146+00 Length 200 LF

This estimate reflects Drainage related items only! Assumptions include that the roadway structure will be replaced as part of the drainage work. Groundwater seepage in this area has caused damage to the existing pavement structure. Therefore 50% of the roadway widening cost for the whole NM3 project will be part of the drainage item schedule.

Preliminary Level Opinion of Cost								
City of Kirkland: Juanita Dr. Corridor Study								
13-Dec-13								
Perteet Project # 20110185								
ITEM	UNITS	UNIT PRICE	PROJECT I4(L) QUANTITY	PROJECT I4(L) AMOUNT	PROJECT I4(H) QUANTITY	PROJECT I4(H) AMOUNT	PROJECT V1 - QUANTITY	PROJECT V1 - AMOUNT
PREPARATION								
Mobilization (10%)	LS	\$ 1	42,000	\$ 42,000	42,000	\$ 42,000	2,000	\$ 2,000
Roadway Surveying (2%)	LS	\$ 1	9,000	\$ 9,000	9,000	\$ 9,000		\$ -
Structure Surveying (5%)	LS	\$ 1	18,000	\$ 18,000	5,000	\$ 5,000		\$ -
Removal of Structures & Obstructions (1%)	LS	\$ 1	9,000	\$ 9,000	50,000	\$ 50,000	1,000	\$ 1,000
Clearing and Grubbing	AC	\$ 10,000	0.69	\$ 6,900	0.9	\$ 9,200		\$ -
GRADING								
Roadway Excavation Incl. Haul	CY	\$ 15	820	\$ 12,300	1,570	\$ 23,600		\$ -
Gravel Borrow Incl. Haul	TON	\$ 16	410	\$ 6,600	820	\$ 13,200		\$ -
STORM SEWER								
Drainage Systems	LS	\$ 1	35,000	\$ 35,000	43,000	\$ 43,000		\$ -
SURFACING								
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	\$ 1	39,900	\$ 39,900				
Portland Cement Concrete Sidewalk	SY	\$ 20	600	\$ 12,000	1,070	\$ 21,400		\$ -
HMA CL 1/2 IN. PG 64-22	TON	\$ 90	370	\$ 33,300	1,073	\$ 96,600		\$ -
Crushed Surfacing Base Course	TON	\$ 25	592	\$ 14,800	1,443	\$ 36,100		\$ -
EROSION CONTROL AND PLANTING								
Temporary Water Pollution & Erosion Control (6%)	LS	\$ 1	26,000	\$ 26,000	25,000	\$ 25,000		\$ -
TRAFFIC								
Project Traffic Control	EST	\$ 1	42,000	\$ 42,000	83,000	\$ 83,000	2,000	\$ 2,000
Traffic Signal Systems	EST	\$ 1	200,000	\$ 200,000		\$ -		\$ -
Cement Conc Curb and Gutter	LF	\$ 15	1,300	\$ 19,500	2,500	\$ 37,500		\$ -
Cement Conc Curb Ramps	EA	\$ 1,500	5	\$ 7,500	8	\$ 12,000		\$ -
Illumination System	EST	\$ 1	20,000	\$ 20,000	20,000	\$ 20,000	15,000	\$ 15,000
Striping	LF	\$ 3	3,200	\$ 9,600	3,200	\$ 9,600		\$ -
OTHER								
Retaining Walls (SEW)	SF	\$ 60		\$ -	1,500	\$ 90,000		\$ -
ROW Acquisition	SF	\$ 20	7,000	\$ 140,000	10,000	\$ 200,000		0
CONSTRUCTION SUB TOTAL				\$ 704,000		\$ 827,000		\$ 20,000
Construction Contingencies (30%)					\$ 220,000		\$ 250,000	\$ 10,000
CONSTRUCTION TOTAL				\$ 924,000		\$ 1,077,000		\$ 30,000
ENGINEERING SERVICES								
Preliminary Engineering (15%)					\$ 140,000		\$ 170,000	\$ 10,000
Construction Engineering (12%)					\$ 120,000		\$ 130,000	\$ 10,000
Total Preliminary Opinion of Cost					\$ 1,184,000		\$ 1,377,000	\$ 50,000

Project Details	Location	Project Description
Project I4(L)	76th PI NE/ NE 122nd PI Dual Intersections	This project realigns 76th PI NE in order to create a single signalized intersection with NE 122nd PI.
Project I4(H)	76th PI NE/ NE 122nd PI Dual Intersections	This project realigns 76th PI NE in order to create a roundabout intersection with NE 122nd PI. and Juanita Dr.
Project V1	NE 122nd PI	Improving existing lighting levels along the north side of NE 122nd PI. beginning at Juanita Dr. and extending east approximately 600 LF.

Preliminary Level Opinion of Cost						
City of Kirkland: Juanita Dr. Corridor Study						
13-Dec-13						
Perteet Project # 20110185						
ITEM	UNITS	UNIT PRICE	PROJECT I6 - QUANTITY	PROJECT I6 - AMOUNT	PROJECT I5 - QUANTITY	PROJECT I5 - AMOUNT
PREPARATION						
Mobilization (10%)	LS	\$ 1	39,000	\$ 39,000	48,000	\$ 48,000
Roadway Surveying (2%)	LS	\$ 1	8,000	\$ 8,000	10,000	\$ 10,000
Structure Surveying (5%)	LS	\$ 1	20,000	\$ 20,000	24,000	\$ 24,000
Removal of Structures & Obstructions (1%)	LS	\$ 1	4,000	\$ 4,000	5,000	\$ 5,000
Clearing and Grubbing	AC	\$ 10,000	0.11	\$ 1,100	0.4	\$ 3,700
GRADING						
Roadway Excavation Incl. Haul	CY	\$ 15	710	\$ 10,700	1,280	\$ 19,200
Gravel Borrow Incl. Haul	TON	\$ 16	290	\$ 4,700	1,830	\$ 29,300
STORM SEWER						
Drainage Systems	LS	\$ 1	37,500	\$ 37,500	30,000	\$ 30,000
SURFACING						
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	\$ 1	127,600	\$ 127,600	136,400	\$ 136,400
Portland Cement Concrete Sidewalk	SY	\$ 35		\$ -		\$ -
HMA CL 1/2 IN. PG 64-22	TON	\$ 100		\$ -		\$ -
Crushed Surfacing Base Course	TON	\$ 25		\$ -		\$ -
EROSION CONTROL AND PLANTING						
Temporary Water Pollution & Erosion Control (6%)	LS	\$ 1	24,000	\$ 24,000	29,000	\$ 29,000
TRAFFIC						
Project Traffic Control (10%)	EST	\$ 1	39,000	\$ 39,000	48,000	\$ 48,000
Traffic Signal Systems	EST	\$ 1		\$ -		\$ -
Cement Conc Curb and Gutter	LF	\$ 15	3,600	\$ 54,000	800	\$ 12,000
Cement Conc Extruded Curb	LF	\$ 15		\$ -	300	\$ 4,500
Cement Conc Curb Ramps	EA	\$ 1,500	3	\$ 4,500	3	\$ 4,500
Illumination System	EST	\$ 1	25,000	\$ 25,000		\$ -
Striping	LF	\$ 3	3,600	\$ 10,800	3,200	\$ 9,600
OTHER						
Retaining Walls (SEW)	SF	\$ 60	1,800	\$ 108,000	3,800	\$ 228,000
CONSTRUCTION SUB TOTAL						
				\$ 518,000		\$ 642,000
Construction Contingencies (30%)				\$ 160,000		\$ 200,000
CONSTRUCTION TOTAL				\$ 678,000		\$ 842,000
ENGINEERING SERVICES						
Preliminary Engineering (15%)				\$ 110,000		\$ 130,000
Construction Engineering (12%)				\$ 90,000		\$ 110,000
Total Preliminary Opinion of Cost				\$ 878,000		\$ 1,082,000

Project Details	Location	Project Description
Project I6	NE 132nd St Intersection to NE 133rd Place	This project involves the construction of a new intersection at Juanita Dr. & NE 132nd St. This intersection will widen the existing roadway section to include two through lanes, a SB LT lane to NE 132nd St., bicycle lanes, and pedestrian facilities. NE 132nd St. will be restriped to accommodate new movements. Roadway lighting will be improved in the intersection and approach areas.
Project I5	NE 128th St Intersection	This project involves the construction of an intersection at Juanita Dr. a& NE 128th St. The existing roadway section will be widened to accommodate two through lanes, a SB LT lane to NE 128th St., bicycle lanes, and sidewalks on the east side of Juanita Dr. Roadway lighting will be improved in the intersection and approach areas.

