



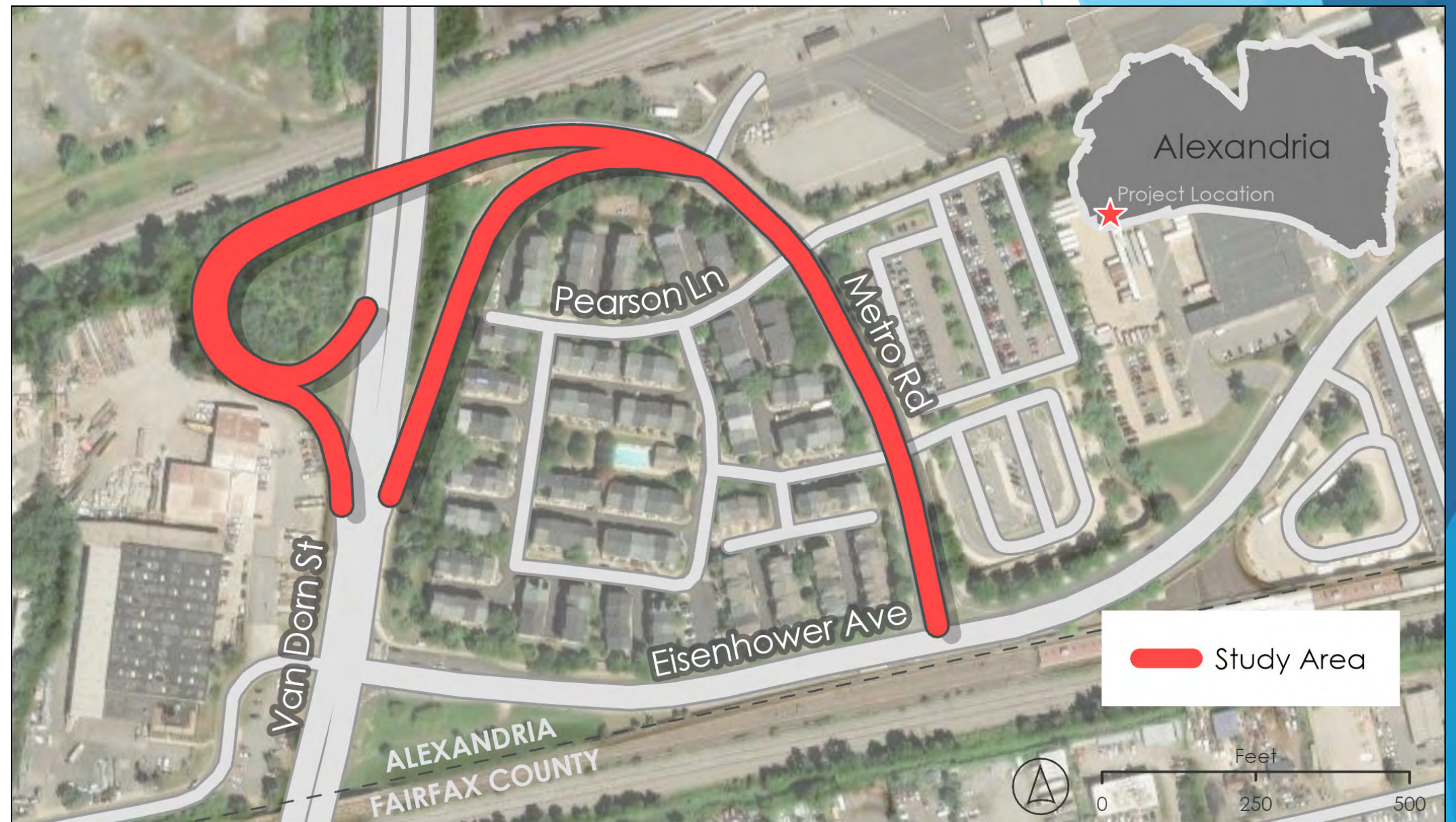
# Metro Road Improvement Project

March 25th, 2025



# Study Purpose

- ▶ Evaluate Metro Road between Van Dorn Street and Eisenhower Avenue
- ▶ Mitigate existing and future concerns from upcoming projects and developments
- ▶ Develop a plan to be implemented with repaving





