

Central Alexandria Study

Origin-Destination Study & Existing Conditions

Task Force Meeting

October 4, 2017



Meeting Agenda

- Welcome and Introductions
- Review of Data Collected and Key Findings
- Task Force Discussion
- Public Comment
- Review of Next Steps
- Adjournment



Ground Rules

- Everyone's opinions are important and valid
- Meeting will begin and end on time
- Please follow the agenda
- Be respectful and courteous - avoid dominating the conversation
- Purpose of the meeting is for Task Force discussion
- Time is reserved for public comments toward the end
- Please silence cell phones and other mobile devices

Purpose of the Study

- Respond to neighborhood concerns about traffic
- Measure and better understand origins/destinations of traffic, traffic volumes on neighborhood streets
- Test neighborhood improvements with future traffic conditions and programmed capital improvements to relieve traffic pressure in neighborhoods

Today's meeting

- Our goal is to...
 - Inform Task Force about data collected
 - Provide Key Takeaways
 - Gather Task Force's reaction
 - Talk about next steps

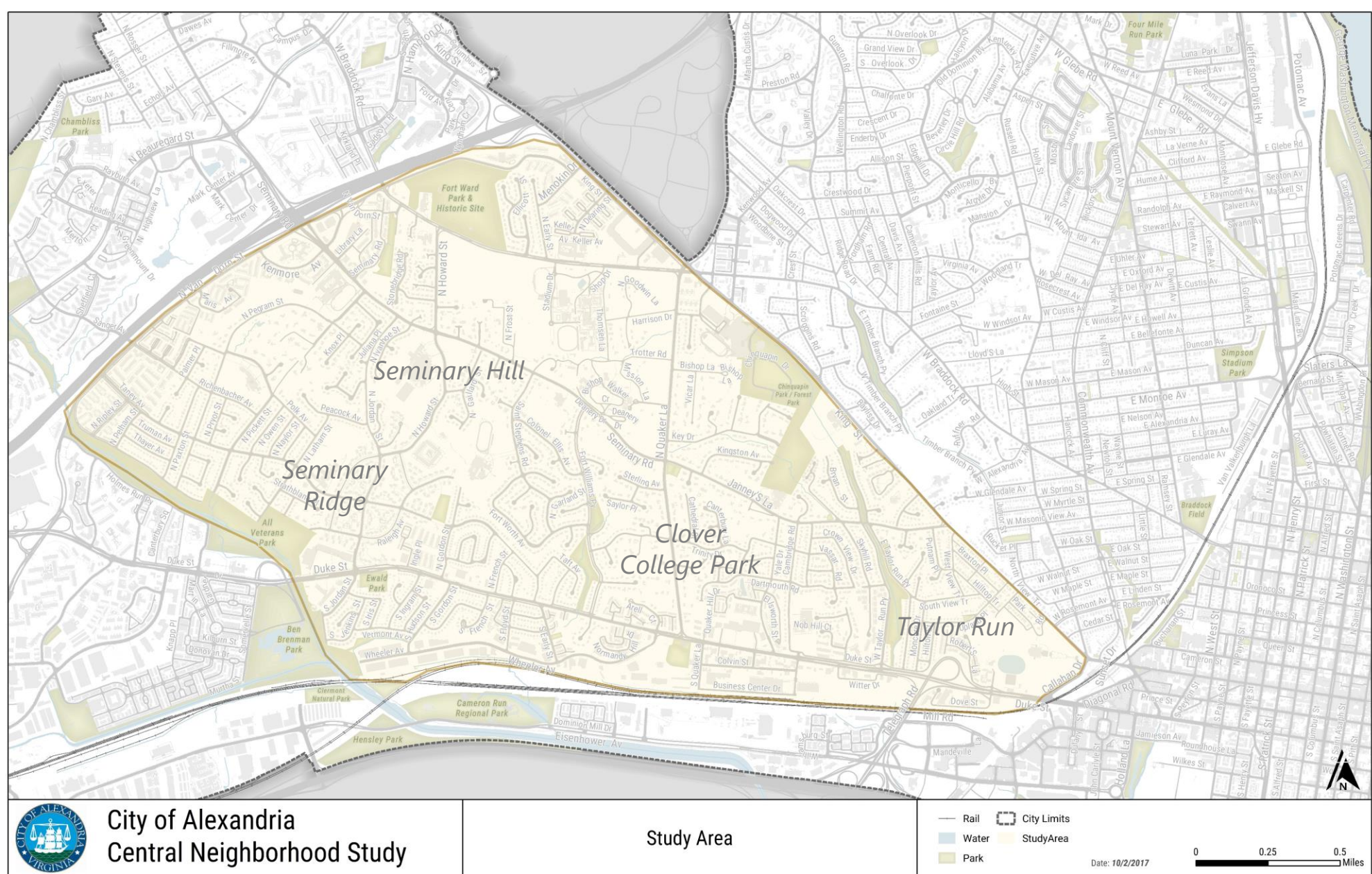


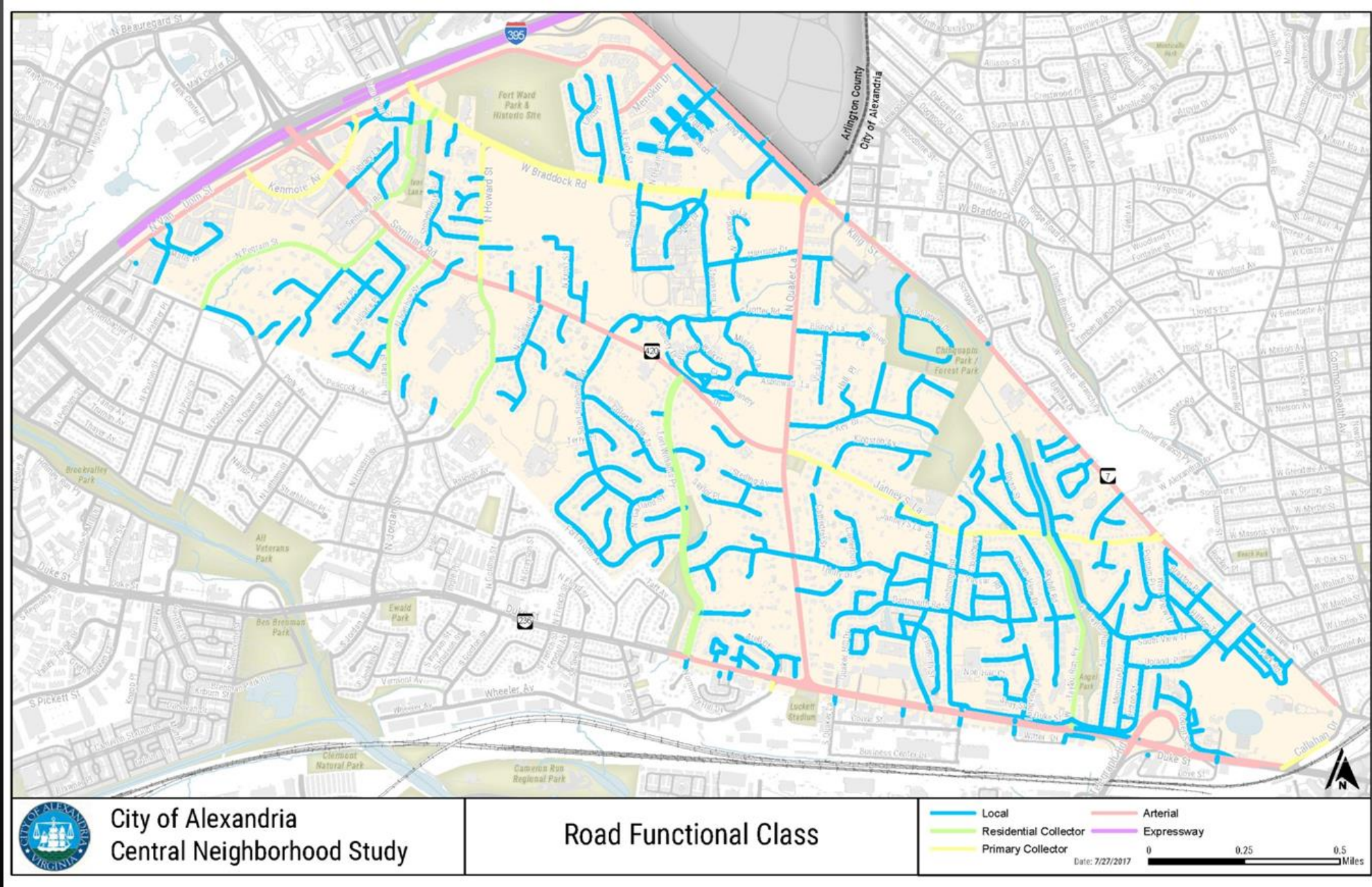
Key Takeaways

- Arterial roads are serving function, carrying most of the traffic
- Some collector/local streets have cut-through traffic
- This project can't solve regional traffic congestion
- More cut-through traffic on local/collector roads in the southbound direction
- Some factors contributing to cut-through traffic:
 - Congestion during peak periods
 - Back-up from Telegraph Road in afternoon peak hours
- Existing traffic calming measures keep speeds down in some areas

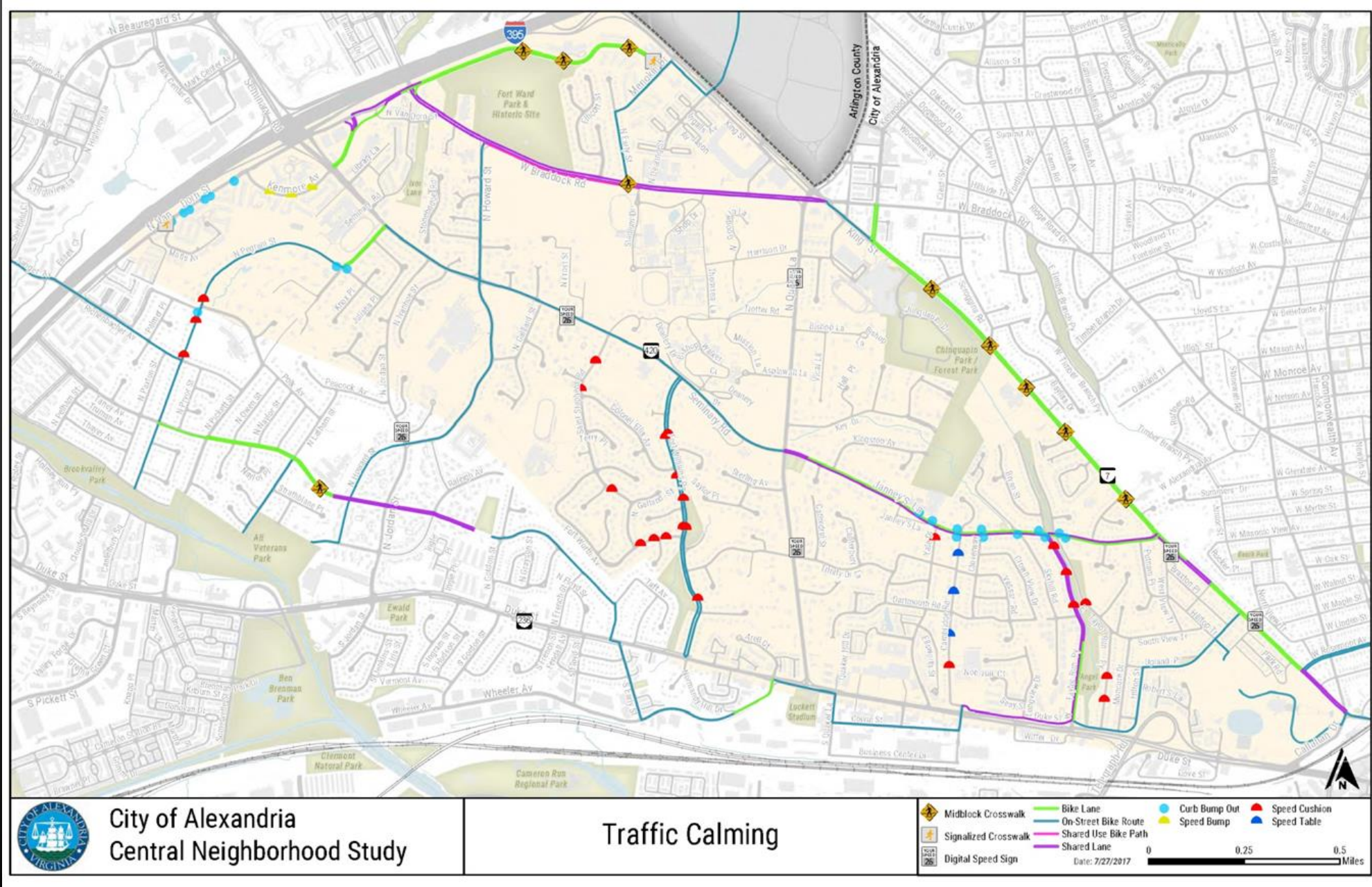
Data Collected

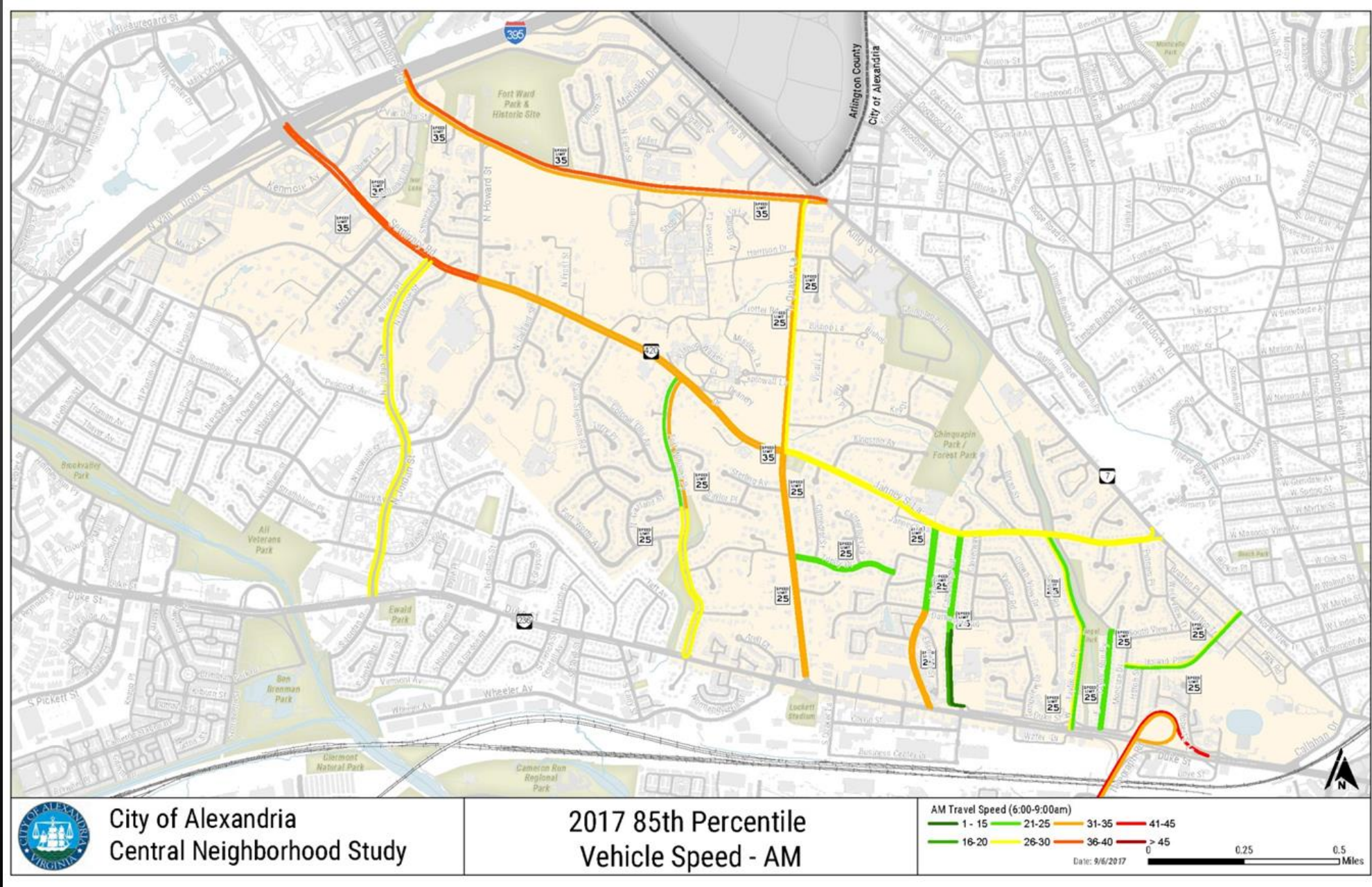
- Bluetooth device signal recording for origin-destination study at 21 locations
- Average daily traffic (ADT) counts and vehicle speeds at 23 locations
- Intersection traffic counts at 29 study intersections
- License plate surveys at six “gateway” locations, 3 in the AM / 3 in the PM
- Roadway functional class, existing traffic calming measures, and roadway cross-sections