Preliminary Level Opinion of Cost				
City of Kirkland: Juanita Dr. Corridor Study				
21-Nov-13				
Perteet Project # 20110185				
ITEM	UNITS	UNIT PRICE	PROJECT I5 - QUANTITY	PROJECT I5 - AMOUNT
PREPARATION				
Mobilization (10%)	LS	\$ 1	4,000	\$ 4,000
Roadway Surveying (2%)	LS	\$ 1	1,000	\$ 1,000
Removal of Structures & Obstructions (1%)	LS	\$ 1	1,000	\$ 1,000
STORM SEWER				
Drainage Systems	LS	\$ 1	30,000	\$ 30,000
EROSION CONTROL AND PLANTING				
Temporary Water Pollution & Erosion Control (6%)	LS	\$ 1	3,000	\$ 3,000
TRAFFIC				
Project Traffic Control (10%)	EST	\$ 1	4,000	\$ 4,000
Cement Conc Extruded Curb	LF	\$ 15	300	\$ 4,500
CONSTRUCTION SUB TOTAL				\$ 48,000
Construction Contingencies (30%)				\$ 20,000
CONSTRUCTION TOTAL				\$ 68,000
ENGINEERING SERVICES				
Preliminary Engineering (15%)				\$ 20,000
Construction Engineering (12%)				\$ 10,000
Total Preliminary Opinion of Cost				\$ 98,000

Project Details	Location	Project Description
Project I5	NE 128th St Intersection	<p>This project involves the construction of an intersection at Juanita Dr. a& NE 128th St. The existing roadway section will be widened to accommodate two through lanes, a SB LT lane to NE 128th St., bicycle lanes, and sidewalks on the east side of Juanita Dr. Roadway lighting will be improved in the intersection and approach areas.</p> <p style="color: red;">This estimate contains only Drainage Items</p>

Preliminary Level Opinion of Cost								
City of Kirkland: Juanita Dr. Corridor Study								
27-Nov-13								
Perteet Project # 20110185								
ITEM	UNITS	UNIT PRICE	PROJECT R8 - QUANTITY	PROJECT R8 - AMOUNT	PROJECT R8B - QUANTITY	PROJECT R8B - AMOUNT	PROJECT R8B + I7 QUANTITY	PROJECT R8B + I7 AMOUNT
PREPARATION								
Mobilization (10%)	LS	\$ 1	23,000	\$ 23,000	60,000	\$ 60,000	108,000	\$ 108,000
Roadway Surveying (2%)	LS	\$ 1	5,000	\$ 5,000	6,000	\$ 6,000	11,000	\$ 11,000
Structure Surveying (5%)	LS	\$ 1	0	\$ -	13,000	\$ 13,000	20,000	\$ 20,000
Removal of Structures & Obstructions (1%)	LS	\$ 1	3,000	\$ 3,000	6,000	\$ 6,000	11,000	\$ 11,000
Clearing and Grubbing	AC	\$ 10,000	0.12	\$ 1,200	0.44	\$ 4,400	0.30	\$ 3,000
GRADING								
Roadway Excavation Incl. Haul	CY	\$ 15	540	\$ 8,100	990	\$ 14,900	2,040	\$ 30,600
Gravel Borrow Incl. Haul	TON	\$ 16	180	\$ 2,900	830	\$ 13,300	4,350	\$ 69,600
STORM SEWER								
Drainage Systems	LS	\$ 1	12,000	\$ 12,000	12,000	\$ 12,000	27,500	\$ 27,500
SURFACING								
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	\$ 1	106,200	\$ 106,200	87,600	\$ 87,600	53,100	\$ 53,100
Portland Cement Concrete Sidewalk	SY	\$ 20	70	\$ 1,400	-	\$ -	340	\$ 6,800
HMA CL 1/2 IN. PG 64-22	TON	\$ 90	-	\$ -	280	\$ 25,200	722	\$ 65,000
Crushed Surfacing Base Course	TON	\$ 25	19	\$ 500	204	\$ 5,100	777	\$ 19,500
EROSION CONTROL AND PLANTING								
Temporary Water Pollution & Erosion Control (6%)	LS	\$ 1	14,000	\$ 14,000	36,000	\$ 36,000	65,000	\$ 65,000
TRAFFIC								
Project Traffic Control (10%)	EST	\$ 1	23,000	\$ 23,000	60,000	\$ 60,000	108,000	\$ 108,000
Traffic Signal Systems	EST	\$ 1	-	\$ -	0	\$ -	-	\$ -
Cement Conc Curb and Gutter	LF	\$ 15	800	\$ 12,000	800	\$ 12,000	2,500	\$ 37,500
Cement Conc Curb Ramps	EA	\$ 1,500	-	\$ -	0	\$ -	8	\$ 12,000
Illumination System	EST	\$ 1	15,000	\$ 15,000	15,000	\$ 15,000	15,000	\$ 15,000
Striping	LF	\$ 3	3,200	\$ 9,600	3,200	\$ 9,600	5,700	\$ 17,100
OTHER								
Retaining Walls	SF	\$ 60	-	\$ -	4,200	\$ 252,000	6,450	\$ 387,000
Enhanced Pedestrian Crossing	LS	\$ 60,000	1	\$ 60,000	1	\$ 60,000	-	\$ -
ROW Acquisition	SF	\$ 20	-	\$ -	4,000	\$ 80,000	16,400	\$ 328,000
CONSTRUCTION SUB TOTAL								
				\$ 297,000			\$ 773,000	\$ 1,395,000
Construction Contingencies (30%)				\$ 90,000			\$ 240,000	\$ 420,000
CONSTRUCTION TOTAL								
				\$ 387,000			\$ 1,013,000	\$ 1,815,000
ENGINEERING SERVICES								
Preliminary Engineering (15%)				\$ 60,000			\$ 160,000	\$ 280,000
Construction Engineering (12%)				\$ 50,000			\$ 130,000	\$ 220,000
Total Preliminary Opinion of Cost				\$ 497,000			\$ 1,303,000	\$ 2,315,000

Project Details	Location	Project Description
Project R8	NE 138th St to north of 138th Pl	This project involves the restriping of the NE 138th Pl & Juanita Dr. intersection. Striping will be done to improve sight distance for drivers turning onto Juanita Dr. from NE 138th Pl and will also provide a protected area on Juanita Dr. allowing drivers to join traffic safely. Roadway will be widened to accommodate a new sidewalk along the north side of Juanita Dr. An enhanced pedestrian crossing will be added just north of the 138th Pl intersection.
Project R8B	NE 138th St to north of 138th Pl	This project involves the restriping of the NE 138th Pl & Juanita Dr. intersection. Striping will be done to improve sight distance for drivers turning onto Juanita Dr. from NE 138th Pl and will also provide a protected area on Juanita Dr. allowing drivers to join traffic safely. Roadway will be widened to accommodate typical roadway section including bike lanes in both directions, through lanes, and a two way left turn lane. A 10' separated pathway will be added along the north side of Juanita Dr. from Finn Hill park to the north project limit. This project will involve ROW acquisition due to the separated pathway on the north side. An enhanced pedestrian crossing will be added just north of the 138th Pl intersection.
Widen for Multipurpose Trail		
Project R8B + I7	NE 138th St to north of 138th Pl	This project involves the construction of a single lane roundabout at the Juanita Dr. & NE 138th Pl intersection. The roundabout will incorporate bicycle lanes as well as sidewalks and crossings at all legs. This project will involve ROW acquisition due to the large roundabout footprint. Along with the roundabout the project will also install a 10' separated pedestrian walkway along the north side of Juanita Dr. from the entrance of Big Finn Hill Park to north of NE 138th Pl.

Preliminary Level Opinion of Cost						
City of Kirkland: Juanita Dr. Corridor Study						
13-Dec-13						
Perteet Project # 20110185						
ITEM	UNITS	UNIT PRICE	PROJECT I8 - QUANTITY	PROJECT I8 - AMOUNT	PROJECT NM7 QUANTITY	PROJECT NM7 - AMOUNT
PREPARATION						
Mobilization (10%)	LS	\$ 1	2,000	\$ 2,000	7,000	\$ 7,000
Roadway Surveying (2%)	LS	\$ 1	1,000	\$ 1,000	2,000	\$ 2,000
Structure Surveying (5%)	LS	\$ 1		\$ -		\$ -
Removal of Structures & Obstructions (1%)	LS	\$ 1	1,000	\$ 1,000	1,000	\$ 1,000
Clearing and Grubbing	AC	\$ 10,000		\$ -		\$ -
GRADING						
Roadway Excavation Incl. Haul	CY	\$ 15	30	\$ 500		\$ -
Gravel Borrow Incl. Haul	TON	\$ 16		\$ -		\$ -
STORM SEWER						
Drainage Systems	LS	\$ 1	5,500	\$ 5,500		\$ -
SURFACING						
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	\$ 1				
Portland Cement Concrete Sidewalk	SY	\$ 35	70	\$ 2,500		\$ -
HMA CL 1/2 IN. PG 64-22	TON	\$ 100	20	\$ 2,000		\$ -
Crushed Surfacing Base Course	TON	\$ 25	56	\$ 1,400		\$ -
EROSION CONTROL AND PLANTING						
Temporary Water Pollution & Erosion Control (6%)	LS	\$ 1	1,000	\$ 1,000		\$ -
TRAFFIC						
Project Traffic Control (10%)	EST	\$ 1	3,000	\$ 3,000	7,000	\$ 7,000
Traffic Signal Systems	EST	\$ 1		\$ -		\$ -
Cement Conc Curb and Gutter	LF	\$ 15	100	\$ 1,500		\$ -
Cement Conc Curb Ramps	EA	\$ 1,500	2	\$ 3,000		\$ -
Illumination System	EST	\$ 1		\$ -		\$ -
Striping	LF	\$ 3		\$ -	100	\$ 300
OTHER						
Retaining Walls (SEW)	SF	\$ 60		\$ -		\$ -
Gateway Island	LS	\$ 1				\$ -
Enhanced Pedestrian Crossing	LS	\$ 60,000			1	\$ 60,000
CONSTRUCTION SUB TOTAL				\$ 25,000		\$ 78,000
Construction Contingencies (30%)				\$ 10,000		\$ 30,000
CONSTRUCTION TOTAL				\$ 35,000		\$ 108,000
ENGINEERING SERVICES						
Preliminary Engineering (15%)				\$ 10,000		\$ 20,000
Construction Engineering (12%)				\$ 10,000		\$ 20,000
Total Preliminary Opinion of Cost				\$ 55,000		\$ 148,000
Cost reduction by packaging crosswalk projects						\$ 90,000

Project Details	Location	Project Description
Project I8	NE 141st St Intersection	This project involves improving the Juanita Dr. & NE 141st St. intersection. Changes to the existing signal system include the addition of a dedicated SB LT phase onto NE 141st St. Existing curb ramp and sidewalk facilities at the SE and NE corners will be improved to meet
Project NM7	NE 143rd St Intersection	This project will add an enhanced pedestrian crossing across Juanita Dr. at NE 143rd St.