## Project Goals



Improve Safety  
for all users,  
Reduce  
Speeds,  
Limit Noise



Keep Buses and  
Shuttles  
moving



Reduce back-  
ups and  
congestion



Improve and  
maintain  
access on  
Metro Road



# Metro Road

*What we've heard*

Speeding

Crossing the  
Road to  
Metro

Pedestrian  
Safety and  
Access

Poor sight  
distances

Metro Road  
Curve  
Safety

Increased  
traffic

Moving  
Traffic  
Efficiently

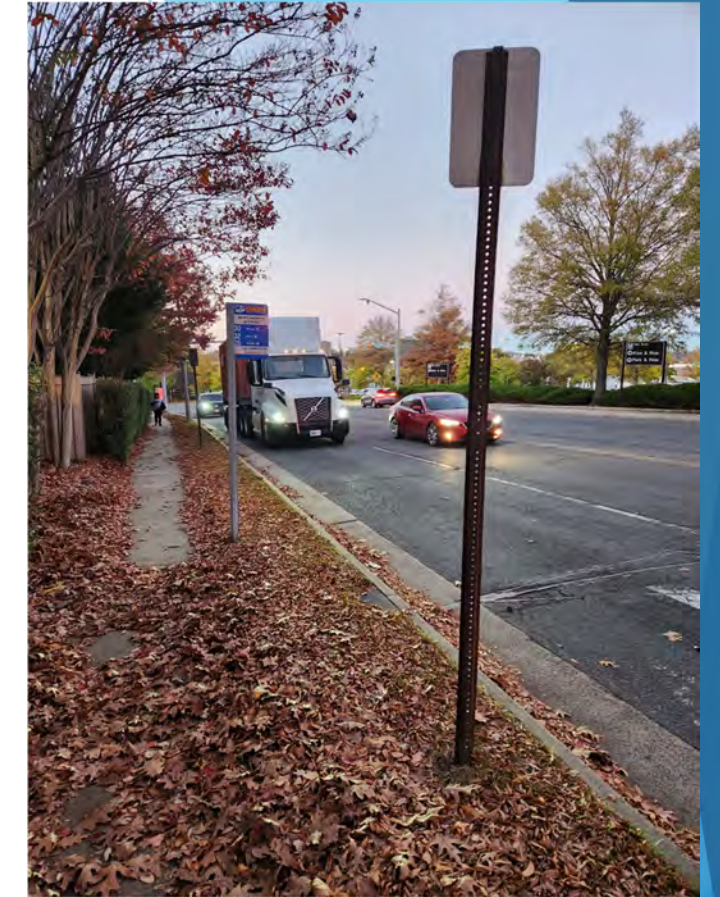
Pearson  
Lane Traffic  
Signal

Noise

Mixture of  
bus traffic

Heavy/Com  
mercial  
Vehicles

Pavement  
Conditions

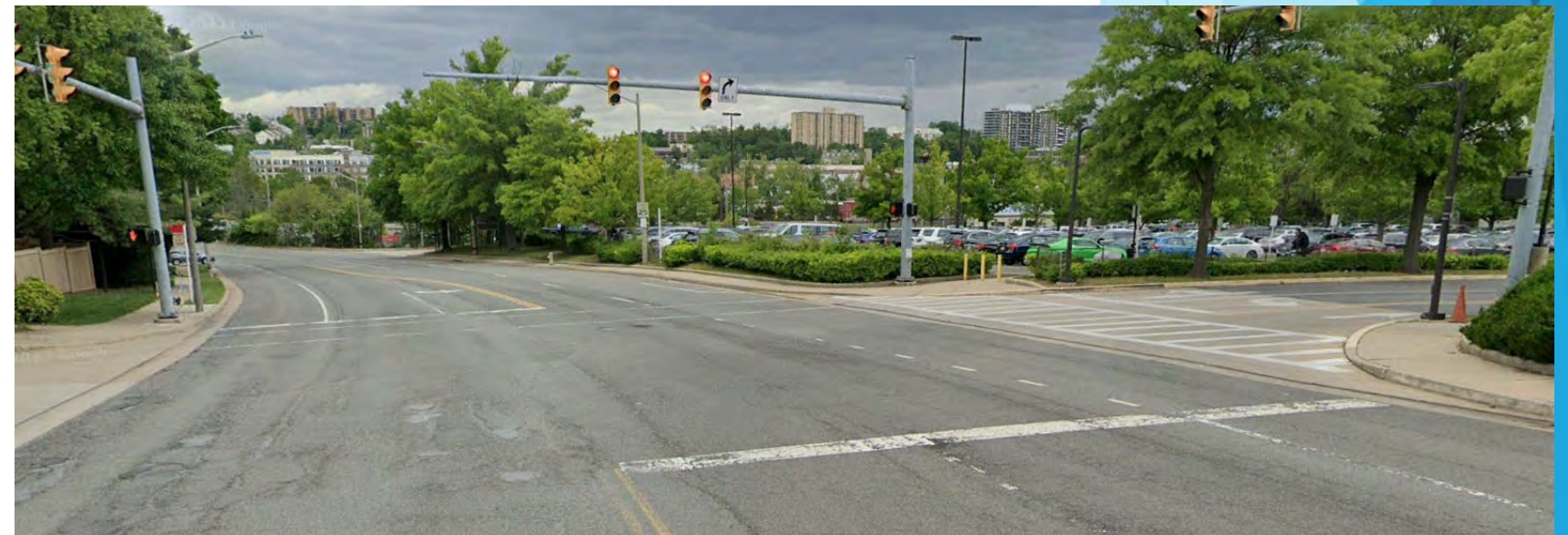
