



GEORGE MASON UNIVERSITY WEST FAIRFAX CAMPUS VISION

JUNE 2017

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY

2. CHARRETTE GOALS

3. MASON INNOVATION DISTRICT OPTIONS AND COMMENTARIES

4. PREFERRED INNOVATION DISTRICT OPTIONS AND COMMENTARIES

5. IMPLEMENTATION STRATEGIES

6. WORKSHOP SUMMARIES

- Campus Life and Student Housing
- Intercollegiate Athletics and Recreation
- Transportation and Infrastructure
- Economic Development and Collaboration
- Academic, Research, and Innovation

A. APPENDIX

A.1. UNIVERSITY STAKEHOLDER INTERVIEWS

A.2. CAMPUS OVERVIEW

- Fairfax Campus, Sites for Study and Surrounding Districts
- Campus Masterplans and University Strategic Vision

A.3. REGIONAL ECONOMIC DRIVERS

A.4. TRANSPORTATION RESEARCH

A.5. FAIRFAX CITY GOALS AND INITIATIVES

A.6. FAIRFAX COUNTY GOALS AND INITIATIVES

A.7. INNOVATION DISTRICT PRECEDENTS

- Brookings Institute Study
- UCSF China Basin Campus
- University of Delaware Star Campus
- Georgia Tech Enterprise Innovation Institute

A.8. WORKSHOP SCHEDULE

A.9. COMMUNITY WEB COMMENTARY

A.10. MEETING NOTES

A.11. WORKSHOP TEAM ROSTER

1. EXECUTIVE SUMMARY

Following the completion of the Campus Drive connector below Ox Road (Hwy 123), George Mason University recognizes the potential for new University development on its Fairfax West Campus. Concurrently, University President Dr. Angel Cabrera voiced his desire to develop an Innovation District that will offer opportunities for public-private development, research collaboration, innovative funding streams, attractive public open space, and University amenities. To this end, following internal interviews with department staff and administrators, Mason conducted a three-day workshop in which faculty, staff, students, municipal administrators and the general public were asked to participate in envisioning the future of Mason over the course of the next thirty years.

This document is a summary of those three days of explorations, discussions, participant questions and commentary as well as consultant recommendations. In order to put this exercise into context, the Strategic Vision and masterplans were reviewed, City and County of Fairfax administrators spoke of their jurisdiction's initiatives, community members at large spoke of their concerns, the architects analyzed the current campus' strengths and current challenges, and several representatives of other universities spoke of their Innovation Districts at both the University of Delaware and Georgia Institute of Technology (Georgia Tech).

Transportation and an economic development consultant also discussed the challenges and opportunities of the region that would benefit or hinder future development of the Fairfax Campus.

Five main areas of University interest were identified during initial interviews and discussed at open forums including:

- Campus Life and Student Housing;
- Intercollegiate Athletics and Recreation;
- Transportation and Infrastructure;
- Economic Development and Collaborations;
- Academic, Research and Innovation.

Issues of student needs, community integration, research areas, corporate and developer participation, transportation, and Mason visibility were all assessed at length during open breakout sessions. With the various ideas and desires in hand, the design consultants then developed four site options that utilized areas both to the west and east of Ox Road. They considered proximity to the main campus core, transportation links, phasing and expandability, benefits to the general community, and potential building groupings.

Equal to the quantification of the University's needs and potential disposition, implementation strategies were noted as equally important. Various milestones were discussed including short term project development, understanding of University strengths, real estate attractiveness, and establishment of City, County and development partnerships.

Of those four schemes, a final site development plan was endorsed by all of the stakeholders that best represented the potential for an Innovation District that addressed the growing needs of the Fairfax Campus core, access to transportation, expandability, and potential for a unified Innovation District identity. It would be located on both sides of Ox Rd. and will engage the University core to the east and the athletics and recreation to the west.

Building development will border Ox Road in order to increase university visibility as well as offer retail and public space engagement to the greater community. The grouping and location of the development will offer the best possibility for mixed-use public space, options for various uses, and a built environment that is attractive to researchers, corporate partners, and university faculty, staff, and students. Lastly, the Innovation District would offer significant economic development opportunity for both the City and County of Fairfax.

In closing, George Mason University is very pleased by the outcome of this inclusive process. The interviews and workshop have generated many strong ideas and strategies that establish a plan of action for an Innovation District that will benefit Mason, the greater community, and Northern Virginia (NoVA).

CHARRETTE GOALS

2. CHARRETTE GOALS

- Identify site opportunities and constraints.
- Understanding of the best Innovation Districts.
- Reach consensus about objectives.
- Develop schemes that provide for the needs of Mason's future.
- Identify Schemes that solve the problems Mason currently has regarding sense of place, facility needs, et al.
- Create a plan to bring entrepreneurs closer to the student body.
- Create a campus that becomes known for its innovation.
- Challenges with the campus get addressed to support and enable these successes.

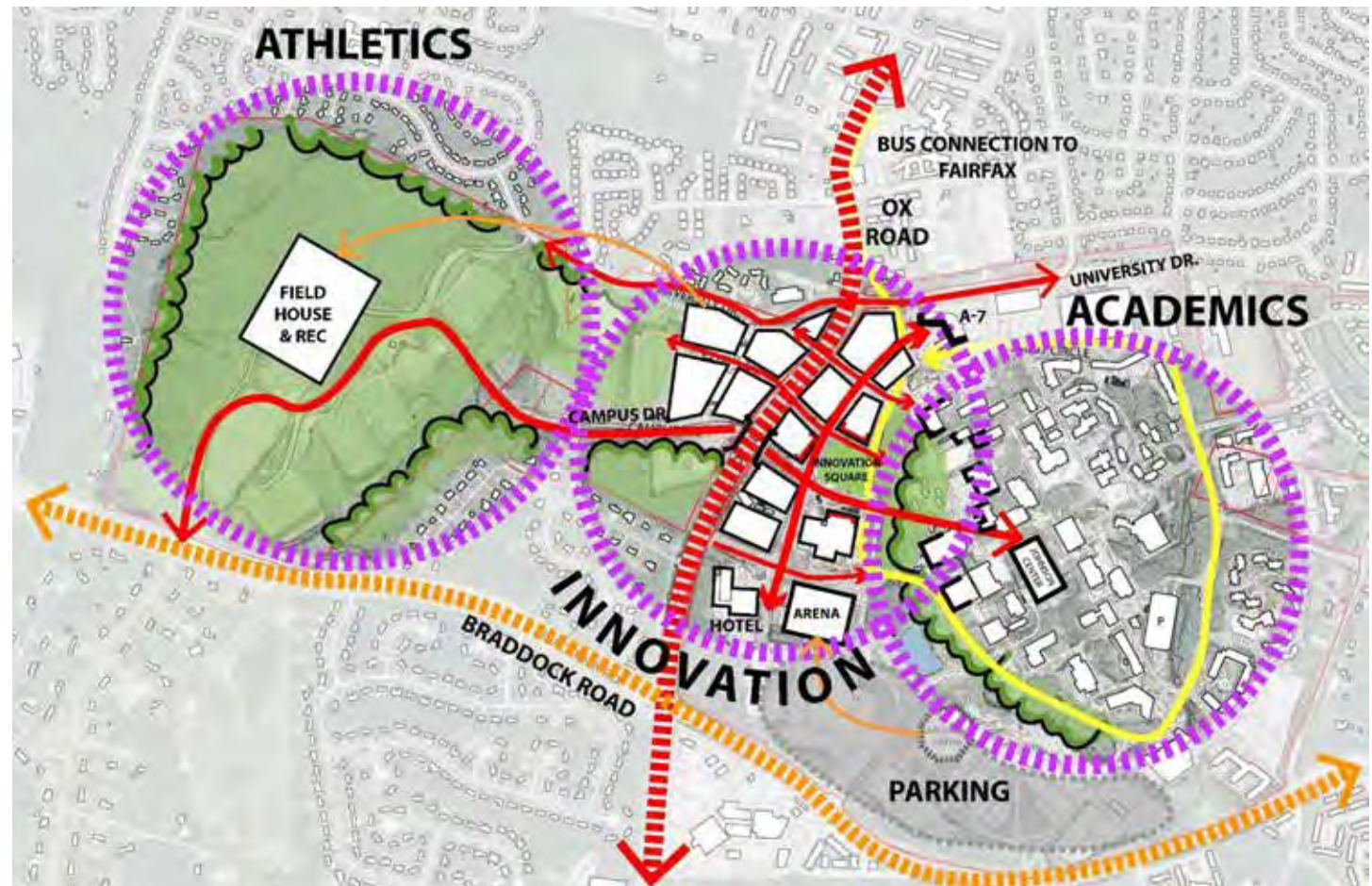


MASON INNOVATION DISTRICT OPTIONS AND COMMENTARIES

3. MASON INNOVATION DISTRICT OPTIONS AND COMMENTARIES

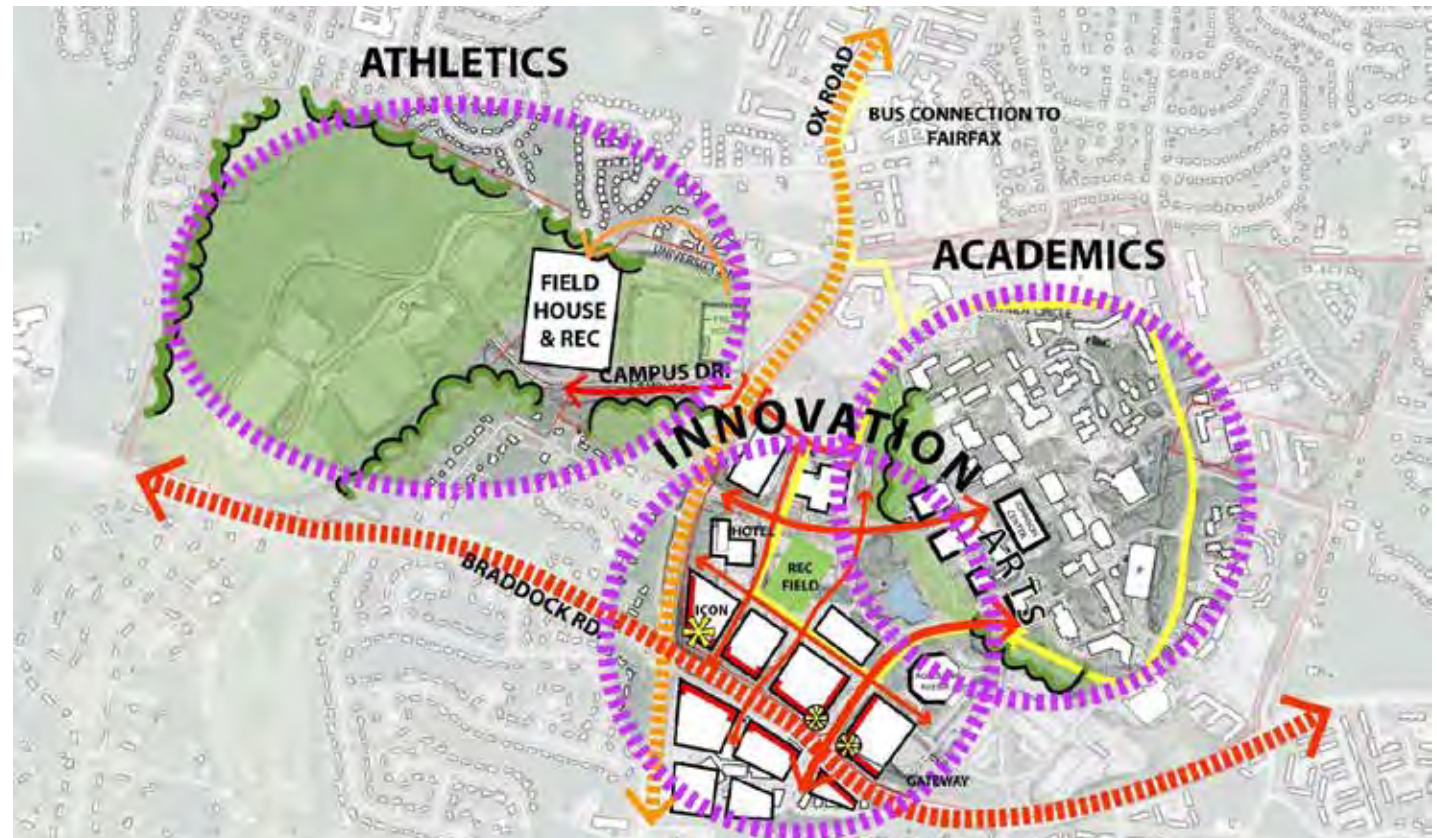
“OXBRIDGE” SCHEME

- Ox Road becomes “Ox Place” new center
- Close to existing core
- Recreation hall becomes “Innovation Hall”
- Greater number of connections across Ox Road
- New athletics and recreation center (intercollegiate and intramural)
- New visibility to Fairfax



“OX-BRAD CORNER” SCHEME

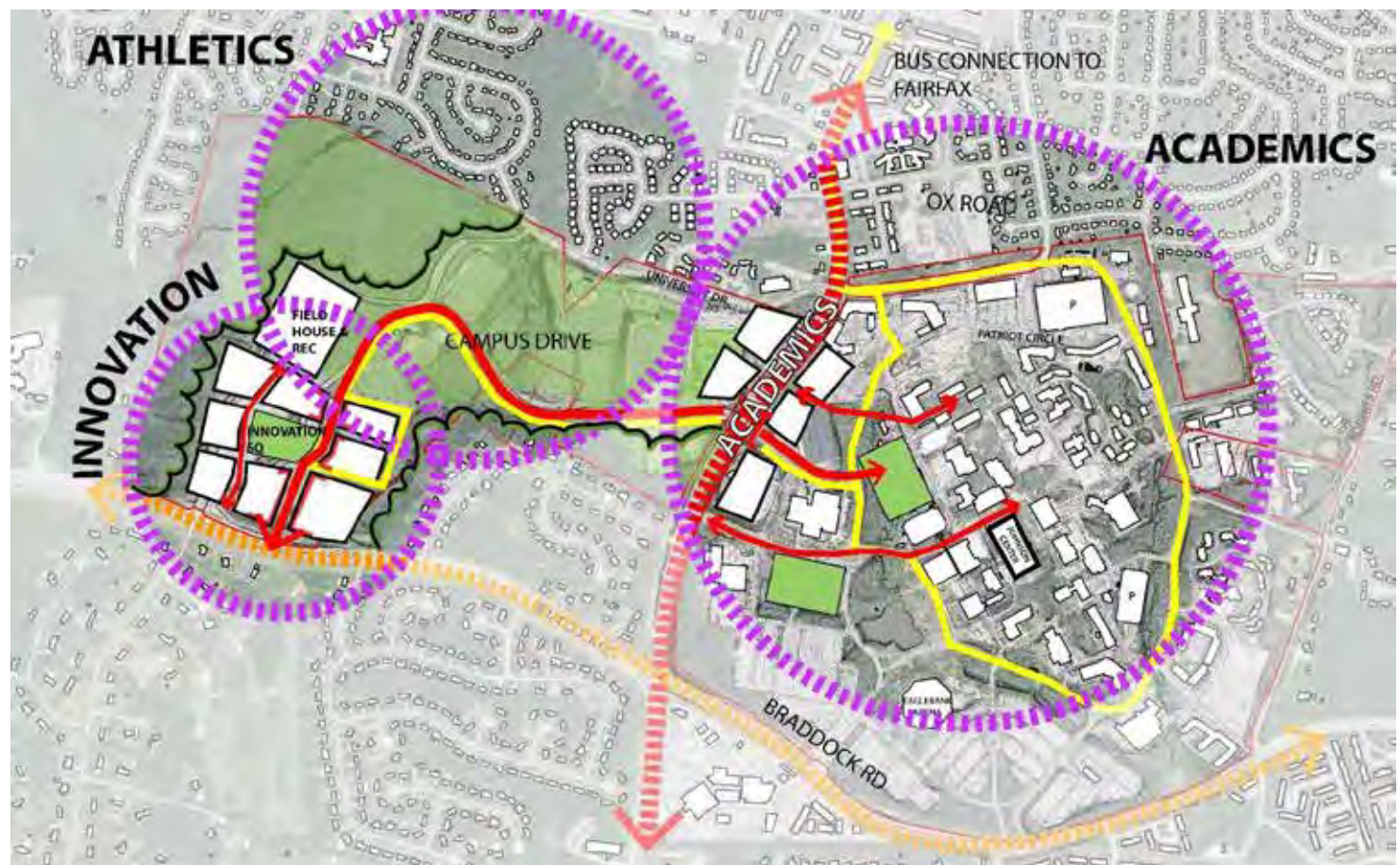
- Campus icon @ Braddock & Ox Roads
- Reaches across Braddock Rd.
- Roanoke as major gateway
- Arts and innovation at Mason Pond
- West Campus dedicated to athletics



3. MASON INNOVATION DISTRICT OPTIONS AND COMMENTARIES

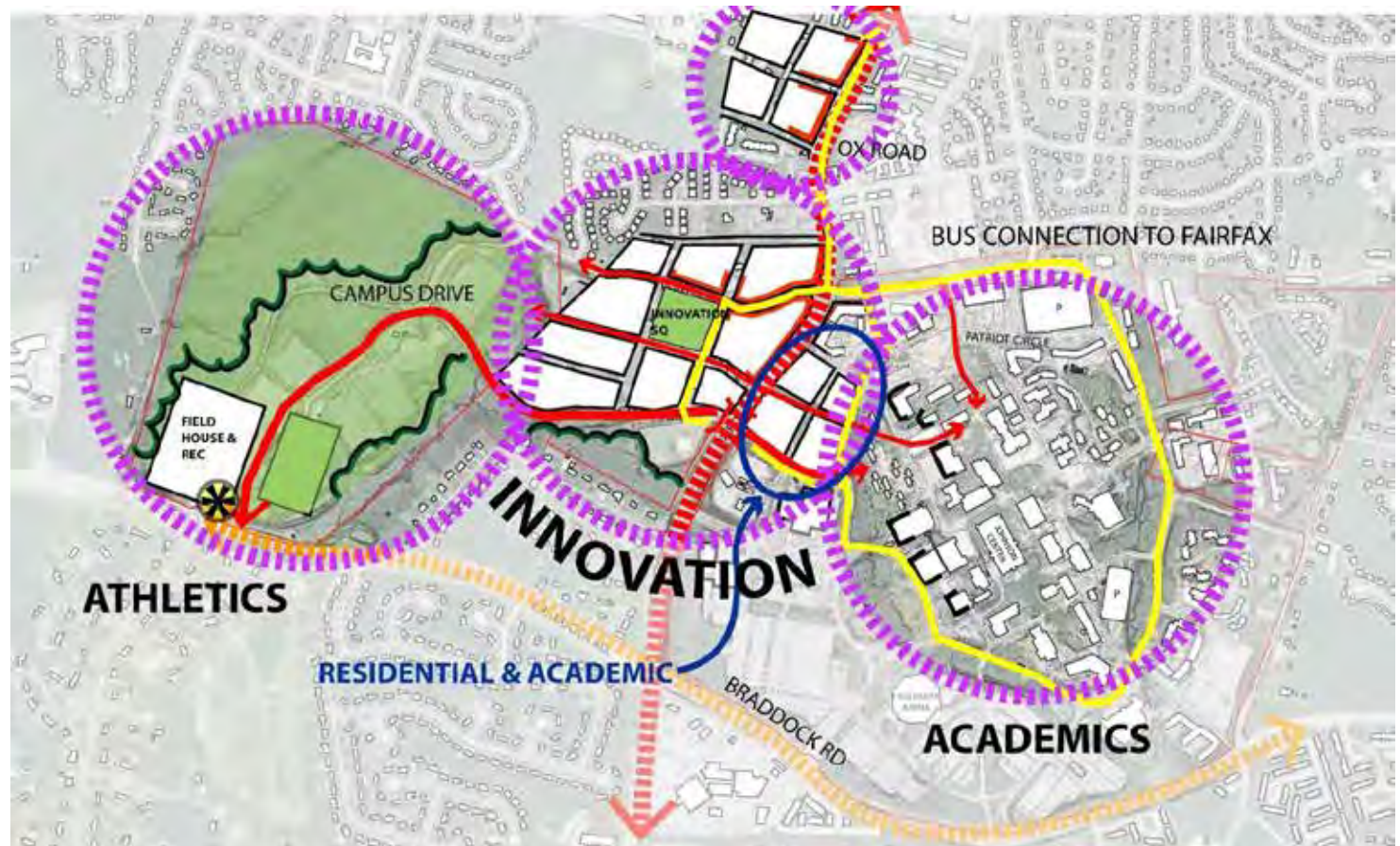
“BRADDOCK NEW TOWN” SCHEME

- Distinct identity for Innovation District
- Innovation District linked to wellness
- Recreation comes to core
- Ox Road as academic extension (residential/academic/student services grows west)



“FAIRFAX CONNECTION” SCHEME

- Direct linkages to Fairfax
- Gateway at University Blvd
- Athletics presence at Braddock Rd
- Innovation district connects to existing core
- Associated development to north
- Transform existing public housing



PREFERRED INNOVATION DISTRICT OPTIONS AND COMMENTARIES

“OXBRIDGE” SCHEME A



4. PREFERRED INNOVATION DISTRICT OPTIONS AND COMMENTARIES

“OXBRIDGE” SCHEME B



“OXBRIDGE” SCHEME PEDESTRIAN ACCESS



4. PREFERRED INNOVATION DISTRICT OPTIONS AND COMMENTARIES

“OXBRIDGE” SCHEME A AERIAL



VISION IMPLEMENTATION STRATEGIES

5. IMPLEMENTATION STRATEGIES

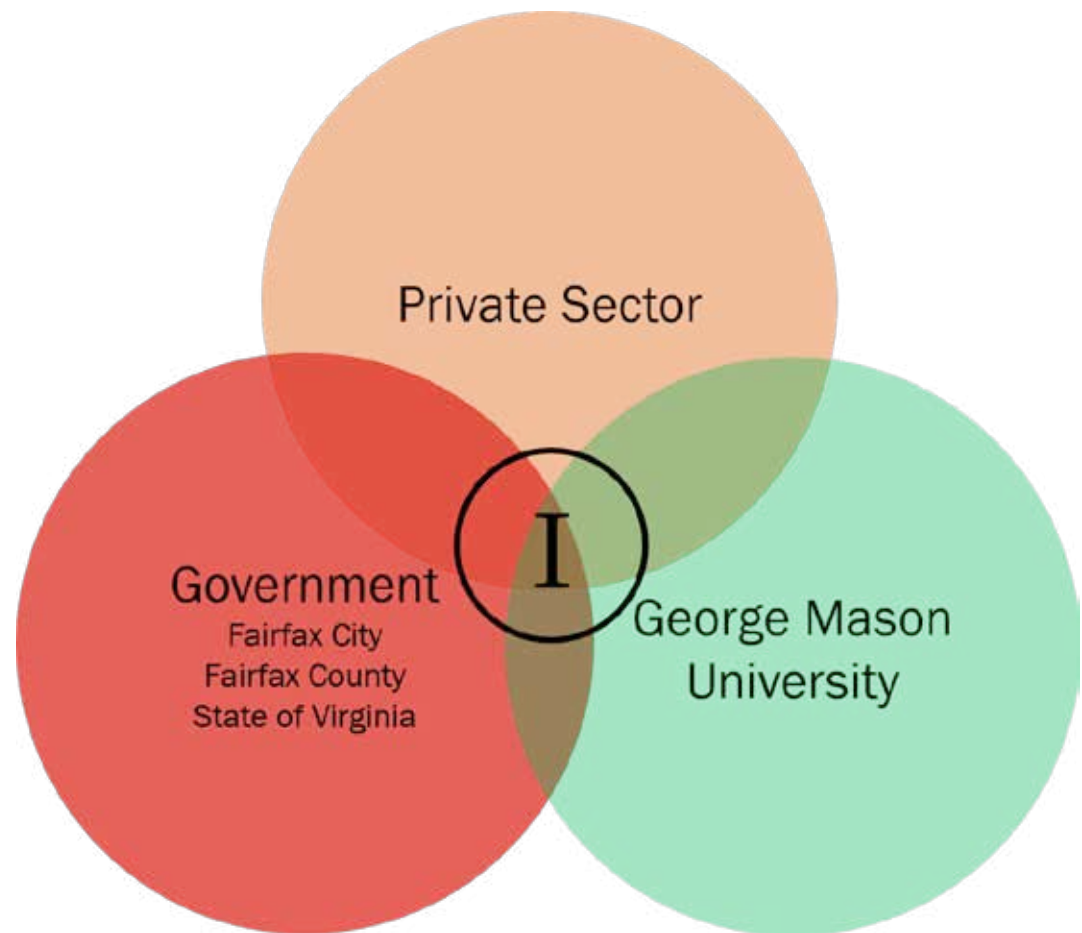
IMPLEMENTATION TIME FRAMES: (20-30 YEARS)

Short Term: (2-5 years)

- Identify possible partners (developers, companies, individuals)
- Develop administration and management structure
- Campus programming
- Entitlements
- Budgeting
- Infrastructure planning
- Develop Goal/Mission Statement
- Recruit Project Champion

Phase one: (5-10 years)

- Complete first phase
- Plan and entitle future phase
- Plan academic “backfill”



WHAT CAN WE EXPECT TO SEE IN AN INNOVATION NEIGHBORHOOD?