Preliminary Level Opinion of Cost				
City of Kirkland: Juanita Dr. Corridor Study				
13-Dec-13				
Perteet Project # 20110185				
ITEM	UNITS	UNIT PRICE	PROJECT NM1 - QUANTITY	PROJECT NM1 - AMOUNT
PREPARATION				
Mobilization (10%)	LS	\$ 1	4,000	\$ 4,000
Roadway Surveying (2%)	LS	\$ 1	1,000	\$ 1,000
Structure Surveying (5%)	LS	\$ 1		\$ -
Removal of Structures & Obstructions (1%)	LS	\$ 1	1,000	\$ 1,000
Clearing and Grubbing	AC	\$ 7,000	0.04	\$ 300
GRADING				
Roadway Excavation Incl. Haul	CY	\$ 15	100	\$ 1,500
Gravel Borrow Incl. Haul	TON	\$ 16	130	\$ 2,100
STORM SEWER				
Drainage Systems	LS	\$ 1		\$ -
SURFACING				
Portland Cement Concrete Sidewalk	SY	\$ 20	560	\$ 11,200
HMA CL 1/2 IN. PG 64-22	TON	\$ 100		\$ -
Crushed Surfacing Base Course	TON	\$ 35	130	\$ 4,600
EROSION CONTROL AND PLANTING				
Temporary Water Pollution & Erosion Control (6%)	LS	\$ 1	2,000	\$ 2,000
TRAFFIC				
Project Traffic Control	EST	\$ 1	3,000	\$ 3,000
Traffic Signal Systems	EST	\$ 1		\$ -
Cement Conc Curb and Gutter	LF	\$ 15		\$ -
Cement Conc Curb Ramps	EA	\$ 1,500	2	\$ 3,000
Illumination System	EST	\$ 1		\$ -
Striping	LF	\$ 3	3,000	\$ 9,000
OTHER				
Retaining Walls	SF	\$ 60		\$ -
CONSTRUCTION SUB TOTAL				\$ 43,000
Construction Contingencies (30%)				\$ 20,000
CONSTRUCTION TOTAL				\$ 63,000
ENGINEERING SERVICES				
Preliminary Engineering (15%)				\$ 10,000
Construction Engineering (12%)				\$ 10,000
Total Preliminary Opinion of Cost				\$ 83,000

Project Details	Location	Project Description
Project NM1	98th Ave NE Intersection	Bicycle and Pedestrian enhancements beginning at the SW corner of the Juanita Dr & Ne 98th Ave NE intersection and continuing south along the west side of 98th Ave NE for ~500 LF. Additional striping will be done to create a bike box at the NB LT lane of 98th Ave NE to Juanita Dr.

Preliminary Level Opinion of Cost								
City of Kirkland: Juanita Dr. Corridor Study								
13-Dec-13								
Pertteet Project # 20110185								
ITEM	UNITS	UNIT PRICE	PROJECT R6 - QUANTITY	PROJECT R6 - AMOUNT	PROJECT R6w - QUANTITY	PROJECT R6w - AMOUNT	PROJECT NM4 - QUANTITY	PROJECT NM4 - AMOUNT
PREPARATION								
Mobilization (10%)	LS	\$ 1	43,000	\$ 43,000	8,000	\$ 8,000	8,000	\$ 8,000
Roadway Surveying (2%)	LS	\$ 1	9,000	\$ 9,000	2,000	\$ 2,000	2,000	\$ 2,000
Structure Surveying (5%)	LS	\$ 1		\$ -		\$ -	4,000	\$ 4,000
Removal of Structures & Obstructions (1%)	LS	\$ 1	5,000	\$ 5,000	1,000	\$ 1,000	1,000	\$ 1,000
Clearing and Grubbing	AC	\$ 10,000	0.23	\$ 2,300	0.1	\$ 800	0.02	\$ 200
GRADING								
Roadway Excavation Incl. Haul	CY	\$ 15	970	\$ 14,600	210	\$ 3,200		\$ -
Gravel Borrow Incl. Haul	TON	\$ 16	520	\$ 8,400	90	\$ 1,500		\$ -
STORM SEWER								
Drainage Systems	LS	\$ 1	40,000	\$ 40,000	22,000	\$ 22,000		\$ -
SURFACING								
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	\$ 1	265,500	\$ 265,500		\$ -		\$ -
Portland Cement Concrete Sidewalk	SY	\$ 35		\$ -	740	\$ 25,900	20	\$ 700
HMA CL 1/2 IN, PG 64-22	TON	\$ 100		\$ -		\$ -		\$ -
Crushed Surfacing Base Course	TON	\$ 25		\$ -	204	\$ 5,100	19	\$ 500
EROSION CONTROL AND PLANTING								
Temporary Water Pollution & Erosion Control (6%)	LS	\$ 1	26,000	\$ 26,000	5,000	\$ 5,000	5,000	\$ 5,000
TRAFFIC								
Project Traffic Control (10%)	EST	\$ 1	43,000	\$ 43,000	8,000	\$ 8,000	8,000	\$ 8,000
Traffic Signal Systems	EST	\$ 1		\$ -		\$ -		\$ -
Cement Conc Curb and Gutter	LF	\$ 15	2,000	\$ 30,000	1,100	\$ 16,500		\$ -
Cement Conc Curb Ramps	EA	\$ 1,500		\$ -		\$ -	2	\$ 3,000
Illumination System	EST	\$ 1	50,000	\$ 50,000		\$ -	10,000	\$ 10,000
Striping	LF	\$ 3	6,000	\$ 18,000		\$ -		\$ -
OTHER								
Retaining Walls (SEW)	SF	\$ 60		\$ -		\$ -		\$ -
Enhanced Pedestrian Crossing	LS	\$ 1					60,000	\$ 60,000
CONSTRUCTION SUB TOTAL				\$ 555,000		\$ 99,000		\$ 103,000
Construction Contingencies (30%)				\$ 170,000		\$ 30,000		\$ 40,000
CONSTRUCTION TOTAL				\$ 725,000		\$ 129,000		\$ 143,000
ENGINEERING SERVICES								
Preliminary Engineering (15%)				\$ 110,000		\$ 20,000		\$ 30,000
Construction Engineering (12%)				\$ 90,000		\$ 20,000		\$ 20,000
Total Preliminary Opinion of Cost				\$ 925,000		\$ 169,000		\$ 193,000

\$985,000.00
 **Combining projects R6 and R6w into one project, this is the cost. See email below

Project Details	Location	Project Description
Project R6	NE 124th St to NE 132nd St	This project involves the widening of the existing roadway section to include two through lanes, bicycle lanes, and sidewalk facilities on the east side of the roadway. Any impacts to the existing drainage systems will be mitigated. Sta 222+00 to Sta 242+00
Project R6w	NE 124th St - NE 128th St	This project adds a sidewalk to the east side of the existing roadway section
Project NM4	NE 124th St Intersection	This project involves intersection improvements at Juanita Dr & NE 124th St. A new pedestrian connection to the adjacent neighborhood to the east will be installed. This new pathway will lead to a new crossing at Juanita Dr.

From: Kurt Ahrensfield
 To: Don Samdahl (d.samdahl@ferndale.com)
 Cc: Travis Rauscher; Kurt Ahrensfield
 Subject: FW: Juanita project overlaps

Sent: Fri 11/22/2013 12:5

Don,

See discussion below on overlaps between projects as requested.

Please let us know if you have any questions.

Thanks,

Kurt Ahrensfield, PE
 Senior Project Manager
 Pertteet Inc.
 426-152-7700 direct 426-322-0288 cell 426-369-6106
 1-800-616-9000 fax 426-328-8018 www.pertteet.com
 2707 Colby Avenue, Ste 300, Everett, WA 98201
 eplans@pertteet.com

From: Travis Rauscher
 Sent: Friday, November 22, 2013 10:40 AM
 To: Kurt Ahrensfield
 Subject: Juanita project overlaps

Kurt,

Here is a breakdown of potential cost overlaps in adjacent projects.

Project R6

79th Way NE to NE 120th St
 Previously called project M7 this updates the cross section with bike lanes and sidewalk on the east side. Total estimated cost for this project was \$390k. Project length was ~2000 LF

79th Way NE to south of NE 120th St
 Previously called project H3 this provided a couple of options for pedestrian facilities through this stretch of Juanita Dr.

-The first option is the addition of a 6' sidewalk, curb and gutter along the east side of the roadway. This improvement fits within the existing roadway width and has a price of \$193k.
 -Second option provides a 6' separated pedestrian pathway on the east side of the existing ditch line through this section. This option involves significant excavation, clearing and grubbing, and the construction of retaining walls due to the steep slopes. The cost is estimated at \$1,140k.
 -Third option provides a 10' separated pedestrian pathway on the east side of the existing ditch line through this section. Just as in the second option this has large impacts and includes large retaining walls. The cost is estimated at \$3,863k.

Combination of projects M7 and H3 (option 1) does have cost overlap in the percentage based items (Mobilization, Engineering, etc.) I would estimate the cost of construction for this combo at ~\$50k.
 Combining either of the second or third option for pedestrian facilities and the base roadway widening (M7) would result in a cost equal to the sum of the separate projects.

Project R6w

NE 124th St to NE 128th St
 Previously called project I2 this added a sidewalk to the east side of Juanita Dr. for roughly 1100 LF. This required restriping of the roadway and some fill material to accommodate the sidewalk. Drainage was also addressed as widening may impact existing systems on the east side. The estimated cost for this project was \$169k.