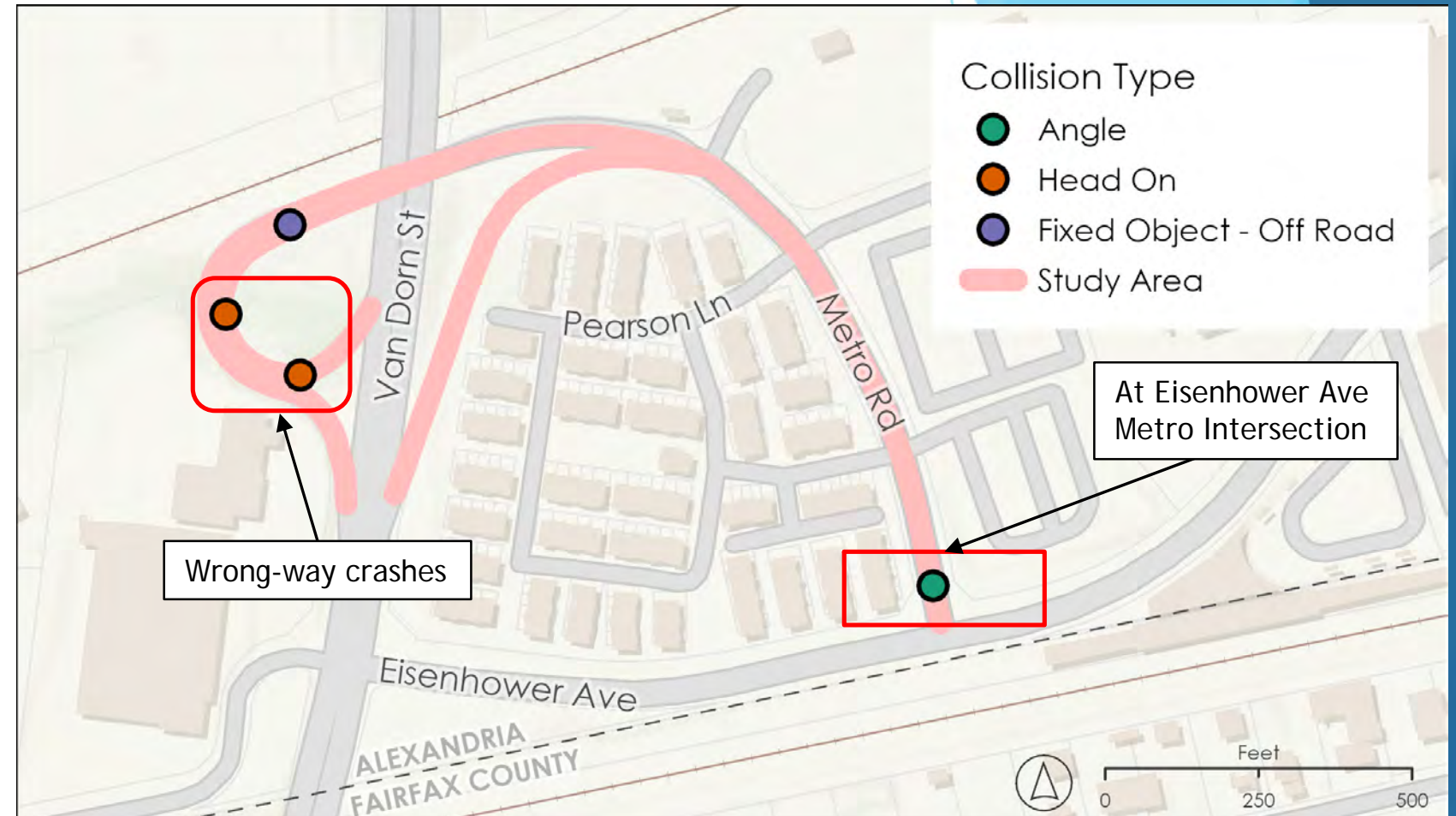




# Existing Conditions

## What we've found

- ▶ **80% of all Metro Road traffic** is traveling towards Eisenhower Avenue
- ▶ **20%** of the current makeup of all vehicles on Metro Road are **heavy vehicles**.
- ▶ **Poor** pedestrian level of comfort due to no space between travel lanes and crossing Metro Road
- ▶ **Speeding** in excess of the 25 MPH speed limit
- ▶ **Wrong-way crashes** within the ramp area
- ▶ **Inadequate sight distance** at Pearson Lane
- ▶ **Red light running** at Summers Grove Road and Metro Road during off-peak hours





