# City of Fairfax Capital Bikeshare Network Station Locations & Site Layouts

TRANSPORTATION CAPITAL PROJECT

DRAFT PLAN

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Questions and comments:

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# General Notes

- Capital Bikeshare ("CaBi") is the regional bike sharing system operating in multiple jurisdictions in DC, Virginia, and Maryland. This system is distinct from the dockless shared mobility device (e-scooter) permit program.
- Bike share station equipment will be installed by the CaBi operator; any necessary site improvements (striping, signage, concrete work, etc.) will be constructed by the city prior to station installation.
- Sites require flat hard surface (asphalt, concrete, or similar); stations are often placed on-street (in the parking lane) or on an existing wide sidewalk or plaza and do not require a separate pad.
- Additional minor improvements may be recommended at some sites (striping, flex-posts, curb stops, etc.)
- If necessary, stations can be relocated after installation (temporarily for construction or permanently if a different location is preferred); operator charges a relocation fee.

# Capital Bikeshare General Information

- Capital Bikeshare equipment is owned by each local jurisdiction. Each jurisdiction pays the CaBi operator to maintain and operate the system on the jurisdiction's behalf. Revenue from membership and rental fees are used to off-set operations and maintenance costs.
- Users can rent bikes for a single ride or can purchase memberships (daily, monthly, annual). Users can rent bikes through a smartphone app or at a solar-powered kiosk included with each station.
- Operations:
  - There are two types of bikes: pedal bikes (no electric assist) and e-bikes (battery-assist while pedaling)
  - Pedal bikes must be checked out and returned to fixed station locations. If they are not returned to a dock, users may be charged lost bike fees.
  - E-bikes may be docked at fixed stations or may be "dockless" (parked anywhere) within the defined service area. An additional fee is charged when an e-bike is not parked at a Capital Bikeshare station.
  - The system operator "rebalances" bikes throughout the day, adding bikes to empty stations and removing bikes from full stations to ensure bikes and bike parking docks are consistently available. A rebalancing van may stop for 10-15 minutes to load or unload bikes at a station as needed.
- For more information: <a href="https://capitalbikeshare.com/">https://capitalbikeshare.com/</a>

# Capital Bikeshare Examples: On-Street Stations

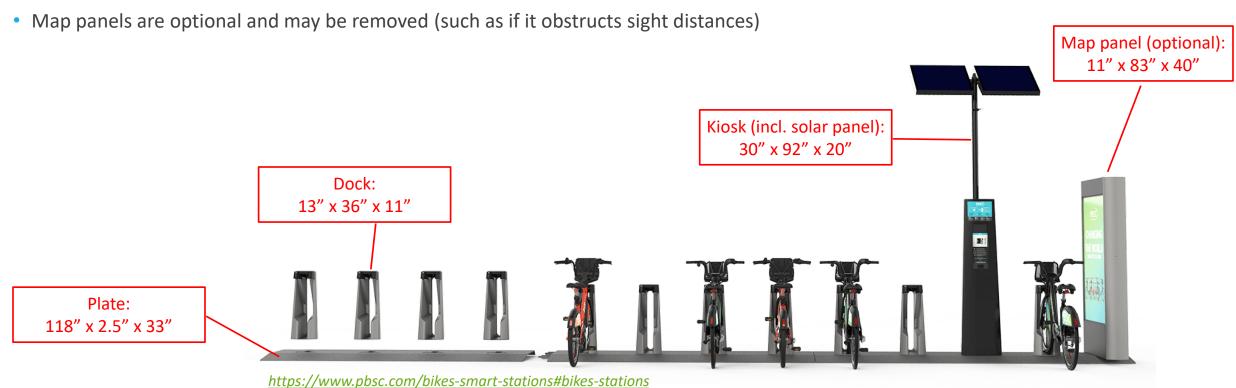


# Capital Bikeshare Examples: Sidewalks/Open Space Stations

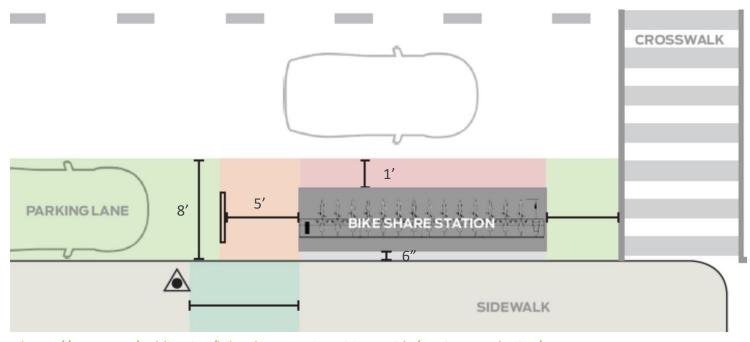


# Capital Bikeshare Station Details

- Bike share stations are modular and are made up of four main components: plates, docks, solar-powered kiosks, and map panels.
- The smallest typical station has 12 docks. Station size is typically increased 4 docks at a time (standard configuration = 4 docks per plate).



