



County of Fairfax, Virginia

Gallows Road Multimodal Transportation Study

Public Meetings - Round 2

November 12, 2024 – Fairhill Elementary School

November 14, 2024 – Kilmer Middle School

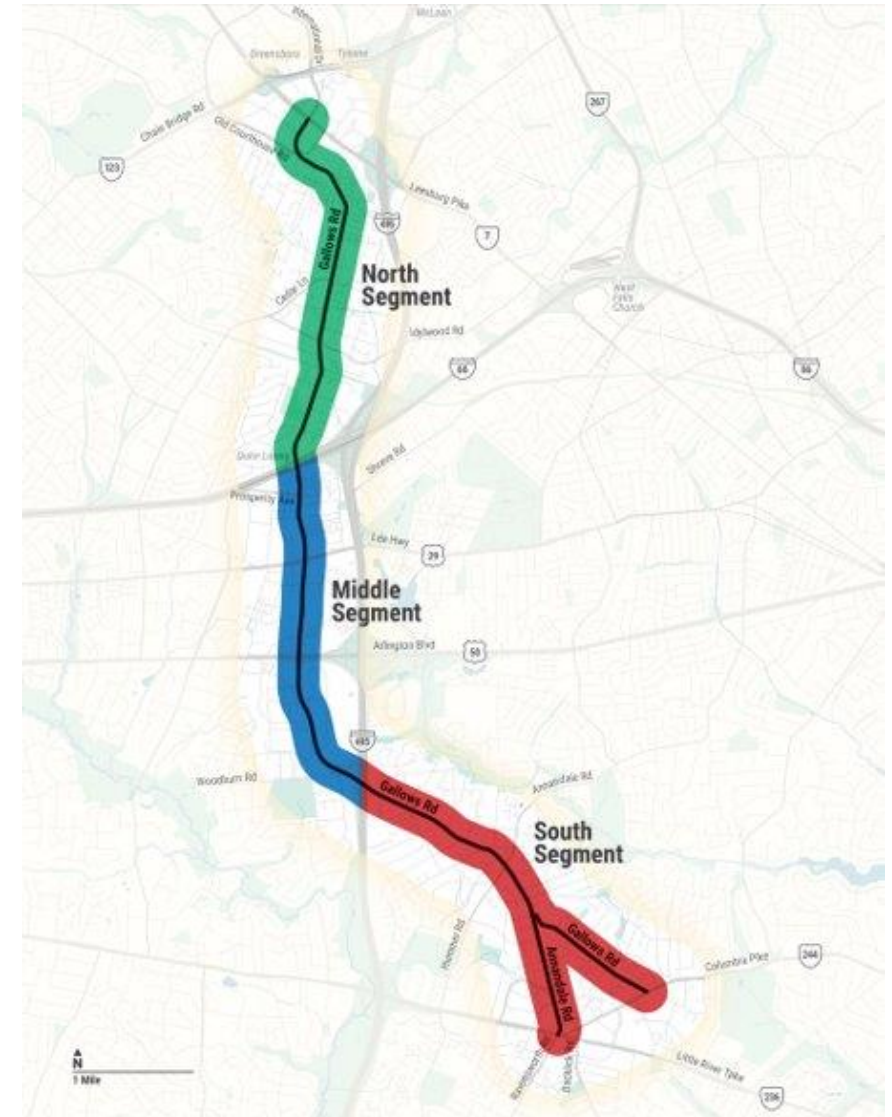
November 21, 2024 – Woodburn Elementary School

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Transportation Planner
Department of Transportation

Tim Kutz

Transportation Planner
Department of Transportation







Gallows Road Tysons to Annandale

Merrifield Suburban Center Plan Amendment

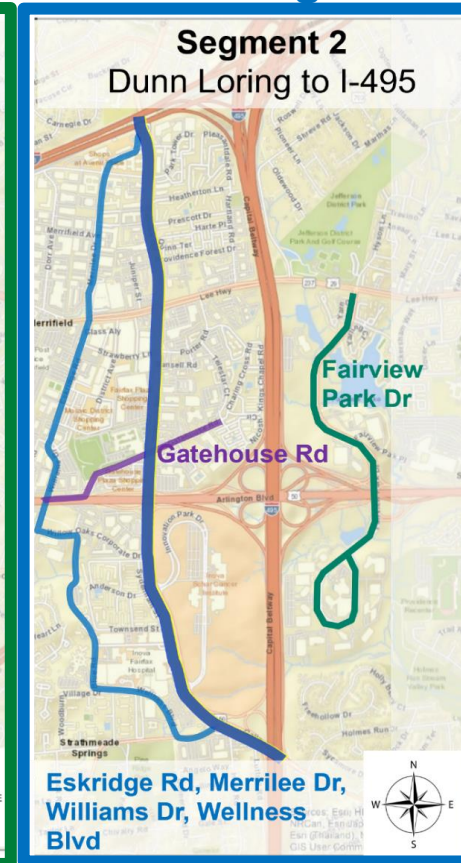
Evaluation of Gallows Road - Multimodal Parallel Facilities