# Future Conditions

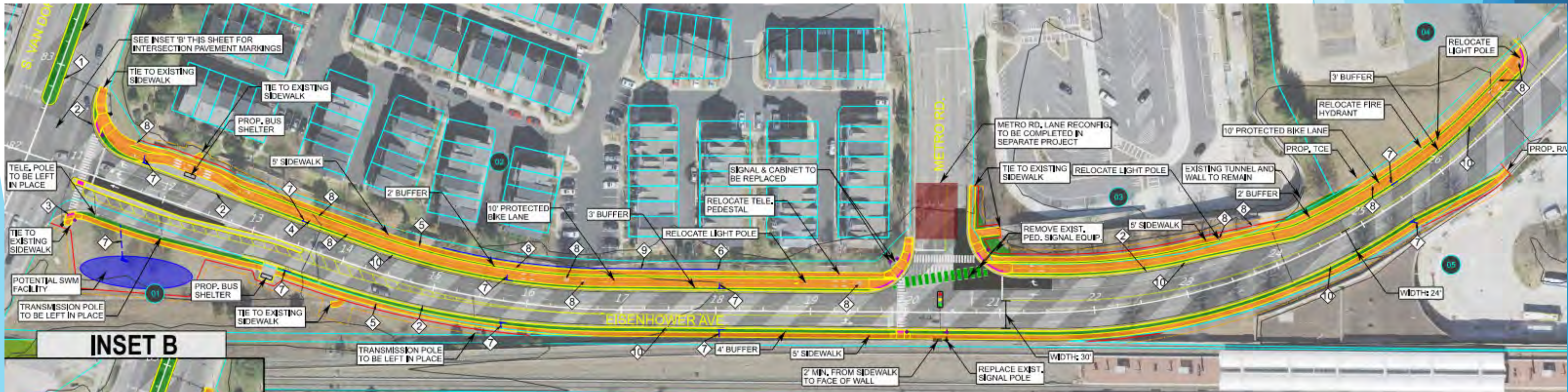
## *What we need to plan for*

**Eisenhower Ave Transportation Study – *Approved*** Corridor wide improvements and left-turn re-route project

- ▶ *Increases from 3,000 vehicles to 7,000 vehicles per day on Metro Road with a decrease of volume on Eisenhower Avenue.*
- ▶ *60% of all Metro Road traffic* would be traveling towards Eisenhower Avenue

***Future Development*** on Eisenhower Avenue and at nearby Vulcan Site

***West End Transitway – Design Underway*** Increased bus service





# Improvements

*Reducing* speed and re-paving can *reduce* roadway noise

Improvements	Concern Addressed
Reconfigure lanes and provide buffers	<ul style="list-style-type: none"><li>• Reduce Speeding</li><li>• Improves Pedestrian Safety</li><li>• Improves sight distances</li></ul>
Install High-Visibility Crosswalks	<ul style="list-style-type: none"><li>• Improves Pedestrian Safety</li></ul>
Retime traffic signals for both vehicles and pedestrians	<ul style="list-style-type: none"><li>• Reduces delay</li><li>• Reduce red-light running</li><li>• Give pedestrians longer crossing times</li><li>• Moving Traffic Efficiently</li></ul>
Speed Feedback Signs	<ul style="list-style-type: none"><li>• Reduces Speeding</li></ul>
Install device separators (flexiposts or curbing)	<ul style="list-style-type: none"><li>• Prevents wrong-way driving</li><li>• Prevents illegal turns</li><li>• Reduce Speeding</li></ul>
Trim Back Vegetation Within Ramp	<ul style="list-style-type: none"><li>• Improves sight distances</li></ul>
Barrier Markers and New Pavement Markings	<ul style="list-style-type: none"><li>• Improves visibility and reduces wrong-way driving</li></ul>

Pedestrian Safety - High Vis Crosswalks & Refuge



Reconfigure Spaces to provide buffers



Speed Feedback Sign



Barrier Visibility



Prevent illegal turns with flexiposts - Example on Seminary Road





# Other Suggestions

## *What else we heard*

### **Pearson Lane and Metro Road Traffic Signal?**

- ▶ Does not meet volume or safety traffic signal warrants
- ▶ Safety & sight distance can be improved through markings, signage, or reconfiguration
- ▶ Future delay increases only slightly on Pearson Lane with no signalization

### **Northbound Van Dorn Street Ramp Closure?**

*Will evaluate during the upcoming Van Dorn Street Project, issues expressed:*

- ▶ High-speed approach
- ▶ Poor sight distance onto Metro Road
- ▶ Unsafe pedestrian crossings





