



County of Fairfax, Virginia

# Route 29 Corridor Study

## Public Meeting Round – 1

*March 12, 2023 - Virtual*

**Arpita Chatterjee**  
Transportation Planner  
Department of Transportation



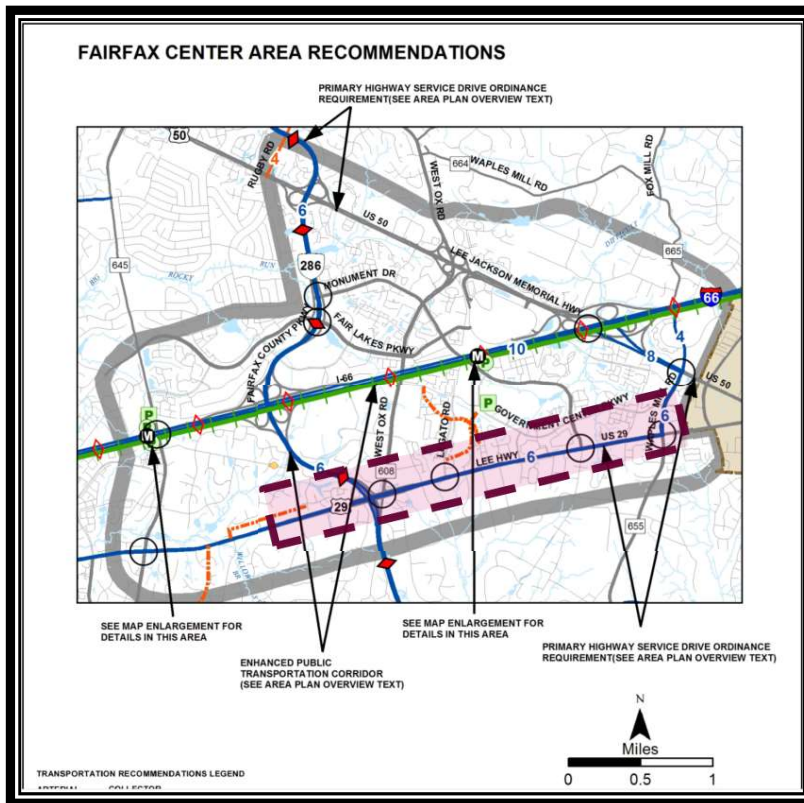


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# Agenda

- Background and Purpose
- Analysis Approach
- Survey Results
- Existing Conditions
- Future Baseline Conditions
- Next Steps and Schedule





Comprehensive Plan  
*Interchanges along Route 29*

- Waples Mill Road/Shirley Gate Road
- Monument Drive
- Legato Drive
- West Ox Road

- Evaluate the need of the planned interchanges
- Long-term needs
- Multimodal assessment and safety
- Fairfax Center Area Comprehensive Plan Amendment

 Study limits



# Analysis Approach

- Goals & Objectives**
- Existing Conditions**
  - Roadway
  - Pedestrian
  - Bicycle
  - Safety

