



Pedestrian and Bicycle Master Plan Update

Park & Recreation Commission

November 19, 2015



Primary Project Objectives

- Update Pedestrian and Bicycle Chapters of Transportation Master Plan
 - Improve safety for pedestrians and bicyclists
- Develop Complete Streets Design Guidelines
 - Design guidance for staff, developers, and community



Project Schedule





Civic Engagement

- Community Events
- Public Meetings
- Council and Commission Meetings
- Ad Hoc Advisory Committee (8 meetings)
- Technical Advisory Committee
- Over 800 comments through online interactive map, survey and project website





What We've Heard and Response

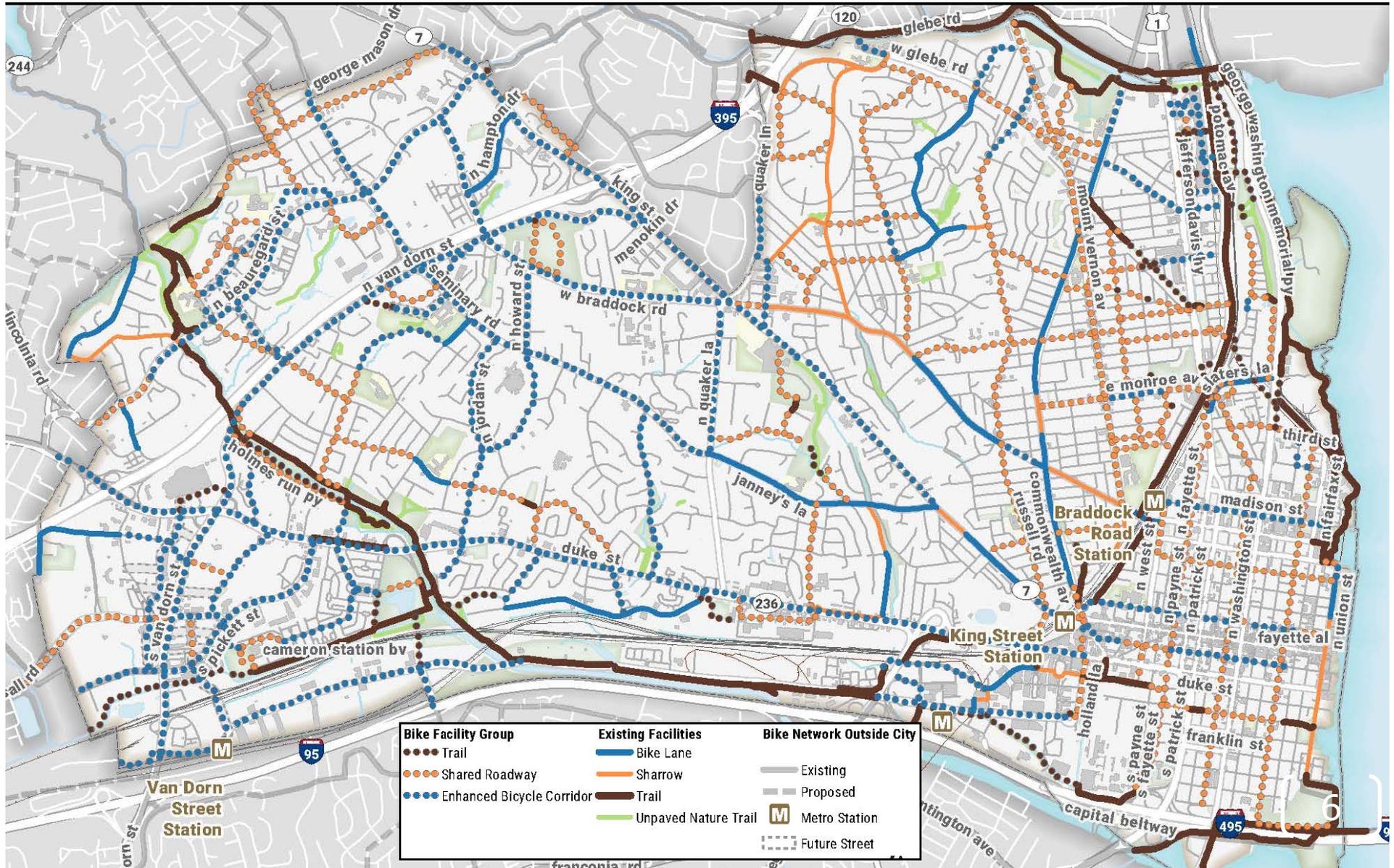
Key themes:

- Improve maintenance
- More education and outreach
- Reduce conflicts between pedestrians and bicyclists
- Provide Complete Streets
- Need for protected bike facilities