# Ramp Curve Improvements

## Centerline hardening via flexi-posts

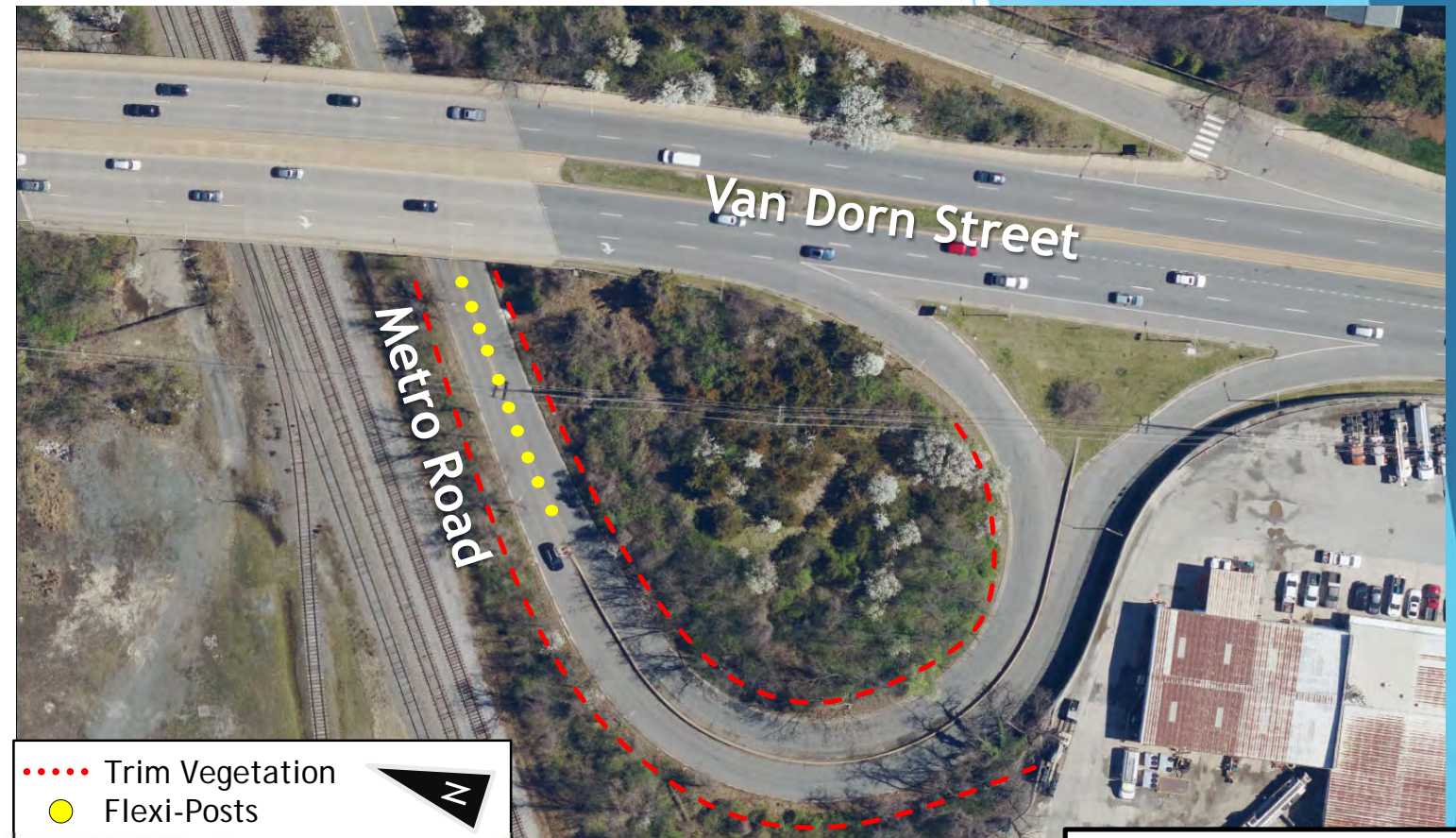
- ▶ Reduce drivers going the wrong way
- ▶ Reduce the speeds on and off Van Dorn Street

## Install barrier reflectors

- ▶ Improve visibility at night or when it rains or snows

## Trim back vegetation

- ▶ Improve how drivers see around curve



Curve Recommendations



Barrier Visibility





Spot Improvements



Retime Traffic Signals



Flexi-Posts



Metro Road

Eisenhower Avenue

High Visibility Crosswalk

Prevent illegal turns

Example on Seminary Road - Flexi posts

Speed Reduction Markings





# Metro Road Reconfiguration Options

**Why?** Repurpose space to improve safety, reduce speeds, and comfort for all roadway users while maintaining operations.