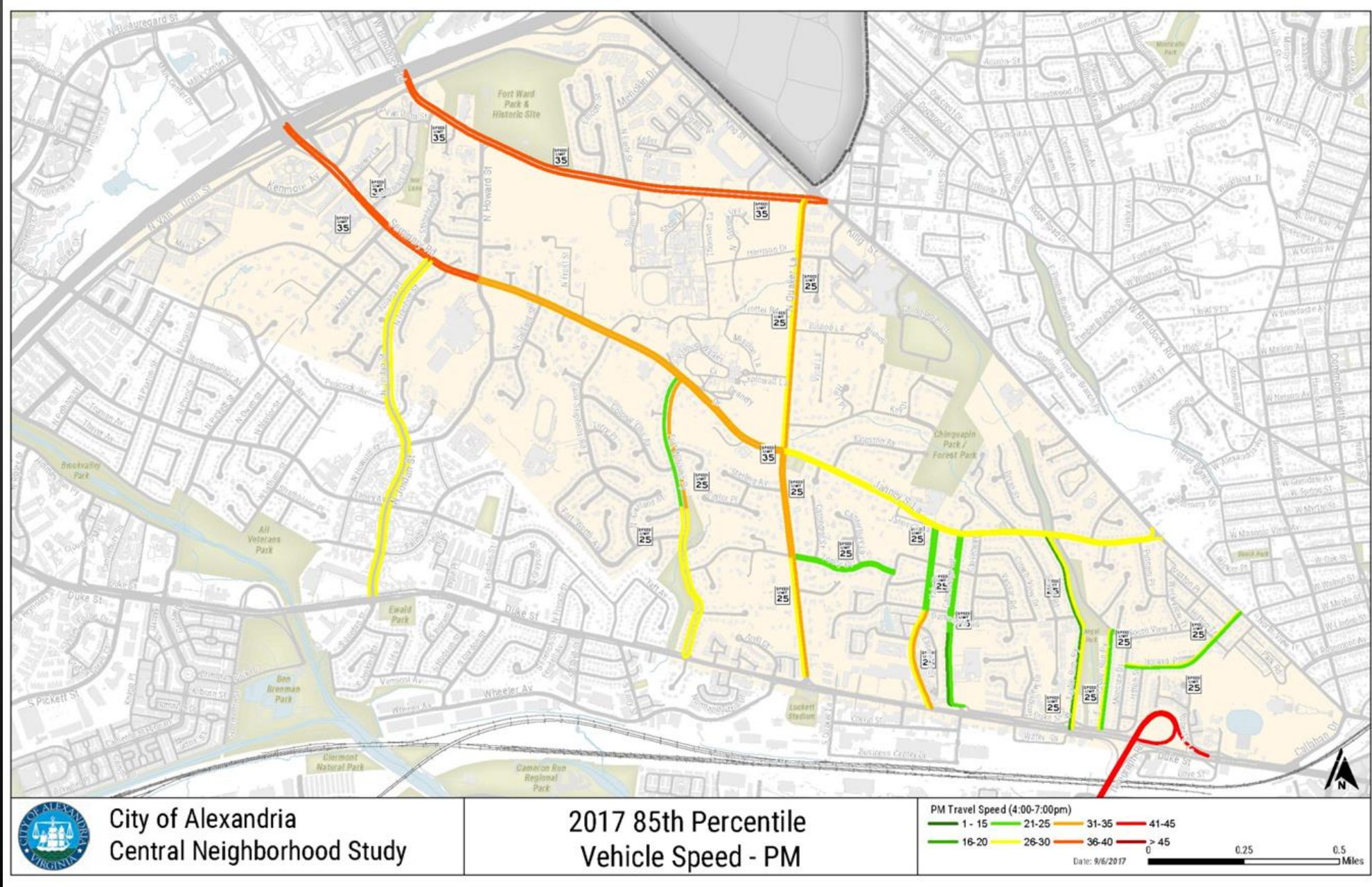


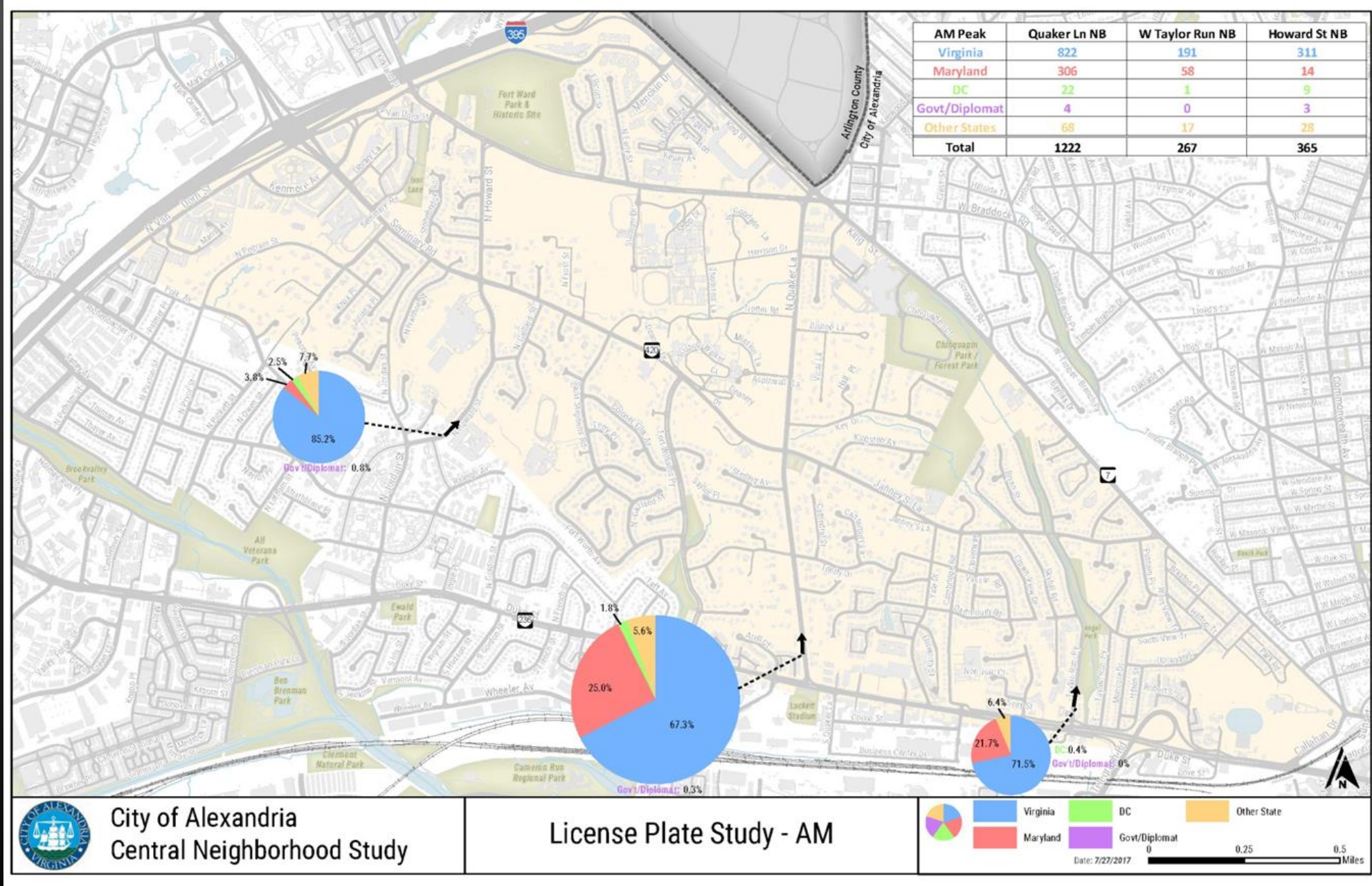


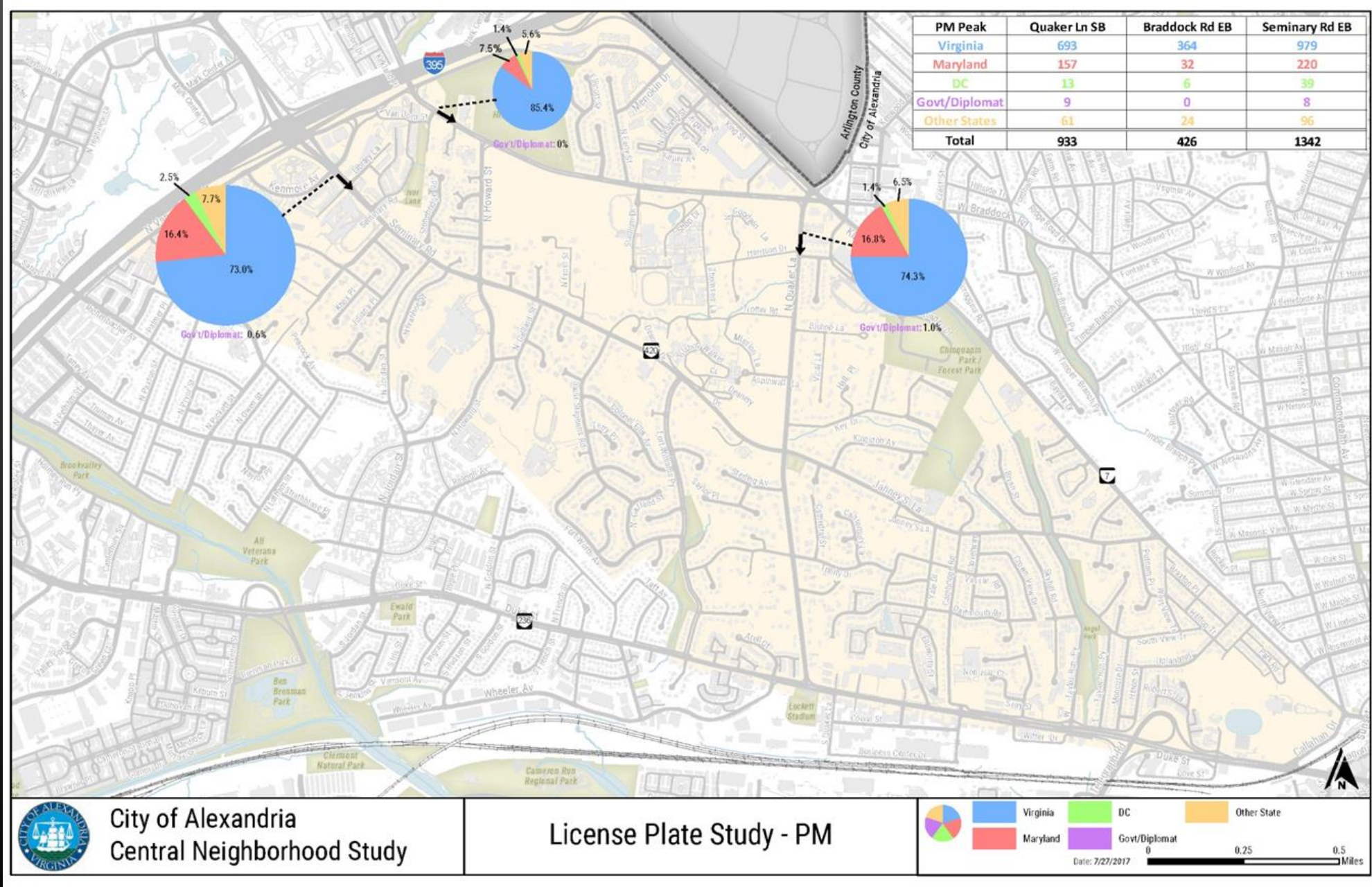




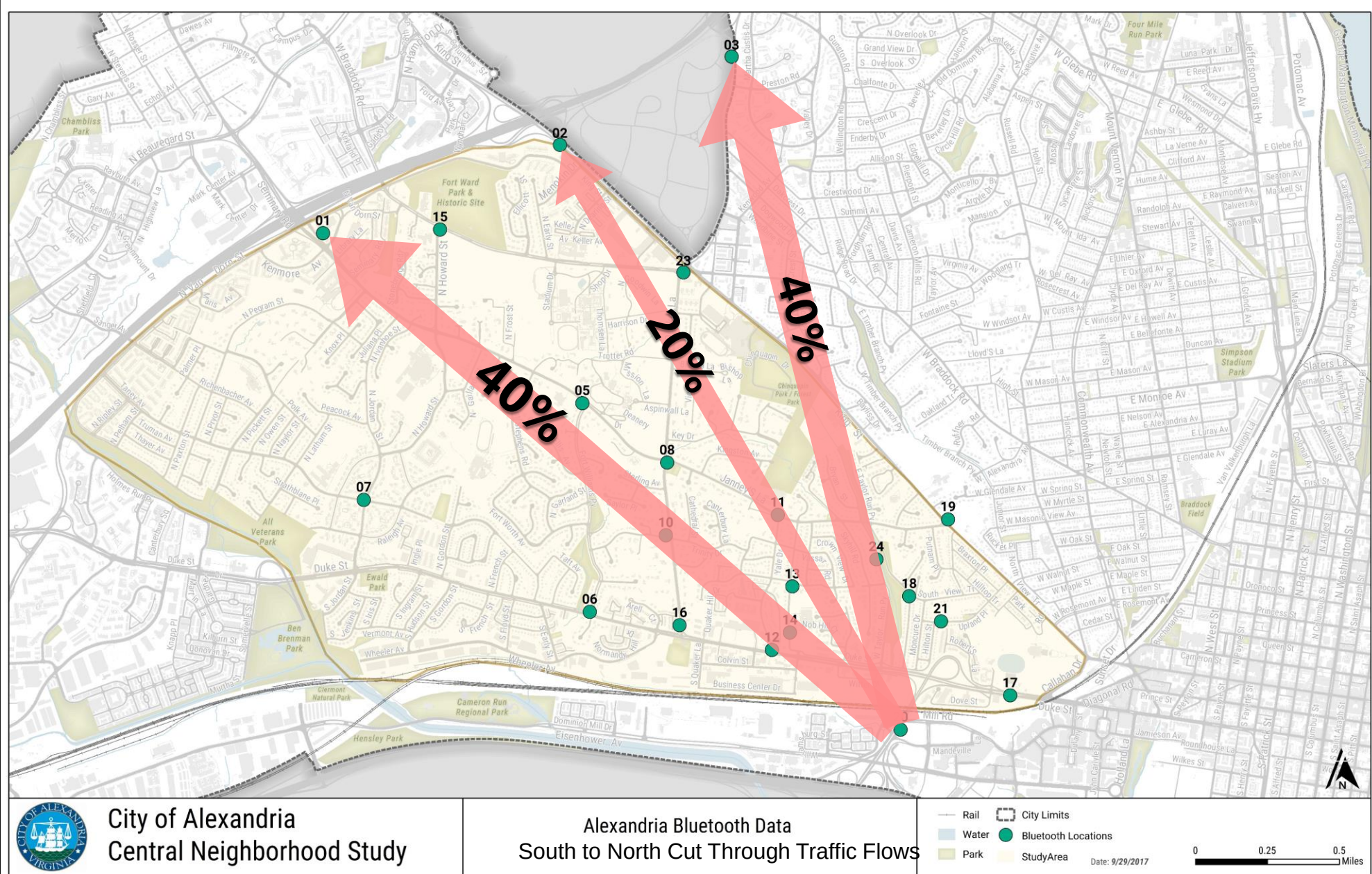


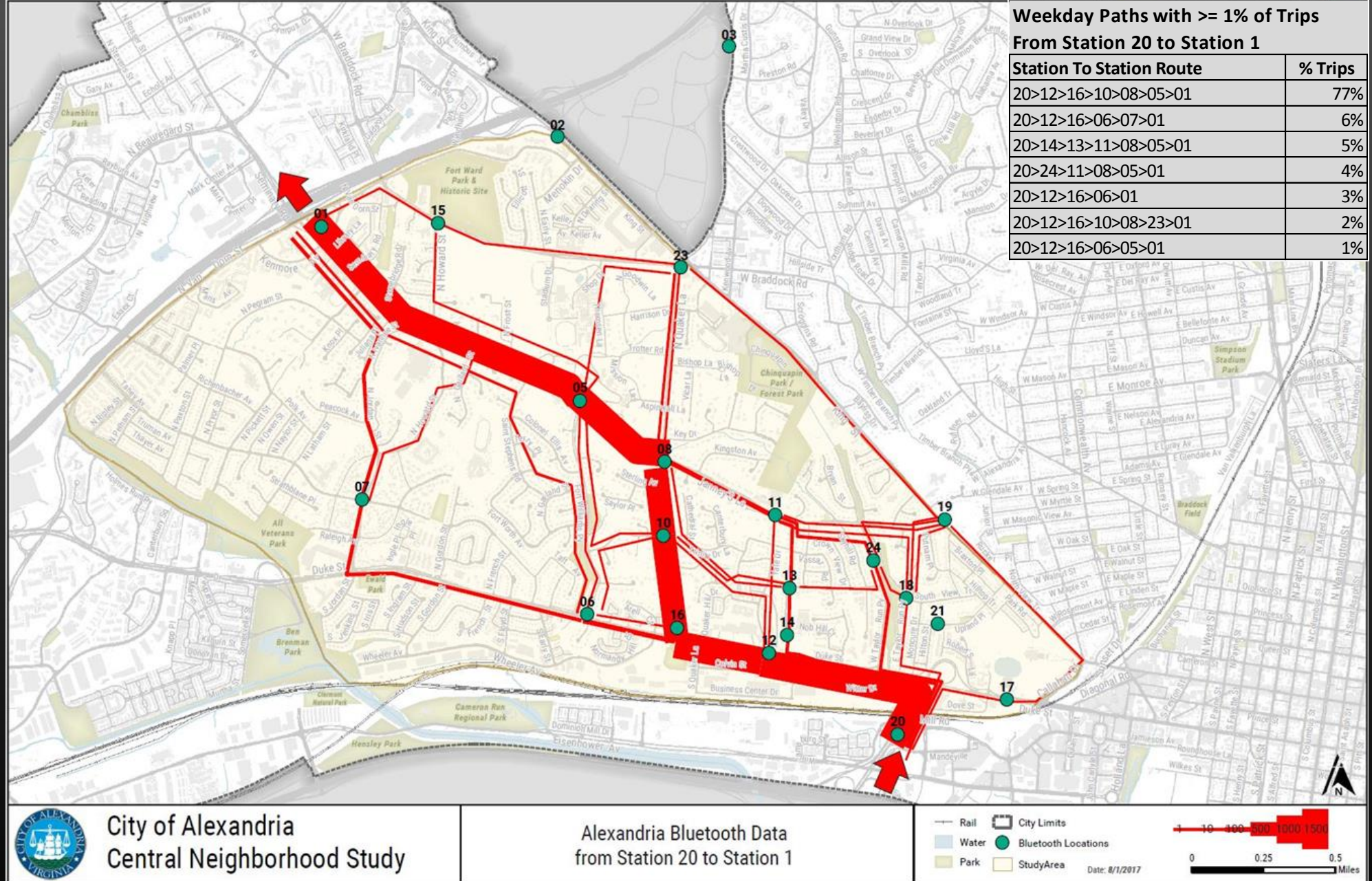


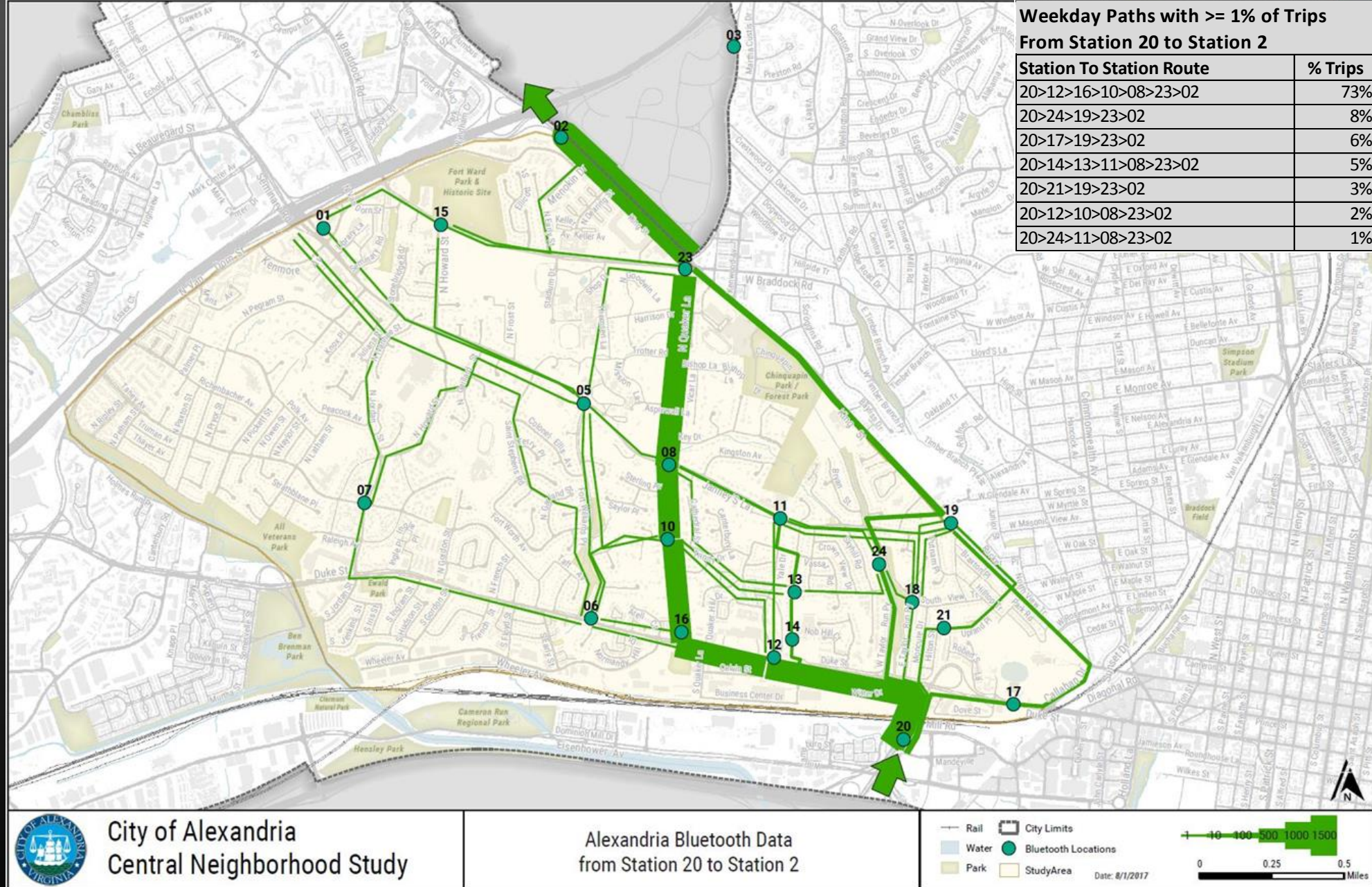


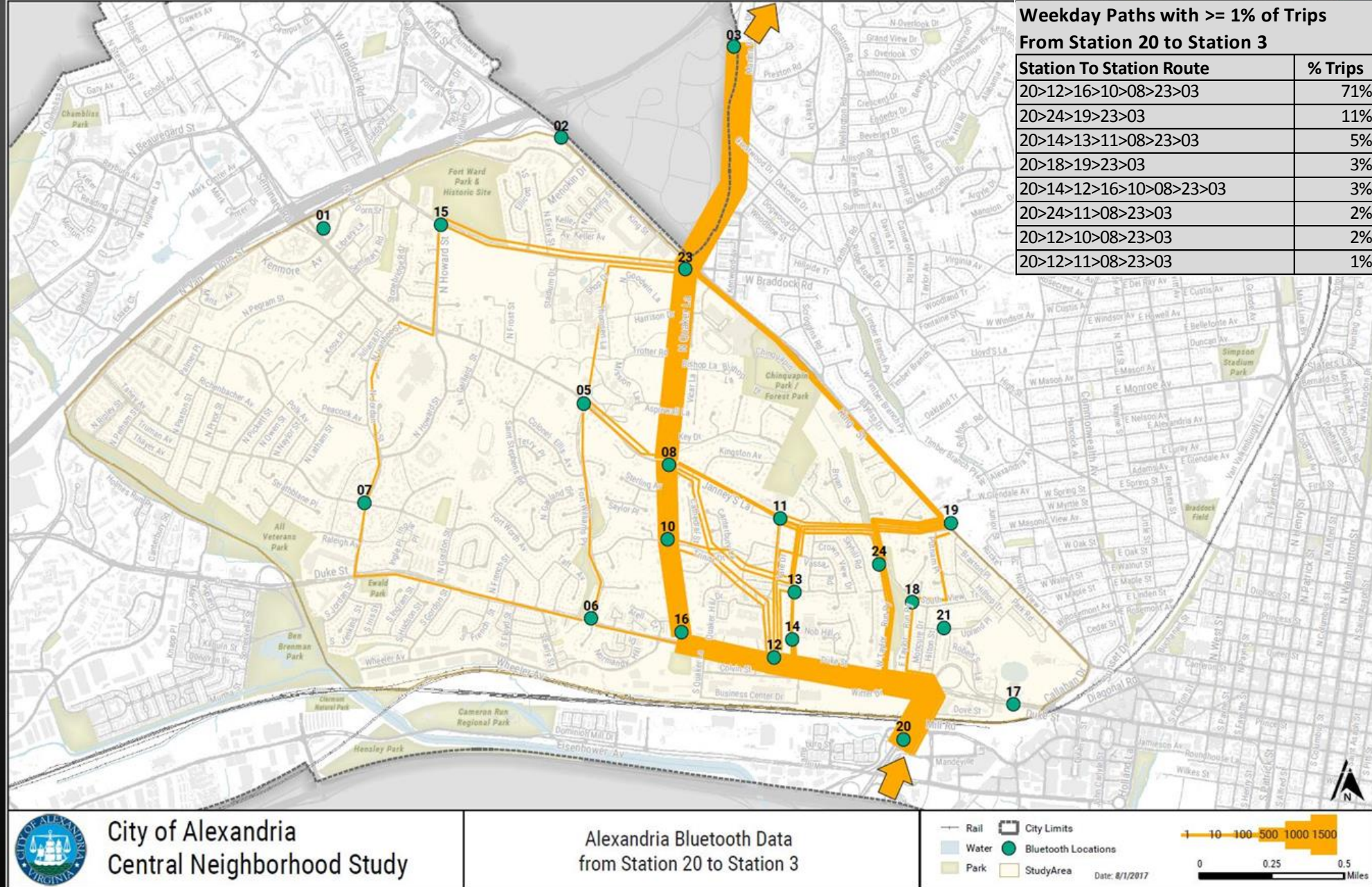