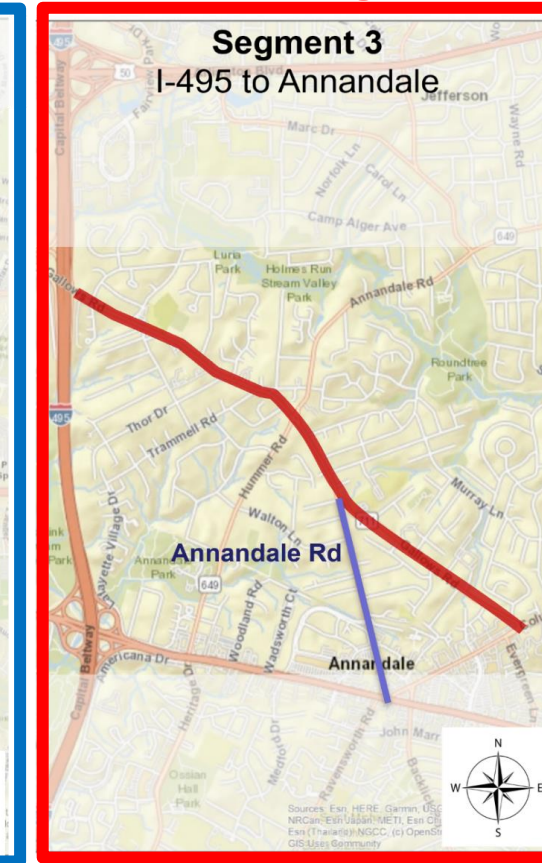
Northern Segment



Middle Segment



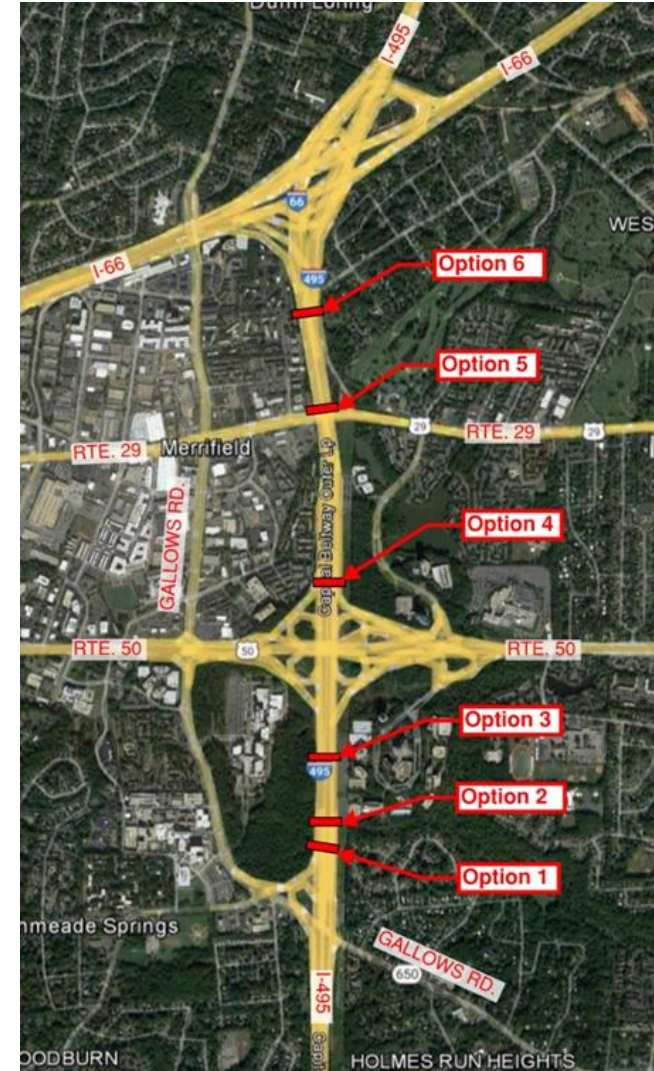
Southern Segment

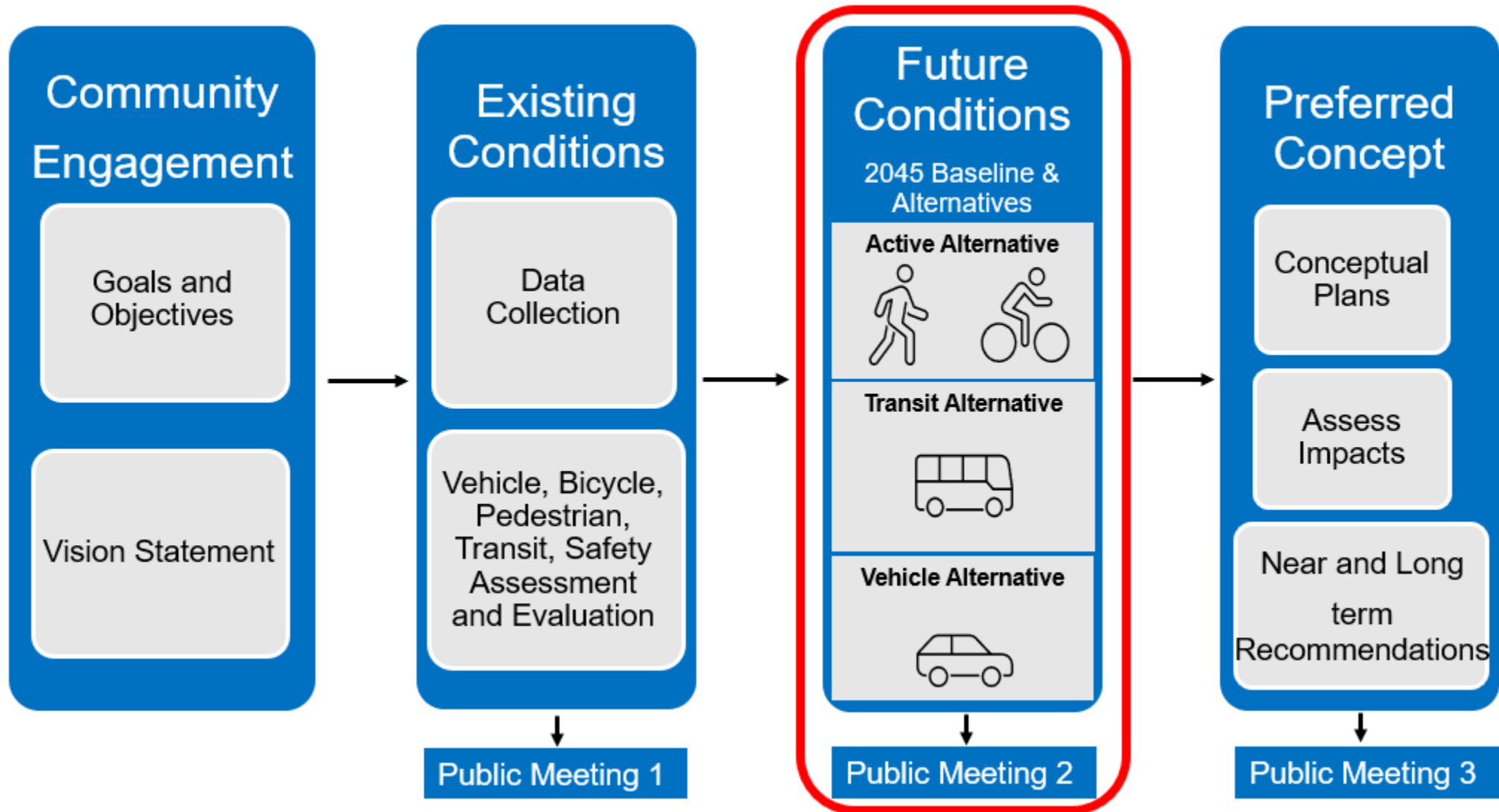


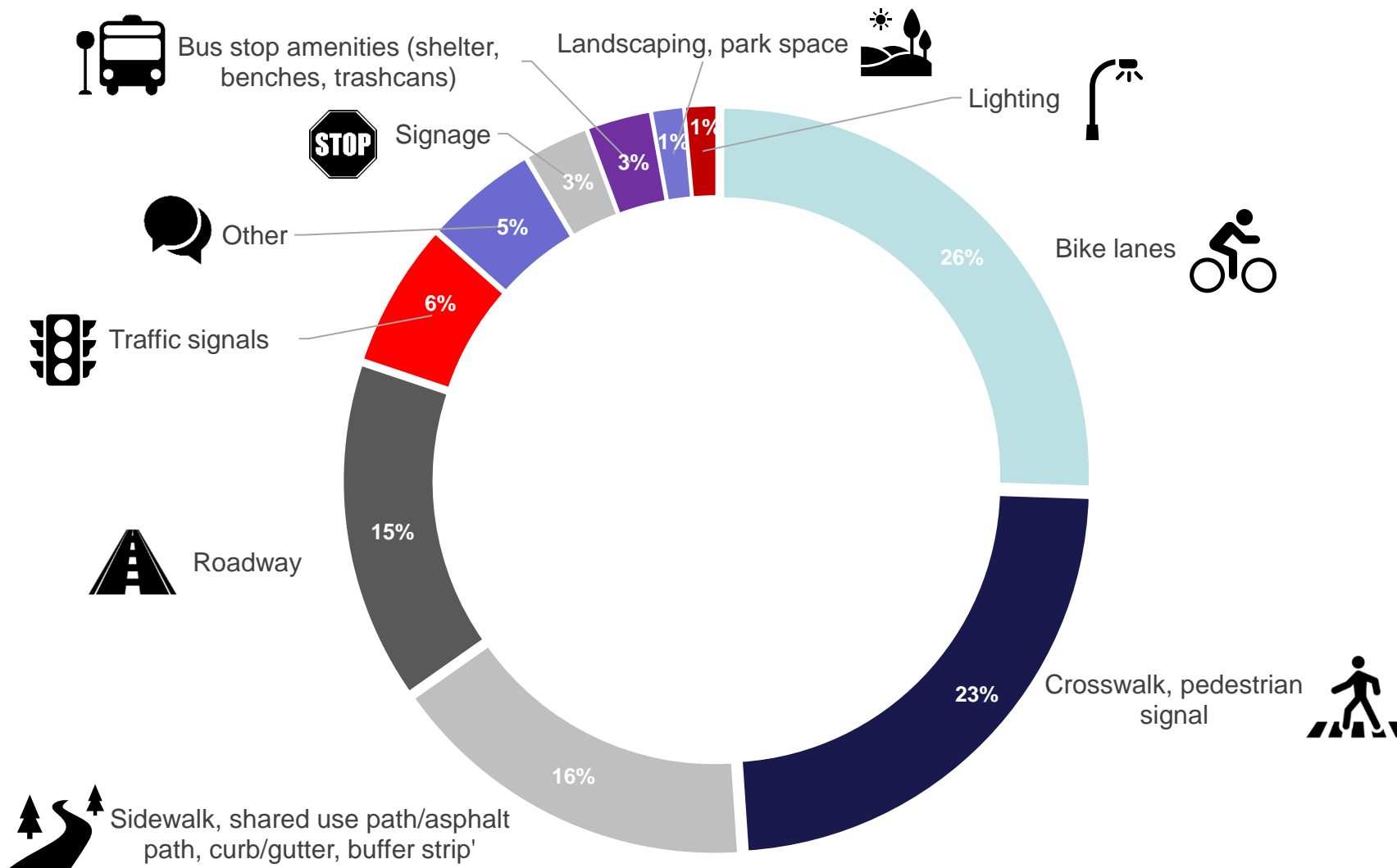


Beltway Crossings

- Between I-66 and Gallows Rd
- Bicycle and Pedestrian Bridge
- Options 1-6









FUTURE CONDITIONS BASELINE & DESIGN ALTERNATIVES



Alternative 1 – Vehicle

Roadway design changes to influence safe driver behavior



- Reduce lane widths
- Manage speeds

Alternative 2 – Transit

Increase transit frequency, improve reliability and enhance connectivity



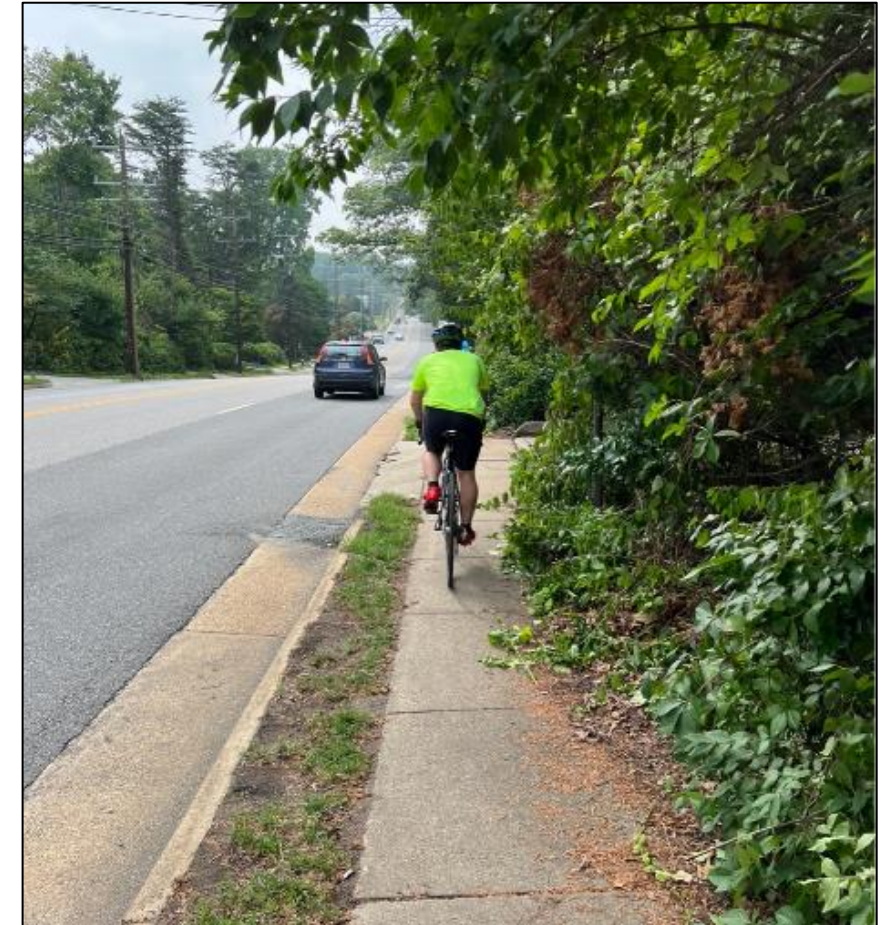
- Dedicated bus lane
- Bus boarding islands
- Improve bus stop amenities
- Transit signal priority

Alternative 3 – Active Transportation

Repurpose ROW to provide high-quality bicycle and pedestrian facilities



- Widen sidewalks
- High visibility crosswalks
- Pedestrian refuge islands



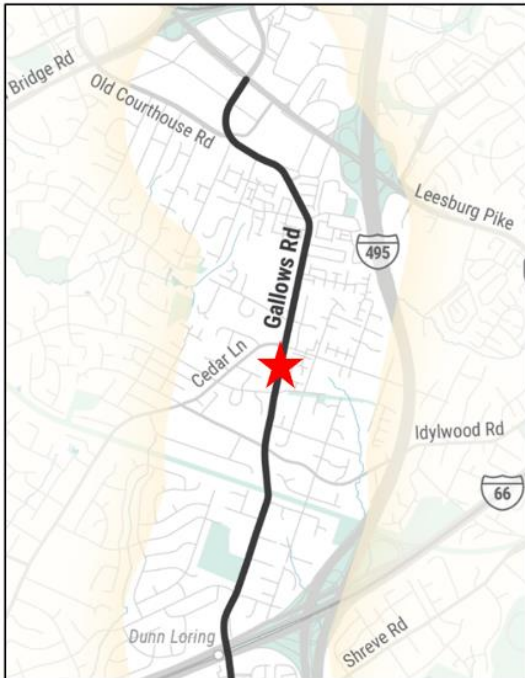


- **Some retail, some residential land uses**
- **High % of trip-making activity**
- **Narrow sidewalks and infrequent pedestrian crossings**
- **No continuous protected bicycle facility**
- **A few systemic safety “at-risk” locations**
- **Moderate transit ridership and basic bus stop amenities**

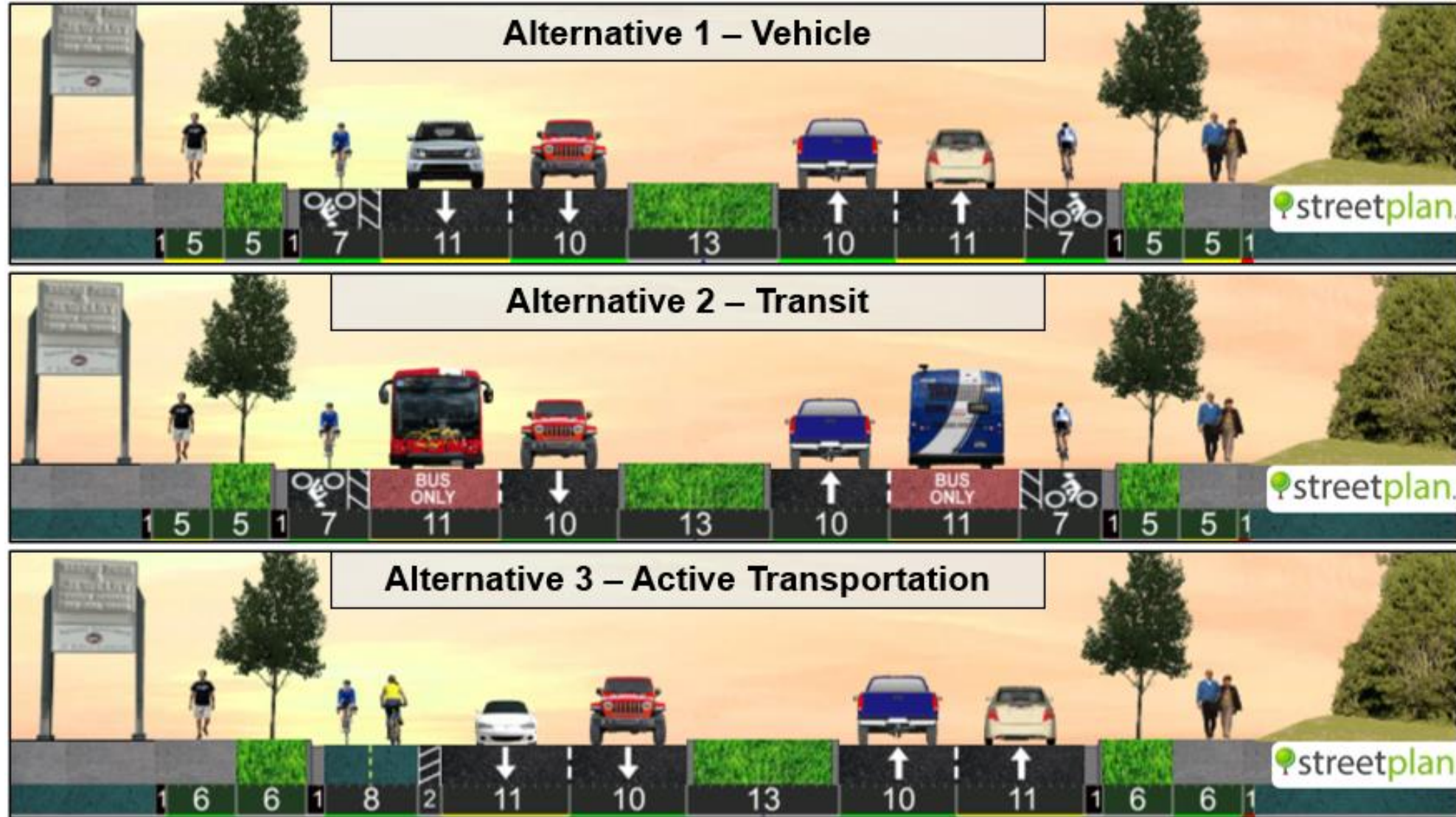




Future Alternatives – Cross Sections

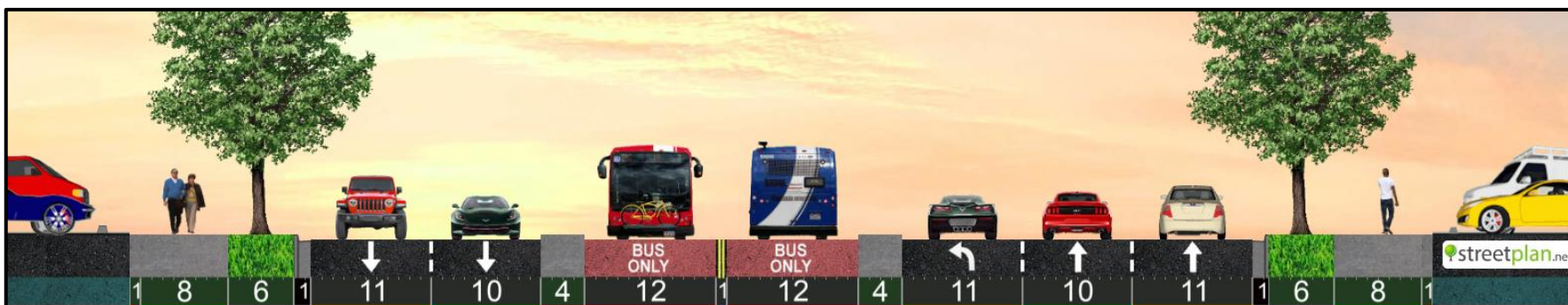
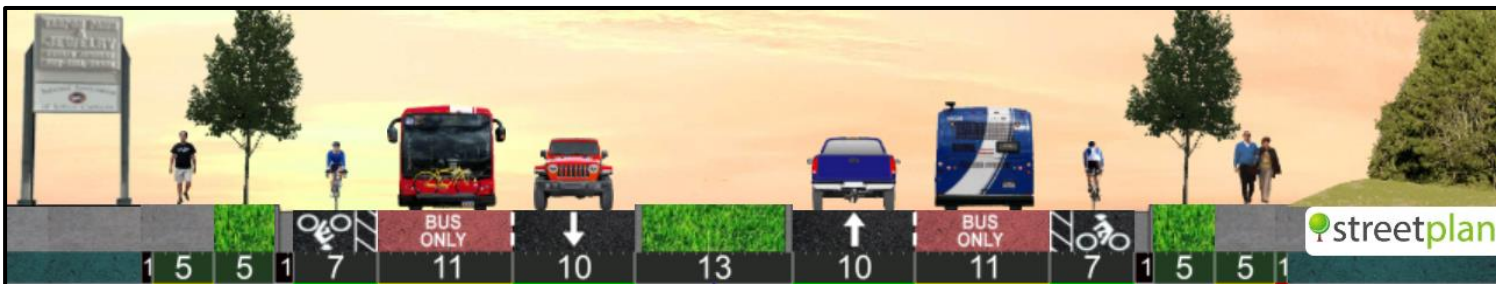


Location: Between Cedar Lane and Electric Avenue

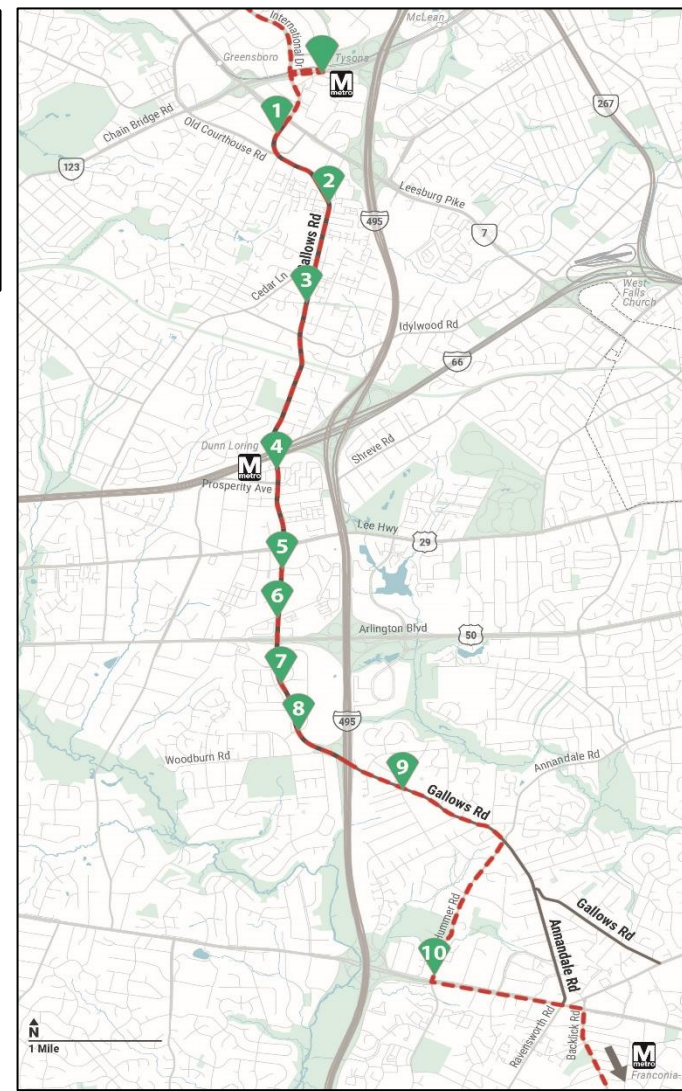




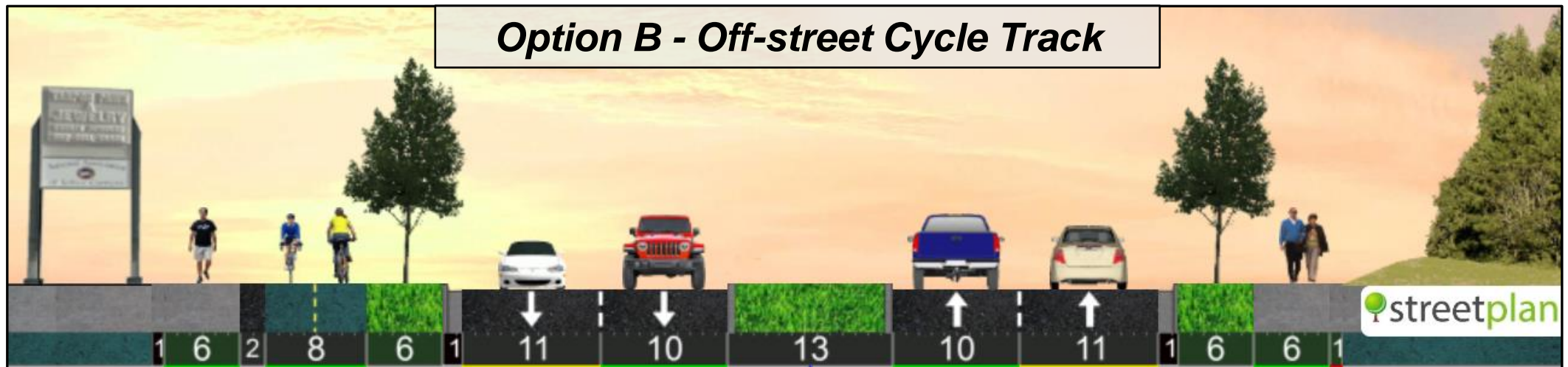
Alternative 2 – Proposed Transit (BRT) Stations