Both options:

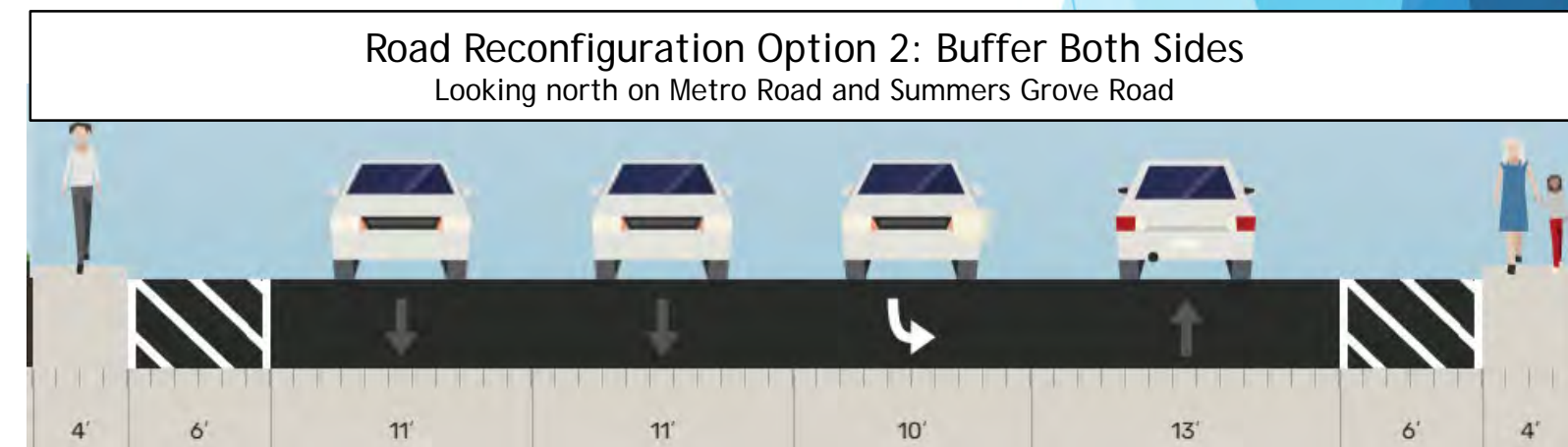
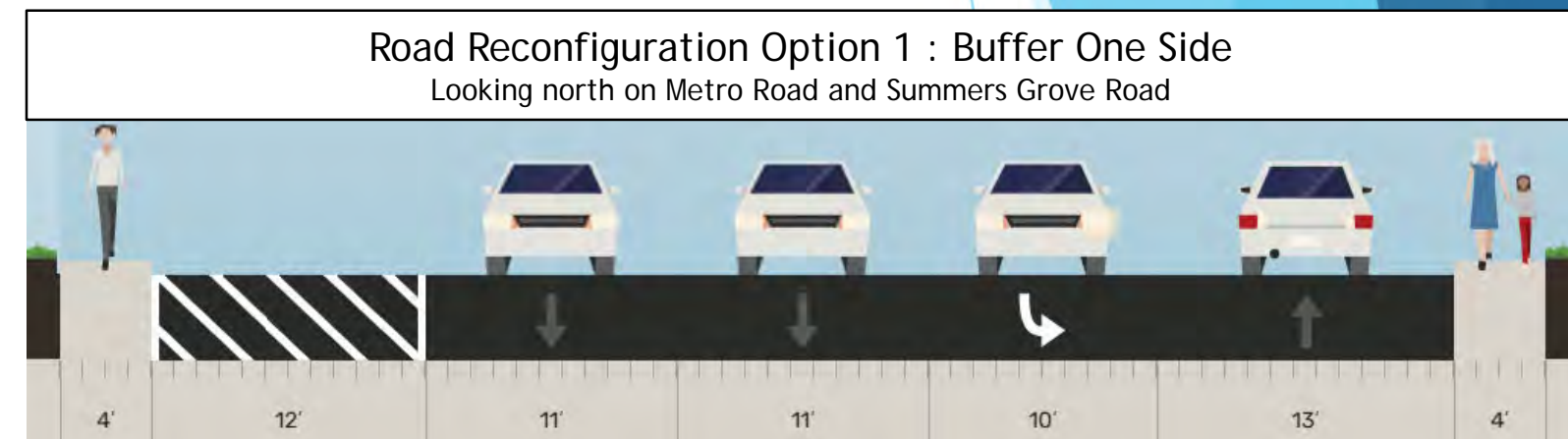
- ▶ ***Keeps all left-turn lanes*** as it is today.
- ▶ ***Keeps two southbound travel lanes*** from Pearson Lane to Eisenhower Avenue
- ▶ ***Average  $\pm 10$  second time difference between today and future.***
- ▶ ***No substantial back-ups*** on Metro Road.