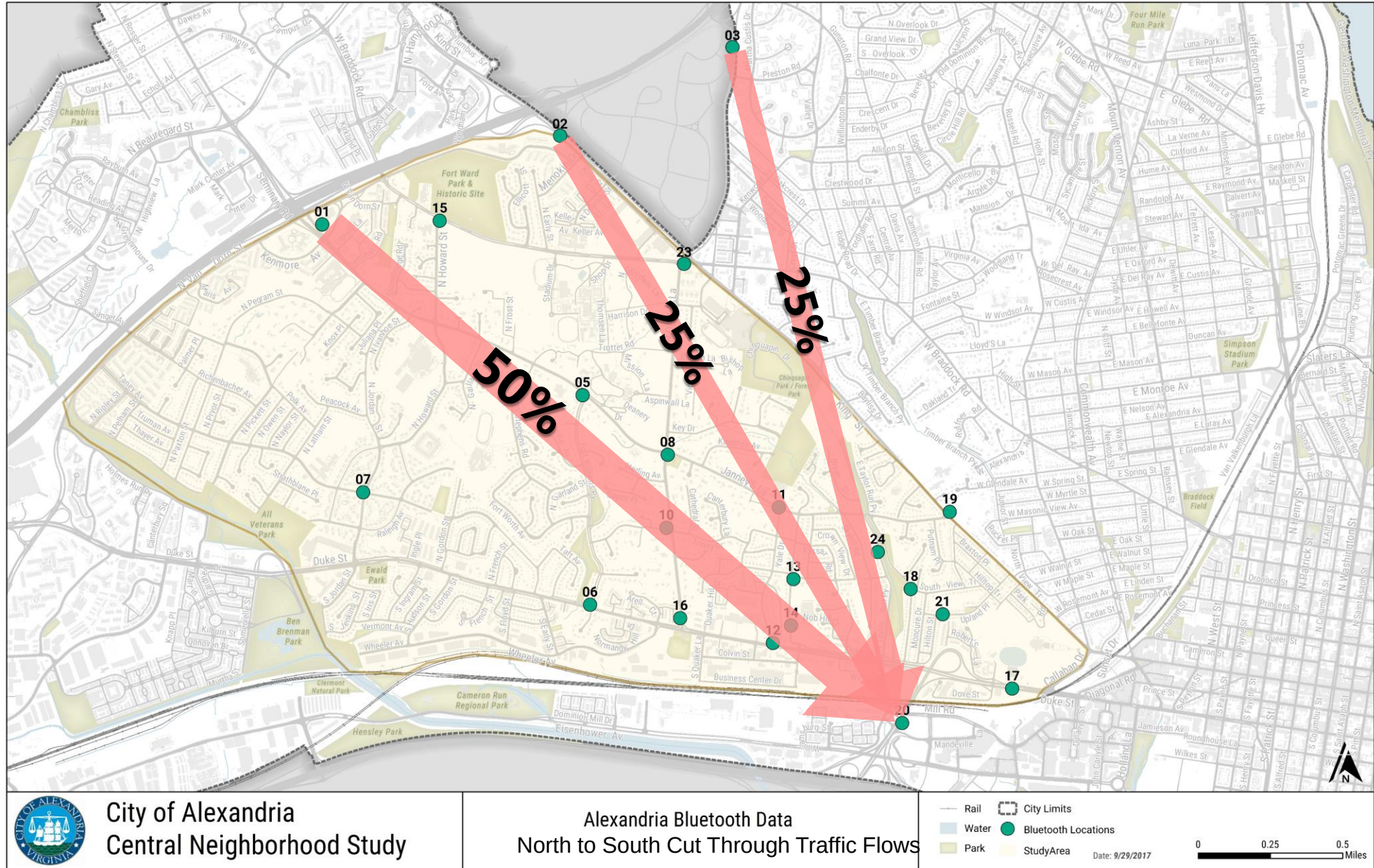
Origin-Destination Data

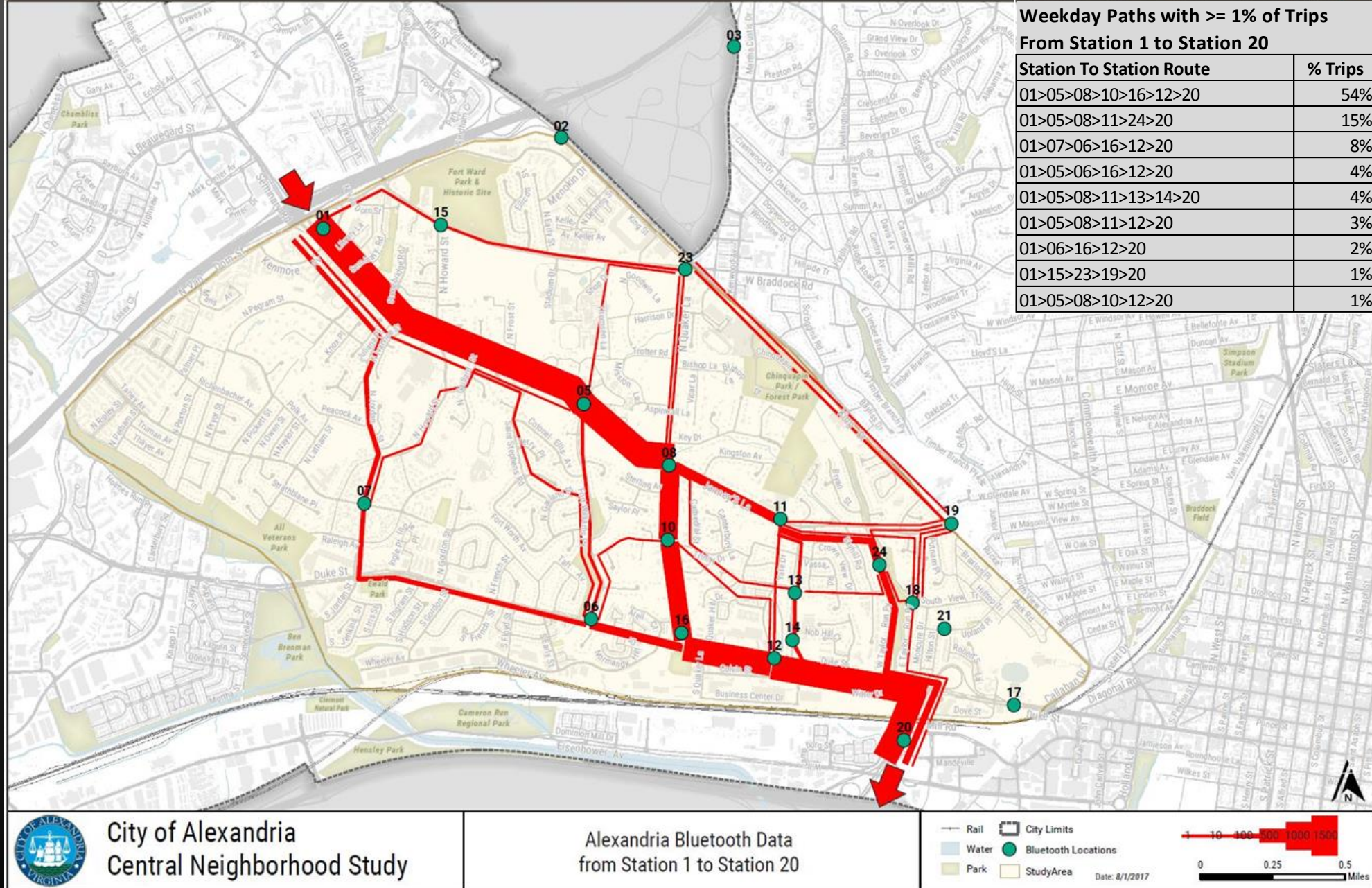


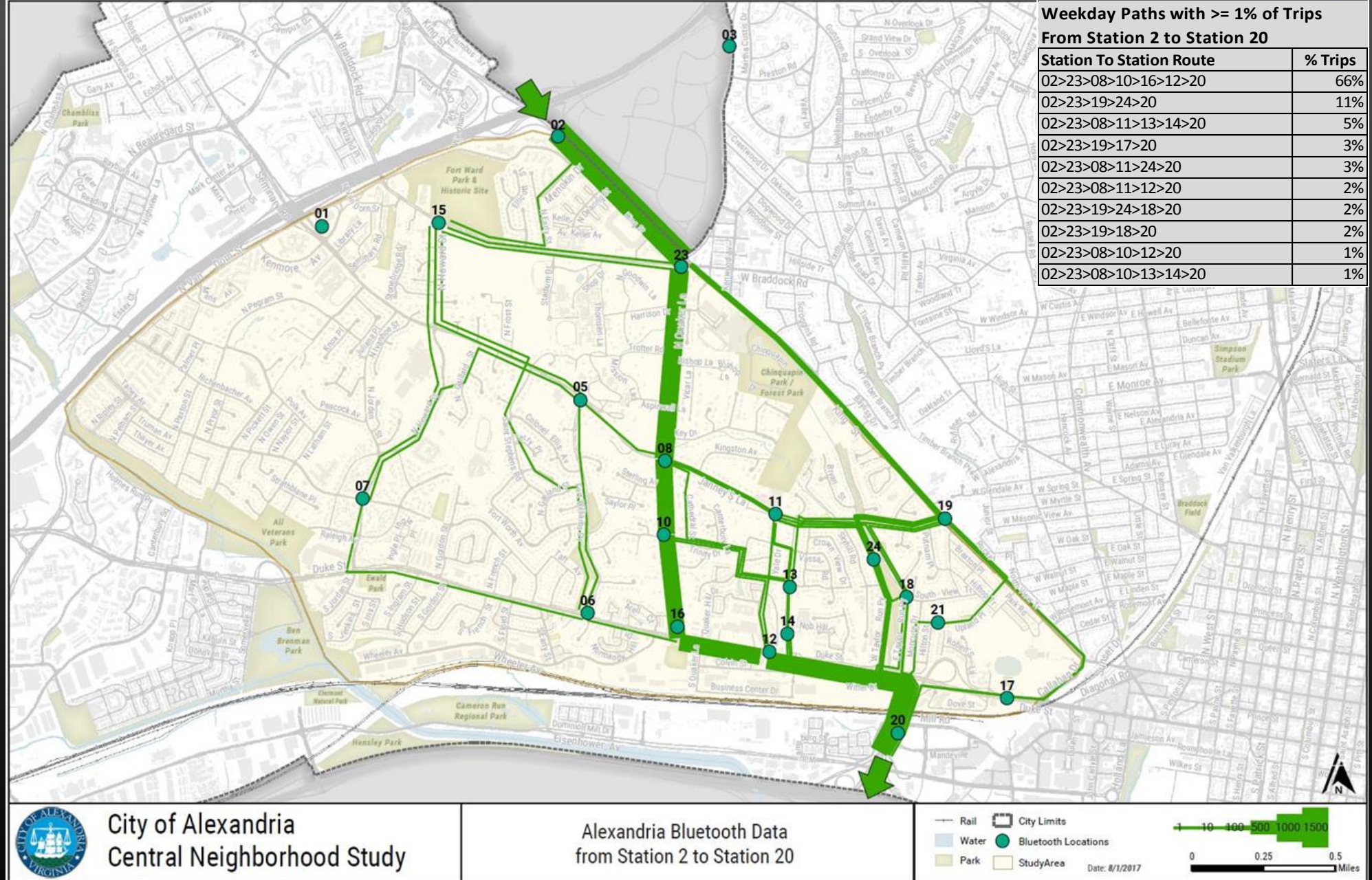


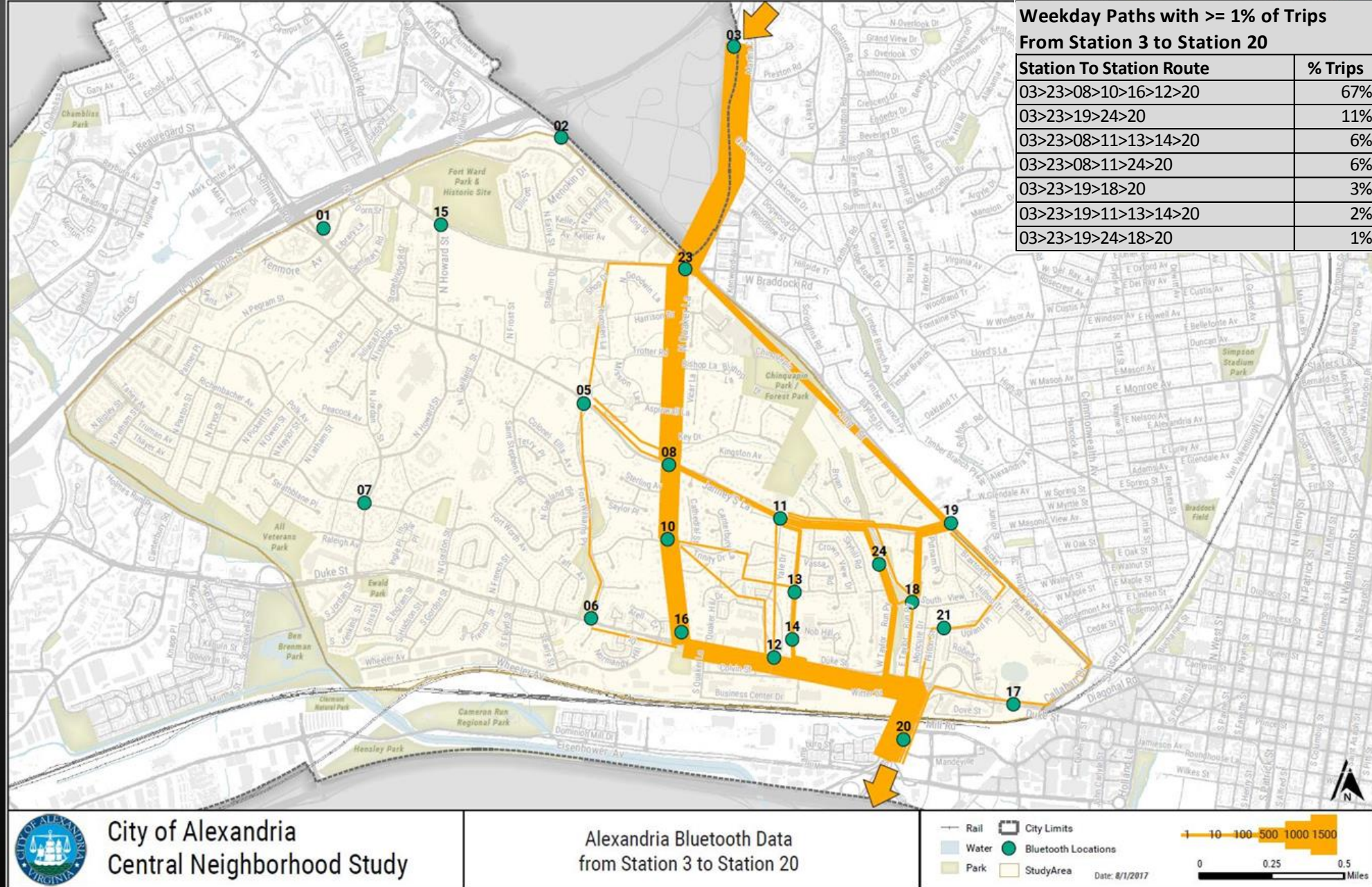






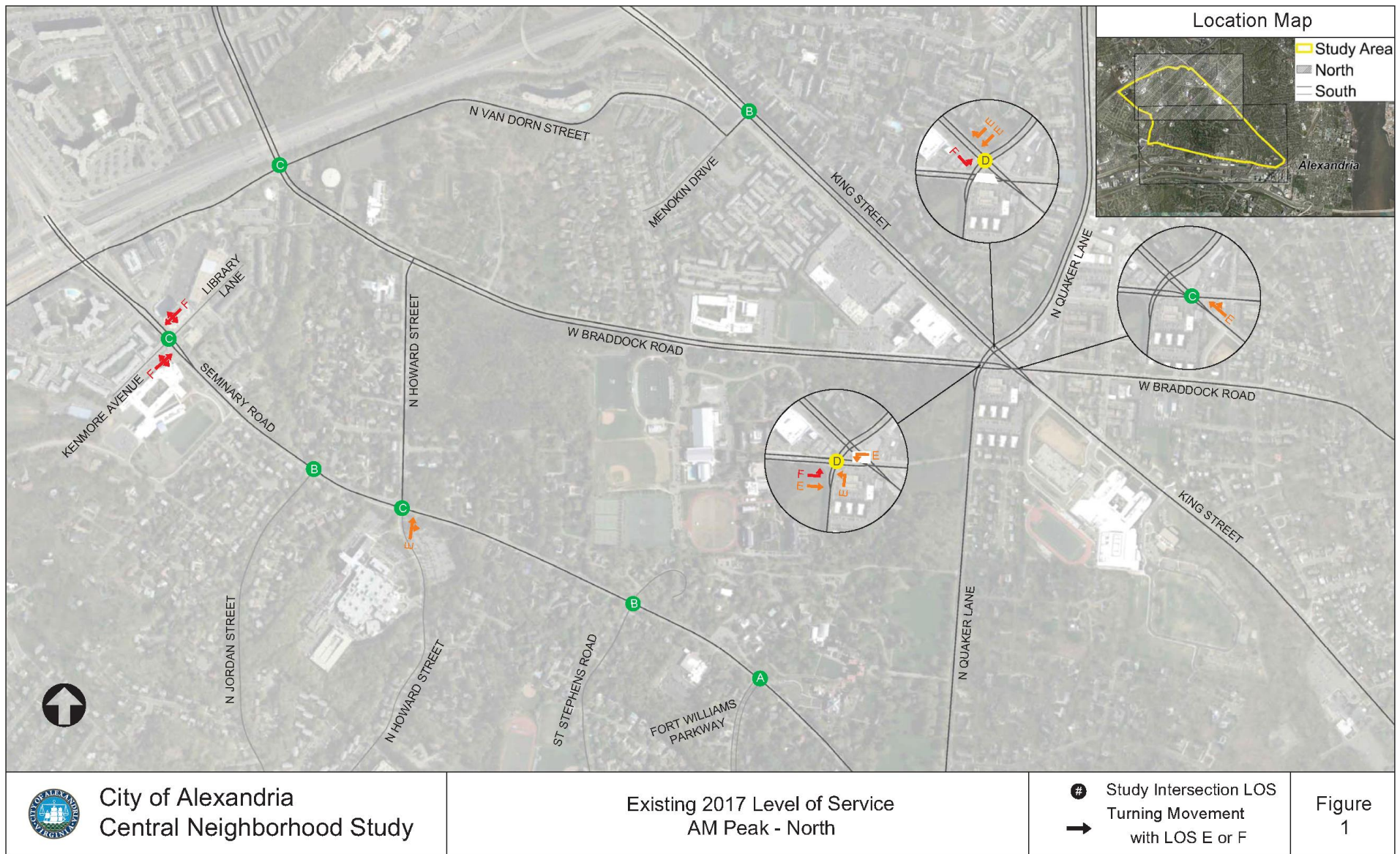


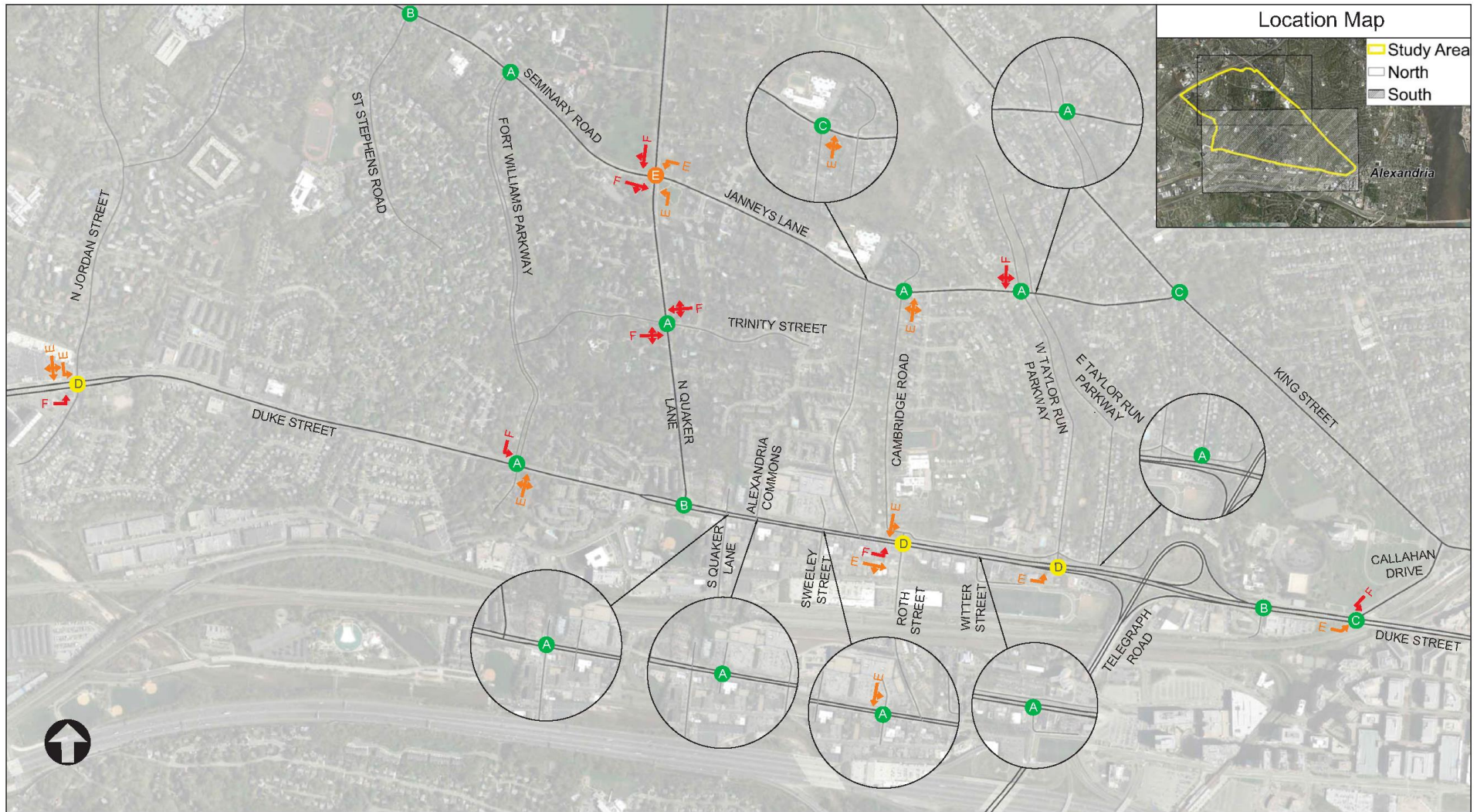




Existing Conditions Analysis

- Completed capacity analysis at each of the 29 study intersections
- Studied both morning and afternoon commuter peak hours
- Based on existing traffic volumes, type of traffic control, signal timing
- Results include average delay, "Level of Service" and queues





