TOOLE DESIGN

Vienna-Fairfax-Mason Bikeshare Feasibility Study

Town of Vienna

Town Council Update

November 19, 2018

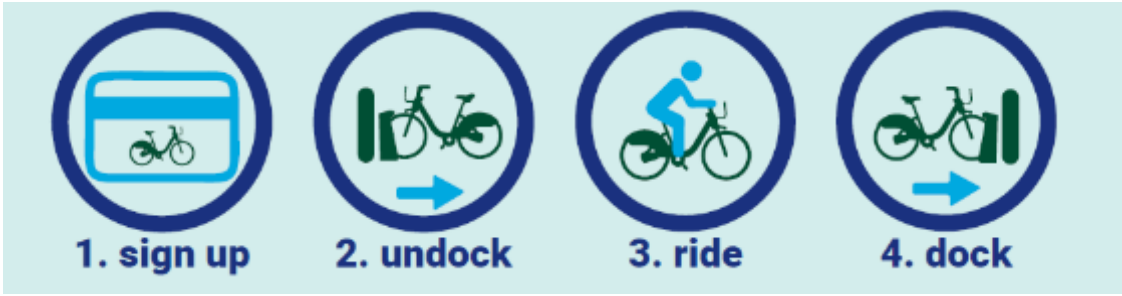
Agenda

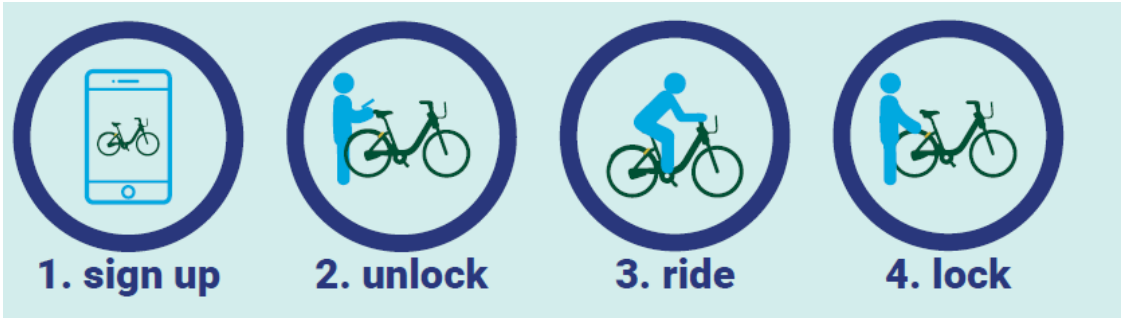
- Study Background and Goals
- Activity To-Date
- Existing Conditions, Opportunities, and Challenges
- Technology Options
- Preliminary Recommendations
- Schedule and Next Steps

TOOLE DESIGN

What is Bikeshare?

- Transportation system ideal for short one-way or round trips
  - Users rent a bicycle at a station and return to any other station.
  - Other systems allow for stationless (“dockless”), and/or e-assist bikeshare, and/or e-scooter share.





Why Bikeshare?

- Part of a flexible multimodal system ("mobility on demand")
- Complements and extends the reach of transit
- Provides first and last mile connections
- Provides options for short trips
- Increases use of active transportation, supports a "safety in numbers" effect
- Reduces reliance on vehicles, reduces associated impacts of vehicle travel
- Cost-effective travel option
- Increases economic activity in commercial areas

TOOLE DESIGN

Study Partnership

GEORGE MASON UNIVERSITY

VIENNA-FAIRFAX CITY-MASON-BURKE BIKESHARE

FEASIBILITY STUDY

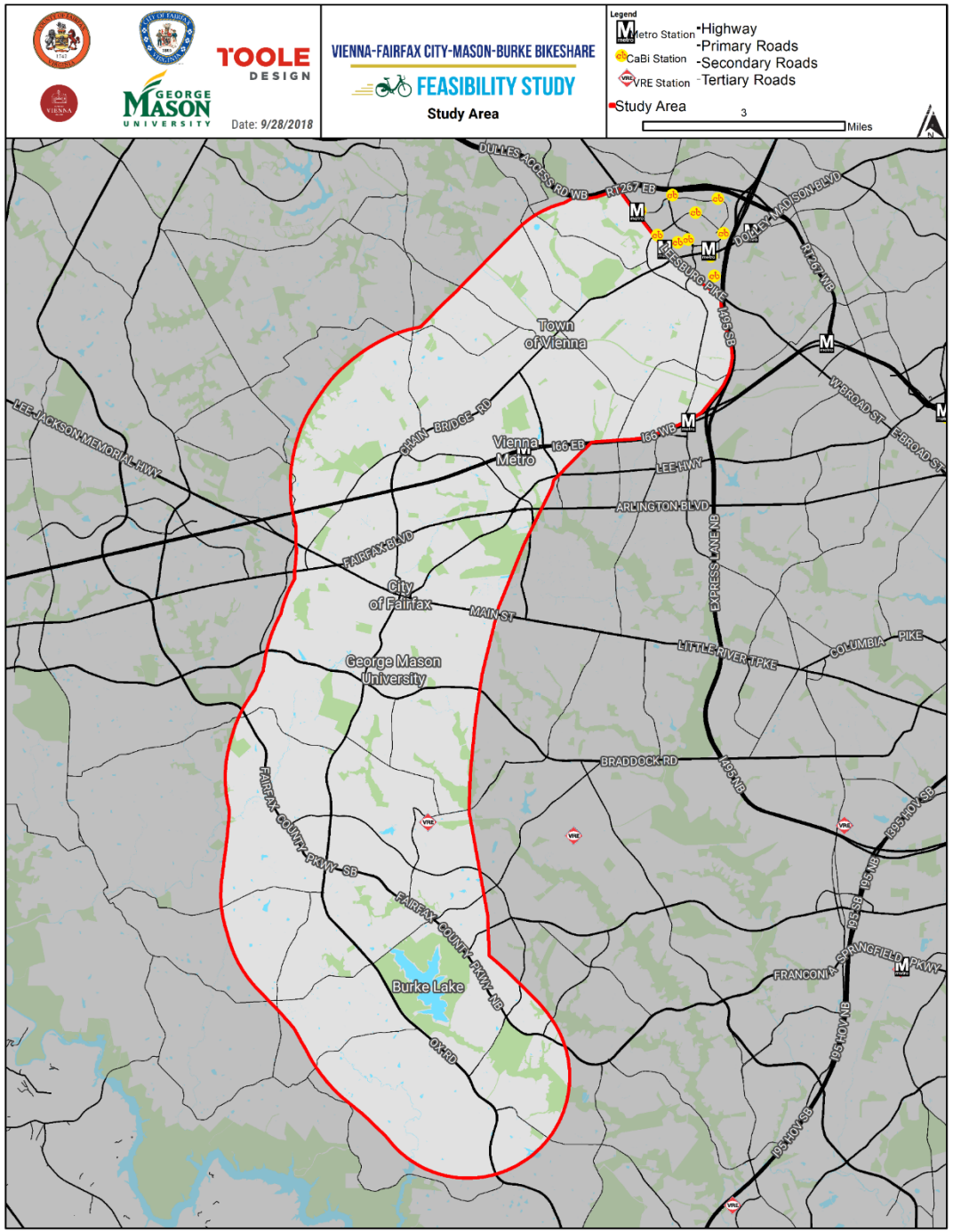
- Collaboration between multiple jurisdictions to complete feasibility study
- Sets the stage for continued coordination and development of a regional system