NE 124th St to NE 132nd St
 Previously called project L3 this updated the roadway section to allow for 6' bike lanes both directions, 11' through lanes. The length of this section is ~2000 LF. The estimated cost for this project was \$925k.

Combining these two projects into one single project does contain some cost overlap. The two projects are different lengths but span the same general area. In addition to the \$925k total discussed for the roadway widening I would recommend adding twice the amount for cement conc sidewalk and CSBC listed for I2 (~60k). This would result in a combined estimate of \$985k.

Preliminary Level Opinion of Cost				
City of Kirkland: Juanita Dr. Corridor Study				
13-Dec-13				
Perteet Project # 20110185				
ITEM	UNITS	UNIT PRICE	PROJECT NM5 - QUANTITY	PROJECT NM5 - AMOUNT
PREPARATION				
Mobilization (10%)	LS	\$ 1	28,000	\$ 28,000
Roadway Surveying (2%)	LS	\$ 1	6,000	\$ 6,000
Structure Surveying (5%)	LS	\$ 1		\$ -
Removal of Structures & Obstructions (1%)	LS	\$ 1	28,000	\$ 28,000
Clearing and Grubbing	AC	\$ 10,000	0.26	\$ 2,600
GRADING				
Roadway Excavation Incl. Haul	CY	\$ 15	140	\$ 2,100
Gravel Borrow Incl. Haul	TON	\$ 16	90	\$ 1,500
STORM SEWER				
Drainage Systems	LS	\$ 1		\$ -
SURFACING				
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	\$ 1		\$ -
Portland Cement Concrete Sidewalk	SY	\$ 35		\$ -
HMA CL 1/2 IN. PG 64-22	TON	\$ 100	260	\$ 26,000
Crushed Surfacing Base Course	TON	\$ 25	241	\$ 6,100
EROSION CONTROL AND PLANTING				
Temporary Water Pollution & Erosion Control (6%)	LS	\$ 1	17,000	\$ 17,000
TRAFFIC				
Project Traffic Control (10%)	EST	\$ 1	28,000	\$ 28,000
Traffic Signal Systems	EST	\$ 1		\$ -
Cement Conc Curb and Gutter	LF	\$ 15		\$ -
Cement Conc Curb Ramps	EA	\$ 1,500		\$ -
Illumination System	EST	\$ 1	40,000	\$ 40,000
Striping	LF			\$ -
OTHER				
Retaining Walls	SF	\$ 60		\$ -
Enhanced Pedestrian Crossing	LS	\$ 1		\$ -
Gateway Island	LS	\$ 1		\$ -
Timber Bridge	SF	\$ 100	1,800	\$ 180,000
Trail Extension	LF	\$ 20	600	\$ 12,000
CONSTRUCTION SUB TOTAL				\$ 186,000
Construction Contingencies (30%)				\$ 60,000
CONSTRUCTION TOTAL				\$ 246,000
ENGINEERING SERVICES				
Preliminary Engineering (15%)				\$ 40,000
Construction Engineering (12%)				\$ 30,000
Total Preliminary Opinion of Cost				\$ 316,000

Project Details	Location	Project Description
Project NM5	NE 132nd St- Juanita Drive to 72nd Ave NE	This project involves the construction of a pedestrian/bicycle pathway between the intersection of Juanita Dr. & NE 132nd St heading west to 76th Ave NE.

Preliminary Level Opinion of Cost				
City of Kirkland: Juanita Dr. Corridor Study				
13-Dec-13				
Perteet Project # 20110185				
ITEM	UNITS	UNIT PRICE	PROJECT NM6 - QUANTITY	PROJECT NM6 - AMOUNT
PREPARATION				
Mobilization (10%)	LS	\$ 1	9,000	\$ 9,000
Roadway Surveying (2%)	LS	\$ 1	1,000	\$ 1,000
Structure Surveying (5%)	LS	\$ 1	0	\$ -
Removal of Structures & Obstructions (1%)	LS	\$ 1	1,000	\$ 1,000
Clearing and Grubbing	AC	\$ 10,000	0.1	\$ 600
GRADING				
Roadway Excavation Incl. Haul	CY	\$ 15	290	\$ 4,400
Gravel Borrow Incl. Haul	TON	\$ 16	290	\$ 4,700
STORM SEWER				
Drainage Systems	LS	\$ 1	7,000	\$ 7,000
SURFACING				
Portland Cement Concrete Sidewalk	SY	\$ 35		\$ -
HMA CL 1/2 IN, PG 64-22	TON	\$ 100		\$ -
Crushed Surfacing Base Course	TON	\$ 25		\$ -
EROSION CONTROL AND PLANTING				
Temporary Water Pollution & Erosion Control (6%)	LS	\$ 1	6,000	\$ 6,000
TRAFFIC				
Project Traffic Control (10%)	EST	\$ 1	9,000	\$ 9,000
Traffic Signal Systems	EST	\$ 1		\$ -
Cement Conc Curb and Gutter	LF	\$ 15		\$ -
Cement Conc Curb Ramps	EA	\$ 1,500		\$ -
Illumination System	EST	\$ 1	10,000	\$ 10,000
Striping	LF		1,600	\$ -
OTHER				
Retaining Walls	SF	\$ 60		\$ -
Enhanced Pedestrian Crossing	LS	\$ 1	60,000	\$ 60,000
CONSTRUCTION SUB TOTAL				\$ 113,000
Construction Contingencies (30%)				\$ 40,000
CONSTRUCTION TOTAL				\$ 153,000
ENGINEERING SERVICES				
Preliminary Engineering (15%)				\$ 30,000
Construction Engineering (12%)				\$ 20,000
Total Preliminary Opinion of Cost				\$ 203,000

Project Details	Location	Project Description
Project NM6	Big Finn Hill Park	This project involves the construction of a enhanced pedestrian crossing of Juanita Dr. approx 1000 ft south of the Big Finn Hill Park entrance. This crossing will connect the two existing trail networks in Big Finn Hill Park. Improvements to the existing drainage systems along the west side of Juanita Dr. will be completed. Roadway lighting will be enhanced to increase visibility and pedestrian/bicycle safety.

Preliminary Level Opinion of Cost					
City of Kirkland: Juanita Dr. Corridor Study					
13-Dec-13					
Perteet Project # 20110185					
ITEM		UNITS	UNIT PRICE	PROJECT NM8 - QUANTITY	PROJECT NM8 - AMOUNT
PREPARATION					
Mobilization (10%)		LS	\$ 1	4,000	\$ 4,000
Roadway Surveying (2%)		LS	\$ 1	1,000	\$ 1,000
Removal of Structures & Obstructions (10%)		LS	\$ 1	4,000	\$ 4,000
Roadway Excavation (10%)		EST	\$ 1	4,000	\$ 4,000
SURFACING					
Pavement Repair (15%)		EST	\$ 1	6,000	\$ 6,000
TRAFFIC					
Project Traffic Control (15%)		EST	\$ 1	6,000	\$ 6,000
Plastic Wide Lane Line		LF	\$ 2.50	6,300	\$ 15,800
Double Yellow Center Stripe		LF	\$ 5		\$ -
Removing Existing Striping		LF	\$ 2	6,300	\$ 12,600
OTHER					
Guide Posts		EA	\$ 50	119	\$ 6,000
Signing		EA	\$ 750	13	\$ 9,500
CONSTRUCTION SUB TOTAL					\$ 69,000
Construction Contingencies (15%)					\$ 20,000
CONSTRUCTION TOTAL					\$ 89,000
ENGINEERING SERVICES					
Preliminary Engineering (15%)					\$ 20,000
Construction Engineering (12%)					\$ 20,000
Total Preliminary Opinion of Cost					\$ 129,000

Project Details	Location	Project Description
Project NM8	Corridor	Add markings and guide posts at specific locations to improve safety

Total Length of Buffer Type Edge Line = LF
 Total Length of Double Yellow Center Stripe = LF
 Number of Guide Posts = EA
 # of New Sign, Post, and Foundation = EA
 Unit Cost = \$750.00 EA

Preliminary Level Opinion of Cost					
City of Kirkland: Juanita Dr. Corridor Study					
13-Dec-13					
Perteet Project # 20110185					
ITEM		UNITS	UNIT PRICE	PROJECT NM9 - QUANTITY	PROJECT NM9 - AMOUNT
PREPARATION					
Mobilization (10%)		LS	\$ 1	13,000	\$ 13,000
Roadway Surveying (2%)		LS	\$ 1	3,000	\$ 3,000
Removal of Structures & Obstructions (10%)		LS	\$ 1	13,000	\$ 13,000
Roadway Excavation (10%)		EST	\$ 1	13,000	\$ 13,000
SURFACING					
Pavement Repair (15%)		EST	\$ 1	19,000	\$ 19,000
TRAFFIC					
Project Traffic Control (15%)		EST	\$ 1	19,000	\$ 19,000
Plastic Wide Lane Line		LF	\$ 2.50	16,900	\$ 42,300
Double Yellow Center Stripe		LF	\$ 5	4,300	\$ 21,500
Removing Existing Striping		LF	\$ 2	21,200	\$ 42,400
OTHER					
Guide Posts		EA	\$ 50	300	\$ 15,000
Permanent Signing		LS	\$ 1	15,000	\$ 15,000
CONSTRUCTION SUB TOTAL					\$ 217,000
Construction Contingencies (30%)					\$ 70,000
CONSTRUCTION TOTAL					\$ 287,000
ENGINEERING SERVICES					
Preliminary Engineering (15%)					\$ 50,000
Construction Engineering (12%)					\$ 40,000
Total Preliminary Opinion of Cost					\$ 377,000