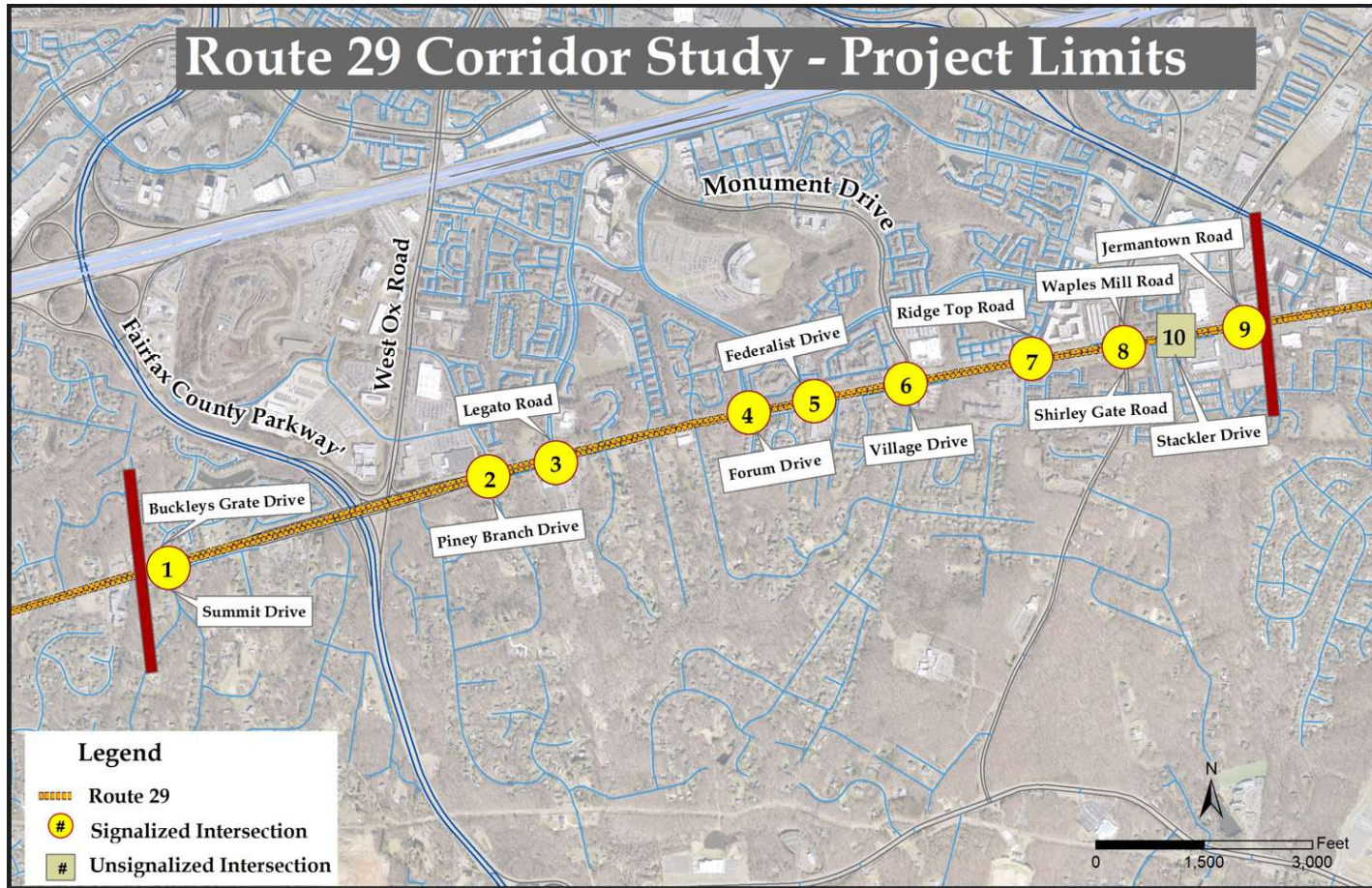


- Future Conditions**
- **Baseline**
- **Mitigation measures**
  - Alternative intersections
  - Safety enhancement
  - Improved lane utilization
  - Pavement markings
  - Signage
  - Turn lanes
  - Signal timings
  - Access management
  - Bicycle and Pedestrian facilities



**Long-term  
Recommendations**

**Some metrics considered:**  
Volume/Capacity ratio, Delay, Queue lengths, Bicycle Level of Traffic Stress, Pedestrian Level of Comfort





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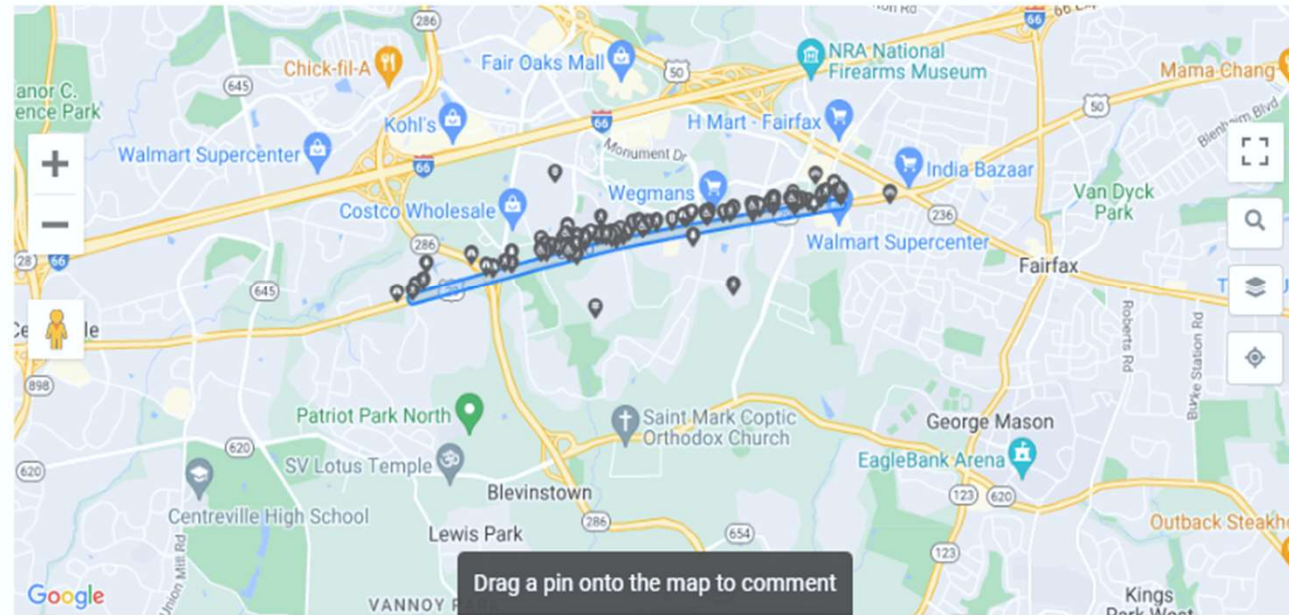
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# Survey Results

