

What is your #VisionFairfaxMason?

Current Activities Review

Old Town Fairfax Circulation Analysis

Wendy Block Sanford, City of Fairfax Transportation Director

Paul Silberman, Sabra, Wang & Associates



SABRA, WANG & ASSOCIATES, INC.



Old Town Fairfax Circulation Analysis

City of Fairfax

Vision Fairfax Mason Workshop

Thursday, November 6, 2014



 **Sabra, Wang & Associates, Inc.**



Presentation Agenda

- Project History
- Study Area and Land Use
- Roadway Network and Access
- Traffic Volumes
- Traffic Operations
- Traffic Safety
- Pedestrian, Bicycle and Transit Access
- Parking
- Summary and Next Steps





Project History

- Originally two-way operation
- 1972: Main St & North St became one-way pair
- August 6, 2006: reverted to two-way operation
- 2012-14: City and VDOT Optimization of Signal Timing
- Fall 2014: current study to evaluate performance of two-way operation





“While access, speed and efficiency of transportation are important considerations, safety and quality of life issues have gained importance to the residents of the City of Fairfax.”

-City of Fairfax
Comprehensive Plan

Goals and Objectives

City of Fairfax Comprehensive Plan, adopted April 2012

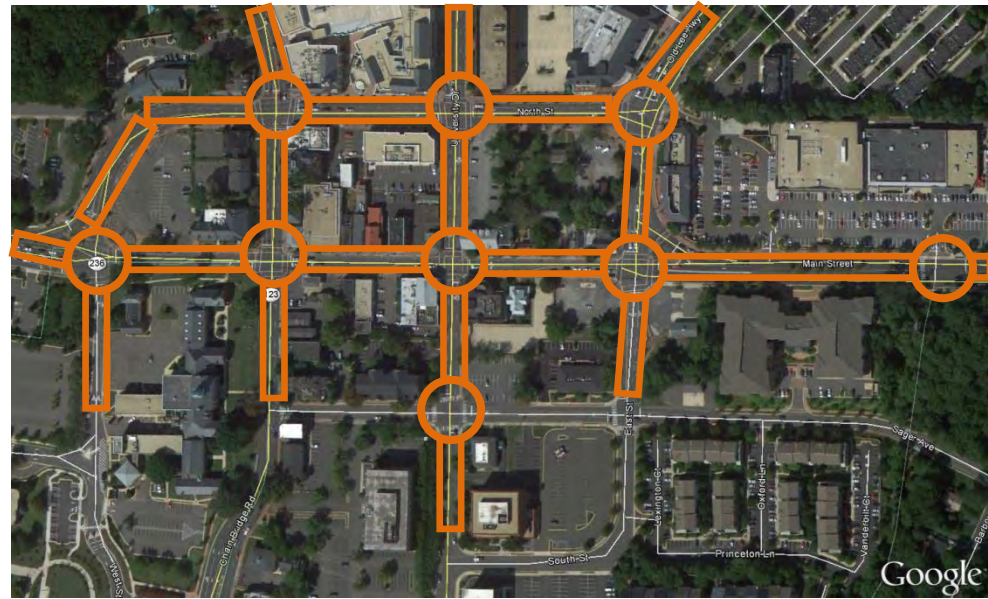
- Ensure appropriate balance between efficient traffic flow and pedestrian safety
- Minimize idle time (delay) at intersections
- Maximize efficiency on arterials
- Reduce through traffic in downtown area and support destination traffic
- Provide adequate pedestrian facilities including wider sidewalks
- Increase on-street parking





Study Area Intersections and Land Use

- North Street (VA 236P)
- Main Street (VA 236)
- Sager Avenue
- West Street
- East Street
- University Drive (VA 6627)
- Chain Bridge Road (VA 123)
- Old Lee Highway (VA 6628)
- Current land use is primarily business/commercial, surrounded by low, medium, and high-density residential





Old Town Land Use Changes

2006-2014

Madison Mews
26 Townhomes
2010 Occupancy

Old Town Plaza
91k SF Office
53k SF Retail/Restaurants
558 Parking Spaces
Built 2007

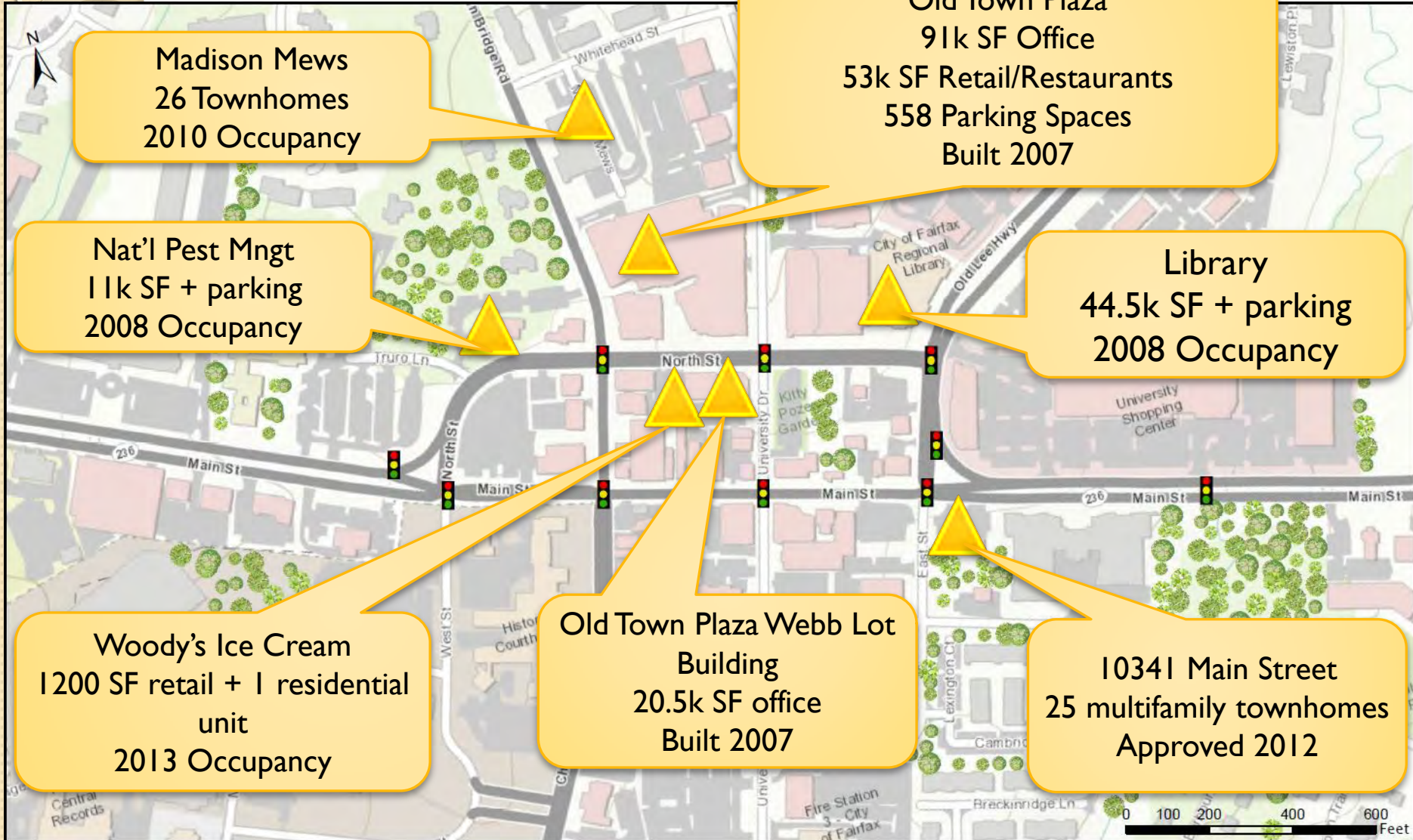
Nat'l Pest Mngt
11k SF + parking
2008 Occupancy