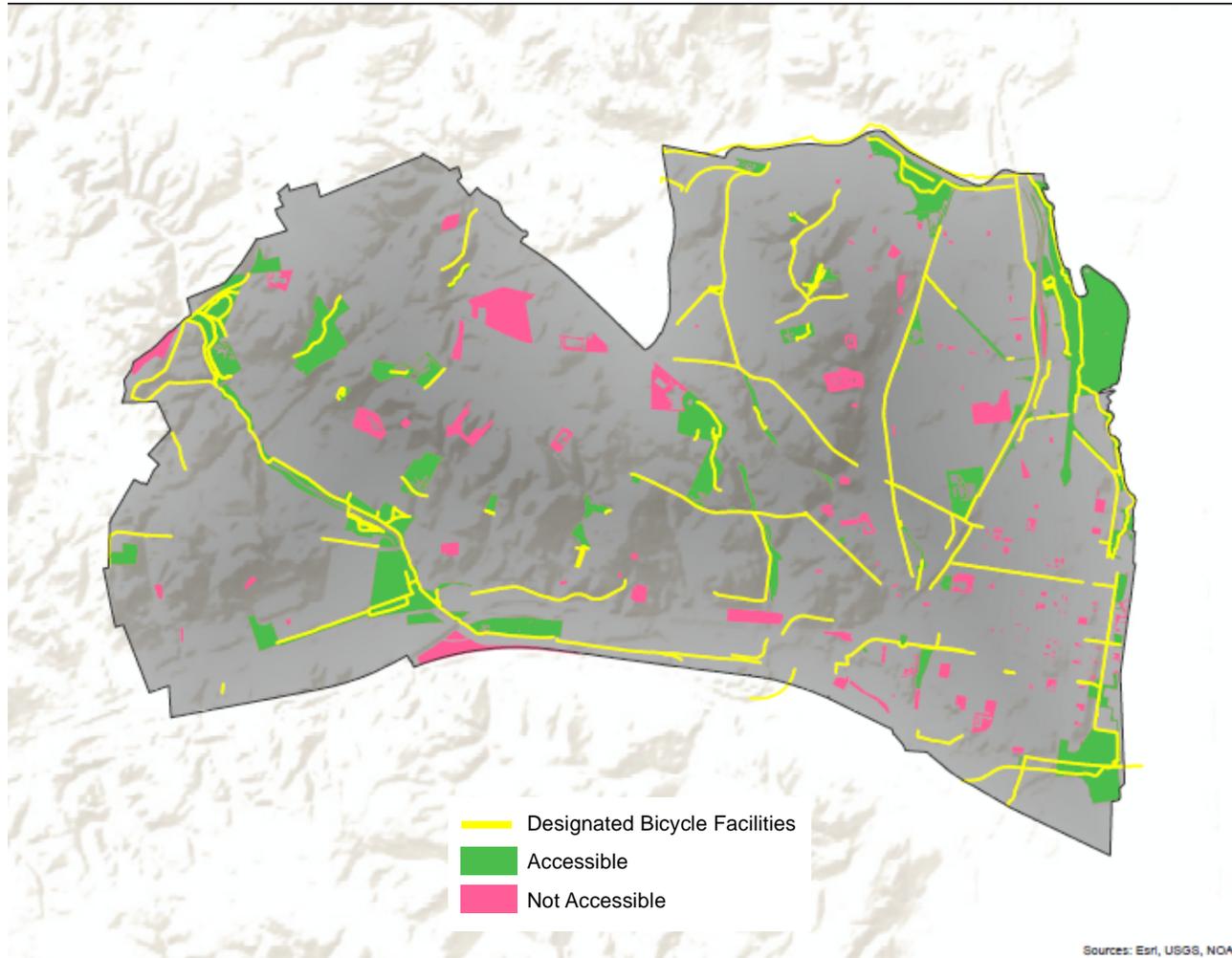
Example goals/strategy responses to key themes:

- Safety, engineering, encouragement, education goals
- Reduce fatalities through Vision Zero program
- Close sidewalk gaps, expand bike network, including protected bikeways
- Citywide promotion and education on safety, rights, and responsibilities