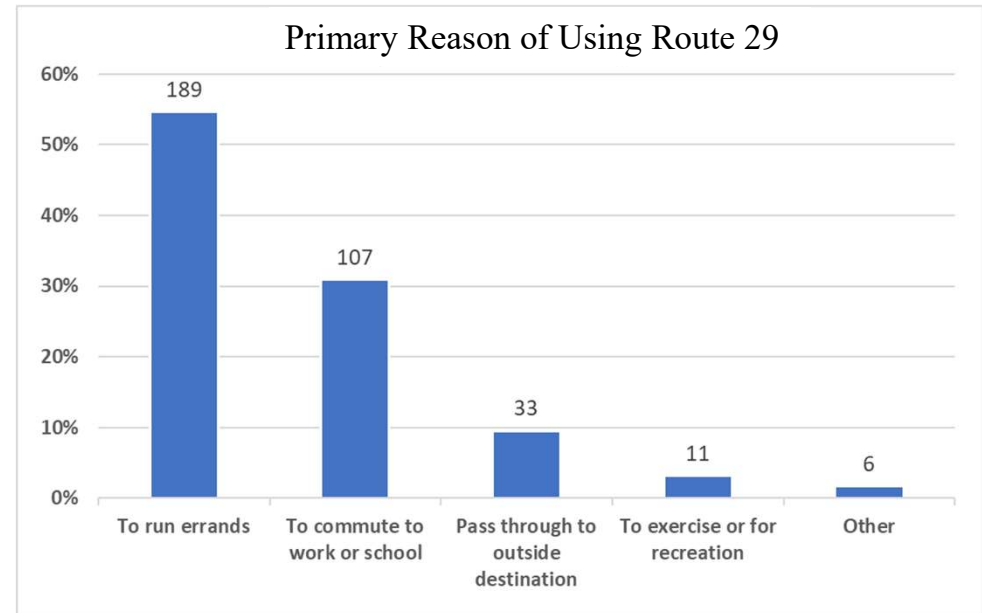
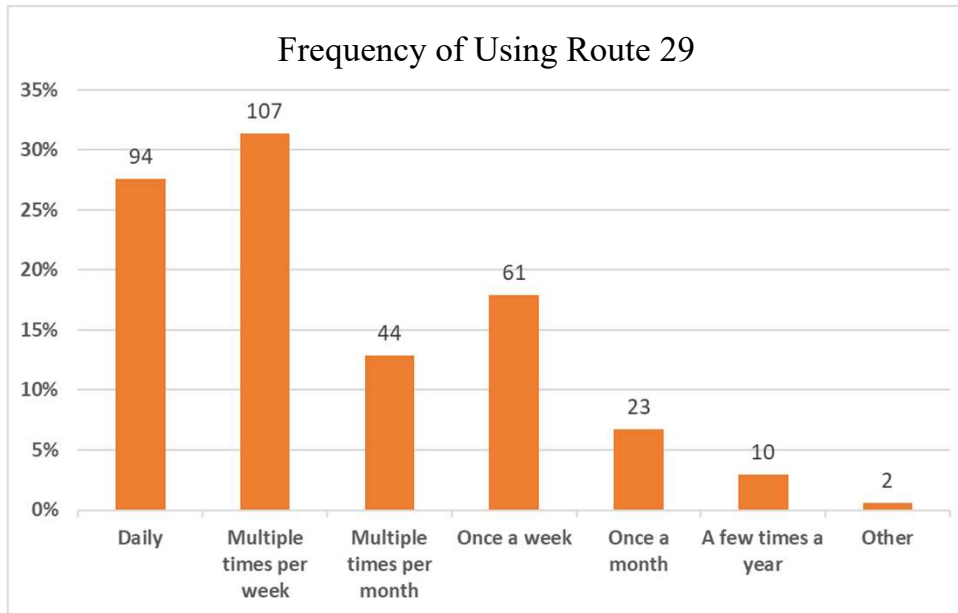


8. Please tell us any transportation improvements you'd like to see along Route 29. Select the icon that most closely represents your feedback, drop a pin, and send feedback (good/bad/other)

- Drag and drop >
- Roadway
  - Landscaping, Park Space
  - Bike Lanes
  - Sidewalk, Shared Use Path, Asphalt Path
  - Traffic Signal
  - Signage
  - Lighting
  - Curb Ramps, ADA Accommodations



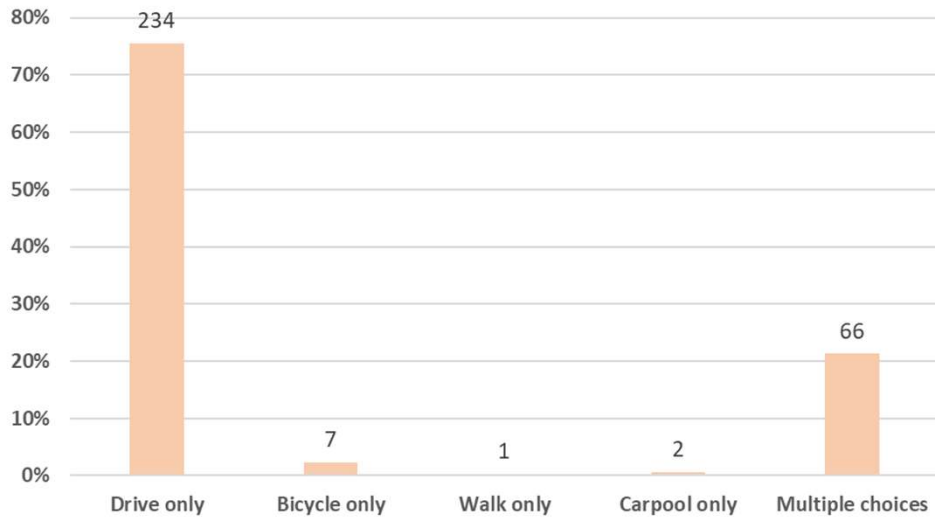
- Comments and survey responses were taken from February 12 through March 1, 2024
- There were 370 participants
  - 1,293 views
  - 2,459 individual responses
  - 448 comments