Library
44.5k SF + parking
2008 Occupancy

Woody's Ice Cream
1200 SF retail + 1 residential
unit
2013 Occupancy

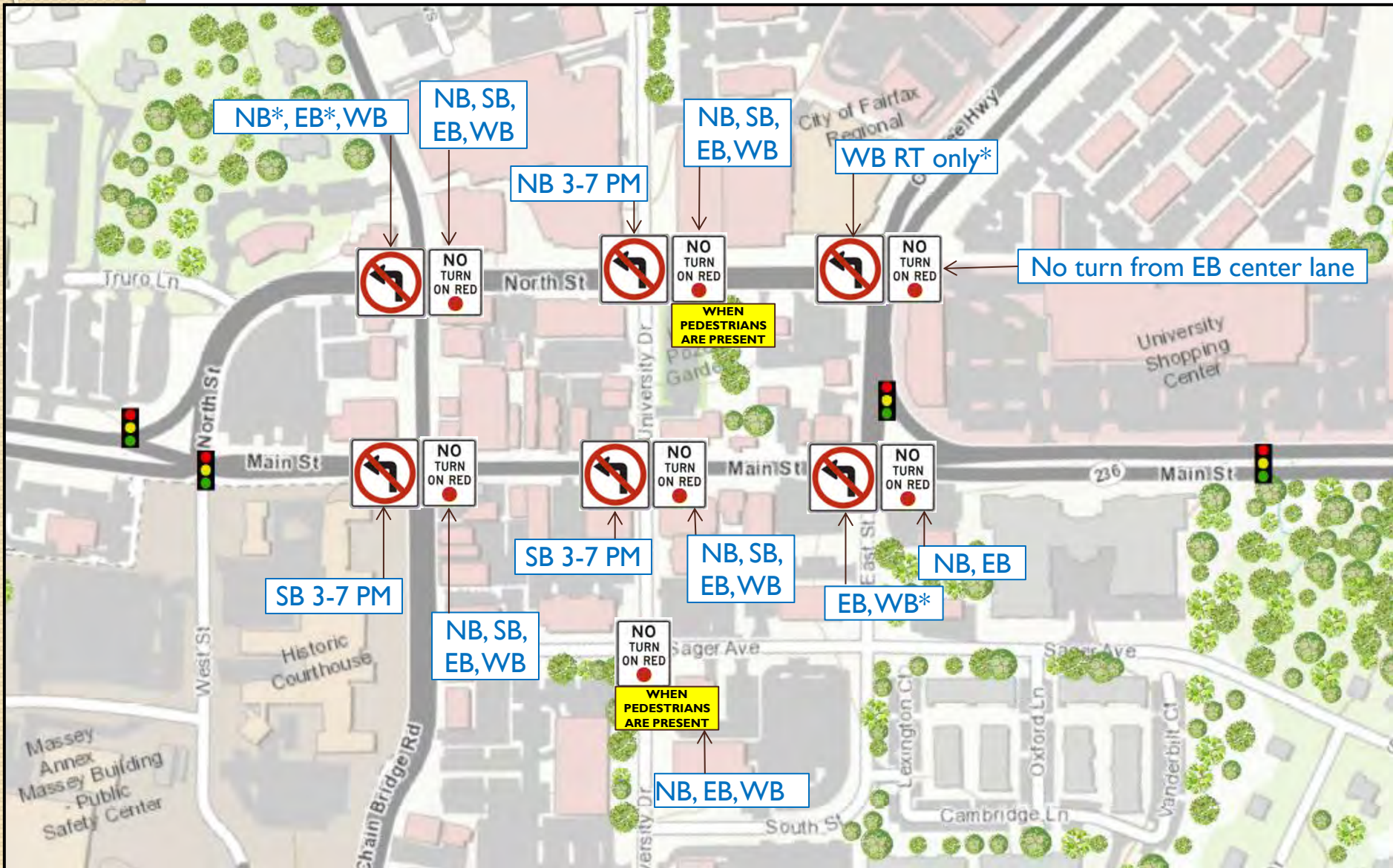
Old Town Plaza Webb Lot
Building
20.5k SF office
Built 2007

10341 Main Street
25 multifamily townhomes
Approved 2012





Vehicle Turn Restrictions



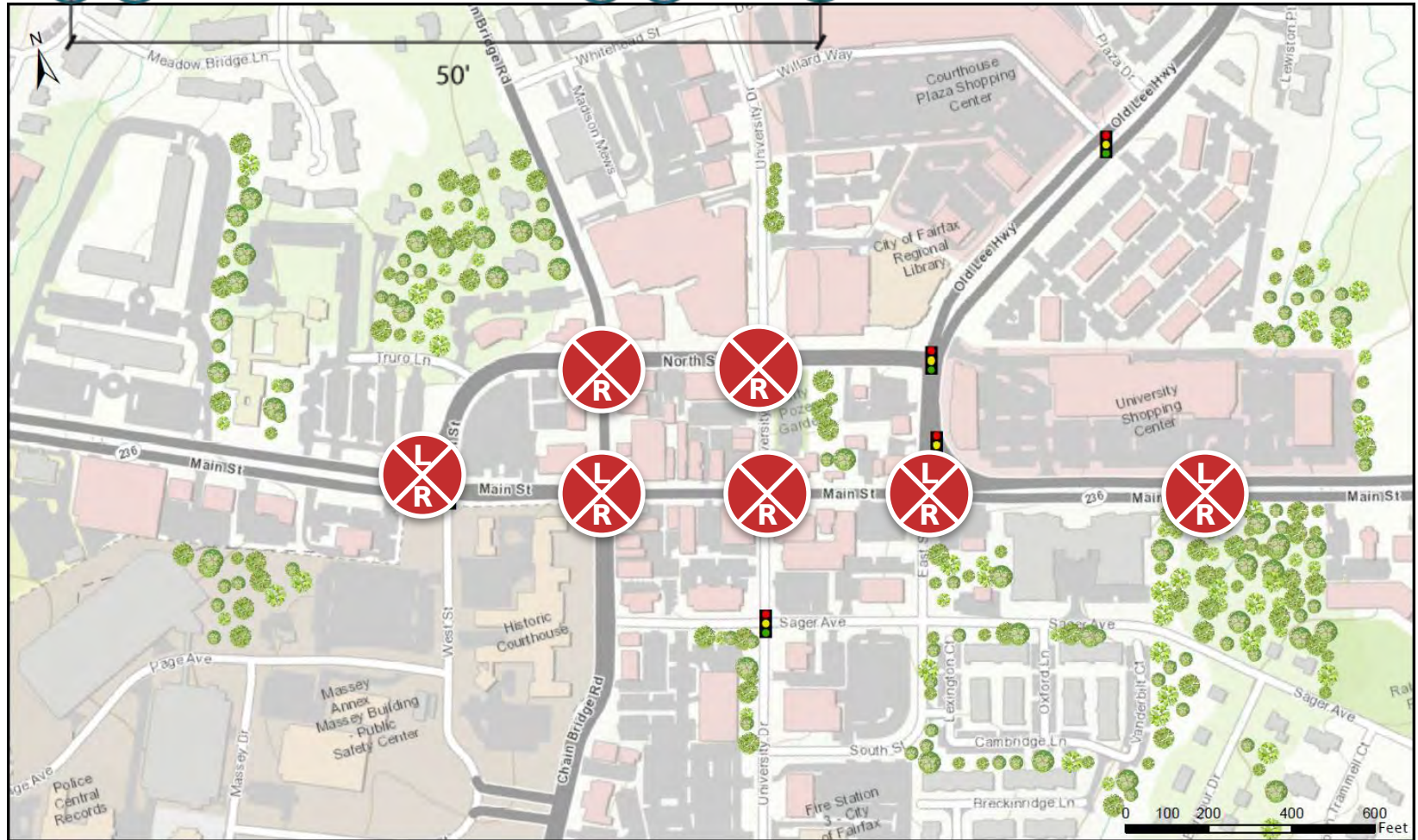
*Note: Some restrictions were in place prior to two-way conversion, including those starred. (Previous "No Turn On Red" restrictions unknown.)