Draft Citywide Bicycle Network

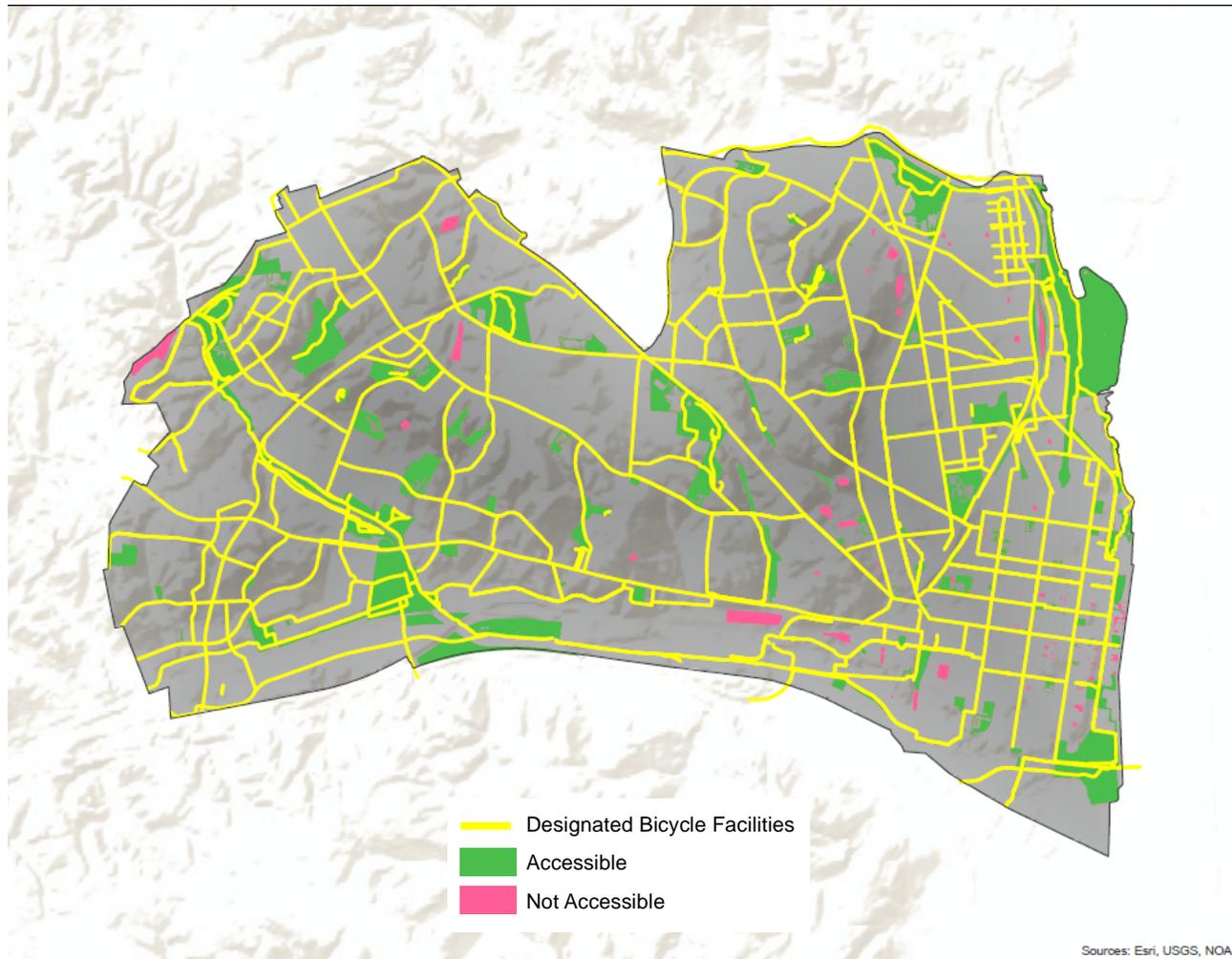


Parks Accessible via Existing Designated Bicycle Facilities





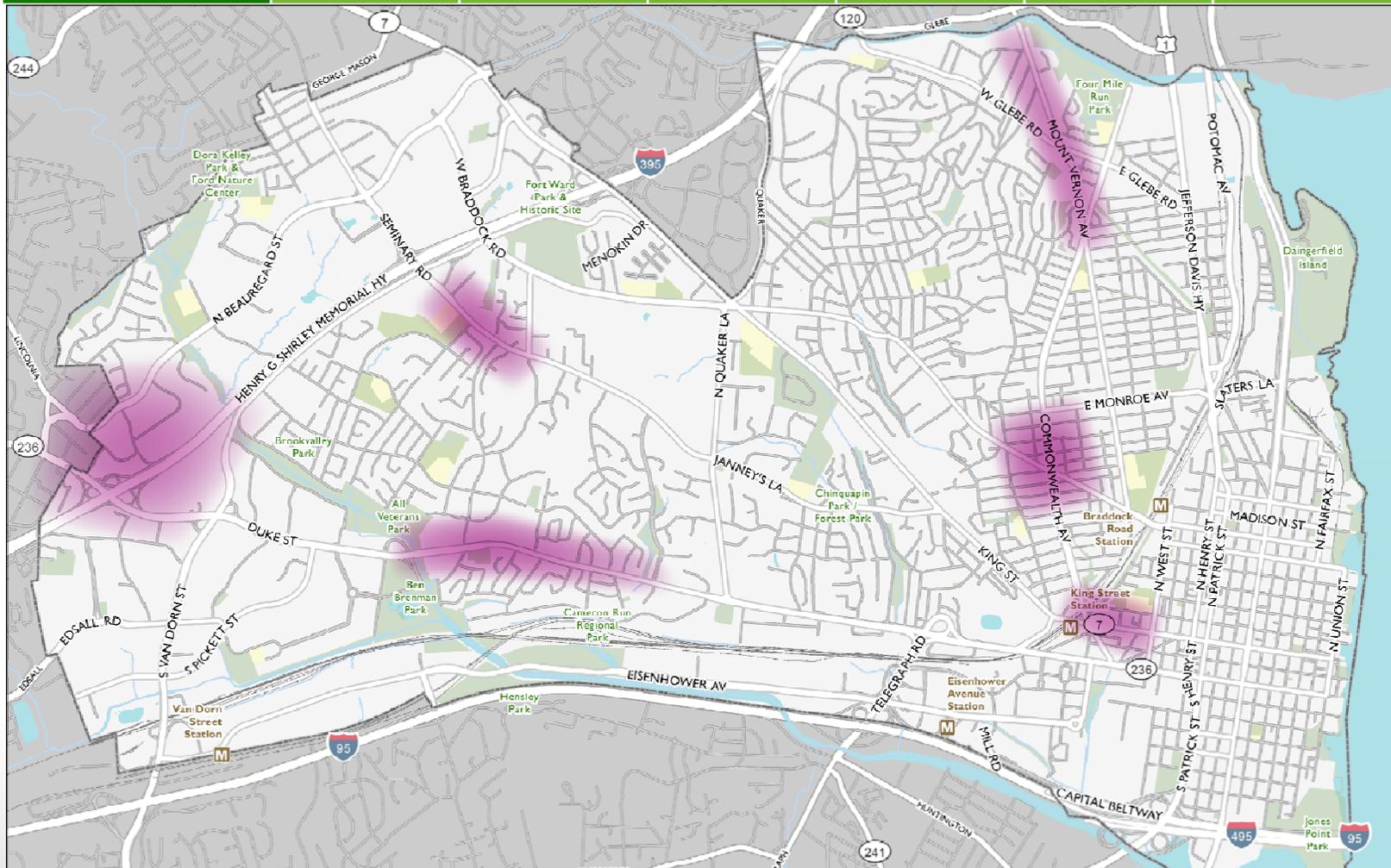
Parks Accessible via Planned Designated Bicycle Facilities



