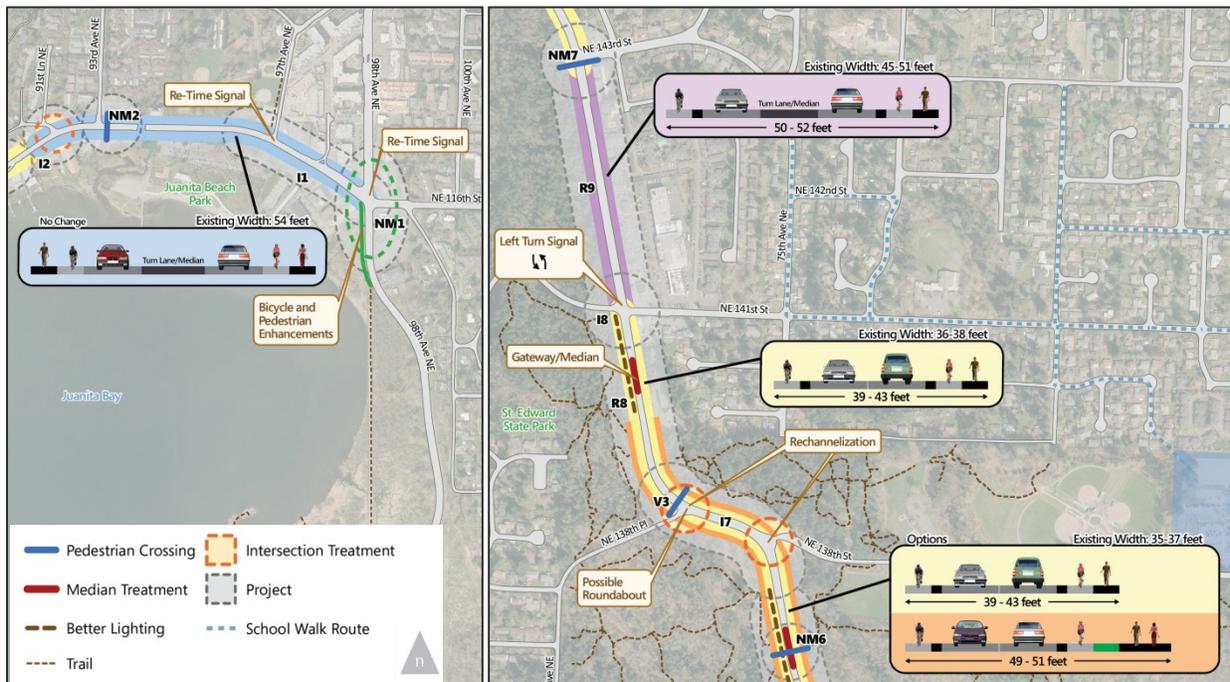


# JUANITA DRIVE Master Plan Corridor Study



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

ID	Location	Description/Justification
NM1	Juanita Drive / 98 <sup>th</sup> 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 <sup>rd</sup> Avenue NE intersection	Add flashing crosswalk to existing crosswalk.
NM6	Juanita Drive, approximately 600 feet south of NE 138 <sup>th</sup> Street	Construct mid-block Rectangular Rapid Flashing Beacon <sup>1</sup> crosswalk to connect Big Finn Hill Park trails on the east and west sides of Juanita Drive.
NM7	Juanita Drive / NE 143 <sup>rd</sup> 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 <sup>a</sup>	Challenges to be Resolved
	Low	High		
NM1	\$83	\$83	M	No width on south approach for bike lane; widened sidewalk may require right-of-way.
NM2	\$156	\$156	M	Minimal
NM6	\$203	\$203	H	Integrate with full cross-section treatment, which may come later.
NM7	\$148	\$148	L	Minimal
Total	\$590	\$590		

<sup>a</sup> H = high ; M = medium ; L = low

# JUANITA DRIVE Master Plan Corridor Study



**Project Group 2 – Neighborhood Access Points** – This project group includes improvements to 86<sup>th</sup> Avenue NE and NE 112<sup>th</sup> Street / 80<sup>th</sup> Avenue NE, principal access points to the Surfmore and Hermosa Vista neighborhoods.