Truck/Emergency Vehicle Access



Difficulty making right or left turn

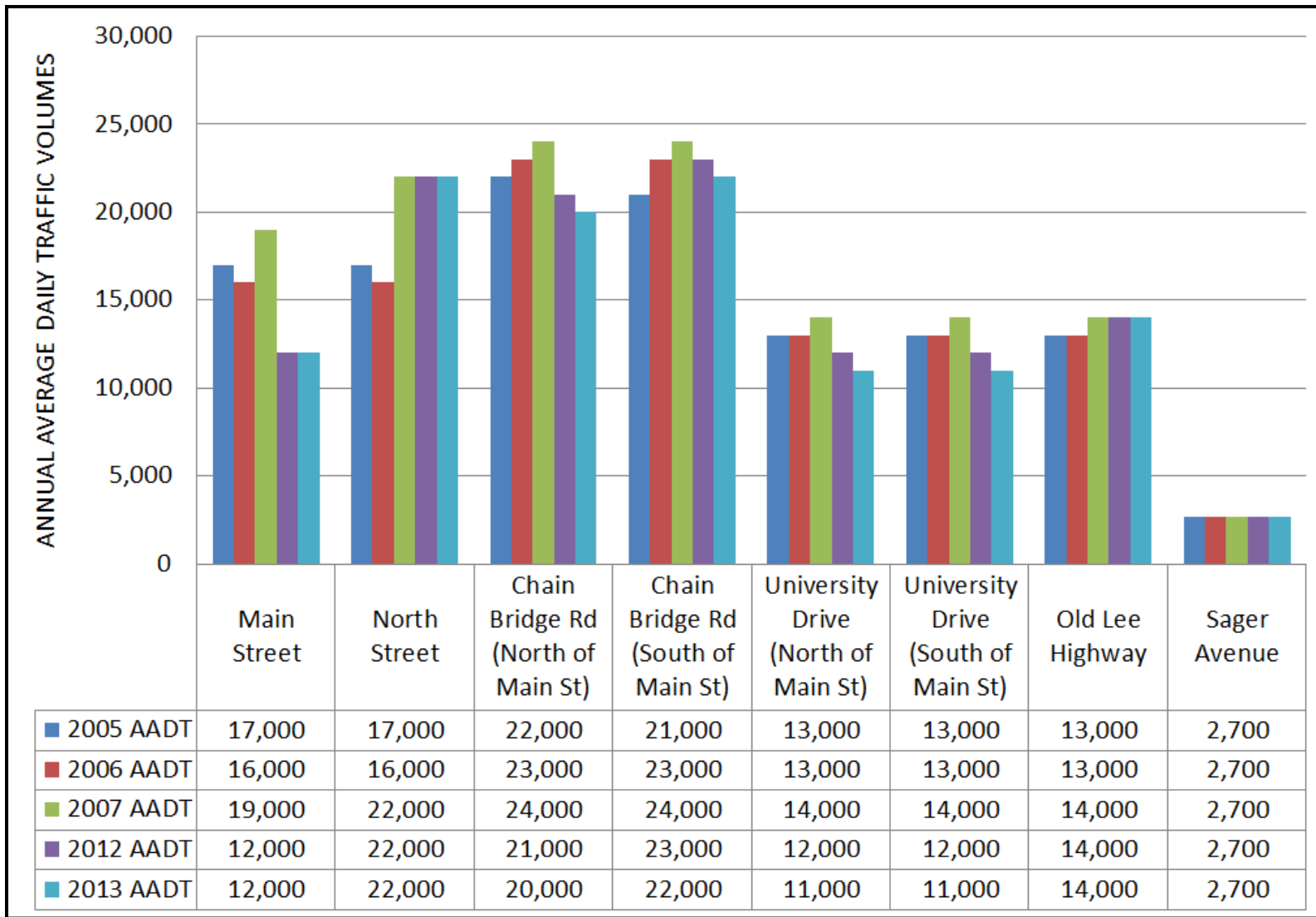


Note: Some turning maneuvers also were difficult under one-way pair.



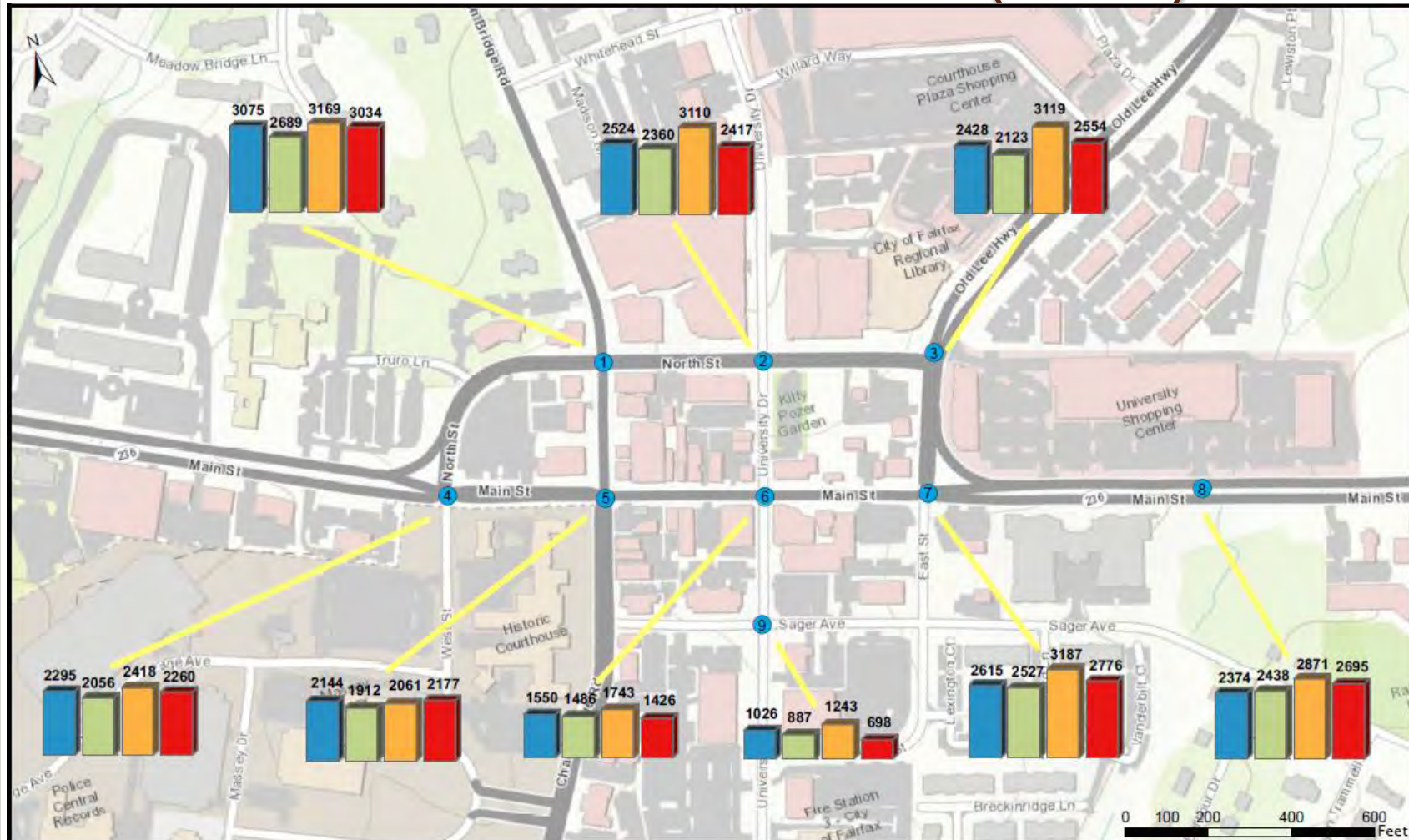


Comparison of Daily Traffic Volumes by Street (2005-2013, VDOT)





Comparison of Peak Hour Vehicle Traffic Volumes (2012)



LEGEND:

