

GERMANTOWN MULTIMODAL IMPROVEMENTS STUDY

PUBLIC MEETING

NOVEMBER 8, 2023





Welcome to the Public Meeting!

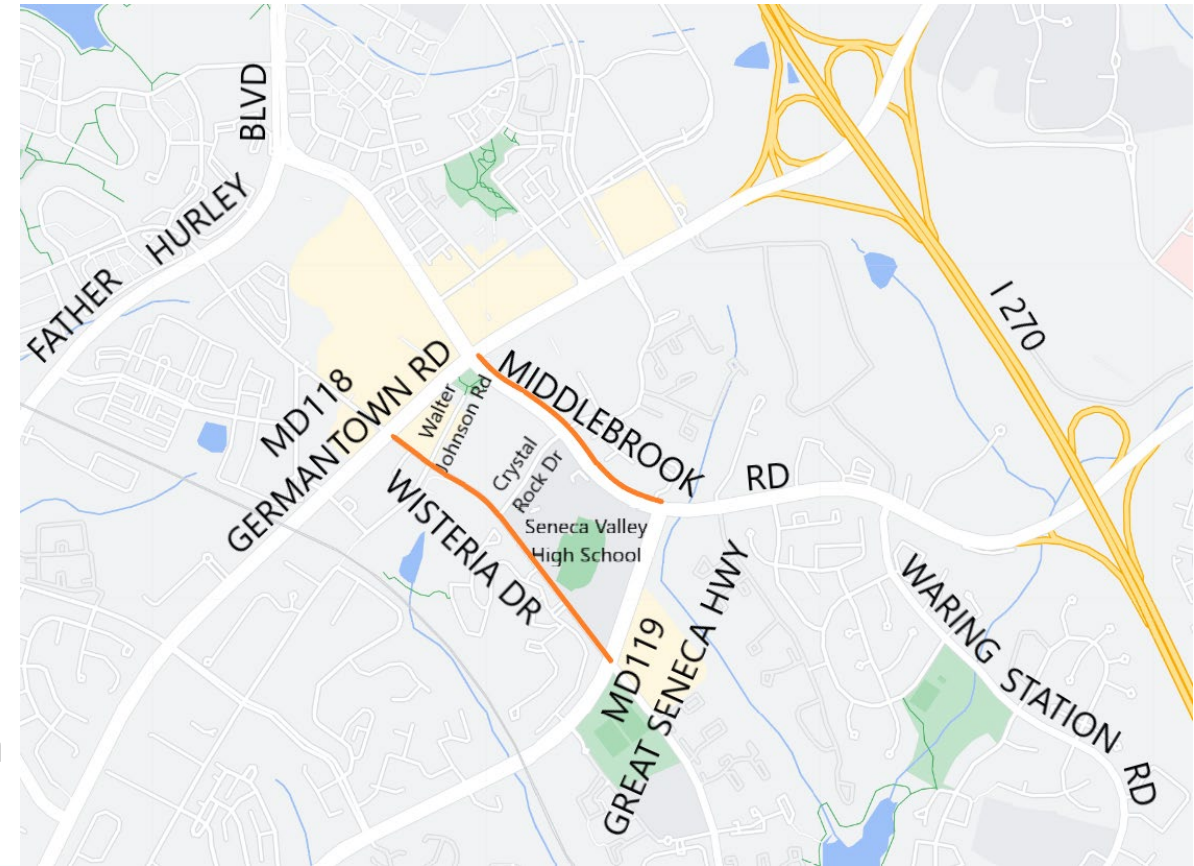
- Meeting Agenda
 - Introductions
 - Project Overview
 - Design Criteria
 - Planning Alternatives
 - Wisteria Drive
 - Middlebrook Road
 - Operational Considerations
 - Costs/Impacts
 - Next Steps and Q&A





Project Overview

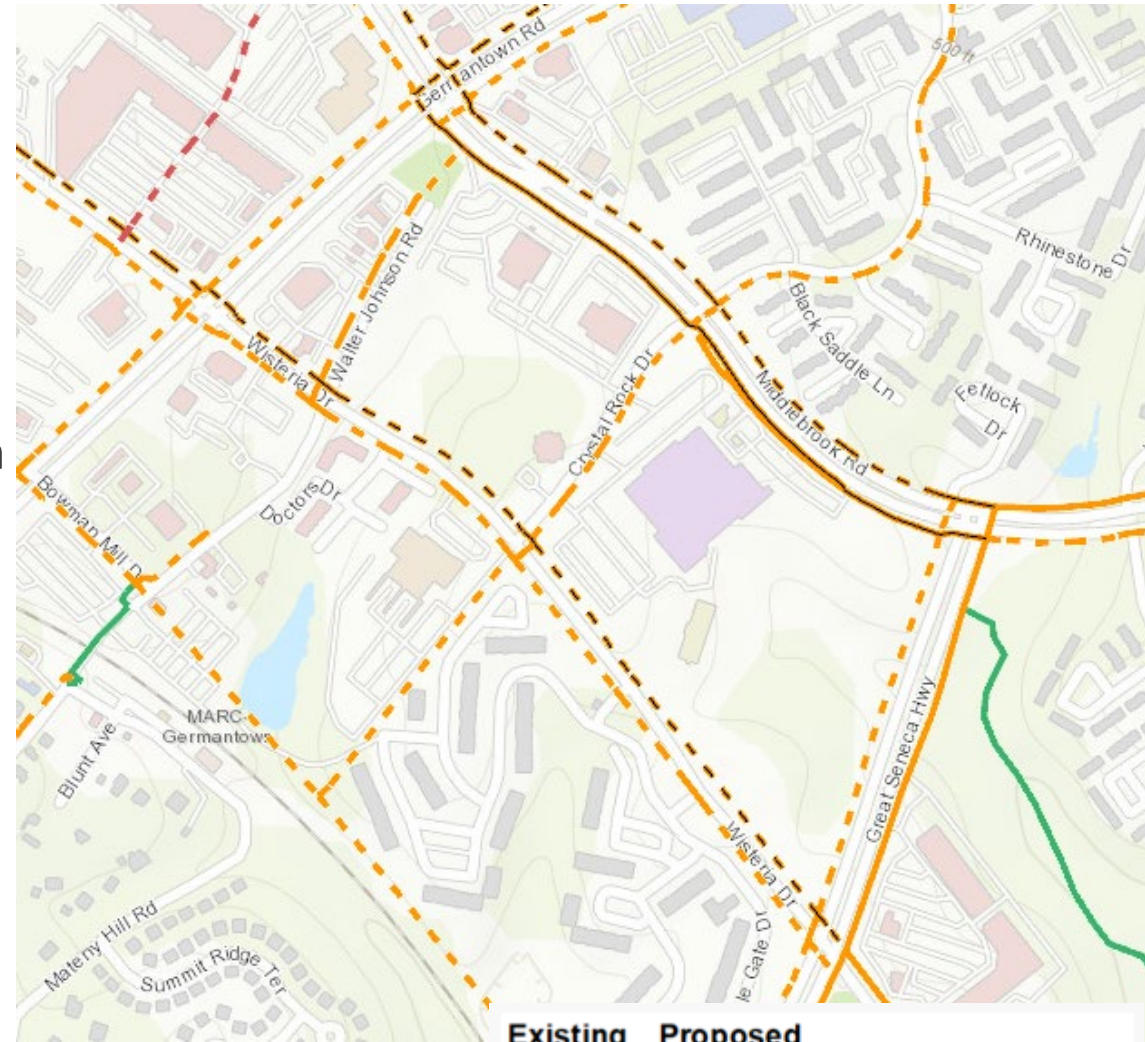
- Project Area – Wisteria Drive & Middlebrook Road between MD 118 and MD 119
- Project Purpose
 - Pedestrian & bike improvements
 - Transit access improvements
 - Planning study – not funded for final design/construction