Study Activities To-Date

- Refine vision and goals for potential bikeshare system
- Conduct public outreach
- Evaluate existing conditions, opportunities, and challenges
- Review technology options, benefits, and costs

System Goals

- Connect to trails, transit, and regional transportation options
- Increase healthy living and active transportation options
- Increase attractiveness of area for employers, business, and tourism
- Ensure affordable transportation options with access to all
- Enhance sustainable transportation options and relieve congestion
- Implement a sustainably funded and operated system

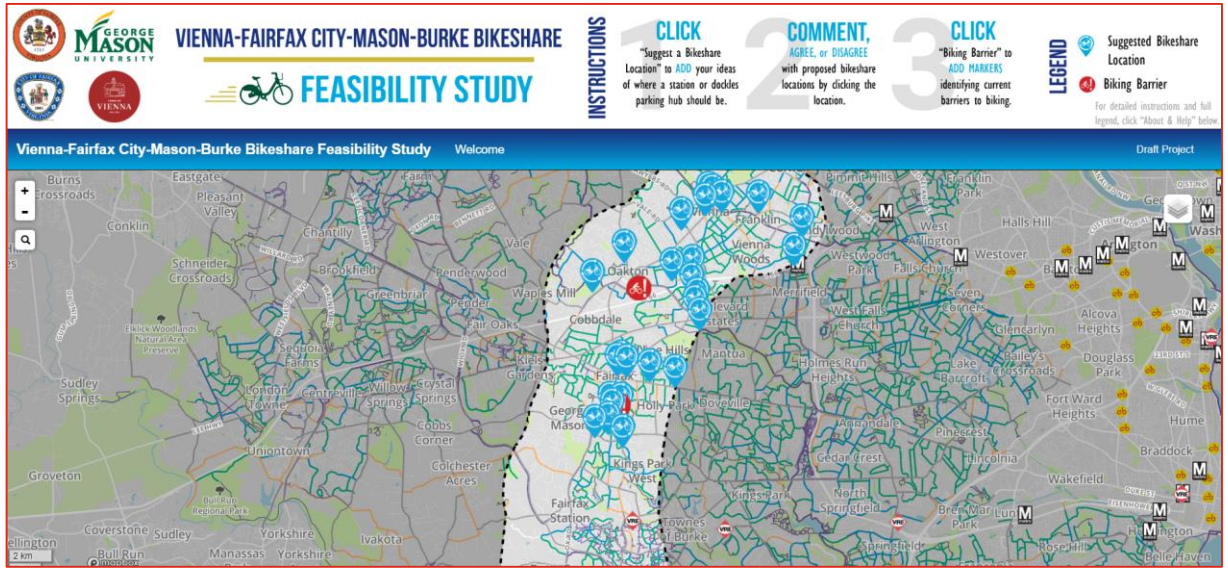


Online Public Engagement

- Website & social media
- Survey (online and at events)
- Interactive maps (online and at events)

Fairfax City-Mason-Vienna Region Bikeshare Feasibility Study

FAIRFAX CITY-MASON-VIENNA REGION BIKESHARE
FEASIBILITY STUDY



Do you support bikeshare in the Fairfax City-Mason-Vienna study area?