- | | |
|--------------------------------------|--|
| 1. Fletcher St Station (Route 7 BRT) | 6. Gatehouse / Yorktowne Plaza |
| 2. Quantum Dr / Merry Oaks Ln | 7. Anderson Dr / Peterson Discovery Dr |
| 3. Electric Ave / Railroad St | 8. INOVA |
| 4. Dunn Loring Metro | 9. Holmes Run Rec Center / Brightview |
| 5. Mosaic District | 10. Little River Turnpike |



*BRT follows the 401/402 bus alignment from Tysons West Park Transit Station to Franconia-Springfield Metro Station



Location: Between Cedar Lane and Electric Avenue



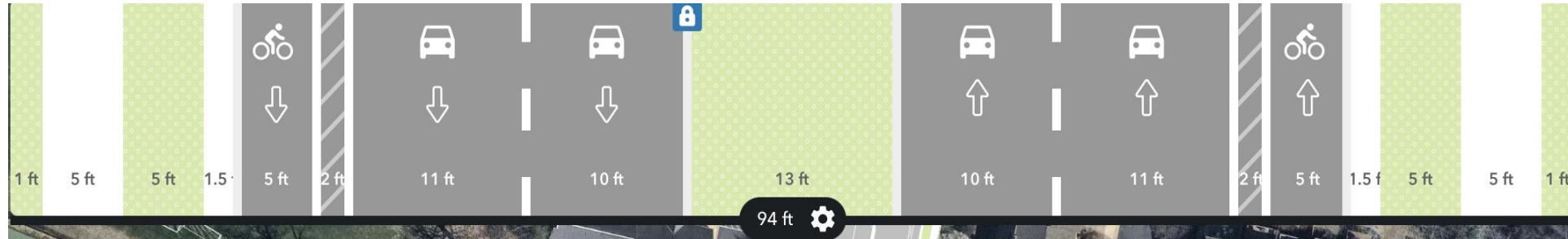
ALTERNATIVES COMPARISON



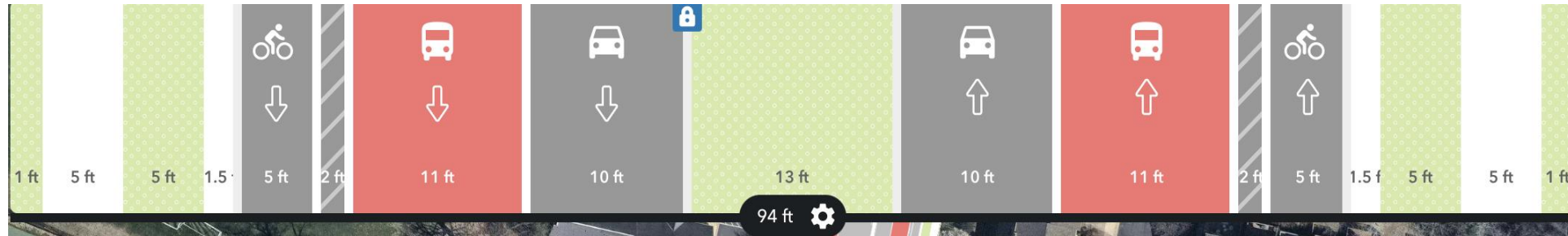
Cross Sections – Northern Segment

Location: Between Cedar Lane and Electric Avenue

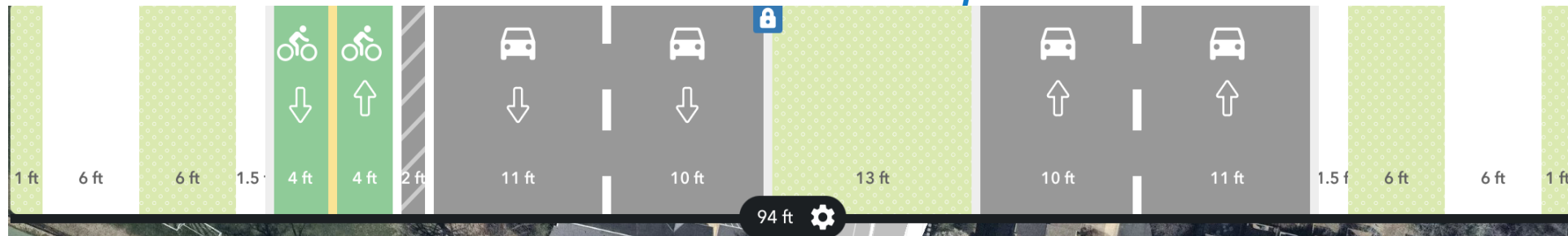
Alternative 1 - Vehicle



Alternative 2 - Transit



Alternative 3 – Active Transportation



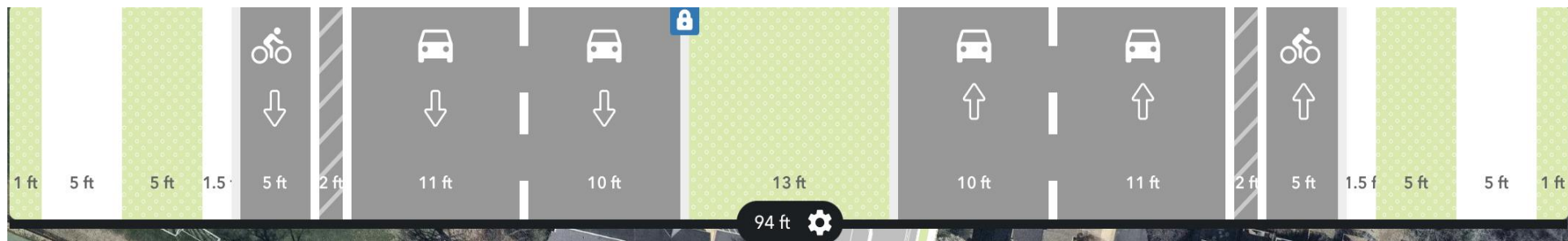


Pros

- + Reduces congestion at several intersections
- + Widens/completes sidewalks where there is sufficient right-of-way
- + Incorporates traffic calming features (e.g., narrower lanes)

Cons

- Does not substantially improve the pedestrian level of comfort
- Does not provide a low-stress bicycle facility along the entire corridor (although there are low-stress parallel routes)
- Fewer safety counter measures compared to Alternatives 2 and 3



Location: Between Cedar Lane and Electric Avenue

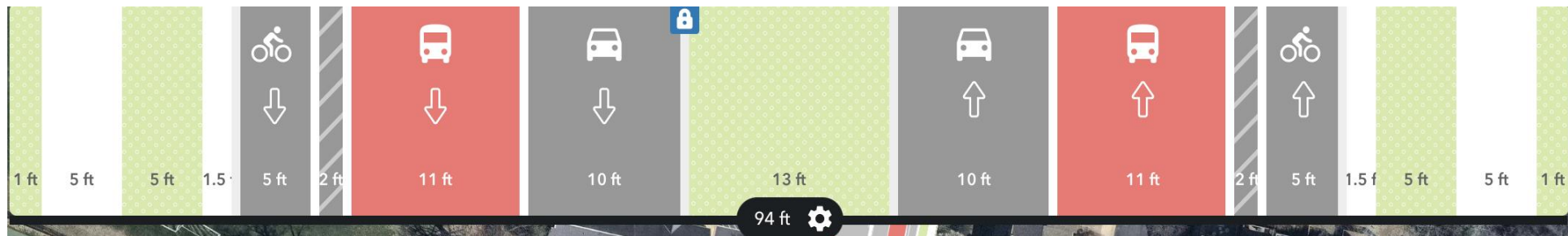


Pros

- + Provides a pathway for fast, reliable bus travel along Gallows Road; supports BRT operations
- + Reduces vehicle travel demand overall by providing a reliable alternative to driving for some
- + Increases ridership along the corridor by 10%
- + Adds safety countermeasures, particularly at intersections and near BRT stations

Cons

- Because of lower vehicle capacity, there is more congestion compared to the other alternatives
- No dedicated bike lanes along the entire corridor



Location: Between Cedar Lane and Electric Avenue



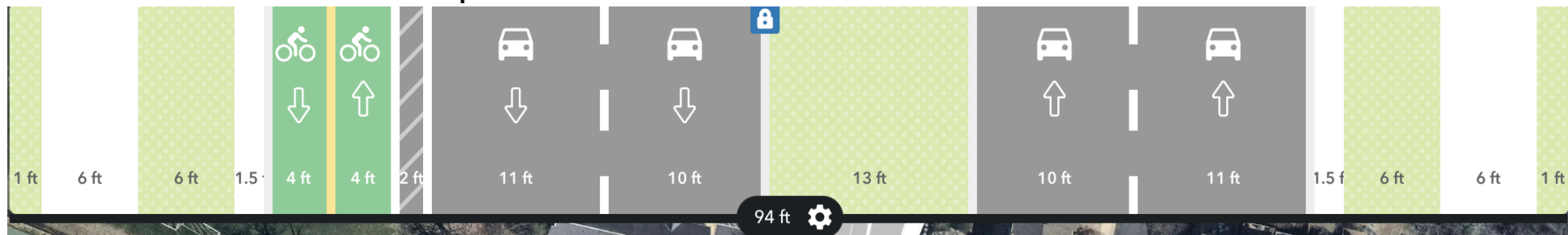
Alternative 3 - Active Transportation

Pros

- + Provides an all-ages and abilities bicycle facility for nearly the entire corridor
- + Improves pedestrian level of comfort with wider sidewalks and landscape buffers
- + Adds numerous safety countermeasures at intersections and along the corridor
- + Better facilitates active transportation and slightly reduces the number of vehicle trips

Cons

- Reduced vehicle capacity leads to substantially more peak period vehicle congestion compared to baseline and Alternative 1
- Traffic congestion will reduce existing transit speed and reliability



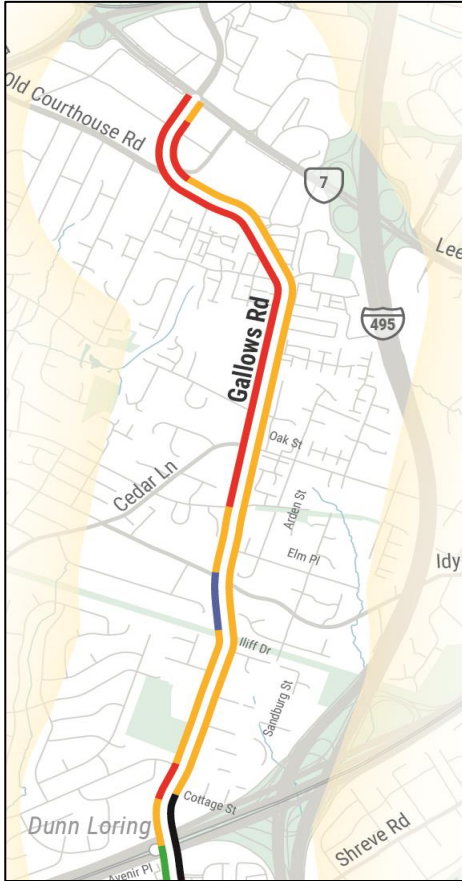
Location: Between Cedar Lane and Electric Avenue