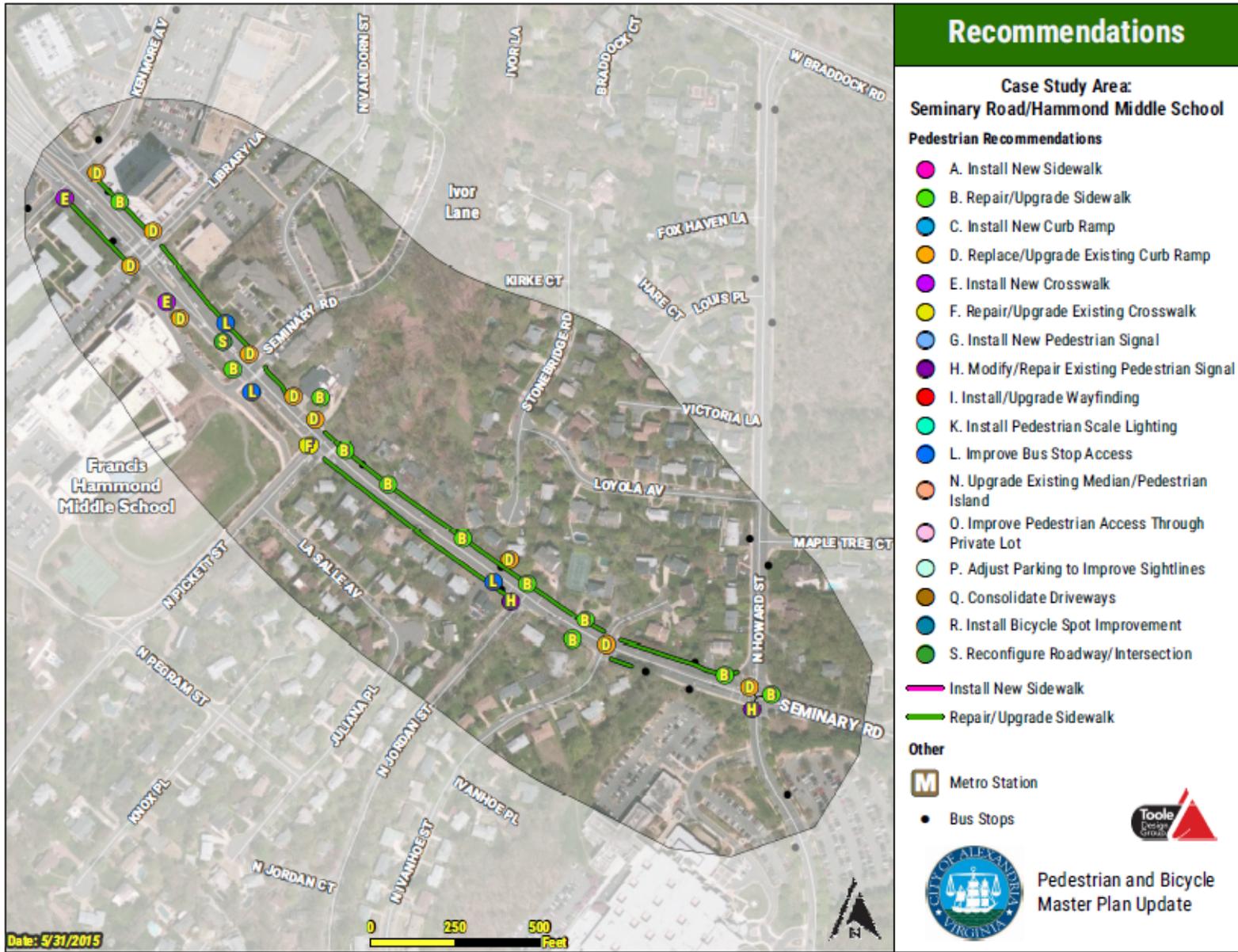


Pedestrian Case Study Areas

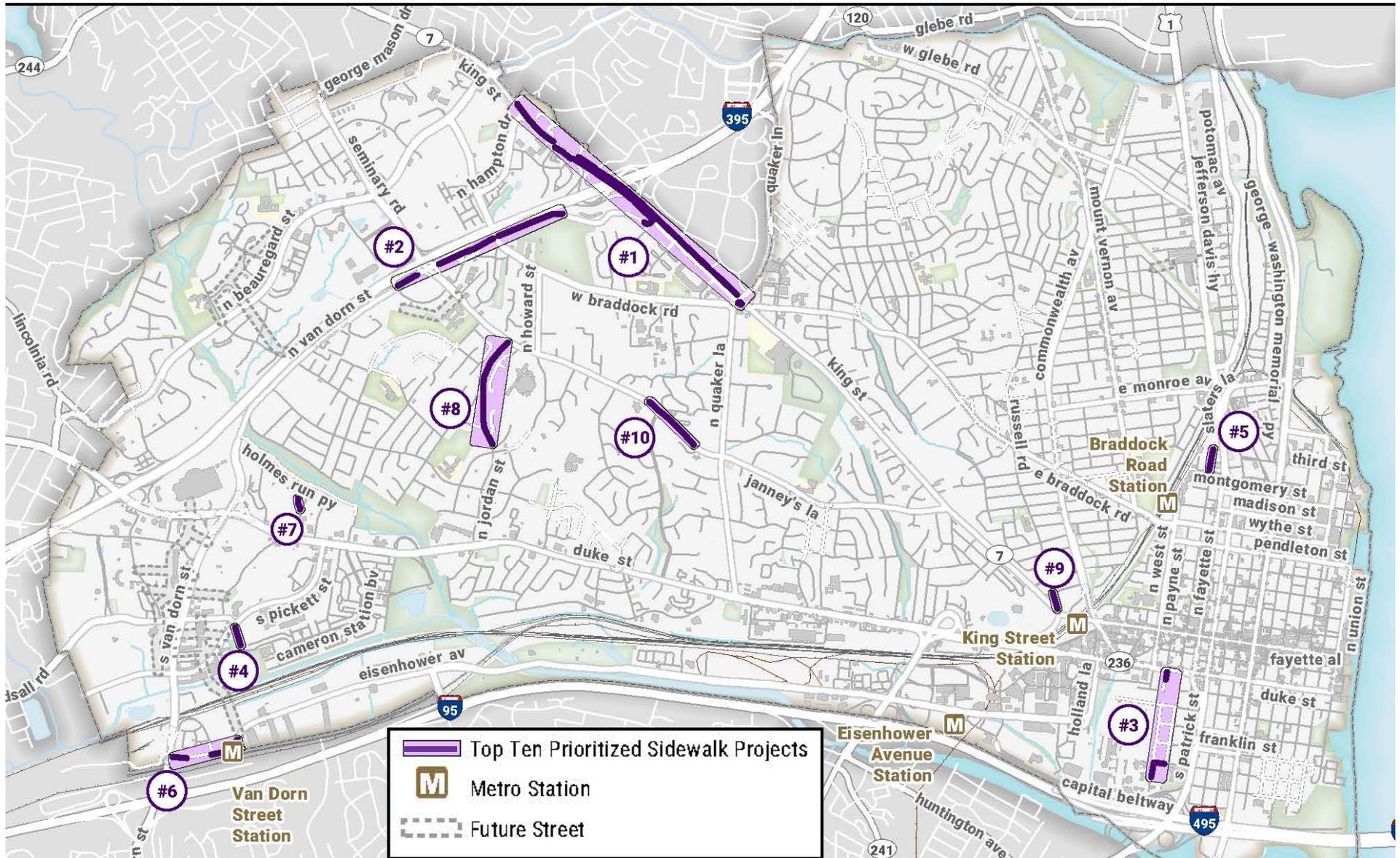
CASE STUDIES:	I-395 and Landmark Mall	Hammond Middle School Area	Duke Street Corridor	