	1	2	3	4	5	
Strongly Support	○	○	○	○	○	Strongly Oppose

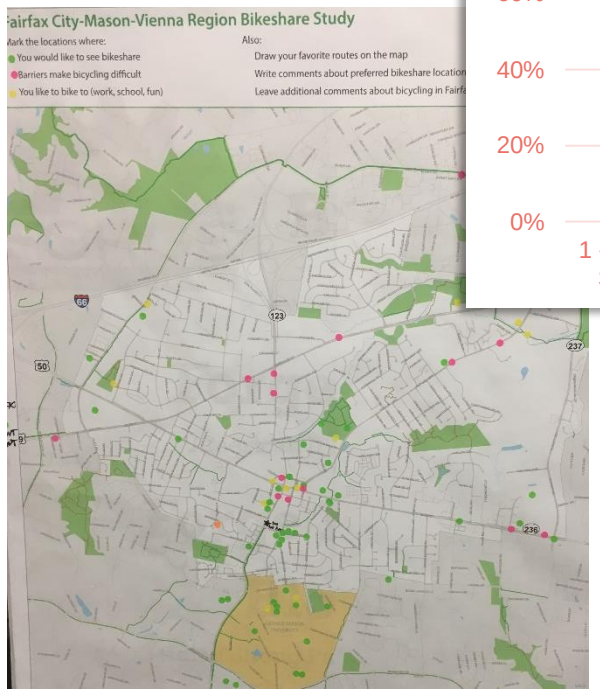
Public Outreach Events

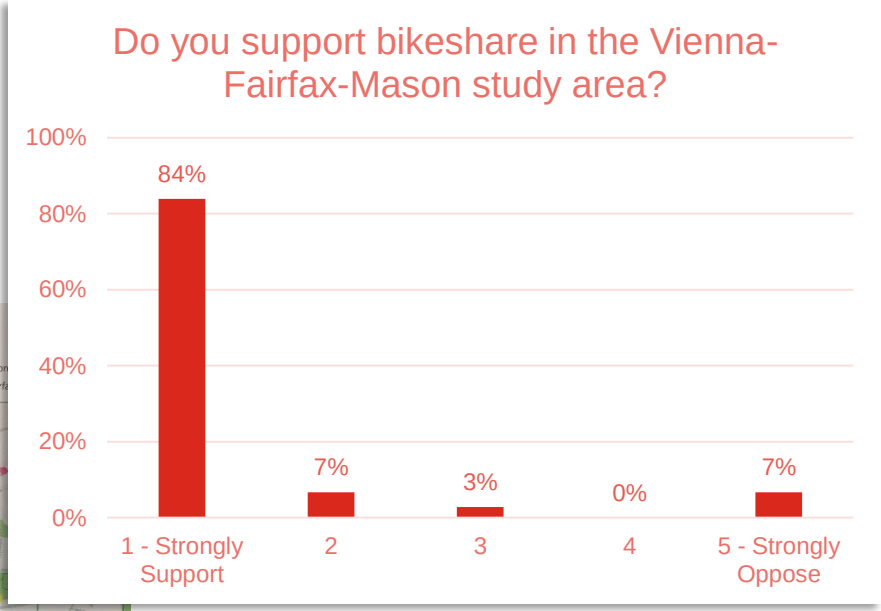
- Bike to Mason Day
- Bike to Work Day
- Rock the Block
- Mason “Get Connected” Fair
- Farmers’ Markets (Fairfax and Vienna)
- Rail station pop-ups (Vienna Metro and Burke VRE)
- Fairfax Fall Festival

TOOLE DESIGN

Public Input

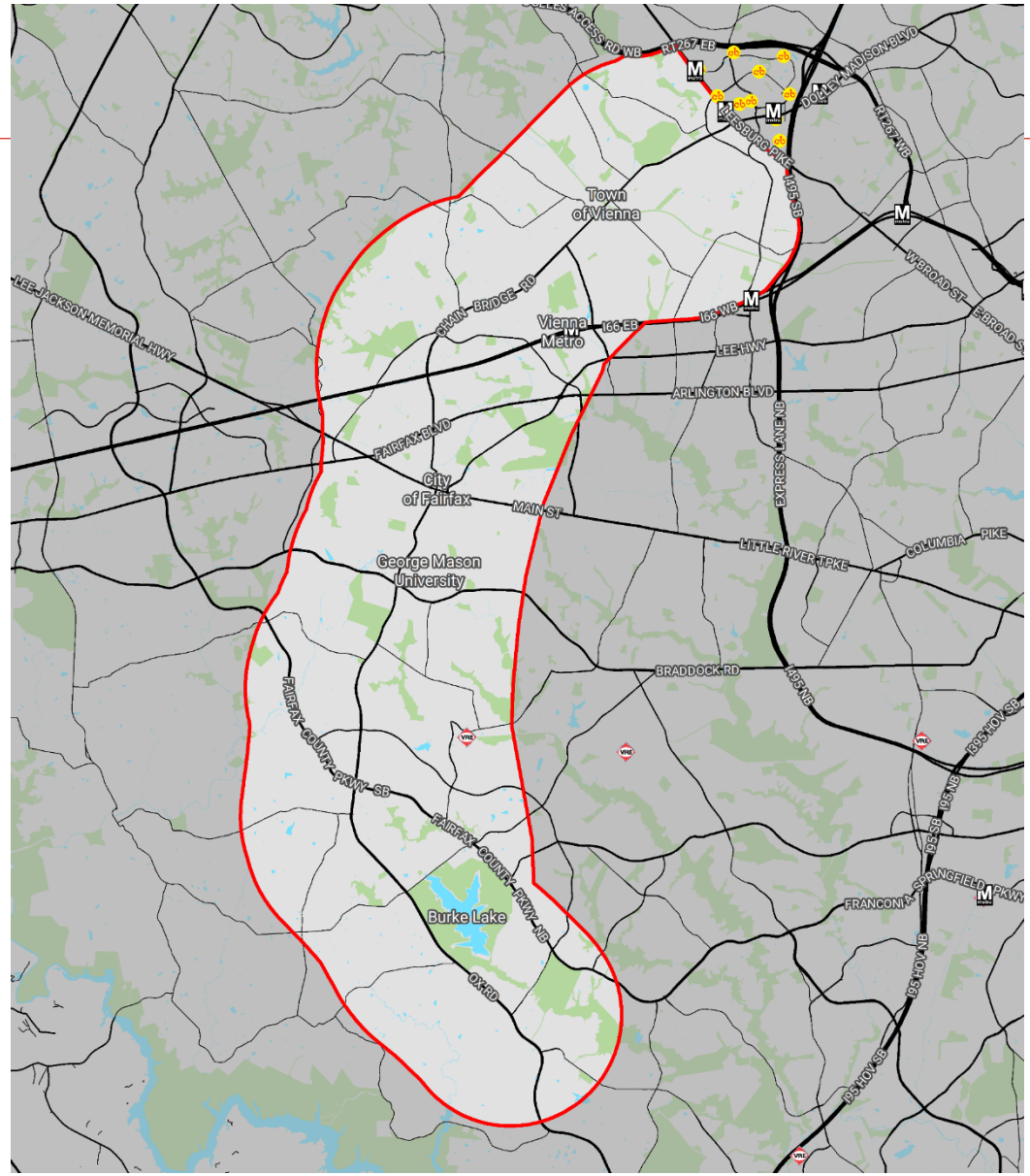
- 180 responses to online survey
- 29 bikeshare station location suggestions online
- Numerous bikeshare system preferences noted and bikeshare locations suggested at pop-up events