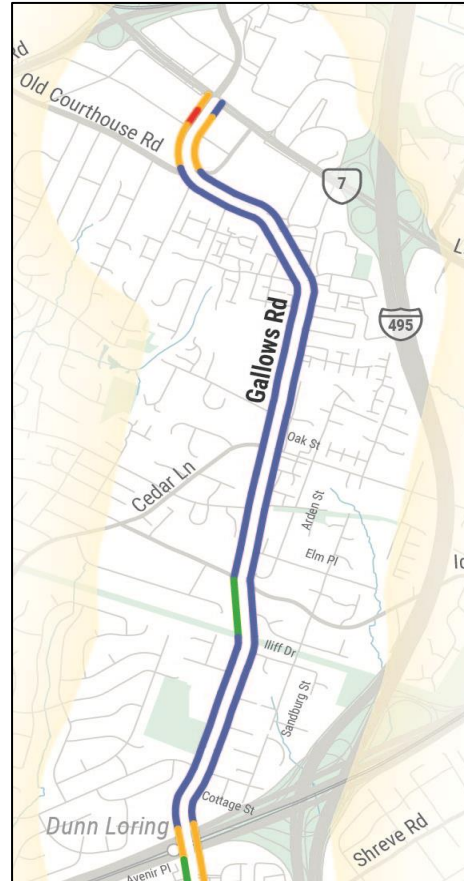
PEDESTRIAN ASSESSMENT



Baseline



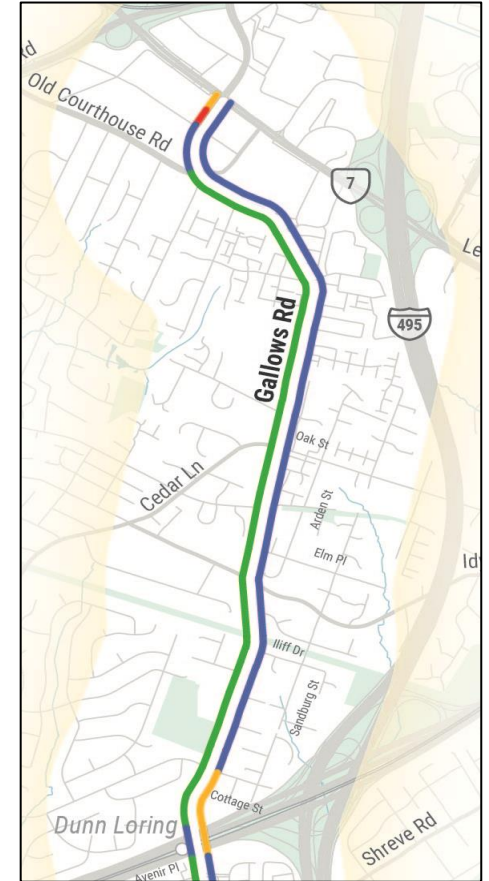
Alternative 1 – Vehicle



Alternative 2 – Transit



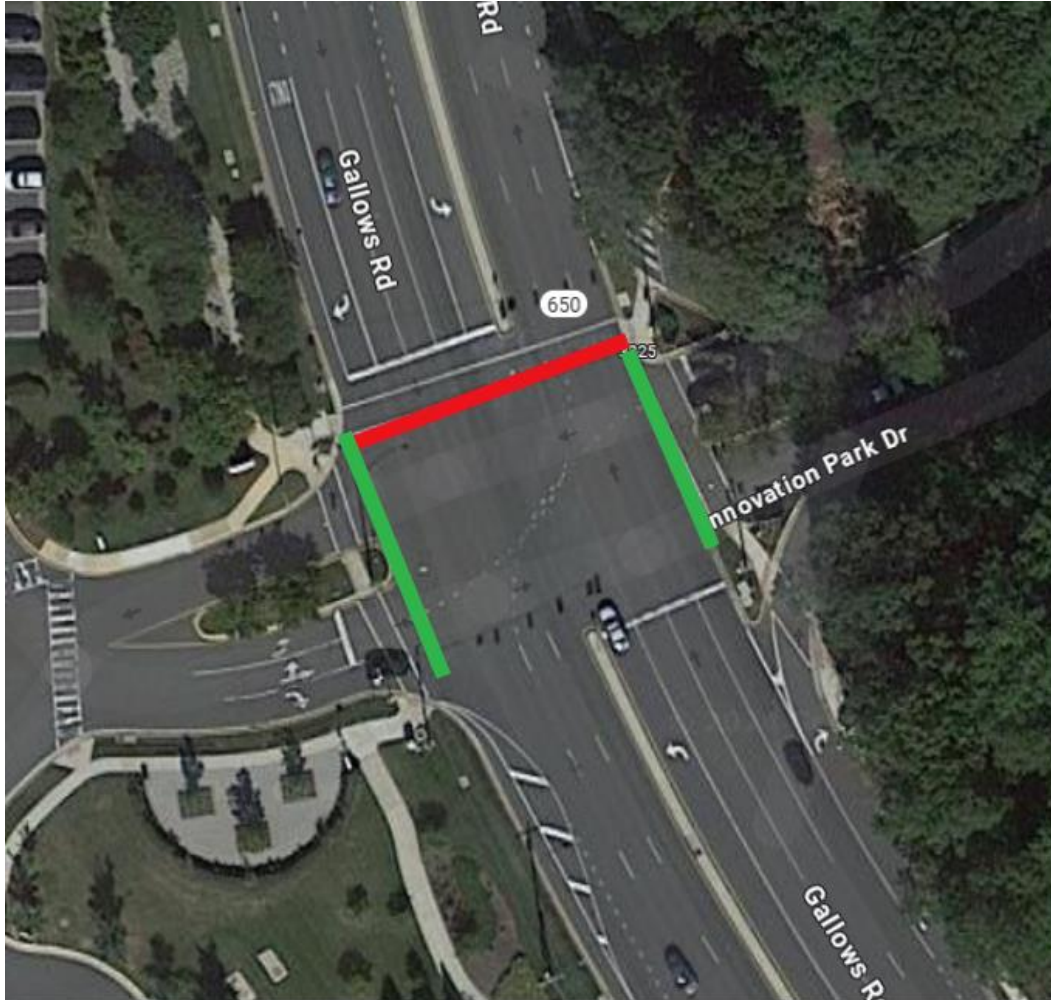
Alternative 3 – Active





Pedestrian Crossing Score Example 1

Gallows Road & Innovation Park Drive



Pedestrian Crossing Score



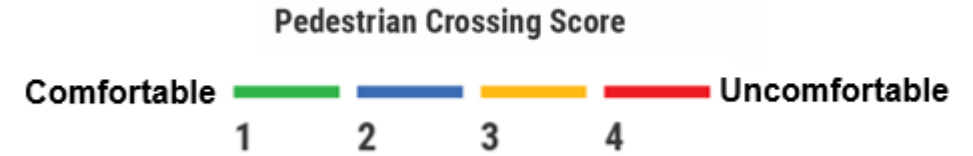
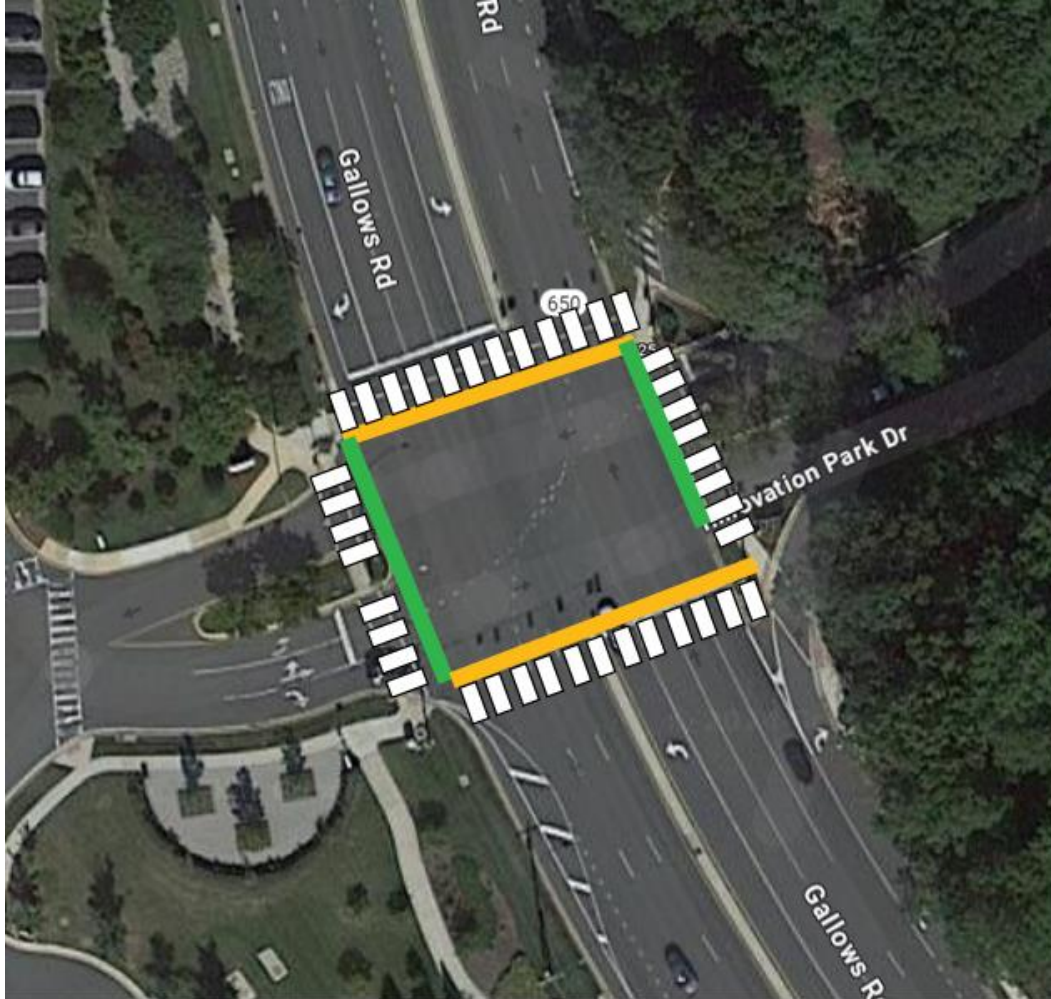
Existing Conditions and Baseline

- Side street crossings - **PLOC 1: most comfortable**
- Gallows Road north leg - **PLOC 4: uncomfortable**
- Gallows Road south leg – **No crosswalk**



Pedestrian Crossing Score Example 2

Gallows Road & Innovation Park Drive



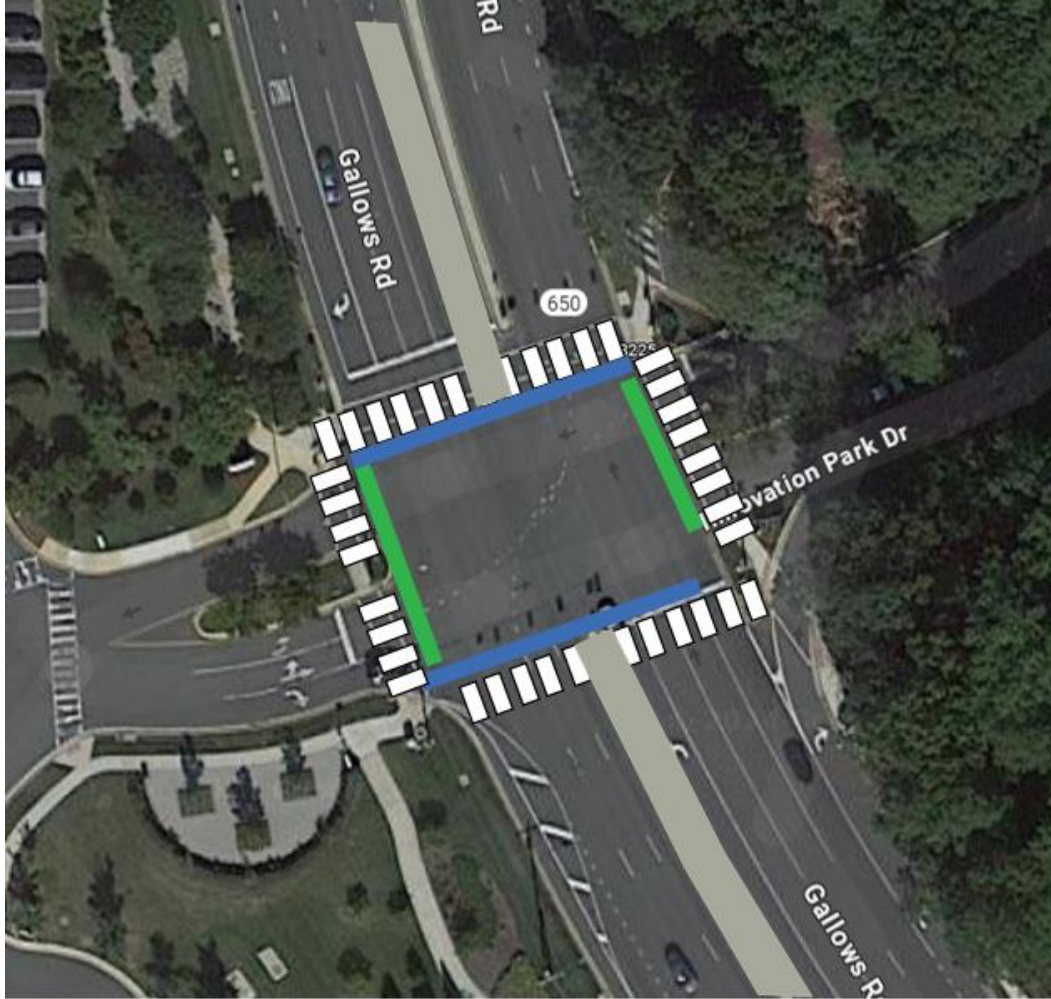
Alternative 1 (Vehicle) & 2 (Transit)

- Add south leg crosswalk and upgrade all crosswalks to high-visibility
- Gallows Road crossings - **PLOC 3: somewhat comfortable**



Pedestrian Crossing Score Example 3

Gallows Road & Innovation Park Drive



Pedestrian Crossing Score

Comfortable 1 2 3 4 Uncomfortable

Alternative 3 (Active Transportation)

- All improvements from Alternatives 1 & 2, and install pedestrian refuge islands on Gallows Road
- Gallows Road crossings - **PLOC 2: comfortable**



BICYCLE ASSESSMENT

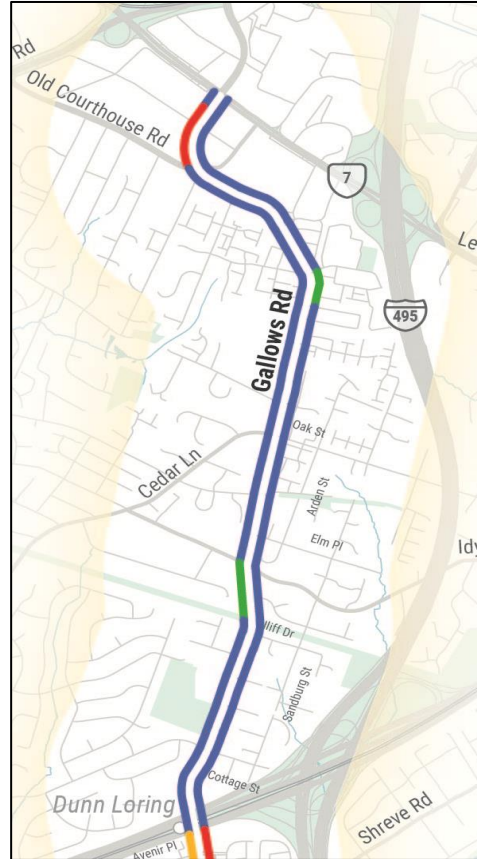


Bicyclist Level of Traffic Stress

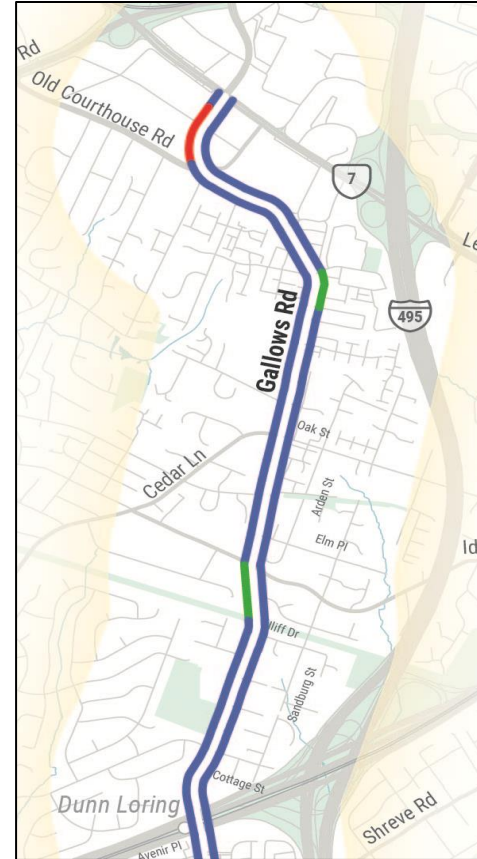
Baseline



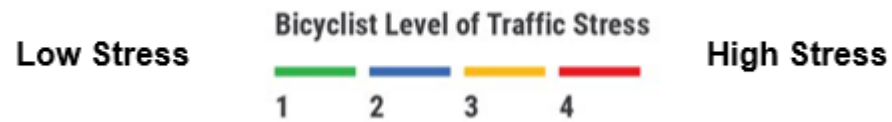
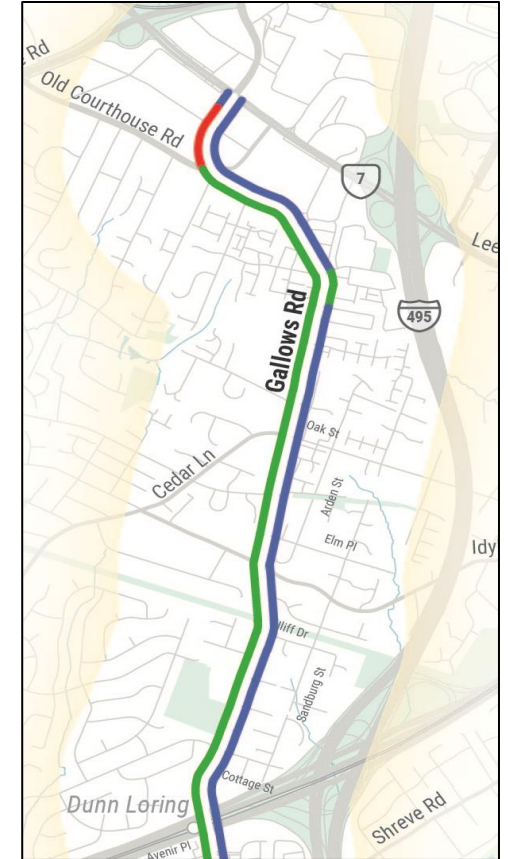
Alternative 1 – Vehicle