Project Details	Location	Project Description
Project NM9	Corridor	Create Northbound Bicycle Lane. Edge line will be similar to a gore area, two 4" plastic lines with hatching of 45deg strips inbetween. Total width is 2'

Section	Description	Length	# of lines	Total	# of Posts
116th to 120th	6', 11', 11', 6' Typ Section. Restripe edge lines Guide posts put on the inside of curve at 83rd Ave area spaced at 10'	8100	1	8100	100
NE 122nd Pl to NE 124th St	No change to typical section Restriping edge lines to wide lane line	1000	1	1000	
NE 124th to NE 132nd St	7', 11', 11', 6' Typical Section Restriping edge lines to wide lane line Guide posts on the west side of Juanita Dr. at the NE 128th St intersection	2700	1	2700	50
NE 132nd St to NE 133rd Pl	6', 11', 11', 12' Typical Section Restriping edge lines to wide lane line Restriping of center line to accommodate adjusted section 12' shoulder is wide ot accommodate bicycle lane and bus stop Guide posts on the west side of Juanita Dr. at the NE 132nd St intersection	500	1 1	0 500 500	50
NE 133rd Pl to NE 138th St.	6', 11', 11', 7' Typical Section Restriping edge lines to wide lane line Restriping of center line to accommodate adjusted section	1800	1 1	1800 1800	
NE 1389th St to NE 138th Pl	6', 11', 11', 11', 6' Typical Section Restriping edge lines to wide lane line Restriping of center line to accommodate adjusted section Guide posts will be placed on the west side of Juanita Dr at the NE 138th St intersection Guide posts will be placed on the east side of Juanita Dr at the NE 138th Pl intersection	1000	1 2	1000 2000	50 50
NE 138th Pl to NE 141st St.	6', 11', 11', 6' Typical Section Restriping edge lines to wide lane line	800	1	800	
NE 141st to NE 143rd	Not change to typical section Restriping edge lines to wide lane line	1000	1	1000	
Total Length of Buffer Type Edge Line =					16900
Total Length of Double Yellow Center Stripe =					4300
Number of Guide Posts =					300

Preliminary Level Opinion of Cost					
City of Kirkland: Juanita Dr. Corridor Study					
13-Dec-13					
Perteet Project # 20110185					
ITEM		UNITS	UNIT PRICE	PROJECT NM10 QUANTITY	PROJECT NM10 AMOUNT
PREPARATION					
Mobilization (10%)		LS	\$ 1	10,000	\$ 10,000
Roadway Surveying (2%)		LS	\$ 1	2,000	\$ 2,000
Removal of Structures & Obstructions (10%)		LS	\$ 1	10,000	\$ 10,000
OTHER					
Permanent Signing		LS	\$ 1	94,500	\$ 94,500
CONSTRUCTION SUB TOTAL					\$ 117,000
Construction Contingencies (15%)					\$ 20,000
CONSTRUCTION TOTAL					\$ 137,000
ENGINEERING SERVICES					
Preliminary Engineering (15%)					\$ 30,000
Construction Engineering (12%)					\$ 20,000
Total Preliminary Opinion of Cost					\$ 187,000

Project Details	Location
Enhanced Signing	Corridor

Section	Description	Length	# of Existing Signs	# of New Signs
Corridor in the Northbound direction	This project will replace the existing signs along the corridor to enhance driver awareness for bicycle users. It will also add an average of two signs per 1000LF of roadway notifying users of increased bicycle traffic. No Parking signs will be installed in areas as well.	18000	135	36

of Signs to be Removed and Replaced = 135 EA
 Unit Cost = \$ 500.00 EA
 # of New Sign, Post, and Foundation = 36 EA
 Unit Cost = \$ 750.00 EA
 Total Cost = \$ 94,500.00

Preliminary Level Opinion of Cost				
City of Kirkland: Juanita Dr. Corridor Study				
13-Dec-13				
Perteet Project # 20110185				
ITEM	UNITS	UNIT PRICE	PROJECT R1 - QUANTITY	PROJECT R1 - AMOUNT
PREPARATION				
Mobilization (10%)	LS	\$ 1	215,000	\$ 215,000
Roadway Surveying (2%)	LS	\$ 1	43,000	\$ 43,000
Structure Surveying (5%)	LS	\$ 1	108,000	\$ 108,000
Removal of Structures & Obstructions (1%)	LS	\$ 1	22,000	\$ 22,000
Clearing and Grubbing	AC	\$ 10,000	0.21	\$ 2,100
GRADING				
Roadway Excavation Incl. Haul	CY	\$ 15	2,670	\$ 40,100
Gravel Borrow Incl. Haul	TON	\$ 16	2,200	\$ 35,200
STORM SEWER				
Drainage Systems	LS	\$ 1	50,000	\$ 50,000
SURFACING				
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	\$ 1	239,000	\$ 239,000
Portland Cement Concrete Sidewalk	SY	\$ 20		
HMA CL 1/2 IN. PG 64-22	TON	\$ 120	80	\$ 9,600
Crushed Surfacing Base Course	TON	\$ 35		\$ -
EROSION CONTROL AND PLANTING				
Temporary Water Pollution & Erosion Control (6%)	LS	\$ 1	129,000	\$ 129,000
TRAFFIC				
Project Traffic Control (15%)	EST	\$ 1	323,000	\$ 323,000
Traffic Signal Systems	EST	\$ 1		\$ -
Cement Conc Curb and Gutter	LF	\$ 15	1,800	\$ 27,000
Cement Conc Curb Ramps	EA	\$ 1,500		\$ -
Illumination System	EST	\$ 1		\$ -
Striping	LF	\$ 3	5,400	\$ 16,200
OTHER				
Retaining Walls (Soilder Pile)	SF	\$ 100	9,600	\$ 960,000
Retaining Walls (SEW)	SF	\$ 80	9,600	\$ 768,000
Gateway Island	LS	\$ 4,000	1	\$ 4,000
Property Restoration (1%)	EST	\$ 1	22,000	\$ 22,000
CONSTRUCTION SUB TOTAL				\$ 3,014,000
Construction Contingencies (30%)				\$ 910,000
CONSTRUCTION TOTAL				\$ 3,924,000
ENGINEERING SERVICES				
Preliminary Engineering (15%)				\$ 590,000
Construction Engineering (12%)				\$ 480,000
Total Preliminary Opinion of Cost				\$ 4,994,000

Project Details	Location	Project Description
Project R1	NE 116th Pl to 86th Ave NE	<p>This project widens the existing roadway section to include two through lanes, bicycle lanes in both directions, and sidewalk along the south side of the roadway. Drainage improvements will be installed along the north side of the roadway to collect both runoff and groundwater. Due to the steep slopes along both the north and south sides of the roadway through this area, retaining walls will be installed. Improvements to NE Juanita Ln will be completed to improve access, sight distances, and pedestrian safety. A Gateway island will be constructed at the east end of the project area near the east leg of the NE 116th Pl intersection.</p> <p>Approximate Length = 1800 ~Sta 124+00 to Sta 142+00</p>

Preliminary Level Opinion of Cost				
City of Kirkland: Juanita Dr. Corridor Study				
21-Nov-13				
Perteet Project # 20110185				
ITEM	UNITS	UNIT PRICE	PROJECT R1 - QUANTITY	PROJECT R1 - AMOUNT
PREPARATION				
Mobilization (10%)	LS	\$ 1	92,000	\$ 92,000
Roadway Surveying (2%)	LS	\$ 1	19,000	\$ 19,000
Structure Surveying (5%)	LS	\$ 1	46,000	\$ 46,000
Removal of Structures & Obstructions (1%)	LS	\$ 1	10,000	\$ 10,000
STORM SEWER				
Drainage Systems	LS	\$ 1	50,000	\$ 50,000
EROSION CONTROL AND PLANTING				
Temporary Water Pollution & Erosion Control (6%)	LS	\$ 1	55,000	\$ 55,000
TRAFFIC				
Project Traffic Control (15%)	EST	\$ 1	138,000	\$ 138,000
OTHER				
Retaining Walls (Soldier Pile)	SF	\$ 100	4,800	\$ 480,000
Retaining Walls (SEW)	SF	\$ 80	4,800	\$ 384,000
CONSTRUCTION SUB TOTAL				\$ 1,274,000
Construction Contingencies (30%)				\$ 390,000
CONSTRUCTION TOTAL				\$ 1,664,000
ENGINEERING SERVICES				
Preliminary Engineering (15%)				\$ 250,000
Construction Engineering (12%)				\$ 200,000
Total Preliminary Opinion of Cost				\$ 2,114,000
Project Details	Location	Project Description		
Project R1	NE 116th Pl to 86th Ave NE	<p>This project widens the existing roadway section to include two through lanes, bicycle lanes in both directions, and sidewalk along the south side of the roadway. Drainage improvements will be installed along the north side of the roadway to collect both runoff and groundwater. Due to the steep slopes along both the north and south sides of the roadway through this area, retaining walls will be installed. Improvements to NE Juanita Ln will be completed to improve access, sight distances, and pedestrian safety. A Gateway island will be constructed at the east end of the project area near the east leg of the NE 116th Pl intersection.</p> <p>Approximate Length = 1800 ~Sta 124+00 to Sta 142+00</p> <p>This estimate summary contains Drainage related items only! Assumptions include that the walls on both the north and south side of the roadway are for both roadway and drainage purposes and thus the costs are split equally.</p>		