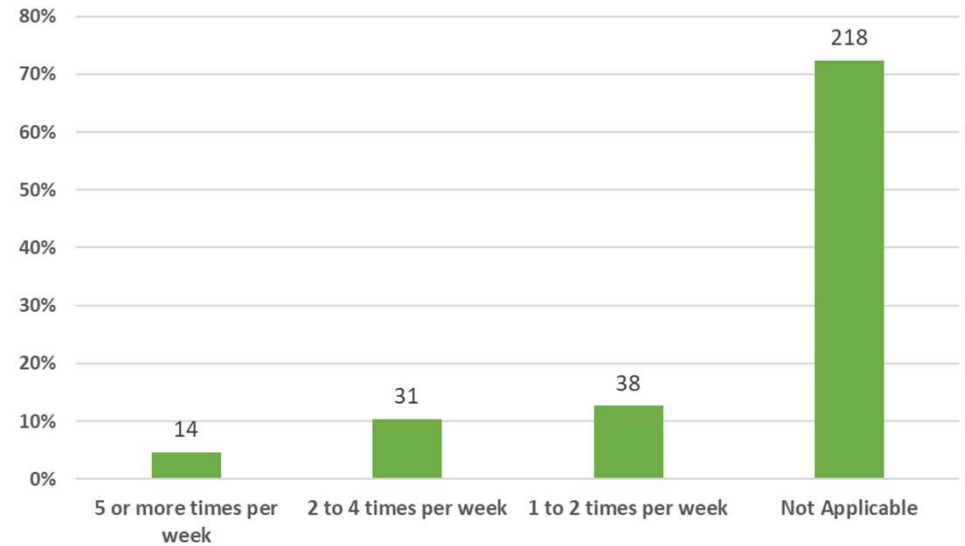




### Trip Mode Used

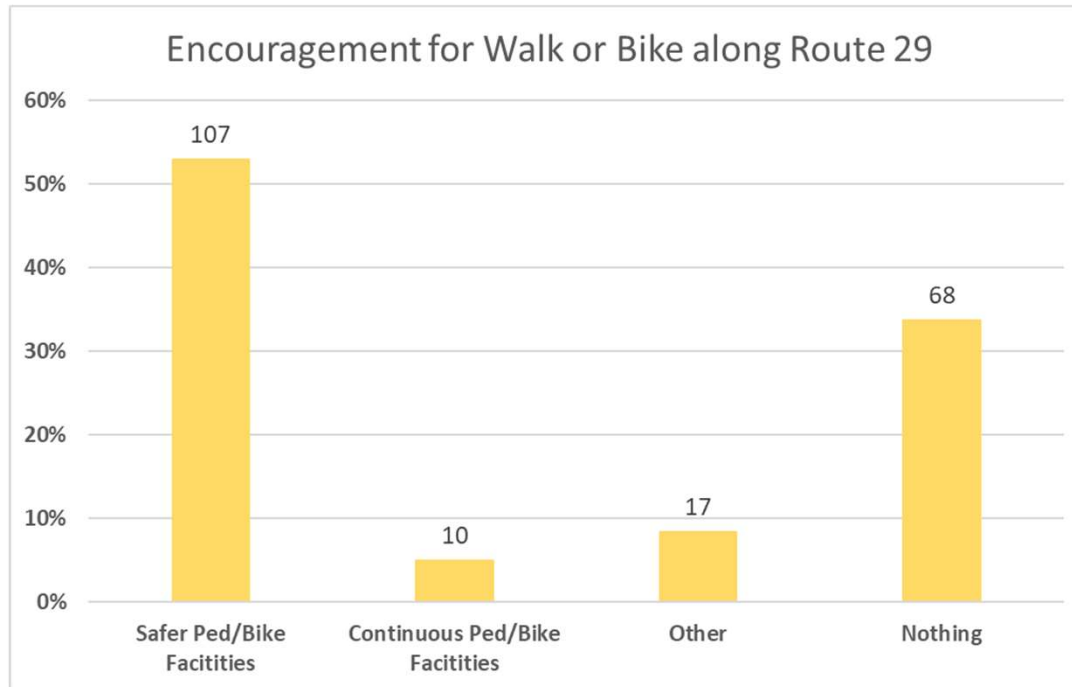


### Frequency of Bike and/or Walk on Route 29





## What would encourage you to walk or bike along Route 29?



### Top Encouragement

- Safer facilities
    - Dedicated and wider sidewalk/bike lane
    - Separation from roadway
  - Continuous facilities
- *“Greater separation from traffic and easier access from my residence.”*
- *“Dedicated bike path with access from Fairfax city neighborhoods.”*
- *“Continuous sidewalks on both sides of Route 29.”*