Existing Conditions

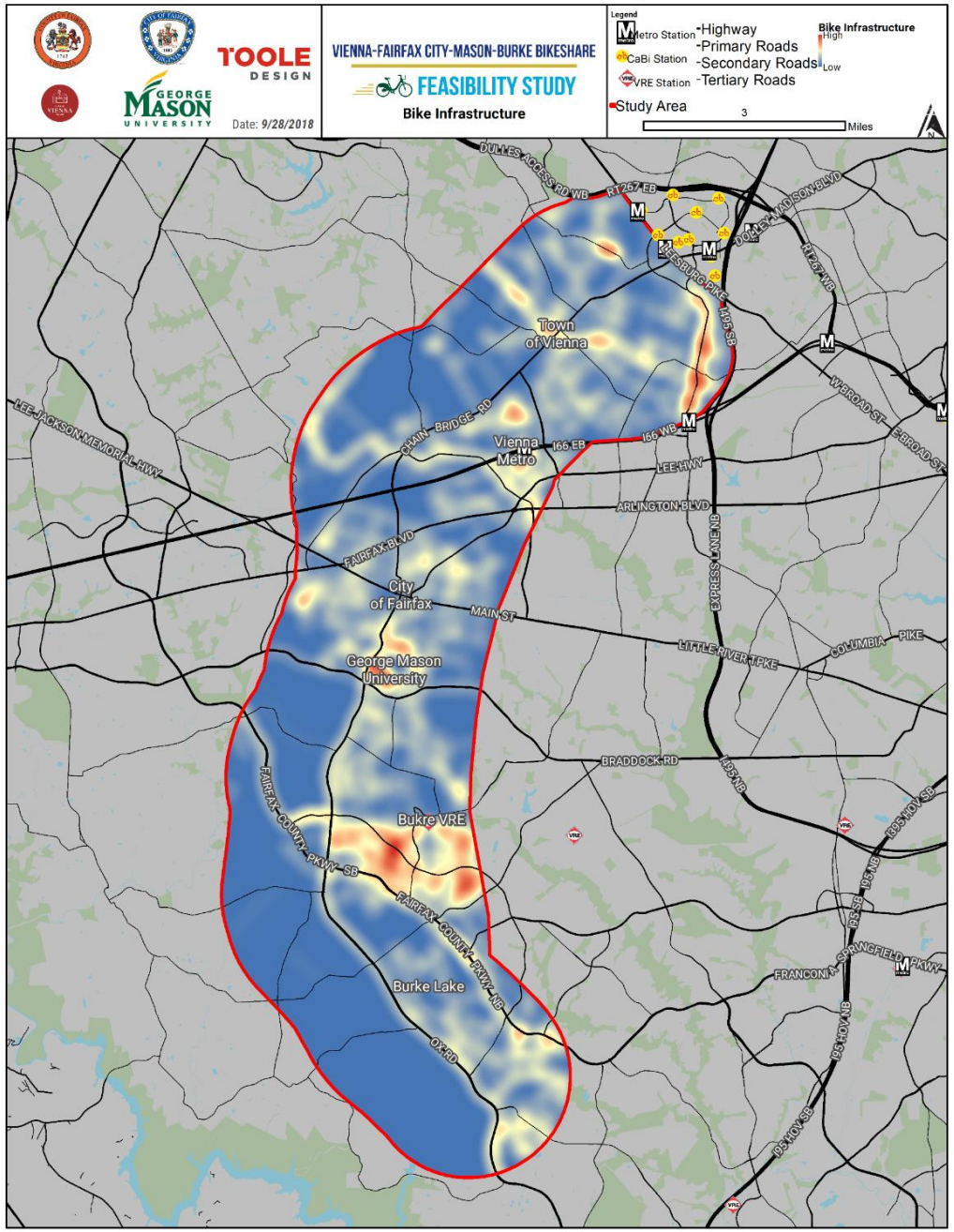
- Opportunities
  - Connections to Metrorail stations and Fairfax bikeshare network
  - Flat topography along Route 123 corridor
  - Activity centers at GMU, Vienna downtown, City of Fairfax downtown, Tysons Corner
- Challenges
  - Transit service gaps
  - Topography in parts of the study area
  - Limited bike infrastructure