Commonwealth and Braddock	Mount Vernon Ave/ Four Mile Run	King Street Station
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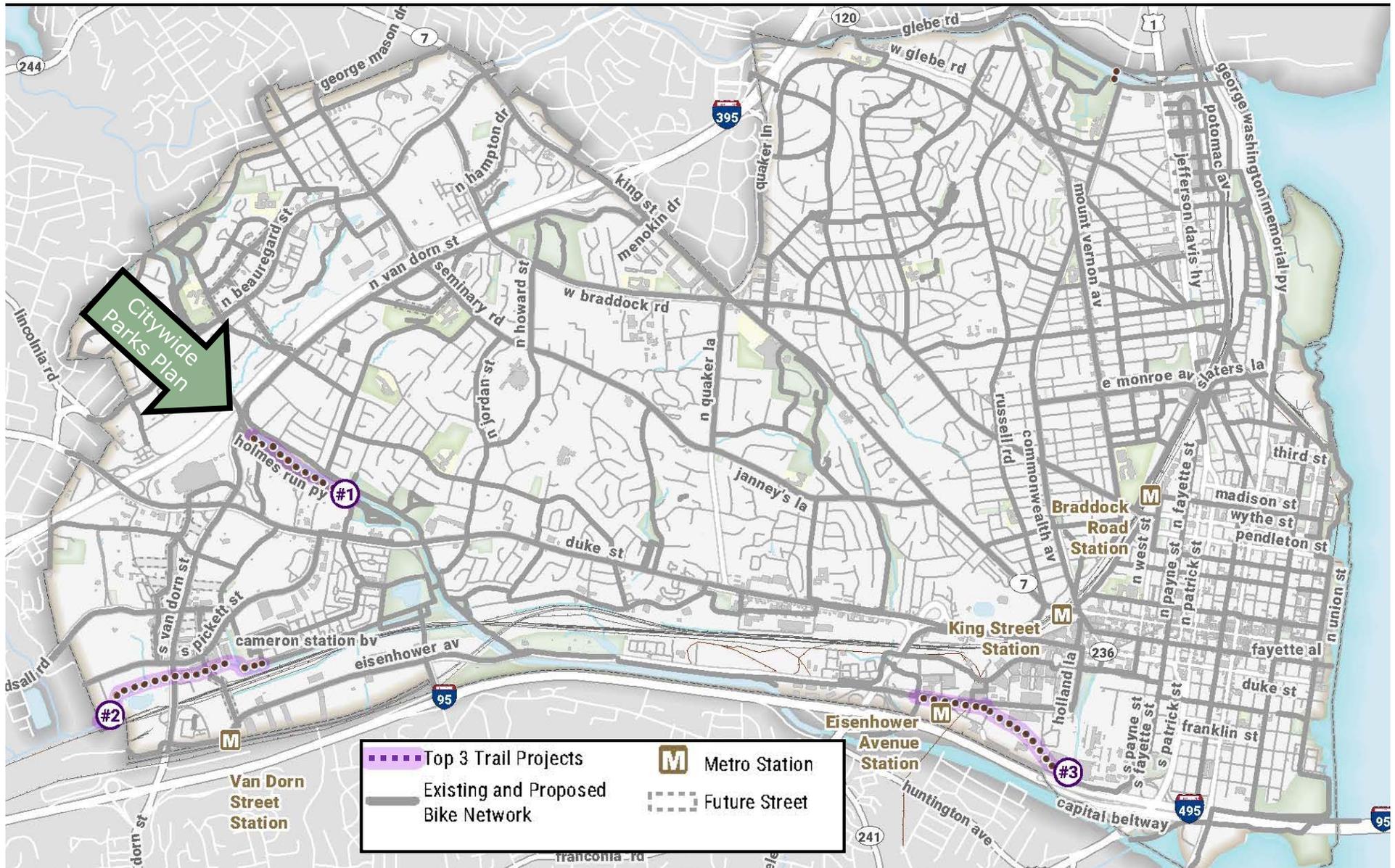
Pedestrian Case Study Areas