Preliminary Level Opinion of Cost								
City of Kirkland: Juanita Dr. Corridor Study								
13-Dec-13								
Pertteet Project # 20110185								
ITEM	UNITS	UNIT PRICE	PROJECT R3 - QUANTITY	PROJECT R3 - AMOUNT	PROJECT R4 - QUANTITY	PROJECT R4 - AMOUNT	PROJECT R4 SW - QUANTITY	PROJECT R4 SW - AMOUNT
PREPARATION								
Mobilization (10%)	LS	\$ 1	49,000	\$ 49,000	16,000	\$ 16,000	7,000	\$ 7,000
Roadway Surveying (2%)	LS	\$ 1	10,000	\$ 10,000	4,000	\$ 4,000	2,000	\$ 2,000
Structure Surveying (5%)	LS	\$ 1		\$ -		\$ -		\$ -
Removal of Structures & Obstructions (1%)	LS	\$ 1	5,000	\$ 5,000	2,000	\$ 2,000	20,000	\$ 20,000
Cleaning and Grubbing	AC	\$ 10,000	0.10	\$ 1,000		\$ -	0.07	\$ 700
GRADING								
Roadway Excavation Incl. Haul	CY	\$ 15	1,120	\$ 16,800	560	\$ 8,400	230	\$ 3,500
Gravel Borrow Incl. Haul	TON	\$ 16	170	\$ 2,800	90	\$ 1,500	250	\$ 4,000
STORM SEWER								
Drainage Systems	LS	\$ 1	10,000	\$ 10,000		\$ -	10,000	\$ 10,000
SURFACING								
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	\$ 1	132,800	\$ 132,800	117,800	\$ 117,800		\$ -
Portland Cement Concrete Sidewalk	SY	\$ 20		\$ -		\$ -	670	\$ 13,400
HMA CL 1/2 IN. PG 64-22	TON	\$ 90		\$ -		\$ -		\$ -
Crushed Surfacing Base Course	TON	\$ 25		\$ -		\$ -	148	\$ 3,700
EROSION CONTROL AND PLANTING								
Temporary Water Pollution & Erosion Control (6%)	LS	\$ 1	30,000	\$ 30,000	10,000	\$ 10,000	4,000	\$ 4,000
TRAFFIC								
Project Traffic Control (10%)	EST	\$ 1	49,000	\$ 49,000	16,000	\$ 16,000	7,000	\$ 7,000
Traffic Signal Systems	EST	\$ 1		\$ -		\$ -		\$ -
Cement Conc Curb and Gutter	LF	\$ 15	1,000	\$ 15,000	1,000	\$ 15,000	1,000	\$ 15,000
Cement Conc Curb Ramps	EA	\$ 1,500		\$ -		\$ -	2	\$ 3,000
Illumination System	EST	\$ 1		\$ -		\$ -		\$ -
Striping	LF	\$ 3	3,000	\$ 9,000	3,000	\$ 9,000	3,000	\$ 9,000
OTHER								
Retaining Walls	SF	\$ 60	5,000	\$ 300,000		\$ -		\$ -
Beam Guardrail	LF	\$ 100			300	\$ 30,000		
CONSTRUCTION SUB TOTAL				\$ 631,000		\$ 230,000		\$ 103,000
Construction Contingencies (30%)				\$ 190,000		\$ 70,000		\$ 40,000
CONSTRUCTION TOTAL				\$ 821,000		\$ 300,000		\$ 143,000
ENGINEERING SERVICES								
Preliminary Engineering (15%)				\$ 130,000		\$ 50,000		\$ 30,000
Construction Engineering (12%)				\$ 100,000		\$ 40,000		\$ 20,000
Total Preliminary Opinion of Cost				\$ 1,051,000		\$ 390,000		\$ 193,000

550000 +\$980000

**Creating the basic section would be \$550K. Adding the multipurpose trail (second option below) would add approx. \$980K. See email below

Project Details	Location	Project Description
Project R3	NE 112th St to 79th Way NE	Widening of existing roadway cross section to accommodate the proposed thru lanes, bicycle lanes, and sidewalk on the east side of the roadway. Approximate length of project = 1000 LF ~ Sta 180+00 to Sta 190+00
Project R4	79th Way NE to NE 120th St	Widening of existing roadway cross section to accommodate the proposed thru lanes, bicycle lanes, and sidewalk on the east side of the roadway. The existing beam guardrail will be replaced. Approximate length of project = 1000 LF ~ Sta 190+00 to Sta 200+00
Project R4 SW	79th Way NE to South of NE 120th St	Installation of a sidewalk along the east side of the roadway. Approximate length of project = 1000 LF ~ Sta 190+00 to Sta 200+00

From: Kurt Ahrensfield
 To: Don Sandell (d.sandell@perrandsons.com)
 CC: Travis Rauscher; Kurt Ahrensfield
 Subject: FW: Juanita project overlaps
 Sent: Fri 11/22/2013 12:5

Don,
 See discussion below on overlaps between projects as requested.
 Please let us know if you have any questions.
 Thanks,
 Kurt Ahrensfield, PE
 Senior Project Manager
 Perrand Inc.
 426.262.7700 direct 426.222.0266 cell 426.368.8106
 1.800.816.9000 fax 426.238.8019 www.perrand.com
 2707 Colby Avenue, Ste 900, Everett, WA 98201
 eplans@perrand.com

From: Travis Rauscher
 Sent: Friday, November 22, 2013 10:40 AM
 To: Kurt Ahrensfield
 Subject: Juanita project overlaps

Kurt,
 Here is a breakdown of potential cost overlaps in adjacent projects.

Project #3
 79th Way NE to NE 120th St
 Previously called project M7 this updates the cross section with bike lanes and sidewalk on the east side. Total estimated cost for this project was \$390K. Project length was ~2000 LF

79th Way NE to south of NE 120th St
 Previously called project H3 this provided a couple of options for pedestrian facilities through this stretch of Juanita Dr.
 -The first option is the addition of a 6' sidewalk, curb and gutter along the east side of the roadway. This improvement fits within the existing roadway width and has a price of \$193K.
 -Second option provides a 6' separated pedestrian pathway on the east side of the existing ditch line through this section. This option involves significant excavation, clearing and grubbing, and the construction of retaining walls due to the steep slopes. The cost is estimated at \$1,140K.
 -Third option provides a 30' separated pedestrian pathway on the east side of the existing ditch line through this section. Just as in the second option this has large impacts and includes large retaining walls. The cost is estimated at \$1,864K.

Combination of projects M7 and H3 (option 1) does have cost overlap in the percentage based items (Mobilization, Engineering, etc). I would estimate the cost of construction for this combo at ~\$590K.
 Combining either of the second or third option for pedestrian facilities and the base roadway widening (M7) would result in a cost equal to the sum of the separate projects.

Project #6
 NE 124th St to NE 128th St
 Previously called project I2 this added a sidewalk to the east side of Juanita Dr. for roughly 1100 LF. This required restriping of the roadway and some fill material to accommodate the sidewalk. Drainage was also addressed as widening may impact existing systems on the east side. The estimated cost for this project was \$169K.

NE 124th St to NE 132nd St
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Combining these two projects into one single project does contain some cost overlap. The two projects are different lengths but span the same general area. In addition to the \$925K total discussed for the roadway widening I would recommend adding twice the amount for cement conc sidewalk and CSBC listed for I2 (~\$60K). This would result in a combined estimate of \$985K.

Preliminary Level Opinion of Cost						
City of Kirkland: Juanita Dr. Corridor Study						
13-Dec-13						
Perteet Project # 20110185						
ITEM	UNITS	UNIT PRICE	PROJECT R4B - QUANTITY	PROJECT R4B - AMOUNT	PROJECT R4C - QUANTITY	PROJECT R4C - AMOUNT
PREPARATION						
Mobilization (10%)	LS	\$ 1	43,000	\$ 43,000	70,000	\$ 70,000
Roadway Surveying (2%)	LS	\$ 1	9,000	\$ 9,000	14,000	\$ 14,000
Structure Surveying (5%)	LS	\$ 1	18,000	\$ 18,000	30,000	\$ 30,000
Removal of Structures & Obstructions (1%)	LS	\$ 1	20,000	\$ 20,000	7,000	\$ 7,000
Clearing and Grubbing	AC	\$ 10,000	0.23	\$ 2,300	0.35	\$ 3,500
GRADING						
Roadway Excavation Incl. Haul	CY	\$ 15	230	\$ 3,500	750	\$ 11,300
Gravel Borrow Incl. Haul	TON	\$ 16	480	\$ 7,700	780	\$ 12,500
STORM SEWER						
Drainage Systems	LS	\$ 1	10,000	\$ 10,000	10,000	\$ 10,000
SURFACING						
Portland Cement Concrete Sidewalk	SY	\$ 20		\$ -		\$ -
HMA CL 1/2 IN. PG 64-22	TON	\$ 100	230	\$ 23,000	360	\$ 36,000
Crushed Surfacing Base Course	TON	\$ 35	148	\$ 5,200	241	\$ 8,500
EROSION CONTROL AND PLANTING						
Temporary Water Pollution & Erosion Control (6%)	LS	\$ 1	26,000	\$ 26,000	42,000	\$ 42,000
TRAFFIC						
Project Traffic Control (10%)	EST	\$ 1	43,000	\$ 43,000	70,000	\$ 70,000
Traffic Signal Systems	EST	\$ 1		\$ -		\$ -
Cement Conc Curb and Gutter	LF	\$ 15		\$ -		\$ -
Cement Conc Curb Ramps	EA	\$ 1,500		\$ -		\$ -
Illumination System	EST	\$ 1		\$ -		\$ -
Striping	LF	\$ 3	3,000	\$ 9,000	3,000	\$ 9,000
OTHER						
Retaining Walls (SEW)	SF	\$ 60	6,000	\$ 360,000	10,000	\$ 600,000
ROW Acquisition	SF	\$ 20	5,000	\$ 100,000	10,000	\$ 200,000
Enhanced Pedestrian Crossing	EST	\$ 1		\$ -		\$ -
CONSTRUCTION SUB TOTAL						
				\$ 680,000		\$ 1,124,000
Construction Contingencies (30%)				\$ 210,000		\$ 340,000
CONSTRUCTION TOTAL				\$ 890,000		\$ 1,464,000
ENGINEERING SERVICES						
Preliminary Engineering (15%)				\$ 140,000		\$ 220,000
Construction Engineering (12%)				\$ 110,000		\$ 180,000
Total Preliminary Opinion of Cost				\$ 1,140,000		\$ 1,864,000