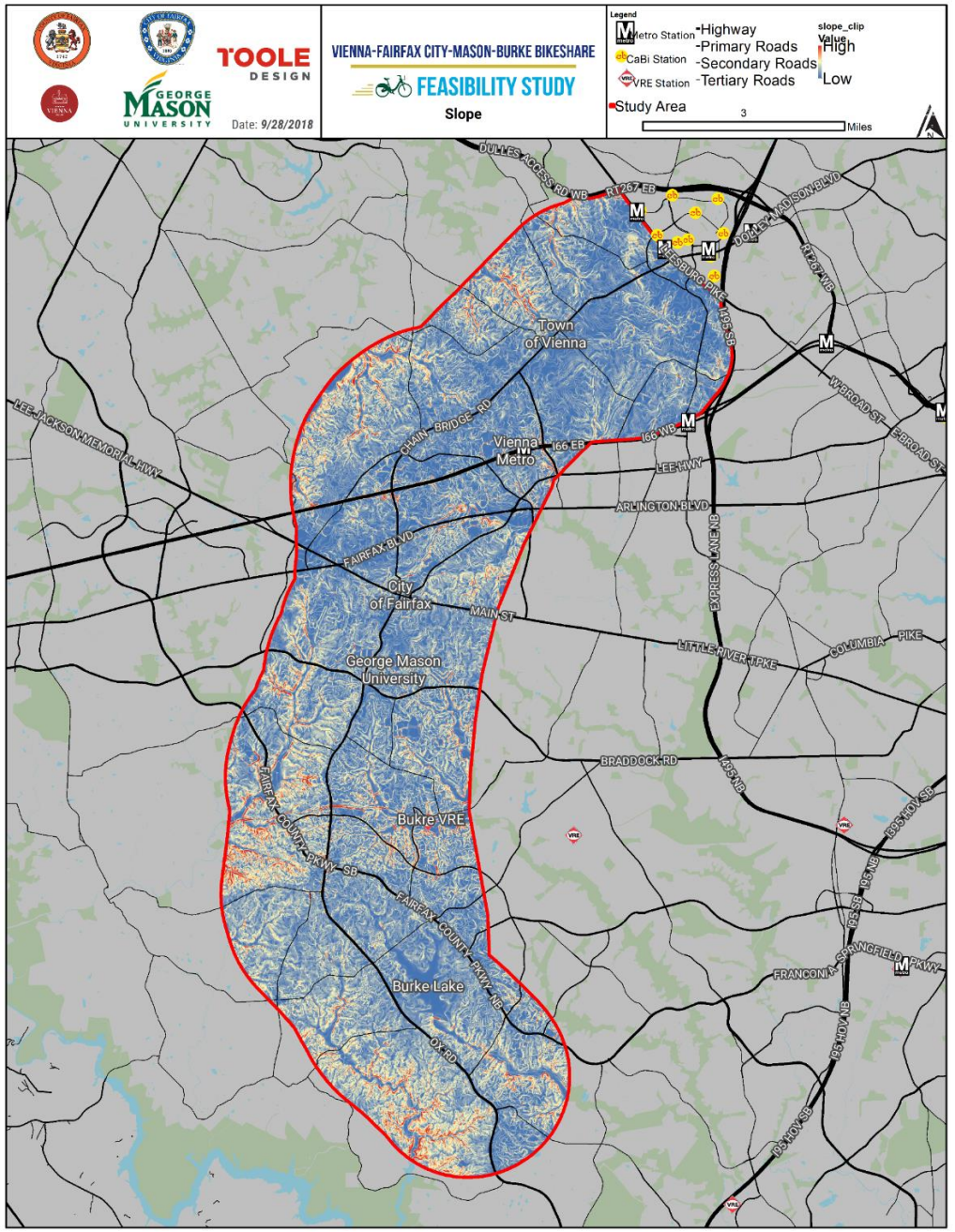


Demand Analysis

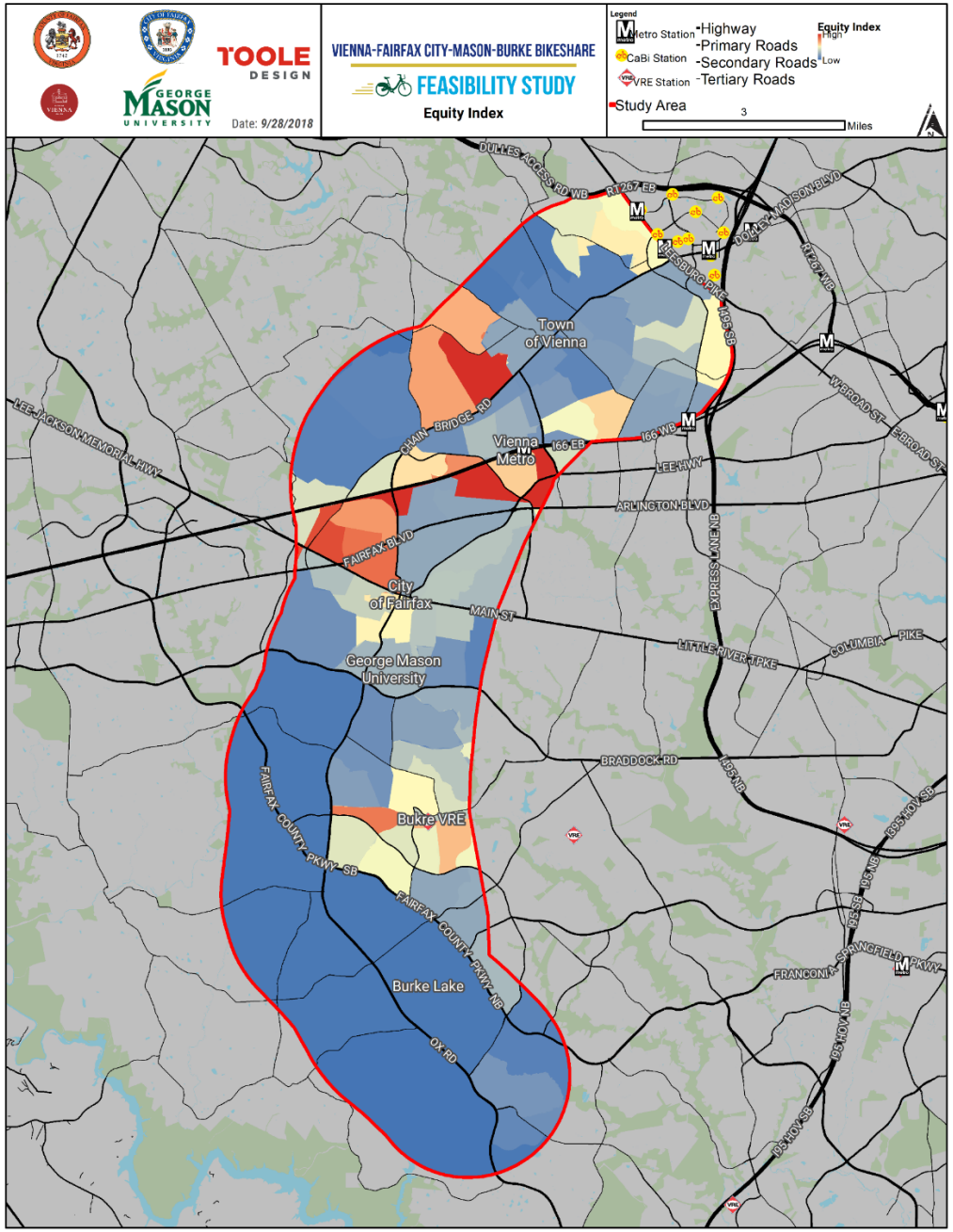
- Point scoring system used weighted values.
- Demand criteria included employment and population density, attractions, transit, and equity measures.