Design Criteria

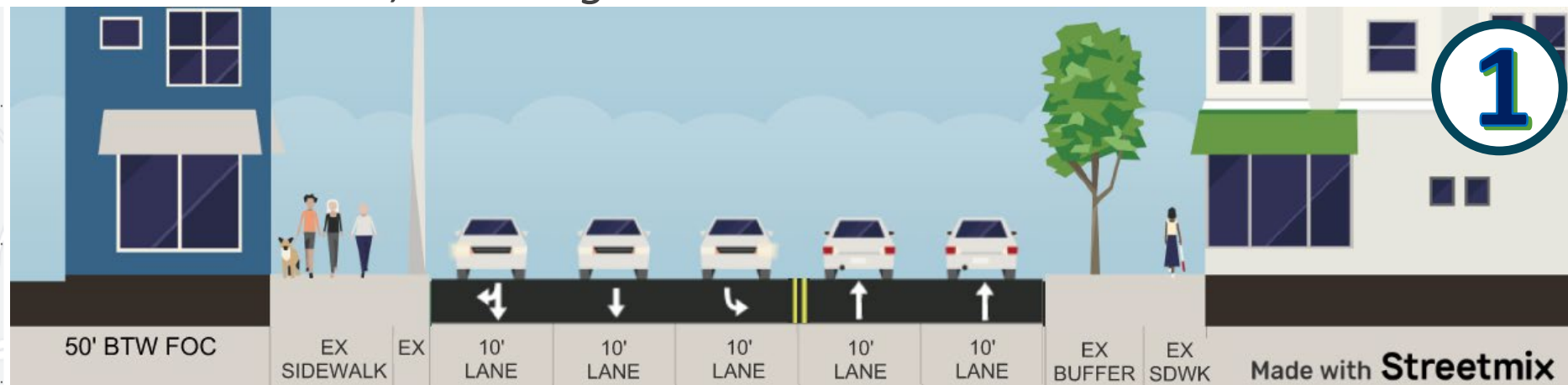
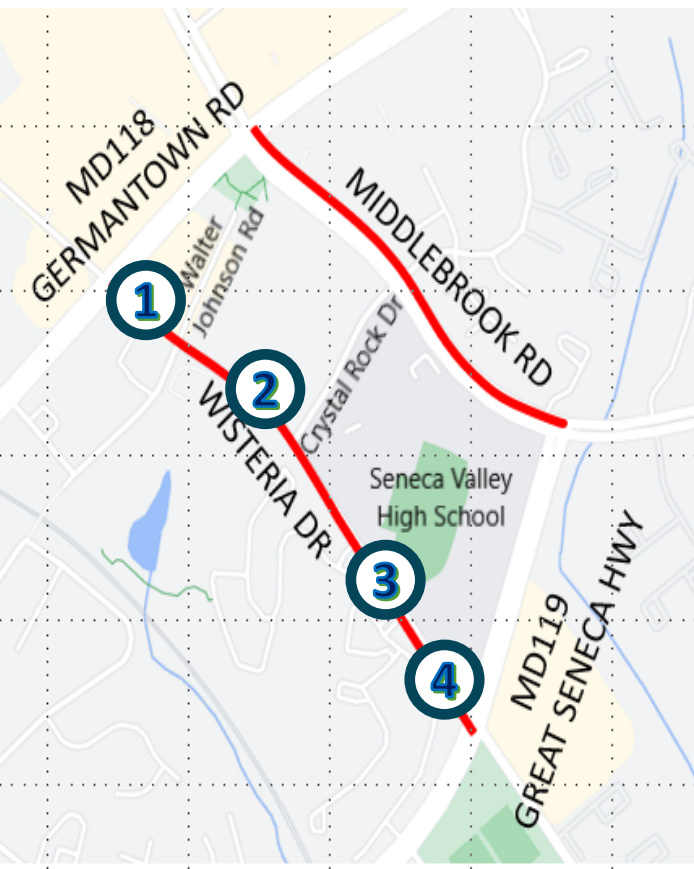
- Montgomery County
 - Bike Master Plan
 - Master Plan of Highways
 - Germantown Master Plan
 - MARC Rail Communities Plan
 - Complete Street Design Guide



Existing	Proposed	
		Trails
		Sidepaths
		Separated Bike Lanes
		Shared Roads

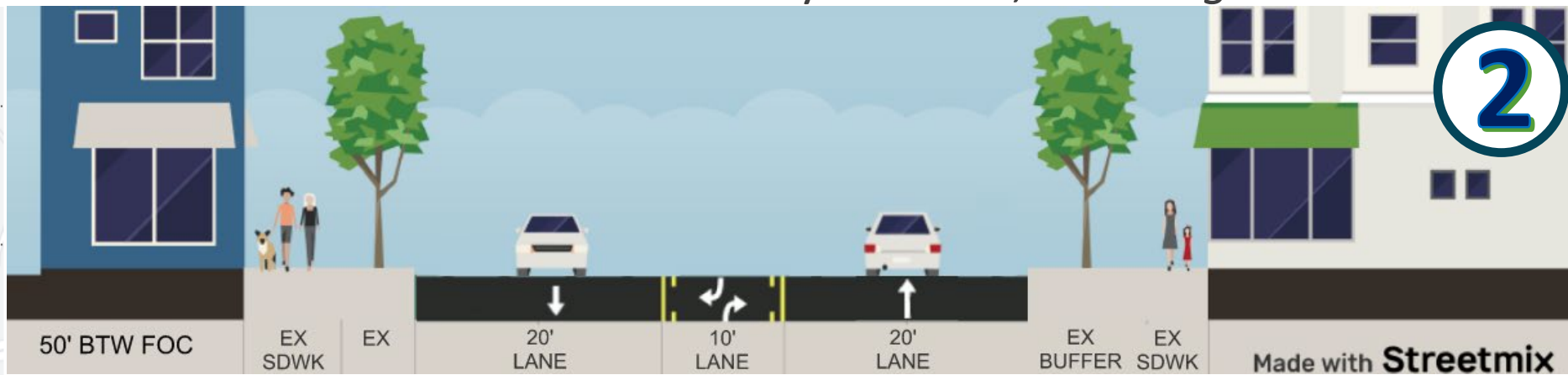
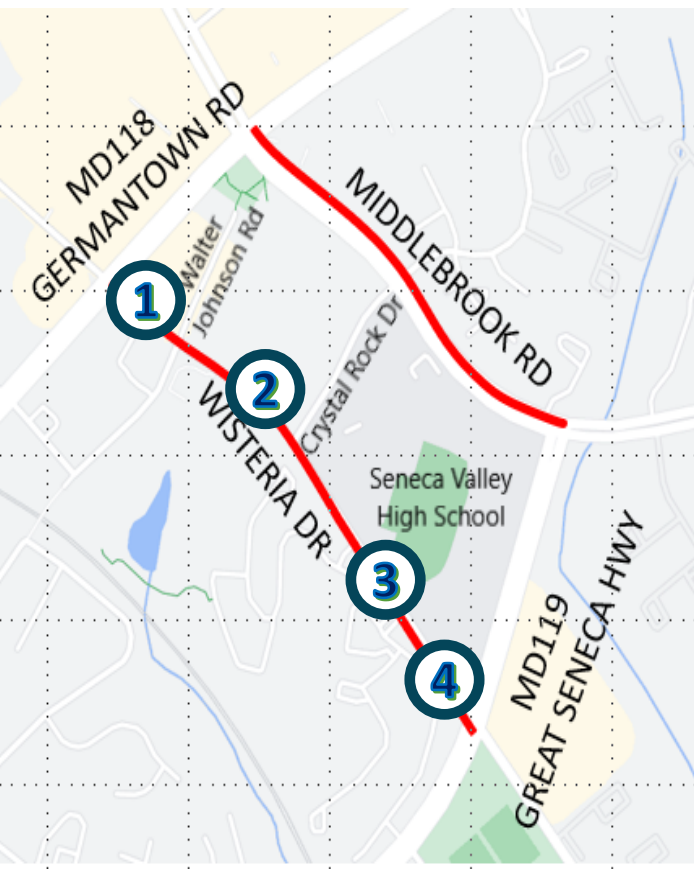
Wisteria Drive: Existing Conditions

➤ Near MD 118, "Looking South"



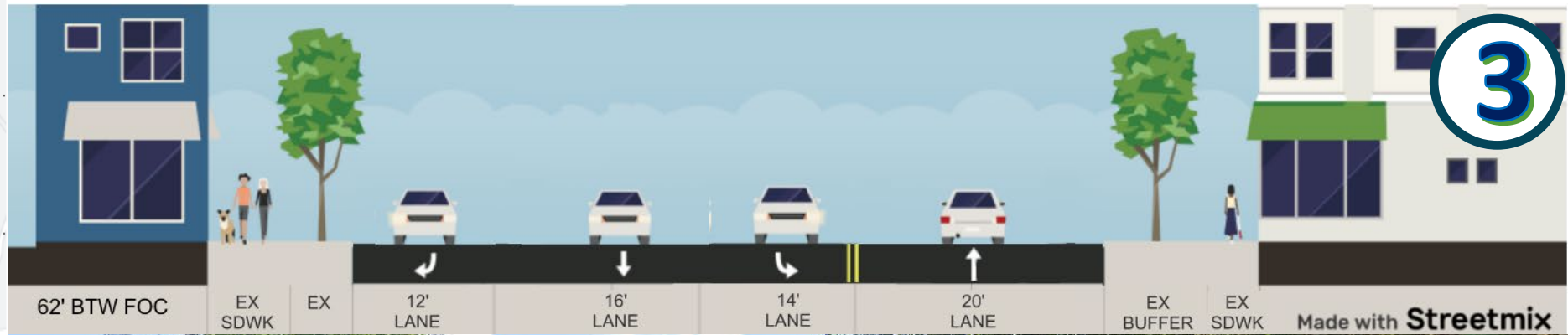
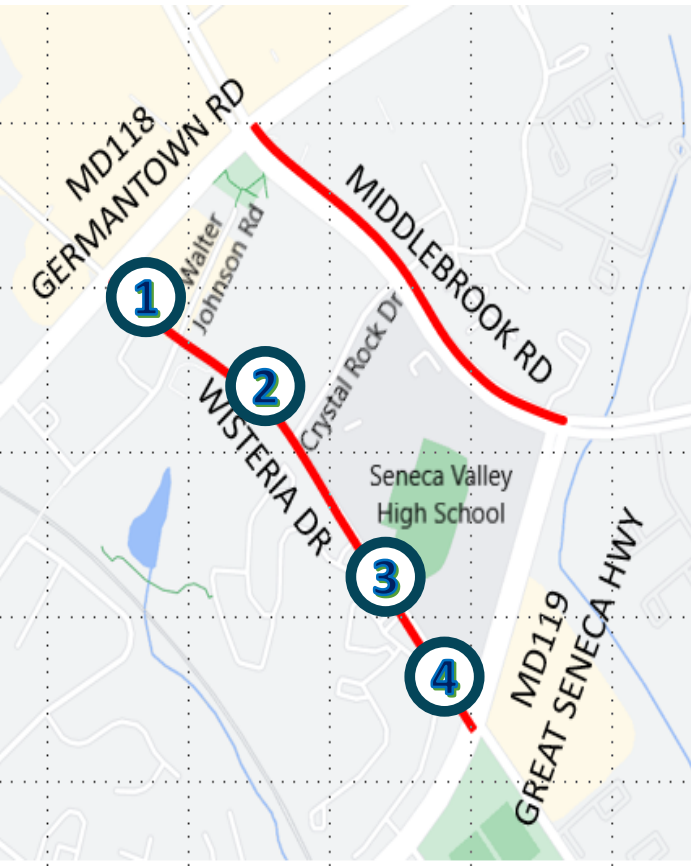
Wisteria Drive: Existing Conditions