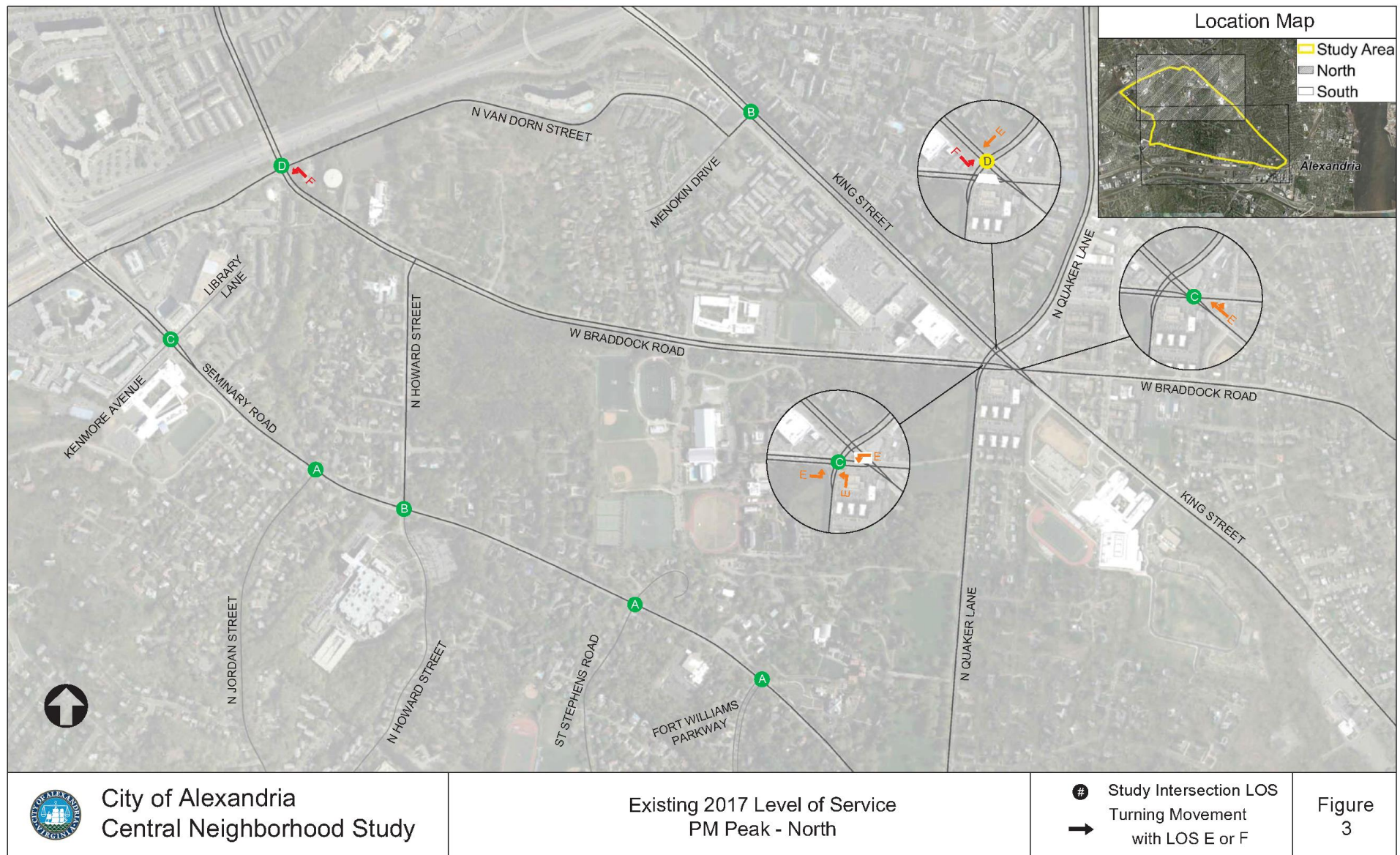
City of Alexandria
Central Neighborhood Study

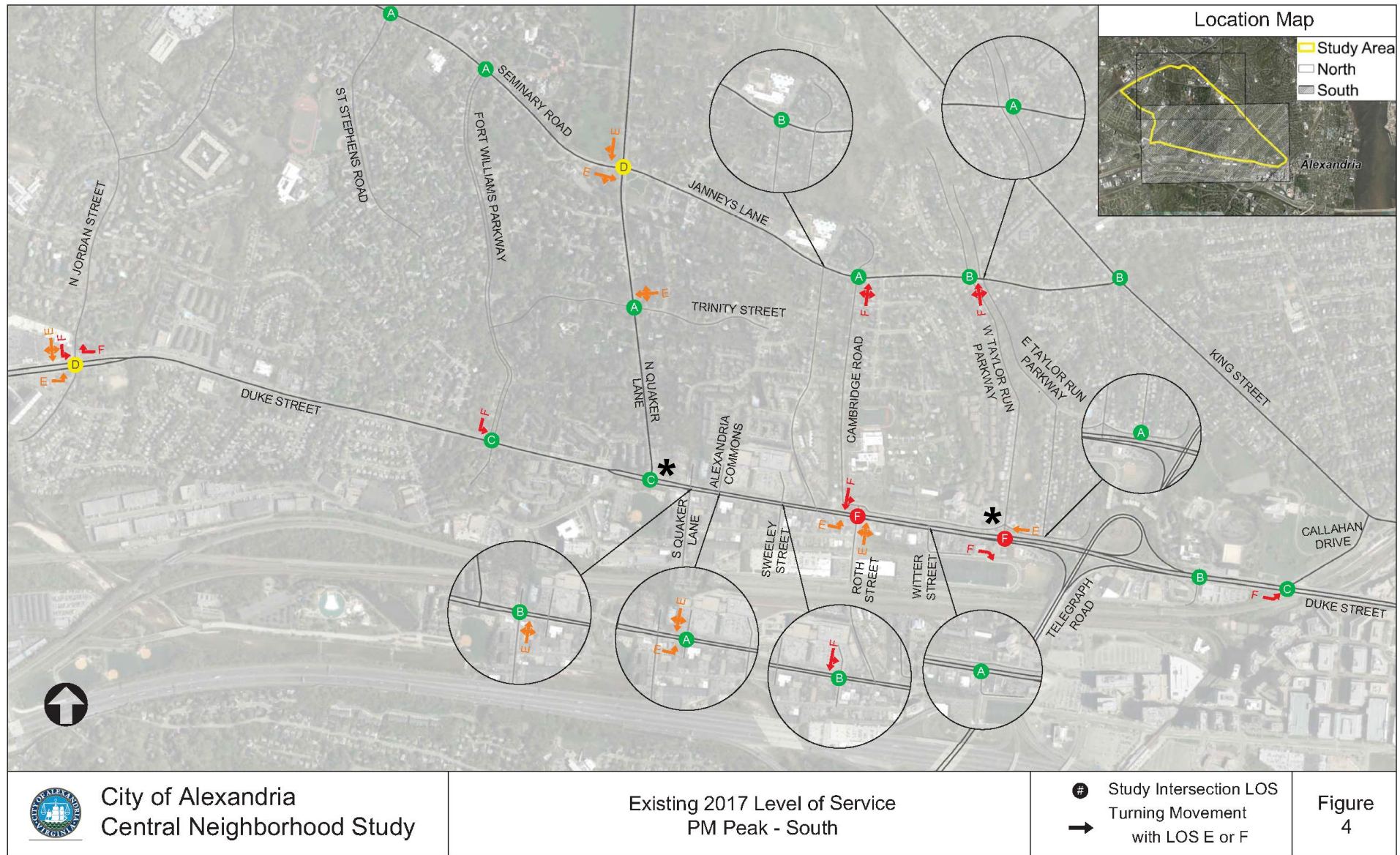
Existing 2017 Level of Service
AM Peak - South

Study Intersection LOS
→ Turning Movement
with LOS E or F

Figure
2



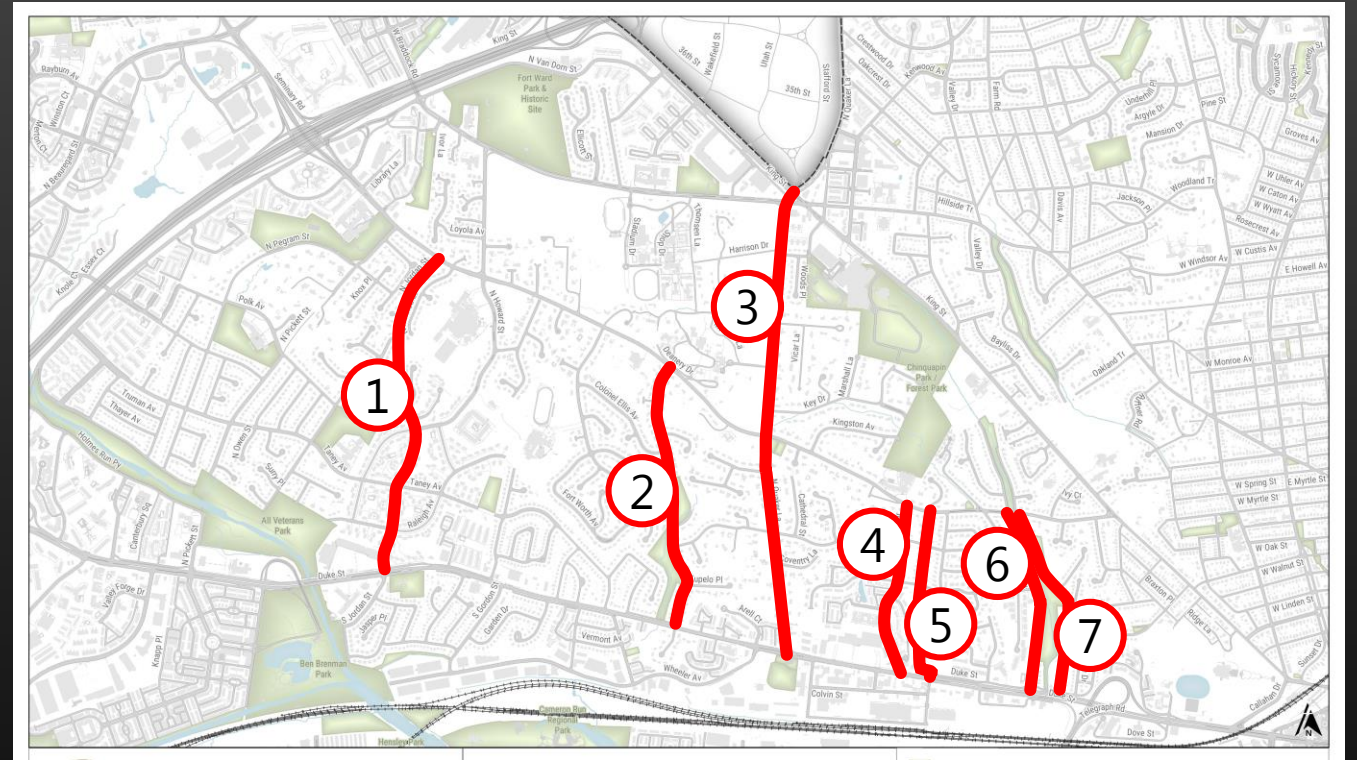




*Delay are likely higher due to queue spill-back from Telegraph Road

Additional Details on North-South Streets

1. Jordan Street
2. Fort Williams Parkway
3. N. Quaker Lane
4. Yale Drive
5. Cambridge Road
6. West Taylor Run Parkway
7. East Taylor Run Parkway

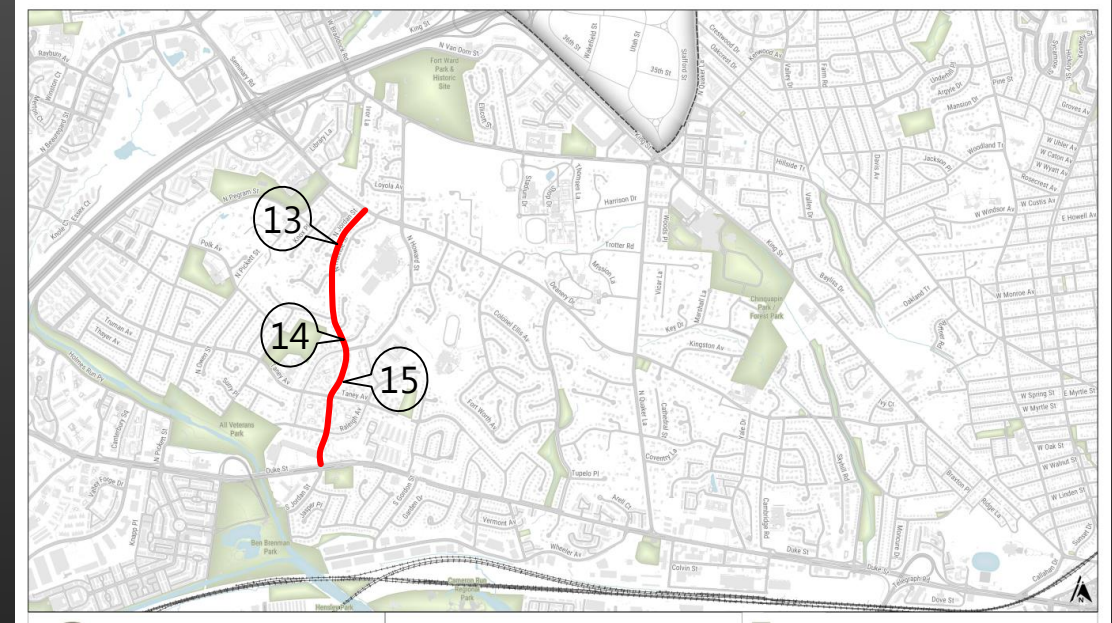


Explanation of Additional Details on North-South Streets

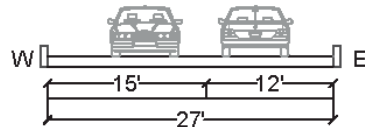
- Functional class
- Average daily traffic
- Traffic calming
- Speed Limit
- Cross sections
- 85th %ile speeds
- Proportion of cut-through traffic that uses each street
 - Average percentage of paired vehicles going "Northbound" and "Southbound" between external gateway points on the three primary routes

Jordan Street

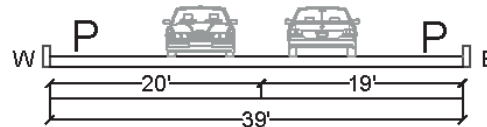
- Residential Collector Road
- 13,100 ADT
- 1 digital speed sign
- Speed Limit: 25



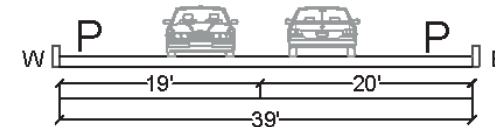
13. N Jordan Street
South of N Jordan Ct