Alternative 2 – Transit



Alternative 3 – Active

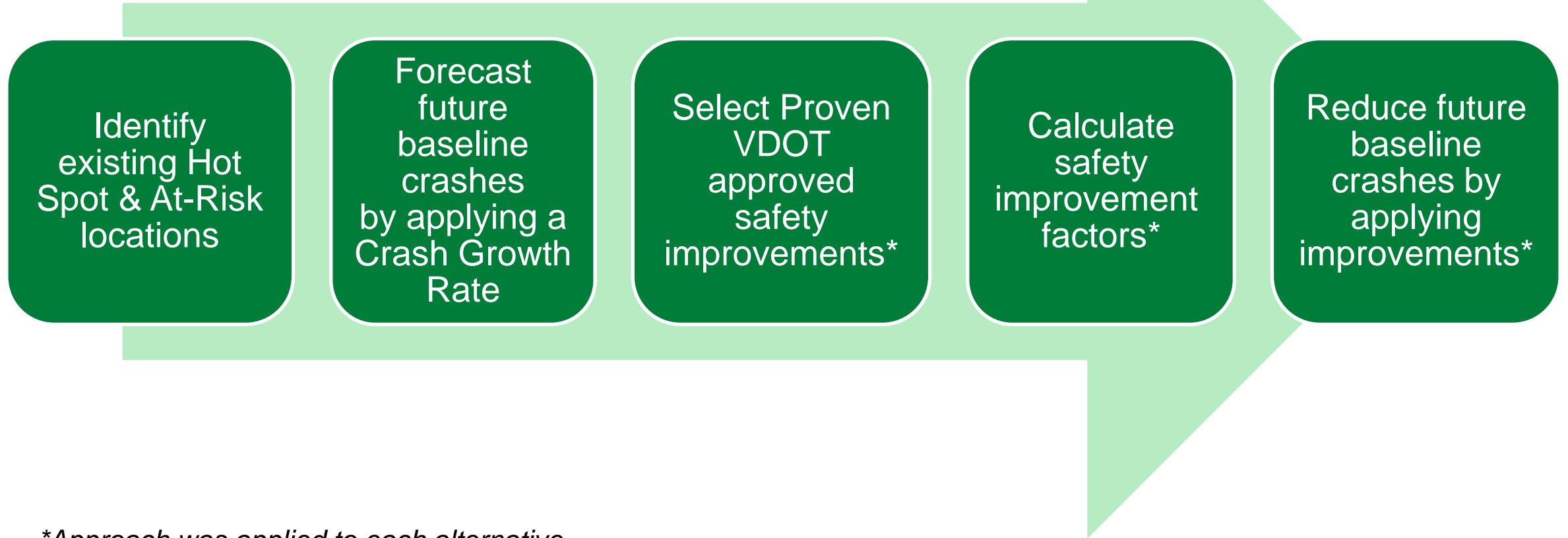




SAFETY ASSESSMENT



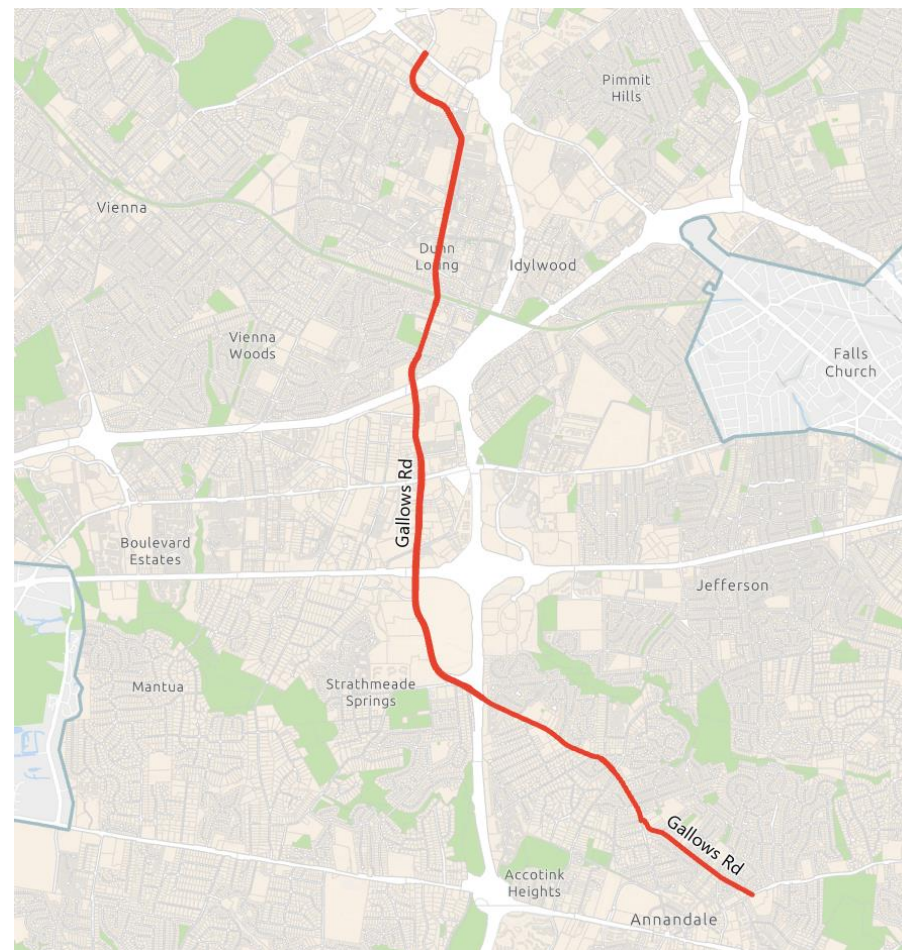
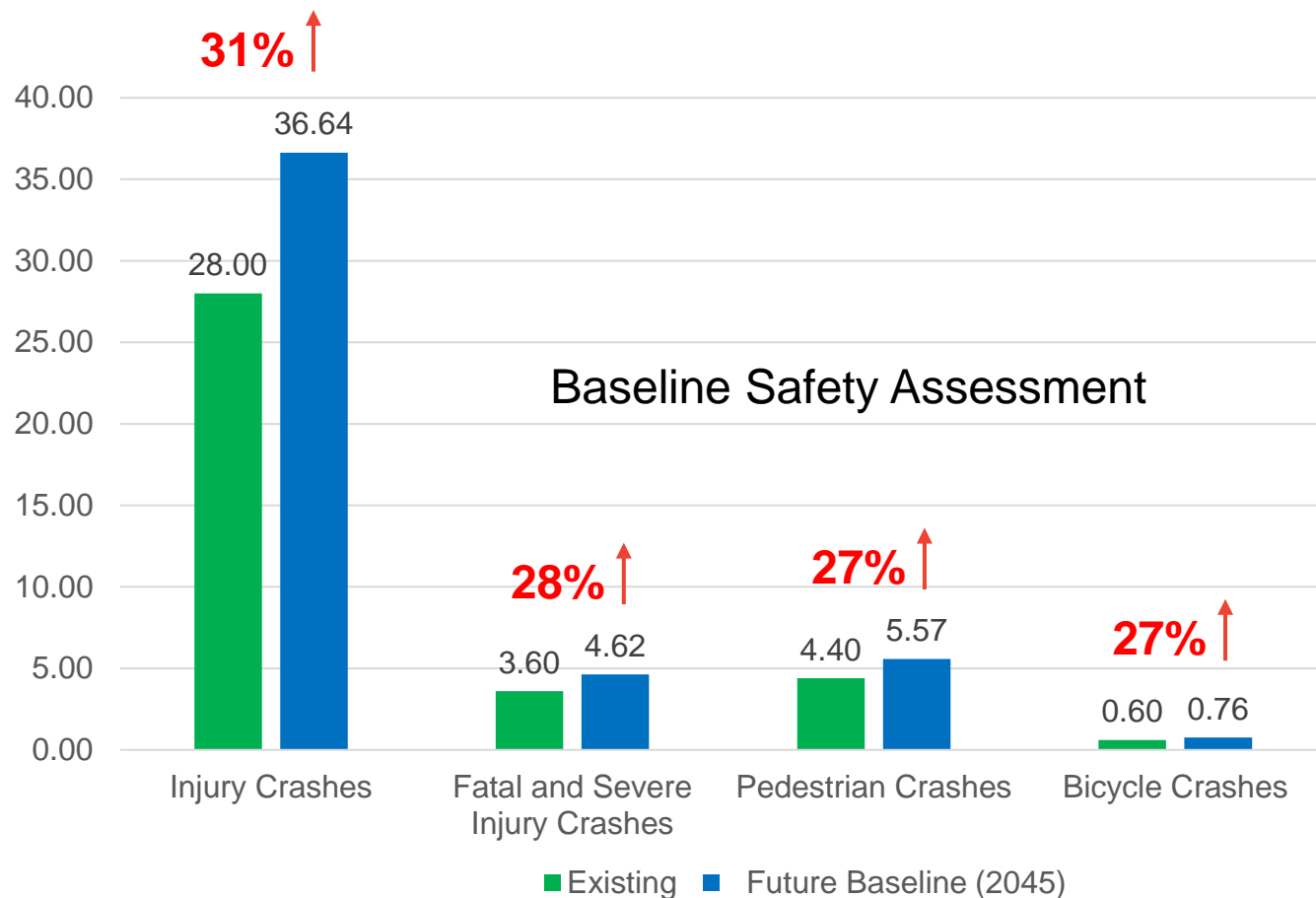
Approach for Hot Spot & At-Risk Locations



**Approach was applied to each alternative*



Corridor Wide Hot Spot and At-Risk Location Crashes





VDOT Approved Safety Improvements



Red Light Camera - 37%



Road Diet - 14% to 29%



Leading Pedestrian Interval (LPI) - 17%



High Visibility Crosswalk - 40%



Rectangular Rapid Flashing Beacon (RRFB) - 47%



Protected Left Turn - 99%



Pedestrian Hybrid Beacon (PHB) - 57%



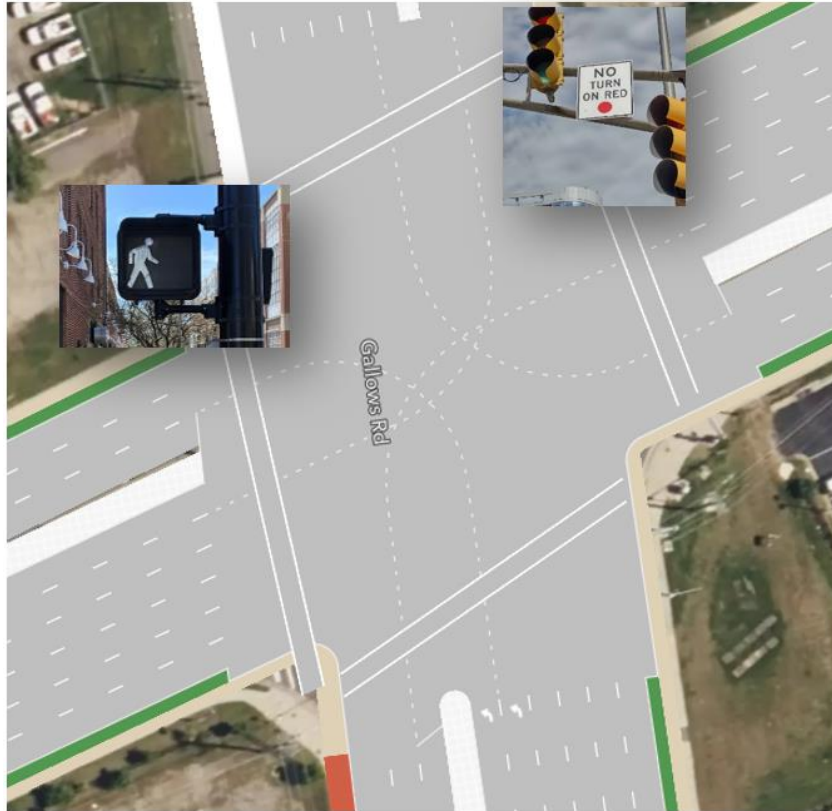
Prohibiting Right-Turn-on-Red - 8%

- Percentages indicate a reduction in the number of applicable crashes when improvement is applied.
- Applied Across Various Segments & Alternatives



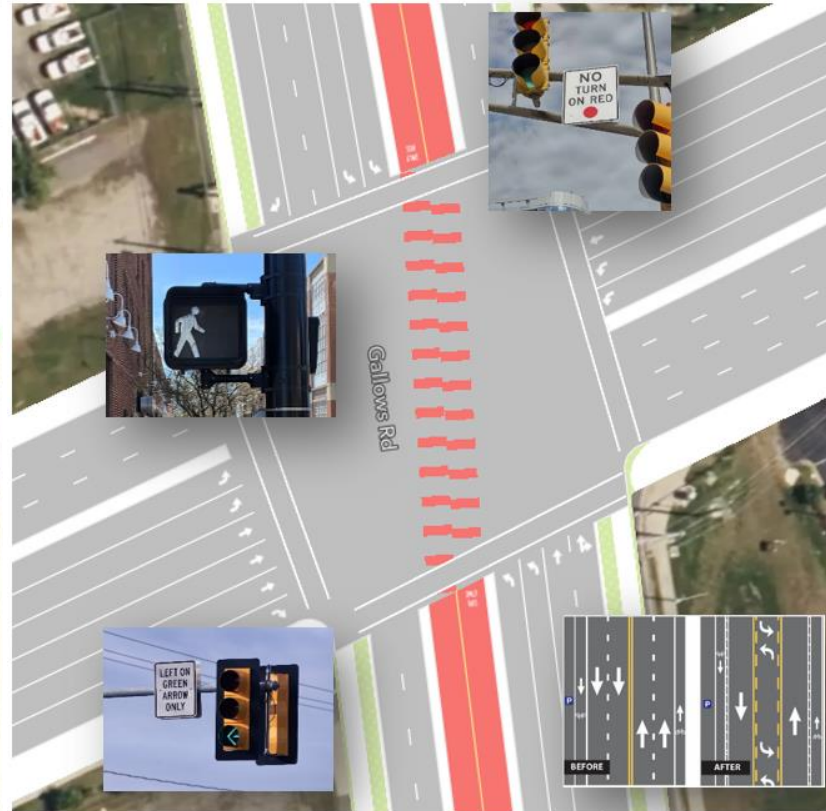
Example: Gallows Rd and Route 29

Alternative 1 – Vehicle



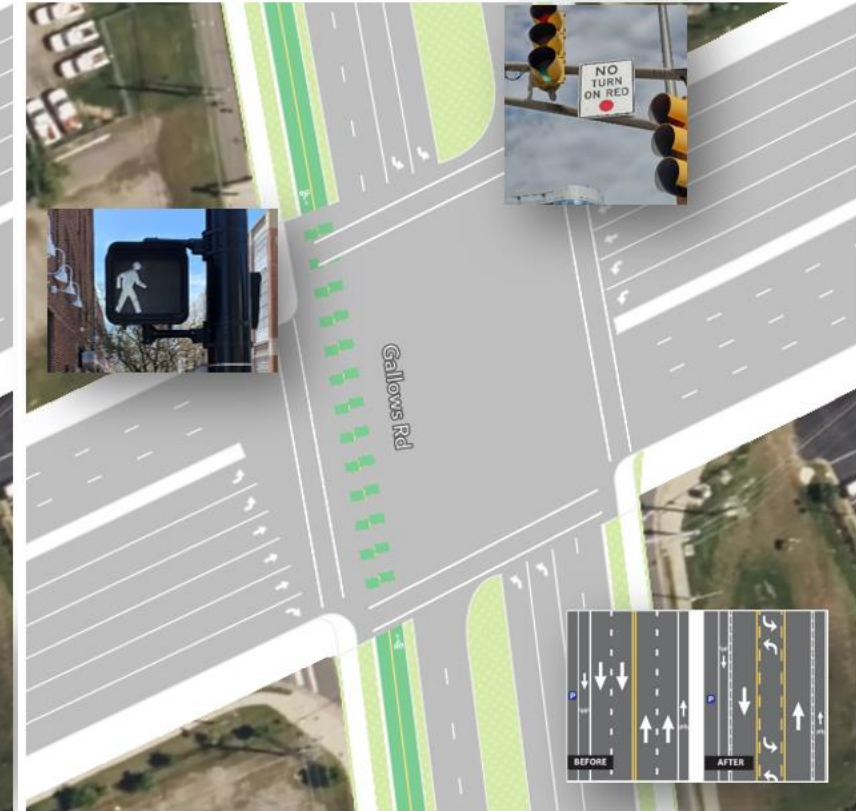
- Prohibit right-turn-on red (8%)
- Implement a leading pedestrian interval (17%)

Alternative 2 – Transit



- Prohibit right-turn-on red (8%)
- Implement a leading pedestrian interval (17%)
- Change left turn from permitted to protected (99%)
- Implement Road Diet (BRT Lanes) (14%)