➤ Between Walter Johnson and Crystal Rock, “Looking South”



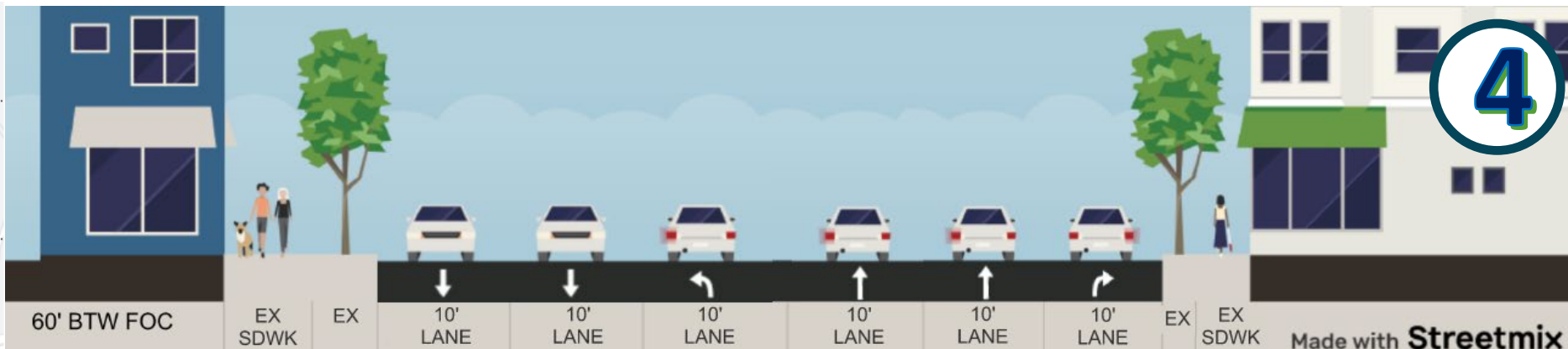
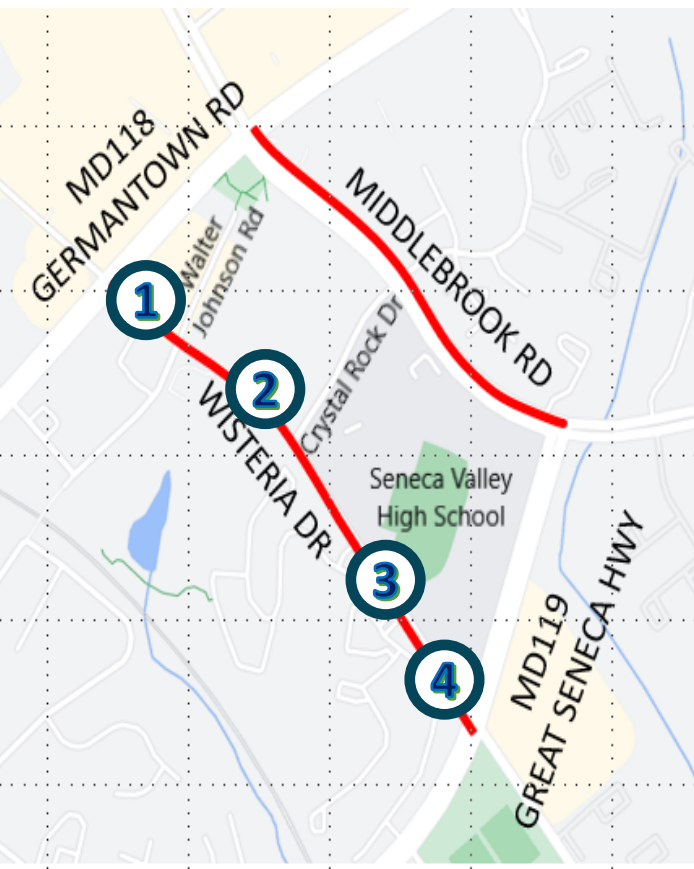
Wisteria Drive: Existing Conditions

➤ Near Seneca Valley High School, “Looking South”



Wisteria Drive: Existing Conditions

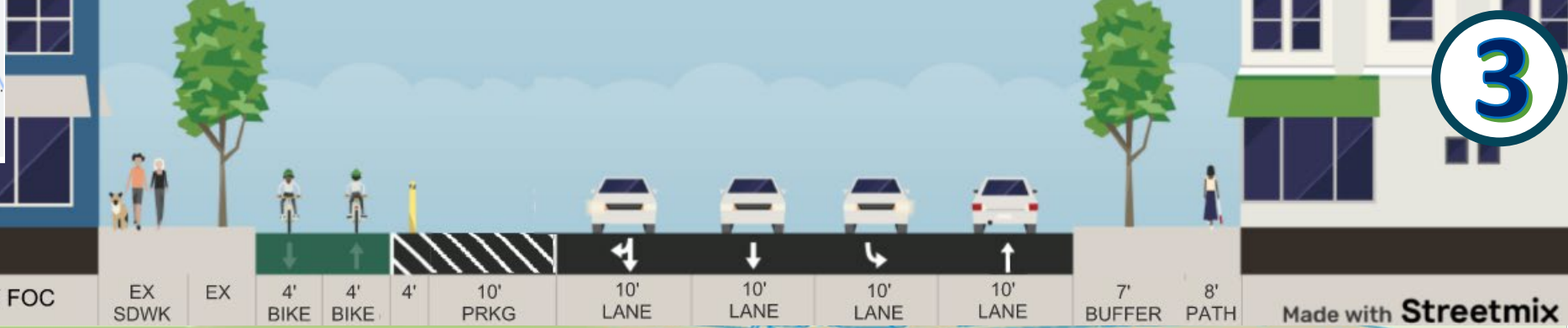
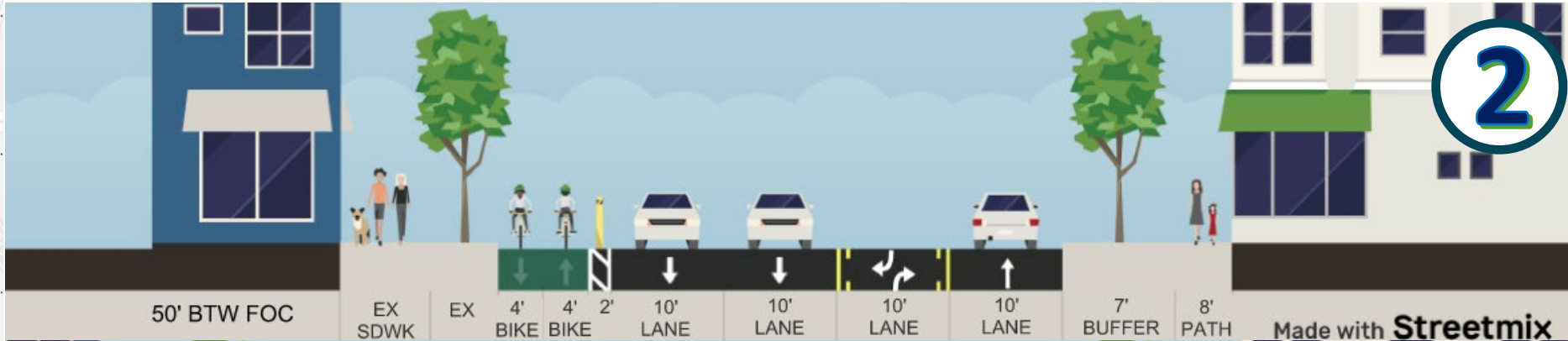
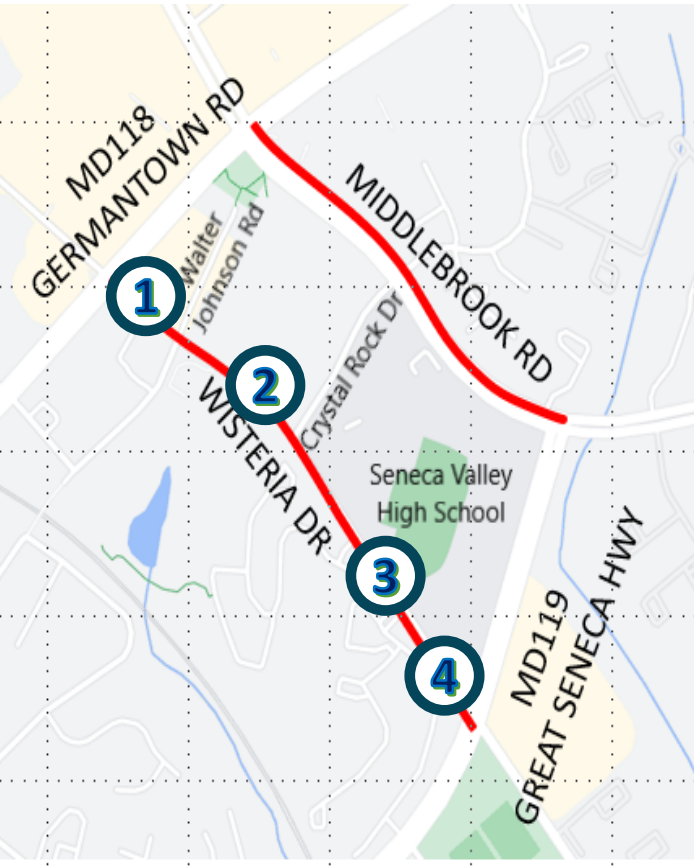
➤ Near MD119, "Looking South"