14. N Jordan Street
North of N Howard St



15. N Jordan Street
North of Taney Ave



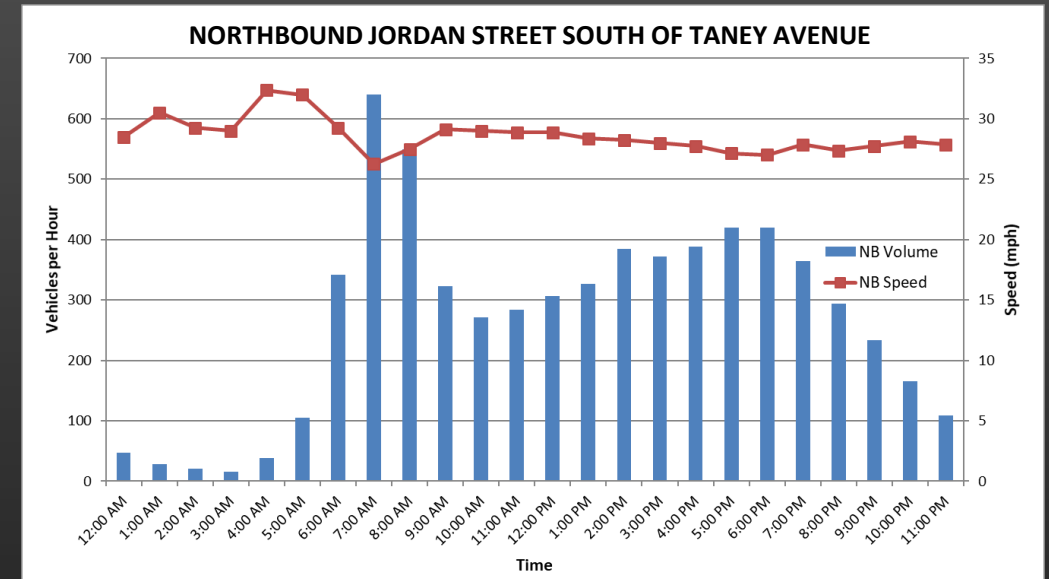
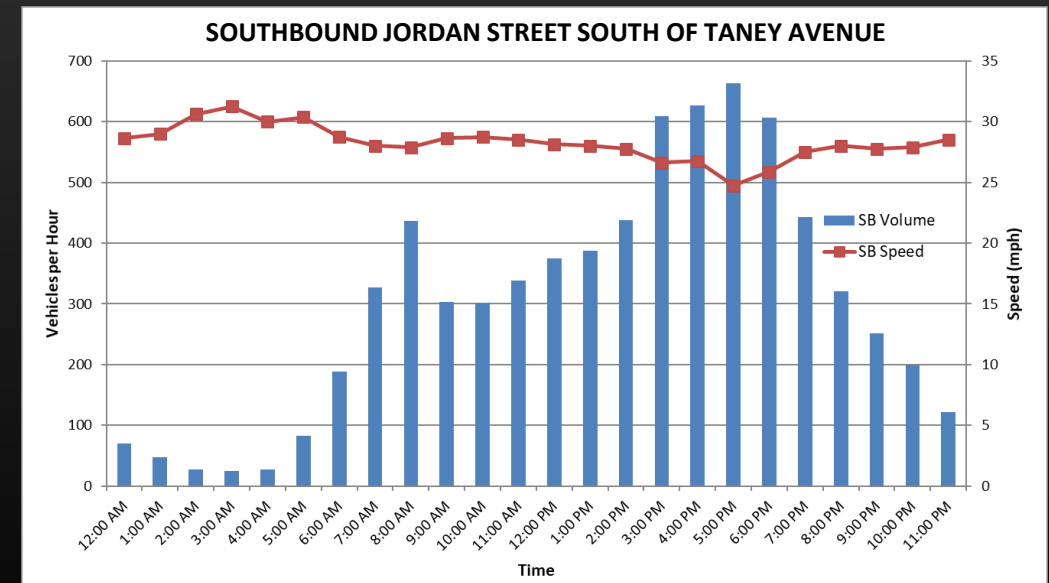
Jordan Street

15. North of Taney Ave



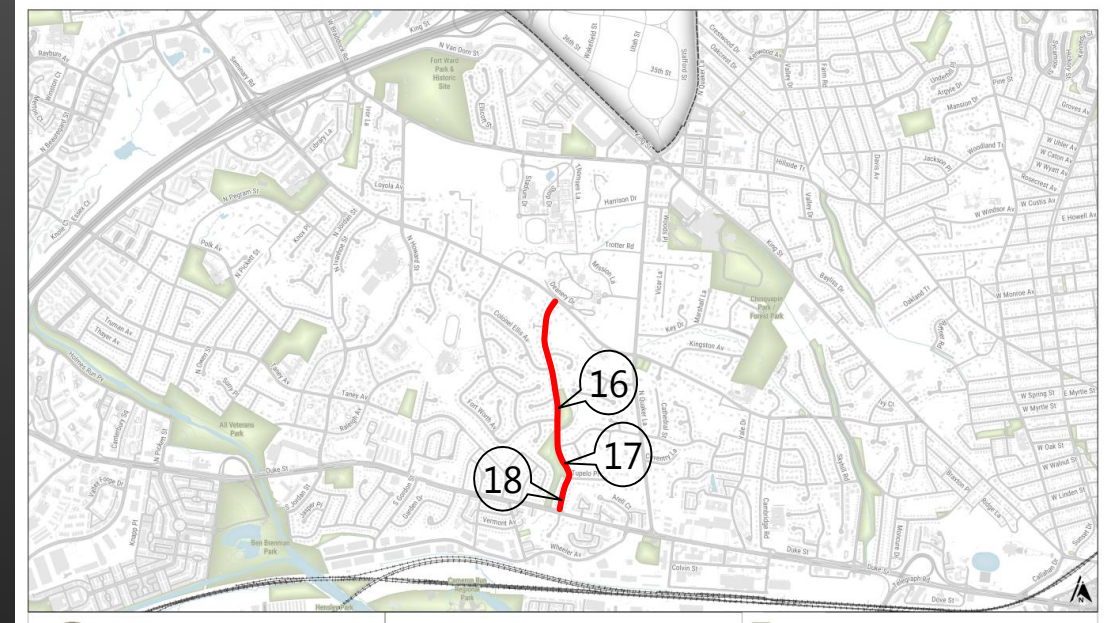
Jordan Street

- NB 85th %ile speed (AM/PM):
26/28
- SB 85th %ile speed (AM/PM):
28/26
- Peak period volume increases
- Speeds decrease during peak periods
- Proportion of cut-through traffic that uses Jordan Street:
From Telegraph Road (Northbound): 2%
To Telegraph Road (Southbound): 3%

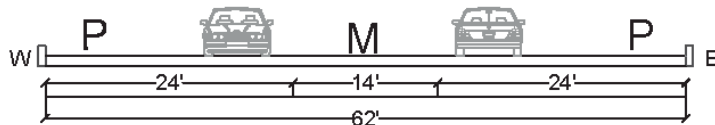


Fort Williams Parkway

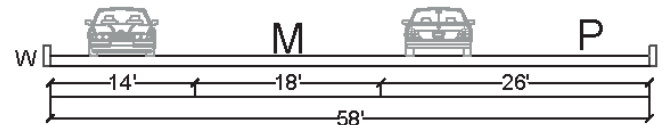
- Residential Collector Road
- 1,500-2,400 ADT
- 4 NB, 2 SB speed cushions
- On-street bike route
- Speed Limit: 25



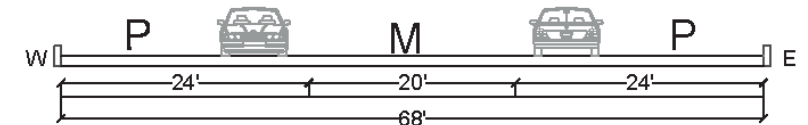
16. Fort Williams Pkwy
North of Fort Worth Ave



17. Fort Williams Pkwy
North of Tupelo Pl



18. Fort Williams Pkwy
North of Duke St



West Taylor Run Parkway

16. North of Fort Worth Ave

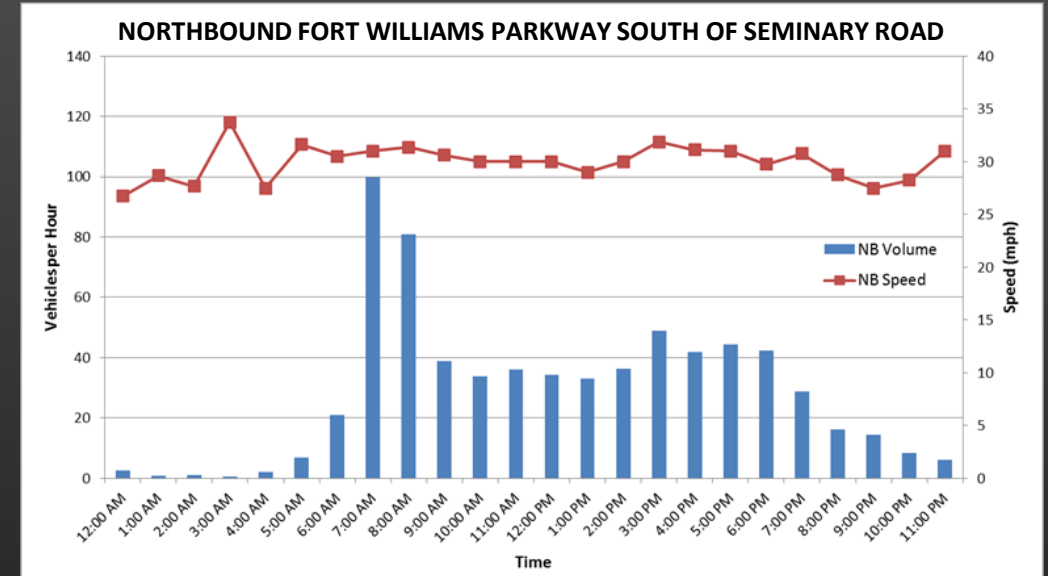
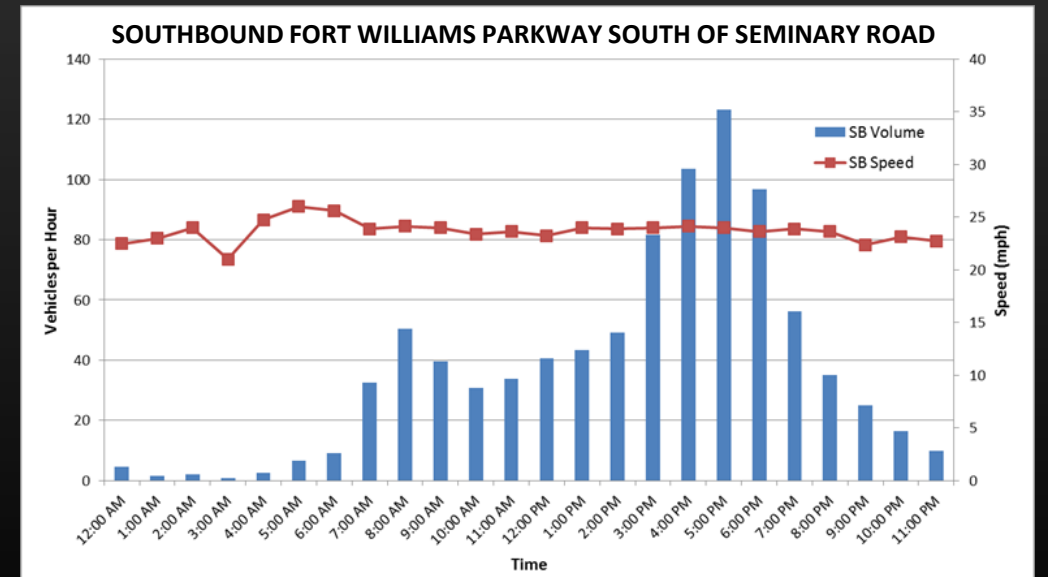


17. North of Tulepo Pl



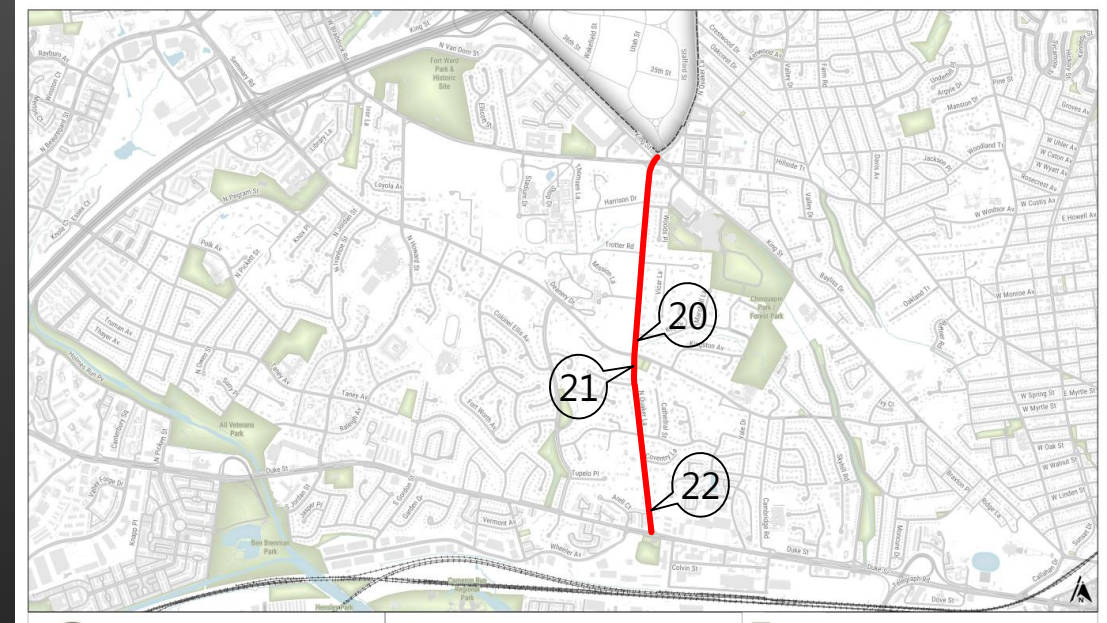
Fort Williams Parkway

- NB 85th %ile speed (AM/PM):
31/31
- SB 85th %ile speed (AM/PM):
24/24
- Northbound speeding problem
- Peak period volume spikes, speed remains consistent
- Proportion of cut-through traffic that uses Fort Williams Parkway:
From Telegraph Road (Northbound): 1%
To Telegraph Road (Southbound): 1%

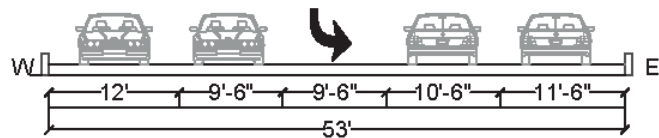


N Quaker Lane

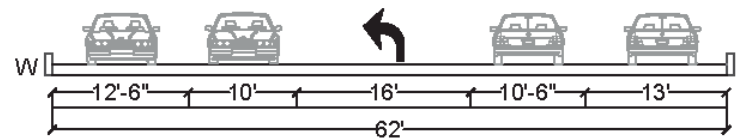
- Arterial Road
- 19,500-22,400 ADT
- 2 digital speed signs
- Speed Limit: 25