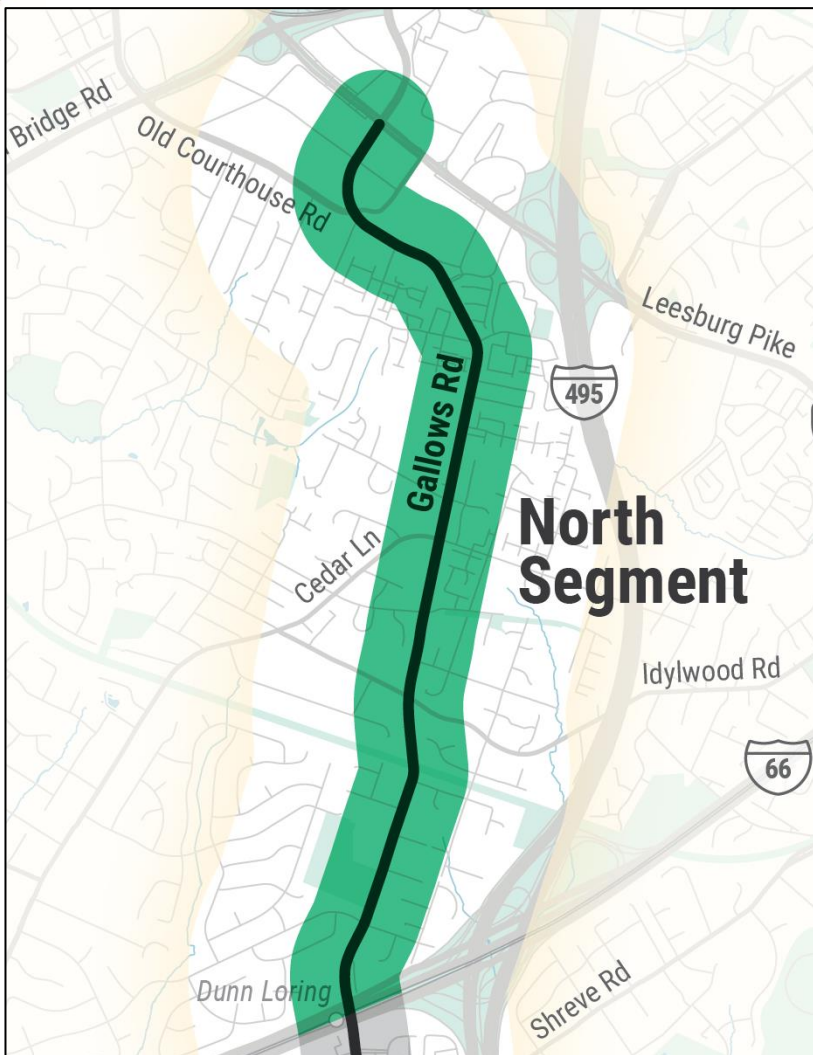
Alternative 3 – Active Transportation



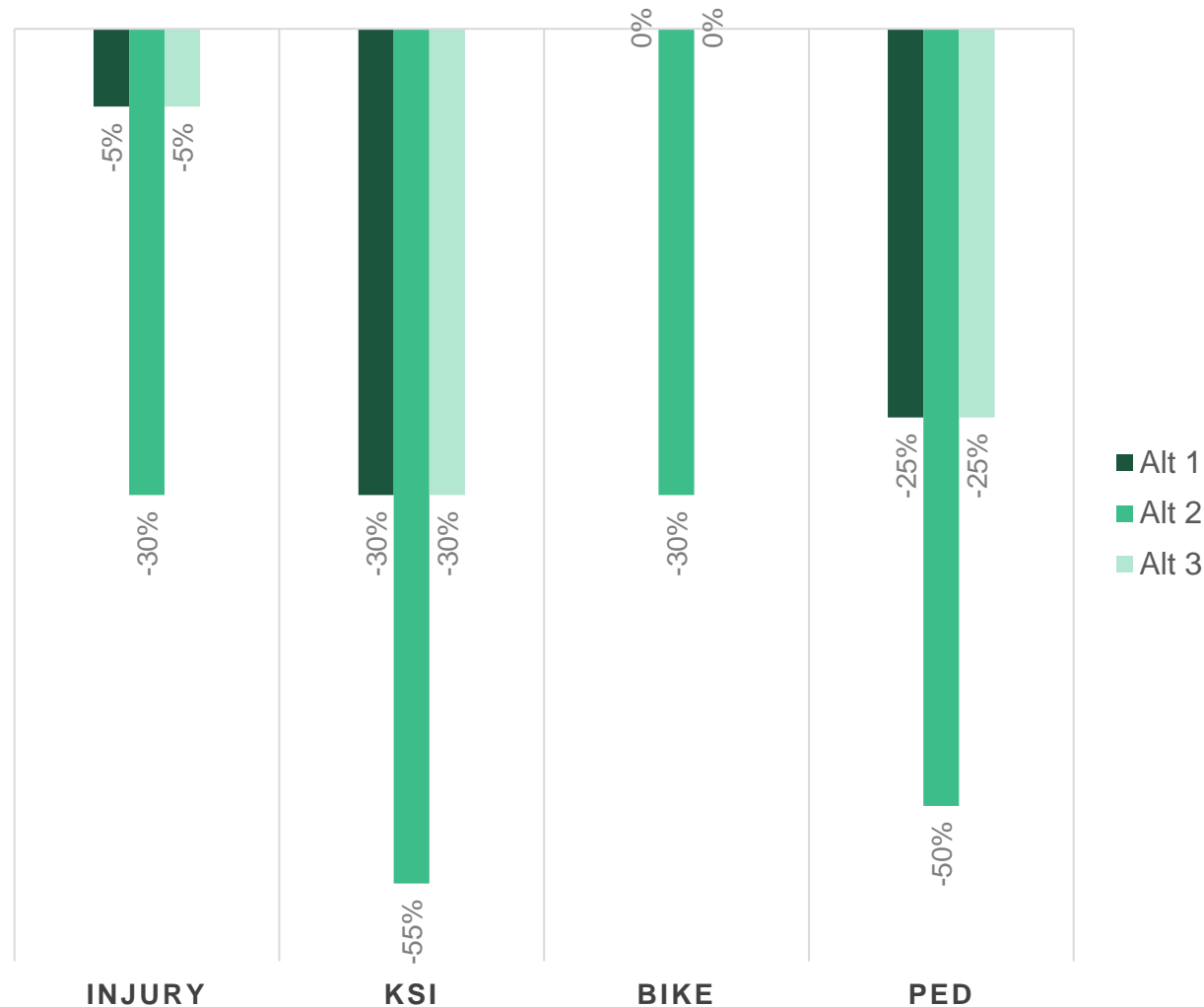
- Prohibit right-turn-on red (8%)
- Implement a leading pedestrian interval (17%)
- Implement Road Diet (29%)



Crash Reductions at Hot Spot and At-Risk Intersections



Future Baseline (2045) = 0%

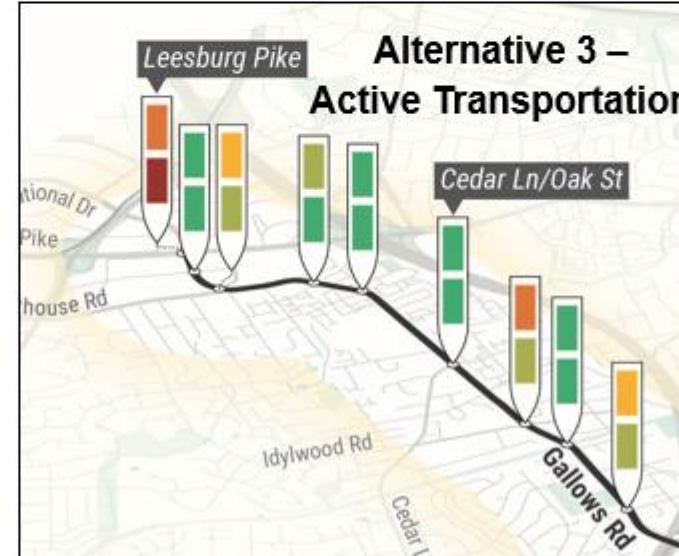
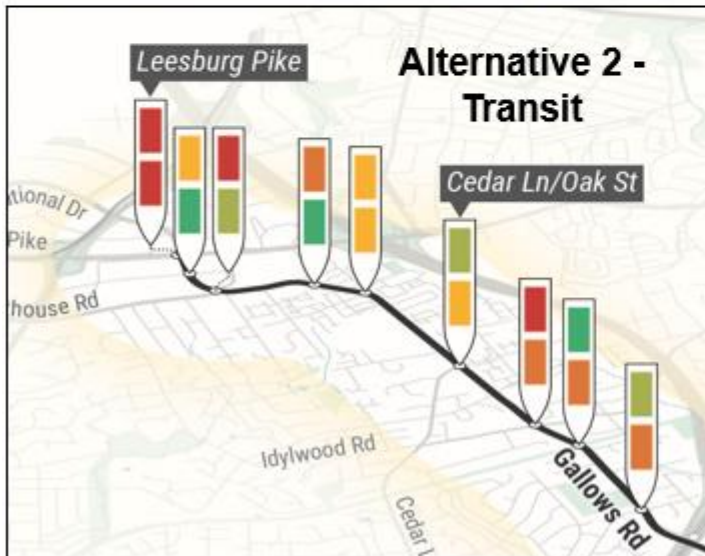
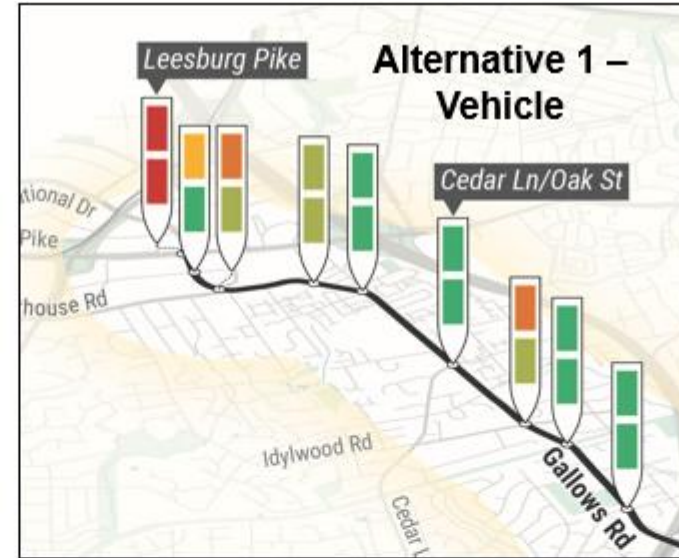
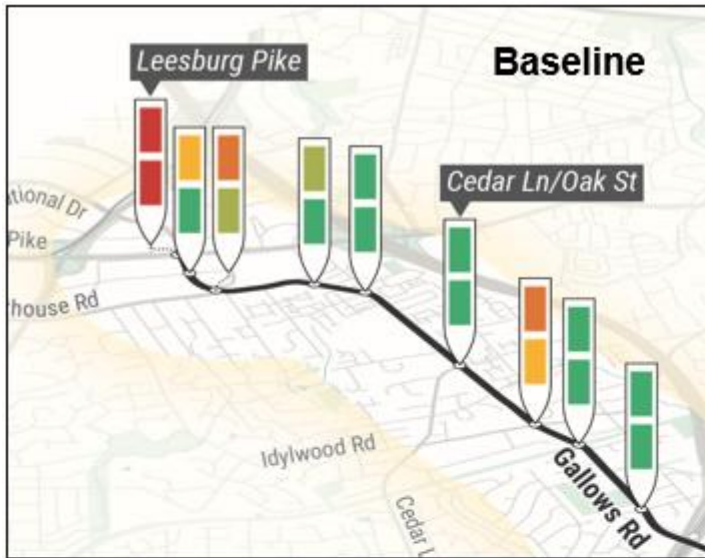




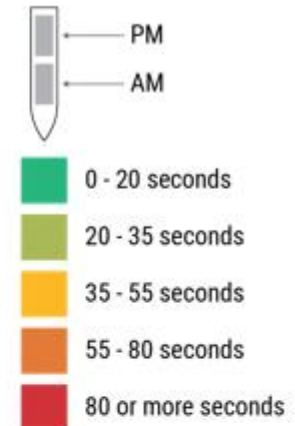
VEHICLE ASSESSMENT



Vehicle Delays



Seconds of delay at intersection

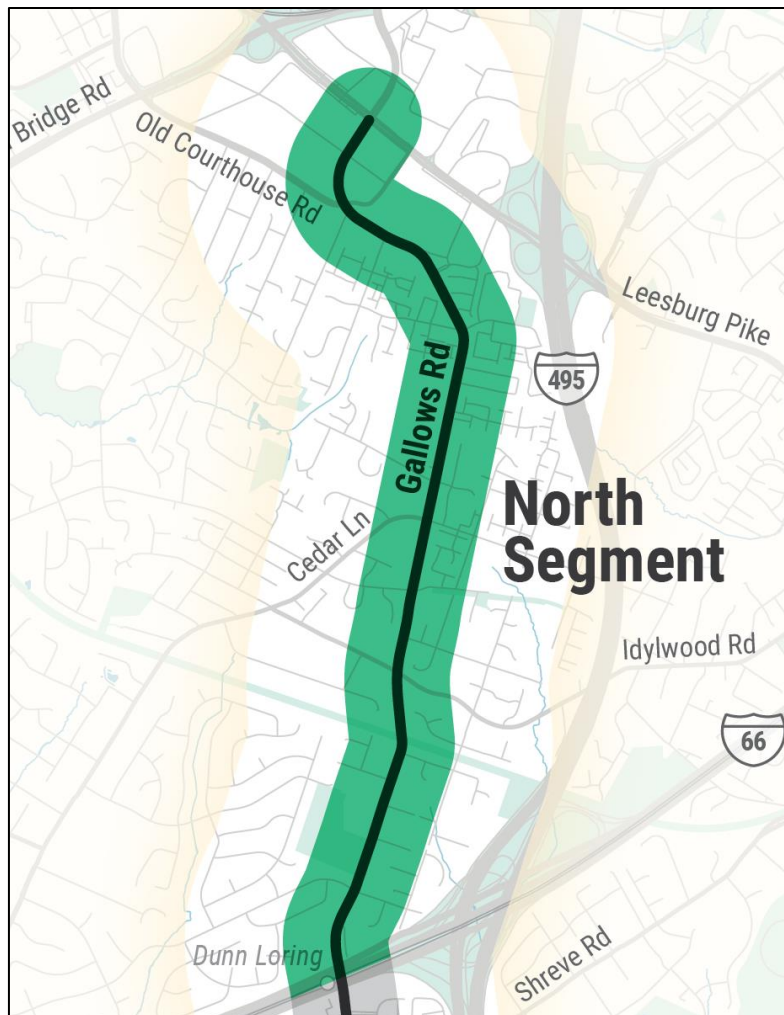


Alternatives 2 & 3

- Reduced demand with reduced capacity
- Traffic dispersion to nearby roads and freeways



Vehicle Travel Times



AM Peak Period

Scenario	Northbound	Southbound
Existing	6 min 45 sec	5 min 12 sec
Future Baseline	6 min 47 sec	5 min 24 sec
Alternative 1 - Vehicle	↑ 7 sec	0 sec
Alternative 2 - Transit	↑ 2 min 46 sec	↑ 19 sec
Alternative 3 - Active Transportation	↑ 4 sec	↑ 20 sec























































PM Peak Period

Scenario	Northbound	Southbound
Existing	7 min 24 sec	6 min 10 sec
Future Baseline	8 min 4 sec	7 min 3 sec
Alternative 1 - Vehicle	↑ 9 sec	↑ 2 sec
Alternative 2 - Transit	↑ 53 sec	↑ 4 min 31 sec
Alternative 3 - Active Transportation	↓ 9 sec	↑ 2 min 44 sec