Peak Hour Intersection Volumes

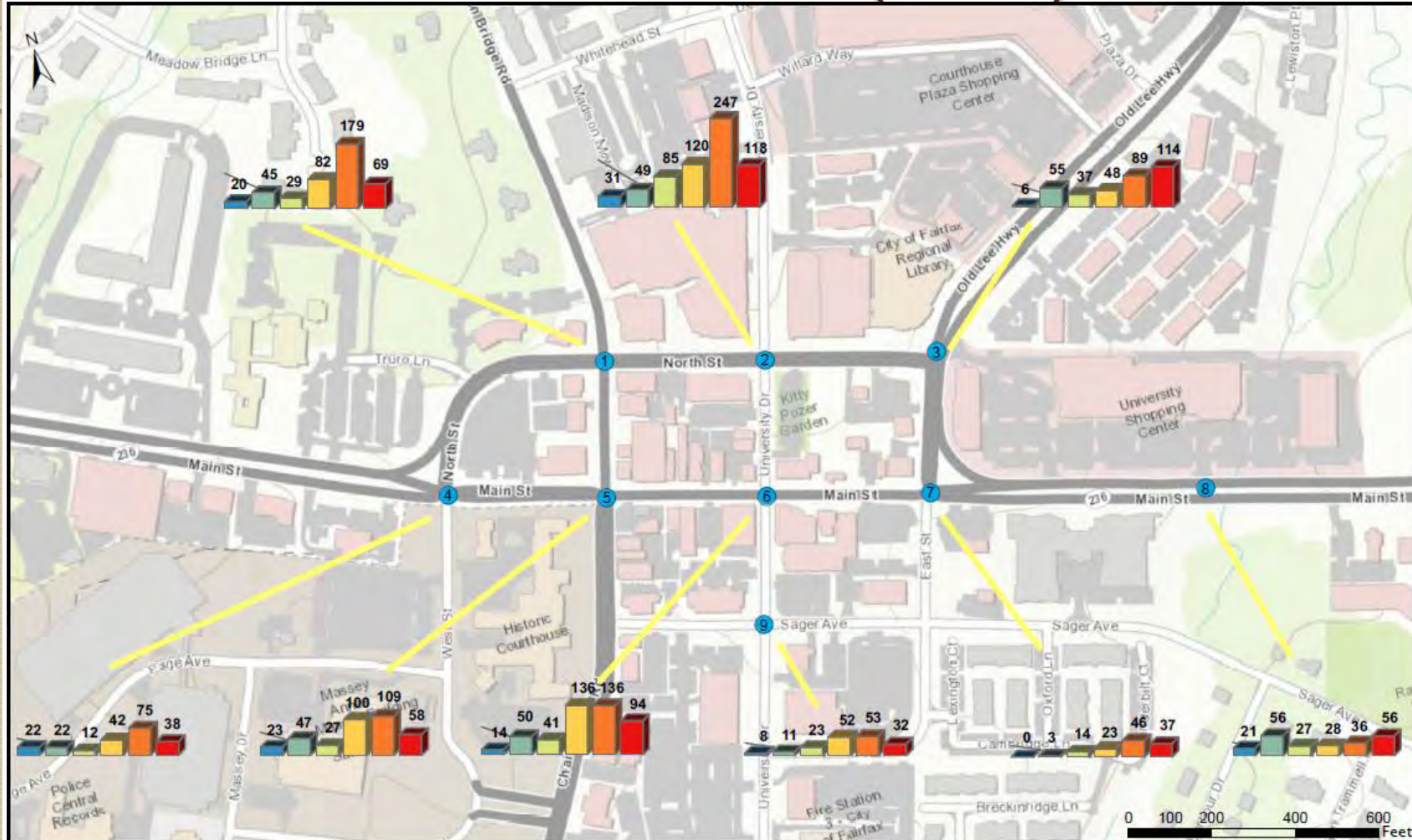


AM 8:30 AM MD 11:45 AM PM 5:00 PM SAT 12:00 PM





Comparison of Peak Hour Pedestrian Traffic Volumes (2012)



LEGEND:

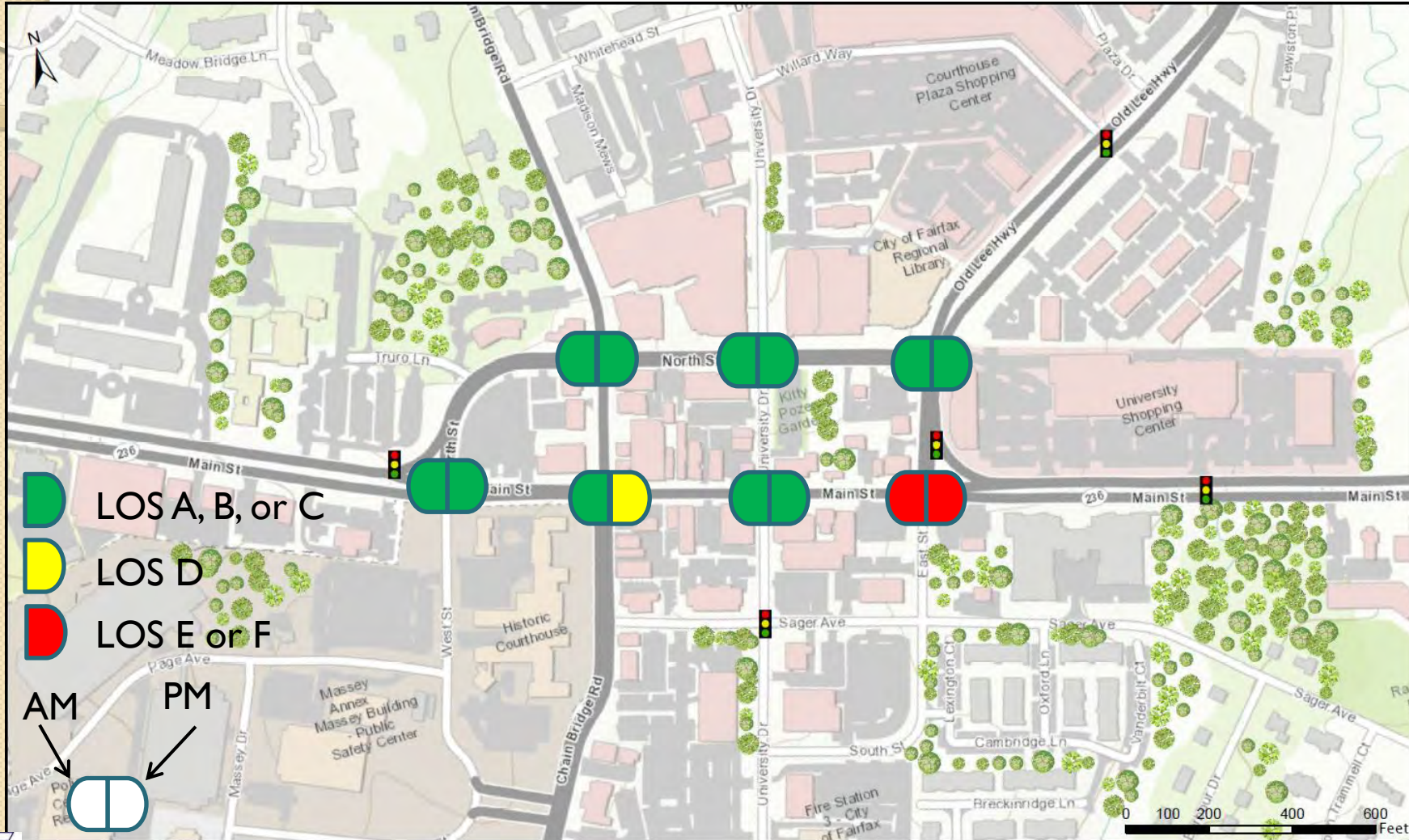
Peak Hour Intersection Volumes



VEH AM 8:30 AM
 VEH MD 11:45 AM
 VEH PM 5:00 PM
 VEH SAT 12:00 PM
 PED SAT Time Varies Per Intersection
 PED PK Time Varies Per Intersection