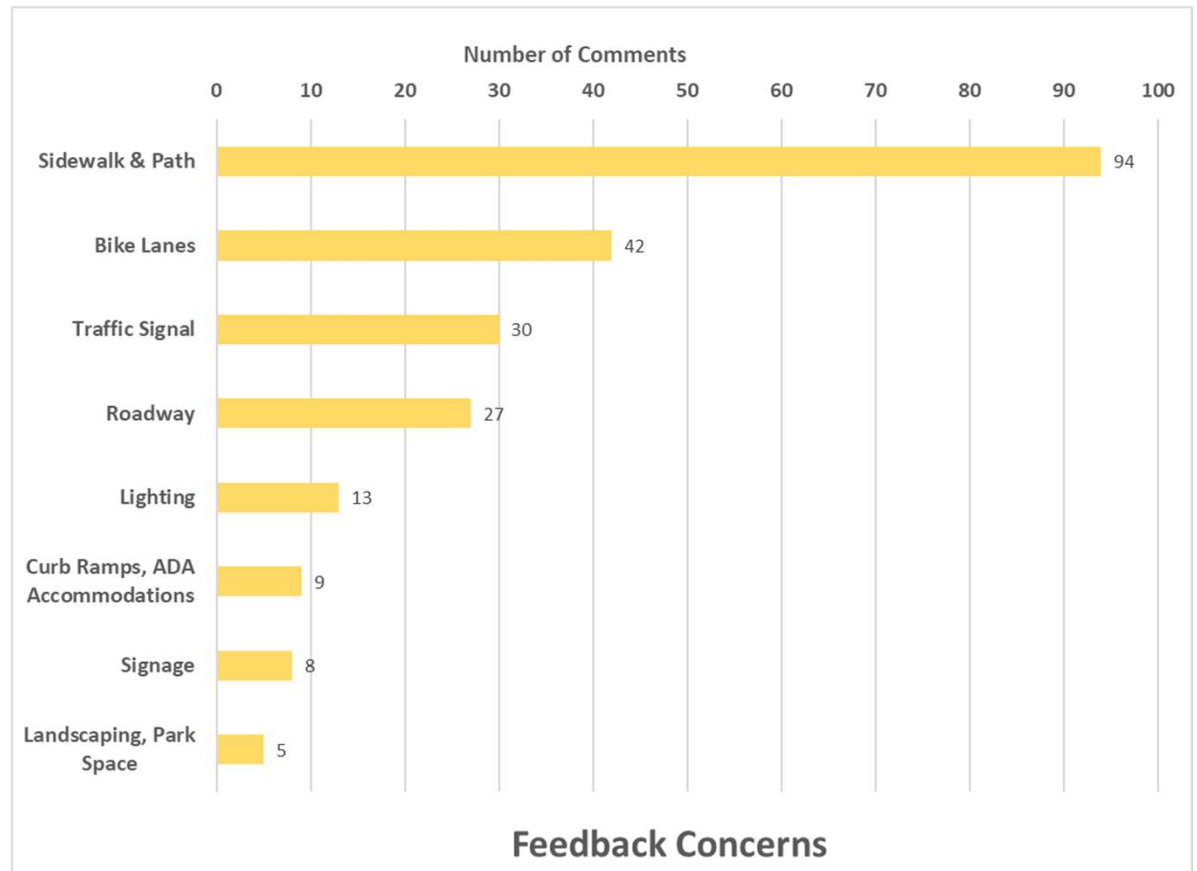
# Top Concerns

## Top Pedestrian/Bicycle Concerns

- Continuous sidewalks and shared use paths
- Wider sidewalks and paths
- Better separation between sidewalk and roadway

## Top Intersection Traffic Concerns

- Long delays when making left turn
- Short turning lanes at Shirley Gate/Waples Mill Rd intersection.
- Walmart intersection with severe vehicle-pedestrian conflict





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# Existing Conditions Analysis



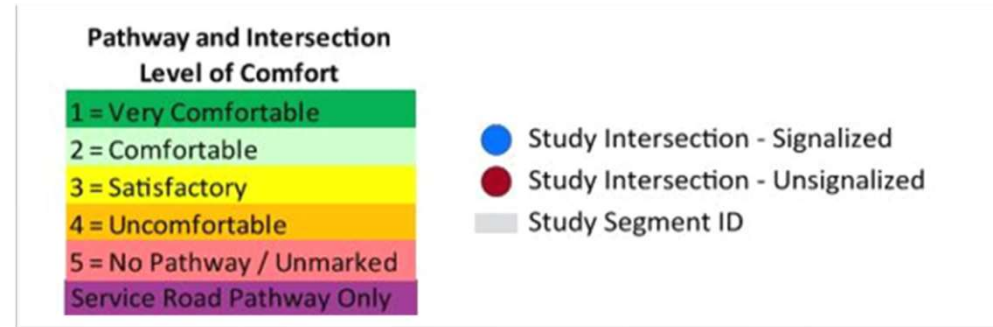
Qualitative metric of pedestrians' perceived comfort when travelling along or crossing a roadway

- PLOC 1 is most comfortable
- PLOC 4 is least comfortable

## Pathway factors include

- Pathway and buffer widths
- Posted speed limit
- Presence of parking lane, bike lane, street trees