Wisteria Drive Option 1

➤ Short Term - "Looking South"

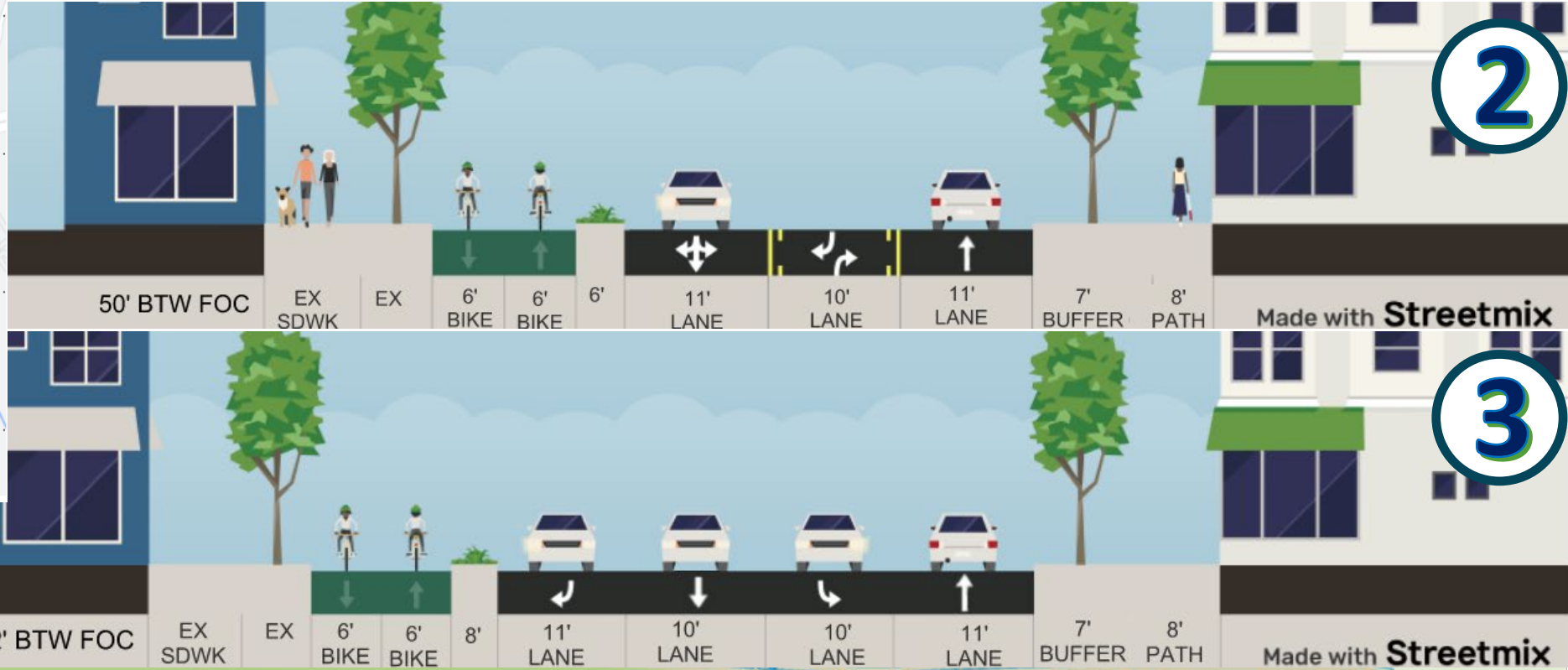
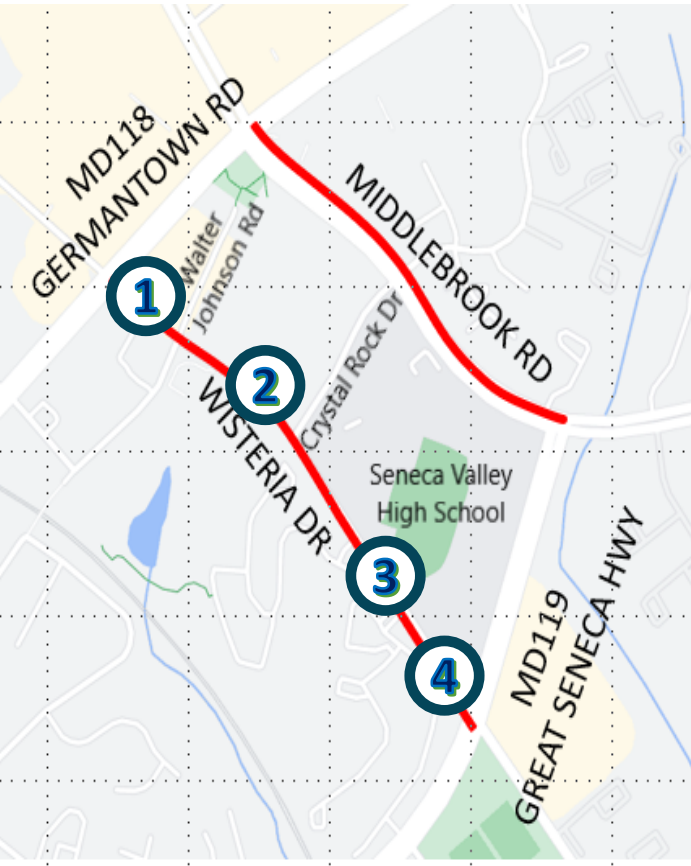
- Maintain existing curblines
- 8' min on-road bikeway along east side with marked buffer
- 8' side path along the west side



Wisteria Drive Option 2a

➤ Mid Term - "Looking South"

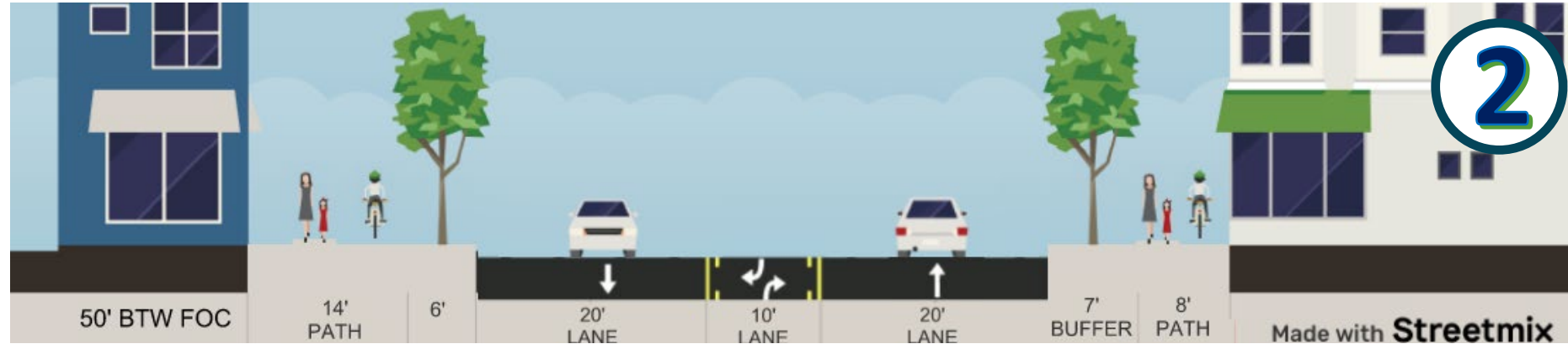
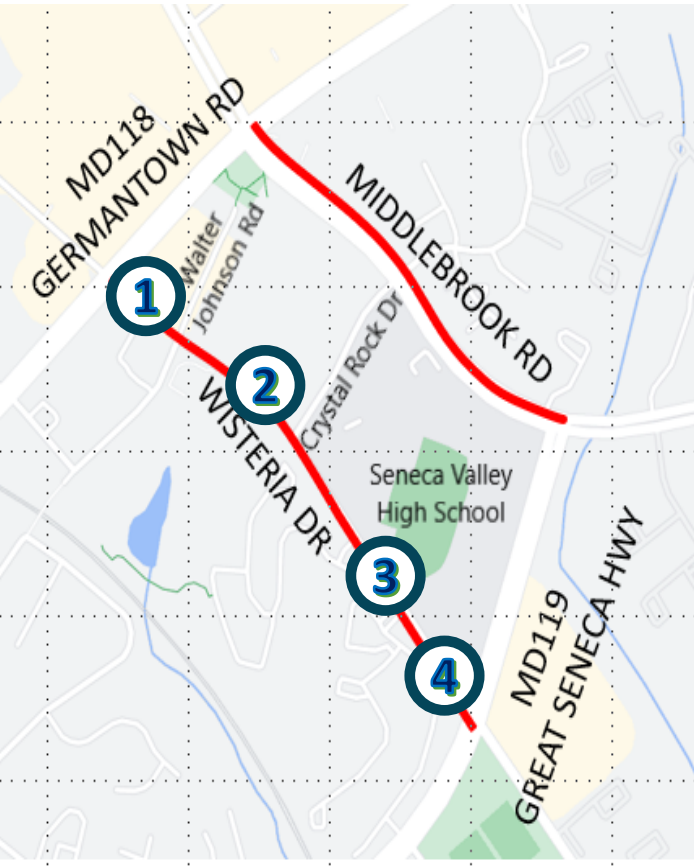
- Maintain existing curblines
- 12' min on-road bikeway along east side with raised median
- 8' side path along the west side