## Option 1: Buffer West Side

- ▶ Increases buffer between Summers Grove residences and travel lane
- ▶ Can reduce speeds entering Metro Road from Van Dorn Street
- ▶ Buffer could be repurposed in the future

## Option 2: Buffer Both Sides

- ▶ Increases comfort and safety for pedestrians on both sides
- ▶ Can reduce speeds entering Metro Road from ramp area or from Eisenhower Avenue





# Option 1



● Flexi-Posts

Bump out increases sight distance for turning vehicles

Buffer can be reconfigured to turn lane, bus lane, or remain as-is *for future projects*

Metro Road

High Visibility Crosswalks with curb extensions and pedestrian refuge

Turn Hardening and refuge

Eisenhower Avenue



Summers Grove Road - Option 1a  
Two Ped Islands

- *Increased* Safety and Pedestrian Comfort
- *Increased* Traffic Delays on Side Streets



Option 2

● Flexi-Posts



Bump out increases sight distance for turning vehicles

Metro Road

High Visibility Crosswalks with curb extensions and pedestrian refuge

Turn Hardening and refuge

Eisenhower Avenue



- Summers Grove Road - Option 2a  
Two Ped Islands
- *Increased* Safety and Pedestrian Comfort
  - *Increased* Traffic Delays on Side Streets



# One-Lane between Pearson Lane and Summers Grove

## *Exploring other ideas*

**Why?** Further **reduces southbound** speeds, less lanes for all users to cross, and better opportunities for pedestrian crossings.

*Estimate to increase delays by an **average  $\pm 15$  seconds** between today and in the future with **noticeable southbound queueing** on Metro Road between Pearson Lane and Summers Grove.*





# Summarizing and Addressing Your Concerns

## Speeding

- ✓ Install speed feedback signs and narrow lanes

## Crossing the road to Metro Pedestrian Safety and Access

- ✓ Install better crosswalks, refuges, & increase buffer spaces.

## Poor sight distances Metro Road Curve Safety

- ✓ Trim vegetation, increase visibility with markers, prevent wrong-way driving & provide buffers