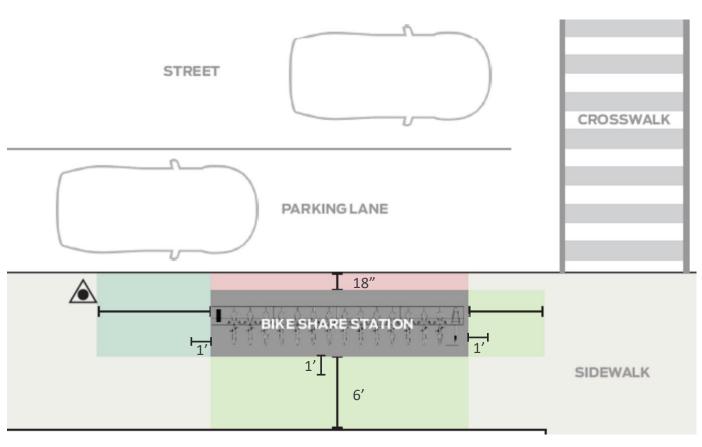
# Capital Bikeshare Station Details: On-Street Station Dimensions & Clearances



https://nacto.org/publication/bike-share-station-siting-guide/station-typologies/

- Physical footprint for 12-dock station with map panel and with bikes: 33' L x 6' W
- Minimum buffers & clearances assumed:
  - 6" clearance from curb
  - 5' buffer from on-street parking (one or both sides)
  - 1' buffer from travel lane
    - Assumes low volume street (<3,000 vpd); bike lane or larger buffer recommended on busier streets
  - 5' clearance from drainage inlets and utility access points
  - Clearance from crosswalks/curb cuts per local regulation
  - Clearance from fire hydrants per local regulation
- Total footprint for typical on-street station including buffers: 43' L x 7' W

# Capital Bikeshare Station Details: Sidewalk Station Dimensions & Clearances



https://nacto.org/publication/bike-share-station-siting-guide/station-typologies/

- Physical footprint for 12-dock station with map panel and with bikes: 33' L x 6' W
- Minimum buffers & clearances assumed:
  - 18" clearance from curb adjacent to on-street parking
    - More clearance may be needed if adjacent to travel lane
  - 6' sidewalk clearance for ADA access
  - 1' buffer behind bikes and on either side for bike access
  - 5' clearance from drainage inlets and utility access points
  - Clearance from crosswalks/curb cuts per local regulation
  - Clearance from fire hydrants per local regulation
- Total footprint for typical sidewalk station including buffers: 35' L x 7' W

# Station Siting Criteria

- Bikeshare station locations are recommended based on two sets of criteria:
  - General guidelines used to assess potential demand
  - <u>Technical criteria</u> to ensure safe and efficient installation and operations

#### **General Guidelines**

Bikeshare Feasibility Study demand analysis

(www.fairfaxva.gov/bikeshare)

Population & employment density (existing or in development)

**Destination density** 

- University within 2 miles
- High density of retail, parks, or other community destinations

Transportation network connectivity

- Metrorail station within 2 miles.
- Access to bicycle facilities (trails, bike lanes, neighborways, etc.)
- Access to complementary facilities (bus stops, scooter corrals, etc.)

Visibility & accessibility

**Public input** 

Other local factors as appropriate

#### **Technical Criteria**

Hard level surface, sized for station layout requirements

Sun exposure for solar-powered station equipment

Right of way (city-owned or easement on private property)

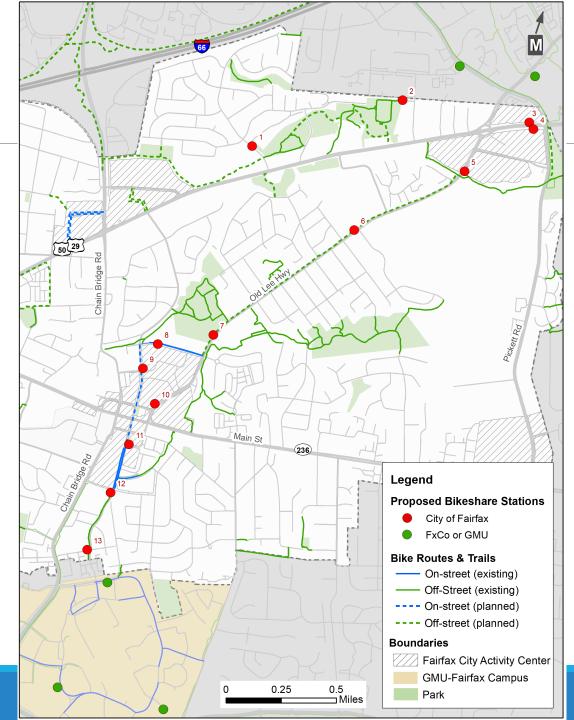
Clearance from obstacles and conflict areas

- Utility clearance
- Pedestrian clearance
- Traffic clearance
- Fire access clearance
- Vertical clearance for installation

Operational feasibility (access for rebalancing and maintenance vehicles)

# Network Map & Station List

- 1. Plantation Pkwy at Mosby Woods Dr
- 2. Beech Dr at Draper Drive Park
- 3. Fairfax Blvd at Scout on the Circle
- 4. Fairfax Blvd at Foxcroft Colony
- 5. Old Lee Hwy at Willcoxon Trail
- 6. Old Lee Hwy at Fairfax High School
- 7. Old Lee Hwy at Sherwood Center
- 8. Layton Hall Dr at midblock (Capstone)
- 9. University Dr at Democracy Ln (Capstone)
- 10. Old Lee Hwy at North St (Library)
- 11. South St at University Dr
- 12. George Mason Blvd at Armstrong St
- 13. School St at George Mason Blvd



# #1 – Plantation Pkwy at Mosby Woods Dr



- Site improvements needed:
  - Curb stops
  - Flex-posts
- ROW: Public
- Rebalancing van access: Curbside
- Parking removal: None (parking already prohibited)
- AADT: Unknown (assumed < 3,000 vpd)</li>



## #2 – Beech Dr at Draper Drive Park



- Site improvements needed:
  - Curb stops
  - Flex-posts
- ROW: Public
- Rebalancing van access: Curbside
- Parking removal: 2 on-street spaces
- AADT: Unknown (assumed < 3,000 vpd)</li>



### #3 – Fairfax Blvd at Scout on the Circle



- Site improvements needed:
  - Remove landscaping
  - Potentially relocate sprinkler
  - Install concrete pad or other hard surface
- ROW: Public
- Rebalancing van access: Frontage road parking lane
  - Will require agreement with Scout
- Parking removal: None



## #4 – Fairfax Blvd at Foxcroft Colony Condos



- Site improvements needed:
  - Concrete pad or other hard surface
- ROW: Public
- Rebalancing van access: Frontage road
- Parking removal: None
- Other notes:



## #5 – Old Lee Hwy at Wilcoxon Trailhead



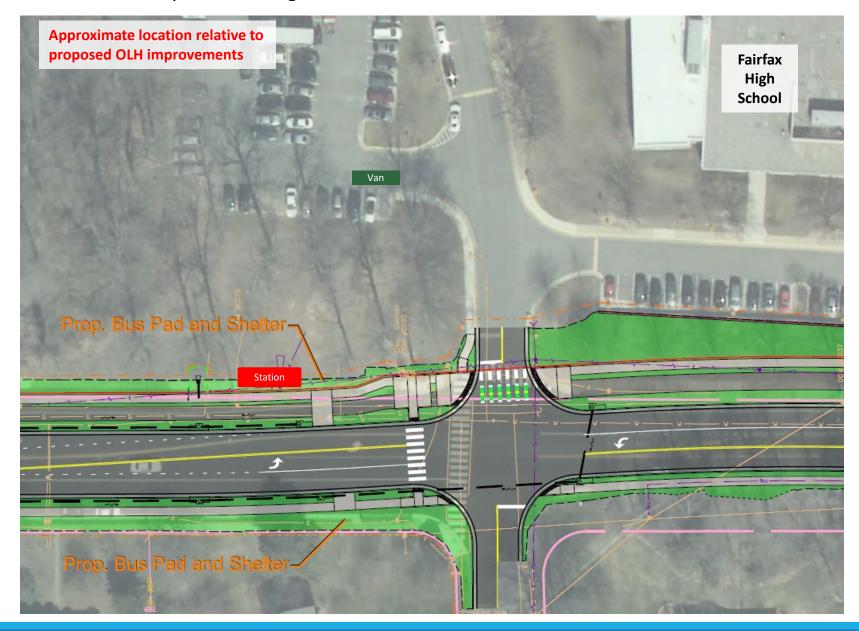
#### Notes

- Site improvements needed:
  - Road restriping (per OLH plans)
  - Curb stops and flex-posts
- ROW: Public
- Rebalancing van access: Curbside
- Parking removal: None
- Other notes:
  - Position station with back of bikes towards sidewalk
  - 5' buffer from curb inlet
  - Position north of trail for solar exposure



Project funding source: Old Lee Hwy

### #6 – Old Lee Hwy at Fairfax High School



#### Notes

- Site improvements needed:
  - Install concrete pad (with OLH project)
- ROW: Public
- Rebalancing van access: High school parking lot
  - Will require agreement with school
- Parking removal: None
- Other notes:
  - Final station location may be adjusted relative to Old Lee Hwy project features



Project funding source: Old Lee Hwy

## #7 – Old Lee Hwy at Sherwood Center



#### **Notes**

- Site improvements needed:
  - Install concrete pad (with OLH project)
- ROW: Public
- Rebalancing van access: Sherwood Center lot
  - Will require coordination with Parks Department
- Parking removal: None
- Other notes:
  - Final station location may be adjusted relative to Old Lee Hwy project features



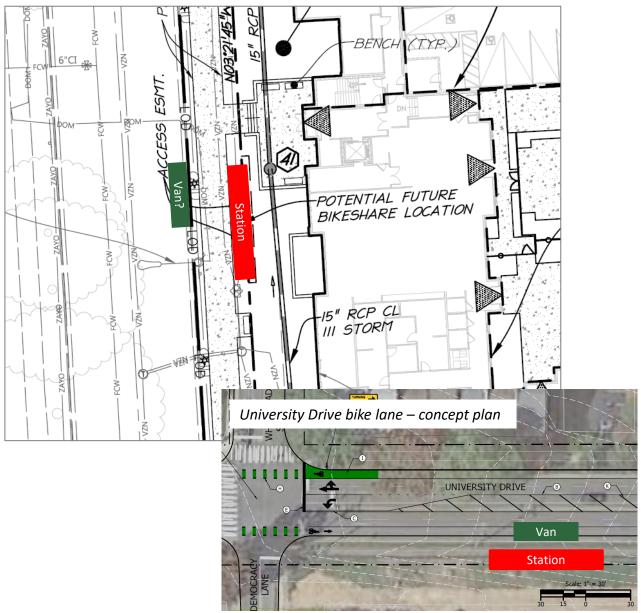
Project funding source: Old Lee Hwy

# #8 – Layton Hall Dr at midblock

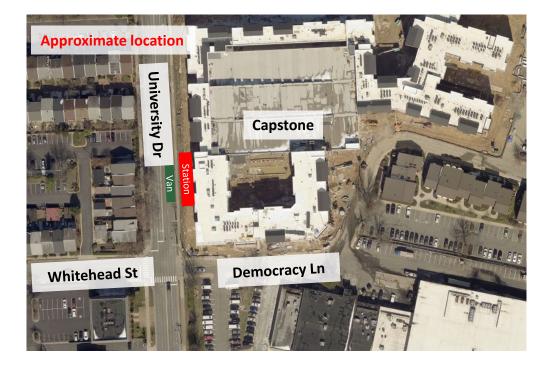


- Site improvements needed:
  - Concrete pad or other hard surface
- ROW: Public
- Rebalancing van access: Curbside
- Parking removal: None
- AADT: 5,200 vpd (2019)
- Other notes:
  - Co-located with proposed new CUE bus stop

# #9 – Capstone / University Dr & Democracy Ln



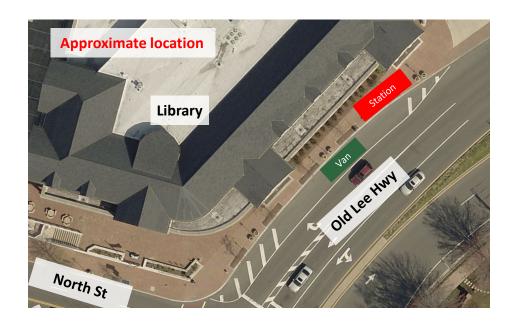
- Site improvements needed:
  - Concrete pad (with Capstone project)
- ROW: Private with easement (see Capstone proffers)
- Rebalancing van access: Curbside
- Parking removal: None
- Other notes:
  - Final site may be adjusted pending evaluation of operational access requirements



## #10 – North St at Old Lee Hwy (Library / Old Town Square)



- Site improvements needed:
  - Partial or full removal of landscape box
- ROW: Public
- Rebalancing van access: Curbside
- Parking removal: None
- Other notes:
  - CUE bus stop by library has been removed, striped shoulder remains



## #11 – South St at University Dr



- Site improvements needed:
  - Curb stops & flex-posts
- ROW: Public
- Rebalancing van access: Curbside
- Parking removal: None
- AADT:



## #12 – George Mason Blvd at Armstrong St



## #13 – School St at George Mason Blvd



- Site improvements needed:
  - Curb stops & flex-posts
- ROW: Public
- Rebalancing van access: Curbside
- Parking removal: 1-2 on-street spaces
- AADT: 2,100 vpd (2019)