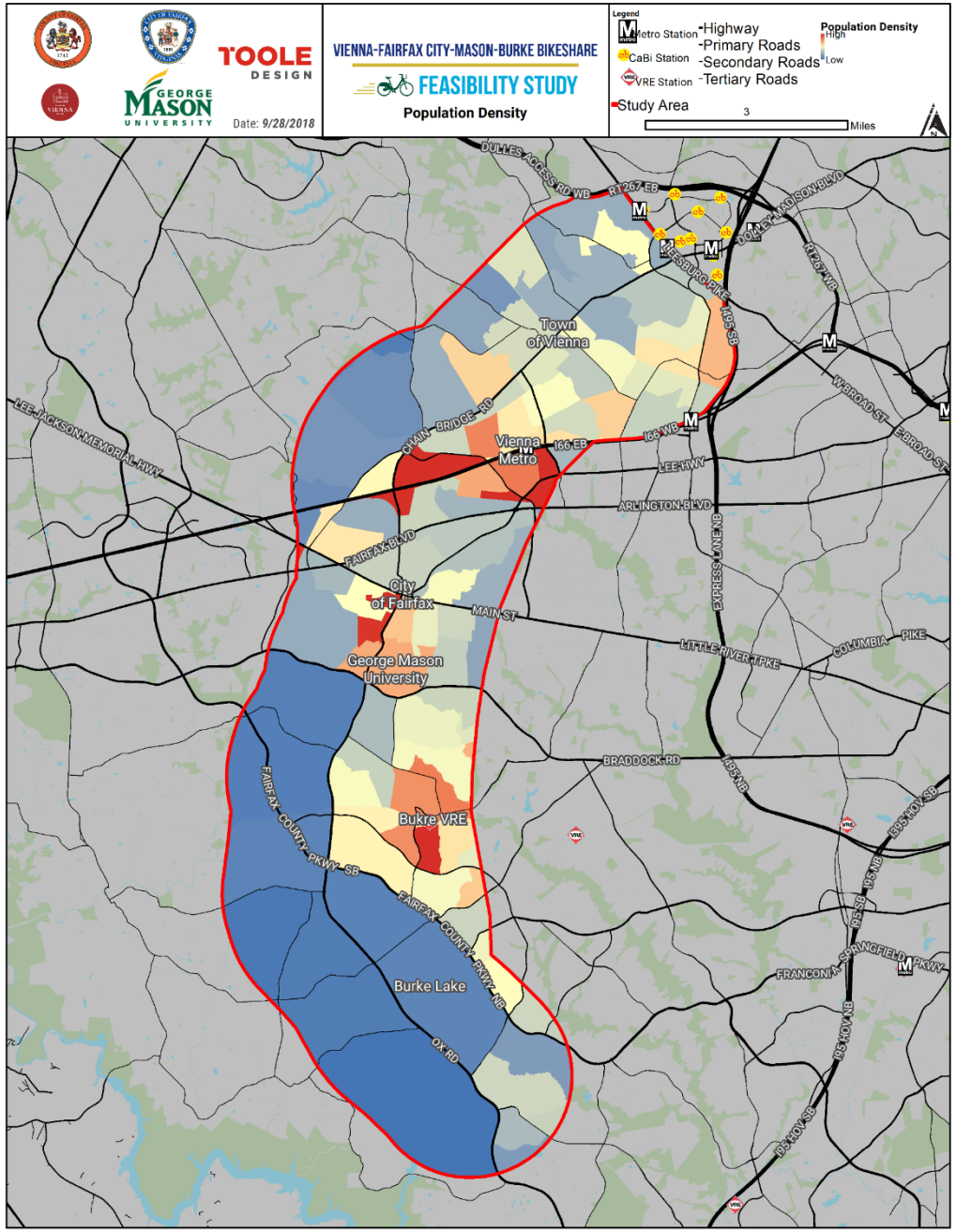
Bike Infrastructure and Topography





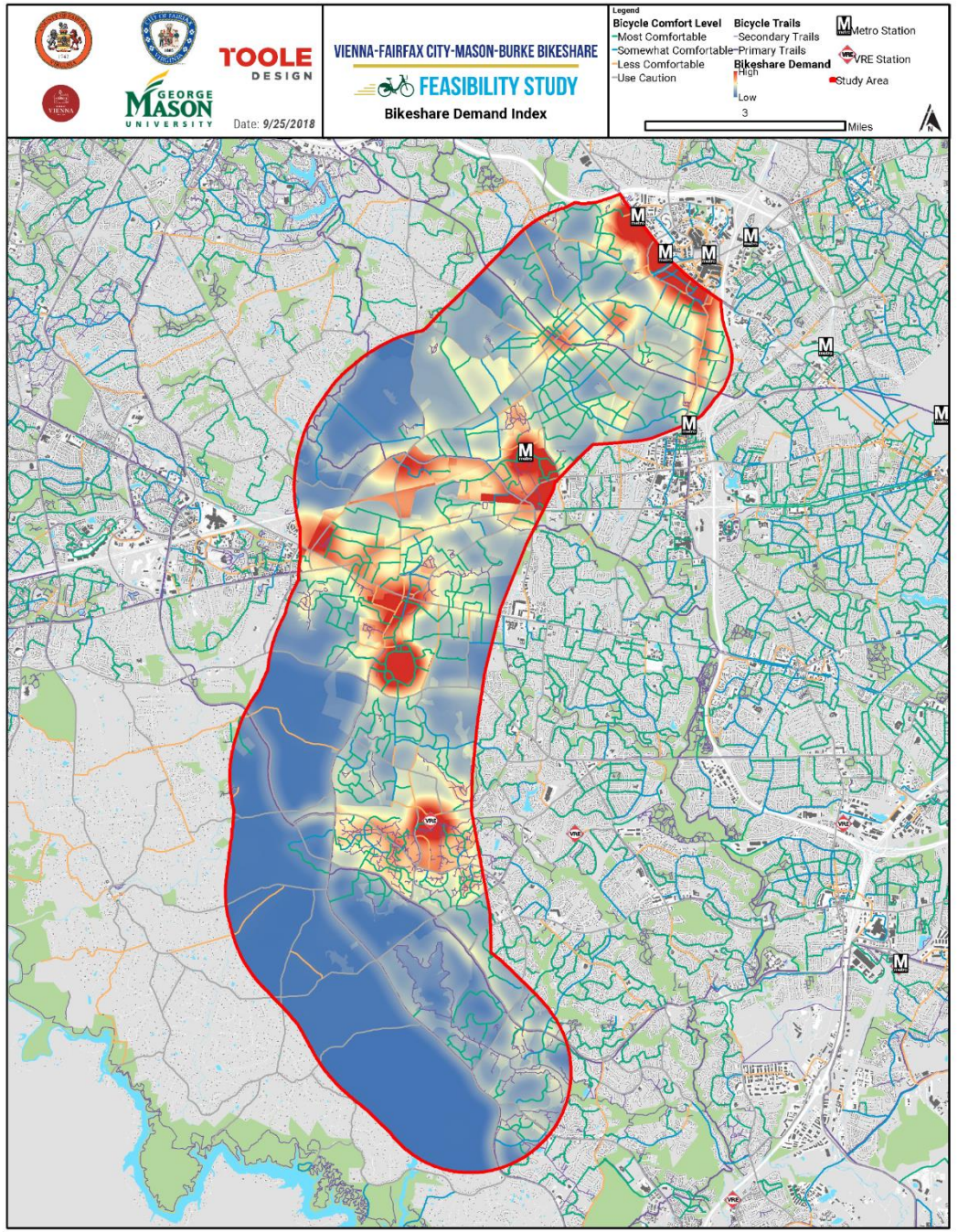
Equity and Population





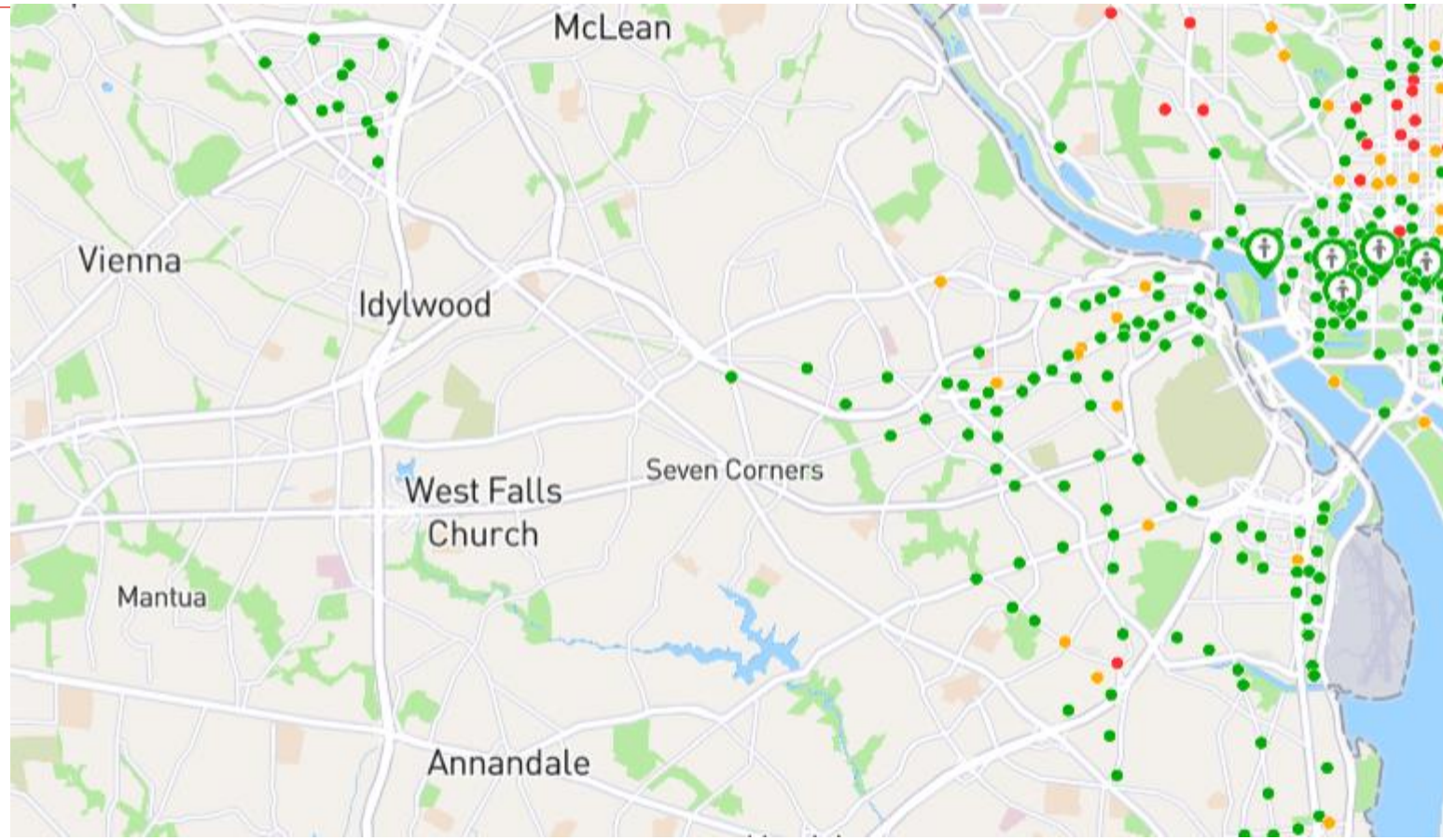
Demand Maps

- Demand mapping results indicate high potential for bikeshare usage at:
  - Tysons Corner
  - Vienna Metro
  - City of Fairfax
  - George Mason University
  - Burke VRE



Regional Integration

- Extend the reach of existing systems
- Enhance connections to regional transit
- Connect with existing area bikeshare members
- Interoperability of multiple bikeshare technologies
- Regional coordination issues, including cost and revenue sharing



TOOLE DESIGN

Bikeshare Technologies

- Smart Dock
- Dockless Bikeshare
- E-assist Scooters

Smart Dock

- Pros:
  - Capital Bikeshare is an established system in the region
  - Stations organized, visible, and iconic
  - Proven and tested technology
  - Reliable for users to find a bike
- Cons:
  - Siting requires long contiguous space