Wisteria Drive Option 2b

➤ Mid Term - "Looking South"

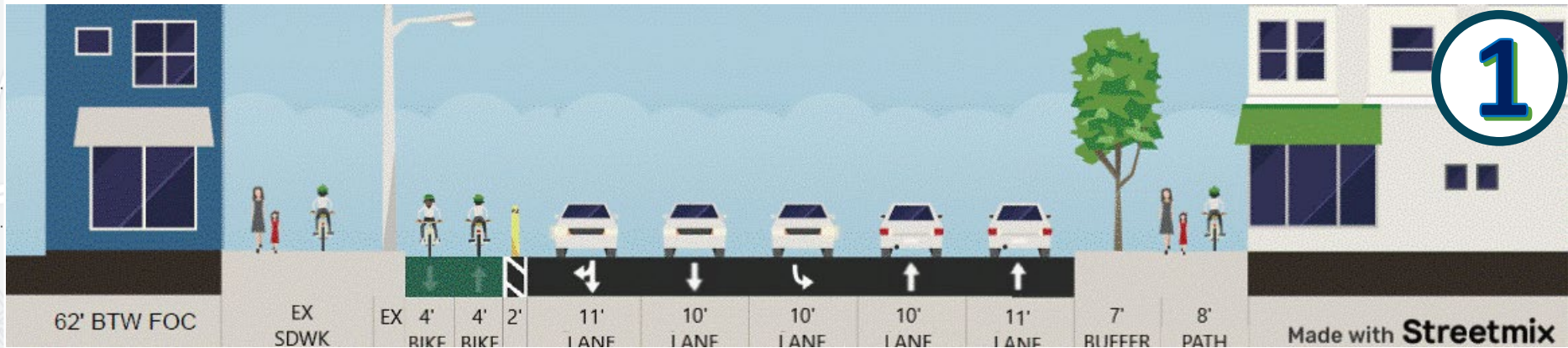
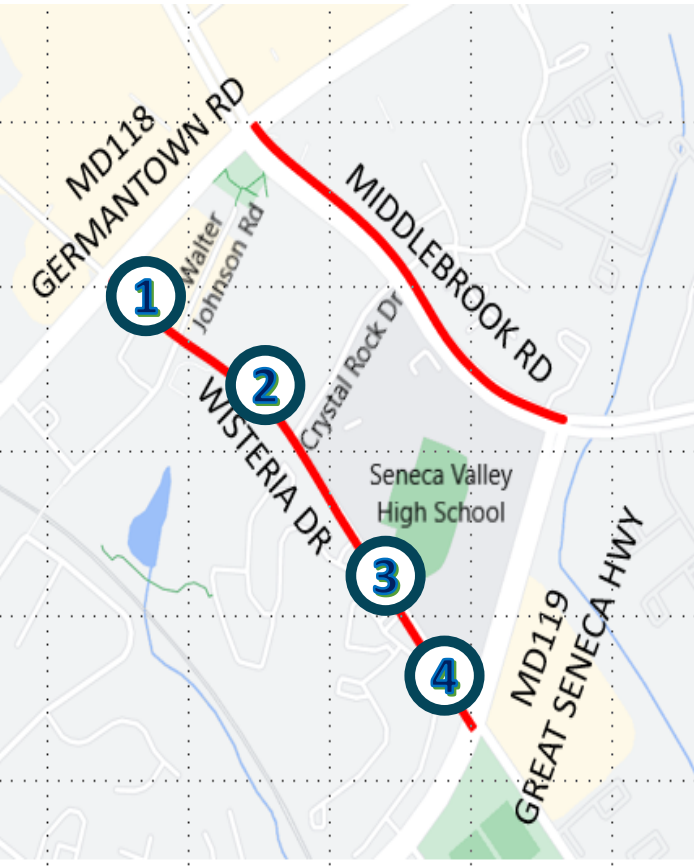
- Maintain existing roadway configuration
- 14' off-road sidepath along east side
- 8' side path along the west side



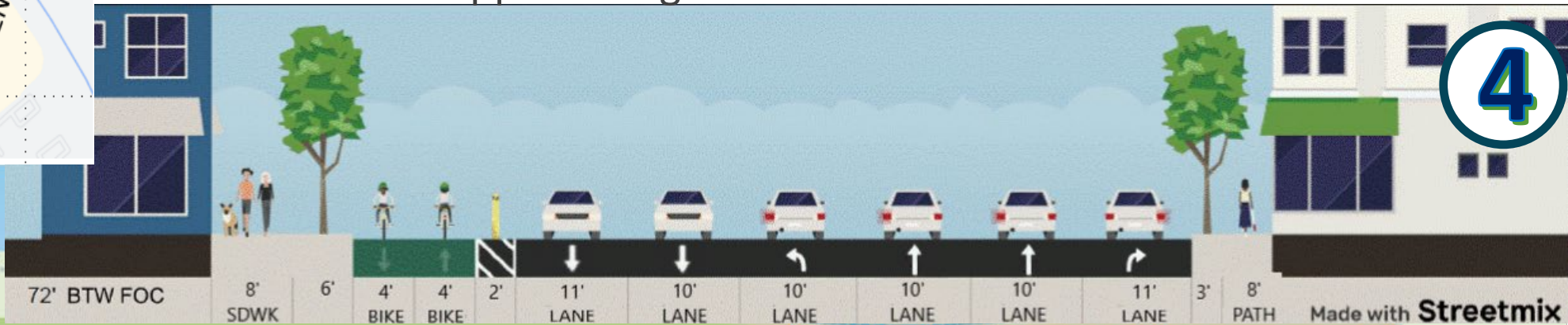
Wisteria Dr. Option 3

➤ Long Term - "Looking South"

- Maintain existing configuration: widening at MD118 & MD119
- 50' to 62' approaching MD118: widen to the west side



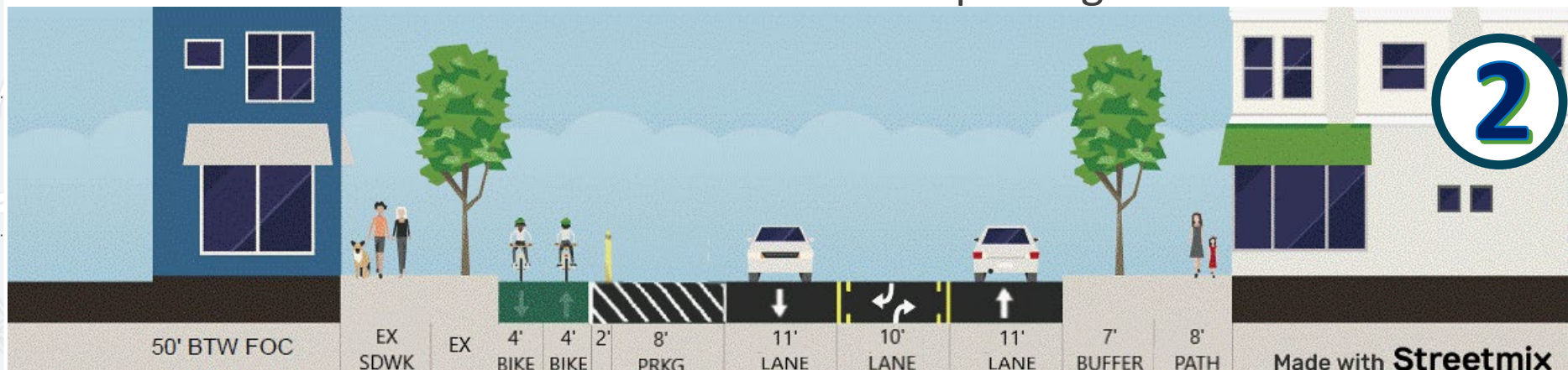
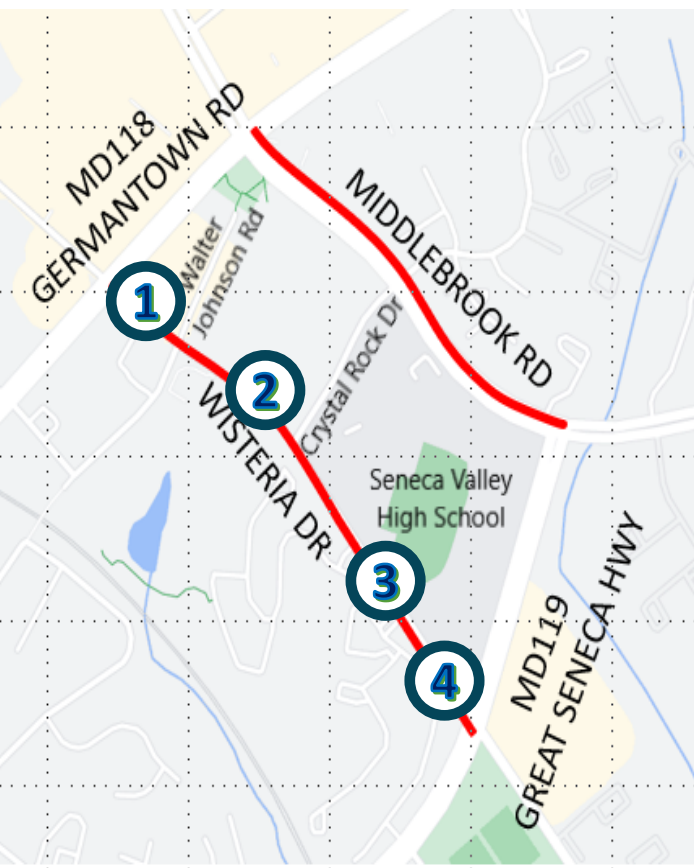
- 60' to 72' approaching MD119: widen to the east side