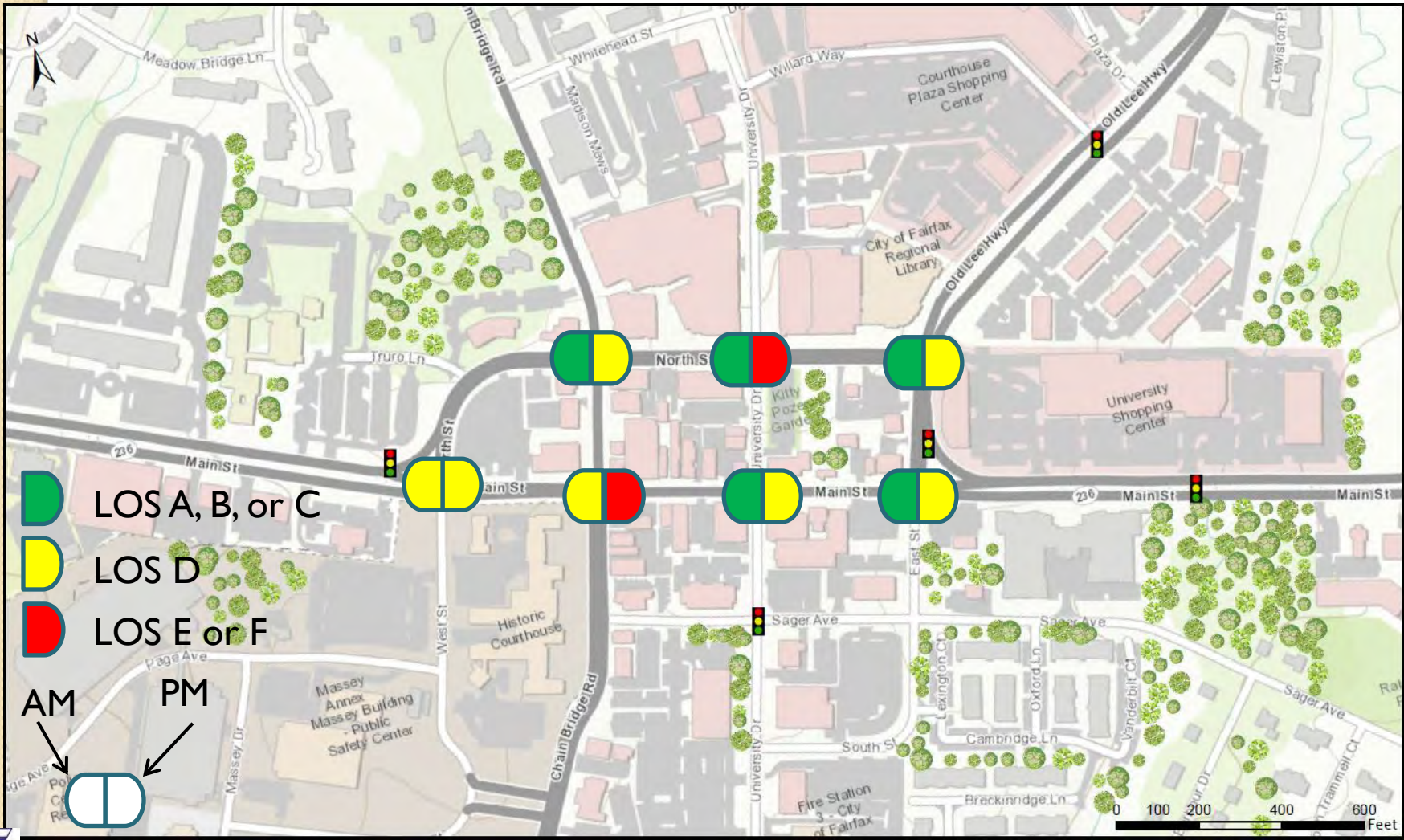
Intersection Level of Service (2004 One Way)



AM peak hour 8:30 AM; PM peak hour 5:00 PM



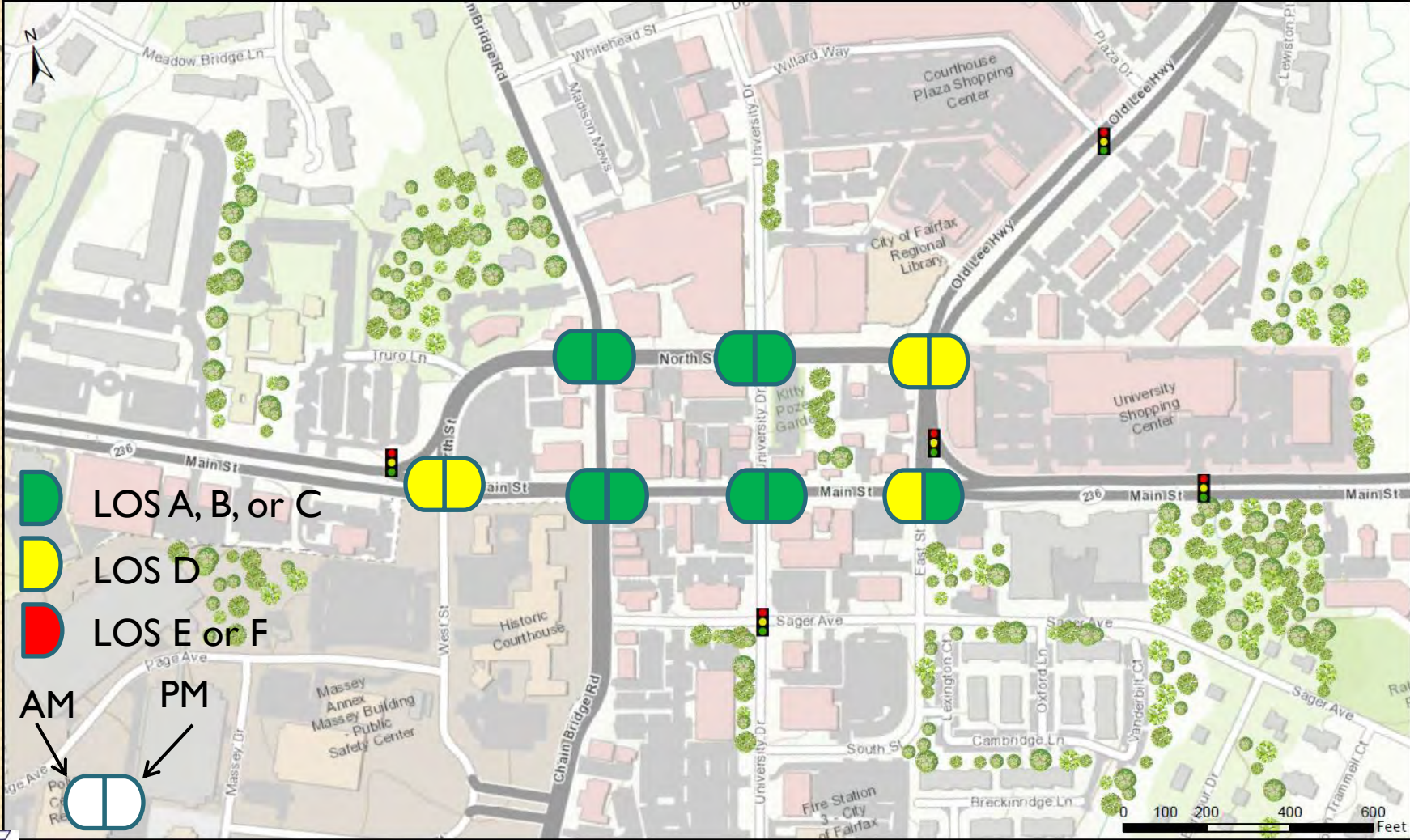
Intersection Level of Service (2008 Projected Two-Way)