- Research and Collaboration Places
- Academic Space
- Innovation/Maker Places
- Student Activities and Organizations
- Diverse Residential Offerings
- Arts and Culture Retail
- Flexible Spaces



WORKSHOP SUMMARIES

- 6.1.** Campus Life and Student Housing
- 6.2.** Intercollegiate Athletics and Recreation
- 6.3.** Transportation and Infrastructure
- 6.4.** Economic Development and Collaborations
- 6.5.** Academic, Research, and Innovation

6. WORKSHOP SUMMARIES

1. Campus Life and Student Housing
2. Intercollegiate Athletics and Recreation
3. Transportation and Infrastructure
4. Economic Development and Collaborations
5. Academic, Research, and Innovation



6.1. CAMPUS LIFE AND STUDENT HOUSING

0-2 years:

- Develop a first phase housing and campus life program
- Identify amenities (dining, etc...)
- Identify user group(s): Faculty, grad students, undergrads, student groups, etc.
- Identify funding sources
- Program initial open spaces for campus activities

5-10 years:

- Identify and plan for future housing & campus life needs
- Re-program campus life initiatives at the Innovation Neighborhood



6.2. INTERCOLLEGIATE ATHLETICS AND RECREATION

0-2 years:

- Develop first phase “wellness” program for the Neighborhood
- Review collaboration possibilities between ICA and Rec
- Review current ICA & Rec facility and fields plan for campus
- Initial programming for new Field House

5-10 years:

- Reposition ICA and Rec facilities for the University and the Neighborhood



6.3. TRANSPORTATION AND INFRASTRUCTURE

Short Term (0-2 years):

- Define street grid layout
- Update Previous Study
- Identify transit initiatives and priorities
- Determine non-motorized transportation strategies/network
- Identify infrastructure strategies (neighborhood or distributed energy, physical plant, service spines, renewables, LID, etc.)
- Draft Transportation Demand Management (TDM) guidelines for private-sector employers in the Innovation Neighborhood
- Re-establish bike share program
- Study and determine VDOT support for traffic calming/road diet on Ox Road

2-5 years:

- Construct complete multi-modal street block with first phase of buildings to demonstrate atmosphere
- Work with transit providers to create transit hub to accommodate regional services and interface with Mason shuttles/circulators
- Ox Road redesign/approvals
- Extend/connect pedestrian and bicycle facilities in early phases

5-10 years:

- Identify new transit connections (VRE expansion, new activity centers)
- Evaluate parking requirements for completed phases, Adjust future parking
- **Ox Road reconstruction**

10-30 years:

- Re-examine transportation priorities/needs (car-free zones, new transit services, autonomous vehicle availability)



6.4. ECONOMIC DEVELOPMENT AND COLLABORATIONS

Short Term (0-2 years):

Economic Development: Form a partnership entity between university, public economic development (city, county, and state), and private sector stakeholders to set the mission and guide business attraction

- Develop a mission statement and define structure/roles around recruitment and incentives
- Evaluate the needs of industry and where they overlap with university strengths and opportunities
- Identify any organizations or entities that the partnership would jointly create and operate (such as a business incubator or joint innovation center) to serve both the university and public needs for an “innovation ecosystem”

Execution, Planning, and Investment: Establish University priorities and guidelines relative to project execution and investments:

- How is the university willing to transact (sell/lease/partner, etc) with potential private sector partners?
- What types of private uses/development are appropriate within the neighborhood?
- What requirements, if any, are necessary to ensure alignment of University goals with future private sector partners (both corporate and real estate)?
- Does a special entity need to be set up to expedite development decisions to meet the expectations of the private market?
- What resources (capital, land, debt capacity, etc) is the university willing to contribute to a development partnership?

- Analyze university needs and market opportunities to identify a development program for “Phase 1” and the business proposition for a potential private sector development partner.
- Conduct a solicitation process to identify a master development partner.

Operations: In conjunction with the partnership, create an organizational structure and determine who is in charge of the execution, university programming, business attraction, and operations of the innovation neighborhood.



Mid Term (2-10 years):

- *Execution, Planning, and Investment:* Translate master plan and facilities needs into long-term implementation framework for remainder of neighborhood
- *Operations:* Begin to build out operating entity for innovation neighborhood
- *Economic Development:* Build on early successes and refine partnership and attraction strategy. Evaluate new needs to enhance “innovation ecosystem”



6.5. ACADEMIC, RESEARCH, AND INNOVATION

0-2 Years:

- Identify Phase One university and private sector collaborators
- Develop 5 year Academic and Research Plan
- Identify community and industry partnership opportunities
- Program later phase multidisciplinary opportunities
- Identify how other Mason campuses/sites are part of a strategic plan for the Innovation Neighborhood

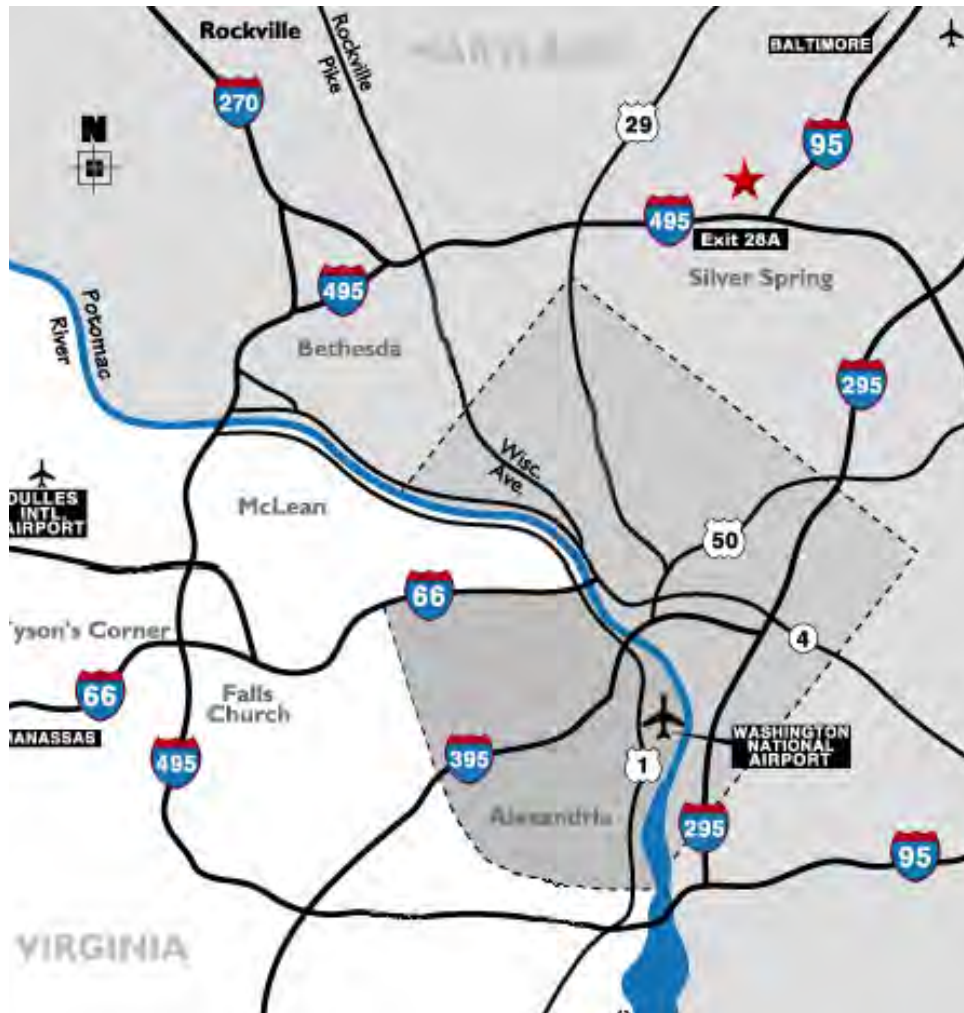
APPENDIX

- A.2.** Campus Overview
- A.3.** Regional Economic Drivers
- A.4.** Transportation Research
- A.5.** Fairfax City Goals and Initiatives
- A.6.** Fairfax County Goals and Initiatives
- A.7.** Innovation District Precedents
- A.8.** Community Web Commentary
- A.9.** Meeting Notes
- A.10.** Workshop Team Roster

CAMPUS OVERVIEW

A.2.A. Fairfax Campus, Sites for Study and Surrounding Districts

A.2.B. Campus Master Plans and University Strategic Vision



A.2.A. FAIRFAX CAMPUS, SITES FOR STUDY AND SURROUNDING DISTRICTS

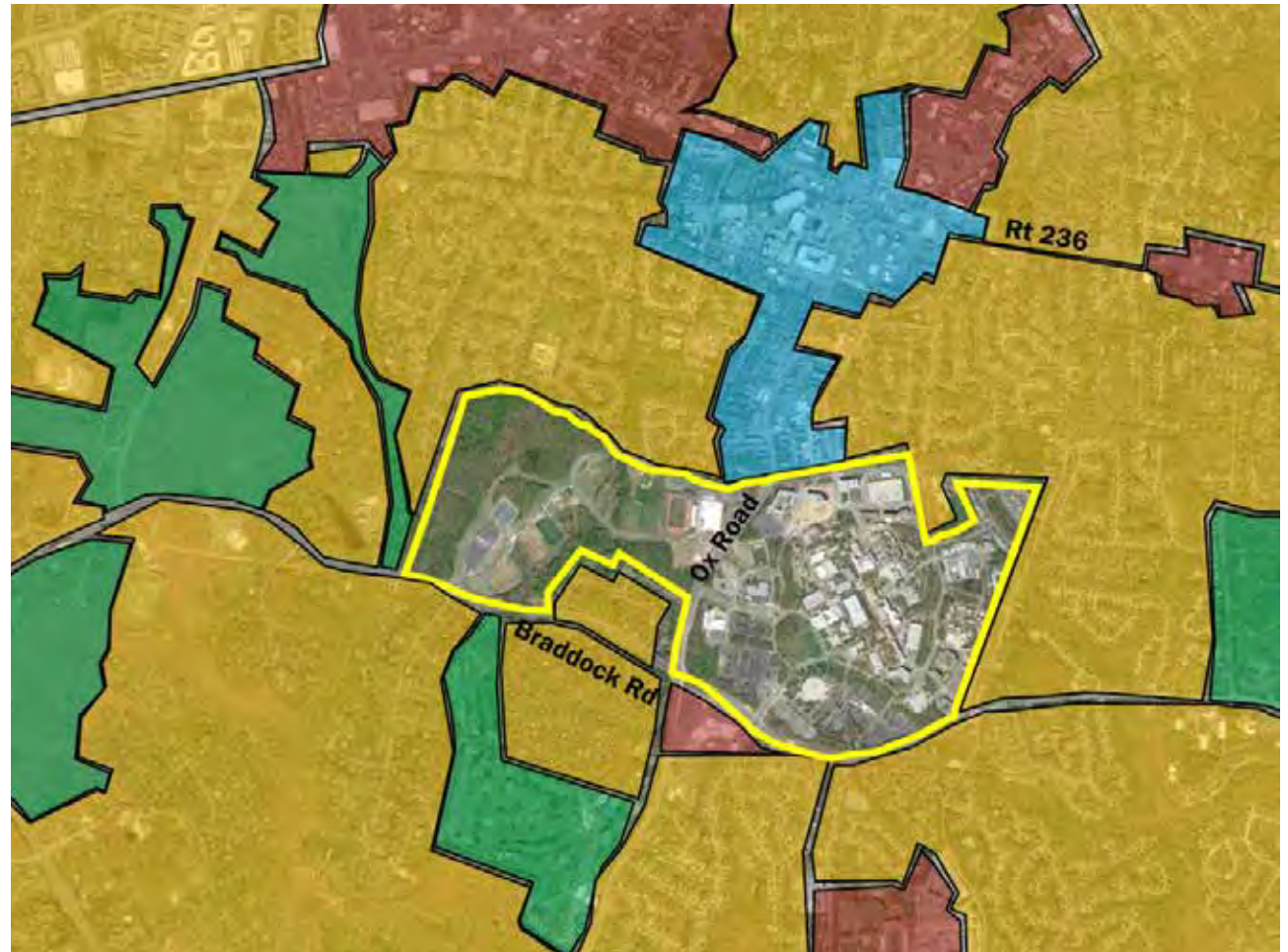
POTENTIAL DEVELOPMENT AREAS

- West Campus
- Aquia Neighborhood
- Southwest Sector/Roanoke Neighborhood



SURROUNDING DISTRICTS

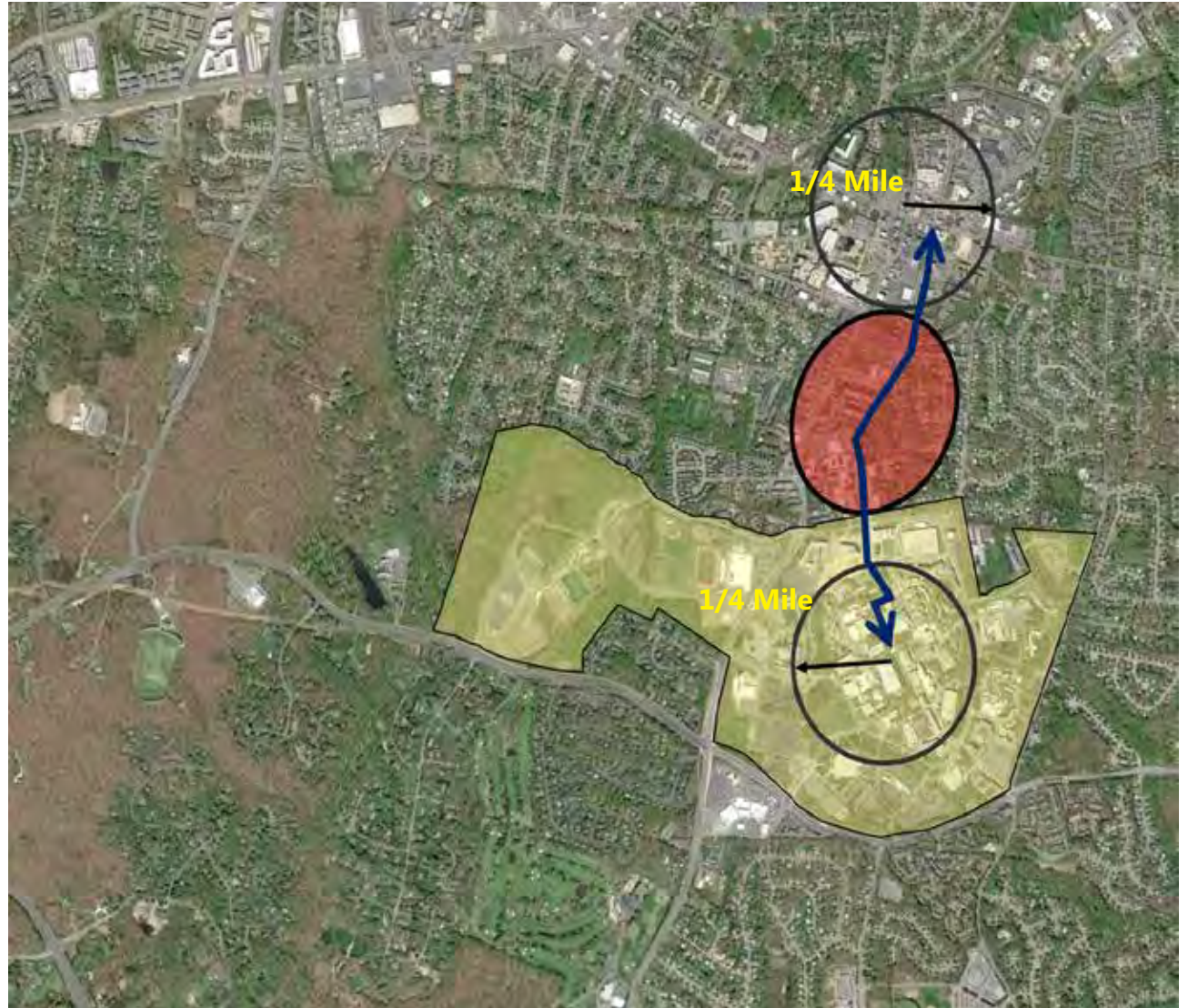
- City of Fairfax
- Suburban style retail
- Golf Course
- Wooded area
- Suburban style residential



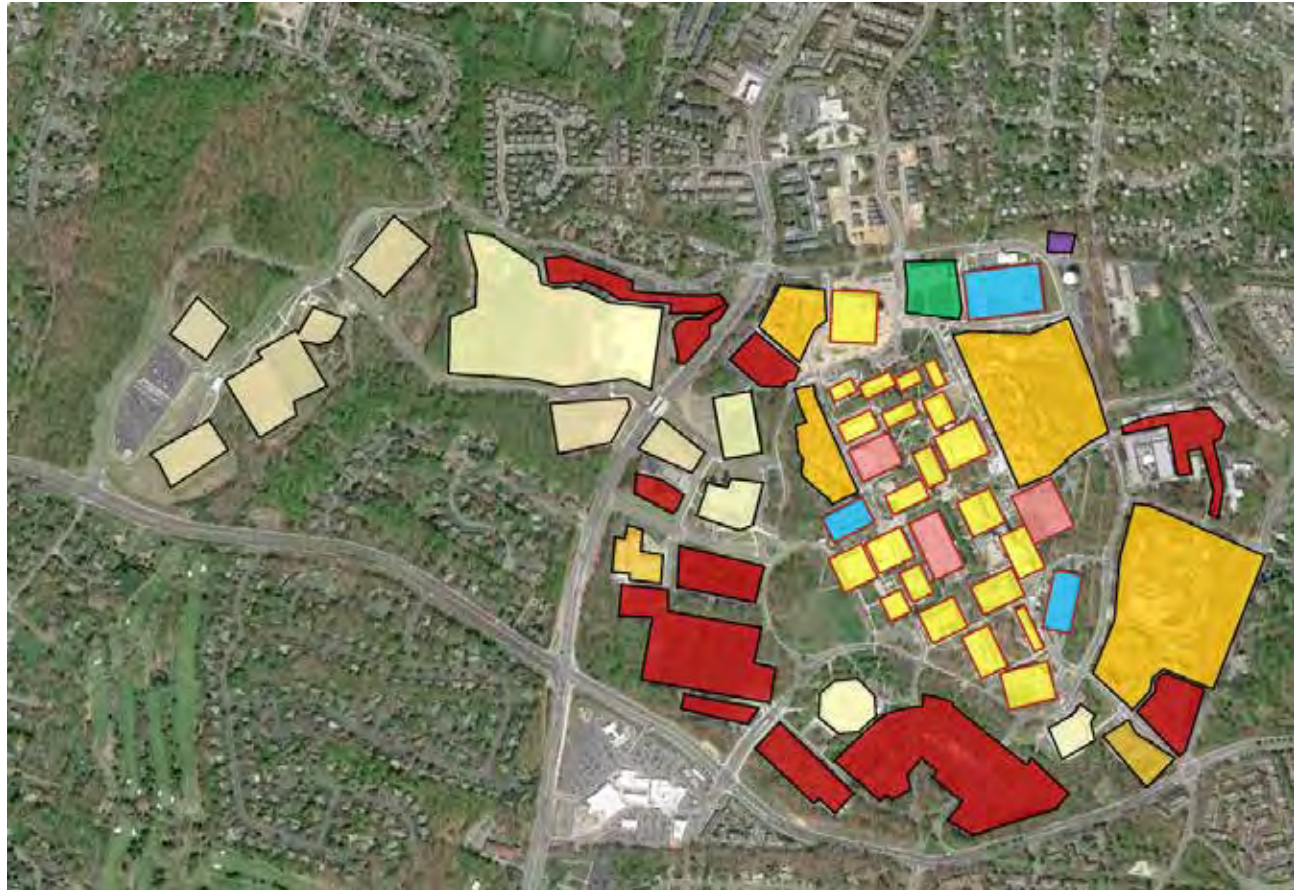
A.2.A. FAIRFAX CAMPUS, SITES FOR STUDY AND SURROUNDING DISTRICTS

SURROUNDING DISTRICTS

- Campus core and downtown Fairfax are a 25 minute walk.
- Intermediate area is auto dominated and unfriendly to the pedestrian.



- Original “George Mason College” Campus Buildings
- Other Academic Buildings
- Student Life Buildings
- Student Housing
- Athletic Facilities
- Parking Garages
- Parking Lots
- Administration
- Child Development Center



A.2.A. FAIRFAX CAMPUS, SITES FOR STUDY AND SURROUNDING DISTRICTS

THE HIDDEN CAMPUS

- Parking Lots
- Forest Cover

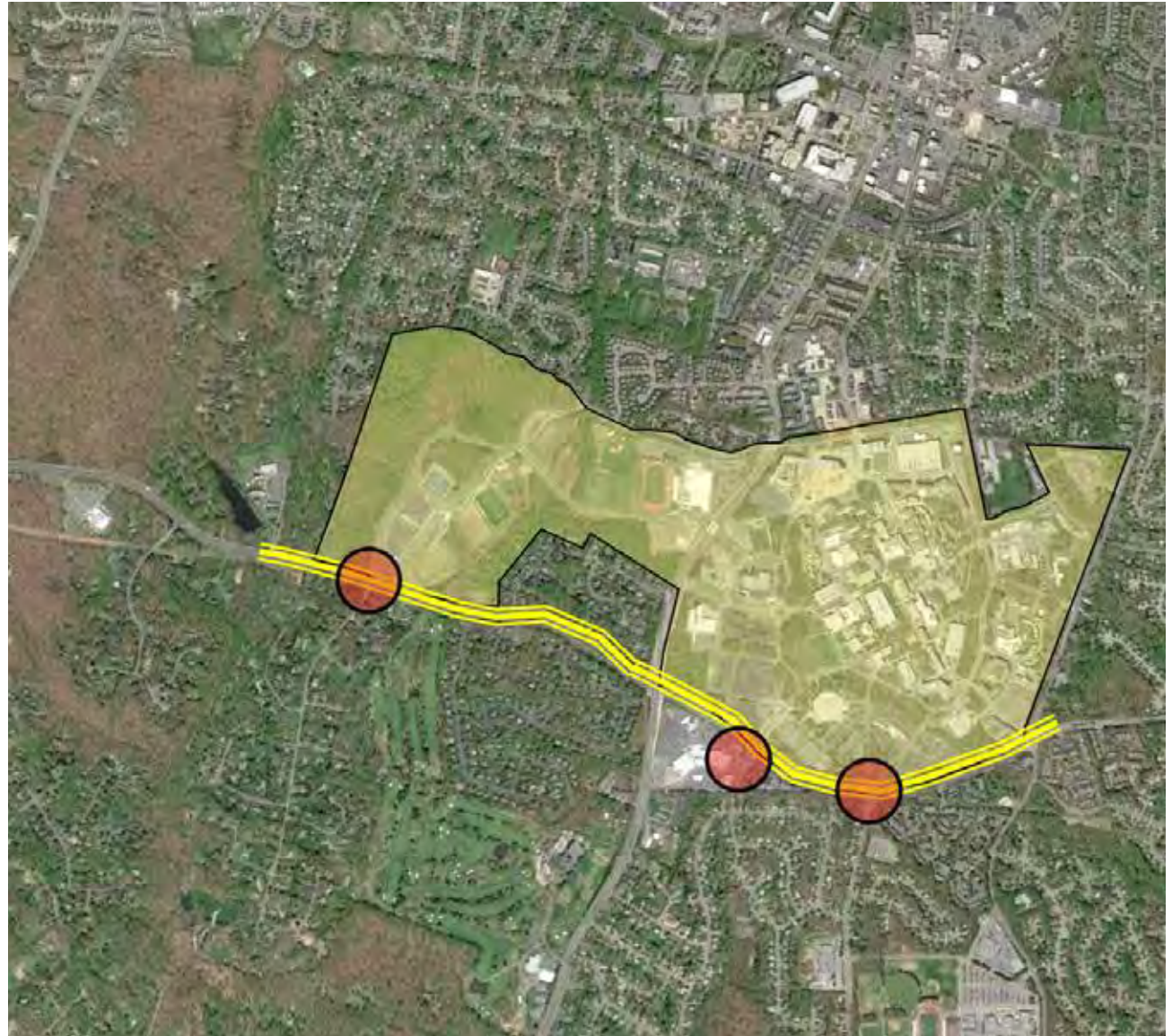


- Ox Road Division
- Pedestrian and vehicular underpass



A.2.A. FAIRFAX CAMPUS, SITES FOR STUDY AND SURROUNDING DISTRICTS

- Minimal campus presence on Braddock Road.



- Campus entrances are auto dominated and lack a sense of arrival.



A.2.A. FAIRFAX CAMPUS, SITES FOR STUDY AND SURROUNDING DISTRICTS

- University Drive has become a real campus edge and has created a front door to the campus from Fairfax City.



WEST CAMPUS

- 216 Acres
- Two Points of connection to the East
- Additional point of access to the South West
- Substantial tree buffer
- Parking
- Track and Field practice
- Soccer and Track and Field
- Soccer Practice Field Stadium
- Soccer Practice Fields
- Baseball
- Softball
- Tennis
- Aging Field House
- 90' Buffer from Adjacent Properties
- Center of Campus to Far West Campus - 12 Minute Walk



A.2.A. FAIRFAX CAMPUS, SITES FOR STUDY AND SURROUNDING DISTRICTS

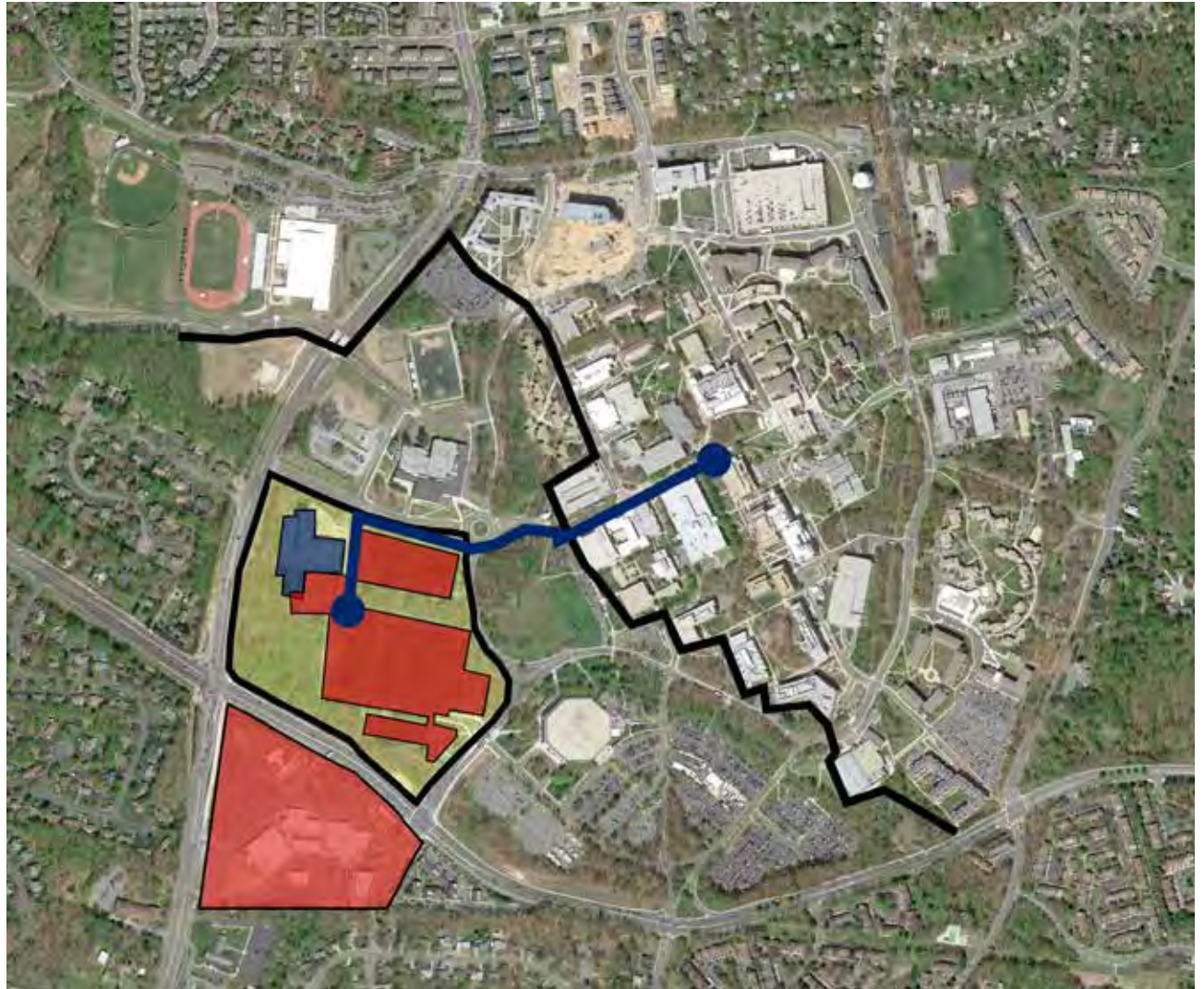
AQUIA NEIGHBORHOOD

- 39 Acres
- Connected to campus core along its entire Northern and Eastern Edges
- Connection Point to Far West Campus
- Possible Gateway Feature
- Athletics Facilities
- Parking
- Student Apartments at Aquia are Aging Out
- 6 Minute Walk to the Center of Campus



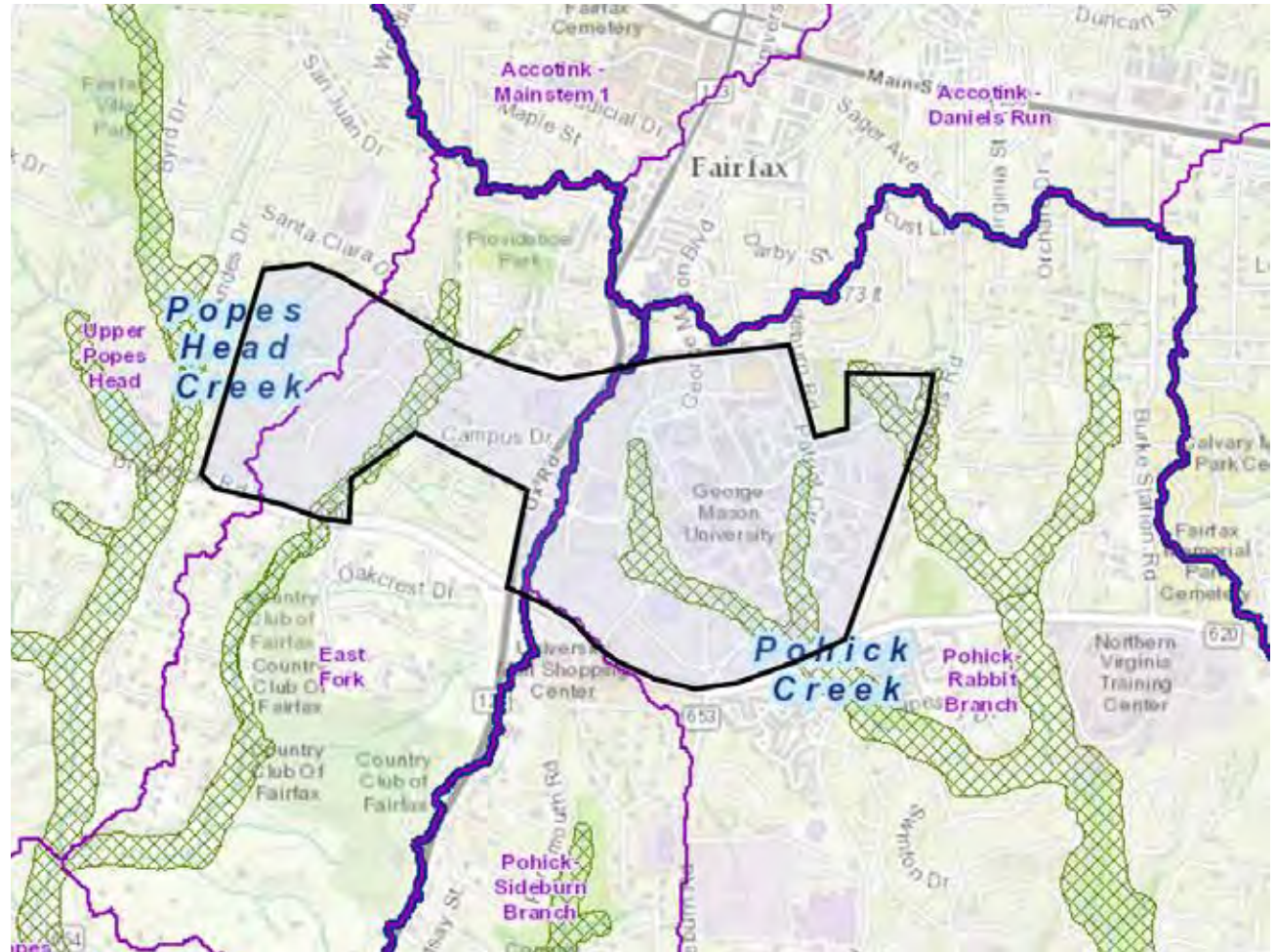
ROANOKE NEIGHBORHOOD

- 36 Acres
- Distant from Campus Core
- Mason Global Center
- Suburban Style Strip Mall and 20 Acres of Parking
- 16 Acres of Surface Parking
- 7 Minute Walk to Center of Campus



A.2.A. FAIRFAX CAMPUS, SITES FOR STUDY AND SURROUNDING DISTRICTS

- Streams in the Pohick-Rabbit Branch Watershed



2002 MASTER PLAN

Mason Master Plan Principles

- Create a sense of place
- Foster a vibrant campus community
- Establish a unifying campus framework
- Concentrate facilities primarily on the east campus
- Accommodate transportation needs
- Engage the community
- Campus framework elements
 - Arrival
 - Main St and Quads
 - Connections
 - Views and Landmarks
 - Natural Systems
 - Compact Core



A.2.B. CAMPUS MASTER PLANS AND UNIVERSITY STRATEGIC VISION

2006 SOUTHWEST SECTOR PLAN



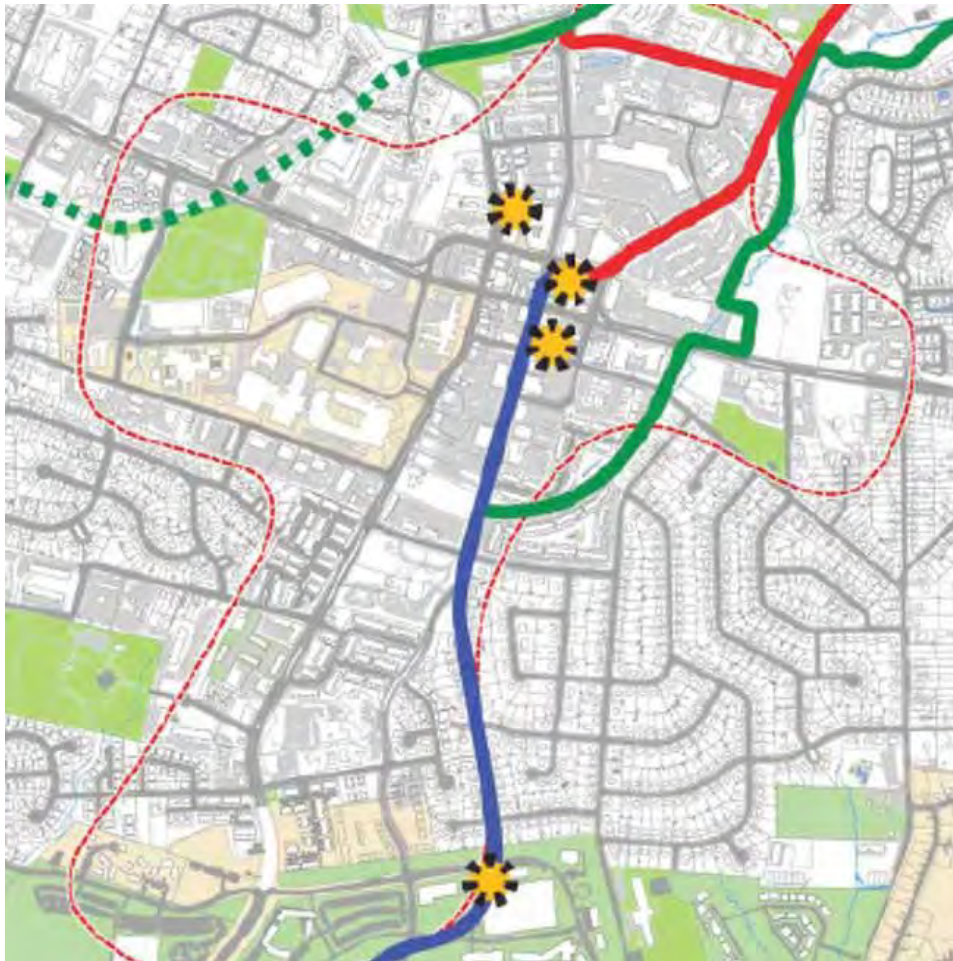
2009 NORTH SECTOR PLAN



A.2.B. CAMPUS MASTER PLANS AND UNIVERSITY STRATEGIC VISION

VISION FAIRFAX MASON PLAN

- Enhance connections between Fairfax City and Campus
- Quality coordination and well designed connections will produce quality outcomes



MASON TRANSPORTATION PLAN



MASON TRANSPORTATION MASTER PLAN

- Bicycle lane and facilities plan
- Future garage and surface lot locations
- Signage and way finding plan



A.2.B. CAMPUS MASTER PLANS AND UNIVERSITY STRATEGIC VISION

GEORGE MASON UNIVERSITY STRATEGIC PLAN OVERVIEW

For Students

- Innovative learning
- Accessible pathways
- Return on investment

For the Community

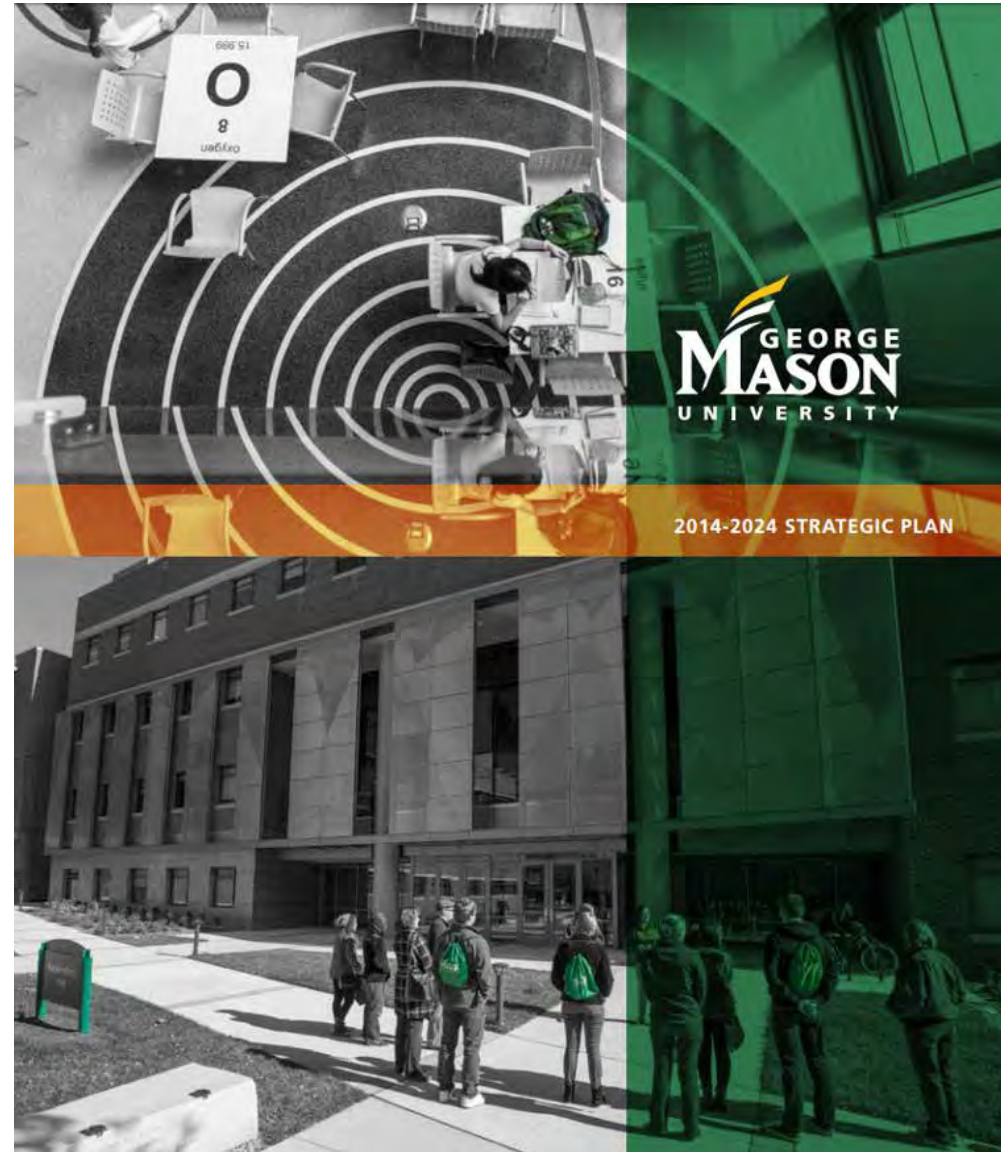
- 100,000 career ready graduates
- Innovation engine
- Community builder

For Faculty and Staff

- Well being
- Diverse academic community
- Support teaching and scholarship excellence

For the World

- Elevate research
- Research of consequence
- Global learning platform



REGIONAL ECONOMIC DRIVERS

INNOVATION ECONOMY LIKELY TO DRIVE FUTURE GROWTH

- 1/3 of DC Region's innovation employment is in Fairfax County
- "Appropriated knowledge, innovation, and entrepreneurship operating within an institutional environment"

#	Top Innovation Hubs	# of Sectors		% of Jobs in Innovation
		Total	Primary	
1	Bay Area, CA	9	5	36%
2	Washington, DC	4	1	31%
3	Seattle, WA	4	3	30%
4	Boston, MA	6	3	30%
5	Salt Lake City, UT	6	4	28%
6	Raleigh/Durham, NC	3	2	28%
7	Minneapolis, MN	5	2	27%
8	Austin, TX	4	3	27%
9	Atlanta, GA	3	2	26%
10	Philadelphia, PA	4	2	26%
11	Denver, CO	4	2	25%
12	New York, NY	5	2	25%
13	Los Angeles, CA	7	6	25%
14	Dallas, TX	5	3	25%
15	San Diego, CA	7	5	25%



A.3. REGIONAL ECONOMIC DRIVERS

LOCAL INNOVATION ECONOMY NEEDS MORE PRIMARY DRIVER

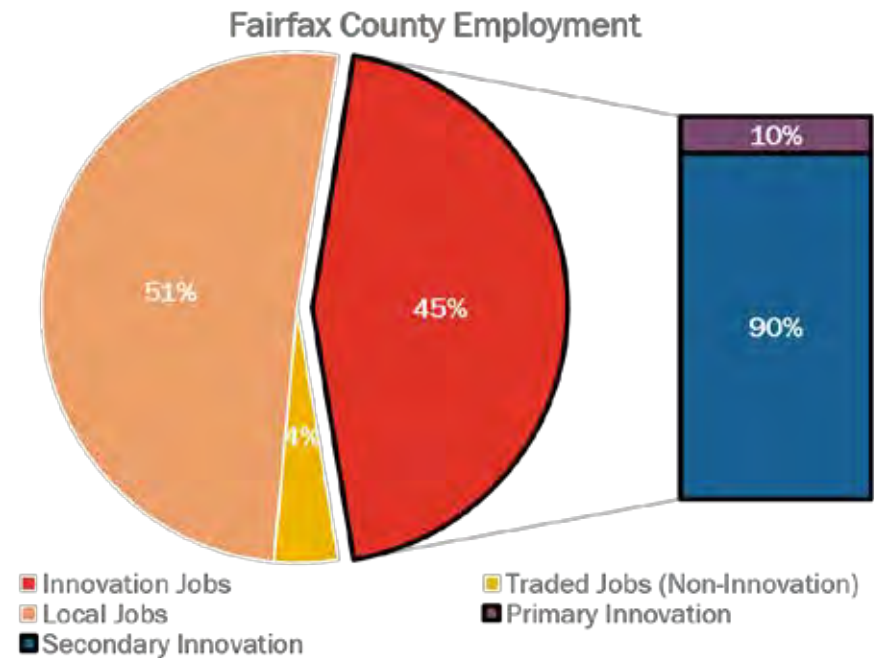
- In Fairfax, innovation is 45% of total jobs but is responsible for 86% of all jobs created over the last decade.

Primary Drivers

Aerospace Vehicles and Defense
Biopharmaceuticals
Communications Equipment and Services
Distribution and Electronic Commerce
Information Technology and Analytical Instruments
Medical Devices

Secondary and Supportive Sectors

Business Services
Education and Knowledge Creation
Financial Services
Marketing, Design, and Publishing



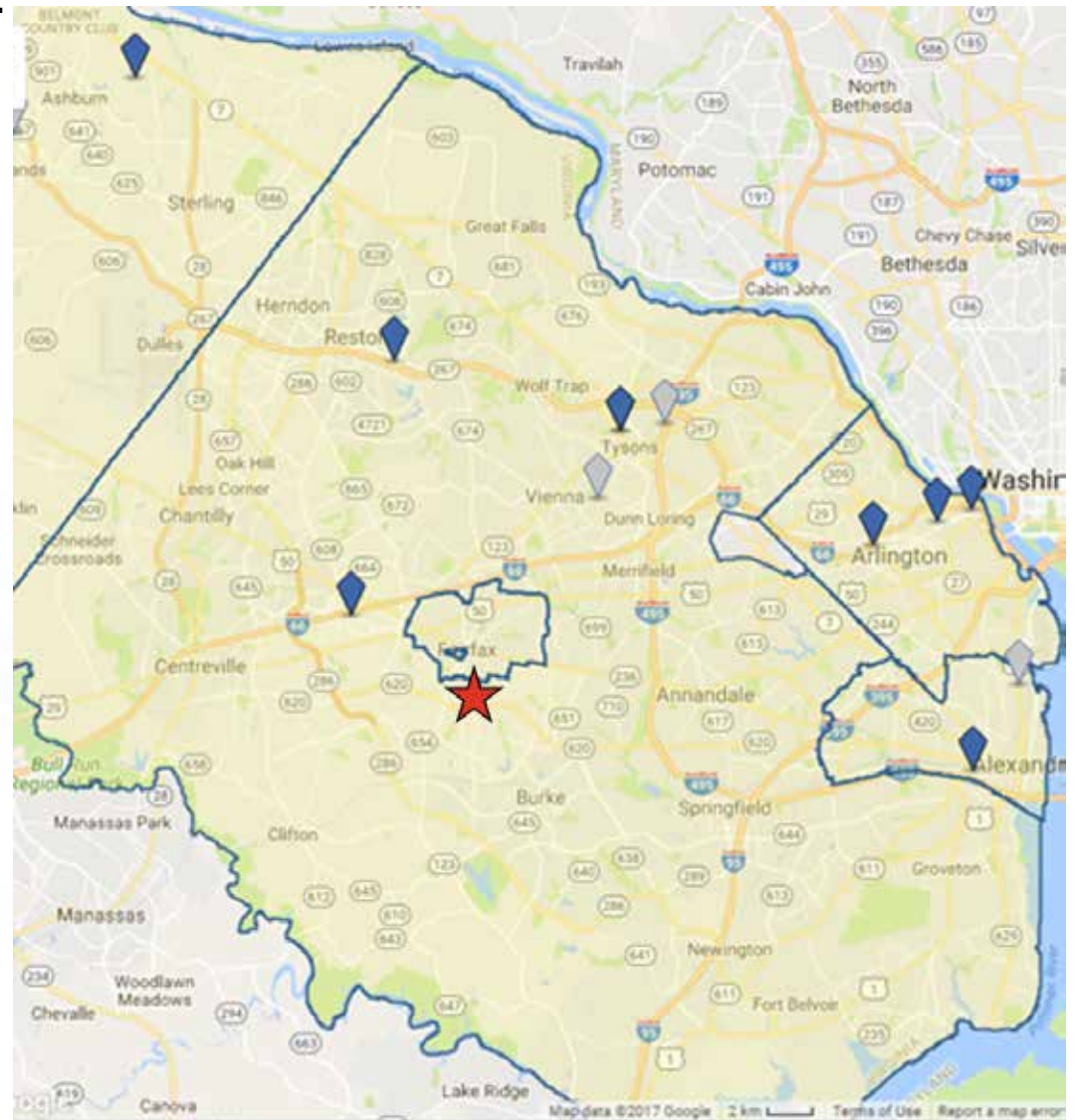
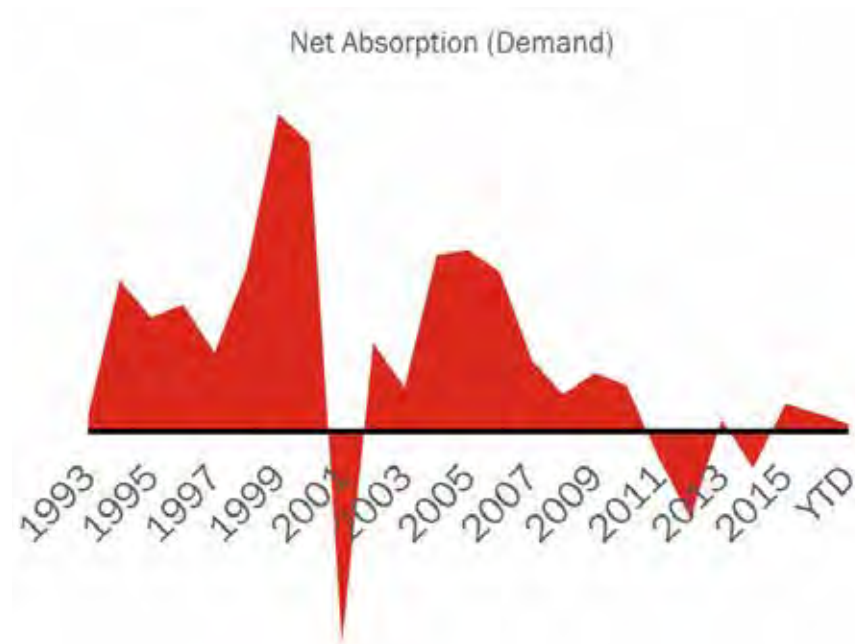
CRITICAL SUCCESS FACTORS FOR INNOVATION HUBS

	Region	Fairfax County
1. Thick Labor Markets	✓✓	✓✓
2. Research Universities or Institutes with Connection to Industry	Where GMU Can Help	
3. Cluster of Innovation Firms		✓
4. Venture Capital Finance and Support Systems		✓
5. Connections with Other Innovation Hubs		✓
6. Diversity of Sectors		

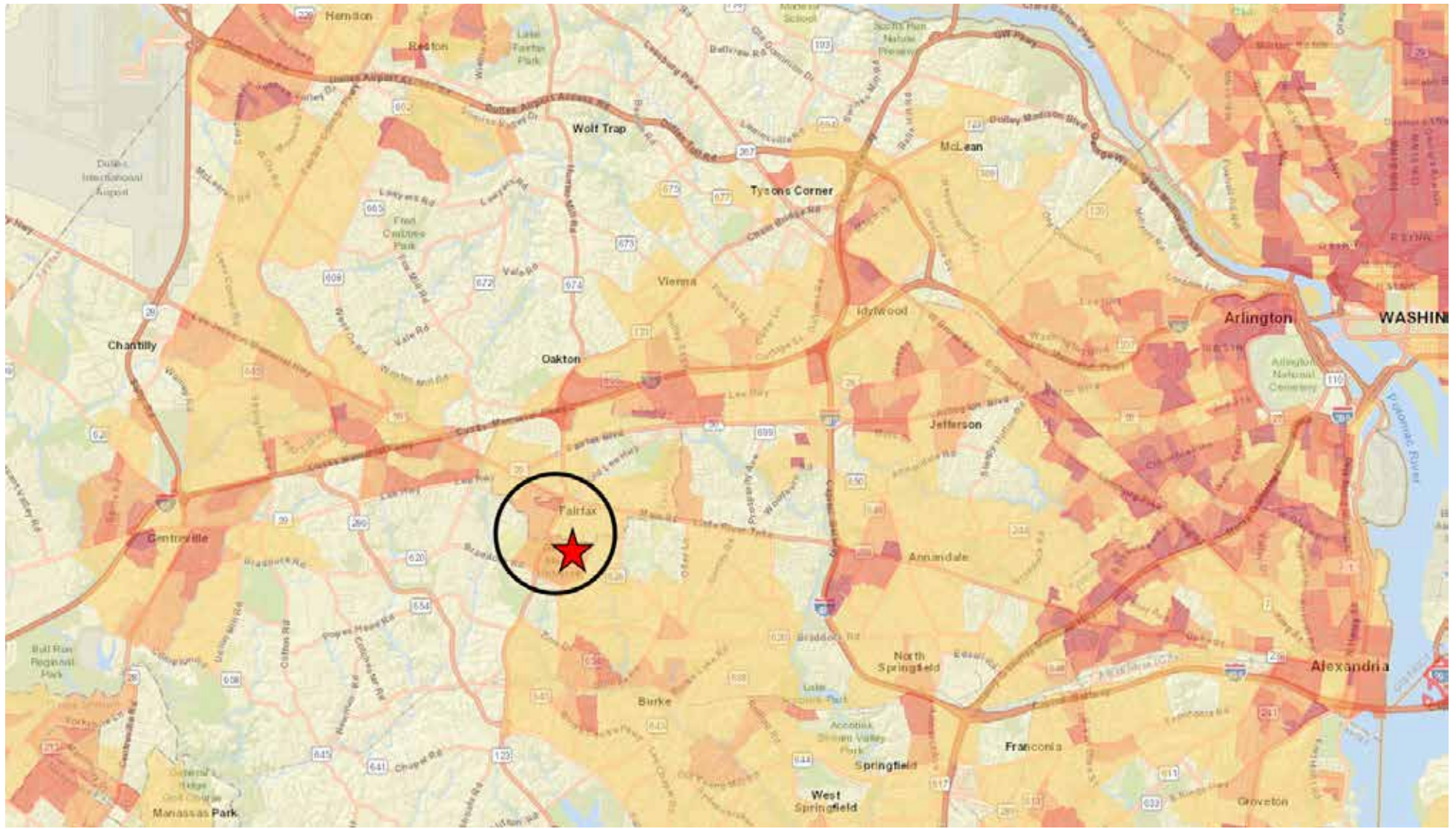
A.3. REGIONAL ECONOMIC DRIVERS

MARKET FORCES ALONE NOT SUFFICIENT

- Office pipeline focused on locations with transit



BEGINNINGS OF A HIGHER DENSITY NODE



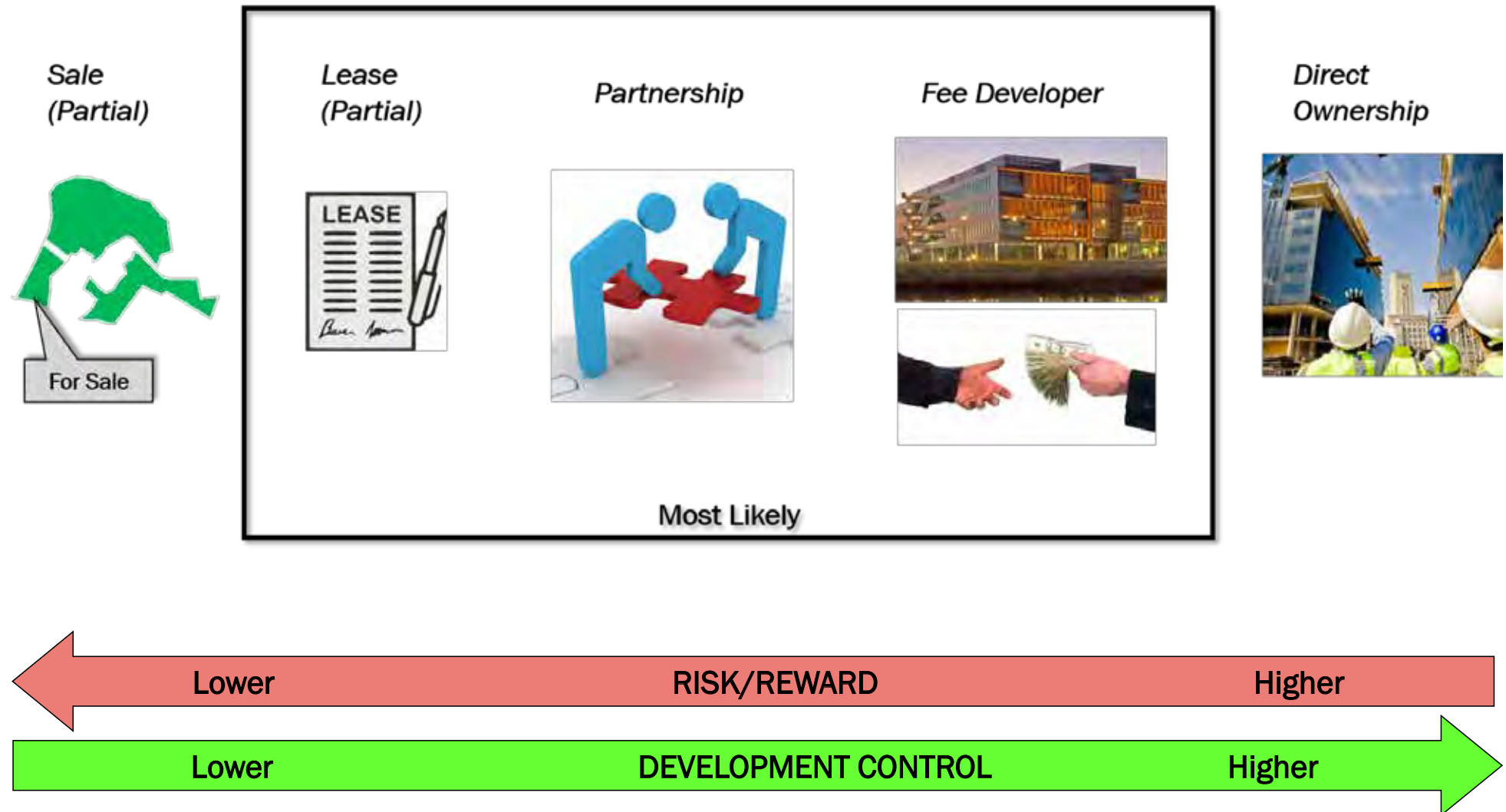
A.3. REGIONAL ECONOMIC DRIVERS

WHAT IS IMPORTANT TO YOU?

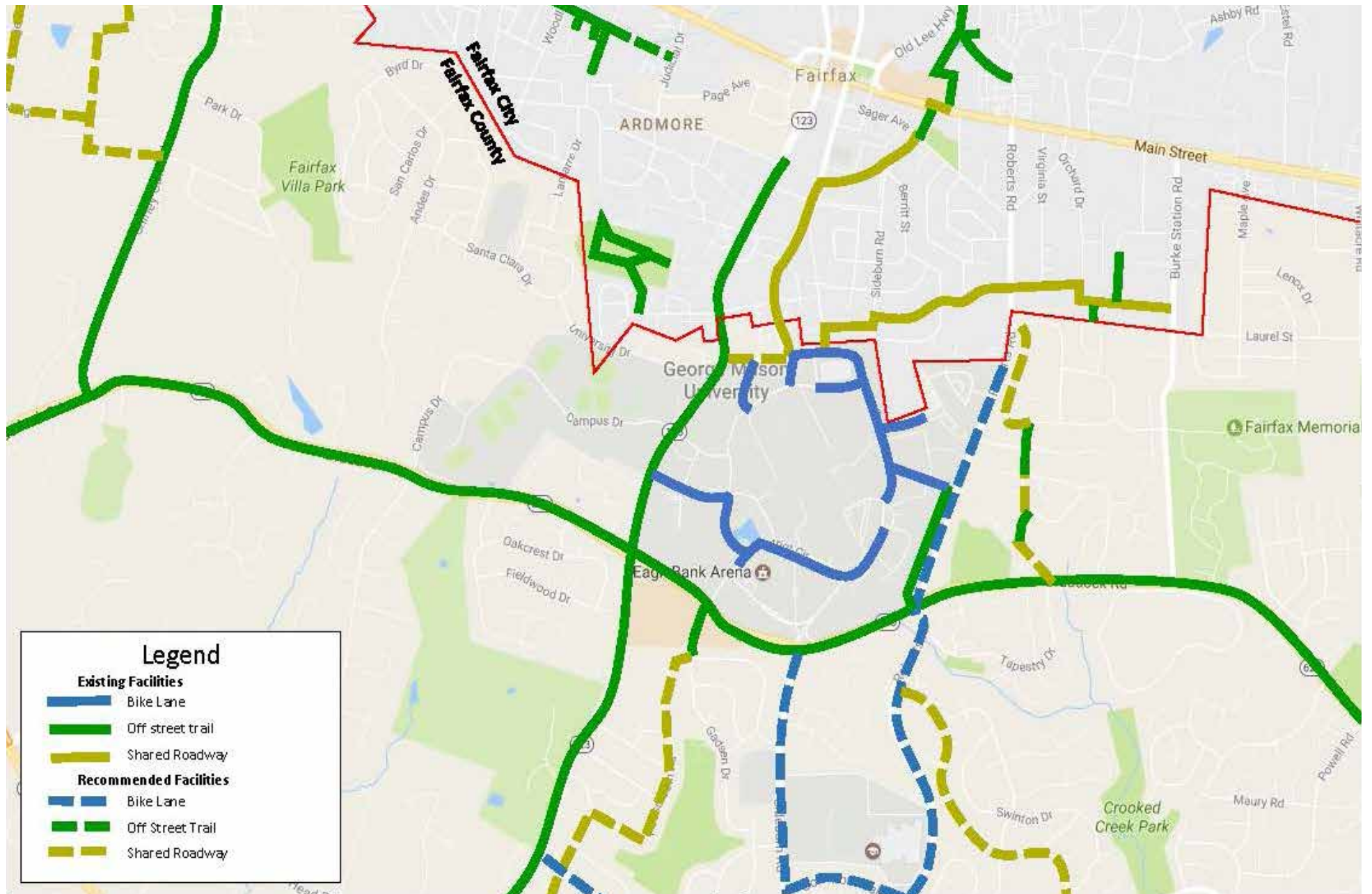
- Create a public face
- Enrich academic experience
- Enhance town center/college town
- Innovation village/creative ecosystem
- Integrate the community with GMU
- Grow the total economic pie to benefit GMU, City, and County



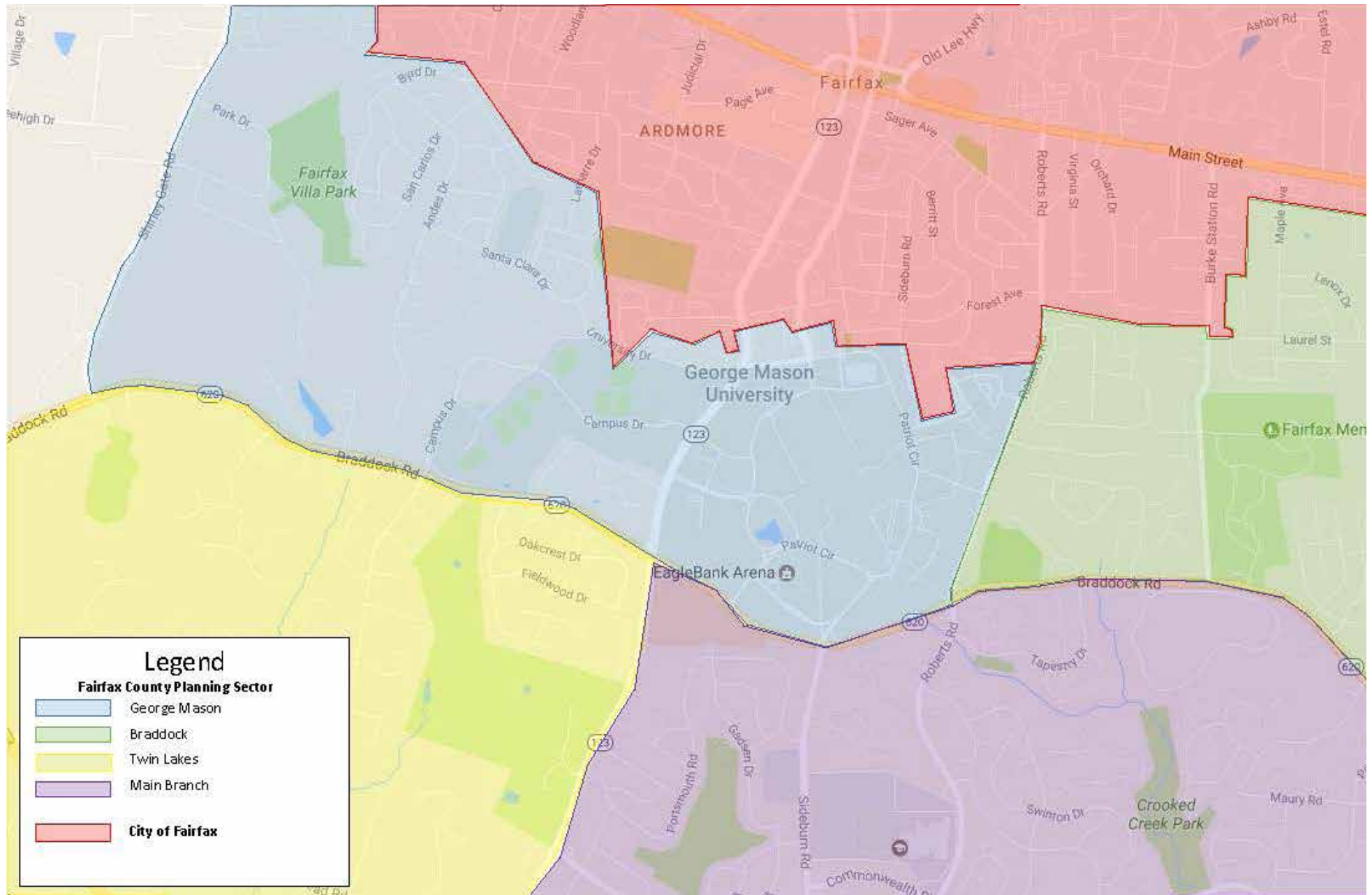
VARIETY OF PARTNERSHIP OPPORTUNITIES AVAILABLE TO THE UNIVERSITY

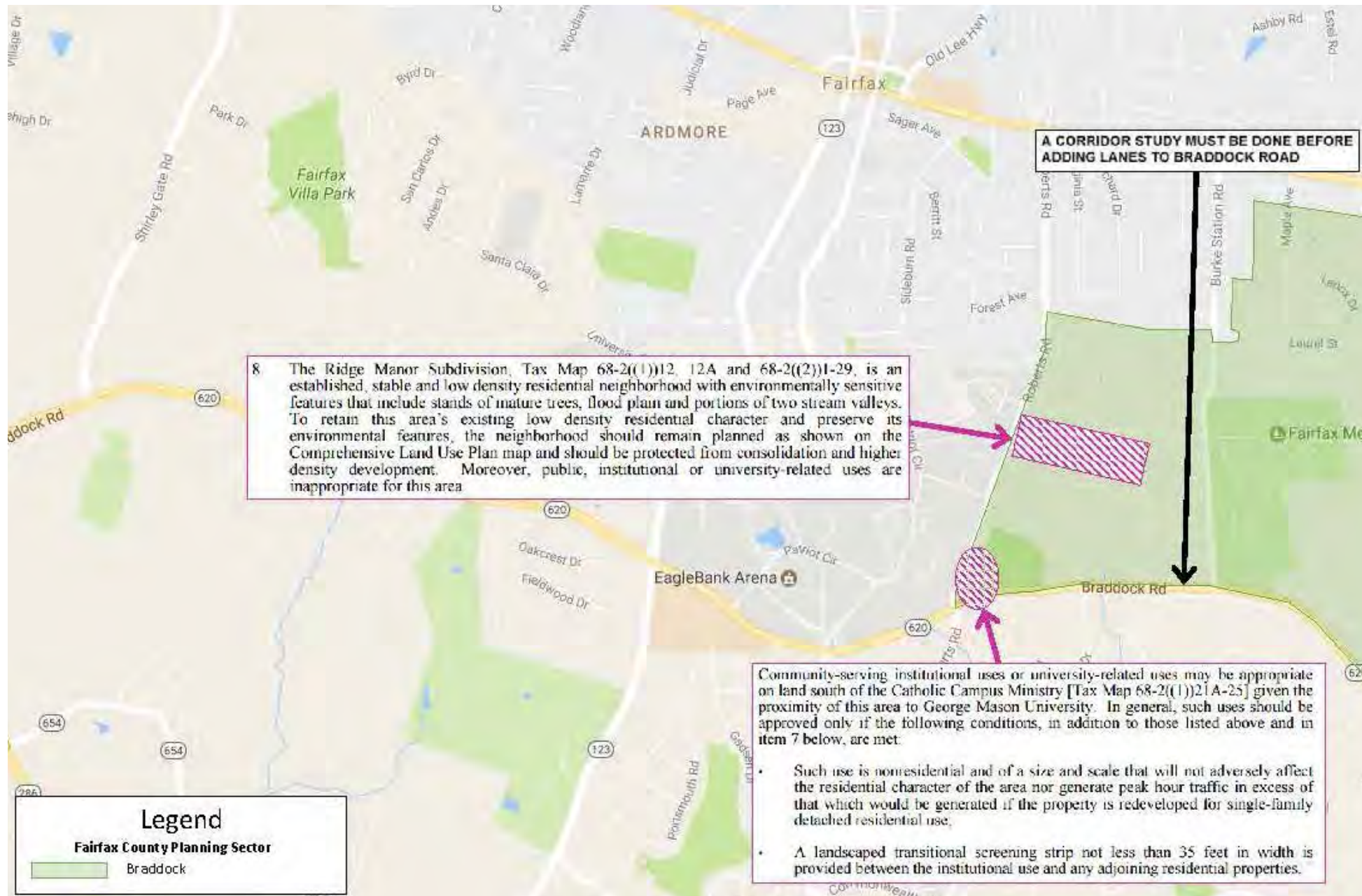


REGIONAL TRANSPORTATION

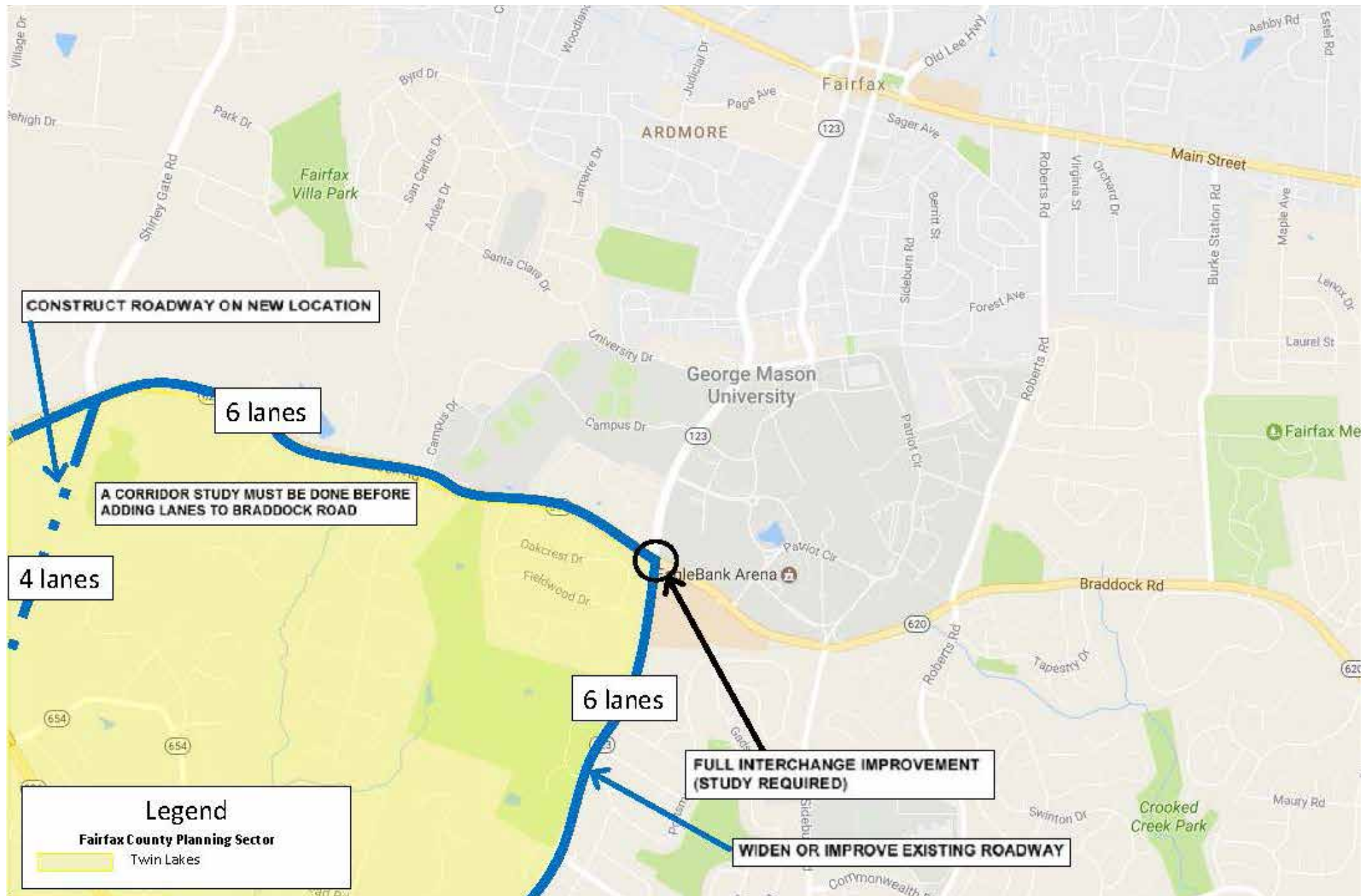


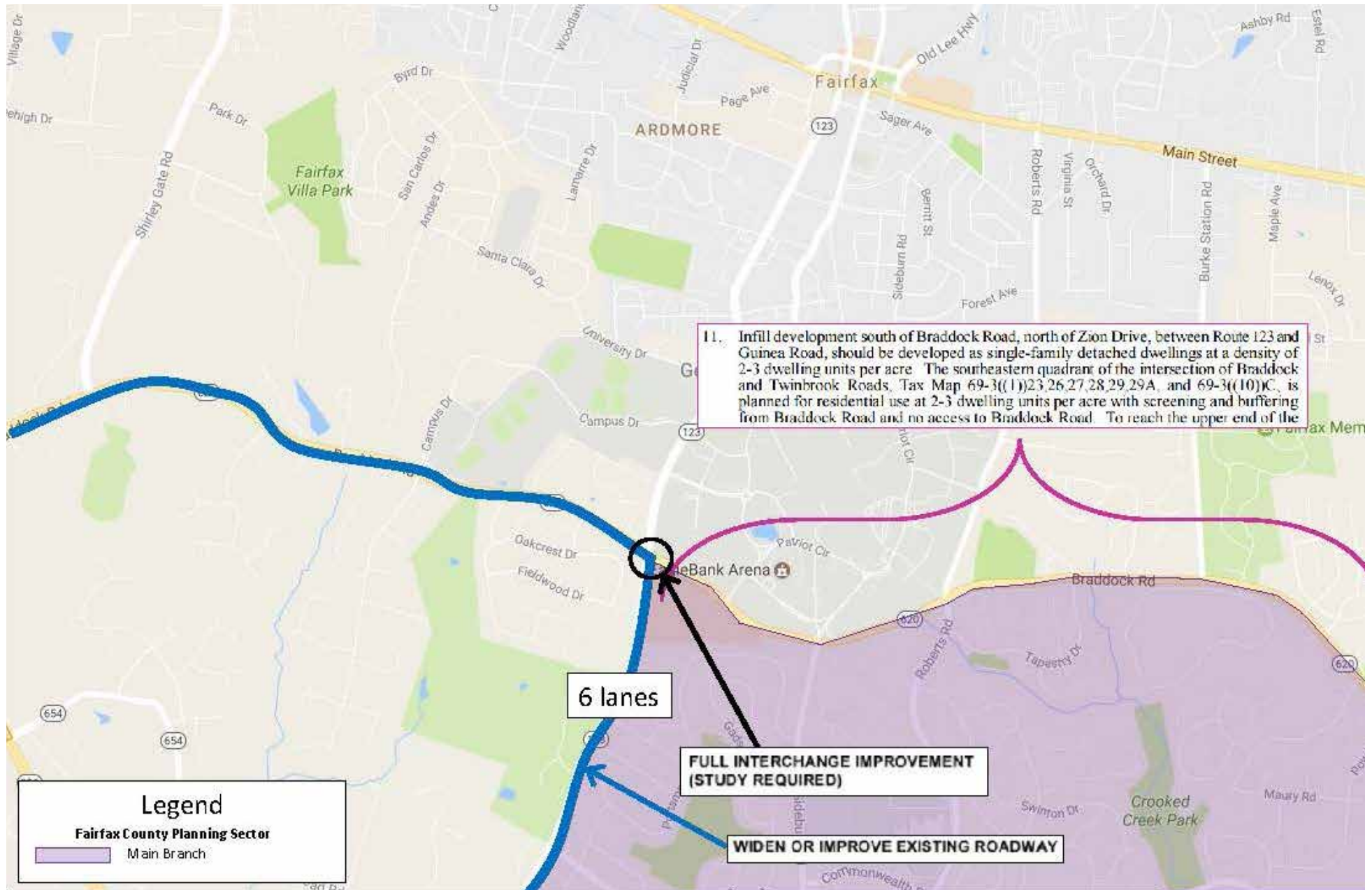
A.4. TRANSPORTATION RESEARCH





A.4. TRANSPORTATION RESEARCH





A.4. TRANSPORTATION RESEARCH



PUBLIC WORKSHOP

**Route 123 and Braddock Road
Conceptual Interchange and
Interim Improvement Study**

Route 123

Braddock Rd.

March 4, 2009

 **FCDOT**
Serving Fairfax County
for 25 Years and More

 **RK
&K**



Agenda

- ◆ Purpose of Today's Workshop
- ◆ Purpose of This Study
- ◆ Traffic Operations Summary
- ◆ Conceptual Interchange Options
- ◆ Interim Intersection Improvement Options
- ◆ Questions



PUBLIC WORKSHOP PRESENTATION - Route 123 and Braddock Road

A.4. TRANSPORTATION RESEARCH



Purpose of Today's Workshop

- ◆ **To solicit public comment on current study alternatives**
 - To review existing and proposed traffic operations at the intersections within the study limits
 - To review / receive comment on the current interchange alternatives developed for the project
 - To discuss near-term improvement options to the Braddock Road and Rt. 123 intersection (with no required Right-of-Way)
 - To discuss future improvement options to the Braddock Road and Rt. 123 intersection (with required Right-of-Way)
- ◆ **To provide information on funding options**
 - No funding available for design and construction of the project
 - Project is not qualified for economic stimulus package
- ◆ **To continue the public dialogue on this study**



PUBLIC WORKSHOP PRESENTATION - Route 123 and Braddock Road

3



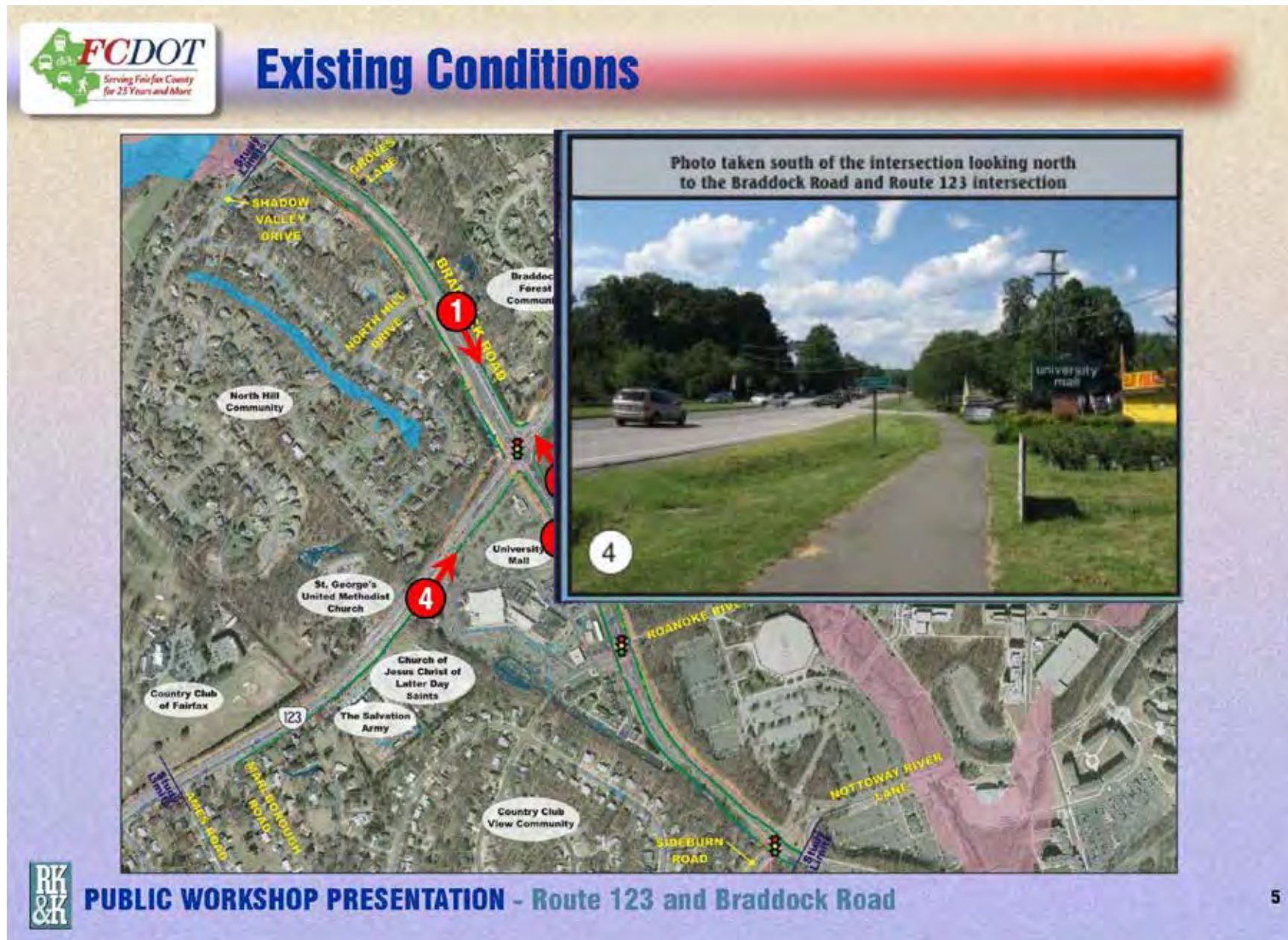
Purpose of This Study

- ◆ The Braddock Road/Route 123 intersection is currently failing and will only get worse in the future
- ◆ An interchange at this location is included in the County Transportation Plan
- ◆ As development pressures mount, preservation of Right-of-Way for an ultimate interchange configuration is needed
- ◆ To preserve the “right” Right-of-Way, a preferred interchange configuration needs to be selected
- ◆ This study is focused on selecting that preferred configuration
- ◆ If feasible, near-term improvements to the intersection are identified, study possible implementation



PUBLIC WORKSHOP PRESENTATION - Route 123 and Braddock Road

A.4. TRANSPORTATION RESEARCH





Traffic Operations Summary

Existing Traffic Conditions

- ◆ Traffic count data was collected in 2008
- ◆ Directional traffic flows:
 - Traffic is heavier going north and east during the morning
 - Traffic is heavier going south and west during the evening
- ◆ Route 123 / Braddock Rd. intersection operates at LOS F during peak periods
 - Morning peak delay: Wait more than 1 cycle to pass through the intersection
 - Evening peak delay: Wait 3+ cycles to pass through the intersection
- ◆ Braddock Rd. / Roanoke River Rd. intersection operates at LOS F during the evening peak
 - Need more than 2 cycles to pass through intersection



A.4. TRANSPORTATION RESEARCH



Traffic Operations Summary

Year 2015 No Build Traffic

- ◆ **Route 123 at Braddock Road Intersection:**
 - Projected 15% increase in AM peak hour traffic volume
 - Traffic growth would result in 84% increase in AM peak hour delay
 - Projected 10% increase in PM peak hour traffic volume
 - Traffic growth would result in 44% increase in PM peak hour delay
 - Current PM peak hour delay is significantly worse than AM peak
 - **Drivers would an additional cycle to pass through the intersection (AM / PM)**
- ◆ **Braddock Road at Roanoke River Road Intersection**
 - Projected 24% increase in AM peak hour traffic (16% PM)
 - Growth would result in 21% increase in AM peak hour delay
 - **PM peak congestion at Route 123 would queue traffic on Braddock Road WB beyond the Roanoke River Road intersection**



PUBLIC WORKSHOP PRESENTATION - Route 123 and Braddock Road

7



Traffic Operations Summary

Year 2030 No Build Traffic

- ◆ **Route 123 at Braddock Road intersection:**
 - Projected 34% increase in AM peak hour traffic from 2008
 - AM peak hour delay would triple due to traffic growth
 - Projected 22% increase in PM peak hour traffic from 2008
 - PM peak hour delay would increase by 51% due to traffic growth
- ◆ **Braddock Road at Roanoke River Road intersection:**
 - Projected 50% increase in AM peak hour traffic (31% PM)
 - AM peak hour delay would increase by 30% due to traffic growth
 - **PM peak congestion at Route 123 would queue traffic on Braddock Road WB beyond the Roanoke River Road intersection**



A.4. TRANSPORTATION RESEARCH



Feasibility Study Design Criteria

- ◆ Route 123 design speed = 50 MPH (Posted 45 MPH)
- ◆ Braddock Road design speed = 45 MPH (Posted 40/45 MPH)
- ◆ Ramp design speed = 40 MPH
- ◆ Minimize uncontrolled access along corridor
- ◆ Improve traffic operations (LOS E or Better)
- ◆ Respect cultural / historic resources / utilities
- ◆ Minimize Right-of-Way acquisition
- ◆ Minimize utility relocations
- ◆ Minimize traffic impacts during construction



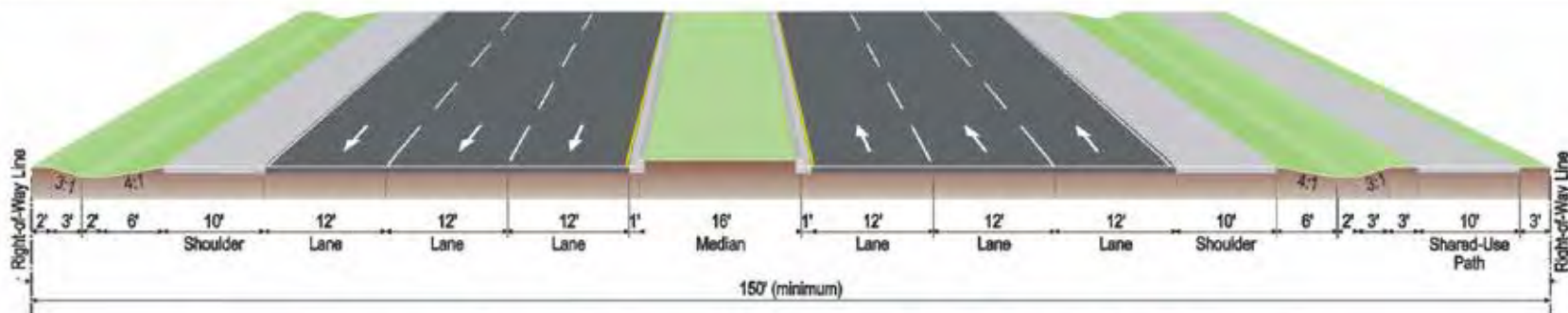
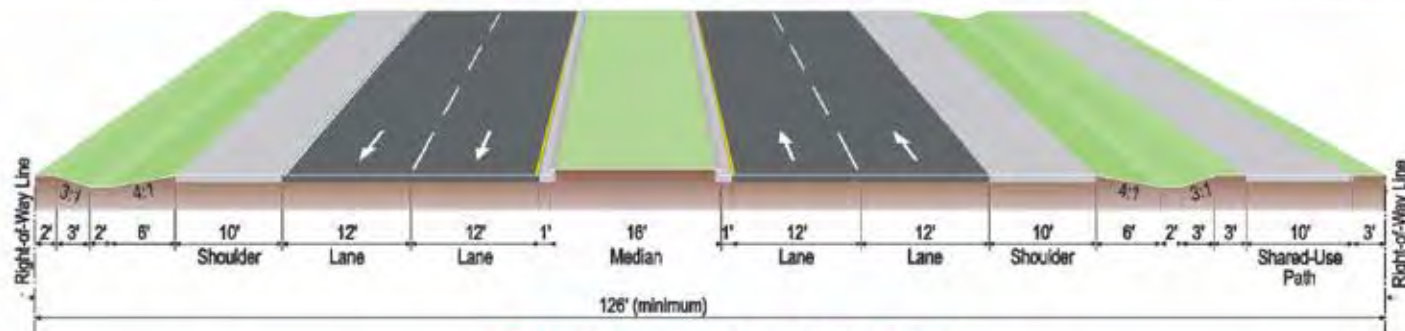
PUBLIC WORKSHOP PRESENTATION - Route 123 and Braddock Road

9



Feasibility Study Approach

Route 123 Typical Sections



PUBLIC WORKSHOP PRESENTATION - Route 123 and Braddock Road

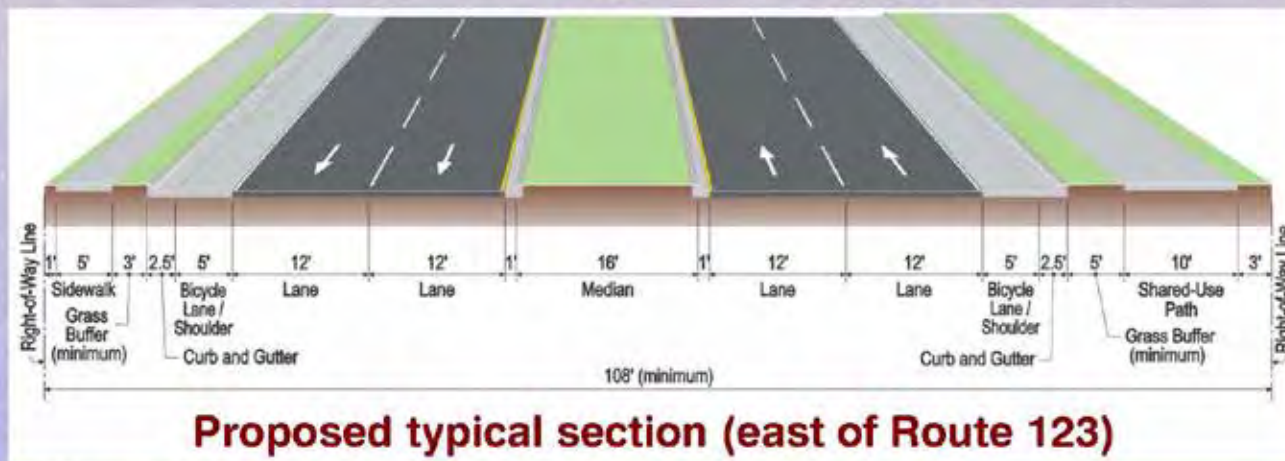
10

A.4. TRANSPORTATION RESEARCH



Feasibility Study Approach

Braddock Road Typical Sections



PUBLIC WORKSHOP PRESENTATION - Route 123 and Braddock Road

11



Alternative Evaluation Criteria

- ◆ Right-of-Way impact
- ◆ Impact to existing access points
- ◆ Construction duration
- ◆ Traffic disruption during construction
- ◆ Estimated construction cost (2009 dollars)



A.4. TRANSPORTATION RESEARCH



Summary of Interchange Alternatives Considered

- ◆ Alternative 1 - Diamond Interchange
- ◆ Alternative 5 - Modified Diamond Interchange
- ◆ Alternatives 9 and 10 - Single Point Urban Interchange
- ◆ Alternative 9T - Tight Single Point Urban Interchange



PUBLIC WORKSHOP PRESENTATION - Route 123 and Braddock Road

13

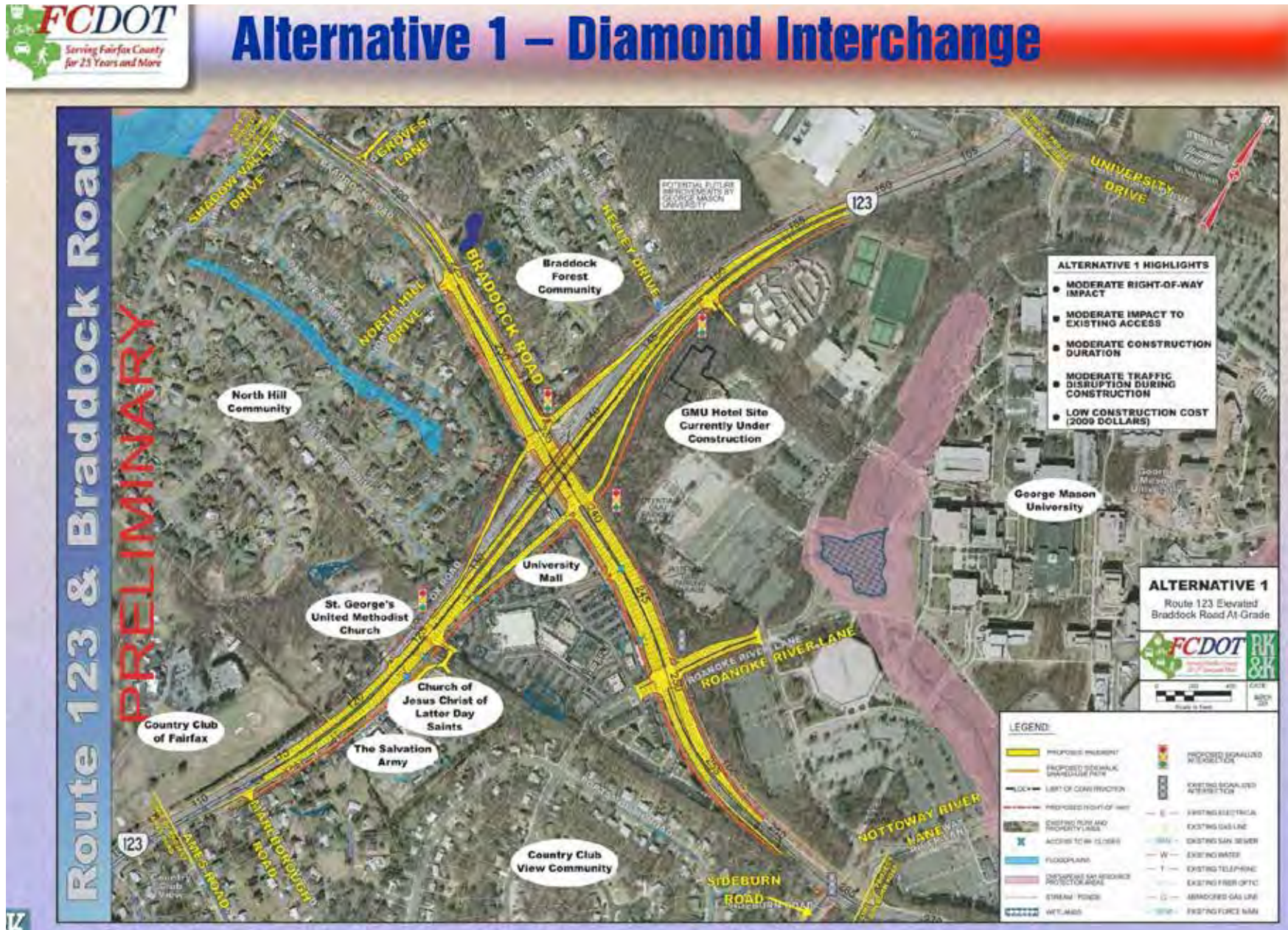


Alternative 1 – Diamond Interchange

- ◆ Four ramps run along Route 123
- ◆ Provides non-stop flow for traffic on Route 123
- ◆ Route 123 raised to bridge over Braddock Road
- ◆ Braddock Road stays at existing elevation
- ◆ Two traffic signals located on Braddock at end of ramps
- ◆ Intersections operate at LOS C or better in the peak periods in 2030 with a delay of 20.3 sec/veh
- ◆ Moderate construction duration



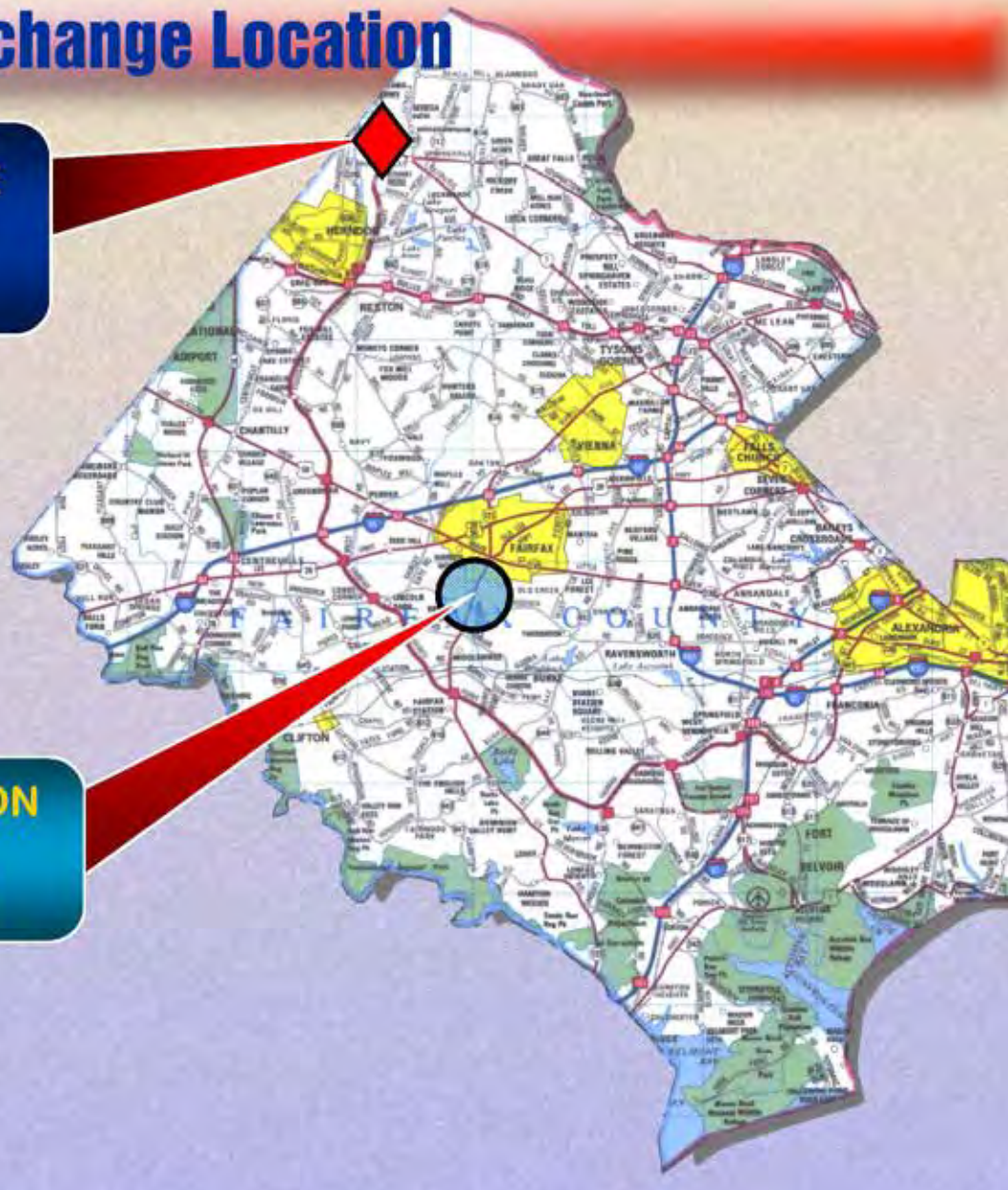
A.4. TRANSPORTATION RESEARCH



Similar Interchange Location

DIAMOND INTERCHANGE
Fairfax County Parkway
over Leesburg Pike

PROJECT LOCATION
Rte. 123 at
Braddock Road



A.4. TRANSPORTATION RESEARCH



Existing Diamond Interchange

Fairfax County Parkway over Leesburg Pike



A.4. TRANSPORTATION RESEARCH



Similar Diamond Interchange

Fairfax County Parkway over Leesburg Pike



Alternatives Considered

Alternative 1 - Diamond Interchange



A.4. TRANSPORTATION RESEARCH



Alternatives Considered

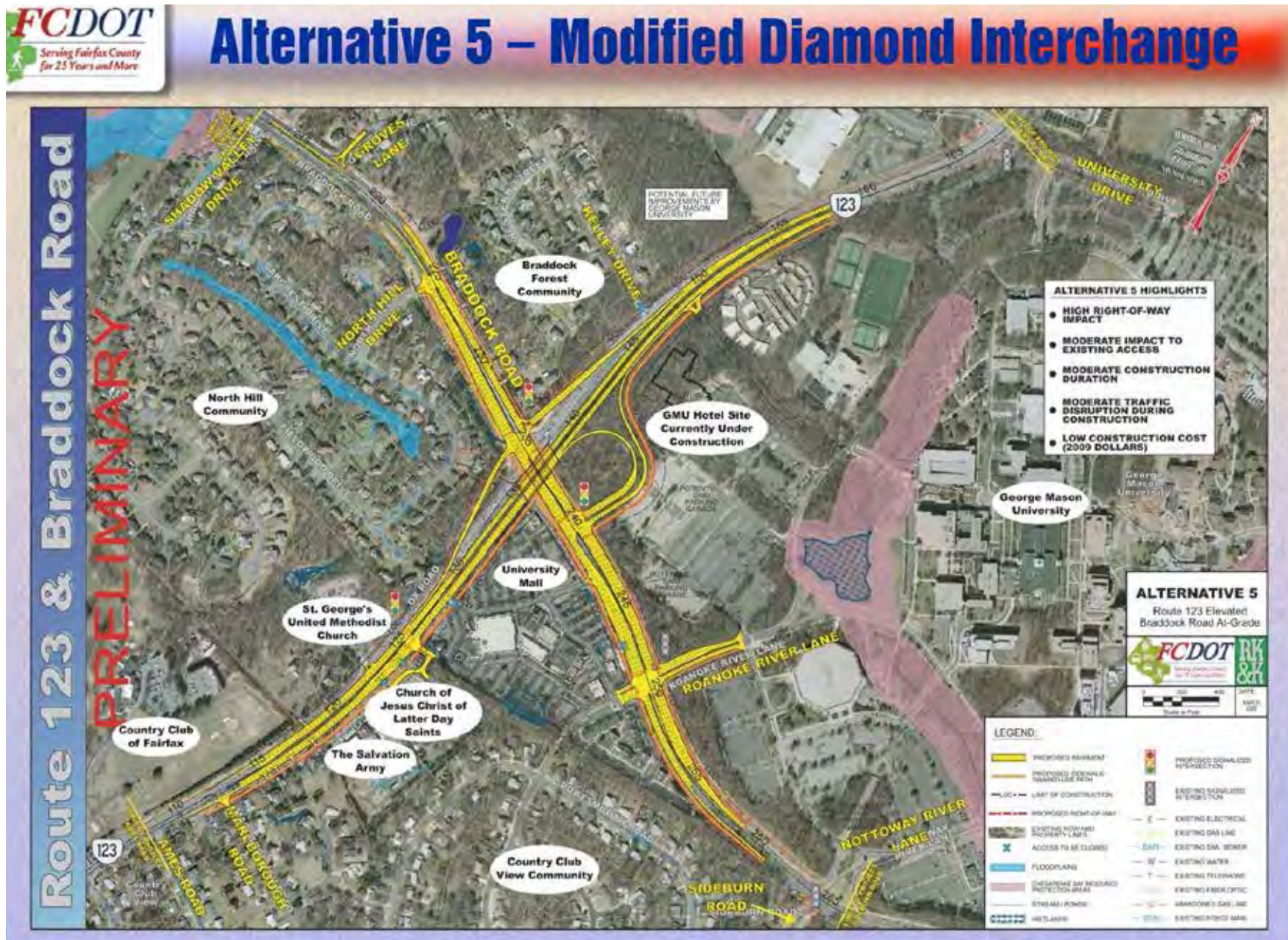
Alternative 1 – Diamond Interchange



Alternative 5 – Modified Diamond Interchange

- ◆ **Similar to Alternate 1 Diamond – Northeast quadrant ramp modification**
- ◆ **Three ramps run along Route 123 and one loop ramp on GMU property**
- ◆ **Provides non-stop flow for traffic on Route 123**
- ◆ **Route 123 raised to bridge over Braddock Road**
- ◆ **Braddock Road stays at existing elevation**
- ◆ **Two traffic signals located on Braddock Road at end of ramps**
- ◆ **Intersections operate at LOS C or better in the peak periods in 2030 with a delay of 25.7 sec/veh**
- ◆ **Moderate construction duration**

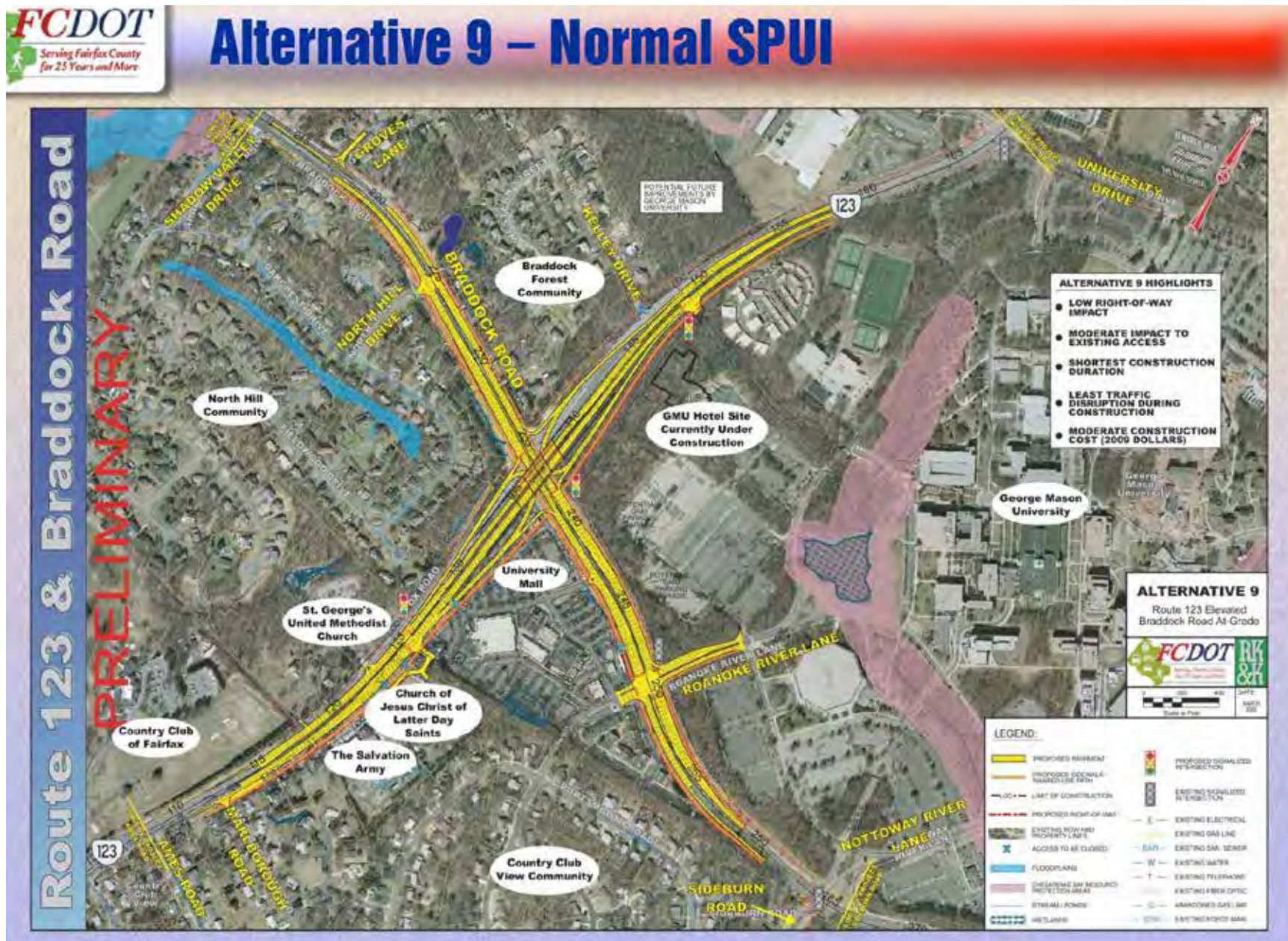
A.4. TRANSPORTATION RESEARCH



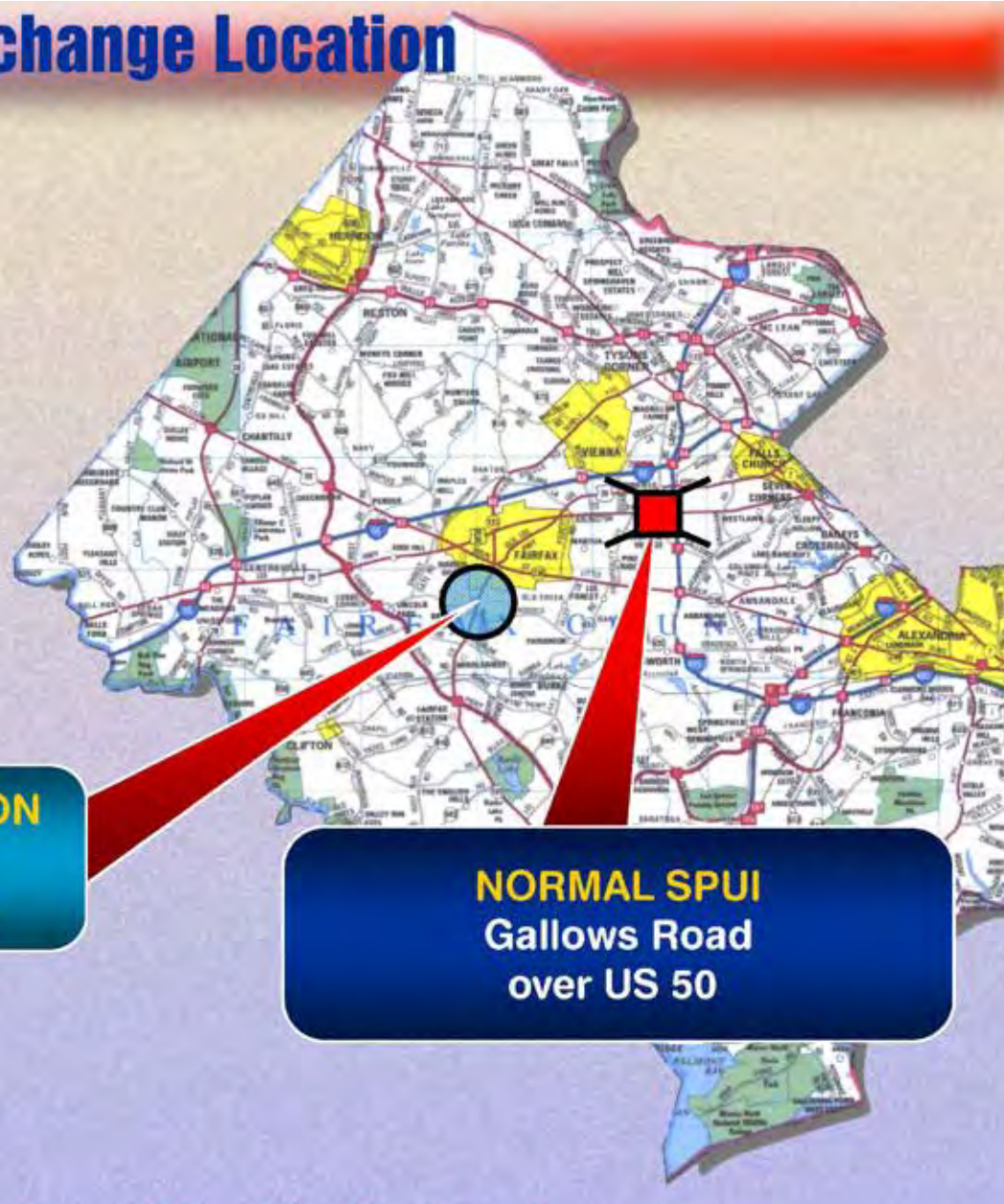
Alternative 9 – Normal Single Point Urban Interchange (SPUI)

- ◆ Four ramps run along Route 123
- ◆ Provides non-stop flow for traffic on Route 123
- ◆ Route 123 raised to bridge over Braddock Road
- ◆ Braddock Road stays at existing elevation
- ◆ One traffic signal located on Braddock at intersection of all four ramps
- ◆ Intersection operates at LOS C or better in the peak periods in 2030 with a delay of 25.5 sec/veh
- ◆ Shortest construction duration

A.4. TRANSPORTATION RESEARCH



Similar Interchange Location



PROJECT LOCATION

Rte. 123 at
Braddock Road

NORMAL SPUI

Gallows Road
over US 50

A.4. TRANSPORTATION RESEARCH



Similar Normal SPUI

Gallows Road over US 50



1

A.4. TRANSPORTATION RESEARCH



Similar Normal SPUI

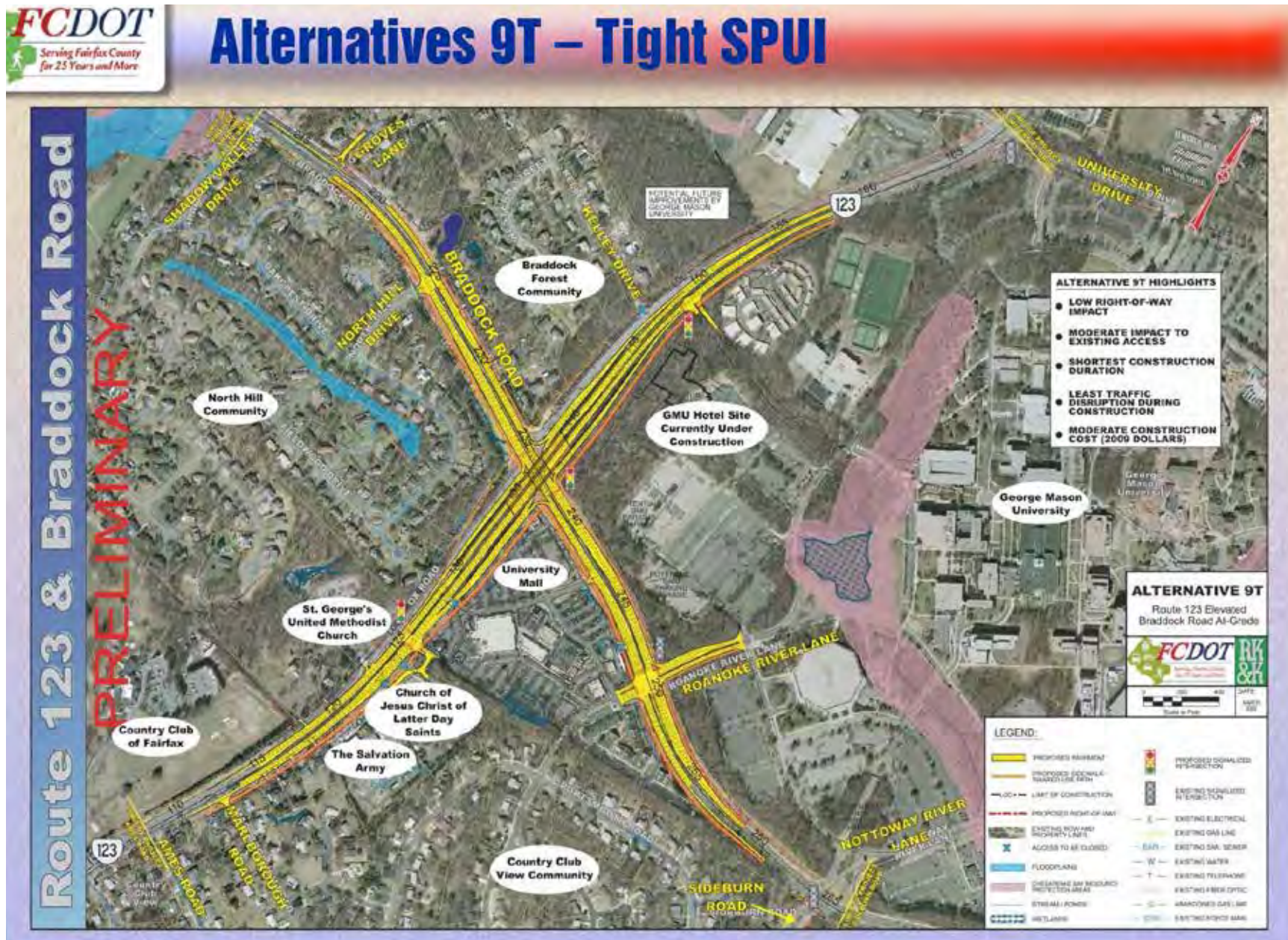
Gallows Road over US 50



Alternatives 9T – Tight SPUI

- ◆ Four ramps run along Route 123
- ◆ Provides non-stop flow for traffic on Route 123
- ◆ Route 123 raised to bridge over Braddock Road
- ◆ Braddock Road stays at existing elevation
- ◆ One traffic signal located on Braddock at intersection of all four ramps
- ◆ Intersection operates at LOS C or better in the peak periods in 2030 with a delay of 25.5 sec/veh
- ◆ Shortest construction duration

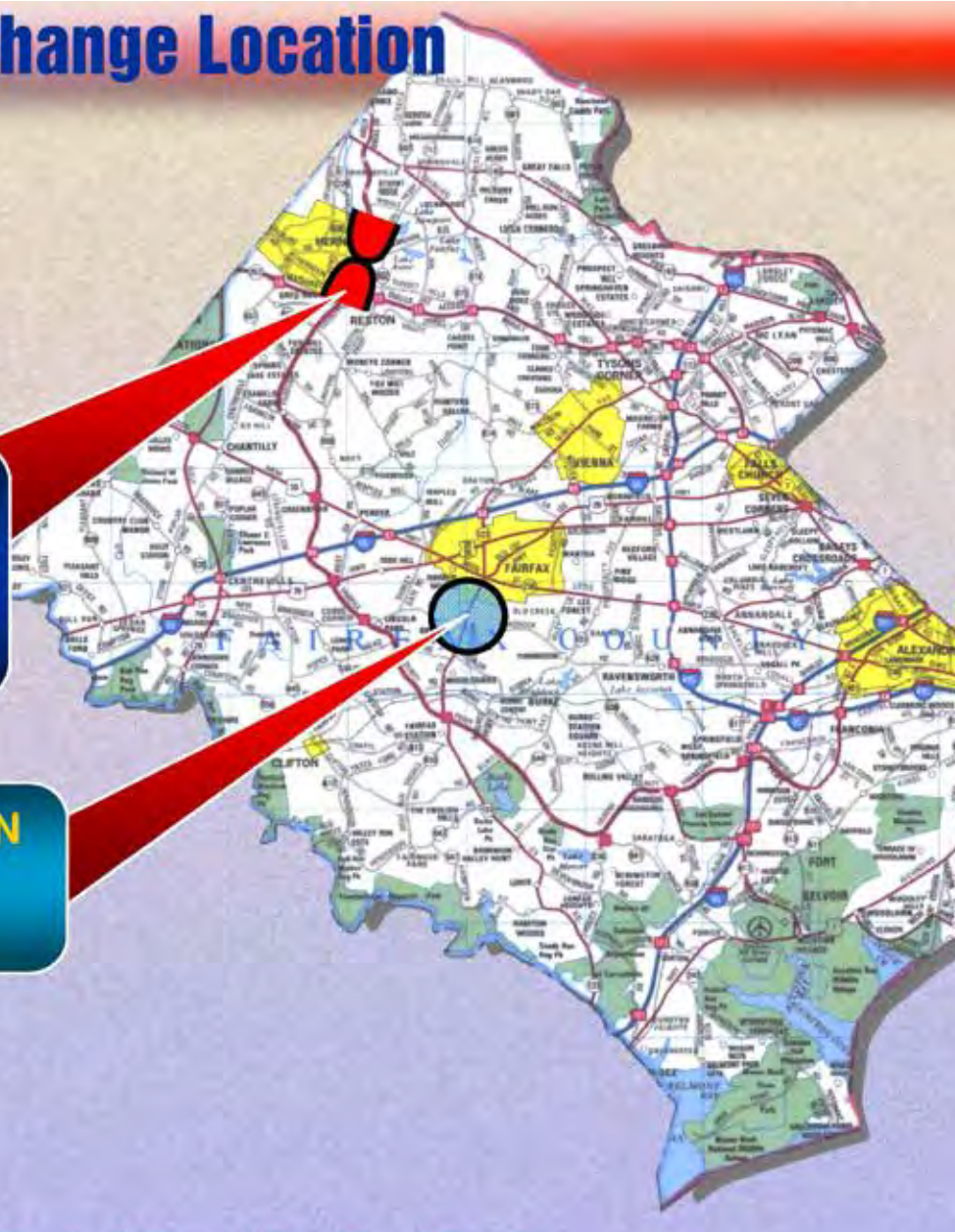
A.4. TRANSPORTATION RESEARCH



Similar Interchange Location

TIGHT SPUI
Fairfax County Parkway
over
Elden St. / Baron Cameron Ave.

PROJECT LOCATION
Rte. 123 at
Braddock Road



A.4. TRANSPORTATION RESEARCH



Existing Tight SPUI

Fairfax County Parkway over Elden St. / Baron Cameron Ave.



Similar Tight SPUI

Fairfax County Parkway over Elden St. / Baron Cameron Ave.



A.4. TRANSPORTATION RESEARCH



Similar Tight SPUI

Fairfax County Parkway over Elden St. / Baron Cameron Ave.



Alternatives Considered

Alternative 9T - Tight SPUI



A.4. TRANSPORTATION RESEARCH



Alternatives Considered

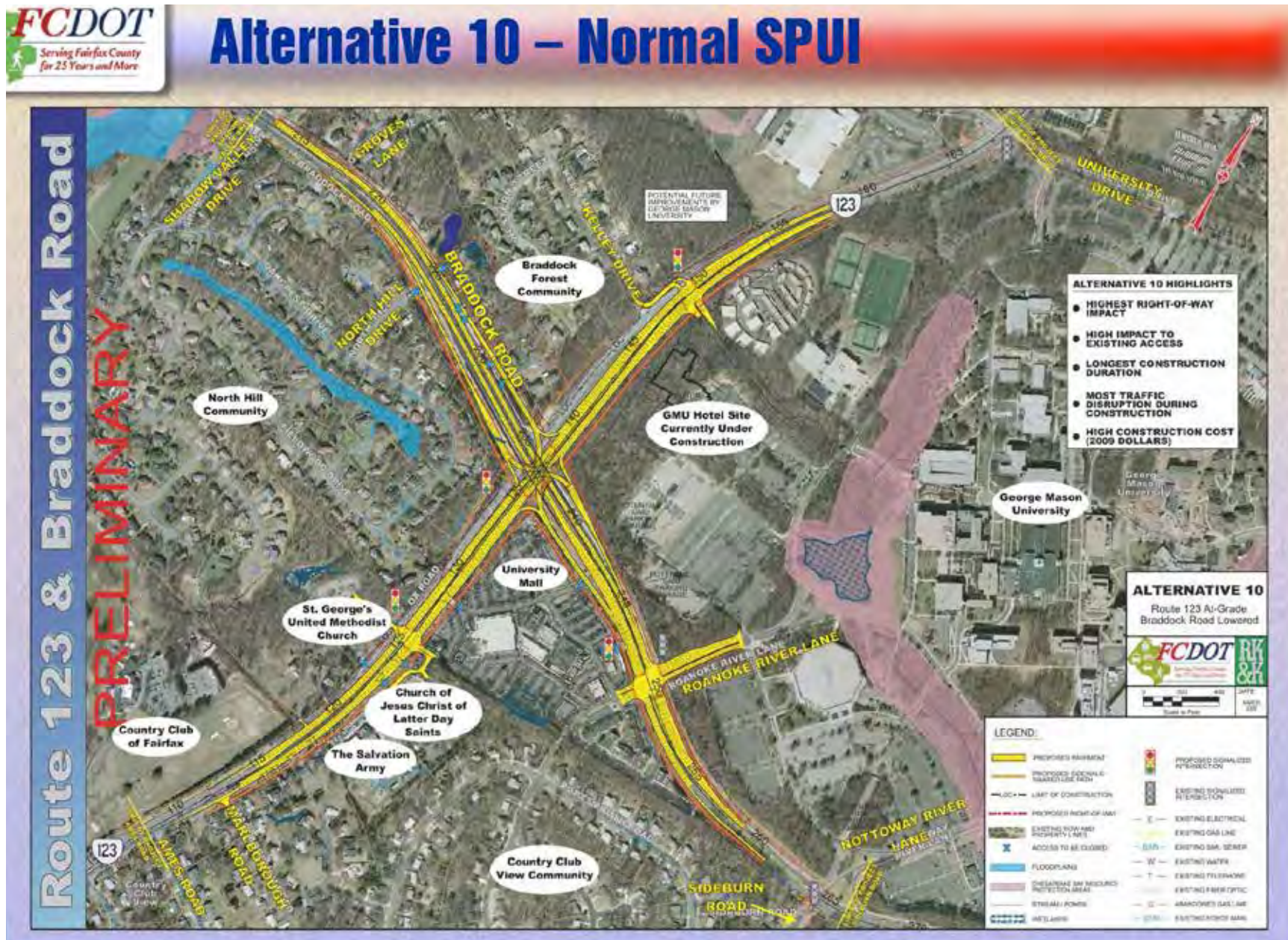
Alternative 9T – Tight SPUI



Alternative 10 – Normal SPUI

- ◆ Four ramps run along Braddock Road
- ◆ Provides non-stop flow for traffic on Braddock
- ◆ Elevation of Braddock Road lowered
- ◆ Route 123 stays at existing elevation and bridges over Braddock Road
- ◆ One traffic signal located on Route 123 at intersection of all four ramps
- ◆ Intersection operates at LOS C or better in the peak periods in 2030 with a delay of 28.9 sec/veh
- ◆ Longest construction duration

A.4. TRANSPORTATION RESEARCH



Alternatives Considered

Alternative 10 - Normal SPUI



Artist's Rendering

A.4. TRANSPORTATION RESEARCH



Alternatives Considered

Alternative 10 - Normal SPUI



Summary of Interim Intersection Improvements

- ◆ **Near-Term improvements with no Right-of-Way required**
- ◆ **Future improvements with Right-of-Way required**



Interim Improvements

Near-Term Improvements (No Right-of-Way Required)

- ◆ **Route 123 / Braddock Intersection**
 - Add 2nd left turn lane on NB and combine right turn lane with thru lane
 - Add 2nd left turn lane along SB approach
 - Extend EB left turn storage area
- ◆ **Braddock / Roanoke River Intersection**
 - Add separate SB left turn lane
 - Provide separate NB left, thru, and right turn lanes
 - Extend EB left turn storage area
 - Close WB left turn into western-most mall entrance

Interim Improvements

Near-Term Improvements (No Right-of-Way Required)

- ◆ **Route 123 at Braddock Road intersection:**
 - Would still operate at LOS during AM & PM peak periods
 - Compared to No-Build,
 - AM peak hour delay reduced by 51%
 - PM peak hour delay reduced by 46%
 - During the AM peak, drivers would wait 5 minutes to pass through this intersection (PM peak 9 minutes)
- ◆ **Braddock Road at Roanoke River Road intersection:**
 - Would operate at LOS D during the AM peak and LOS F during the PM peak
 - Compared to No Build,
 - AM peak hour delay reduced by 15%
 - PM peak hour delay reduced by 72%
 - During the PM peak, drivers would wait about 5 minutes to pass through this intersection

A.4. TRANSPORTATION RESEARCH



Interim Improvements

Near-Term Improvements (No Right-of-Way Required)



Interim Improvements

Future Improvements (Right-of-Way Required)

- ◆ **Route 123 / Braddock Intersection**
 - Add 3rd thru lane on all approaches
 - Add 2nd left turn lane along NB, SB, and WB approaches
- ◆ **Braddock / Roanoke River Intersection**
 - Add 3rd thru lane on EB and WB approaches
 - Add 2nd left turn lane on WB approach
 - Add separate SB left turn lane
 - Provide separate NB left, thru, and right turn lanes
 - Close WB left turn into western-most mall entrance



Interim Improvements

Future Improvements (Right-of-Way Required)

- ◆ **Route 123 at Braddock Road intersection:**
 - Would operate at LOS D during the AM peak (LOS F during PM)
 - Compared to No-Build,
 - AM peak hour delay reduced by 93%
 - PM peak hour delay reduced by 89%
 - During both peak periods, most drivers would make it through the intersection in one cycle
- ◆ **Braddock Road at Roanoke River Road intersection:**
 - Would operate at LOS C during the AM peak (LOS F during PM)
 - Compared to No-Build,
 - AM peak hour delay reduced by 59%
 - PM peak hour delay reduced by 94%
 - During both peak periods, most drivers would make it through the intersection in one cycle

Interim Improvements

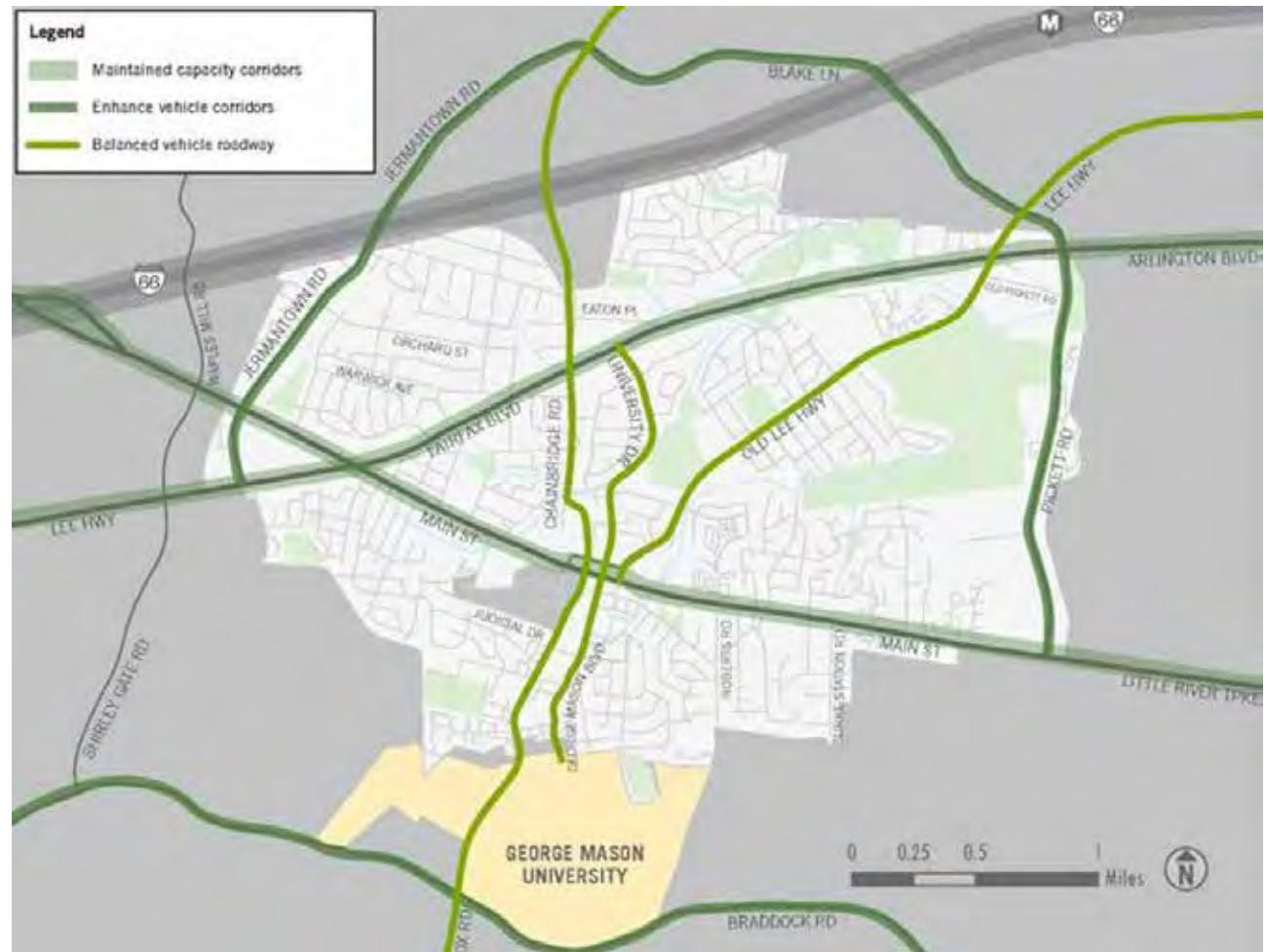
Future Improvements (Right-of-Way Required)



FAIRFAX CITY GOALS AND INITIATIVES

FAIRFAX CITY MULTIMODAL TRANSPORTATION PLAN

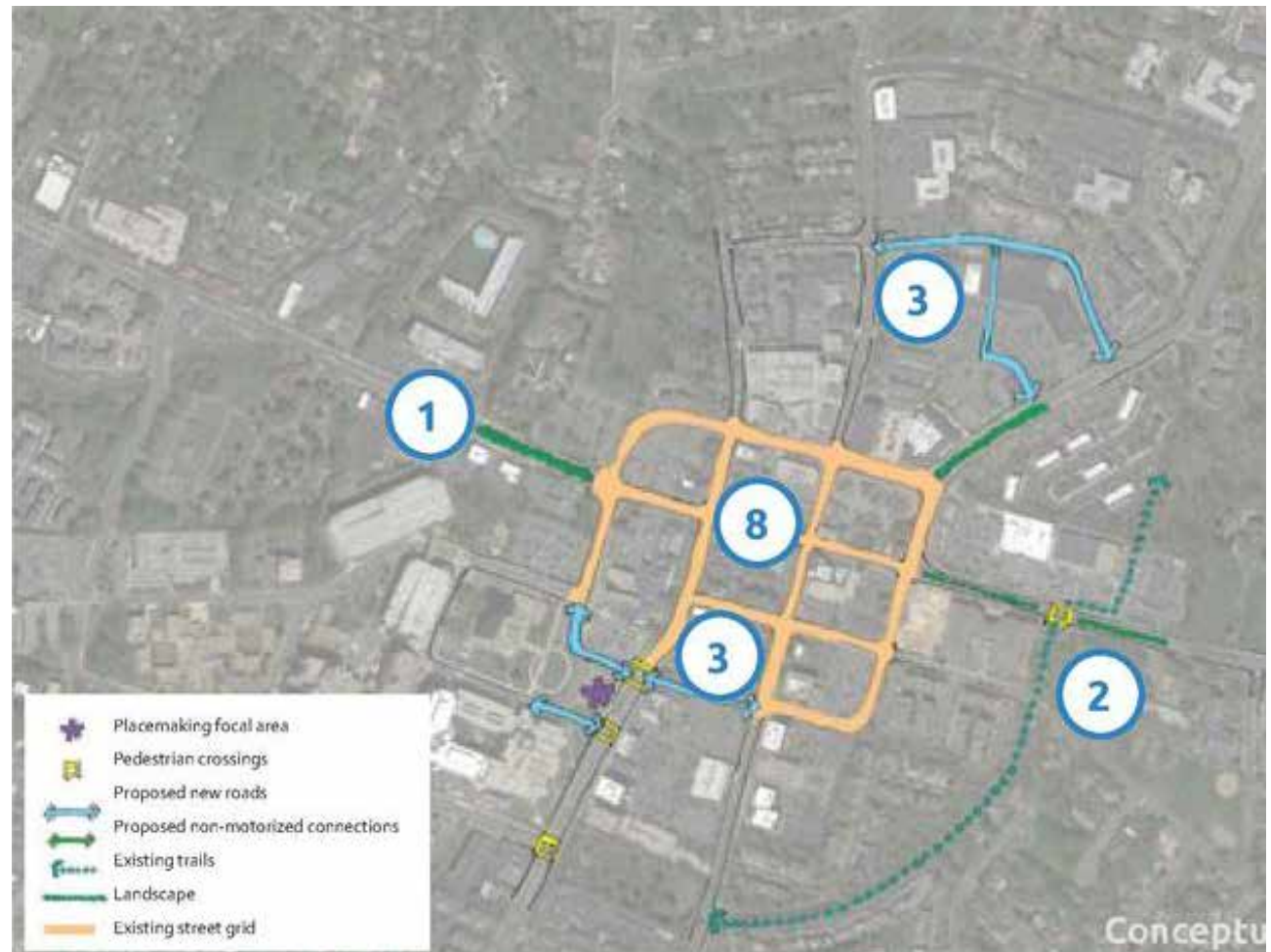
- Provide for efficient flow of vehicles
- Support regional efforts to enhance vehicle performance of Braddock Road
- Relieve congestion on Fairfax Boulevard via a new bypass
- Improve signage and safety
- Control in-bound traffic



A.5. FAIRFAX CITY GOALS AND INITIATIVES

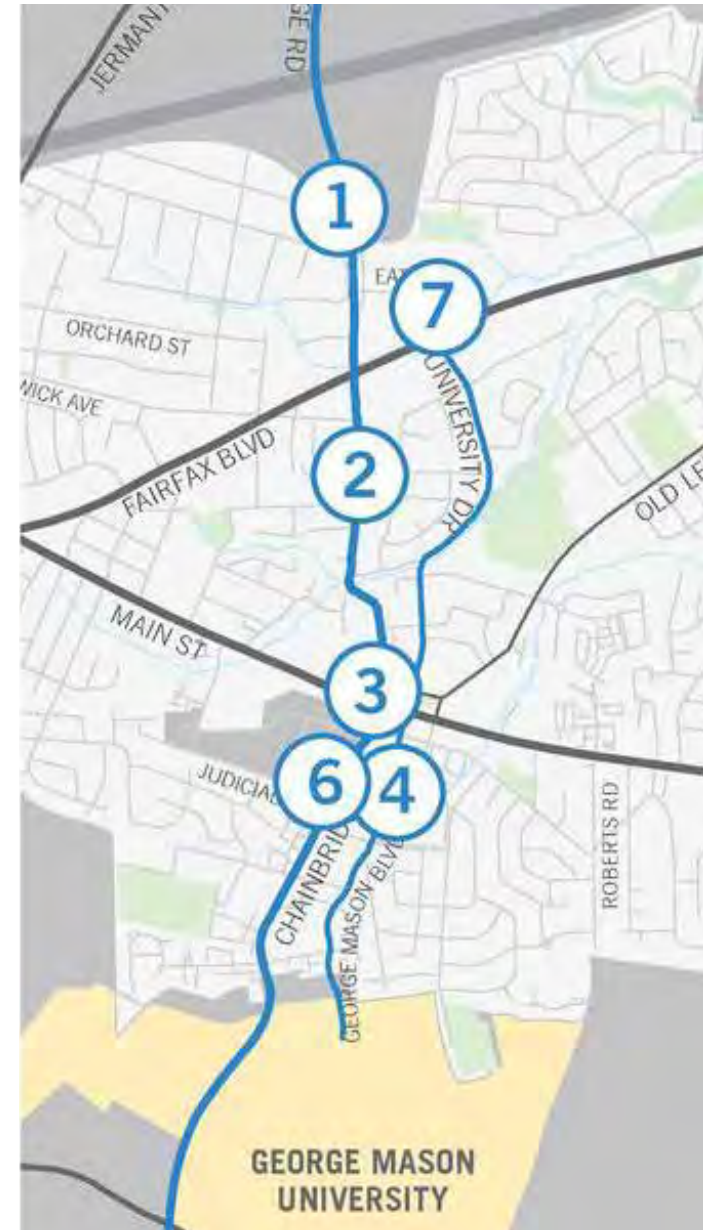
FAIRFAX CITY MULTIMODAL TRANSPORTATION PLAN

- Enhance Old Town Fairfax
- Increase bicycle facilities
- Enhance trail crossing and provide connection to northern section of trail
- Create street grid in private projects
- Provide an intelligent parking management strategy
- Complete sidewalks
- Widen sidewalks where possible
- Write design guidelines for downtown streets
- Restore curbside parking and increase accessibility throughout downtown



FAIRFAX CITY MULTIMODAL TRANSPORTATION PLAN

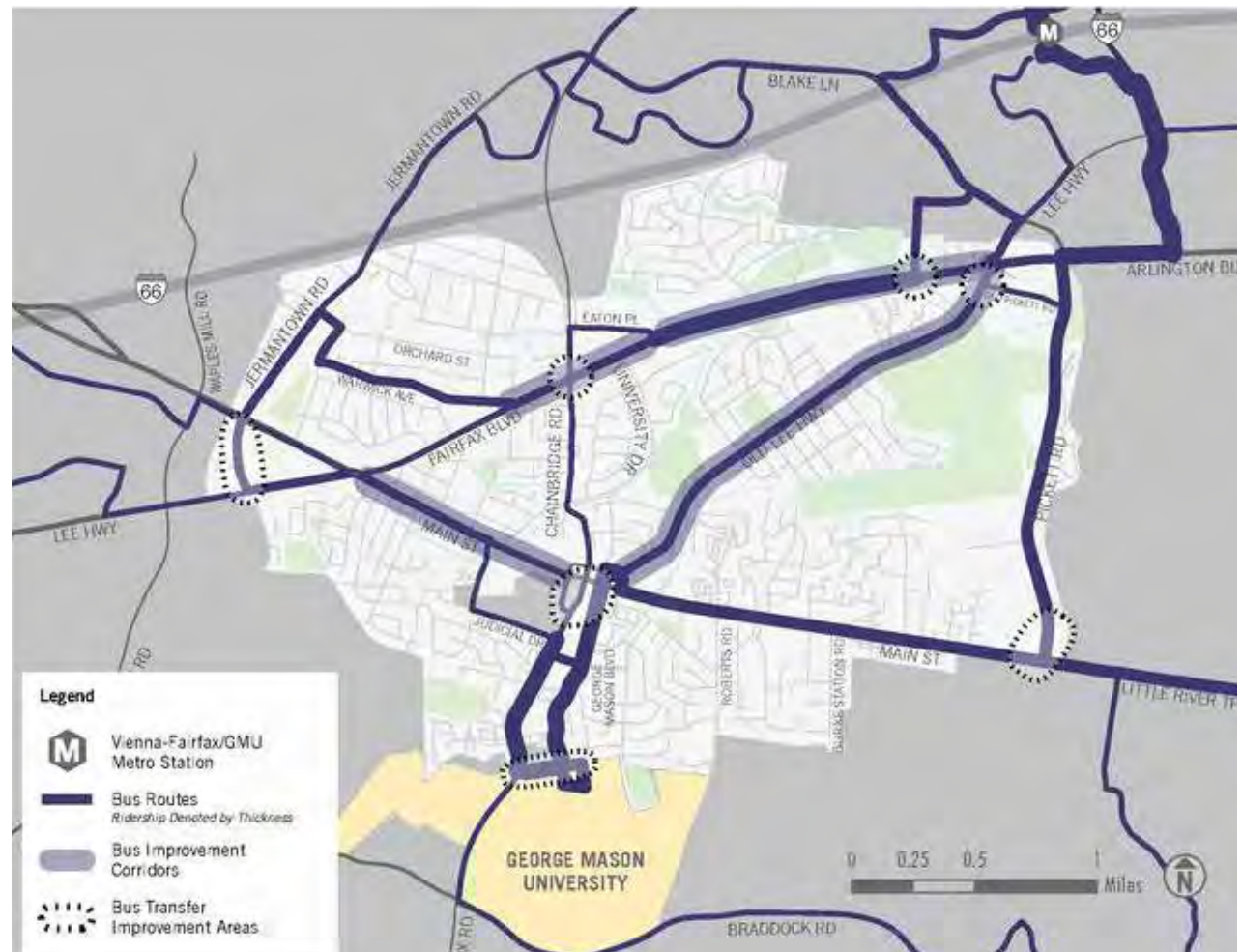
- Balance mobility on Chain Bridge Road and University Drive
- Ensure pedestrian friendly accommodation from I-66 to Fairfax Boulevard and Fairfax City to Fairfax Boulevard
- Distribute traffic through South Street extension
- Make a truly multi-modal Chain Bridge Road
- Calm traffic on Chain Bridge Road between Judicial Drive and Main Street
- Extend University Drive to Eaton Place



A.5. FAIRFAX CITY GOALS AND INITIATIVES

FAIRFAX CITY MULTIMODAL TRANSPORTATION PLAN

- Provide efficient transit services and information
- Enhance existing network
- Extend hours and days that system is open



FAIRFAX COUNTY GOALS AND INITIATIVES

A.6. FAIRFAX COUNTY GOALS AND INITIATIVES

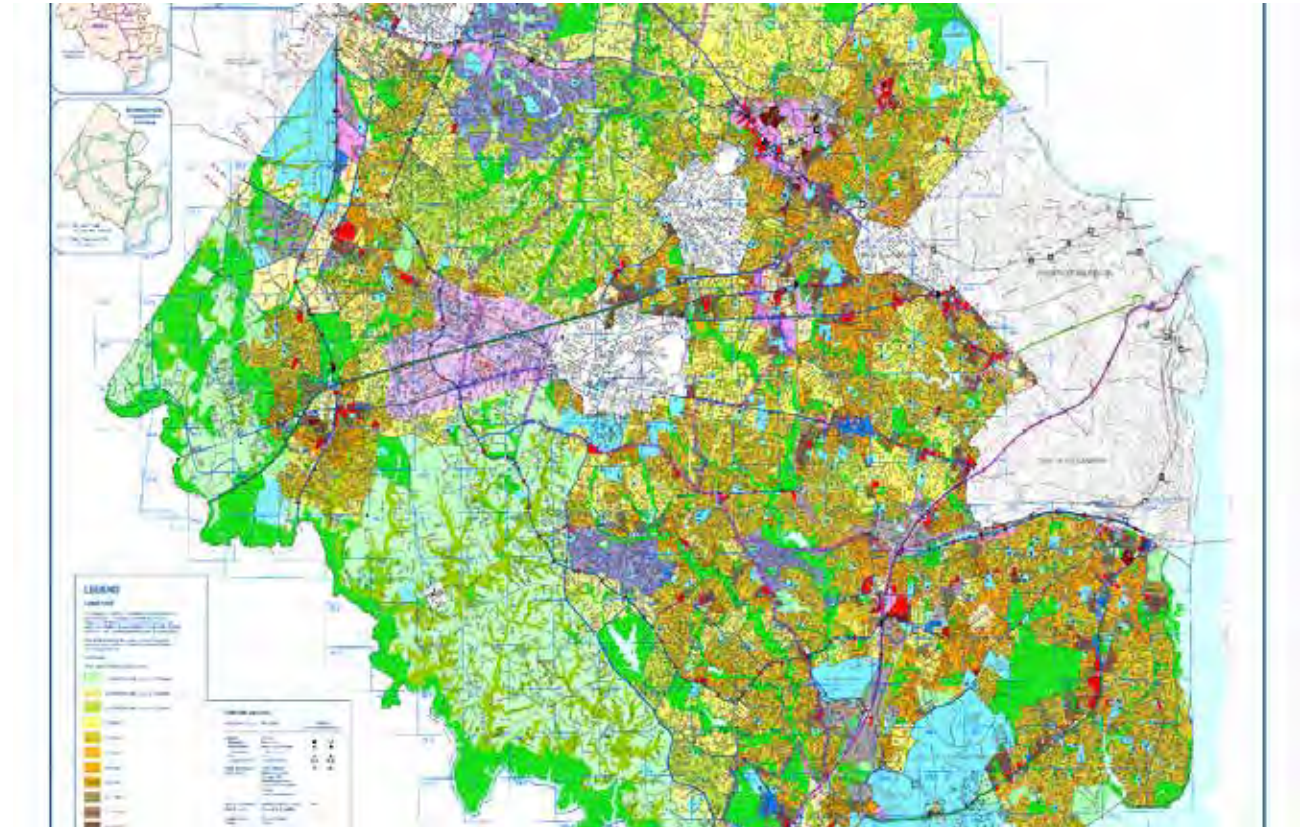
LAND USE

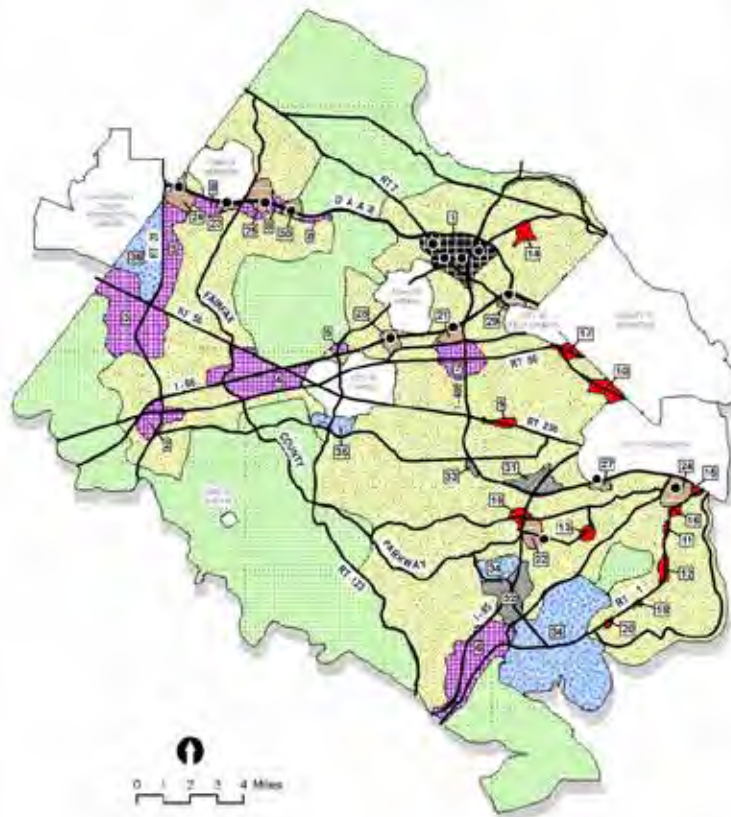
- Residential (dwelling units per acre)
- Commercial (retail, office)
- Industrial
- Open Space (public, private)
- Public Facilities, Institutional, and Government
- Mixed-Use and Alternative-Use

TRANSPORTATION

- Existing/proposed
- Road improvements
- Transit corridors/stations

COMPREHENSIVE LAND USE MAP





CONCEPT FOR FUTURE DEVELOPMENT MAP

LOCATIONS OF MIXED-USE CENTERS

Urban Center

1. Tysons Corner

Suburban Centers

2. Centreville
3. Dulles (Route 28 Corridor)
4. Fairfax Center
5. Flint Hill
6. Lorton-South Route 1
7. Merrifield
8. Reston-Herndon

Community Business Centers

9. Annandale
10. Baileys Crossroads
11. Beacon/Groveton
12. Hybla Valley/Gum Springs
13. Kingstowne
14. McLean
15. North Gateway
16. Penn Daw
17. Seven Corners
18. South County Center
19. Springfield
20. Woodlawn

Transit Station Areas

21. Dunn Loring
22. Franconia/Springfield
23. Herndon-Monroe
24. Huntington
25. Reston Parkway
26. Route 28/CIT
27. Van Dorn
28. Vienna
29. West Falls Church
30. Wiehle Avenue

LOCATIONS OF LARGE INSTITUTIONAL AND INDUSTRIAL AREAS

Industrial Areas

31. Beltway South
32. I-95 Corridor
33. Ravensworth

Large Institutional Land Areas

34. Fort Belvoir (Main Post and North Area)
35. George Mason University
36. Washington Dulles International Airport

LEGEND

-  Tysons Corner Urban Center
-  Suburban Center
-  Community Business Center
-  Transit Station Area
-  Industrial Area
-  Large Institutional Land Area
-  Suburban Neighborhood
-  Low Density Residential Area
-  Major Road
-  Metro Station

A.6. FAIRFAX COUNTY GOALS AND INITIATIVES

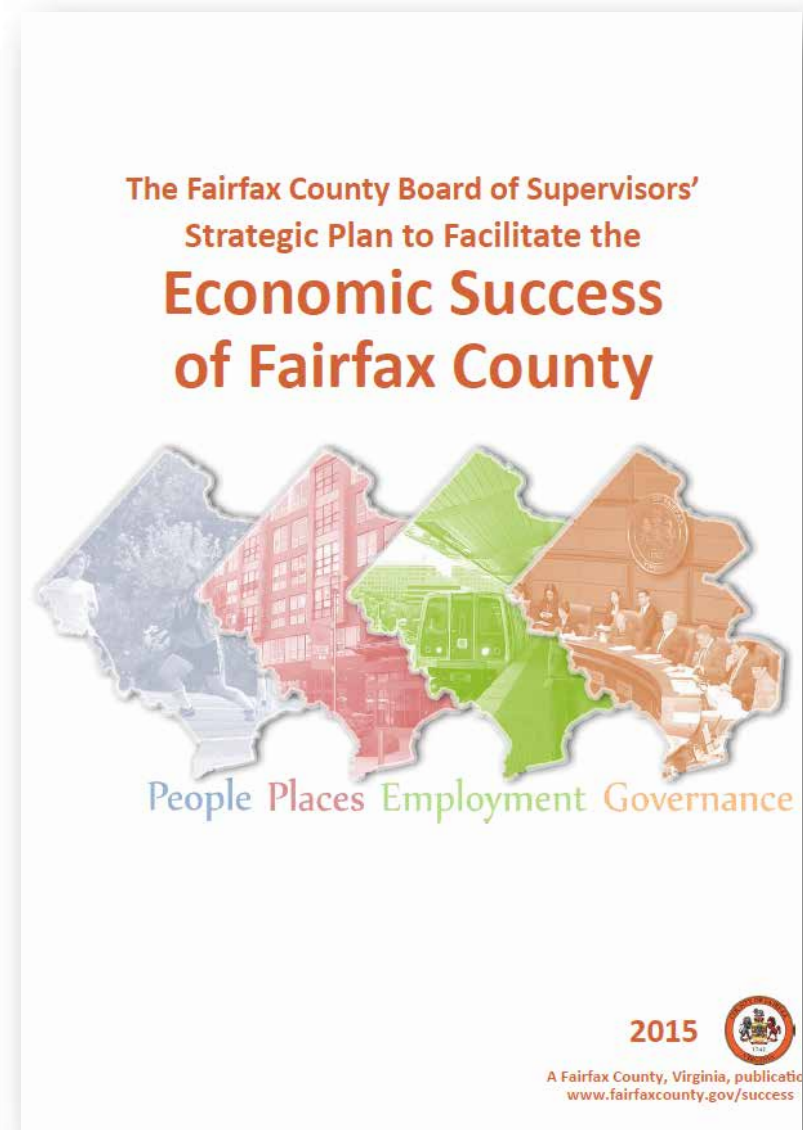
ECONOMIC SUCCESS PLAN

PLAN FACILITATES ECONOMIC SUCCESS BY CHARTING:

- Vision and goals to guide economic growth and success
- Focusing on People, Places, Employment, and Governance
- Specific actions to make the county successful

PLAN FOCUSES ON 6 GOALS:

- Further diversifying our economy
- Creating places where people want to be
- Improving the speed, consistency, and predictability of the county's development review process
- Investing in natural and physical infrastructure
- Achieving economic success through education and social equity
- Increasing the agility of county government



CREATING PLACES WHERE PEOPLE WANT TO BE

- Unique, culturally diverse communities
- Energize public spaces and communities with arts, events, and activities
- Mix of housing types and aggressive affordable housing program

Leveraging partnership opportunities Sustain Fairfax County's reputation as a great place to live, work, play, learn, and thrive.

Focus planning and development around creation of mixed-use communities and activity centers.

Livable, walkable communities aligned with the transportation infrastructure



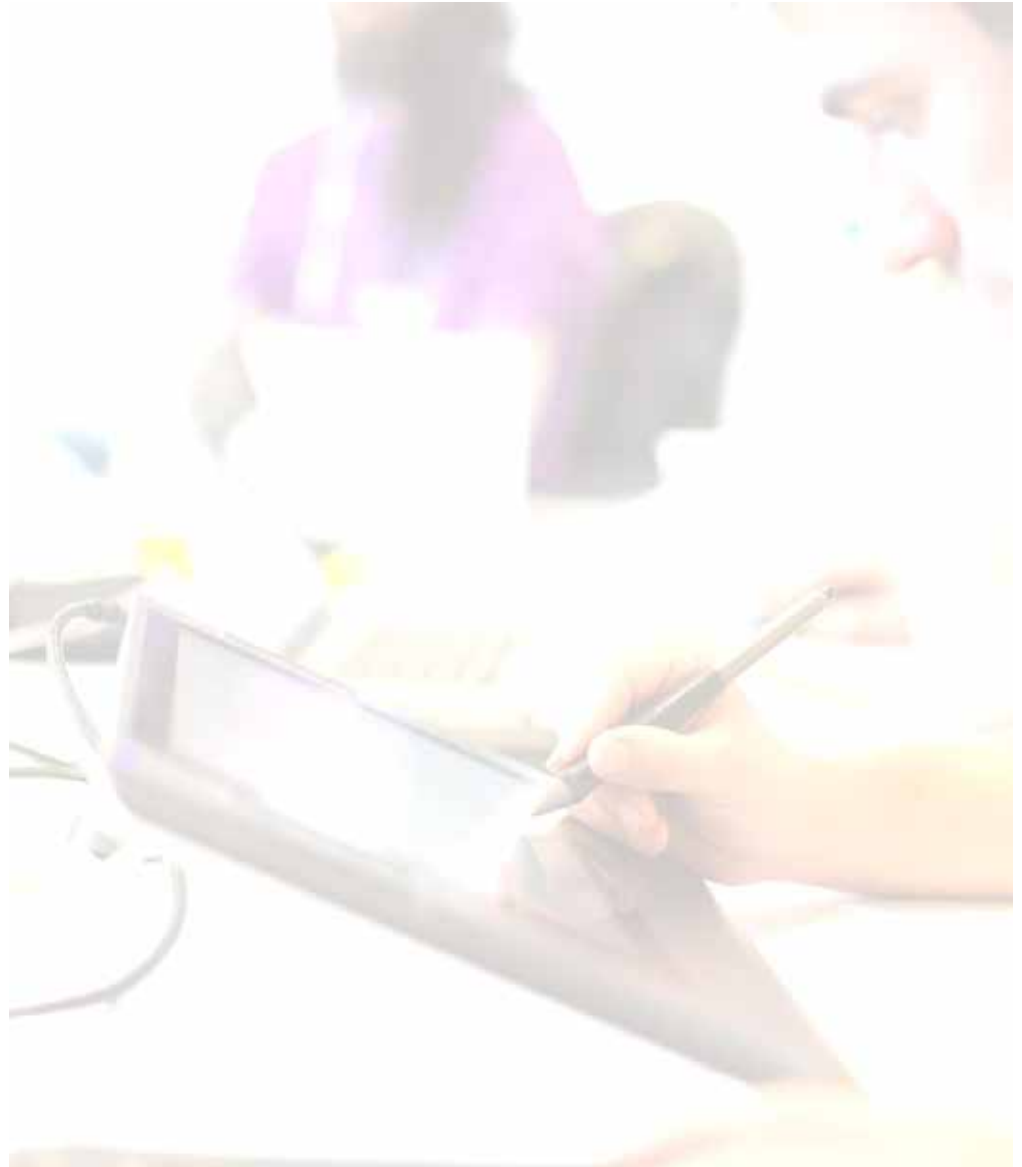
A.6. FAIRFAX COUNTY GOALS AND INITIATIVES

STRATEGICALLY PLANNING FOR FUTURE SUCCESS

- Innovation ecosystem
- Leveraging resources for a competitive advantage in key targeted industries
- Such as data analytics, cyber security, translational medicine
- World class research and development
- Support university efforts to develop and grow
- Foster relationships and synergies with “superstar” innovators
- Multiple hubs/districts with different industries of focus

Promote and partner in the development of an innovation center or similar hubs in communities and/or buildings.