ID	Location	Description/Justification
NM3	Juanita Drive / 86 <sup>th</sup> Avenue NE intersection	Construct flashing crosswalk at intersection to connect residential neighborhoods on north side of street with transit stop on south side. Improve drainage on both sides of street.
I3	Juanita Drive / NE 112 <sup>th</sup> Street / 80 <sup>th</sup> Avenue NE intersection	Re-channelize as 4-legged intersection. Realign 80 <sup>th</sup> Avenue NE to intersect NE 112 <sup>th</sup> Street approximately 60 feet east of Juanita Drive. Construct Rectangular Rapid Flashing Beacon <sup>1</sup> crosswalk at intersection to connect residential neighborhoods on east and west side of street.



ID	Capital Cost (in 1,000s)		Priority <sup>a</sup>	Challenges to be Resolved
	Low	High		
NM3	\$525 <sup>b</sup>	\$525 <sup>b</sup>	M	Drainage concerns, sufficient advance crosswalk signing needed
I3	\$1,894	\$1,894	H	Slopes, right-of-way in Hermosa Vista to consolidate intersections, integrate crosswalk with turn pockets
<b>Total</b>	<b>\$2,419</b>	<b>\$2,419</b>		

<sup>a</sup> H = high ; M = medium ; L = low

<sup>b</sup> Drainage portion of cost is approximately \$110,000

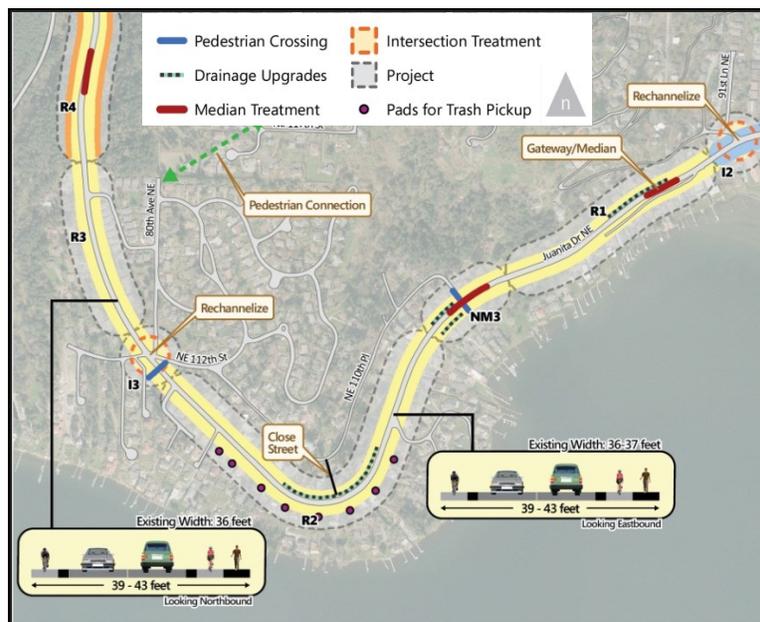
# JUANITA DRIVE Master Plan Corridor Study



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

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

<sup>1</sup> Option to add separated pathway on east side through park.



ID	Capital Cost (in 1,000s)		Priority <sup>a</sup>	Challenges to be Resolved
	Low	High		
R1	\$4,994 <sup>b</sup>	\$4,994 <sup>b</sup>	M	Step slopes, sloughing, proximity of Juanita Lane, drainage
R2	\$972	\$972	M	Step slopes, drainage, frequent driveways, trash cans in shoulder
R3	\$1,051	\$1,051	L	Moderately steep slopes
R4	\$583	\$1,530	L	Steep slopes limits widening options without high costs
I2	\$125	\$125	L	Minimal
<b>Total</b>	<b>\$7,692</b>	<b>\$8,672</b>		

<sup>a</sup> H = high ; M = medium ; L = low

<sup>b</sup> Drainage portion of cost is approximately \$2.1 million

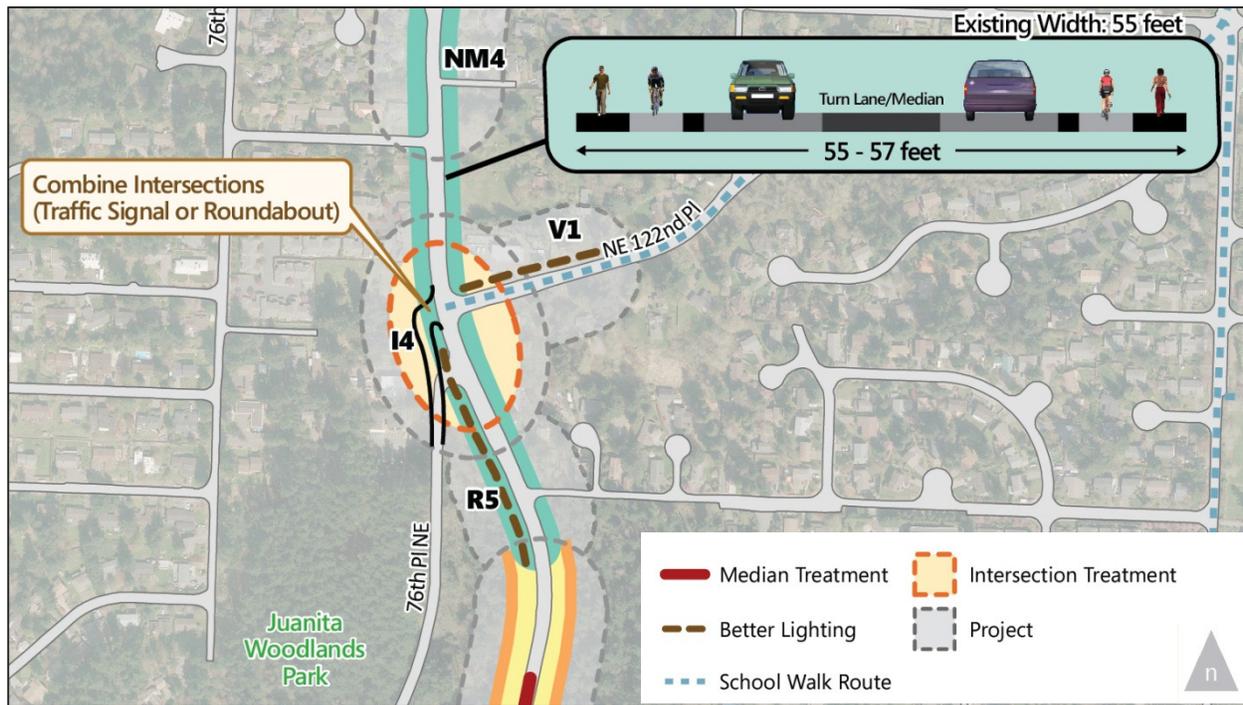
# JUANITA DRIVE Master Plan Corridor Study



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

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

<sup>1</sup> Single roundabout option an option to traffic signal.



ID	Capital Cost (in 1,000s)		Priority <sup>a</sup>	Challenges to be Resolved
	Low	High		
R5	\$309	\$309	H	Minimal
I4	\$1,184	\$1,377	M	Difficult configuration if fire station stays at this location
V1	\$50	\$50	H	Minimal
Total	\$1,543	\$1,736		

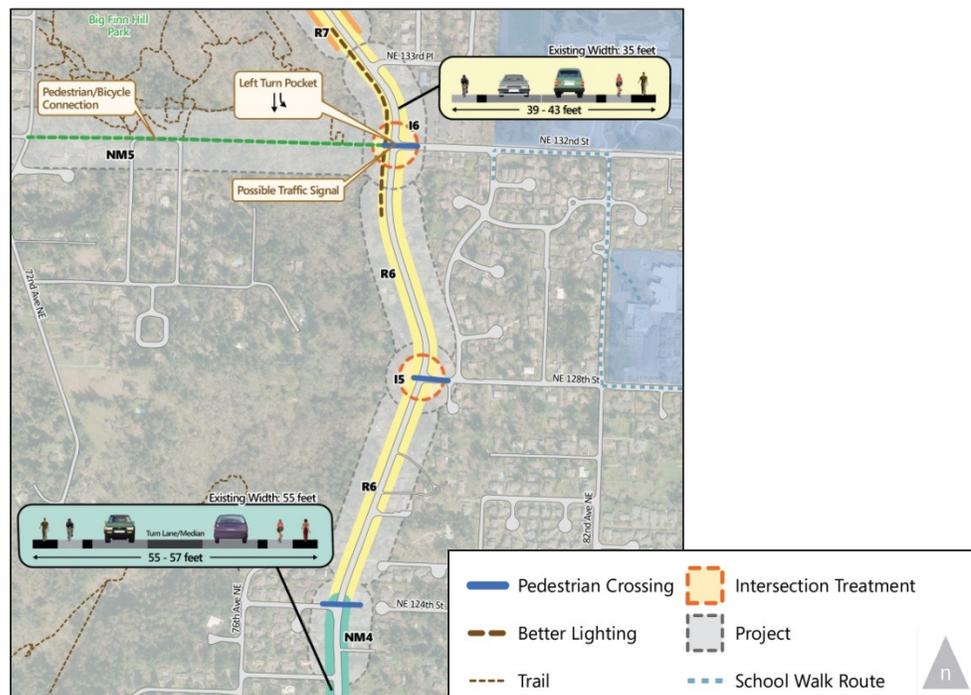
<sup>a</sup> H = high ; M = medium ; L = low

# JUANITA DRIVE Master Plan Corridor Study



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

ID	Location	Description/Justification
R6	NE 124 <sup>th</sup> Street to NE 128 <sup>th</sup> 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 <sup>th</sup> Street intersection	Widen southbound approach of Juanita Drive to include left turn lane. Construct flashing crosswalk at intersection.
I6	NE 132 <sup>nd</sup> Street to NE 133 <sup>rd</sup> Place	Widen southbound approach to NE 128 <sup>th</sup> 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 <sup>th</sup> Street intersection	Construct flashing crosswalk at intersection. Improve walkway on west side of street from NE 124 <sup>th</sup> Street to NE 123 <sup>rd</sup> Street.
NM5	NE 132 <sup>nd</sup> Street to 72 <sup>nd</sup> Avenue NE	Construct pedestrian/bicycle pathway along existing easement. Build a nonmotorized bridge across Denny Creek.



ID	Capital Cost (in 1,000s)		Priority <sup>a</sup>	Challenges to be Resolved
	Low	High		
R6	\$985	\$985	M	Some slopes
I5	\$1,082 <sup>b</sup>	\$1,082 <sup>b</sup>	H	Drainage on west side
I6	\$878	\$878	H	Lighting; link to nonmotorized path (NM5)
NM4	\$193	\$193	H	Tie to NE 124 <sup>th</sup> Street cul-de-sac
NM5	\$316	\$316	M	Bridge construction; interface with existing streets
<b>Total</b>	<b>\$3,454</b>	<b>\$3,454</b>		

<sup>a</sup> H = high ; M = medium ; L = low

<sup>b</sup> Drainage portion of cost is approximately \$98,000

# JUANITA DRIVE Master Plan Corridor Study

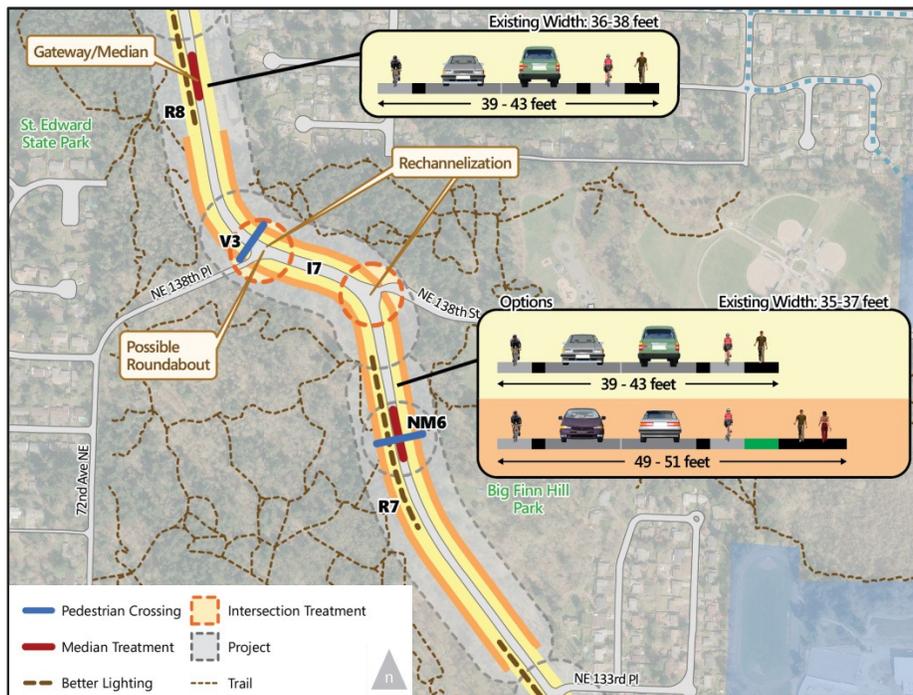


**Project Group 6 – North Corridor: Big Finn Hill Park to NE 140<sup>th</sup> Street** – This project group includes cross-section improvements to the north corridor of Juanita Drive from Big Finn Hill Park to NE 140<sup>th</sup> Street.

ID	Location	Description/Justification
R7	NE 133 <sup>rd</sup> Place to south of NE 138 <sup>th</sup> Street	Widen cross section to include buffered bike lanes on both sides of street and walkway on east side of street <sup>1</sup> .
I7	NE 138 <sup>th</sup> Street to NE 138 <sup>th</sup> Place	Rechannelize two intersections <sup>2</sup> . Widen cross section to include buffered bike lanes on both sides of street and walkway on east side of street <sup>2</sup> .
R8	NE 138 <sup>th</sup> Place to south of NE 141 <sup>st</sup> Street	Widen cross section and construct gateway median south of NE 141 <sup>st</sup> Street <sup>2</sup> .
V3	Juanita Drive / NE 138 <sup>th</sup> 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 <sup>th</sup> Place. (Interim treatment)

<sup>1</sup> Option to construct separated multi-purpose trail through park section

<sup>2</sup> Single roundabout option at NE 138<sup>th</sup> Place



ID	Capital Cost (in 1,000s)		Priority <sup>a</sup>	Challenges to be Resolved
	Low	High		
R7	\$781	\$1,682	H	Steep slopes; park right-of-way and trees
I7	\$497 <sup>b</sup>	\$2,315 <sup>b</sup>	H	Steep slopes; park right-of-way and trees. Roundabout requires regrading
R8	\$449	\$575	M	Steep slopes; park right-of-way and trees
V3	\$41	\$41	M	Minimal
Total	\$1,768	\$4,613		

<sup>a</sup> H = high ; M = medium ; L = low

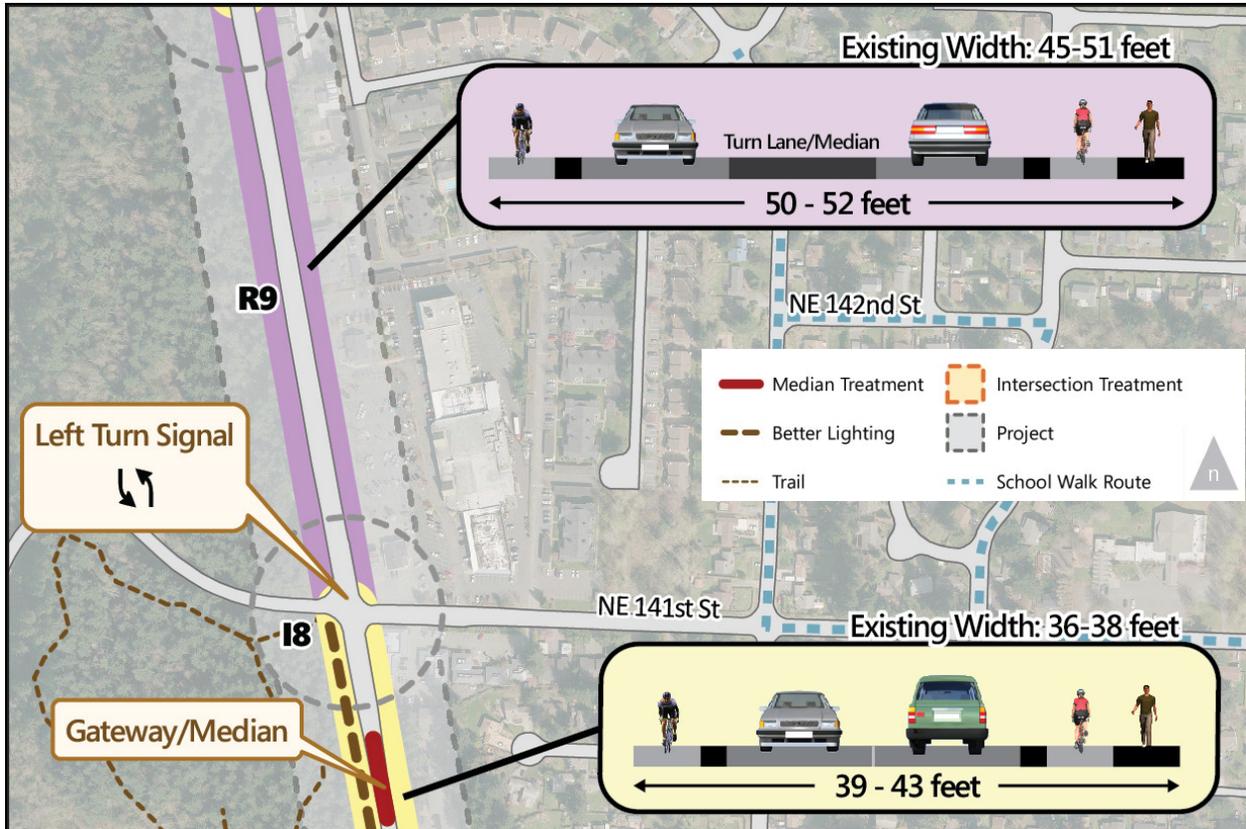
<sup>b</sup> Low cost is intersection rechannelization and basic cross section; high cost adds multi-purpose trail and roundabout; roundabout incremental cost is around \$1 Million.

# JUANITA DRIVE Master Plan Corridor Study



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

ID	Location	Description/Justification
I8	Juanita Drive / NE 141 <sup>st</sup> Street Intersection	Modify signal head to accommodate protected northbound and southbound left turns.
R9	NE 141 <sup>st</sup> Street to NE 143 <sup>rd</sup> Street	Reconfigure cross section to include bike lanes on both sides of street.



ID	Capital Cost (in 1,000s)		Priority <sup>a</sup>	Challenges to be Resolved
	Low	High		
I8	\$55	\$55	L	Minimal
R9	\$63	\$63	L	Could affect parking on east side south of NE 143 <sup>rd</sup> St
Total	\$118	\$118		

<sup>a</sup> H = high ; M = medium ; L = low

# JUANITA DRIVE Master Plan Corridor Study



**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 <sup>1</sup>	Construct interim “bicycle safety treatments” at pinch-points along corridor. Could include restriping, signing, barriers (e.g. candles, rumble strips)
NM9	Juanita Drive from 98 <sup>th</sup> Avenue NE to NE 143 <sup>rd</sup> Street	Rechannelize existing roadway to include northbound buffered bike lane.
V2	Selected locations along corridor <sup>1</sup>	Add center line rumble strips to help prevent drivers from veering out of travel lane

<sup>1</sup> To be determined.

ID	Capital Cost (in 1,000s)		Priority <sup>a</sup>	Challenges to be Resolved
	Low	High		
NM8	\$75	\$75	H	Identify key locations
NM9	\$890 <sup>b</sup>	\$890 <sup>b</sup>	H	Determine minimal cross section to achieve buffered bike lane. Interim treatment <sup>2</sup> .
V2	\$50	\$50	H	Identify key locations
<b>Total</b>	<b>\$1,015</b>	<b>\$1,015</b>		

<sup>a</sup> H = high ; M = medium ; L = low  
<sup>b</sup> Portion of this project could be included in full cross section design, but consider most of the cost to be an interim treatment.

# JUANITA DRIVE Master Plan 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	Signalized intersection from 98 <sup>th</sup> Avenue NE to NE 141 <sup>st</sup> Street	Integrate intersection signals with intelligent transportation systems (ITS) technology.
I1	98 <sup>th</sup> Avenue NE and 97 <sup>th</sup> Avenue NE intersections with Juanita Drive	Retime traffic signals to improve traffic operations at east end of corridor.

<sup>1</sup> Tie to City's traffic signal and safety project underway in 2013

ID	Capital Cost (in 1,000s)		Priority <sup>a</sup>	Challenges to be Resolved
	Low	High		
V4	\$1,050	\$2,250	L	Determine overhead (low cost) or underground (high cost)
I1	\$105 <sup>b</sup>	\$105 <sup>b</sup>	L	Minimal
Total	\$1,155	\$2,355		

<sup>a</sup> H = high ; M = medium ; L = low  
<sup>b</sup> Tie to City's traffic signal and safety project underway in 2013.