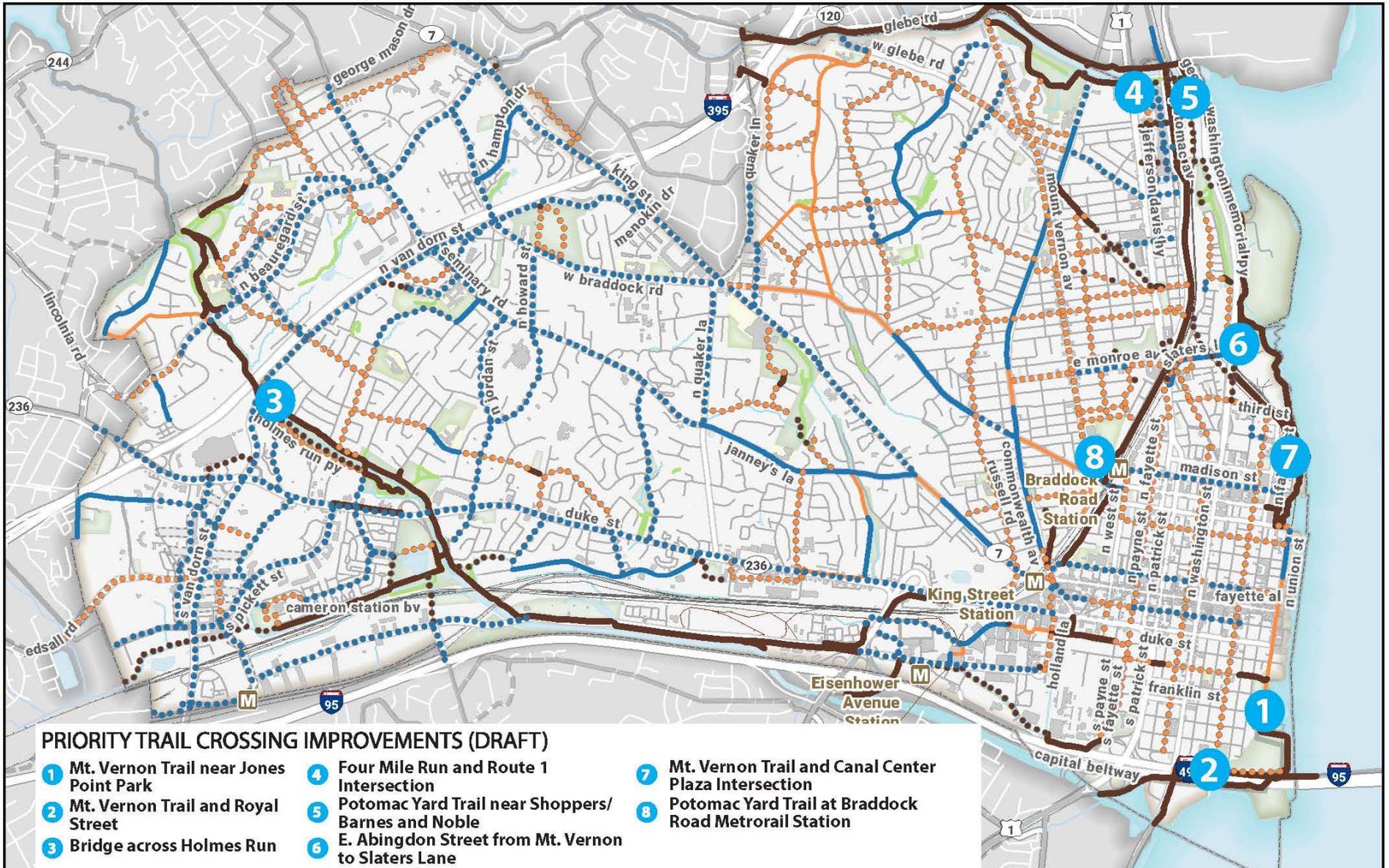
Draft Sidewalk Prioritization



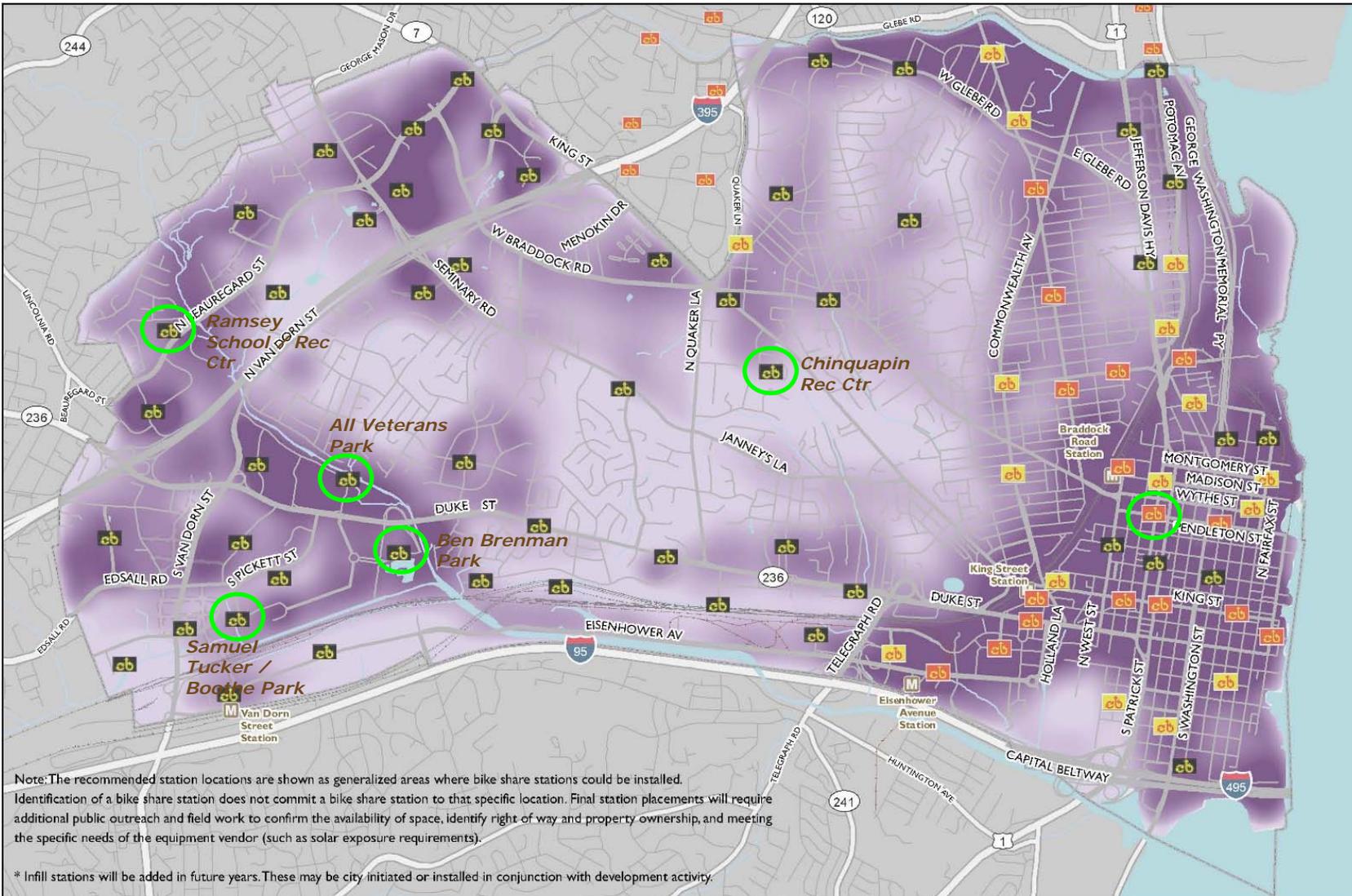
Trail Prioritization Results



Draft Trail Transition Improvements



Draft Capital Bikeshare Locations



Note: The recommended station locations are shown as generalized areas where bike share stations could be installed. Identification of a bike share station does not commit a bike share station to that specific location. Final station placements will require additional public outreach and field work to confirm the availability of space, identify right of way and property ownership, and meeting the specific needs of the equipment vendor (such as solar exposure requirements).

* Infill stations will be added in future years. These may be city initiated or installed in conjunction with development activity.



City of Alexandria, Virginia

Department of Transportation and Environmental Services

Proposed Bike Share Locations
Alexandria Pedestrian and Bicycle Master Plan

Capital Bikeshare Stations

- Proposed/Funded
- Existing
- Recommended / Infill*

Metro Station

Potential Bike Share Demand

- High
- Low

0 0.125 0.25 0.5...