AM peak hour 8:30 AM; PM peak hour 5:00 PM



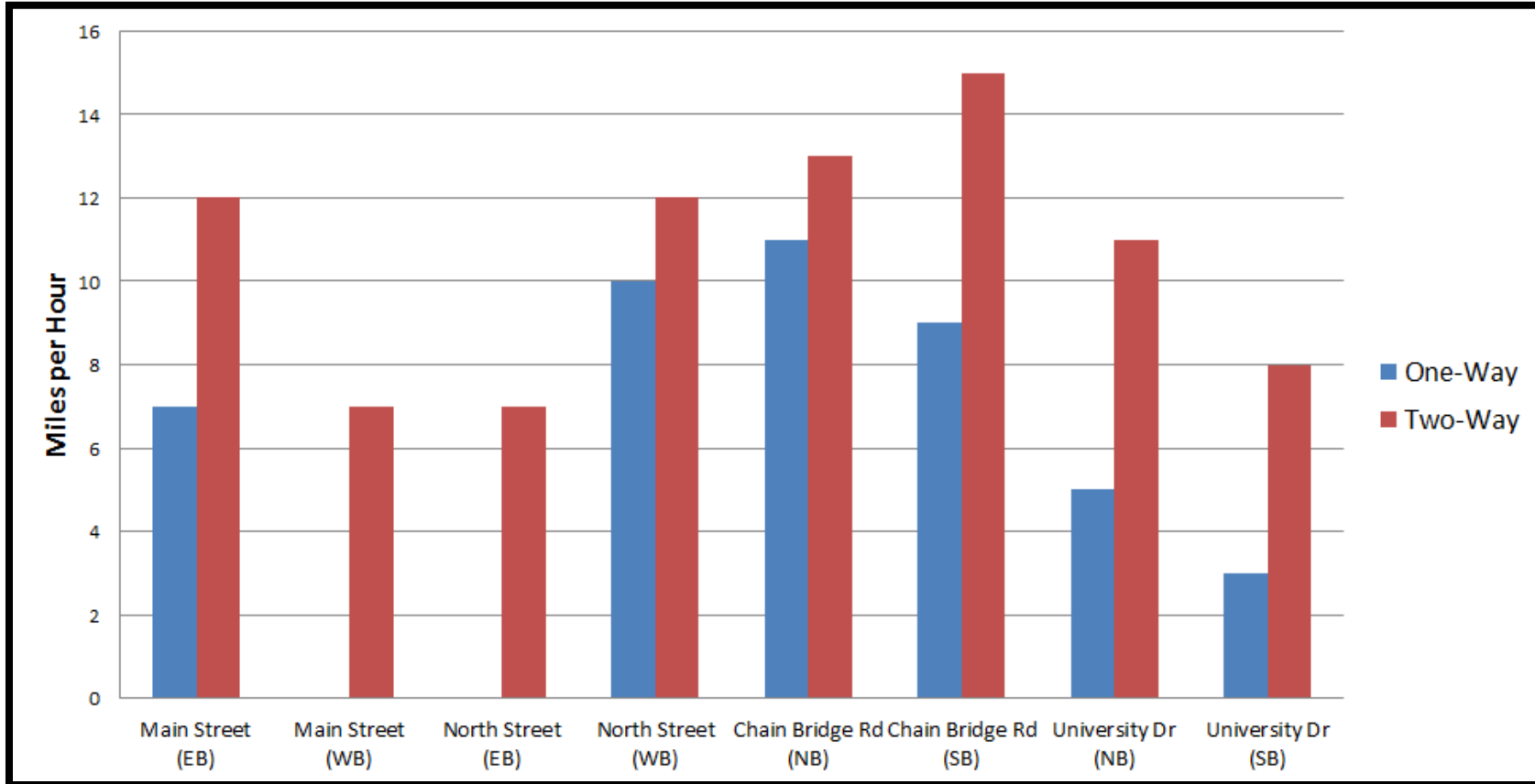
Intersection Level of Service (Current Two-Way)



AM peak hour 8:30 AM; PM peak hour 5:00 PM



Average PM Roadway Speeds* (2004 One-Way vs. 2013 Two-Way)

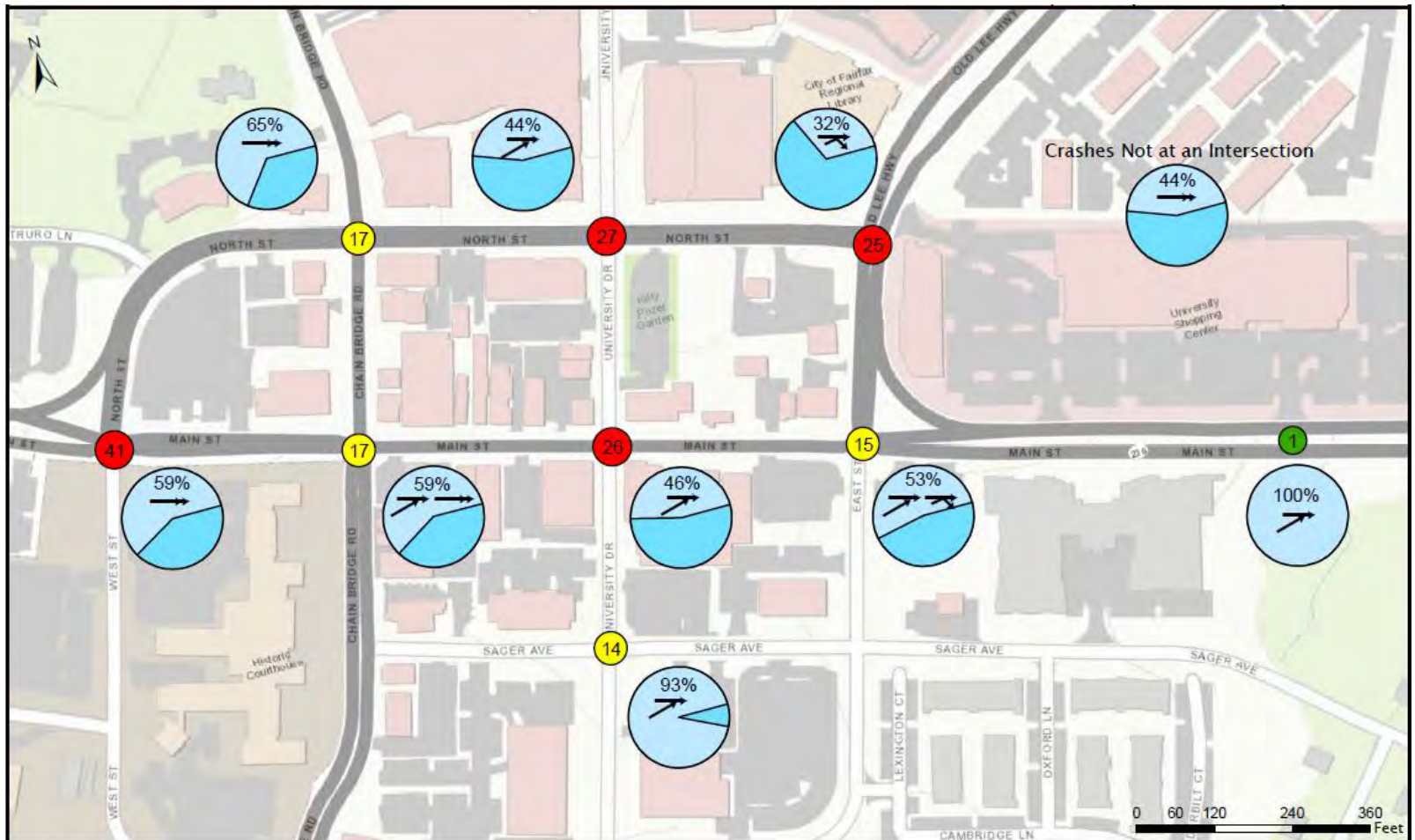


*Note: Average PM roadway speeds were modeled using the average of five SimTraffic runs.





Vehicle Crashes (2011-2014)

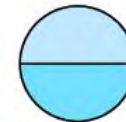


LEGEND:

Crashes per Intersection



Types of Crashes



Light Blue: Highest Crash Type
Dark Blue: All Other Crash Types

Source: Crash Reports provided by the City of Fairfax

Note: Crash data provided from January 2011 to August 2014





Vehicle Crashes (2011-2014)

Time of Day	# of Accidents	Accident Type	# of Accidents
Weekday		Angle	65
6:00 AM to 9:00 AM	20	Rear End	62
11:00 AM to 1:00 PM	17	Sideswipe	33
4:00 PM to 7:00 PM	25	Fixed Object	18
Off Peak	85	Head On	6
Weekend		Ped. Involved	5
Weekend	45	Other	3
Total	192	Total	192
Reported Year	# of Accidents	Severity	# of Accidents
2011	81	Fatal	0
2012	48	Serious Injury	15
2013	36	Non-Serious Injury	20
2014 (thru August)	27	Property Damage Only	157
Total	192	Total	192