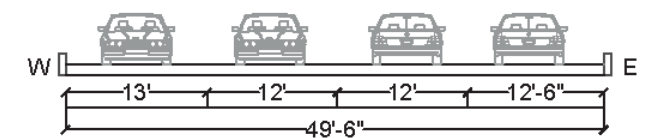
20. N Quaker Ln
North of Seminary Ln



21. N Quaker Ln
South of Seminary Ln



22. N Quaker Ln
North of Duke St



N Quaker Lane

21. South of Seminary Ln

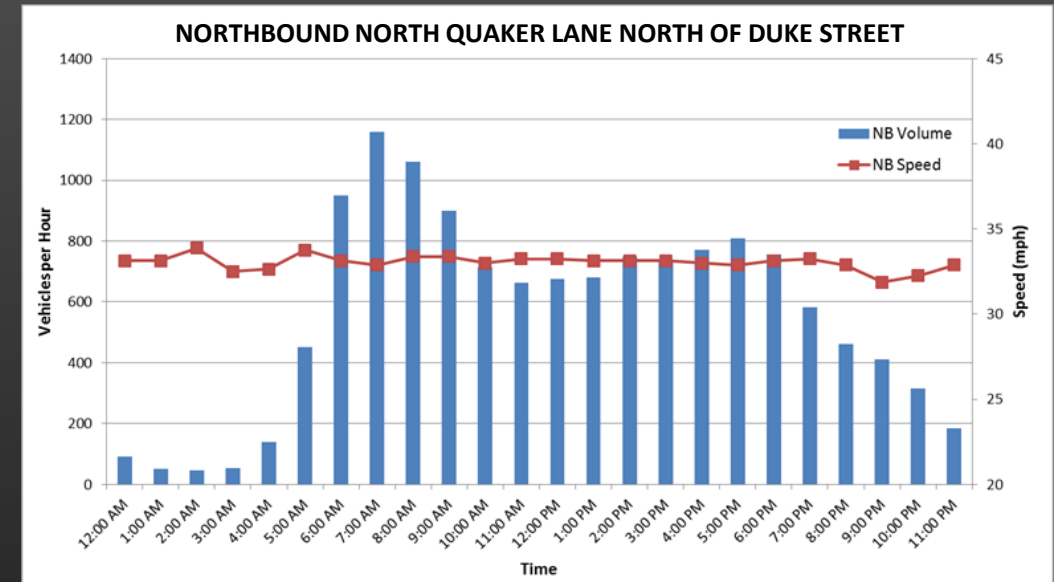
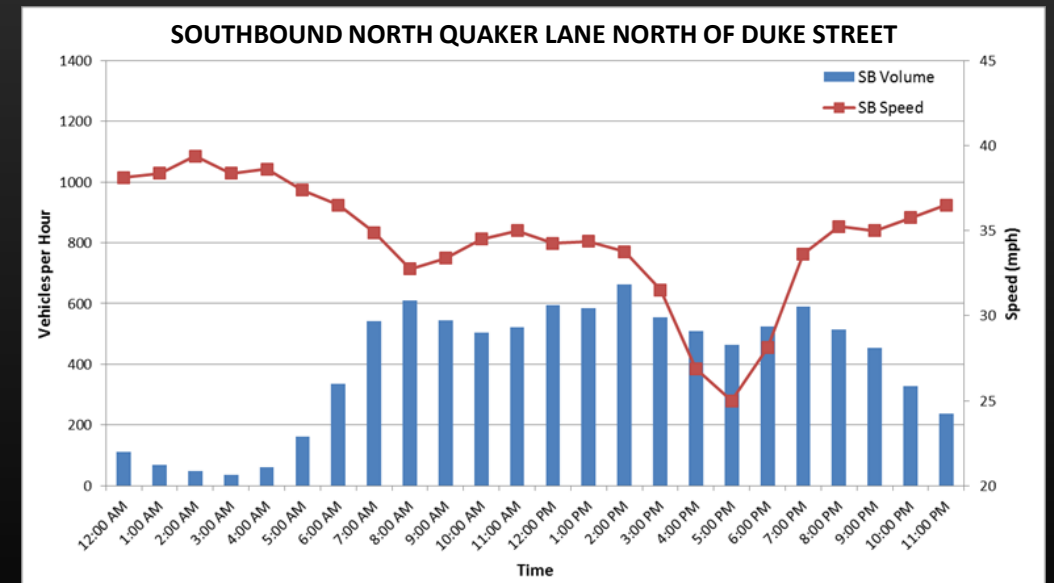


22. North of Duke Street



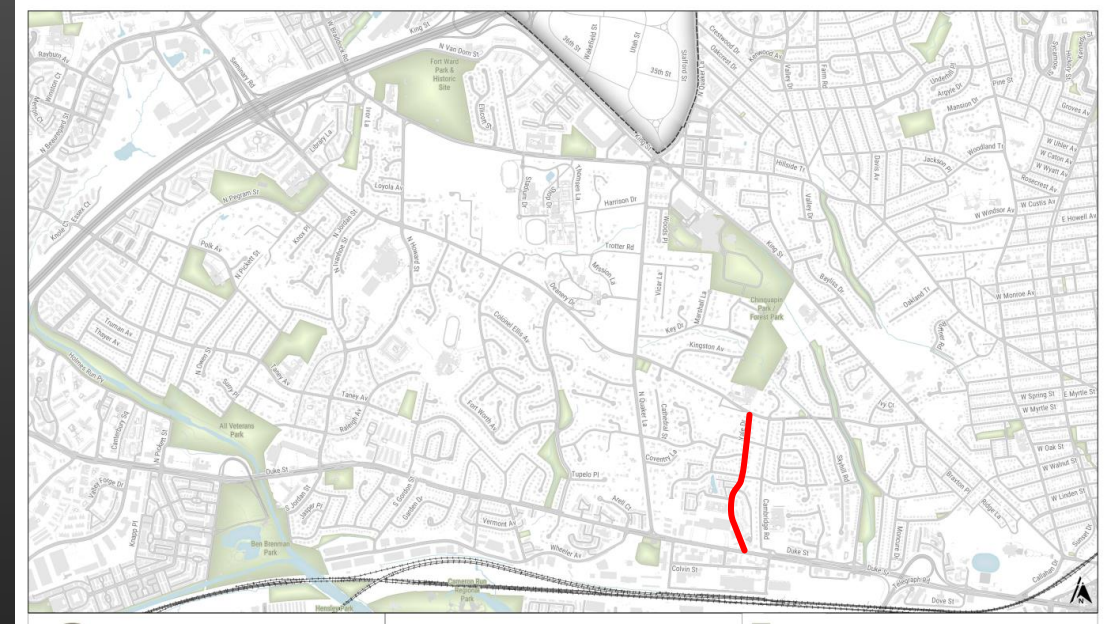
N Quaker Lane

- NB 85th %ile speed (AM/PM):
33/33
- SB 85th %ile speed (AM/PM):
35/28
- Speeding problem
 - Recent speed limit change from 35 to 25
- Northbound AM peak period volume spike
- Southbound PM peak period low volume & speed
- Proportion of cut-through traffic that uses N Quaker Lane:
 - From Telegraph Road (Northbound): 74%
 - To Telegraph Road (Southbound): 62%



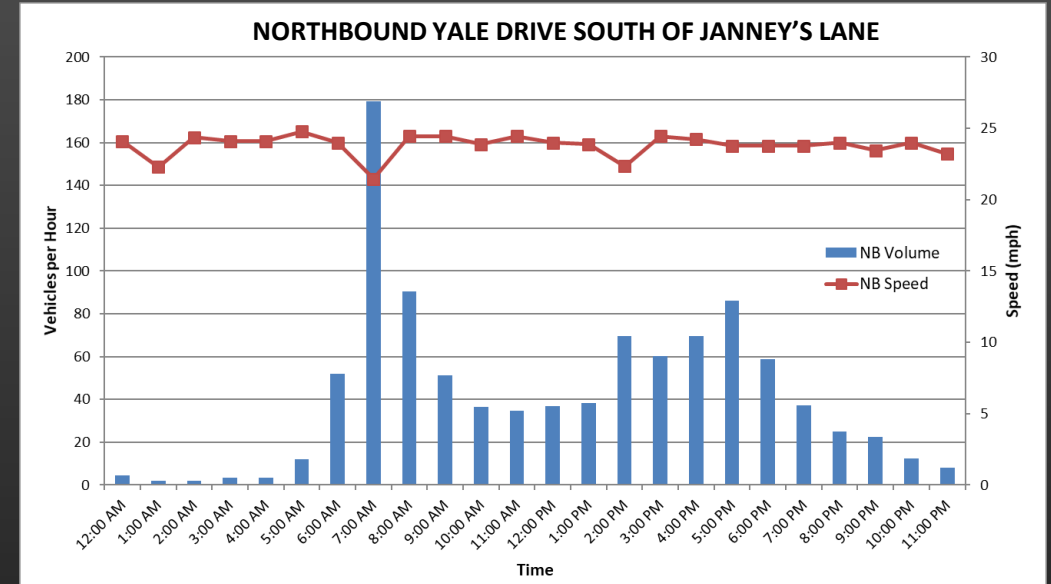
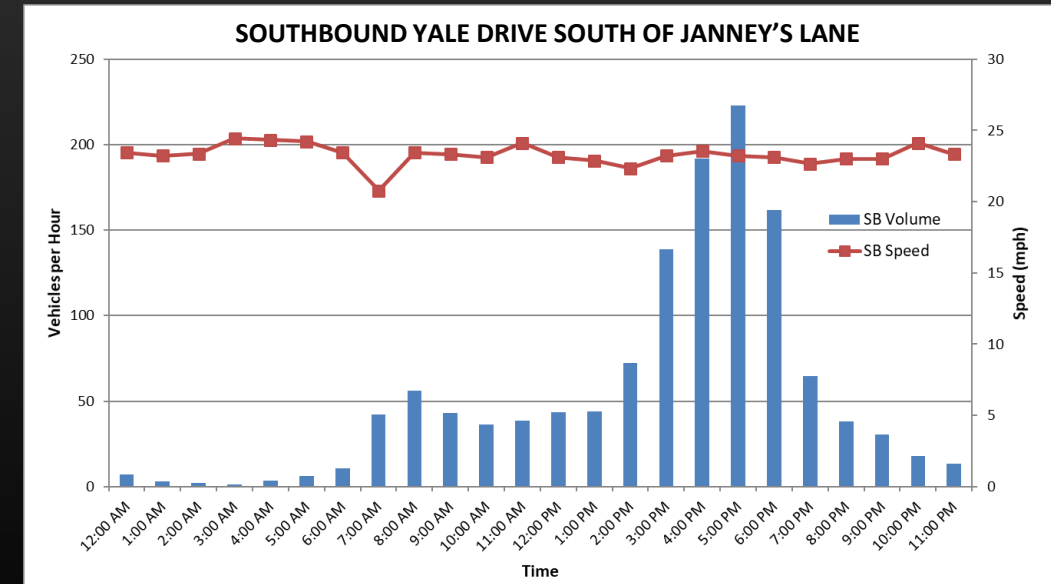
Yale Drive

- Local Road
- 2,100-2,800 ADT
- 1 speed cushion
- Speed Limit: 25
- South of Dartmouth Road: 2 lanes, approx. 28' wide, no parking
- North of Dartmouth Road: 2 lanes, approx. 30' wide, unmarked parking both sides



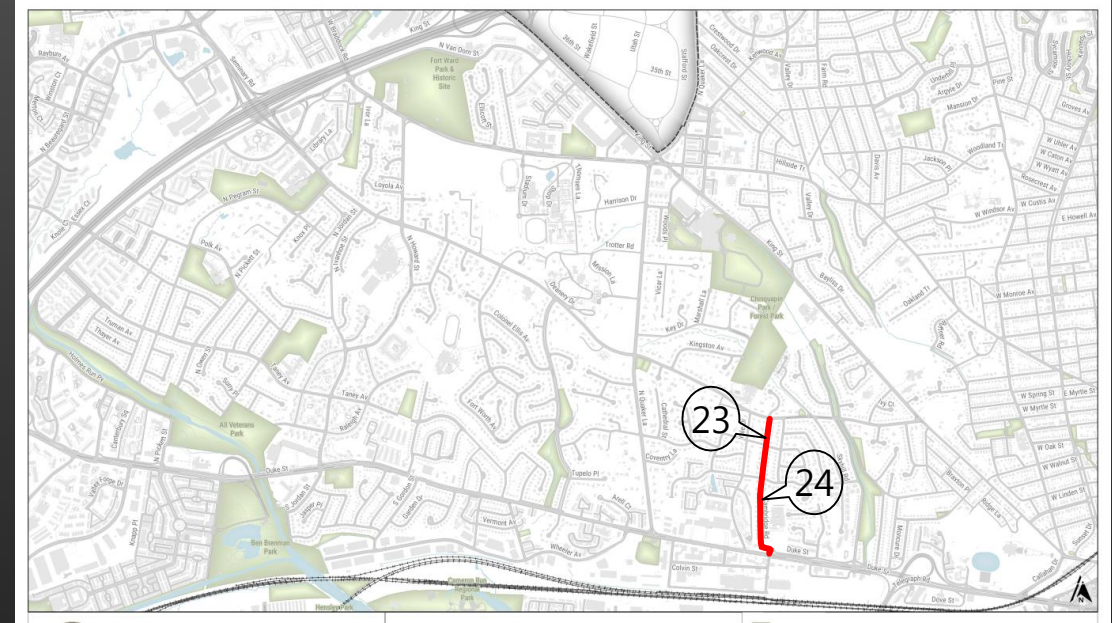
Yale Drive

- NB 85th %ile speed (AM/PM):
21/24
- SB 85th %ile speed (AM/PM):
21/24
- Speed cushion keeps speeds down
- Peak period volume spikes, Douglas MacArthur E.S. contributes to volume spikes
- Proportion of cut-through traffic that uses Yale Drive:
From Telegraph Road (Northbound): 2%
To Telegraph Road (Southbound): 2%

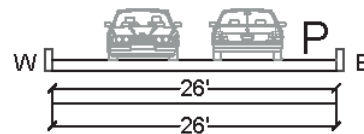


Cambridge Road

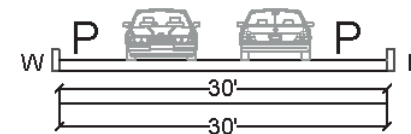
- Local Road
- 3,100-4,000 ADT
- 4 speed cushions/tables
- Speed Limit: 25 (15 School zone)



23. Cambridge Rd
North of Vassar Rd

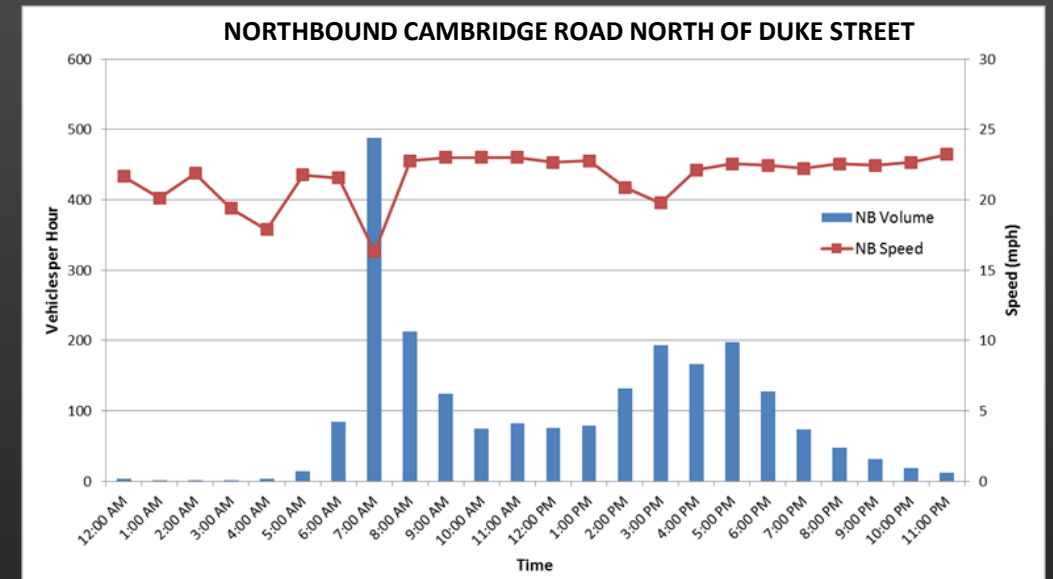
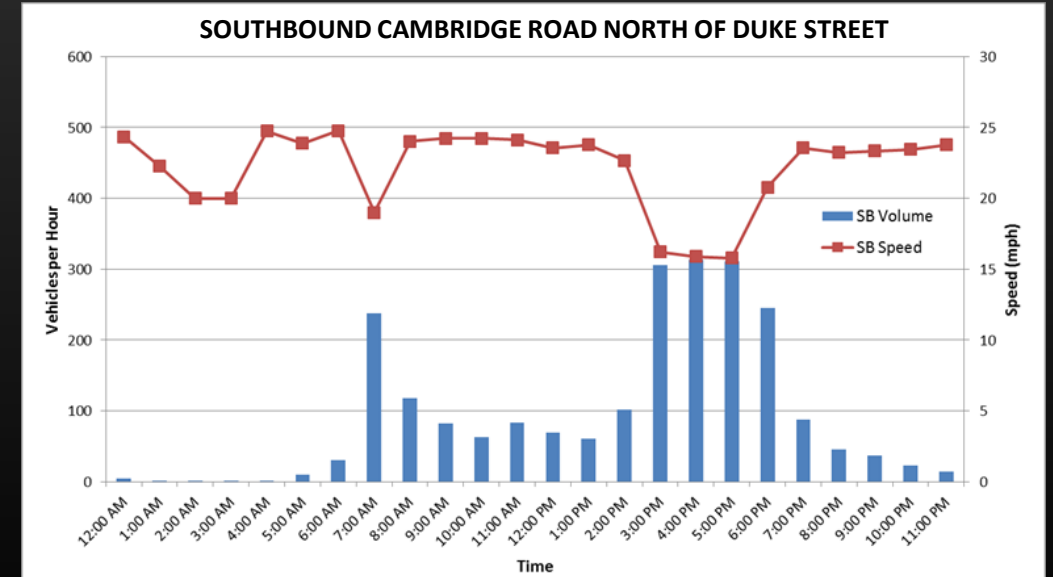