## Pedestrian Level of Comfort



## Crossing factors include

- Number of lanes
- Posted speed limit
- Presence of median, pedestrian refuge
- Type of crosswalk markings



Pathway and Intersection Level of Comfort	
1 = Very Comfortable	● Study Intersection - Signalized
2 = Comfortable	● Study Intersection - Unsignalized
3 = Satisfactory	■ Study Segment ID
4 = Uncomfortable	
5 = No Pathway / Unmarked	
Service Road Pathway Only	



## Bicycle Level of Traffic Stress (LTS)

Low Stress

High Stress



**LTS 1**

comfortable for all ages and abilities

Physically separated bike lane on low speed, low volume road



**LTS 2**

comfortable for most adults

Buffered bike lane on a low-speed street



**LTS 3**

comfortable for confident bicyclists

Narrow bike lane or shoulder on a busy street



**LTS 4**

uncomfortable for most

No bike lane on a busy street



# Bicycle Conditions



**BLTS 1** Note: Shared-Use Path is BLTS 1,  
**BLTS 4** all other locations are BLTS 4.

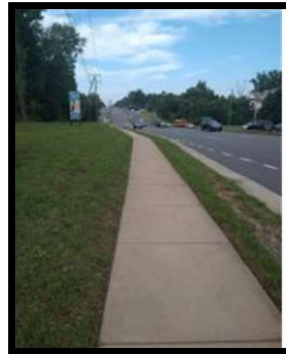






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# Shared Use Path Facilities



**Sidewalk**  
*Monument Drive to  
Ridge Top Road*



**No Sidewalk**  
*Marymead Dr  
to Legato Road*



*Ridge Top Road to  
Waples Mill Road*



*Monument Drive  
to Ridge Drive*



*Legato Rd to Forum Dr*

**Shared Use Path**  
*Piney Branch to Fairfax  
County Pkwy*



Route 29 at  
Buckley's  
Gate/Summit Dr



Route 29 at Piney  
Branch Rd



Route 29 at  
Legato Rd



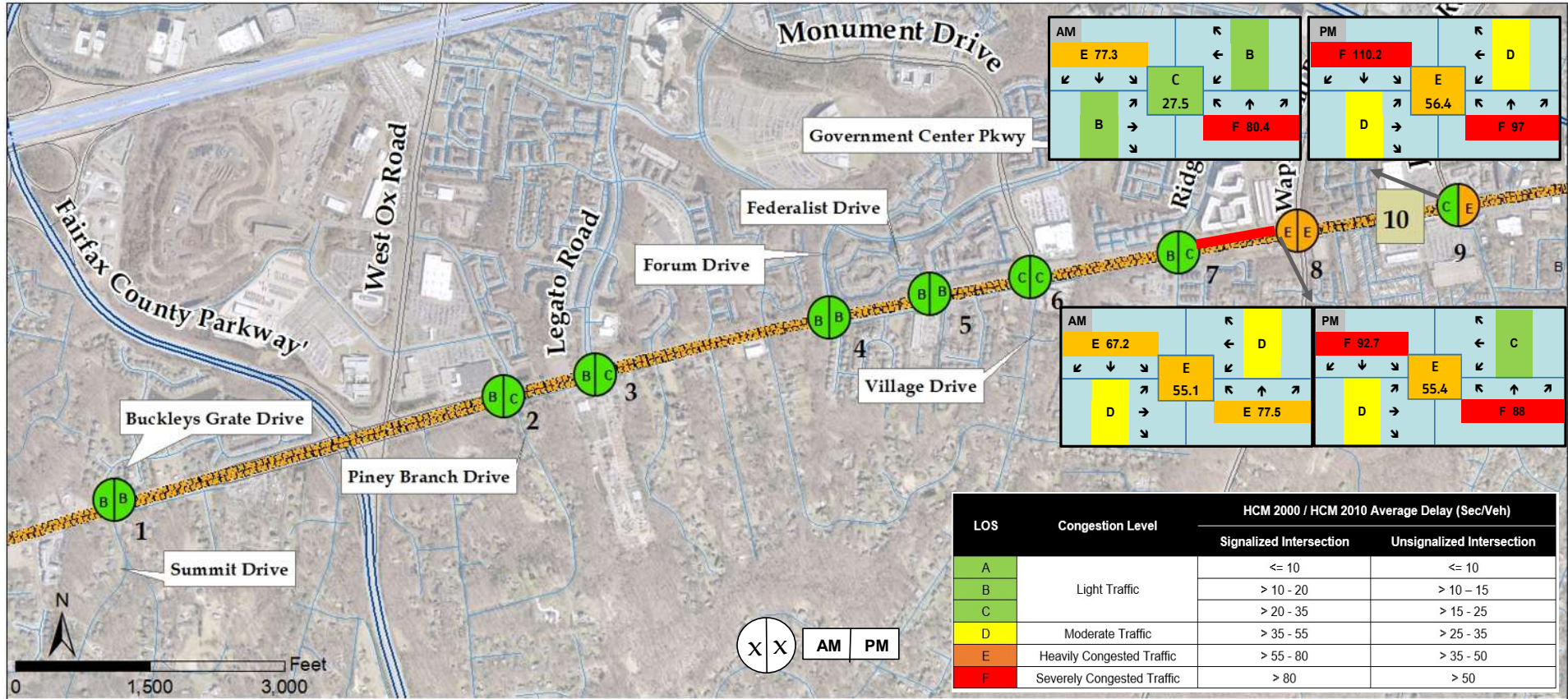
Route 29 at  
Ridge Top Rd



Fairfax County  
Pkwy toward  
Gunpowder Rd



# Vehicle/Intersection Delays





Safety study was conducted by analyzing five-year crash data (2018-2022)