Vehicle Crashes

Before and After Two-Way Conversion

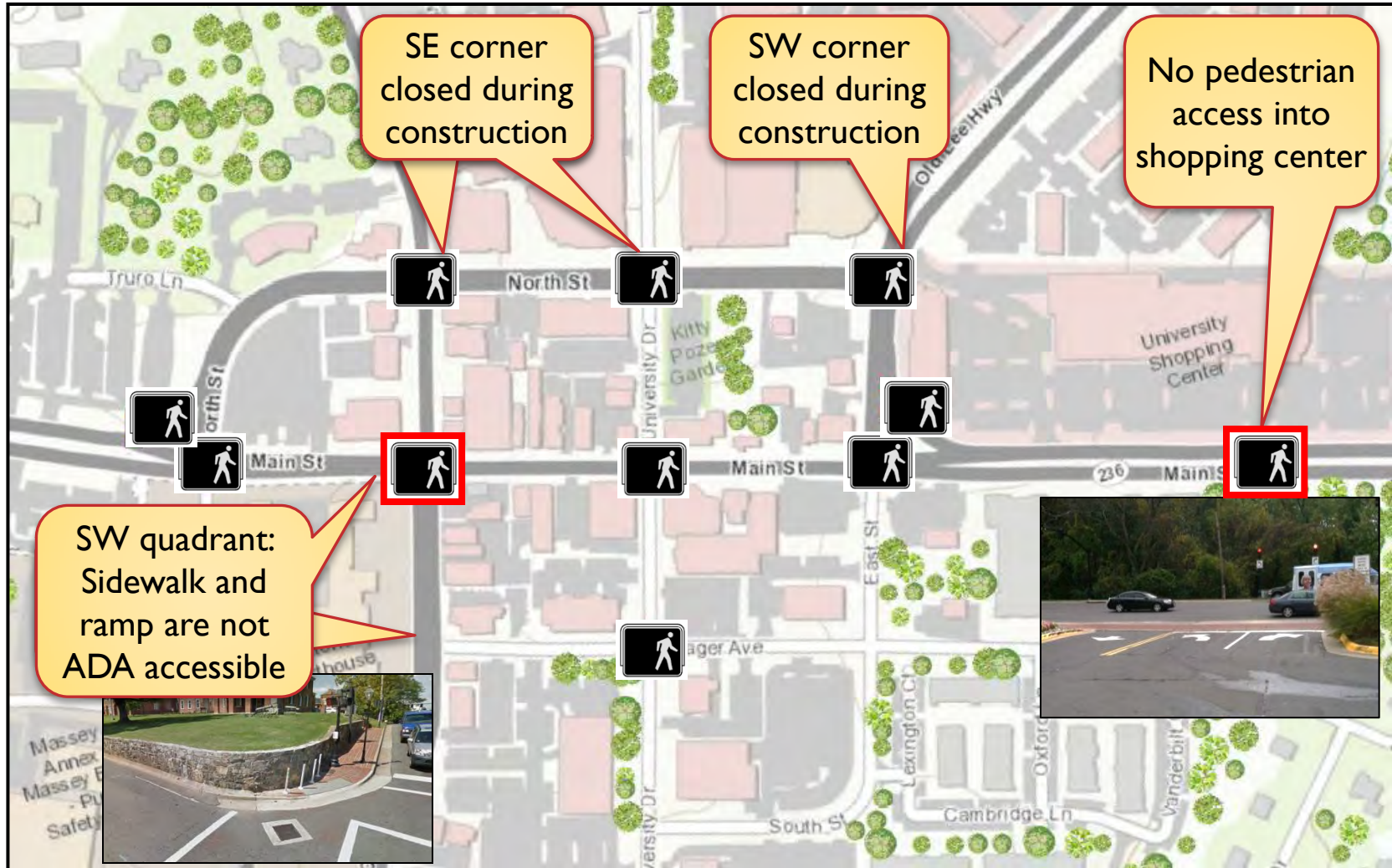
August 2006

Intersection		# of Crashes Before Aug 2006	# of Crashes After Aug 2006
1	North Street at Chain Bridge Road	23	16
2	North Street at University Drive	15	9
3	North Street at Old Lee Highway/East Street	8	8
4	Main Street at North Street/West Street	11	24
5	Main Street at Chain Bridge Road	13	9
6	Main Street at University Drive	12	12
7	Main Street at East Street/Old Lee Highway	12	14
8	Main Street at Main Street Marketplace	0	0
9	Sager Avenue at University Drive	0	3
--	Not at an Intersection	<u>18</u>	<u>23</u>
TOTAL		112	128





Pedestrian Infrastructure



Pedestrian signals, crosswalks, ramps, sidewalk on all approaches



Pedestrian facilities missing





Bicycle Infrastructure

No bike lanes or signs are provided within the City of Fairfax.
Routes shown are suggested paths.



LEGEND:

Bicycling Routes

- Preferred Streets and Roads
- - Less Preferred Streets and Roads

Bicycling Trails

- Primary
- - Secondary

All-Use Trails

- ON-STREET
- - OFF-STREET

NOTE: Bike Routes and Bike Trail data was provided by the Fairfax Trail Buddy Map by Fairfax County





Transit Routes and Stops

7 bus lines, 3 agencies

- CUE Green and Gold local services
- Metrobus local route 29K
- Metrobus commuter routes 15M, 17A, 17G
- Fairfax Connector route 306



LEGEND:

Transit Network By Operator / Route

- WMATA, Alex-Fairfax
- WMATA, Chain Bridge Road
- WMATA Metrobus Stop

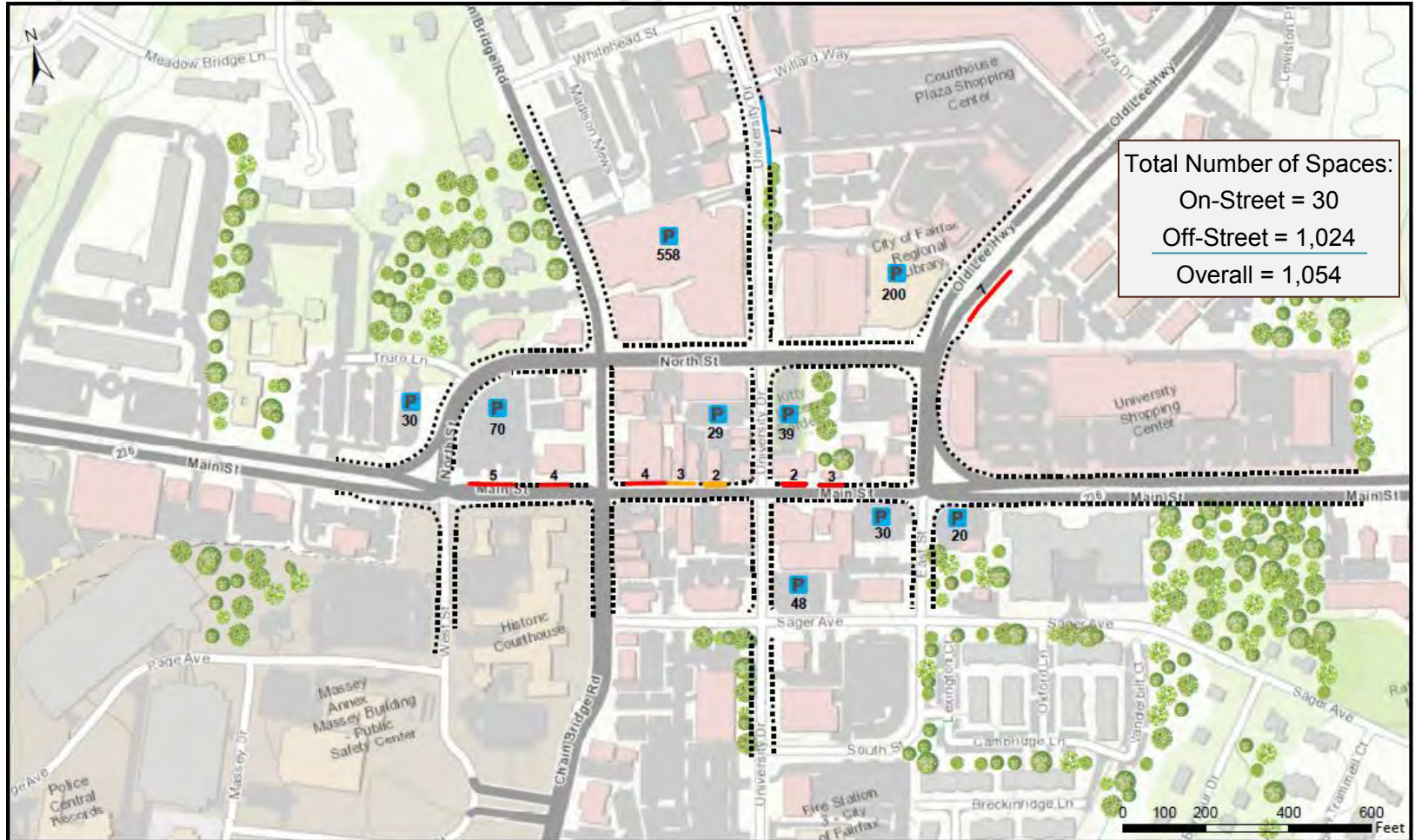
- Cue, Gold
- Cue, Green

- Cue Bus Stop Shelter
- Cue Bus Stop





On and Off-Street Parking (Existing Two-Way)