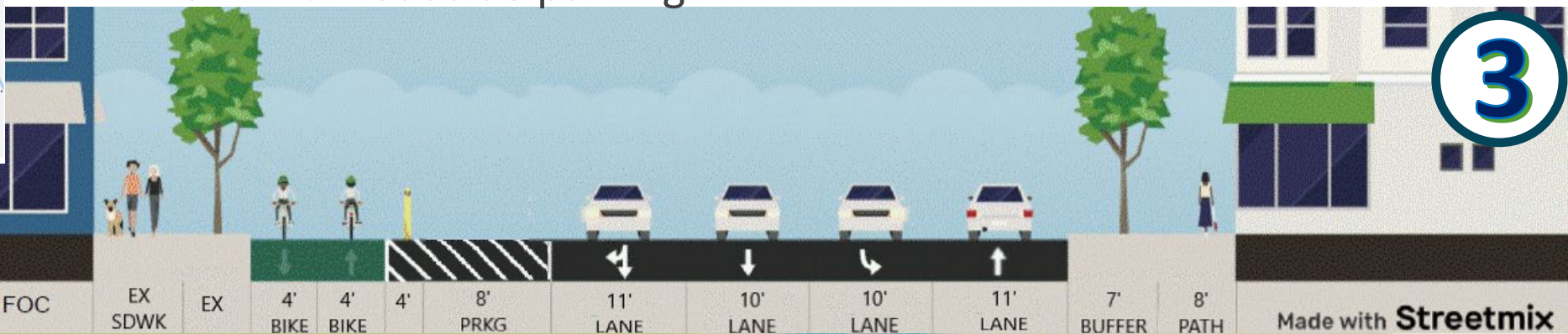
Wisteria Dr. Option 3 (Cont'd)

➤ Long Term - "Looking South"

- no widening in other areas
- 50' with center turn lane and roadside parking

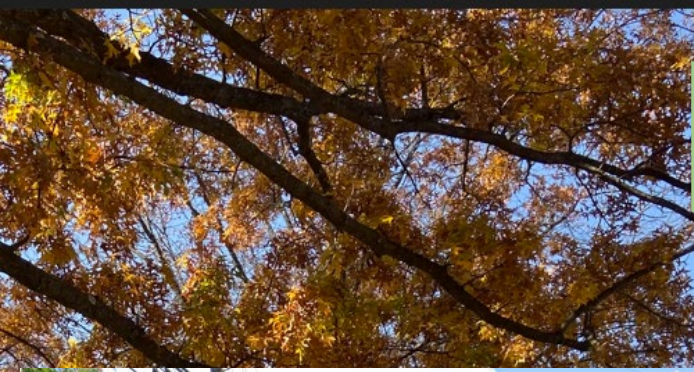


➤ 62' with roadside parking



Middlebrook Existing Conditions

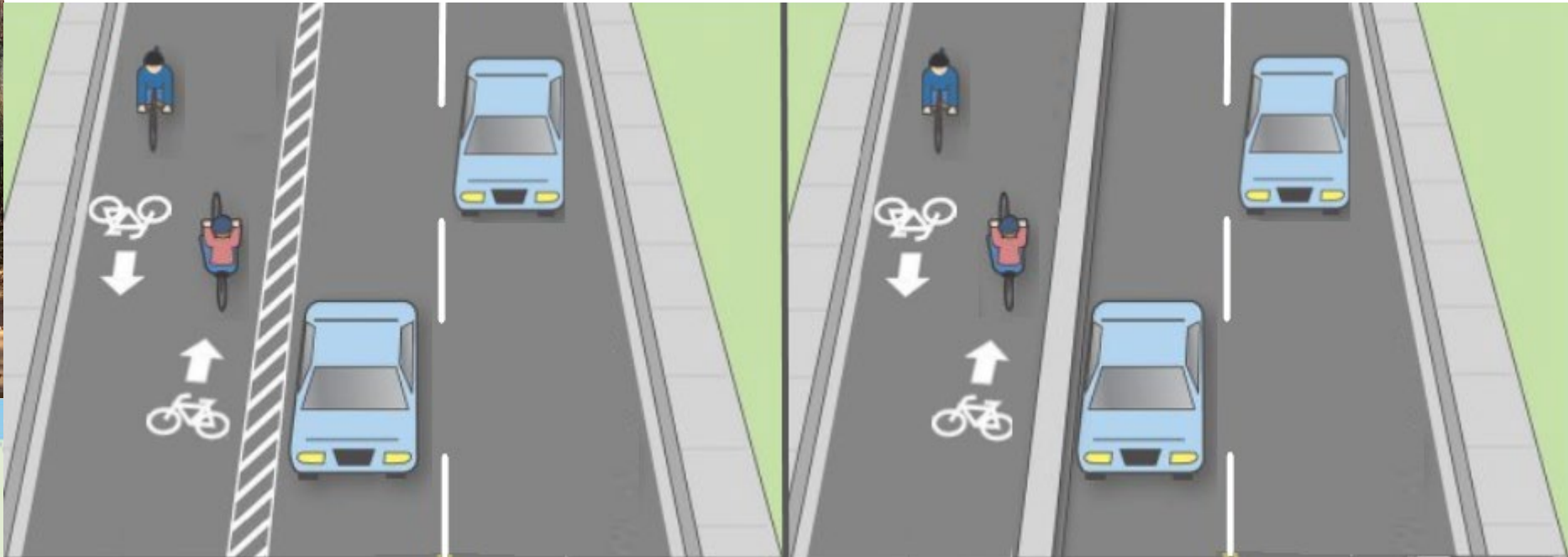
➤ “Looking South”





Middlebrook Options

- NB Short/Mid Term - *“Looking South”*
 - Maintain existing curbline
 - 12’ min on-road bikeway along east side with
 - Marked Buffer, or
 - Raised median





Operational Considerations

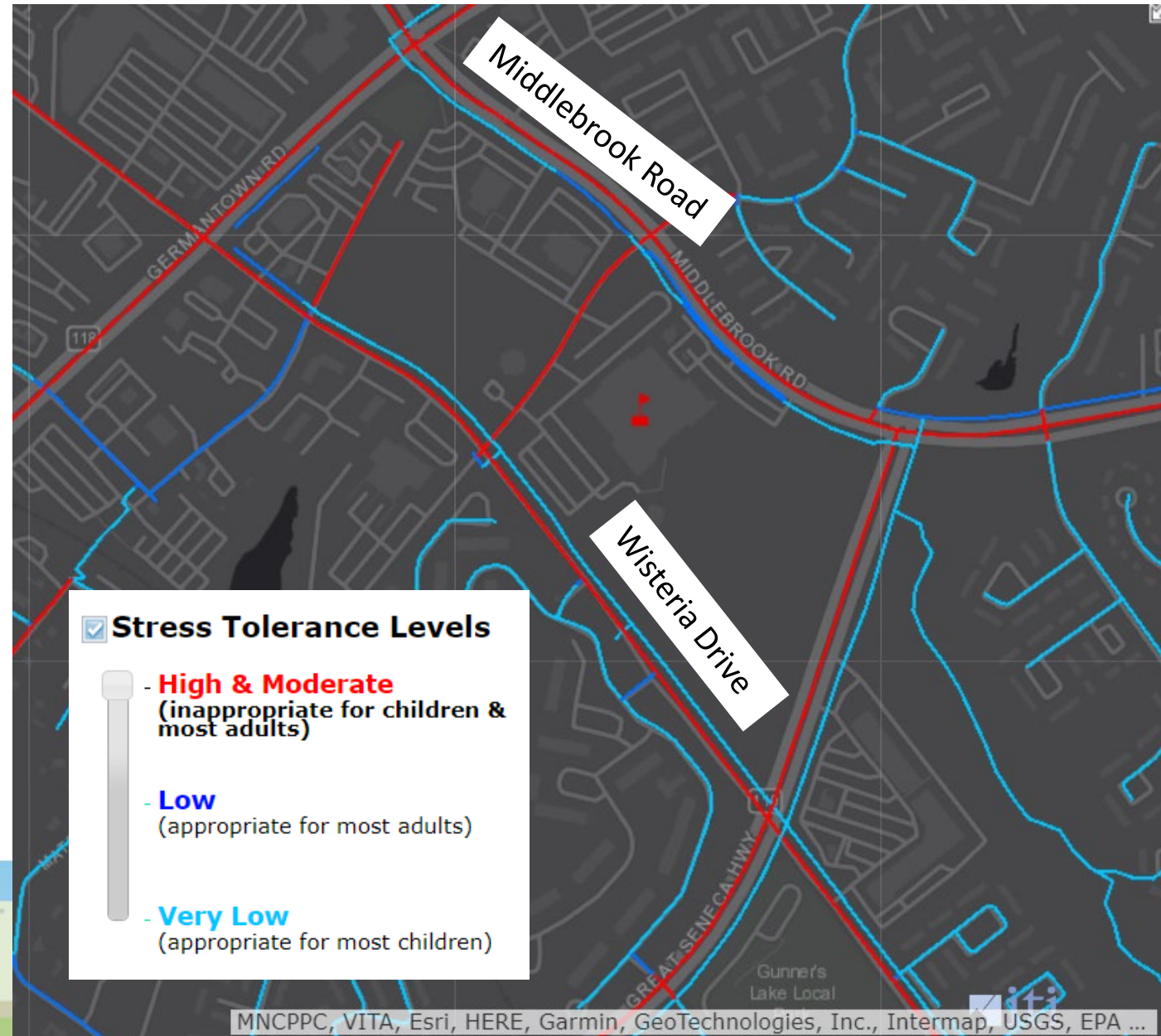
- Determine best signal timings for bicyclist and pedestrian movements at intersections
 - Crossing distances – time needed to cross the road/refuges
 - Leading Pedestrian Intervals (LPIs) within timing - give non-motorized traffic head start and visibility
- Minimize traffic queues and delays while not speeding up traffic
- Provide clear traffic control devices, signing, and pavement markings for all travel modes



Operational Considerations

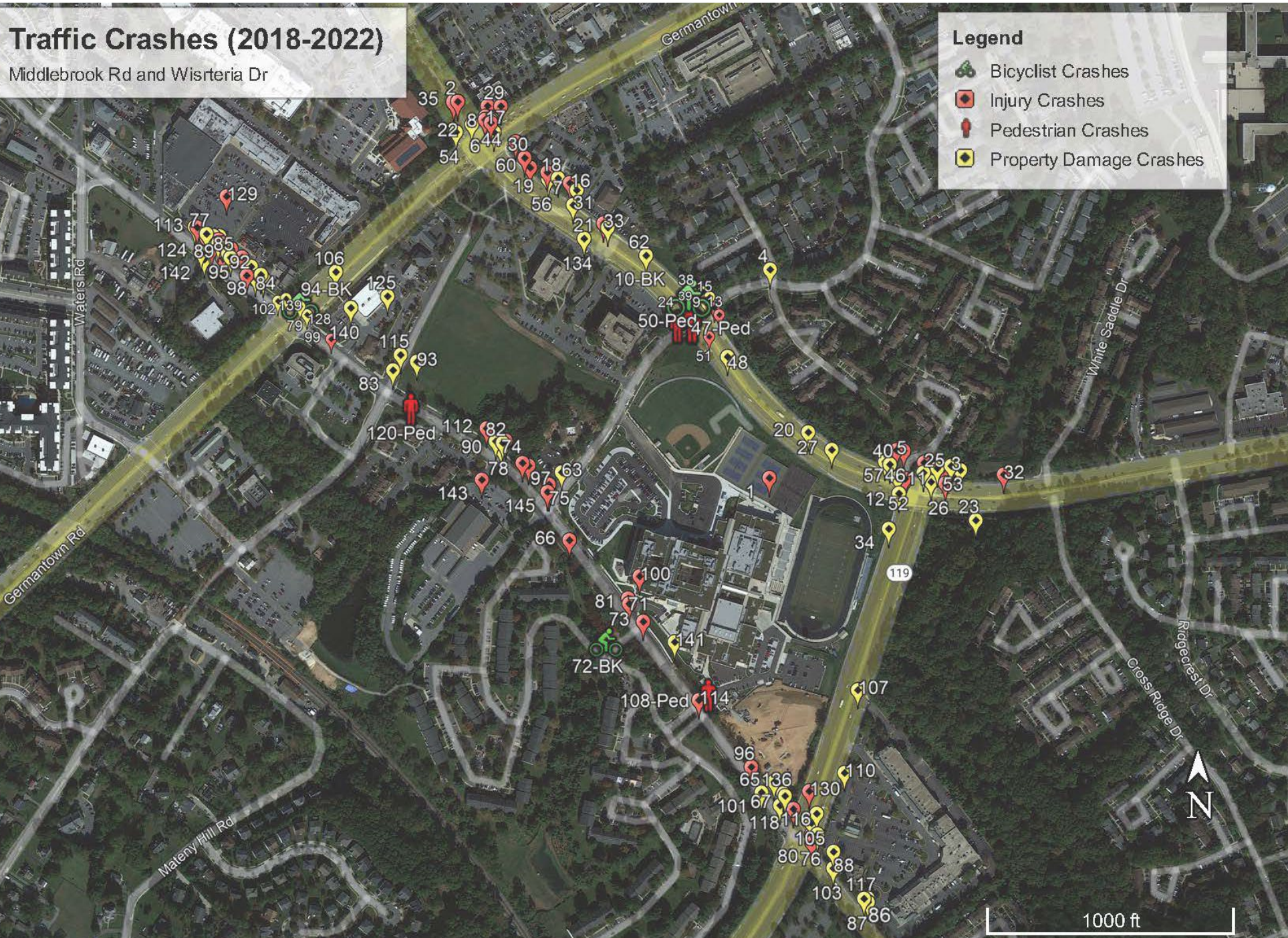
County Bicycle Stress Map

- Existing Conditions
- High/Moderate Stress on WB Middlebrook Rd and EB Wisteria Dr – Smaller Sidewalks
- Low/Very Low Stress in Opposite Direction – Buffered Bike Lanes and Wider Sidewalks



5-Year Crash History

- 145 Total Crashes
- 48% Occurred Between Noon and 6 PM
- 62 on Middlebrook
 - 2 Pedestrian and 1 Bicycle Crash
- 83 on Wisteria
 - 2 Pedestrian and 2 Bicycle Crashes





Operational Considerations

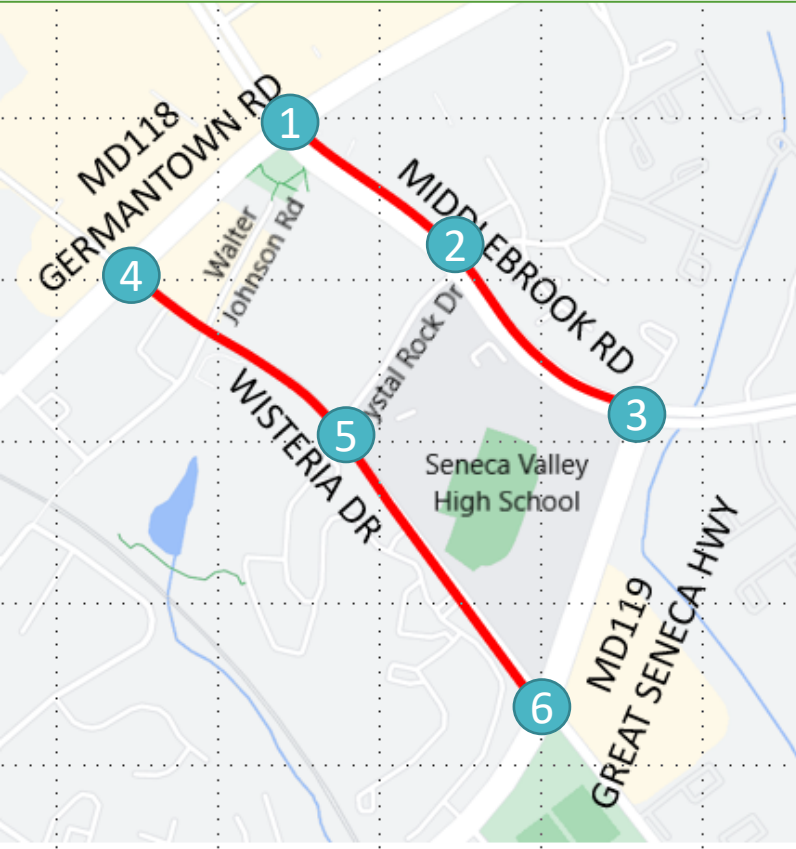
- Operational analyses using Synchro/SimTraffic software
 - Input transportation network and volumes
 - Determine intersection delay and Level of Service
 - Obtain travel times for corridors and intersection queues
- Summarized analysis at six signalized intersections
- Utilized 2022 traffic count data – AM, School, and PM peaks

Intersection Levels Of Service

LOS	Delay (sec)	Traffic Flow Description	LOS	Delay (sec)	Traffic Flow Description	LOS	Delay (sec)	Traffic Flow Description
A	≤ 10	Little to No Congestion	B	>10 - ≤ 20	Little Congestion	C	>20 - ≤ 35	Moderate Congestion
D	>35 - ≤ 55	Tolerable Delay	E	>55 - ≤ 80	Intolerable Delay	F	≤ 80	Jammed



Operational and Safety Considerations



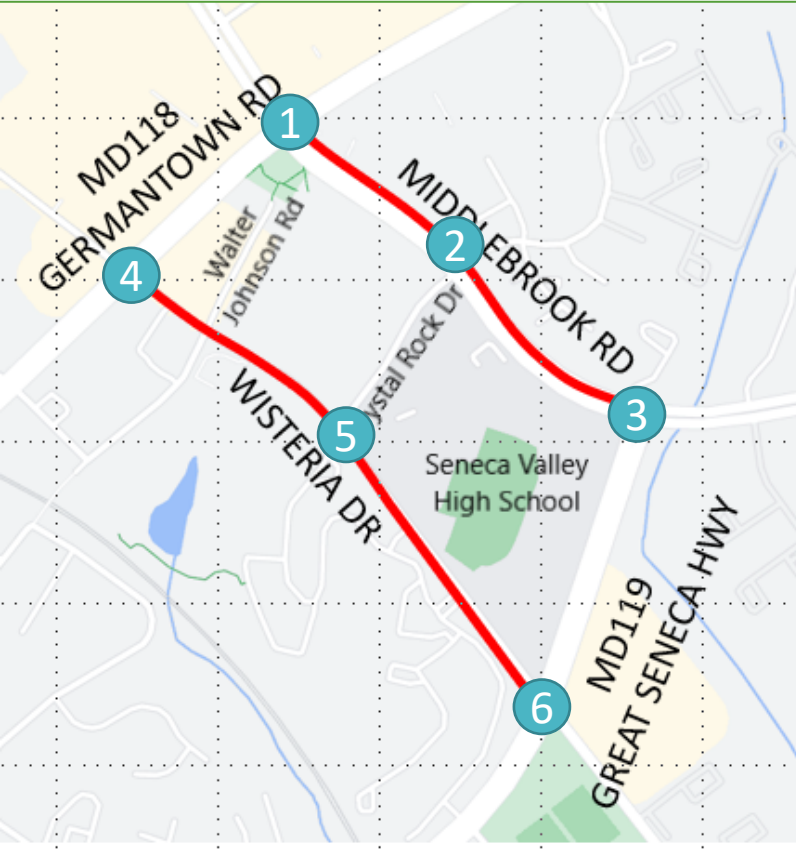
AM Peak Traffic Hour Intersection Level of Service

Intersections	Existing		Alt. 1		Alt. 2A		Alt. 2B		Alt. 3	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1: MD 118 & Middlebrook Rd	D	41.7	D	41.8	D	41.8	D	41.8	D	41.8
2: Crystal Rock Dr & Middlebrook Rd	D	43.0	D	43.9	D	43.9	D	43.9	D	43.9
3: MD 119/Fetlock Dr & Middlebrook Rd	C	30.3	C	30.3	C	30.3	C	30.3	C	30.3
4: MD 118 & Wisteria Dr	D	36.6	D	36.7	D	36.7	D	36.7	D	36.7
5: Driveway/Crystal Rock Dr & Wisteria Dr	B	16.4	B	16.9	B	17.2	B	16.3	B	17.1
6: MD 119 & Wisteria Dr	C	30.0	C	30.4	C	33.4	C	30.1	C	30.1

➤ All signalized intersections operate at LOS D or better in each scenario



Operational and Safety Considerations



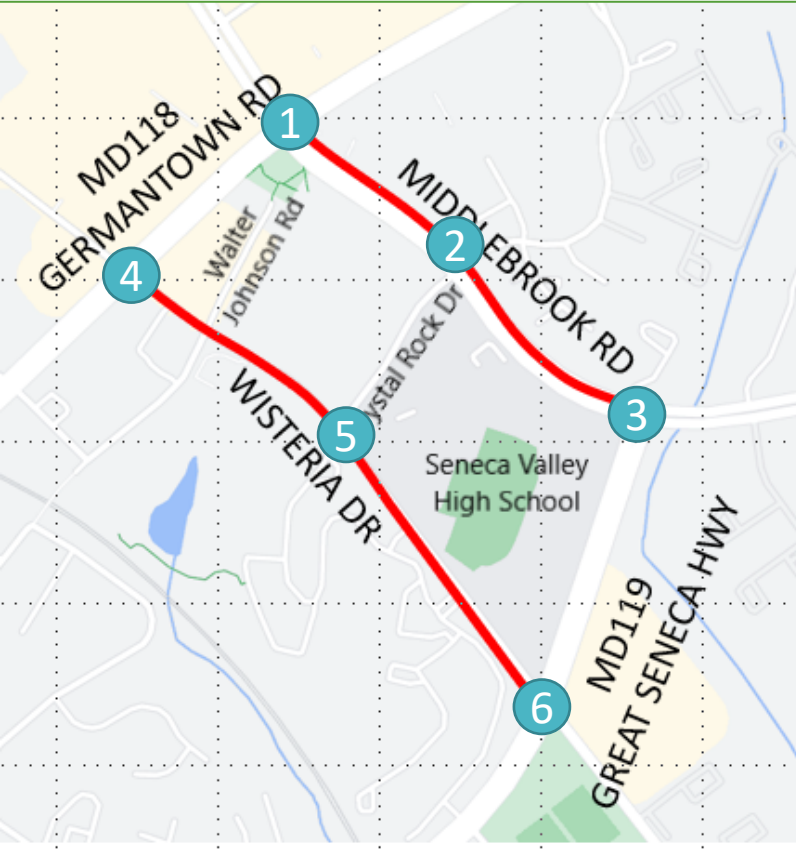
High School Dismissal Peak Traffic Hour Intersection Level of Service

Intersections	Existing		Alt. 1		Alt. 2A		Alt. 2B		Alt. 3	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1: MD 118 & Middlebrook Rd	D	44.2	D	45.9	D	45.9	D	45.9	D	45.9
2: Crystal Rock Dr & Middlebrook Rd	C	30.4	C	32.2	C	32.2	C	32.2	C	32.2
3: MD 119/Fetlock Dr & Middlebrook Rd	C	30.0	C	29.6	C	29.0	C	29.9	C	29.9
4: MD 118 & Wisteria Dr	D	38.8	D	39.0	D	38.9	D	39.0	D	39.0
5: Driveway/Crystal Rock Dr & Wisteria Dr	B	16.7	B	16.2	B	17.1	B	16.4	B	17.0
6: MD 119 & Wisteria Dr	C	29.0	C	29.0	C	31.4	C	29.0	C	29.0

➤ All signalized intersections operate at LOS D or better in each scenario



Operational and Safety Considerations



PM Peak Traffic Hour Intersection Level of Service

Intersections	Existing		Alt. 1		Alt. 2A		Alt. 2B		Alt. 3	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1: MD 118 & Middlebrook Rd	D	45.3	D	46.4	D	46.4	D	46.4	D	46.4
2: Crystal Rock Dr & Middlebrook Rd	C	32.4	D	35.8	D	35.8	D	35.8	D	35.8
3: MD 119/Fetlock Dr & Middlebrook Rd	C	32.7	C	32.7	C	32.7	C	32.5	C	32.7
4: MD 118 & Wisteria Dr	D	37.2	D	37.5	D	37.3	D	37.5	D	37.5
5: Driveway/Crystal Rock Dr & Wisteria Dr	B	14.1	B	13.7	B	14.4	B	13.6	B	14.3
6: MD 119 & Wisteria Dr	C	30.6	C	31.2	D	35.5	C	30.6	C	30.6

➤ All signalized intersections operate at LOS D or better in each scenario





Operational Considerations

Additional Operational Analysis Findings

➤ Middlebrook Road

- Intersection traffic queues have minor increases
- WB travel time (MD 118 to MD 119) increase 7 seconds or less

➤ Wisteria Drive

- Travel times (MD 118 to MD 119) increase 15 seconds or less
- Exception is Alternative 2A – closer 30 second increase
- Forecasted intersection queues increase but are maintained within existing lane storage





Costs/Impacts Summary

WISTERIA DR OPTIONS	No-Built	Option 1	Option 2a	Option 2b	Option 3
Property Impacts (SF)	-	19,000 SF	19,000 SF	34,000 SF	25,000 SF
Street Tree Impacts	-	EB only	EB only	WB only	EB & WB
Widening Needed?	-	No	No	No	Yes
Construction Cost (Estimated)	-	\$2.3 million	\$3.0 million	\$3.0 million	\$4.8 million





Next Steps

- Collect feedback from the community thru 12/8
 - Online comment form - <https://tinyurl.com/GermantownMultimodal-Comment>
 - Email directly – Angel.Cheng@MontgomeryCountyMD.Gov
- Planning Board Briefing – Q1 2024
- County Council - T&E Committee Briefing – Q1 2024



Comment Form



Questions?

Project Contact Information

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240-777-7274

Angel.Cheng@MontgomeryCountyMD.Gov

<https://montgomerycountymd.gov/dot-dte/projects/GermantownMultimodal>