Project Details	Location	Project Description
Project R4B	79th Way NE to South of NE 120th St	Installation of a 6' separated pedestrian walkway along the east side of the roadway. This pathway/sidewalk will be to the east of the existing open drainage ditch and will require tree removal and retaining walls in most areas. Approximate length of project = 1000 LF - Sta 190+00 to Sta 200+00
Project R4C	79th Way NE to South of NE 120th St	Installation of a 10' separated pedestrian walkway along the east side of the roadway. This pathway/sidewalk will be to the east of the existing open drainage ditch and will require tree removal and retaining walls in most areas. Approximate length of project = 1000 LF - Sta 190+00 to Sta 200+00

Preliminary Level Opinion of Cost				
City of Kirkland: Juanita Dr. Corridor Study				
13-Dec-13				
Perteet Project # 20110185				
ITEM	UNITS	UNIT PRICE	PROJECT R5 - QUANTITY	PROJECT R5 - AMOUNT
PREPARATION				
Mobilization (10%)	LS	\$ 1	14,000	\$ 14,000
Roadway Surveying (2%)	LS	\$ 1	3,000	\$ 3,000
Structure Surveying (5%)	LS	\$ 1	3,000	\$ 3,000
Removal of Structures & Obstructions (1%)	LS	\$ 1	2,000	\$ 2,000
Clearing and Grubbing	AC	\$ 10,000	0.07	\$ 700
GRADING				
Roadway Excavation Incl. Haul	CY	\$ 15	60	\$ 900
Gravel Borrow Incl. Haul	TON	\$ 16		\$ -
STORM SEWER				
Drainage Systems	LS	\$ 1	2,000	\$ 2,000
SURFACING				
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	\$ 1	62,500	\$ 62,500
Portland Cement Concrete Sidewalk	SY	\$ 20		\$ -
HMA CL 1/2 IN. PG 64-22	TON	\$ 120		\$ -
Crushed Surfacing Base Course	TON	\$ 35		\$ -
EROSION CONTROL AND PLANTING				
Temporary Water Pollution & Erosion Control (6%)	LS	\$ 1	9,000	\$ 9,000
TRAFFIC				
Project Traffic Control (10%)	EST	\$ 1	14,000	\$ 14,000
Traffic Signal Systems	EST	\$ 1		\$ -
Cement Conc Curb and Gutter	LF	\$ 15		\$ -
Cement Conc Curb Ramps	EA	\$ 1,500		\$ -
Illumination System	EST	\$ 1	10,000	\$ 10,000
Striping	LF	\$ 3	1,200	\$ 3,600
OTHER				
Retaining Walls (SEW)	SF	\$ 60	900	\$ 54,000
Gateway Island	LS	\$ 4,000		\$ -
Property Restoration (1%)	EST	\$ 1		\$ -
CONSTRUCTION SUB TOTAL				\$ 179,000
Construction Contingencies (30%)				\$ 60,000
CONSTRUCTION TOTAL				\$ 239,000
ENGINEERING SERVICES				
Preliminary Engineering (15%)				\$ 40,000
Construction Engineering (12%)				\$ 30,000
Total Preliminary Opinion of Cost				\$ 309,000

Project Details	Location	Project Description
Project R5	NE 120th St. to NE 122nd Lane	<p>This project widens the roadway to accommodate a SB LT lane on Juanita Dr. The existing sidewalk on the east side will be extended, roadway lighting will be improved.</p> <p>Approximate Length = 300</p>

Preliminary Level Opinion of Cost						
City of Kirkland: Juanita Dr. Corridor Study						
13-Dec-13						
Perteet Project # 20110185						
ITEM	UNITS	UNIT PRICE	PROJECT R7A - QUANTITY	PROJECT R7A - AMOUNT	PROJECT R7B - QUANTITY	PROJECT R7B - AMOUNT
PREPARATION						
Mobilization (10%)	LS	\$ 1	36,000	\$ 36,000	79,000	\$ 79,000
Roadway Surveying (2%)	LS	\$ 1	9,000	\$ 9,000	11,000	\$ 11,000
Structure Surveying (5%)	LS	\$ 1		\$ -	5,000	\$ 5,000
Removal of Structures & Obstructions (1%)	LS	\$ 1	4,000	\$ 4,000	10,000	\$ 10,000
Clearing and Grubbing	AC	\$ 10,000	0.17	\$ 1,700	0.49	\$ 4,900
GRADING						
Roadway Excavation Incl. Haul	CY	\$ 15	680	\$ 10,200	1,200	\$ 18,000
Gravel Borrow Incl. Haul	TON	\$ 16	270	\$ 4,400	1,070	\$ 17,200
STORM SEWER						
Drainage Systems	LS	\$ 1	28,000	\$ 28,000	28,000	\$ 28,000
SURFACING						
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	\$ 1	236,500	\$ 236,500	203,800	\$ 203,800
Portland Cement Concrete Sidewalk	SY	\$ 20		\$ -		\$ -
HMA CL 1/2 IN. PG 64-22	TON	\$ 100		\$ -	490	\$ 49,000
Crushed Surfacing Base Course	TON	\$ 35		\$ -	481	\$ 16,900
EROSION CONTROL AND PLANTING						
Temporary Water Pollution & Erosion Control (6%)	LS	\$ 1	22,000	\$ 22,000	47,000	\$ 47,000
TRAFFIC						
Project Traffic Control (10%)	EST	\$ 1	36,000	\$ 36,000	79,000	\$ 79,000
Traffic Signal Systems	EST	\$ 1		\$ -		\$ -
Cement Conc Curb and Gutter	LF	\$ 15	1,400	\$ 21,000	1,400	\$ 21,000
Cement Conc Curb Ramps	EA	\$ 1,500		\$ -		\$ -
Illumination System	EST	\$ 1	30,000	\$ 30,000	30,000	\$ 30,000
Striping	LF	\$ 3	4,200	\$ 12,600	4,200	\$ 12,600
OTHER						
Retaining Walls (SEW)	SF	\$ 60		\$ -	1,500	\$ 90,000
ROW Acquisition	SF	\$ 20			14,000	\$ 280,000
Gateway Island	LS	\$ 1	5,000	\$ 5,000	5,000	\$ 5,000
Trail Extension	LF	\$ 20	200	\$ 4,000	200	\$ 4,000
CONSTRUCTION SUB TOTAL				\$ 461,000		\$ 1,012,000
Construction Contingencies (30%)				\$ 140,000		\$ 310,000
CONSTRUCTION TOTAL				\$ 601,000		\$ 1,322,000
ENGINEERING SERVICES						
Preliminary Engineering (15%)				\$ 100,000		\$ 200,000
Construction Engineering (12%)				\$ 80,000		\$ 160,000
Total Preliminary Opinion of Cost				\$ 781,000		\$ 1,682,000

Project Details	Location	Project Description
Project R7A	NE 133rd PI to south of NE 138th St	This project involves widening the existing roadway section from just north of NE 133rd PI to the entrance to Big Finn Hill Park to accommodate two through lanes, bicycle lanes, and sidewalk along the east side of Juanita Dr. Any impacts to the existing drainage systems will be mitigated. --Sta 253+00 to Sta 267+00
Project R7B	NE 138th St intersection	This project involves widening the existing roadway section to accommodate two through lanes, bicycle lanes, and a 10' separated pathway along the east side of Juanita Dr. Any impacts to the existing drainage systems will be mitigated. --Sta 267+00 to Sta 273+00