ALTERNATIVES EVALUATION



Alternative 1 - Vehicle	  	  	  	  	  	  
Alternative 2 - Transit	  	  	  	  	  	  
Alternative 3 - Active Transportation	  	  	  	  	  	  



Active Transportation Networks



Access to Transit



Equitable Mobility Options



Travel Efficiency and Reliability



Balance Regional vs. Local Needs



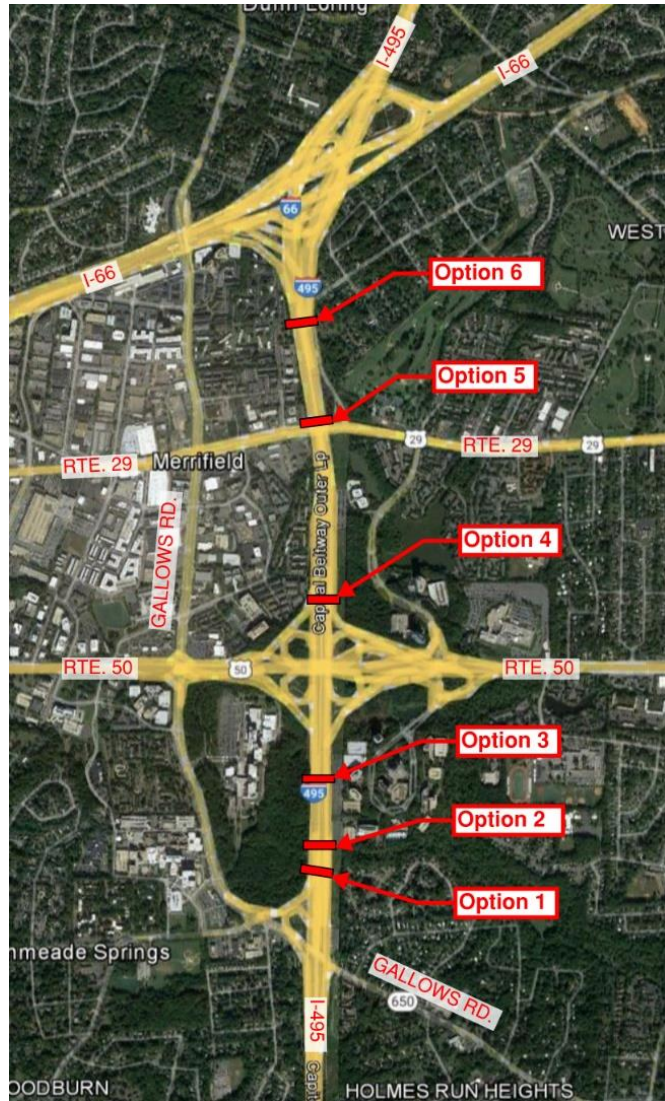
Environment and Heritage Resources



CONNECTIVITY ACROSS THE BELTWAY



Connectivity Across the Beltway Approach



General selection criteria

- Connection points to existing bike lanes and sidewalk facilities
- Avoid or minimize impacts
 - Existing buildings
 - Existing utility infrastructure (overhead signs, transmission towers, power cabinets, etc.)
 - Water features (creeks, wetlands, culverts)
- Adequate space to accommodate grading

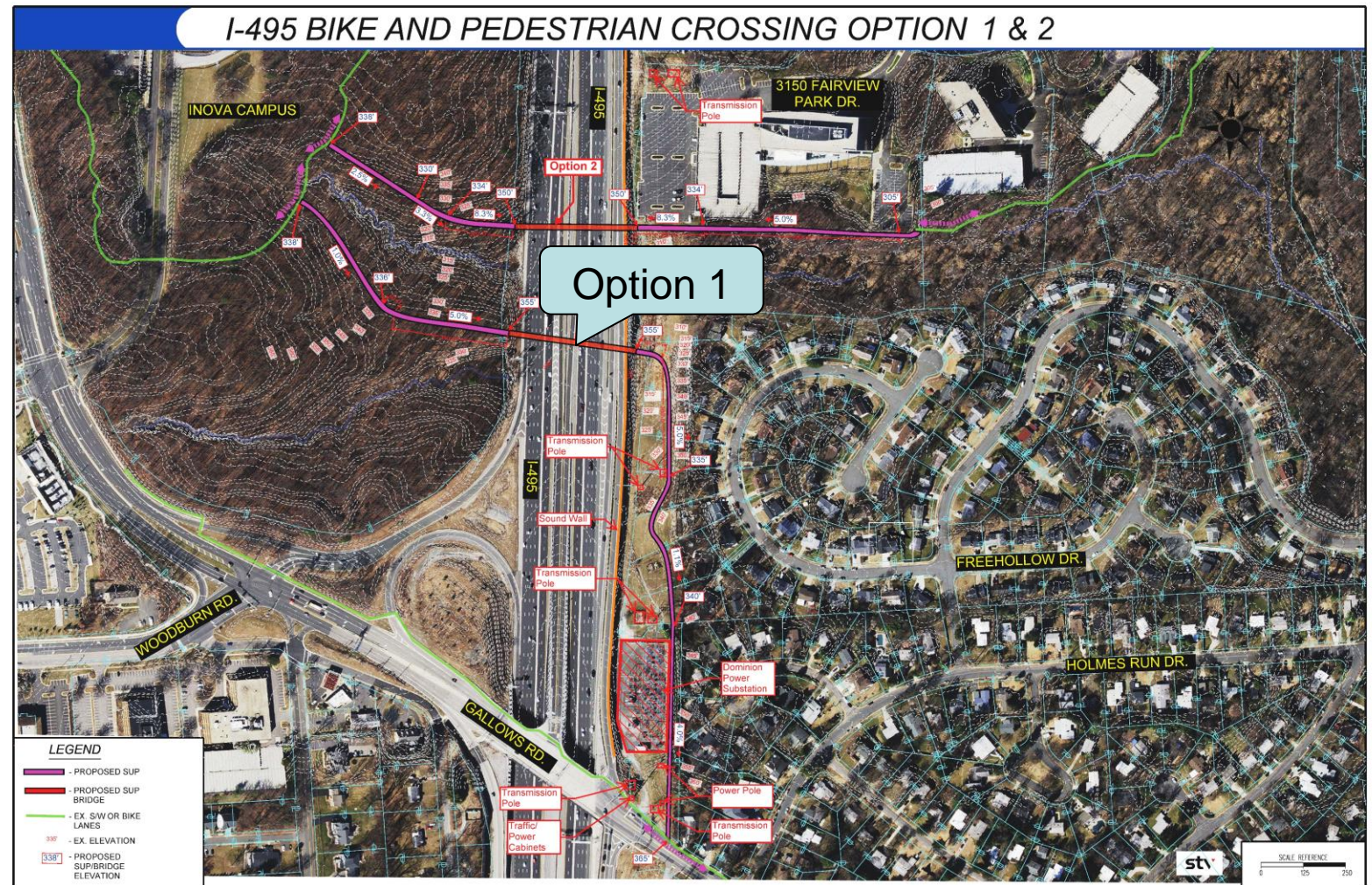


Pros

- + Connect from Inova Center of Personalized Health (ICPH) to Homes Run Community
- + Minimal impacts to stormwater facilities

Cons

- Utility Impacts
 - Substation
 - Easements
 - Overhead power lines
- Long path (~2,711')
- Need retaining walls
- Residential property impacts



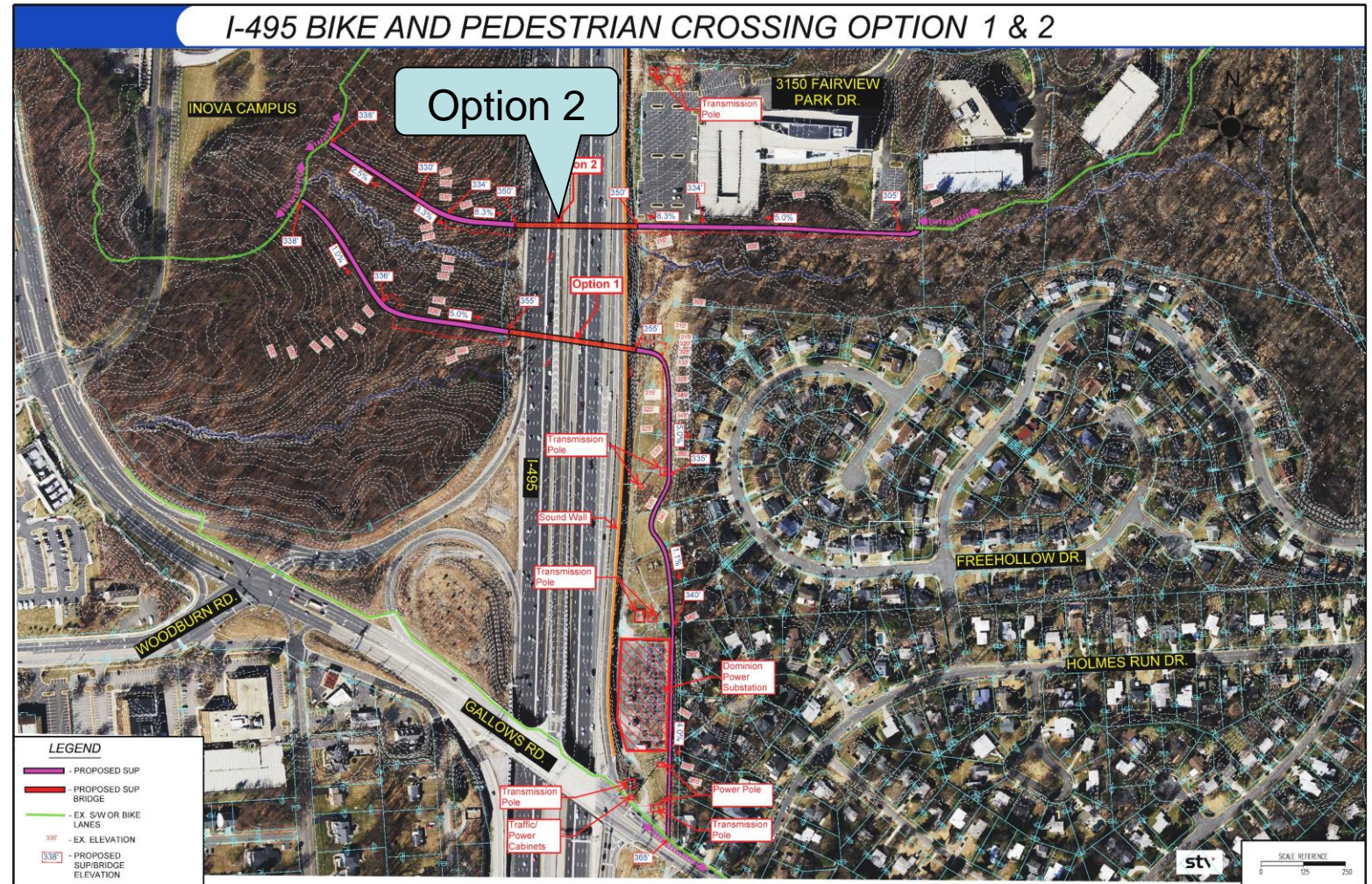


Pros

- + Connecting Fairview Park paths with ICPH
- + Short path (~1,400')

Cons

- Steep grade
- Retaining walls needed
- Fairview Park side constrained with buildings and creek
- Overhead power lines



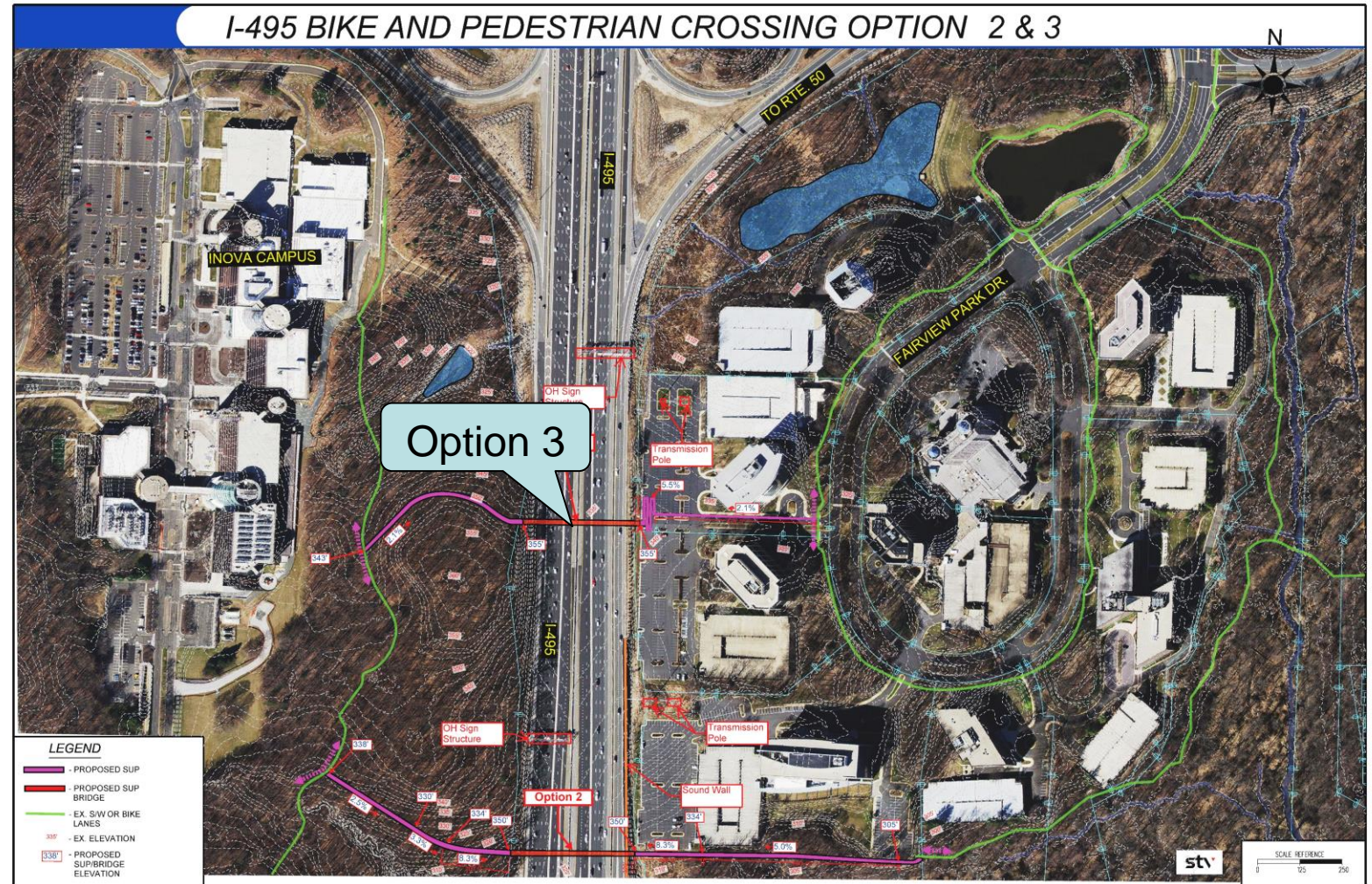


Pros

- + Connecting Fairview Park existing paths with ICPH
- + No sound wall conflict
- + Crossing is more central
- + Access to Route 50