Partner with businesses, public and private universities, research institutions, and/or incubators to create places that will spur and stimulate breakthrough collaboration.



INNOVATION DISTRICT PRECEDENTS

- 7.1. Brookings Institute Study
- 7.2. UCSF China Basin Campus
- 7.3. University of Delaware Star Campus
- 7.4. Georgia Tech Enterprise Innovation
Institute

BROOKINGS

THE RISE OF INNOVATION DISTRICTS:

A New Geography Of Innovation In America

Bruce Katz and Julie Wagner



A.7.1. BROOKINGS INSTITUTE STUDY

COMPONENTS OF AN INNOVATION DISTRICT

- All innovation districts contain economic, physical, and networking assets
- Economic assets - firms, institutions and organizations that drive, cultivate or support an innovation-rich environment
 - Innovation drivers
 - Innovation cultivators
 - Neighborhood-building amenities



COMPONENTS OF AN INNOVATION DISTRICT

- All innovation districts contain economic, physical, and networking assets
- Physical assets - the public and privately-owned spaces—buildings, open spaces, streets and other infrastructure—designed and organized to stimulate new and higher levels of connectivity, collaboration and innovation
- Physical assets in the public realm
- Physical assets in the private realm
- Physical assets that knit the district together and/or tie it to the broader metropolis



A.7.1. BROOKINGS INSTITUTE STUDY

COMPONENTS OF AN INNOVATION DISTRICT

- All innovation districts contain economic, physical, and networking assets
- Networking assets - are the relationships between assets that have the potential to generate the advancement of ideas
- Strong ties - occur between people or firms with a working or professional history that have higher levels of trust
- Weak ties - occur between people or firms working within different contexts or economic clusters where there is infrequent contact



PRECEDENT REVIEWS AND OVERLAYS

Tech and Innovation Districts

University of California - San Francisco Mission Bay Biological Research Center

- 44 Acres
- Biotechnology hub
- Public Private Partnership
- More than 100 bioscience companies attracted back to SF to be part of this PPP
- 50 bioscience startups have sprung up around campus since 2010
- 9 established pharmaceutical companies now have a presence near campus
- 10 venture capital firms as well
- 289 bed hospital for children women, and cancer patients
- Focus on great architecture and a growing art collection as a means to attract interest
- Four-story recreation center
- Still growing



A.7.2. UCSF CHINA BASIN CAMPUS



PRECEDENT REVIEWS AND OVERLAYS

Tech and Innovation Districts

University of Delaware - STAR Campus

- 272 Acres
- Public Private Partnership
- A manufacturer of clean fuel-cell power sources whose energy servers provide power to Fortune 500 clients including Google, Wal-Mart, AT&T and Coca-Cola.
- A test zero-emissions vehicle laboratory supported by the U.S. Department of Energy, the State of Delaware, NRG Energy, Honda and BMW.
- Local residents can access high quality care and work directly with researchers developing advanced ways to treat illnesses and injuries.
- UD's world-class physical therapy department, a program ranked #1 by U.S. News and World Report.
- A 10,000 square-foot wet lab that will serve as an incubator for small research companies

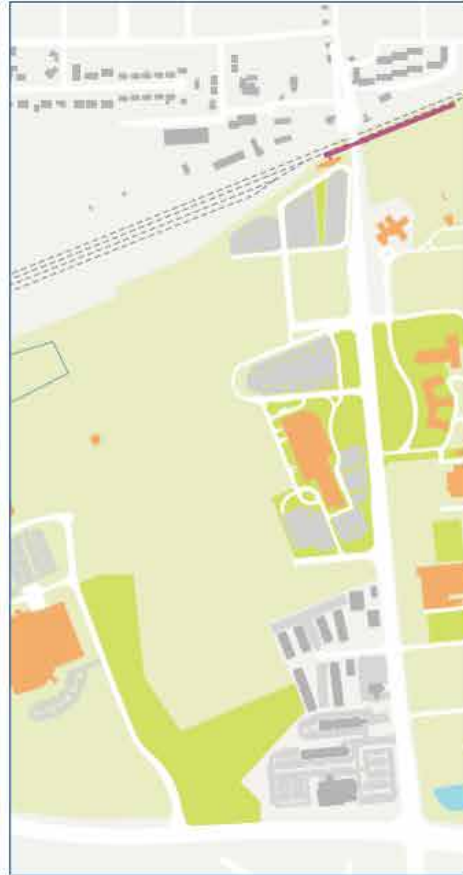


A.7.3. UNIVERSITY OF DELAWARE STAR CAMPUS

EXISTING



NEW DELDOT TRAIN STATION



EARLY PHASE



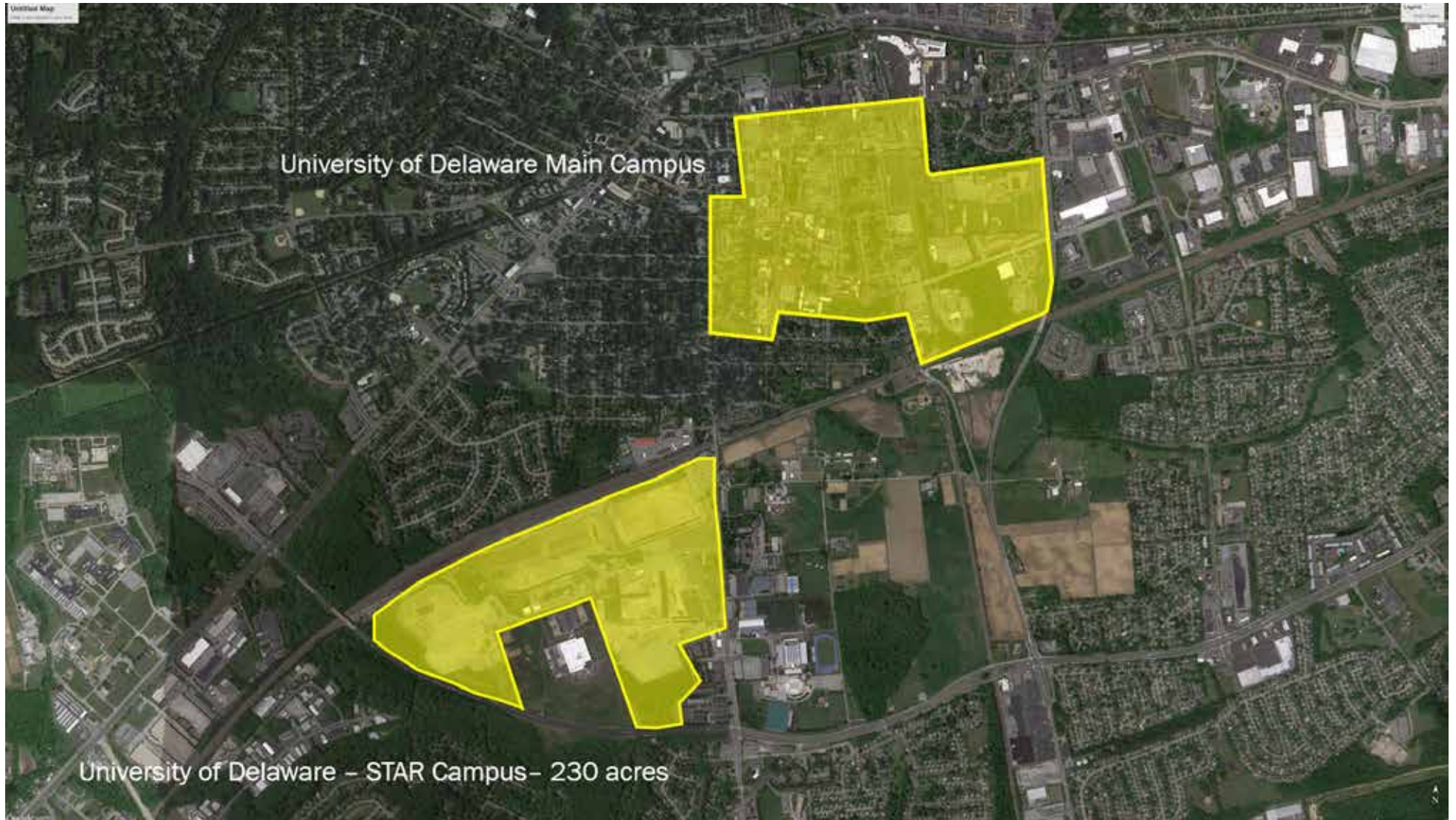
COMPLETE





A.7.3. UNIVERSITY OF DELAWARE STAR CAMPUS





A.7.3. UNIVERSITY OF DELAWARE STAR CAMPUS





A.7.4. GEORGIA TECH ENTERPRISE INNOVATION INSTITUTE





A.7.4. GEORGIA TECH ENTERPRISE INNOVATION INSTITUTE



2000



BIRTH OF AN INNOVATION DISTRICT

- In 2000, the roughly 13-acre area now known as Tech Square and anchored by Spring and Fifth streets, was little more than a collection of surface lots.
- The Georgia Tech Foundation invested \$180 million to create campus facilities and commercial space, and partnered with The University Financing Foundation, and Gateway Development Services to create the entrepreneurial and economic hub that is Tech Square.

TECH SQUARE TODAY

- 1.4 million square feet of office, research, retail, and hotel space
- Scheller Business School and GT Global Learning Center
- 2014 Outstanding Research Park Award winner, Association of University Research Parks
- 100+ technology startups and three accelerator programs
- 20 Corporate Innovation Centers including Southern Company, Panasonic, and Home Depot

2017



A.7.4. GEORGIA TECH ENTERPRISE INNOVATION INSTITUTE

TECH SQUARE TIMELINE

1997	GT Foundation Purchases Land
2000	President Wayne Clough announces Technology Square project.
2003	Technology Square opens
2006	Fifth Street Bridge renovations which triples its width and creates a park-like setting. Panasonic Innovation Center opens.
2012	ThyssenKrupp Elevator Americas Innovation Center opens. AT&T Foundry opens.
2013	The Home Depot Technology Center opens.
2014	Tech Square named “Outstanding Research Park” by the Association of University Research Parks.
2015	Worldpay FinTech Accelerator at ATDC launched
2016	High rise student housing – Square on Fifth opens
2017	Delta Air Lines innovation Center announced. Phase II Announced to expand Tech Square – Coda Project Georgia Tech Foundation acquires the Biltmore Hotel. Emerson opens the Helix Innovation Center at Georgia Tech.

A.8 WORKSHOP SCHEDULE

Monday, May 22, 2017 | HUB Ballroom, 10423 Rivanna Way, Fairfax Campus, Fairfax, VA 22030

8:30 - 9:00 am	Sign-In and Continental Breakfast
9:00 - 9:15 am	Introduction and Charrette Goals
	Welcome and opening remarks by George Mason University President, Dr. Angel Cabrera and Vice President of Facilities, Tom Calhoun. Walk through the goals and process of the charrette
9:15 - 9:45 am	Vision and Opportunities Discussion
	Academic & Research Strategy for the Fairfax West Campus led by Dr. Angel Cabrera
9:45 - 10:00 am	Break
10:00 - 11:30 am	Virtual Tour of the Campus
	Snapshot of Economic Drivers
	Remarks by Fairfax County Stakeholders
	Innovation District Precedents
11:30 - 1:00 pm	Buffet Lunch and Keynote Speaker
	Chris Downing, P.E. Vice President of the Enterprise Innovation Institute at Georgia Tech
1:00 - 2:45 pm	Rules of Engagement - Issues for Discussion
2:45 - 3:00 pm	Break
3:00 - 4:15 pm	Issues Discussion Wrap Up
	Break out groups report to assembled group
4:15 - 4:30 pm	Discussions of Following Days Activities

Tuesday, May 23, 2017

1:30 - 5:00 pm	Presentation by Perkins Eastman
	Introduction and Charrette Goals
	Presentation of 3 to 4 sketch ideas for West Campus Development Purpose of this session is to solicit feedback for development of final options

Wednesday, May 24, 2017

12:00 - 1:00 pm	Buffet Lunch and Review of Goals and Previous Days Activities
	Tom Calhoun, Vice President of Facilities
	Matt Bell-Perkins Eastman
1:15 - 4:30 pm	Presentation by Perkins Eastman of Preferred Options
	Discussion of Implementation and Next Steps
	Moderated by Tom Calhoun

A.9 COMMUNITY WEB COMMENTARY

#MasonWestCampusVision



Rick Holt @MasonBikedude · May 24

Creating spaces that contribute to people's health, happiness, and well being
#MasonWestCampusVision



What is Placemaking? - Project for Public Spaces

With community-based participation at its center, an effective Placemaking process capitalizes on a local community's assets, inspiration, and potential, and it
pps.org

3



Scott Bailey @sbailey1 · May 25

#MasonNation #GMU #WeAreMason #MasonWestCampusVision



George Mason Univ @GeorgeMasonU

Today is the final day of the planning workshop about the Fairfax West Campus. Follow the conversation using
#MasonWestCampusVision

3



Rick Holt @MasonBikedude · May 24

Creating a walk/bike/transit campus culture, reducing SOV travel, can be challenging but is worthwhile #Wellbeing #MasonWestCampusVision

2



Bethany M. Usher @Bethany_Usher · May 24

So glad to hear bikes and pedestrians being prioritized
#MasonWestCampusVision plan.

4



George Mason Univ @GeorgeMasonU · May 24

Today is the final day of the planning workshop about the Fairfax West Campus. Follow the conversation using #MasonWestCampusVision

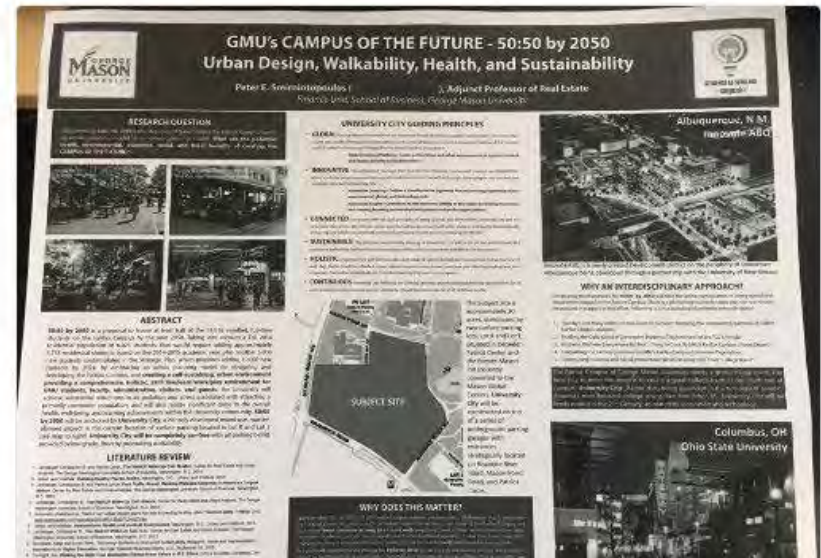


5



Rick Holt @MasonBikedude · May 24

Interesting presentation from 2015, Mason students envisioning Mason in 2050
#MasonWestCampusVision @REFinanceProf



Perkins Eastman

George Mason University 169



Cathy Pinskey @CathyWolfe1 · May 23

Creativity on display!! [#masonwestcampusvision](#) lots of great feedback @GeorgeMasonU



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Cathy Pinskey @CathyWolfe1 · May 23

Another great turnout @GeorgeMasonU [#masonwestcampusvision](#) - looking at options facilities.gmu.edu/campus-plannin...



RobinsonHallRedo @Redo_Robinson · May 22

[#masonwestcampusvision](#) Lunchtime keynote speaker Chris Downing from @GeorgiaTech & @TechSqATL @GeorgeMasonU pic.twitter.com/9zpvSdYReI

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RobinsonHallRedo @Redo_Robinson · May 22

Opening remarks - great turn out for [#masonwestcampusvision](#) @GeorgeMasonU - opening remarks by @CalhounThomas - at The HUB - George Mason University



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RobinsonHallRedo @Redo_Robinson · May 22

[#masonwestcampusvision](#) is kicking off @GeorgeMasonU soon! Come by for breakfast and stay for a full day of planning for Mason's future!

1



Back to top ↑

West Campus Charrette - Day 1
Academic, Research & Innovation Group
5/22/17

- University based-retirement communities (OLLI) within Innovation District
 - VSE – want smaller, lower cost buildings vs. 50 year buildings with higher costs
 - Flexibility
 - More funding options (donor, etc.)
 - Bringing different programs, curriculum
 - Costs of lease space in Mason buildings – needs to be at or below market to be enticing
 - Initially lease space in VSE was above market
 - Have not seen the internships and relationships come out of those lease agreements as was desired
 - If not mutually beneficial, then tenants can reduce growth opportunities for Mason / units
 - Need critical mass and flexibility
 - Benefits of smaller, lower cost buildings vs. typical large capital projects
 - Easier to find funding
 - Potentially faster schedule, more agile
 - More flexible over time
 - Smaller buildings fit better into a neighborhood concept that may be more compatible with our campus and our city/county partners
 - Can we require partners to invest? P3 partnerships as an example
 - Height limits? Appropriate scale, etc.
 - Future of academics & research? Today? Changes?
 - The students are why we all here
 - Experiential learning and hands on experiences
 - Do not currently have enough opportunities for hands-on learning
 - Testing, partnerships, etc.
 - Solving global, pressing problems
 - Often crosses disciplines, (ex – adaptation to change)
 - Campus as a laboratory to practice solutions
 - Role of sustainability, other new institutes & centers
 - Don't want to lose central space, beauty, nature that characterizes
- Mason
- Magnet that draws others to us
 - What are the academic & research priorities that correspond to regional needs?
 - Need to bring together and balance expansion and sustainability
 - Hotel & conference center would be an important part
 - Needs to be scaled to support conferences
 - Bring conferences here vs. going into DC
 - Short to mid-term housing for visiting scholars
 - Janelia Farms
 - Have to address issues around recruiting faculty
 - We are very behind others
 - Find ways to make living here more affordable (subsidizing housing, etc.)
 - Masonvale does not subsidize for our faculty the way that we should
 - Housing to own vs. lease (benefits of equity and ownership)
 - Quality of life could be key offering that West campus could provide
 - For faculty, staff, but also Students
 - Structure / infrastructure/ vision needs to be built around areas of focus that can adapt
 - Different problems come up over time
 - Flexible or shorter-term space but you don't lose space
 - Need to maintain connections and space within their units as well
 - Business School on West campus (B School) that can connect with other units (COS and VSE, Others) in collaborative spaces built on the west campus
 - Dumping a bunch of people from different backgrounds into a space is not how you create multidisciplinary work.
 - Collaborations will happen without forcing people into a space
 - Project-based spaces or functional-based space
 - People move in and out based on projects, collaborations, funding, etc.
 - Flexible space that can be reconfigured easily
 - Open and accessible spaces
 - Need to find ways to manage assignment and reassignment of space
 - Design needs to foster and facilitate connections, collaborations, etc.

A.10 MEETING NOTES

- Research Hall is not designed well to foster this
 - Long corridors, card readers, few open collaboration areas
- Social spaces are extremely important
- Thoughts on business presence on campus?
- Many faculty members feel the presence of or corporation negatively impacts /degrades academic mission
- Non-generational – Age doesn't appear to affect thoughts on this
- More field-based opinions
- Core campus needs to remain academic
- Need to be clear as to what a relationship gives us and what we offer others
 - Partnership needs to be very clearly defined and transparent and upheld
- May need to refine partnerships – need to be more connected to Masons and its students – not just scholars, etc.
 - Naming gifts need to be more meaningful
- What will academics and research look like in the future? What current assets can we highlight and use
- How we do we encourage our students to think like entrepreneurs?
 - Need to be very strategic in how we pick out partners so that they are part of our efforts, problem solvers, student opportunities
- How do programs reach out to community at larger?
 - Potomac Arts Academy – as an example
 - Connected to academics units
 - Serving those in our communities
 - Cradle to grave (across all ages)
- Want to see the arts included in the conversation (see Potomac Arts Academy notes above)
- We should look at university and mater plans and unit master plans to see what might make sense for west campus?
- What might the research communities we organized and what roles might there be for different groups? Athletics wondering how they might be a part of the Innovation neighborhood
- Culture, Arts, Sports and Entertainment as key components of West Campus
- How we do we complement but not destroy what we are doing elsewhere?
 - Be careful not to destroy or negatively impact vision for Sci Tech Campus
 - Sci Tech specialized and high-end facilities
 - Can't isolate things – i.e. between campus
- Each Innovation Hub must be complete and self-sustaining
 - Isolated hubs based will not work long term
 - Amenities (restaurants, meeting spaces, parking, public transportation)
- Big Data, Cyber, etc.
- Needs to meet academic growth needs as well – can't focus solely on research and innovation
- Want flow between campuses
- Connectivity with the Arts and Athletics may be a basic need or feature

- Look at culture as the core of any innovation hub
- More integration across many things
- How do we make connections that integrate?
- There is a new group just formed at Mason to study business engagement
- Like idea of retail, etc. on ground floor, housing
- P3 – industry or federal agency adjacent to academics units as well
- Tax incentives may be required to incentivize partners
 - University as a tax-free zone? Or lower tax zone?
 - Tax relief for those entering State or county

Summary of group (key points):

- Constituents should be faculty, staff, students partners, etc and range from “cradle to grave”
 - Quality of life and opportunities for many
 - Can this be connected to clinic, services we have on East campus?
- Faculty retirement community
- OLLI
- Potomac Arts Academy
- Event and Performance venues
- Groupings of smaller clusters of building interesting
 - More agile / Flexible
 - Faster Schedule
 - Lower Cost
- Hands on learning – related to academics, research, partnerships
 - Students project space
 - Growth space for academics
 - Shared problem solving (academics, research and partners)
- Hotel and conference center
 - Would need to be right-sized and configured to support conferences not just events
- Flow between campuses
 - What is vision for various Mason locations and how do they relate to one another?
- Desire for spaces for collaboration (project spaces) without giving up connection and space within Academic unit
- Don't want a new location of silos – how can we break down silos at each location and between locations?
 - Balance each location being complete and self-sustainable without becoming a silo
 - What is the appropriate flow of subjects and activities between locations?
- Partnerships:

A.10 ORIGINAL NOTES

- Desired but should be beneficial to Mason and meaningful (scholarships, internships, collaborative research opportunities, etc.)
- Not just about money (putting a company name on something for money or leasing space)
- Need transparency of partnership agreements
- Need to uphold partnership agreements – if partner is not fulfilling agreements then need to address

Comments from audience after our presentation:

- Consider partnerships with TJ High School
- Did we talk about access (metro, shuttles, etc.)?
- Did we talk about support items like childcare, housing, etc. etc.

Summary Sessions:

Economic Development & Collaborations: I came in late to this presentation...so see notes by others

- Some confusion about what is happening at SciTech vs. proposed Innovation Neighborhood
- Challenges of transportation infrastructure? How accessible is this location compared to others along better transit lines?
- Opportunities for Green Machine and revenue generating activities
- Mutually beneficial opportunities with city and/or county vs. duplicating efforts or activities?
- Connections to workforce and housing
- Arts

Campus Life & Student Housing:

- Outdoor gathering spaces
 - Safe spaces
 - Shared spaces
 - Outdoor amphitheater
- Shared diversity
 - Appreciation of cultures from around the world
- Spaces for on/off campus communities
 - Spaces that blend these populations vs. creating separate spaces for each
 - Larger program spaces where people can formally come together
 - With and/or without the community
- Bridging gap between Mason, city, county, industry
- Food/dining/gathering
- Student Housing (didn't talk much about this)
 - Graduate housing
 - International

-
- No real interest in senior housing / retirement
 - **Transportation & Infrastructure:**
 - Expanded shuttle service
 - Frequency of shuttles
 - Avoid conflicts between pedestrian, bike and vehicular traffic
 - Consolidate RAC and Field House on the East campus
 - New anchor for
 - Move Eagle Bank arena to Innovation District
 - Regional connectivity:
 - More broad than increased shuttle service
 - Moving people between campuses and businesses
 - Energy – district vs. Individual
 - How will utilizes and infrastructure be provided on each campus
 - Renewable energy options
 - IT – needs to be anchored to existing points
 - Can't only be wireless
 - Sketch:
 - Moves Field House back and brings new development to either side of Rt. 123
 - Moves Eagle Bank Arena

Athletics & Recreation:

West Campus Charrette – Day 2 May 23, 2017

Concepts Presented:

OxBridge:

- Recent campus to center around Ox rd.
- Development on both sides of Rt. 123
- May move eagle bank – becomes part of the new Innovation District and may be adjacent to a hotel complex
- Creates an new Innovation Hall
- Close to existing core

A.10 MEETING NOTES

- More connections across 123
- New athletics center on West Campus (pushed farther back)
- All Mason land

Questions:

- Question about large parking area shown
- What is in Innovation District – mixed use, hotel, restaurants, offices, retail, research, housing
- See GaTech White Paper
- How do you factor in growth (time/funding/phasing)
- Phase I can be small that has enough basic amenities and space types to attract people
- Need to show success within 5 years of development; after 5 years, area just fades

Ox – Brad:

- Looks at development on the University Drive Shopping Center land
 - This is a 50 year plan – so proposed does not mean anything would happen to this area any time immediately
- Moves center of campus to corner of Braddock and Ox rd.

Braddock / Newtown:

- Create Innovation Center on West Campus along Braddock Rd.
- All on Mason Land

Fairfax Connection:

- More direct link to Fairfax City
- Gateway to city /campus
- Athletics on West Campus but moved closer to Braddock rd for better presence
- Innovation District on both sides of 123
- Assume development of the land (non Mason's) at corner of University Drive and 123
- Shows Chain Bridge townhouses being developed as part of this just up the street

Comments During presentation of concepts:

- Do all model accommodate both hotel and conference and faculty / affordable housing? - YES
- How do the arts play into this (Potomac Arts Academy, Green Machine, Museum, Performance Venues) – all possible. Options not specifically programmed.
- Resident – What philosophy do we have to sharing 35+ year plan to community? What are Mason's assumptions about growth generally and in specific areas or specialty? Closed or open campus in future? