

# LAKE STEVENS 116TH/117TH AVE NE PEDESTRIAN PATH

## **116th/117th Ave NE Issues and Concerns**

Cars often drive faster than the speed limit, and there are no sidewalks or bike paths. This makes it unsafe for people to walk to school or go for a walk in their neighborhood. Right now, the road is only for cars, so people feel stuck and can't move around safely.

### **Problem: Vehicles Travel Too Fast**

"I estimate there are over 20 vehicles per day driving at 45 MPH, and 50 vehicles going 45 MPH and faster on school days."

"Speed on this road is 25mph, but no one does 25. There are no sidewalks. There are students walking to/from NLMS & LSHS. Cars fly by all day & evening. NOT at 25 mph."

### **Problem: No Pedestrian Access**

"I have lived on the corner since 1989, and been assured for years that sidewalks are coming."

### **Problem: High School Traffic is Ridiculous**

"The lineup at 116th and 20th is 15 cars deep..."

The City has listened and we want to work together to create a solution that addresses these problems.

### **Problem: High School Traffic is Ridiculous**

Let's fix it. The city has dedicated funds to construct a solution to these challenges.



## **116th and 117th Ave NE– Existing Conditions**





# LAKE STEVENS 116TH/117TH AVENUE NE PEDESTRIAN PATH

## ***One-way Roadway: Intended to Enhance Pedestrian Safety and Slow Traffic***

The City is testing a one-way traffic setup on 116th Ave NE and 117th Ave NE to improve safety. One lane on each street will become a walking path, separated by striping and flexible posts. This pilot will help slow down traffic and make it safer for people walking or biking.

### ***Analysis***

#### **Preferred Option: One-Way Couplet on 116th Ave NE & 117th Ave NE**

Improves pedestrian safety and traffic flow by reducing vehicle speeds and providing wide, separated pedestrian paths on both roads.

#### **Pros:**

- Slows traffic with physical barriers
- Adds 8-10 ft walking paths on both streets
- Increases safety and access for pedestrians
- Creates a 1-mile walking loop for residents
- Minimizes environmental impacts
- Requires the least property acquisition

#### **Cons:**

- Drivers may need to take slightly longer routes
- Mailboxes and garbage bins must move to one side
- May affect residents maneuvering large vehicles

#### **Alternative 1: Traditional Sidewalk (Curb, Gutter, Landscape Strip, Sidewalk on One Side)**

#### **Pros:**

- Slows traffic with physical barriers
- Maintains existing traffic direction and mailbox/garbage bin locations

#### **Cons:**

- Narrow sidewalk (5 ft) not ideal for cyclists or families
- Only improves 117th Ave NE - not 116th Ave NE
- Requires more property from homeowners
- Utility relocation and added stormwater infrastructure increases cost
- Not financially sustainable long-term

#### **Alternative 2: Multi-Use Path (Curb, Gutter, Landscape Strip, Wider Path)**

#### **Pros:**

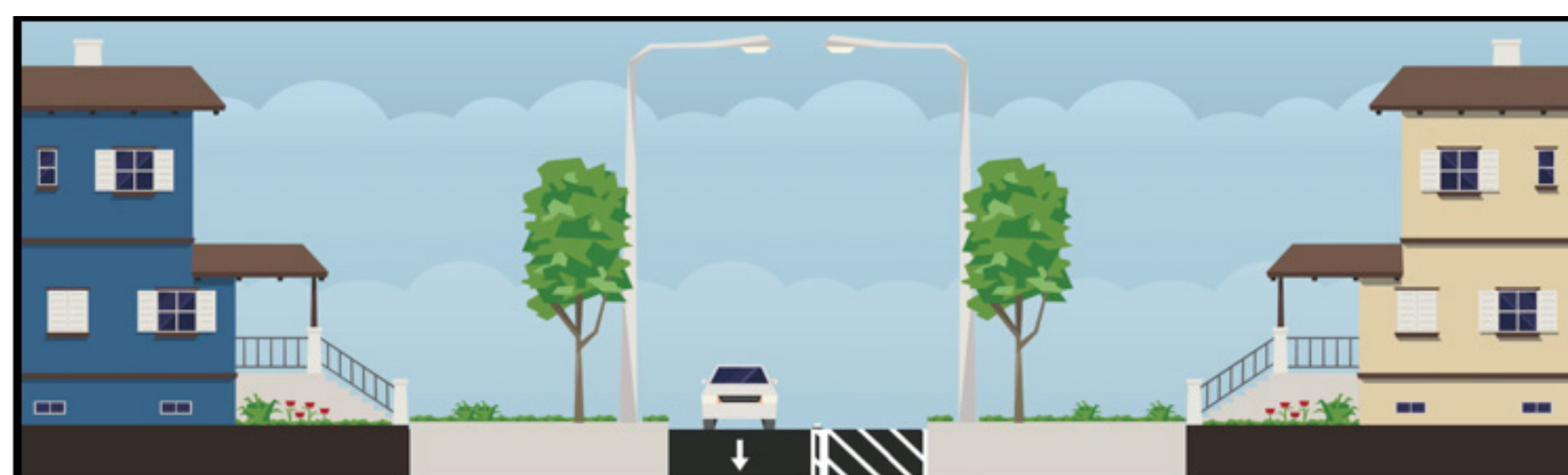
- Slows traffic
- Adds wider (8-10 ft) walking/biking path
- Keeps traffic flow and mailbox bin setup the same

#### **Cons:**

- Doesn't improve 116th Ave NE
- Requires significant property and utility impacts
- Expensive to build and maintain
- May affect large vehicle access for residents

### ***Goals***

1. Reduce vehicle speeds to improve safety
2. Provide safe and accessible walking paths on both 116th Ave NE and 117th Ave NE
3. Minimize impacts on private property
4. Reduce construction and long-term maintenance costs
5. Limit environmental impacts



*Typical street section for a one-way couplet*

### ***Alternatives Matrix***

	One-Way Couplet	Alternative Concept 1	Alternative Concept 2
<i>*117th Ave NE Only</i>			
<b>BENEFITS</b>			
Maintains two-way traffic		●	●
117th Ave NE Pedestrian Access	●	●	●
116th Ave NE Pedestrian Access	●		
Connects to existing pedestrian access routes	●	●*	●*
Safe walking routes to schools	●	●*	●*
Provides protected bicycle facilities		●*	●*
Fast project delivery	●		
Safety buffer between peds and vehicles	●	●	●
No ROW acquisition	●		
No environmental impacts	●		
Minimal impacts to private property	●		
No stormwater relocation/improvements	●		
No underground utility relocation	●		
No at-grade utility relocation	●		

### ***Conclusion***

The one-way couplet design may be new for Lake Stevens, but it's meant to improve safety for drivers, walkers, and bikers. It also helps protect private property and the environment. The City will test this design to see if it's the best option before making it permanent.

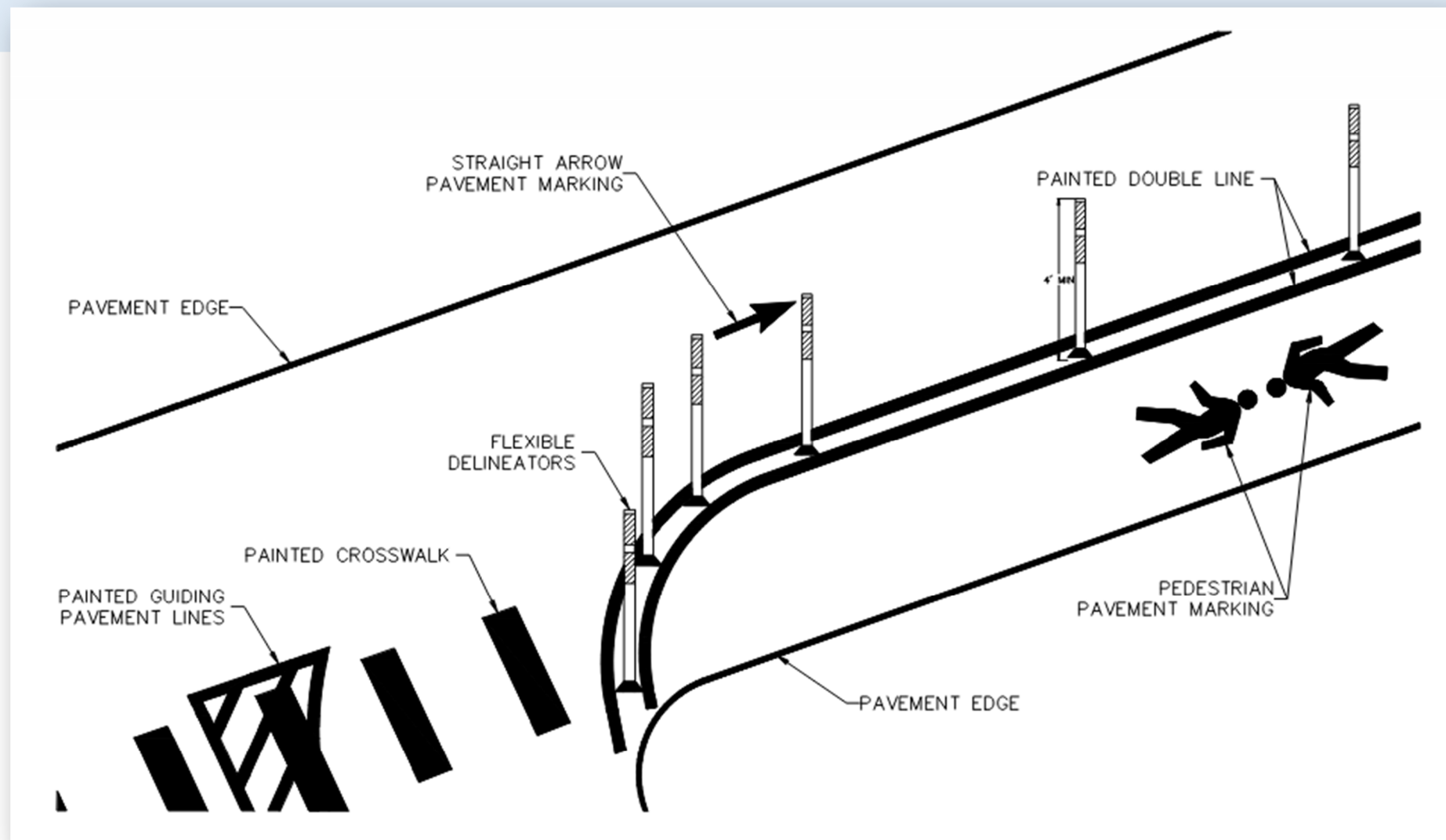
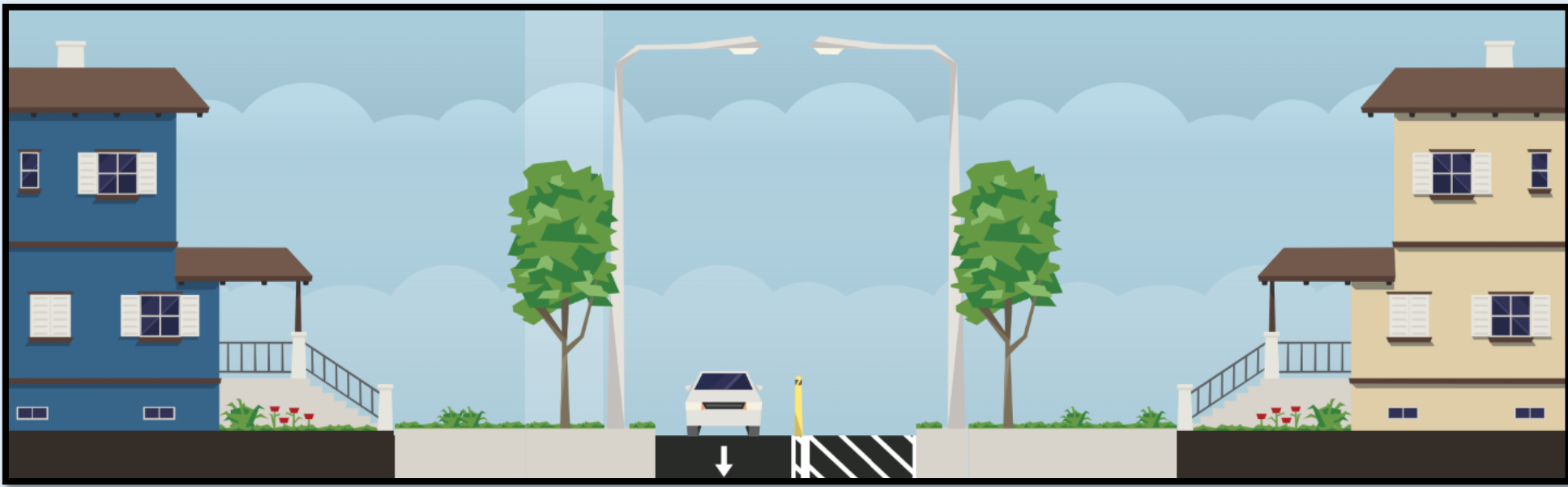
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## Proposed Temporary Pilot Project—One Way Couplet

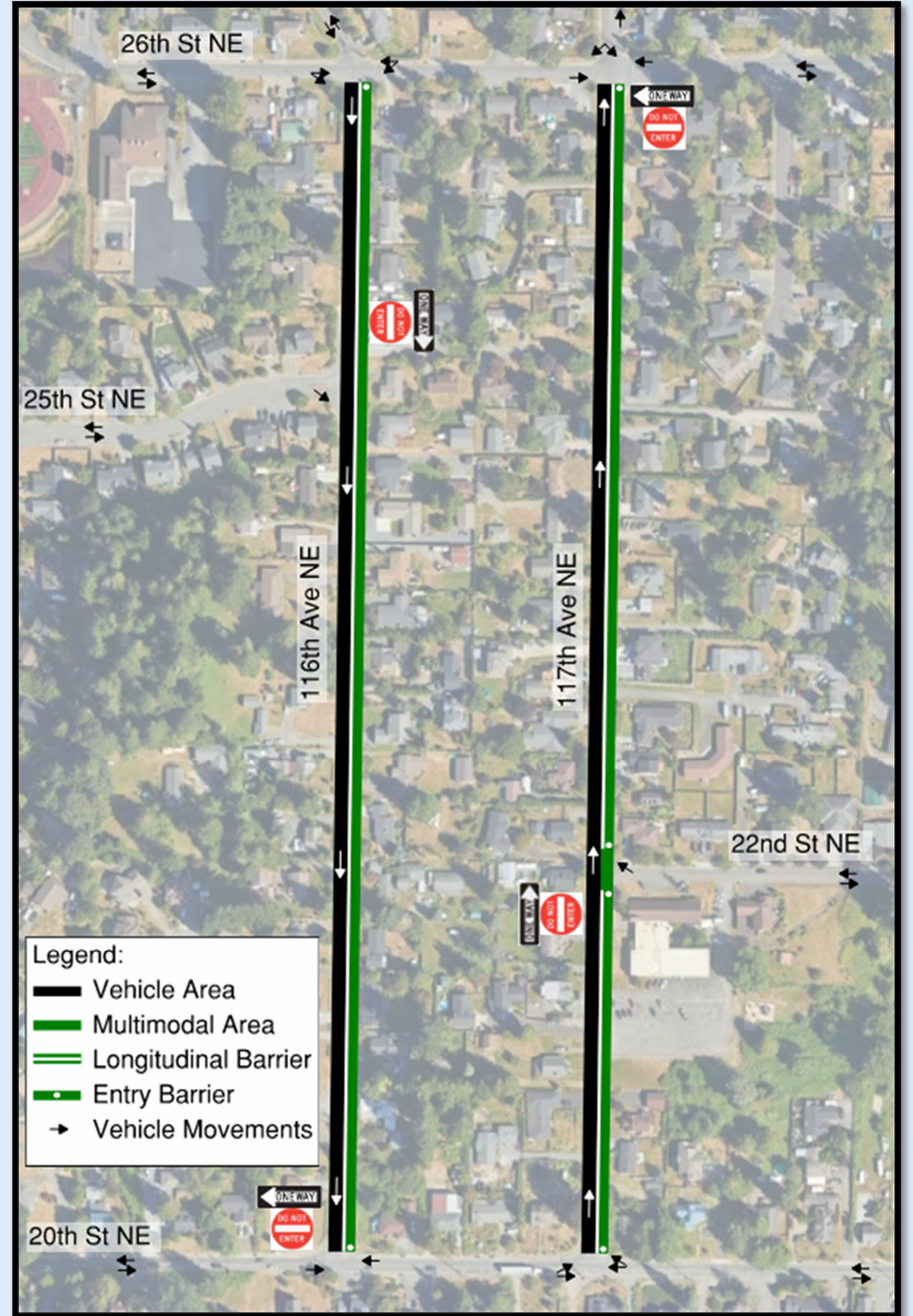
The pilot project is proposed to have the following characteristics:

- One-way southbound traffic on 116th Ave NE
- One-way northbound traffic on 117th Ave NE
- A designated pedestrian lane on the east side of both streets
- Temporary signage, striping, and flexible glue-down delineators to separate vehicles and pedestrians

### Cross Section of Pilot Project (View on 116th Ave NE Looking North)



### Aerial View of Pilot Project



### Current Traffic Conditions

- Most drivers are going faster than the posted 25mph speed limit
- Both vehicle and foot traffic are generally low, except during school drop-off and pickup times

Roadway Speeds				
116th Ave NE	Northbound		Southbound	
Mean Speed	27.8	mph	28.6	mph
85th Percentile Speed	31.6	mph	32.7	mph
117th Ave NE	Northbound		Southbound	
Mean Speed	28.0	mph	29.0	mph
85th Percentile Speed	31.8	mph	33.3	mph

Approximately 6% of vehicles exceed 35mph speeds on both roads

Traffic Volumes				
116th Ave NE	Full Week Full Day	Midweek Full Day	Midweek AM Peak Hour	Midweek PM Peak Hour
Traffic Volume (vehicles)	1100	1400	250	180
Percentage Northbound	50%	53%	83%	36%
117th Ave NE	Full Week Full Day	Midweek Full Day	Midweek AM Peak Hour	Midweek PM Peak Hour
Traffic Volume (vehicles)	1600	1800	205	170
Percentage Northbound	55%	57%	73%	57%

### Justification for Direction of One-Way Couplet

- Drivers can see better going south on 116th Ave NE and going north on 117th Ave NE when turning onto other roads
- Most vehicles leaving the high school go south on 116th Ave NE with two alternate exits
- More cars already go north on 117th Ave NE, so fewer cars need to take a new route this way
- Fewer interactions at key intersections is expected to reduce queue lengths at key locations

### Expected Changes to Traffic Patterns

Traffic Volume Comparison - Midweek Day (vehicles)			
116th Ave NE	Northbound	Southbound	Total
Daily Traffic Existing	750	650	1400
Estimated Daily Traffic with Project	0	1450	1450
117th Ave NE	Northbound	Southbound	Total
Daily Traffic Existing	1000	800	1800
Estimated Daily Traffic with Project	1750	0	1750

Traffic Volume Comparison - 15 Minute High School Release (2:45-3:00PM)						
Intersection Traffic	116th Ave NE & 26th St NE			117th Ave NE & 26th St NE		
	EB Right	WB Left	SB Thru	EB Right	WB Left	SB Thru
Existing Movement						
Existing Traffic Counts	100	4	0	15	6	20
Roadway Traffic	Southbound 116th Ave NE			Southbound 117th Ave NE		
Existing Southbound Traffic	104			41		
Estimated Southbound Traffic with Project	145			0		

Tables with expected traffic pattern changes ignore that some drivers may choose other routes such as 30th St NE, 123rd Ave NE, Cedar Rd

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## What can we do permanently?

The City wants your feedback on options to improve pedestrian safety and reduce traffic speeds. We're considering both one-way and two-way street options. The options below are suitable for 116th Ave NE and 117th Ave NE.

*Please note, speed humps are not included as they create operational challenges for emergency vehicles and street maintenance vehicles (sweepers and snowplows)*

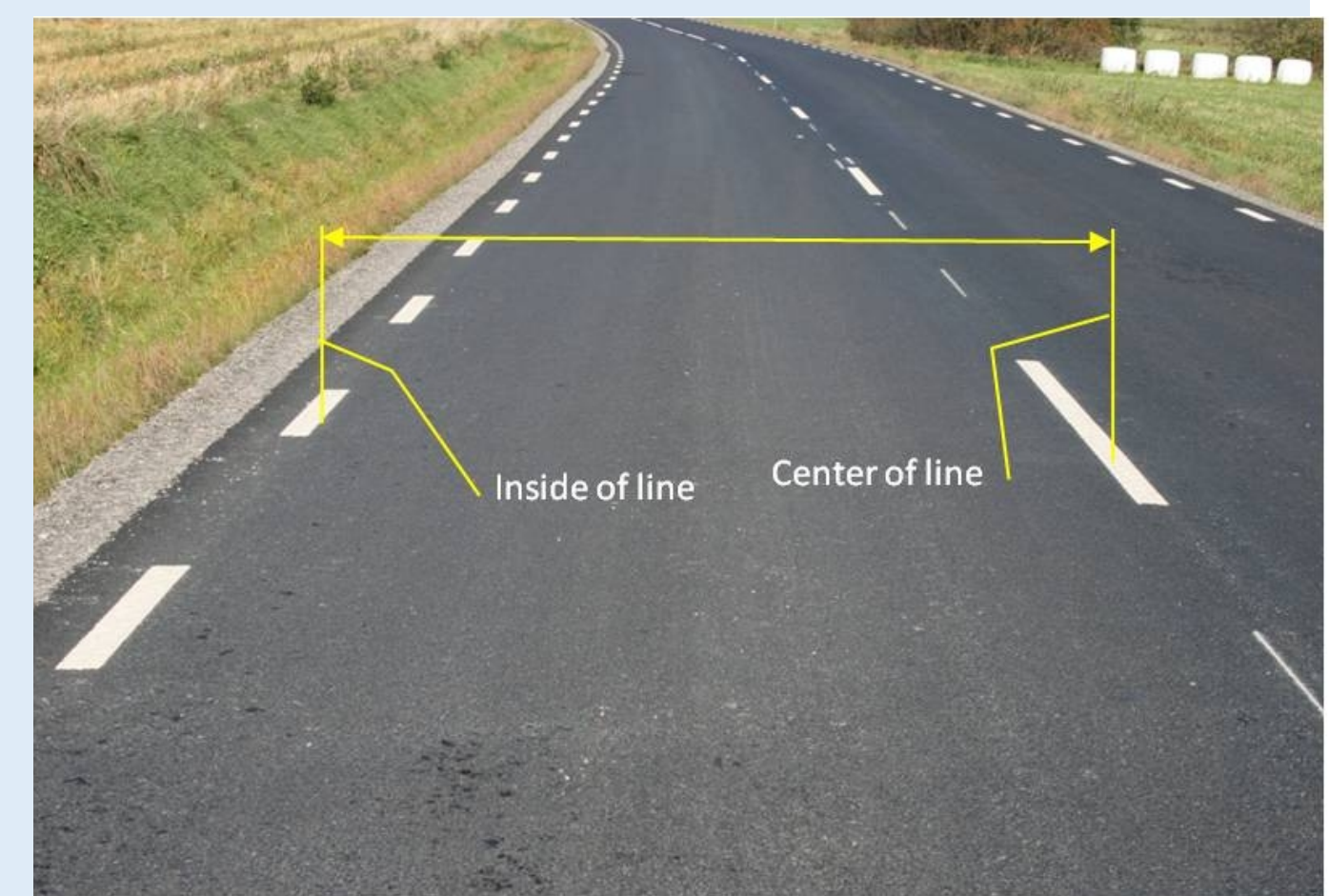
### Solution: Armadillos and Delineators

Armadillos and Delineators provide visibility for pathways, spaced clear of driveways.



### Solution: Enhanced/Eliminated Markings

Both can narrow lanes, or create driver discomfort, reducing speed.



### Solution: Speed Feedback Signs

Reduces speed but has high maintenance costs.



### Solution: Neighborhood Traffic Circle

Provide increased mobility and decrease high school traffic delays along 26th St NE



### Solution: Concrete Driveway Aprons

Adds curb appeal, preserves the edge of the roadway



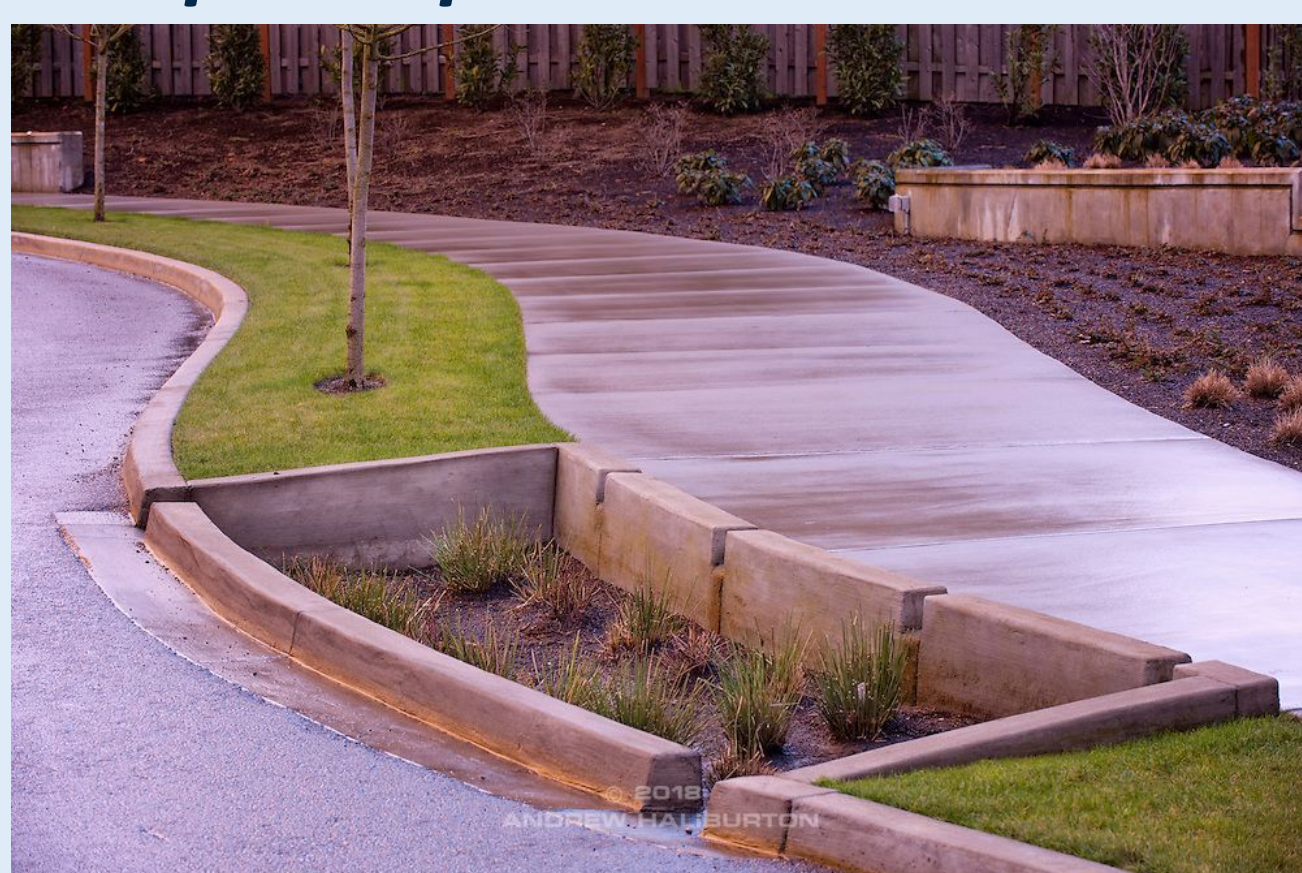
### Solution: Traffic Diverters and Chicanes

Reduces speed and vehicle



### Solution: Landscape Strips and Swales

Adds curb appeal, reduces speed, and pedestrian safety



### Solution: Bulbouts and curb extensions

Reduces speed and pedestrian crossing distance.