ID	Intersection	2018	2019	2020	2021	2022	Total
1	Route 29 at Buckleys Gate Drive/Summit Drive	1	1	1	2	2	7
2	Route 29 at Piney Branch Road	4	2	3	6	5	20
3	Route 29 at Legato Road	2	3	1	2	0	8
4	Route 29 at Forum Drive	1	4	0	2	2	9
5	Route 29 at Federalist Way	0	0	1	1	1	3
6	Route 29 at Monument Drive/Village Drive	1	2	1	5	6	15
7	Route 29 at Ridge Top Road	2	2	3	1	0	8
8	Route 29 at Waples Mill Road/Shirley Gate Road	11	16	4	11	6	48
9	Route 29 at Jermantown Road	5	8	10	11	13	47
10	Route 29 at Lowes/James Stuart Mall/Fairfax Center Mall	2	7	2	0	3	14
	Non-Intersection	19	13	10	7	16	65
	<b>Total</b>	<b>48</b>	<b>58</b>	<b>36</b>	<b>48</b>	<b>54</b>	<b>244</b>



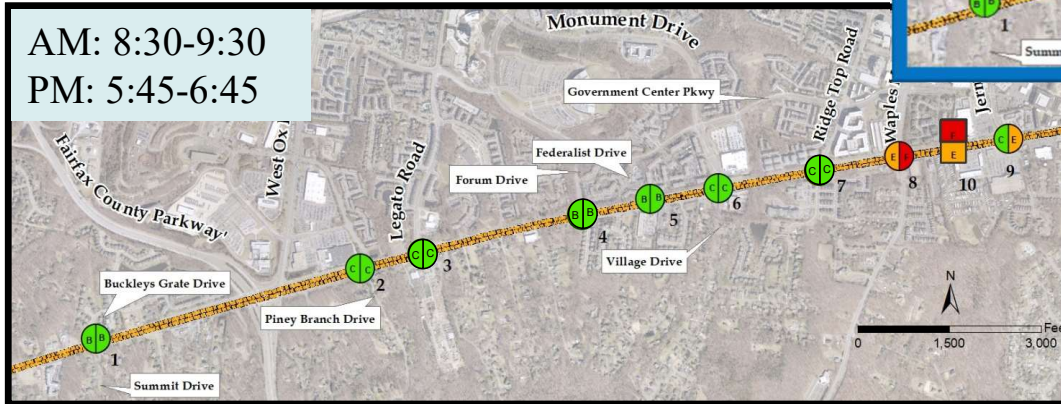
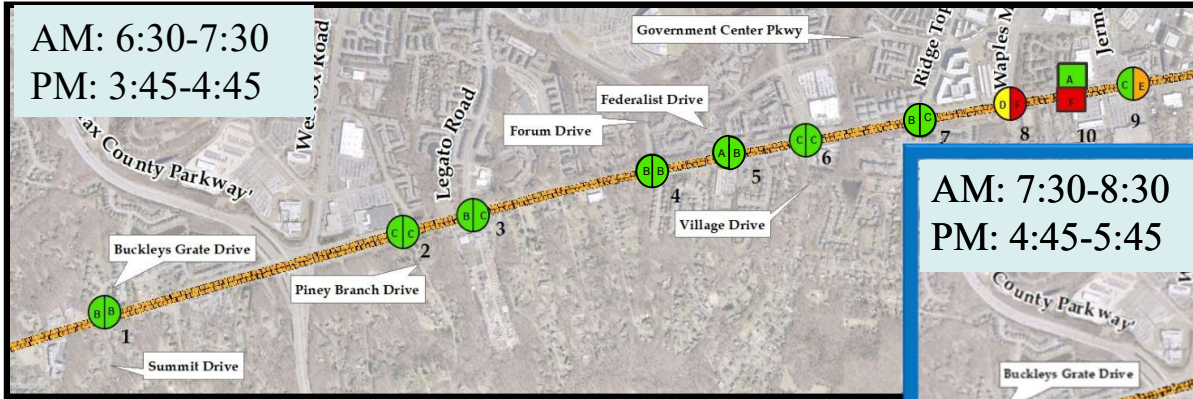
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# Future Baseline Conditions



# 2045 Vehicle/Intersection Delays



	AM		PM	
	Time	Volumes	Time	Volumes
Pre-Peak	6:30 - 7:30	22,943	15:45 - 16:45	29,771
Peak	7:30 - 8:30	25,403	16:45 - 17:45	32,092
Post-Peak	8:30 - 9:30	23,002	17:45 - 18:45	29,098