Complete Streets Design Guidelines

- Develop Complete Streets Design Guidelines
 - Integrate design guidance (e.g. green sidewalks)
 - Incorporate range of pedestrian/bicycle facilities
 - Create reference for staff, developers & public

Major Elements	Guidelines
Street Typologies	Street character based on adjacent land uses
Sidewalk Zones	Design, materials, trees, plantings, wayfinding, bicycle parking, transit, lighting
Roadways	Speed, lane widths, traffic calming, truck and emergency vehicle access, transit, bicycle facilities
Intersections	Geometry, access, crossings, control, signalization, pedestrian signals, transit , bicycle treatment
Curbsides	Parking, bicycle parking, parklets, charging stations

Park Road Typology

- total sidewalk widths 11'-20'
- porous sidewalk treatments preferred
- 1' gutter pans on road
- pedestrian zone 6'-10'
- amenity zone 5'-10'
- no frontage zone



- maintains park-like character & protect natural resources
- preferred lane widths 11'
- operating speeds \leq 35mph



Next Steps

FALL 2015: Continued public outreach

WINTER 2016: Public Release of Draft Plan

SPRING 2016: Planning Commission, Transportation Commission and Council Review for Approval / Amendment to Master Plan





Questions?

www.alexandriava.gov/pedbikeplan

Resource Slides



Example Engineering Strategy



Reduce conflicts between bicyclists, pedestrians and other sidewalk users

- In areas with significant pedestrian traffic, provide dedicated, on-street bicycle facilities
- Explore revisions to the City code to better address conflicts between users



Example Engineering Strategy



Prioritize ongoing maintenance and repair of the sidewalk and bicycle network



- Promote Call-Click-Connect as a means for residents to report maintenance and safety concerns
- Improve snow removal practices on trails, prioritizing popular commuter trails



Draft Program/Policy Strategies



Key Topics:

1. Safe Routes to School
2. Reduce bike and pedestrian fatalities / Vision Zero
3. Ongoing performance measurement
4. Adequate funding and staffing to implement the plan
5. Partnerships with Alexandria Health Department, Police, Schools, and community groups
6. Citywide promotion and education on promote traffic safety, rights and responsibilities, and benefits of active transportation

Example Program/Policy Strategy



Pursue funding to oversee education and outreach for multimodal transportation safety initiatives citywide

- Pursue grants for safety campaigns, staffing and coordination
 - VA Highway Safety Office (402 Grants)
 - DMV Safety Grants
 - VA Safe Routes to School
 - Transportation Alternatives



Norfolk, VA "We Roll Together" Campaign

- Safety
- Encouragement
- Branding
- Videos
- Swag
- Billboards
- Bus ads
- Events





Pedestrian Case Study Areas

Case Study Areas were selected because they represent certain themes or challenges that are found throughout the City. Recommendations may apply to other similar locations.

Themes/Challenges:

- Major Barriers/Freeway Interchanges
- Schools and Neighborhoods
- Transit Access and Integration
- Neighborhood Main Streets
- Suburban Commercial Connectors
- Trail/Roadway Transitions
- Lack of connectivity around large apartment complexes/ commercial buildings
- Curb ramps/ADA upgrades
- Maintenance of sidewalks
- Sidewalk gaps and narrow sidewalks
- Conflicts between people walking and people biking

Sidewalk Prioritization



Step 1: Identify sidewalk projects

- Focused on remaining sidewalk gaps identified in 2008 Master Plan

Step 2: Input data and run prioritization model

Factors	Variables	Weight
1. Safety	<ul style="list-style-type: none">• Wikimap Comments ("Barrier to walking")• Crashes (fatalities and non-fatal collisions)	5
2. Demand	<ul style="list-style-type: none">• Population and employment density• Future population• Pedestrian mode share• Wikimap comments (place I walk/want to walk)• Proximity to libraries, community centers, Metro stations, parks, schools, bike share stations, bus stops	3
3. Geography	<ul style="list-style-type: none">• Promote projects on west side of City	3

Enhanced Bicycle Corridor



↑ Standard Bicycle Lane ↓



Painted Bike Lanes



Advisory Bike Lane

Enhanced Bicycle Corridor



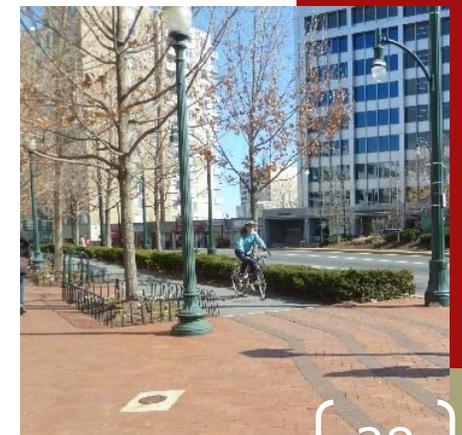
**2-way Separated
Bicycle Lane**



**1-way Separated
Bicycle Lane**



**Buffered Bike
Lanes**



Sidepath

Shared Roadway



Shared Roadway



Signed Route on Shared Roadway



Shared Lane Markings



Priority Shared Lane Markings



Neighborhood Bikeway

Trails



Bicycle/Trail Project Prioritization



Factors	Variables	Weight
1. Safety	<ul style="list-style-type: none"> • Wikimap Comments ("Barrier to biking") • Crashes (fatalities and non-fatal collisions) 	5
2. Demand	<ul style="list-style-type: none"> • Population and employment density • Future population • Bicycle mode share • Wikimap comments (place I ride/want to ride) • Proximity to libraries, community centers, Metro stations, parks, schools, bike share stations, bus stops 	3
3. Geography	<ul style="list-style-type: none"> • Favors projects on the west side of City 	3
4. Connectivity	<ul style="list-style-type: none"> • Connection to existing bike lanes and paved trails 	2