Cons

- Retaining walls impacts
- Office property impacts
- Overhead power lines



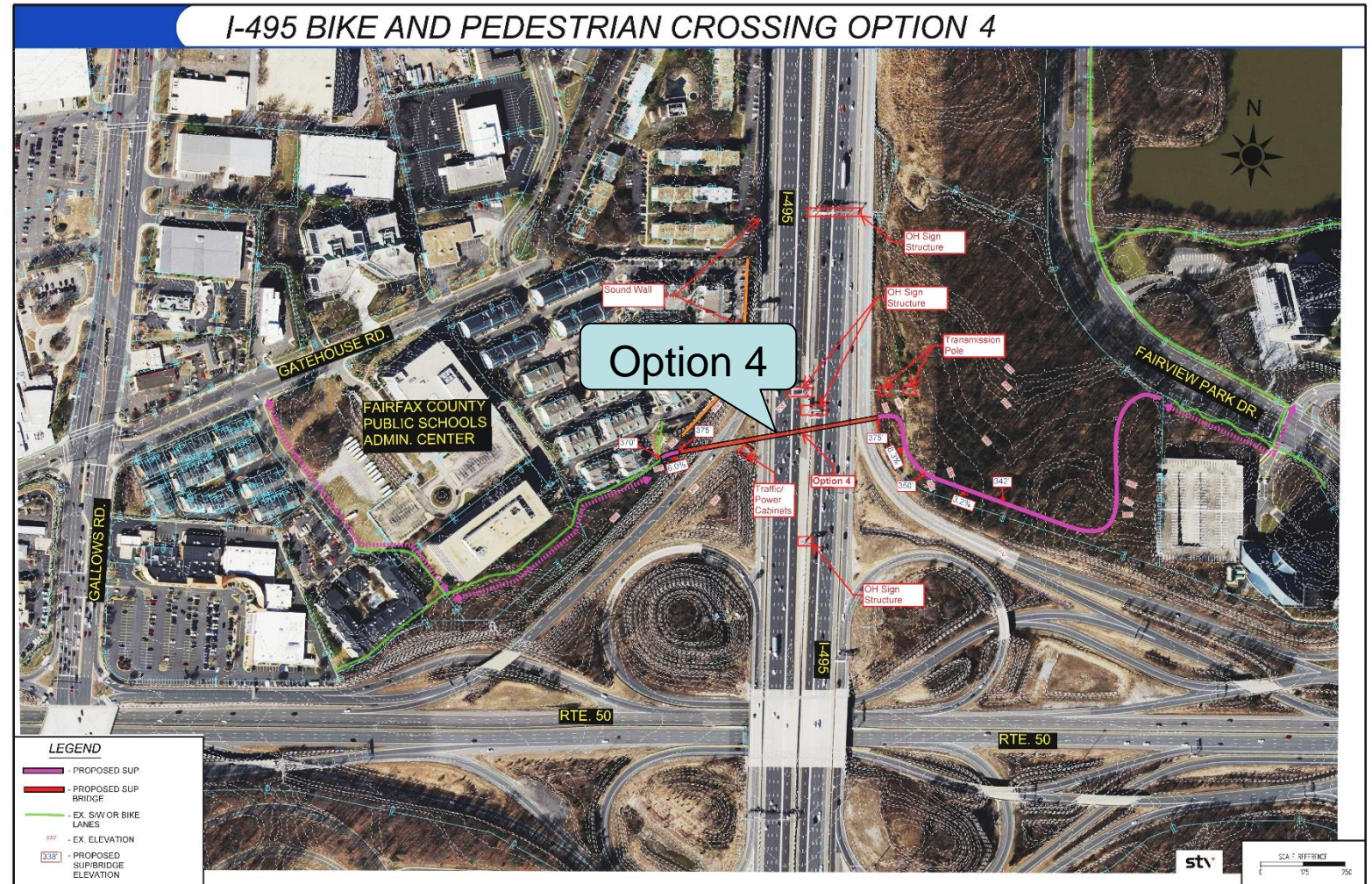


Pros

- + Connecting Fairview Park existing paths to ICPH
- + Connecting residential and retail centers
- + No sound wall conflicts with crossing
- + Crossing is more central
- + Access to Rte.50 or Rte.29
- + Connectivity to planned Rt 50 trail

Cons

- Overhead power lines
- Steep grade and level landing area
- Limited R/W availability on west side
- Longer bridge crossing (~600')
- Substantial improvement to the existing bike/ped connections
- Utility impacts



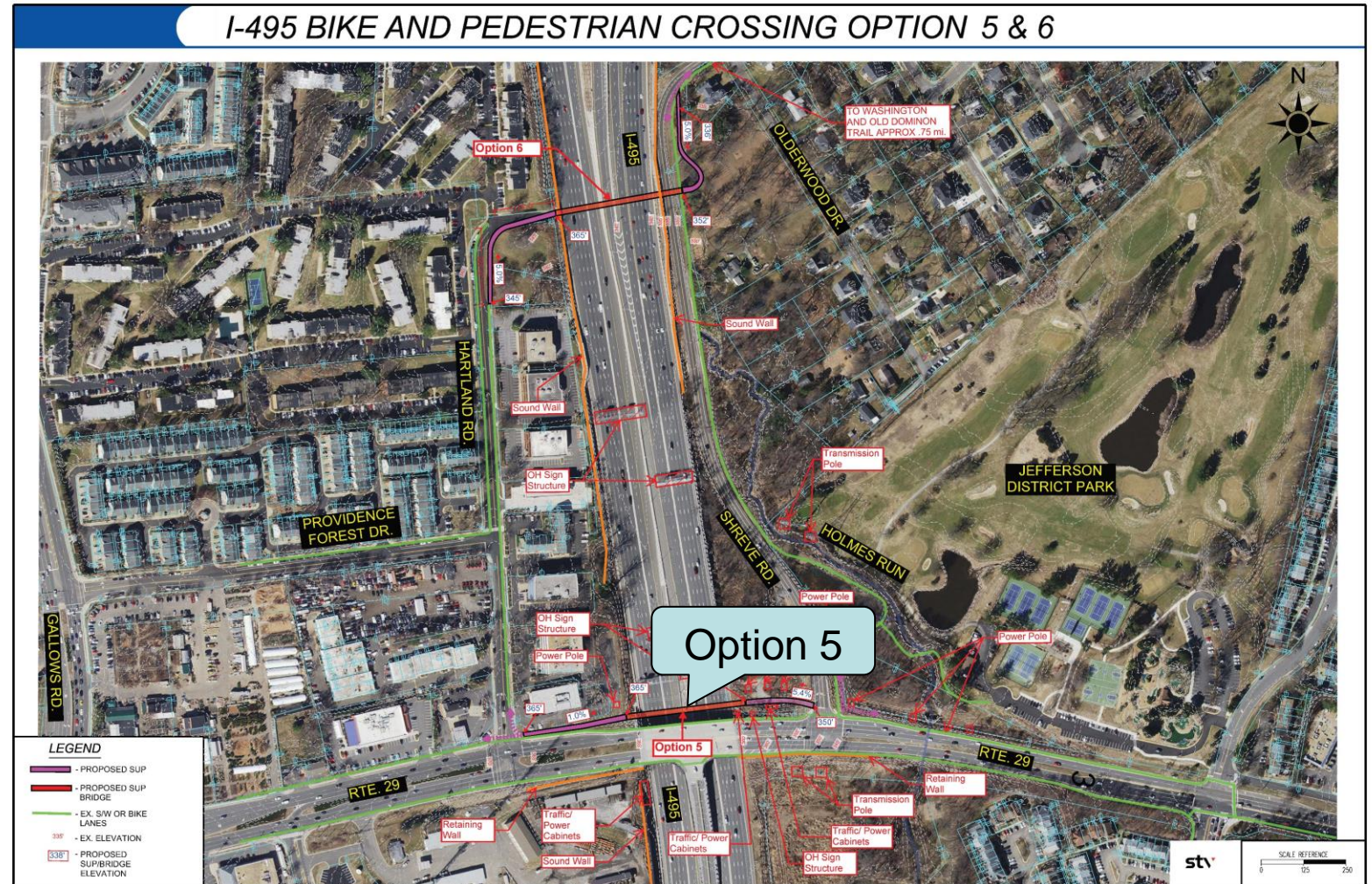


Pros

- + Connecting Rte.29 to existing facilities
- + Connection to W&OD trail
- + No sound wall conflicts
- + Grading matches existing crossing
- + Minimal impacts to water or drainage facilities

Cons

- Utility Impacts
- Limited retaining wall to avoid impacts
- Limited R/W availability on west side



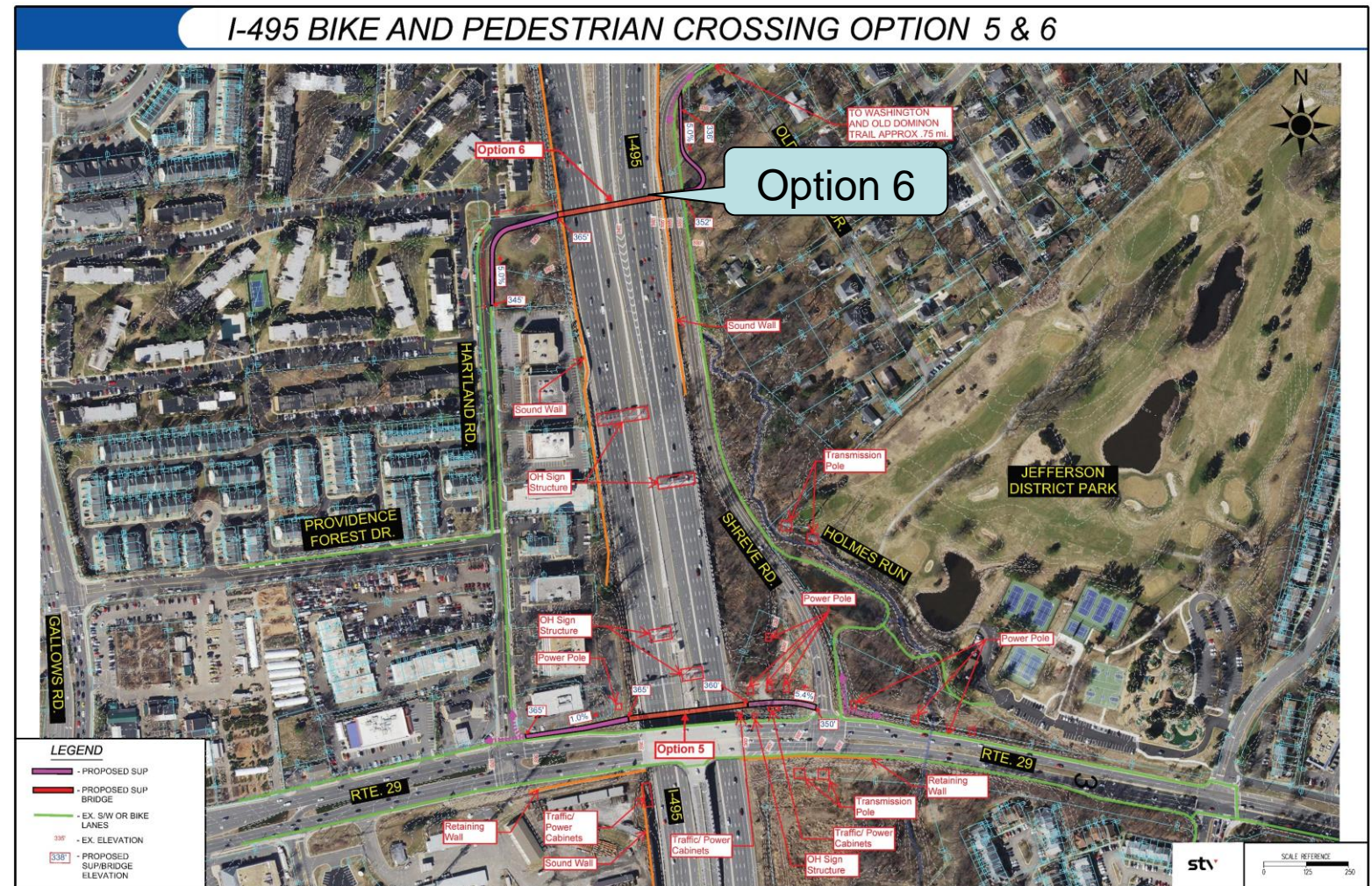


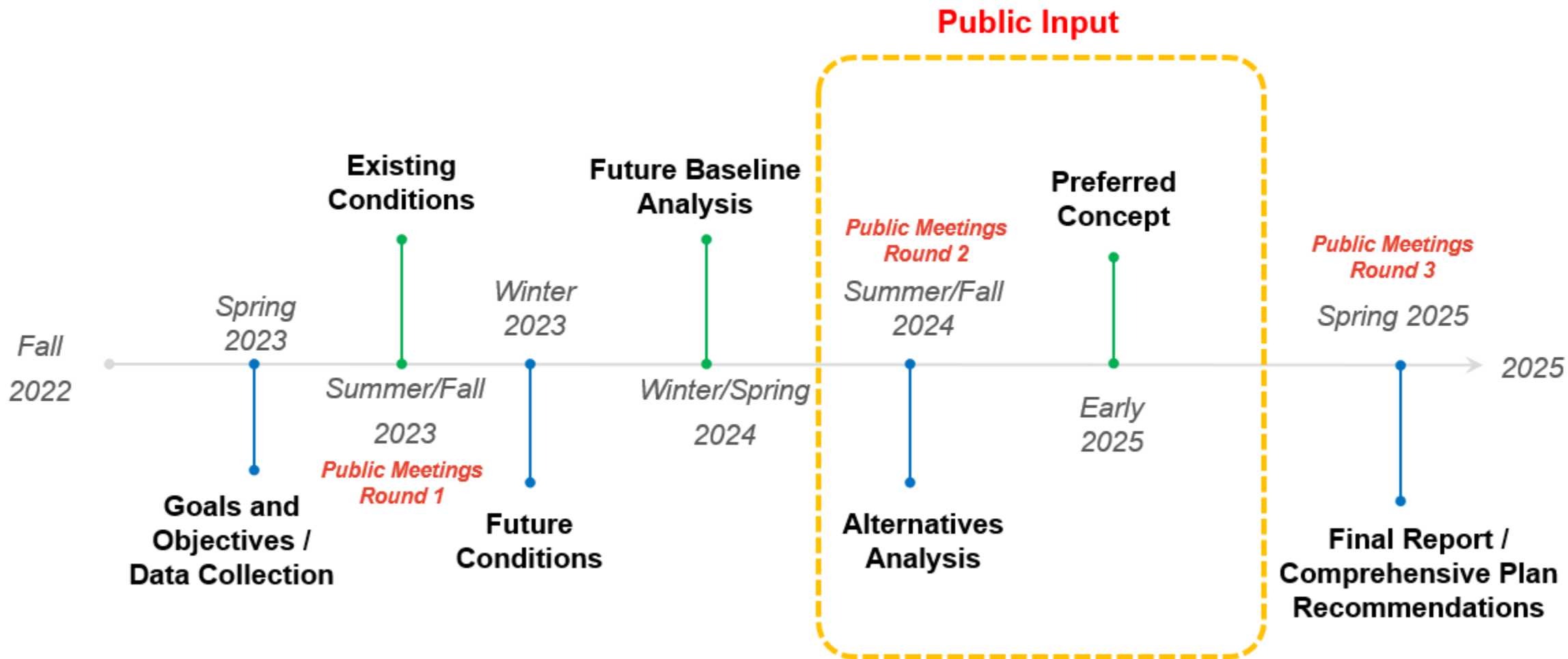
Pros

- + Connectivity Rte.29
- + Connection to W&OD trail
- + Minimal impacts to water or drainage facilities
- + ADA compliant grading

Cons

- Retaining wall to limit grading impacts
- R/W acquisition
- Proximity to existing W&OD trail







Questions/Comments

Visit Our Webpage – Please Provide Feedback

[Gallows Road Study | Transportation \(fairfaxcounty.gov\)](https://www.fairfaxcounty.gov/transportation/gallows-road-study)

Project Survey going live on November 22nd!

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Fairfax, VA 22033

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Goals & Objectives



Active Transportation Networks

Safety improvements, comfortable and accessible facilities



Equitable Mobility Options

Possible circulator and bus-rapid transit routes



Balance Regional vs. Local Needs

Adequate access for local trips and connectivity to the regional transportation network



Access to Transit

Pedestrian access, potential locations for transit centers, better amenities, reliability and convenience of transit service



Travel Efficiency and Reliability

Balance operations by shifting motor vehicle trips to other modes



Environment and Heritage Resources

Avoid and mitigate impacts