# 2045 Intersection Operations (PM)

## Planned Interchanges



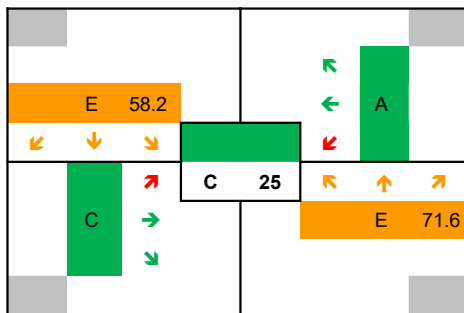
3. Legato Rd/Business Dr



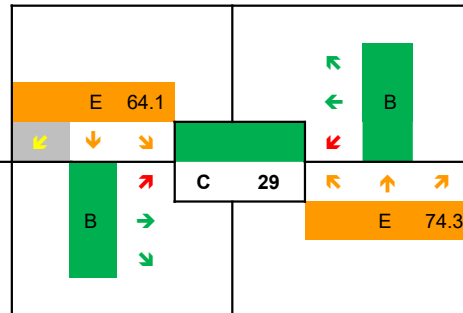
6. Monument Dr/ Village Dr



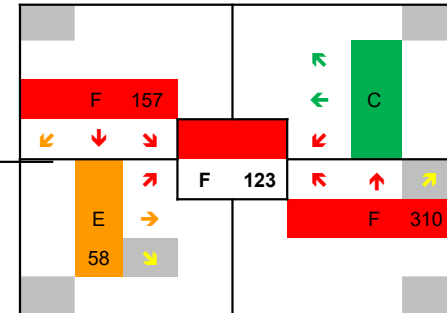
8. Waples Mill Rd/Shirley Gate



Rt 29



Rt 29



Rt 29



## Pedestrian Planning Context

- Fairfax County Comprehensive Plan
  - Streetscapes and landscaped buffers near Waples Mill Road
  - Landscaped buffering between Government Center and West Ox Road
  - Removal of the asphalt service drive

- Active Transportation Improvements
  - Slip lane refuge median islands
  - Pedestrian countdown signals
  - Lead Pedestrian Interval at heavy pedestrian areas
  - High visibility crosswalks
  - Pedestrian Hybrid Beacons at key midblock crossing locations
  - Advance warning signs





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# Next Steps and Schedule

## Next Steps

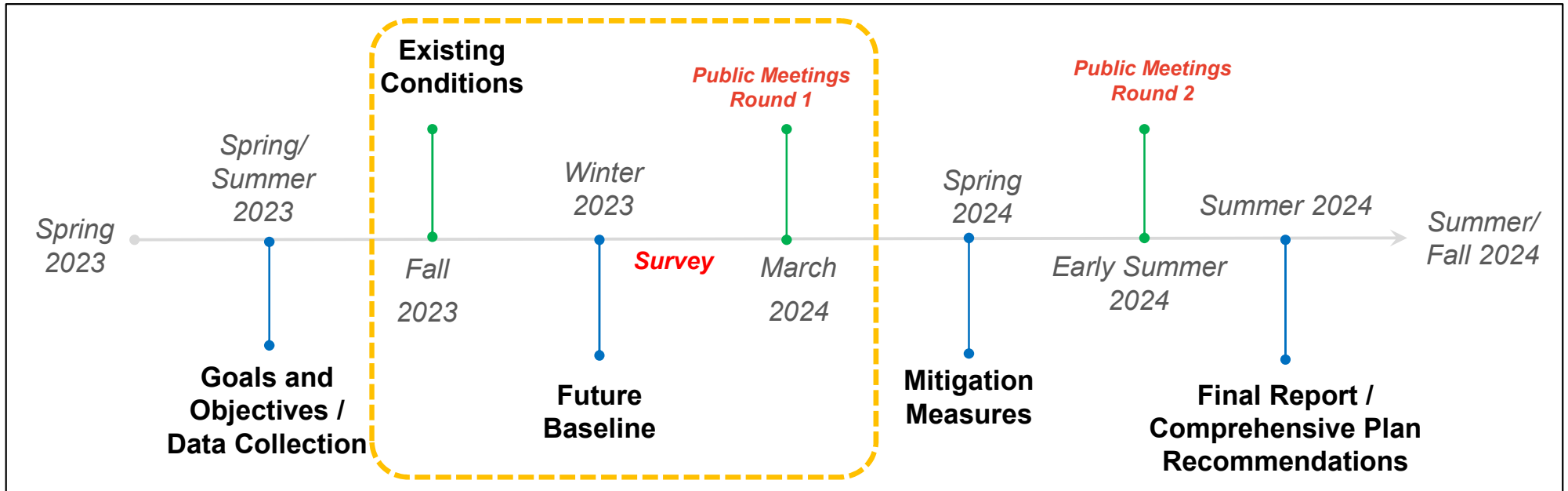
### Future Mitigation Measures

Identification of Deficiencies  
Improvement Strategies

### Public Meetings Round 2

Stakeholder & Public Feedback

### Final Recommendations





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## Public Feedback – March 29

Survey Link

<https://engage.fairfaxcounty.gov/b0183>

Phone # 703-890-5898 (code) 3941

Visit Our Webpage

<https://www.fairfaxcounty.gov/transportation/study/route29>

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# Questions / Comments

- Type your question in the chat box
- Raise your virtual hand
- If you are joining us by phone,
  - Please push \*5 to raise your hand to ask a question
  - When you are finished, please push \*6 and then \*5 to lower your hand