Total Number of Spaces:
 On-Street = 30
 Off-Street = 1,024
 Overall = 1,054

LEGEND:

Curbside Restriction Type

- No Stopping / No Parking
- Loading Zone
- Rush Hour Restricted
- Two-Hour Parking



Public Off-Street Parking

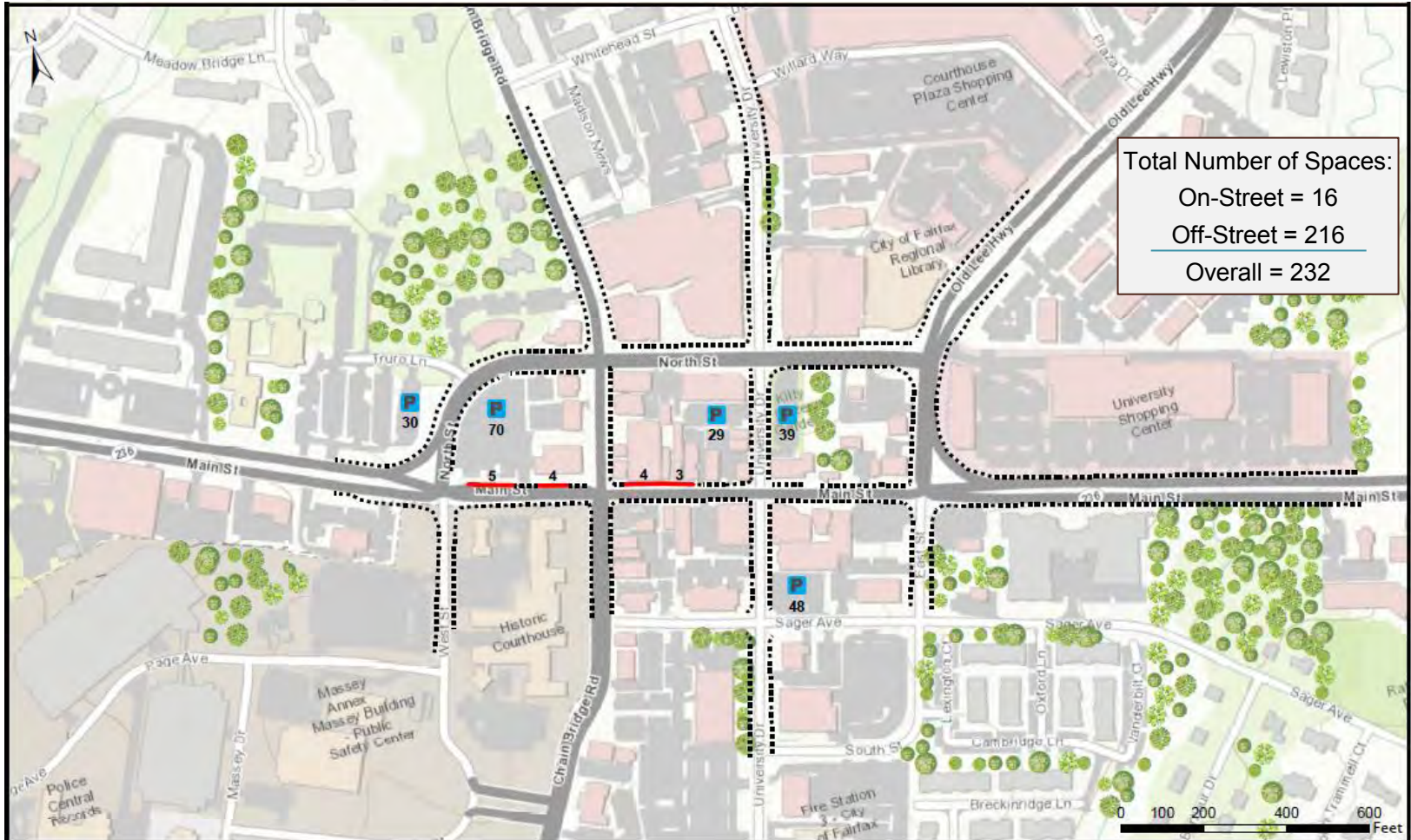
Note: Shows the Maximum Parking Supply

Source of On-Street Parking: Sabra, Wang & Associates, Inc. – Curbside Inventory Data Collection. October 2014.
 Source of Off-Street Parking: Parking Map from visitfairfax.com.





On and Off-Street Parking (One-Way)



Total Number of Spaces:
 On-Street = 16
 Off-Street = 216
 Overall = 232

LEGEND:

Curbside Restriction Type

..... No Stopping / No Parking

— Curbside Parking Available



Public Off-Street Parking

Note: Shows the Maximum Parking Supply





Motorist Traveler Information

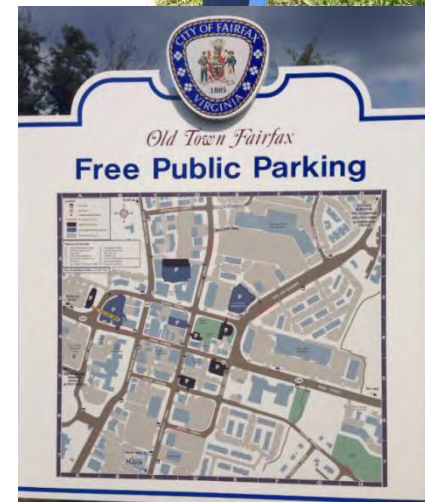
- Free off-street parking
- East-West through traffic directed to North Street
- Multiple signs direct drivers to Old Lee Hwy
- Farmer's Market on weekends





Pedestrian Traveler Information

- Farmer's Market on weekends
- "You Are Here" signs
- Maps at parking lots
- Sidewalks on both sides of all streets
- Pedestrian signals are mix of pushbuttons and automatic timing
- A few locations are not ADA accessible





Do Not Block the Intersection Enforcement

MAIN STREET AND CHAIN BRIDGE ROAD



Citations issued to 2 drivers who made NB left turn
...and blocked the intersection



2 cars blocking SB thru

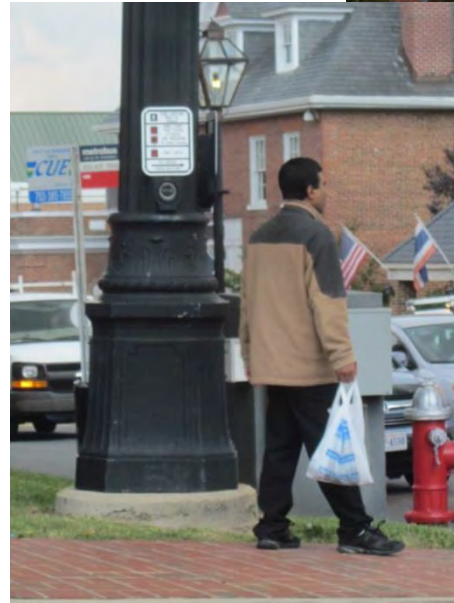
Car still in crosswalk



Observations: Pedestrians and Bicyclists



Midblock pedestrian crossing



Non-ADA accessible pedestrian signal pushbuttons



No bicycle facilities in Old Town



Bicyclist on sidewalk



Observations: Vehicle Queues

*Back of queues extend to signals.
EB and WB left turn lane starvation.*



Queue on Main St from East St past Marketplace signal – PM peak hour



Vehicles cross double yellow on dual left turns





Summary

- New development includes 86K SF new commercial/office, 44K library and 52 residential units
- Overall daily traffic volumes are down from 2005
 - PM peak hour is the highest peak period
 - Pedestrian volumes are highest on North St
- One intersection improved LOS and two intersections dropped LOS as a result of the two-way conversion
- The Main St/North St intersection had most crashes (2011-2014)
- Crashes rose slightly after the conversion to two-way, but have fallen every year since 2011.
- Pedestrian infrastructure is complete; bicycle infrastructure is incomplete.
- On-street parking increased slightly. Off-street parking more than quadrupled.





Questions and Next Steps

- Visioning goals
- Develop recommendations
- Identify costs