24. Cambridge Rd
South of Dartmouth Rd



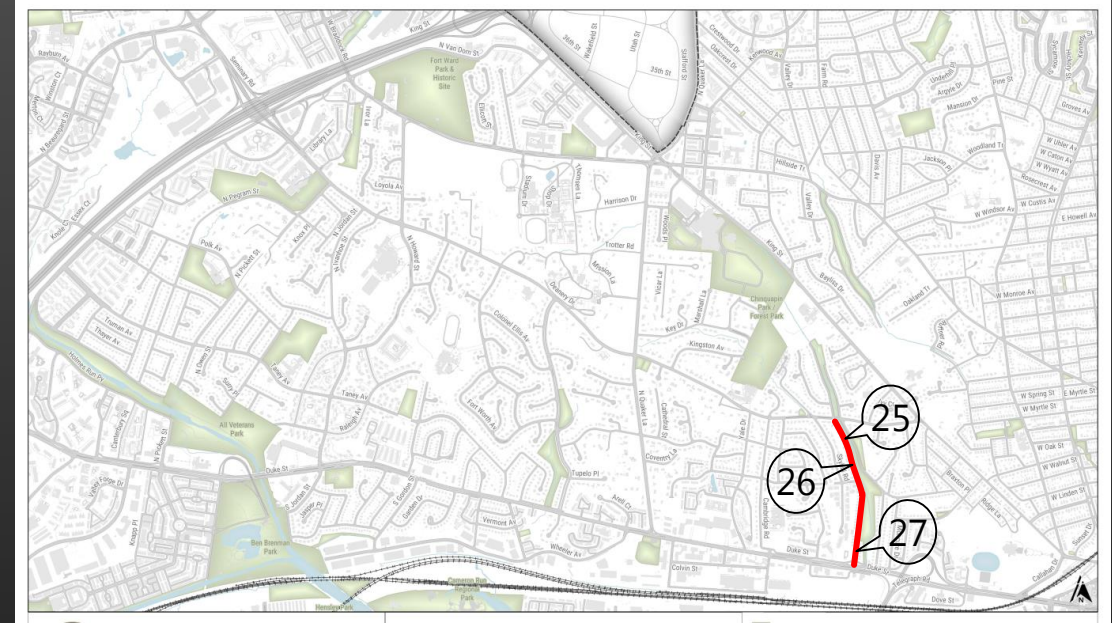
Cambridge Road

- NB 85th %ile speed (AM/PM):
16/22
- SB 85th %ile speed (AM/PM):
19/17
- Speed cushions/tables, stop signs and school zone keep speeds down
- Peak period volume spikes
- Proportion of cut-through traffic that uses Cambridge Road:
From Telegraph Road (Northbound): 6%
To Telegraph Road (Southbound): 6%

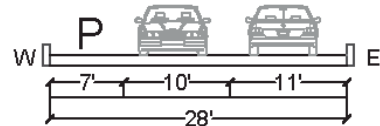


West Taylor Run Parkway

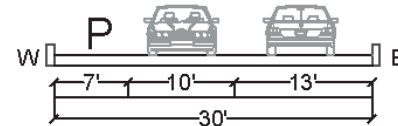
- Residential Collector Road
- 4,300 ADT
- 3 speed cushions
- Shared lanes / bike lane
- Speed Limit: 25



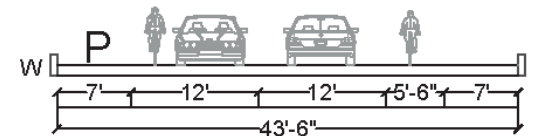
25. W Taylor Run Pkwy
South of Janney's Ln



26. W Taylor Run Pkwy
North of Dartmouth Rd



27. W Taylor Run Pkwy
North of Duke St



West Taylor Run Parkway

25. South of Janney's Ln

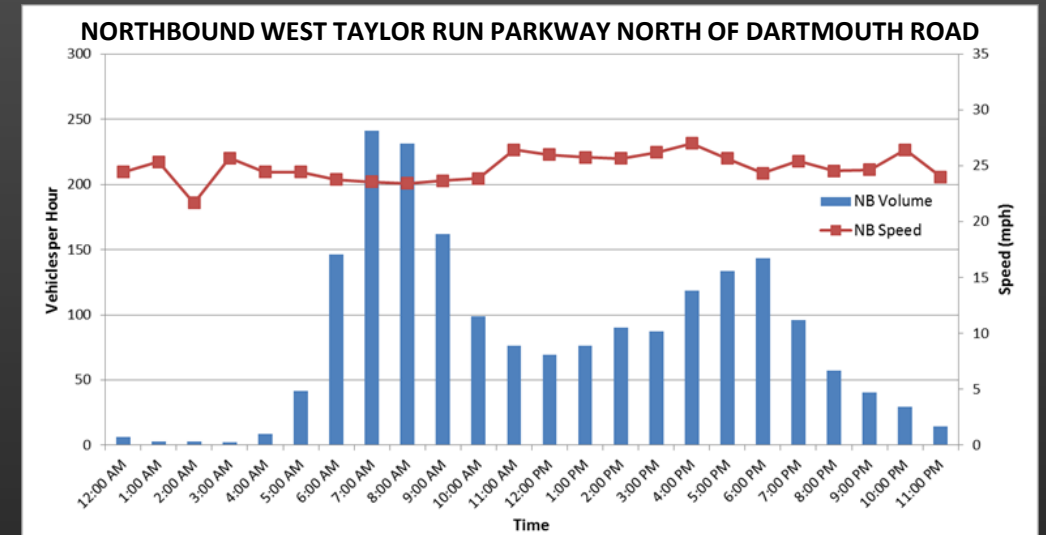
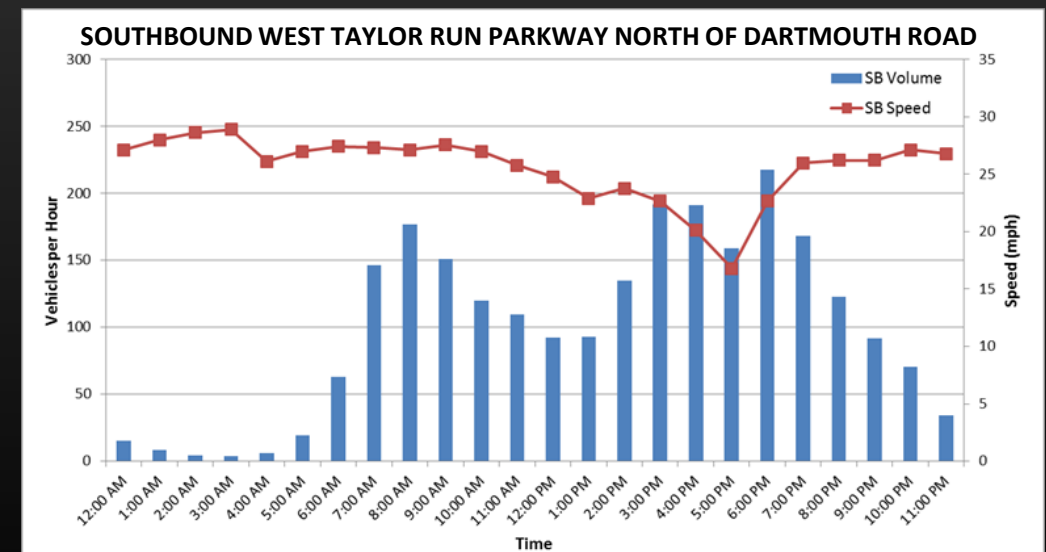


27. North of Duke St



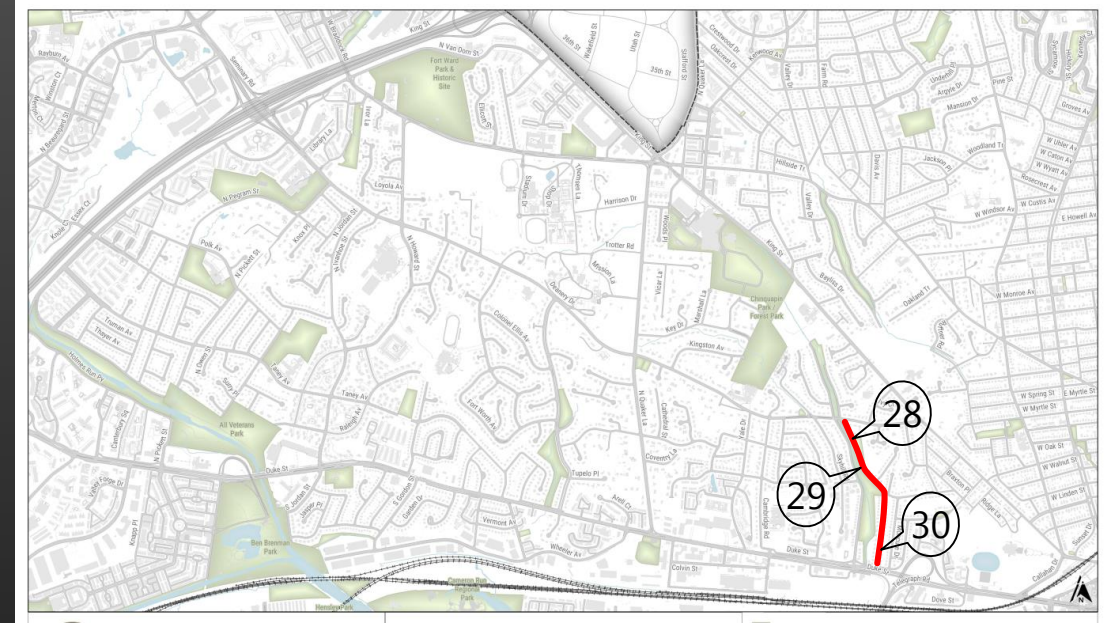
West Taylor Run Parkway

- NB 85th %ile speed (AM/PM):
24/26
- SB 85th %ile speed (AM/PM):
27/20
- PM peak: southbound low speed & volume
- Proportion of cut-through traffic that uses West Taylor Run Parkway:
From Telegraph Road (Northbound): 9%
To Telegraph Road (Southbound): 16%

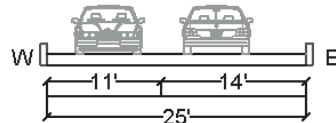


East Taylor Run Parkway

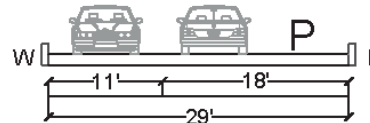
- Local Road
- 700 ADT
- 3 speed cushions
- Speed Limit: 25



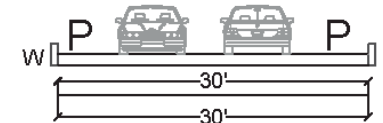
28. E Taylor Run Pkwy
South of Janney's Ln



29. E Taylor Run Pkwy
North of Lamond Pl



30. E Taylor Run Pkwy
North of Duke St



East Taylor Run Parkway

29. North of Lamond Pl

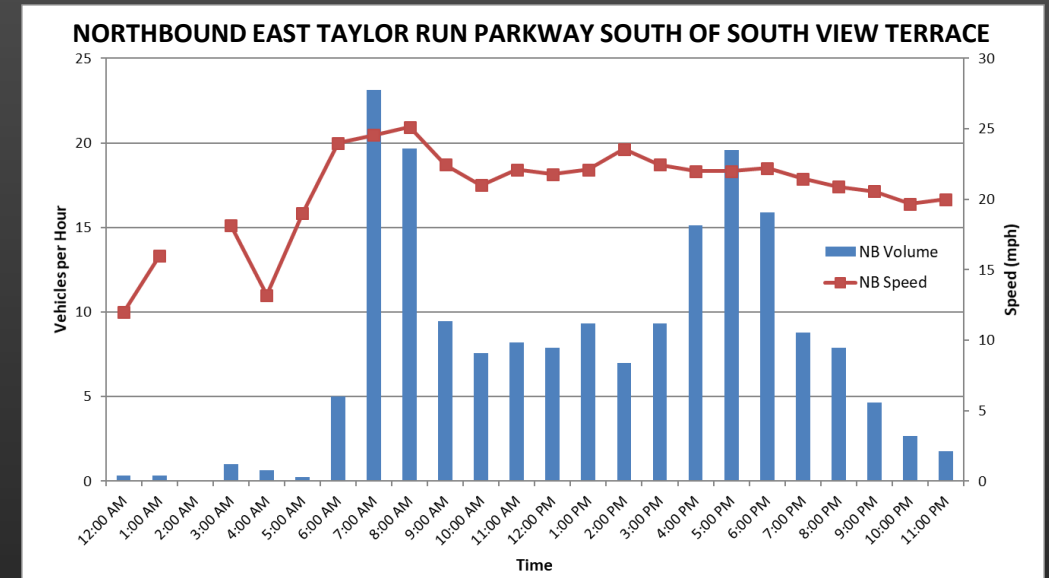
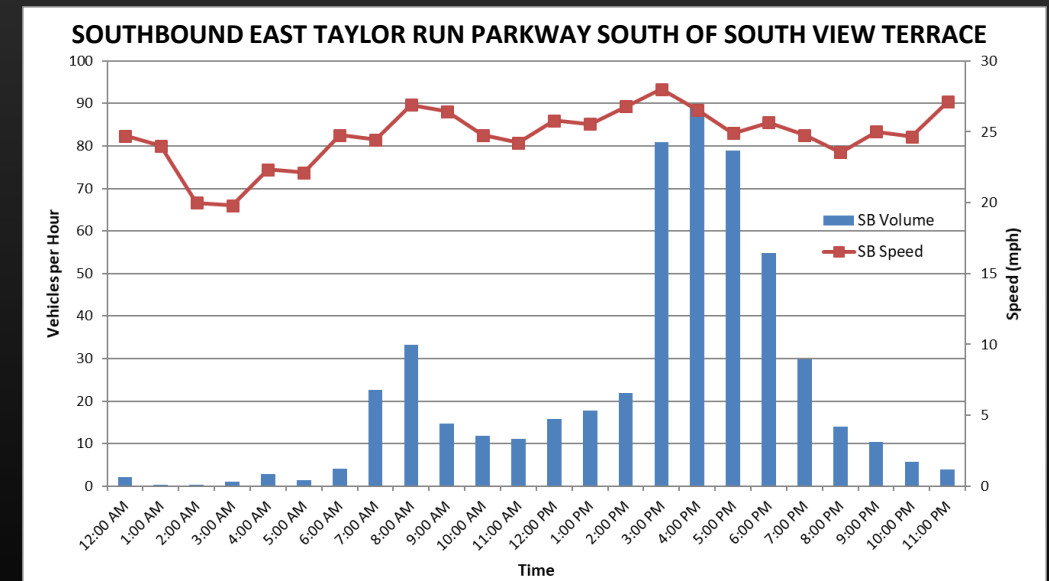


30. North of Duke St



East Taylor Run Parkway

- NB 85th %ile speed (AM/PM):
25/22
- SB 85th %ile speed (AM/PM):
24/26
- Speed cushion keeps speeds down
- Peak period volume spikes
- Proportion of cut-through traffic that uses East Taylor Run Parkway:
From Telegraph Road (Northbound): 1%
To Telegraph Road (Southbound): 2%



North-South Street Comparison

Street	Functional Classification	ADT	Speeds (MPH)			Traffic Calming Measures	Proportion Cut-Through Traffic (NB/SB)
			Limit	NB (AM/PM)	SB (AM/PM)		
Jordan Street	Residential Collector	13,100	25	26 / 28	28 / 26	Yes	2% / 3%
Fort Williams Parkway	Residential Collector	1,500 - 2,400	25	31 / 24	31 / 24	Yes	1% / 1%
N. Quaker Lane	Arterial	19,500 - 22,400	25	33 / 35	33 / 28	Yes	74% / 62%
Yale Drive	Local	2,100 - 2,800	25	21 / 21	24 / 24	Yes	2% / 2%
Cambridge Road	Local	3,100 - 4,000	25 / 15 School Zone	16 / 19	22 / 17	Yes	6% / 6%
West Taylor Run Parkway	Residential Collector	4,300	25	24 / 27	26 / 20	Yes	9% / 16%
East Taylor Run Parkway	Local	700	25	25 / 24	22 / 26	Yes	1% / 2%

Discussion Questions

- Did any of the data confirm your concerns or thinking?
- Is there something about the data that surprises you?

Public Comment



Next Steps

- What we are proposing
 - 1 month public comment period (submitted by phone, email, or through TF members)
 - Follow up Task Force meeting in 30-45 days to review comments received and develop an initial list of proposed mitigations
 - At that meeting or offline, agree on criteria to narrow down/prioritize proposed mitigations
 - Possible additional follow up Task Force meeting 1-2 weeks later to finalize list of mitigations for consultants to analyze
- Consultant will analyze impacts of selected mitigation measures
- Report back to Task Force on results of mitigation analyses

Questions/Comments

Thank you for coming!