Preliminary Level Opinion of Cost						
City of Kirkland: Juanita Dr. Corridor Study						
13-Dec-13						
Perteet Project # 20110185						
ITEM	UNITS	UNIT PRICE	PROJECT R9A - QUANTITY	PROJECT R9A - AMOUNT	PROJECT R9B - QUANTITY	PROJECT R9B - AMOUNT
PREPARATION						
Mobilization (10%)	LS	\$ 1	20,000	\$ 20,000	26,000	\$ 26,000
Roadway Surveying (2%)	LS	\$ 1	5,000	\$ 5,000	5,000	\$ 5,000
Structure Surveying (5%)	LS	\$ 1		\$ -	3,000	\$ 3,000
Removal of Structures & Obstructions (1%)	LS	\$ 1	2,000	\$ 2,000	3,000	\$ 3,000
Clearing and Grubbing	AC	\$ 10,000	0.11	\$ 1,100	0.11	\$ 1,100
GRADING						
Roadway Excavation Incl. Haul	CY	\$ 15	750	\$ 11,250	810	\$ 12,150
Gravel Borrow Incl. Haul	TON	\$ 16	200	\$ 3,200	290	\$ 4,640
STORM SEWER						
Drainage Systems	LS	\$ 1	25,000	\$ 25,000	25,000	\$ 25,000
SURFACING						
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	\$ 1	107,100	\$ 107,100	107,100	\$ 107,100
Portland Cement Concrete Sidewalk	SY	\$ 35	110	\$ 3,850		\$ -
HMA CL 1/2 IN. PG 64-22	TON	\$ 100		\$ -	80	\$ 8,000
Crushed Surfacing Base Course	TON	\$ 25	37	\$ 925	56	\$ 1,388
EROSION CONTROL AND PLANTING						
Temporary Water Pollution & Erosion Control (6%)	LS	\$ 1	12,000	\$ 12,000	16,000	\$ 16,000
TRAFFIC						
Project Traffic Control (10%)	EST	\$ 1	20,000	\$ 20,000	26,000	\$ 26,000
Traffic Signal Systems	EST	\$ 1		\$ -		\$ -
Cement Conc Curb and Gutter	LF	\$ 15	900	\$ 13,500	900	\$ 13,500
Cement Conc Curb Ramps	EA	\$ 1,500		\$ -		\$ -
Illumination System	EST	\$ 1	20,000	\$ 20,000	20,000	\$ 20,000
Striping	LF	\$ 3	3,352	\$ 10,056	3,352	\$ 10,056
OTHER						
Retaining Walls (SEW)	SF	\$ 60		\$ -	815	\$ 48,900
Gateway Island	LS	\$ 1	4,000	\$ 4,000	4,000	\$ 4,000
Enhanced Pedestrian Crossing	LS	\$ 60,000		\$ -		\$ -
				\$ -		\$ -
CONSTRUCTION SUB TOTAL				\$ 259,000		\$ 335,000
Construction Contingencies (30%)				\$ 80,000		\$ 110,000
CONSTRUCTION TOTAL				\$ 339,000		\$ 445,000
ENGINEERING SERVICES						
Preliminary Engineering (15%)				\$ 60,000		\$ 70,000
Construction Engineering (12%)				\$ 50,000		\$ 60,000
Total Preliminary Opinion of Cost				\$ 449,000		\$ 575,000

Project Details	Location	Project Description
Project R9A	STA 276 to NE 141st St	This project involves the construction of a gateway island just south of the Juanita Dr & NE 141st St. intersection. The roadway section will be widened to accommodate this new feature. The roadway lighting will be improved throughout the project area. This project also involves widening the existing roadway section from just north of NE 138th Pl to NE 141st St. to accommodate two through lanes, bicycle lanes. Any impacts to the existing drainage systems will be mitigated. This project involves widening the existing roadway section to accommodate a sidewalk along the east side of Juanita Dr. Any impacts to the existing drainage systems will be mitigated.
Project R9B	STA 276 to NE 141st St	This project involves the construction of a gateway island just south of the Juanita Dr & NE 141st St. intersection. The roadway section will be widened to accommodate this new feature. The roadway lighting will be improved throughout the project area. This project also involves widening the existing roadway section from just north of NE 138th Pl to NE 141st St. to accommodate two through lanes, bicycle lanes. Any impacts to the existing drainage systems will be mitigated. This project involves widening the existing roadway section to accommodate a 10' separated pathway along the east side of Juanita Dr. Any impacts to the existing drainage systems will be mitigated.

Preliminary Level Opinion of Cost				
City of Kirkland: Juanita Dr. Corridor Study				
13-Dec-13				
Perteet Project # 20110185				
ITEM	UNITS	UNIT PRICE	PROJECT R10 - QUANTITY	PROJECT R10 - AMOUNT
PREPARATION				
Mobilization (10%)	LS	\$ 1	1,000	\$ 1,000
Roadway Surveying (2%)	LS	\$ 1	1,000	\$ 1,000
Structure Surveying (5%)	LS	\$ 1		\$ -
Removal of Structures & Obstructions (10%)	LS	\$ 1	1,000	\$ 1,000
Clearing and Grubbing	AC	\$ 10,000		\$ -
GRADING				
Roadway Excavation Incl. Haul	CY	\$ 15		\$ -
Gravel Borrow Incl. Haul	TON	\$ 16		\$ -
STORM SEWER				
Drainage Systems	LS	\$ 1		\$ -
SURFACING				
Portland Cement Concrete Sidewalk	SY	\$ 20		\$ -
HMA CL 1/2 IN. PG 64-22	TON	\$ 100		\$ -
Crushed Surfacing Base Course	TON	\$ 35		\$ -
EROSION CONTROL AND PLANTING				
Temporary Water Pollution & Erosion Control (6%)	LS	\$ 1	1,000	\$ 1,000
TRAFFIC				
Project Traffic Control (15%)	EST	\$ 1	5,000	\$ 5,000
Traffic Signal Systems	EST	\$ 1		\$ -
Cement Conc Curb and Gutter	LF	\$ 15		\$ -
Cement Conc Curb Ramps	EA	\$ 1,500		\$ -
Illumination System	EST	\$ 1		\$ -
Striping	LF	\$ 6	4,000	\$ 24,000
OTHER				
Retaining Walls (SEW)	SF	\$ 60		\$ -
ROW Acquisition	SF	\$ 20		\$ -
Enhanced Pedestrian Crossing	EST	\$ 1		\$ -
CONSTRUCTION SUB TOTAL				
				\$ 33,000
Construction Contingencies (30%)				\$ 10,000
CONSTRUCTION TOTAL				
				\$ 43,000
ENGINEERING SERVICES				
Preliminary Engineering (15%)				\$ 10,000
Construction Engineering (12%)				\$ 10,000
Total Preliminary Opinion of Cost				\$ 63,000

Project Details	Location	Project Description
Project R10	NE 141st to NE 143rd ~1000 LF	Cross Section upgrades. Roadway is restriped with buffer strips for bike lanes

Preliminary Level Opinion of Cost					
City of Kirkland: Juanita Dr. Corridor Study					
13-Dec-13					
Perteet Project # 20110185					
ITEM		UNITS	UNIT PRICE	PROJECT V2 - QUANTITY	PROJECT V2 - AMOUNT
PREPARATION					
Mobilization (10%)		LS	\$ 1	1,000	\$ 1,000
Roadway Surveying (2%)		LS	\$ 1	1,000	\$ 1,000
Removal of Structures & Obstructions (10%)		LS	\$ 1	1,000	\$ 1,000
Roadway Excavation (10%)		EST	\$ 1	1,000	\$ 1,000
SURFACING					
Pavement Repair (15%)		EST	\$ 1	1,000	\$ 1,000
TRAFFIC					
Project Traffic Control (15%)		EST	\$ 1	1,000	\$ 1,000
Rumble Strip		LF	\$ 0.35	3,700	\$ 1,300
Double Yellow Center Stripe		LF	\$ 5	0	\$ -
Removing Existing Striping		LF	\$ 2	0	\$ -
OTHER					
Guide Posts		EA	\$ 50	0	\$ -
Permanent Signing		LS	\$ 1	0	\$ -
CONSTRUCTION SUB TOTAL					\$ 8,000
Construction Contingencies (15%)					\$ 10,000
CONSTRUCTION TOTAL					\$ 18,000
ENGINEERING SERVICES					
Preliminary Engineering (15%)					\$ 10,000
Construction Engineering (12%)					\$ 10,000
Total Preliminary Opinion of Cost					\$ 38,000

Project Details	Location	Project Description
Project V2	Corridor	Add Centerline Rumble Strips- 3700 feet total throughout corridor

Preliminary Level Opinion of Cost				
City of Kirkland: Juanita Dr. Corridor Study				
13-Dec-13				
Perteet Project # 20110185				
ITEM	UNITS	UNIT PRICE	PROJECT V3 - QUANTITY	PROJECT V3 - AMOUNT
PREPARATION				
Mobilization (10%)	LS	\$ 1	1,000	\$ 1,000
Roadway Surveying (2%)	LS	\$ 1	1,000	\$ 1,000
Structure Surveying (5%)	LS	\$ 1		\$ -
Removal of Structures & Obstructions (1%)	LS	\$ 1		\$ -
Clearing and Grubbing	AC	\$ 10,000	0.10	\$ 1,000
GRADING				
Roadway Excavation Incl. Haul	CY	\$ 15		\$ -
Gravel Borrow Incl. Haul	TON	\$ 16		\$ -
STORM SEWER				
Drainage Systems	LS	\$ 1		\$ -
SURFACING				
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	\$ 1		
Portland Cement Concrete Sidewalk	SY	\$ 20		\$ -
HMA CL 1/2 IN. PG 64-22	TON	\$ 90		\$ -
Crushed Surfacing Base Course	TON	\$ 25		\$ -
EROSION CONTROL AND PLANTING				
Temporary Water Pollution & Erosion Control (6%)	LS	\$ 1	1,000	\$ 1,000
TRAFFIC				
Project Traffic Control (10%)	EST	\$ 1	1,000	\$ 1,000
Traffic Signal Systems	EST	\$ 1		\$ -
Cement Conc Curb and Gutter	LF	\$ 15		\$ -
Cement Conc Curb Ramps	EA	\$ 1,500		\$ -
Illumination System	EST	\$ 1		\$ -
Striping	LF	\$ 3	2,000	\$ 6,000
OTHER				
Retaining Walls	SF	\$ 60		\$ -
Enhanced Pedestrian Crossing	LS	\$ 60,000		\$ -
CONSTRUCTION SUB TOTAL				\$ 11,000
Construction Contingencies (30%)				\$ 10,000
CONSTRUCTION TOTAL				\$ 21,000
ENGINEERING SERVICES				
Preliminary Engineering (15%)				\$ 10,000
Construction Engineering (12%)				\$ 10,000
Total Preliminary Opinion of Cost				\$ 41,000

Project Details	Location	Project Description
Project V3	NE 138th PI Intersection	This project involves the restriping of the NE 138th PI & Juanita Dr. intersection. Striping will be done to improve sight distance for drivers turning onto Juanita Dr. from NE 138th PI and will also provide a protected area on Juanita Dr. allowing drivers to join traffic safely.