  - More expensive technology
  - Relies on more components
  - More time to implement

Dockless

- Pros
  - Flexible for users to park a bike
  - Easy and fast to implement
  - Scalable for small or large systems
  - Inexpensive technology and no cost to cities
  - Easy to access and use
- Cons
  - Less organized
  - Less agency control
  - Less proven and tested technology
  - Less reliable for users to find a bike

E-Scooters

- Pros
  - Flexible for users to park a scooter
  - Easy and fast to implement
  - Scalable for small or large systems
  - Inexpensive technology and no cost to cities
  - Easy to access and use
  - May be used by a wider set of people than bikes
- Cons
  - Less organized and less agency control
  - Less proven and tested technology
  - Less reliable for users to find a scooter
  - May introduce issues such as riding on the sidewalk

TOOLE DESIGN

Preliminary Recommendations

- Prioritize connections to transit, trails, and destinations (Vienna and Fairfax city centers, Mason)
- Leverage existing and planned bikeshare connections
- Pursue multiple bikeshare technologies using a phased approach

Key Takeaways

- Bikeshare is feasible and advances Town goals but requires supporting actions:
  - Concurrent improvements to bicycle infrastructure
  - Review of policies and regulations related to bicycles and emerging shared mobility options
  - Ongoing staff support and operational subsidies (offset by revenues from user fees and sponsorships)
- Benefits and tradeoffs exist with each technology – likely a balanced combination of docked and dockless options will be most effective to serve a variety of users

Schedule & Next Steps

- Refine recommendations and develop implementation plan
  - Phasing
  - Business plan
- Final implementation plan (December)
- Application for I-66 Commuter Choice funding to implement
  - December resolution of support
- Finalize bikeshare station locations with additional input (Spring 2019)

TOOLE DESIGN


Questions?
LimeBike