## Increased traffic Moving Traffic Efficiently

- ✓ Retime traffic signals and keep traffic moving safely

## Noise

- ✓ Reducing speed and re-paving can reduce roadway noise

## Mixture of bus traffic

- ✓ Preserve access in and out of Metro Commuter lot and bus services

## Heavy/Commercial Vehicles

- ✓ Lower speeds and prevent illegal maneuvers

## Pavement Conditions

- ✓ Repave and restripe the road



Pedestrian Safety - High Vis Crosswalks & Turn Hardening

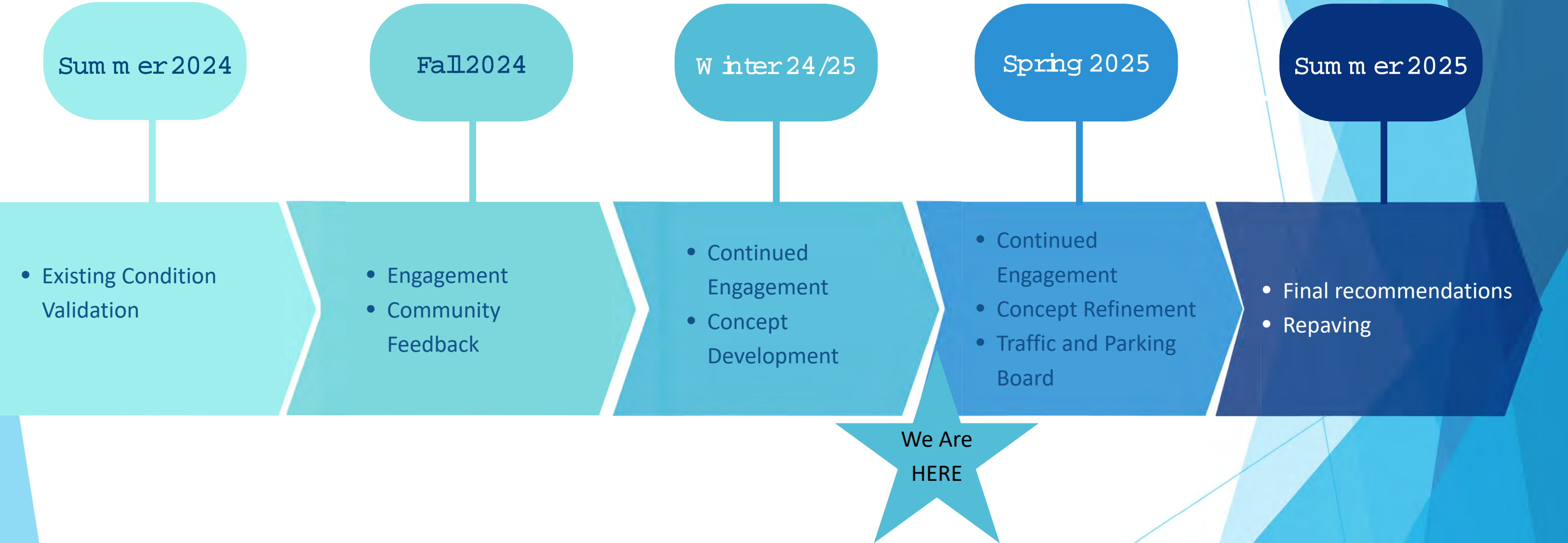


Seminary Road - Flexi posts

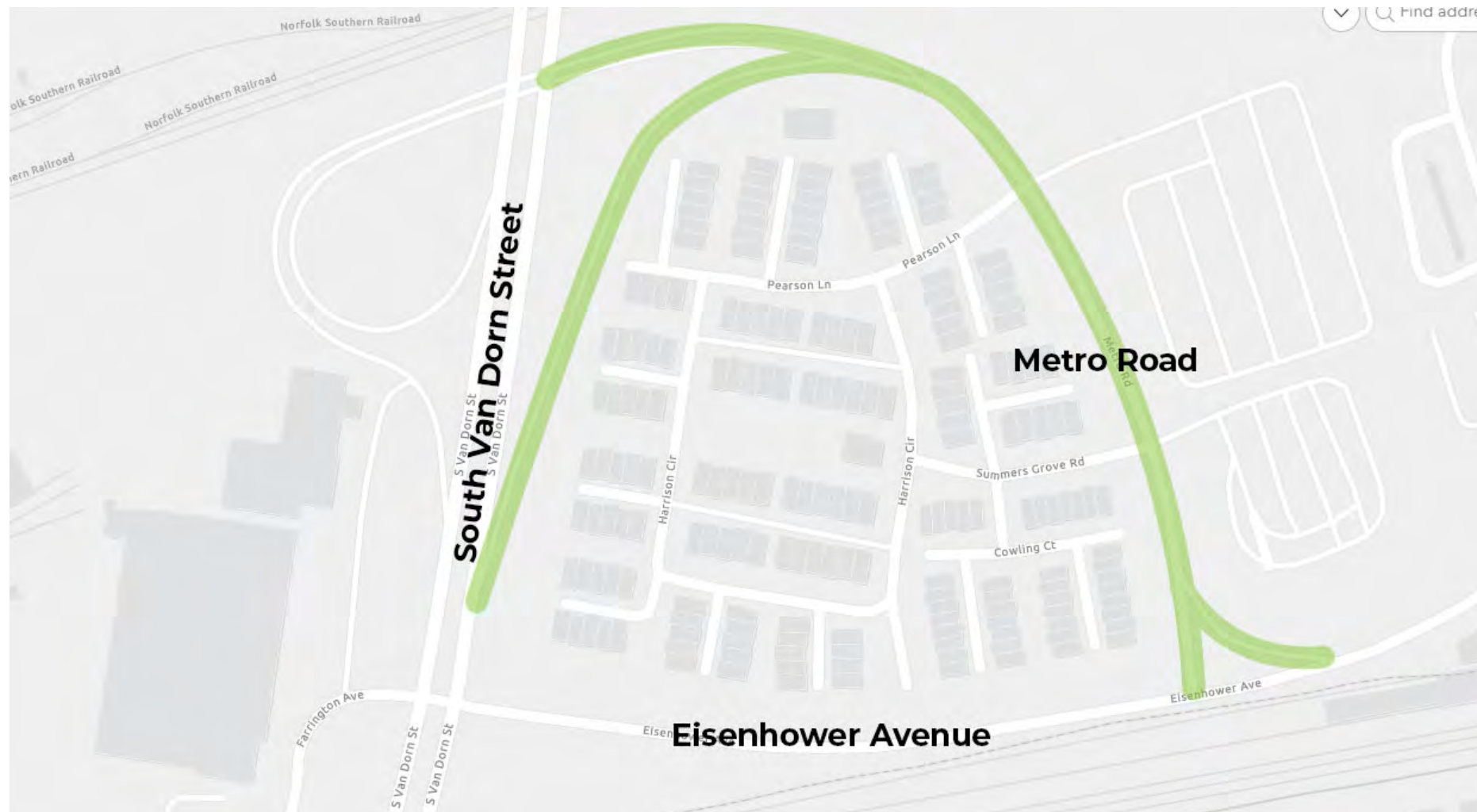




# Project Schedule







# Contact & Project Information



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<https://www.alexandriava.gov/transportation-planning/project/metro-road-improvements>





**Questions?**

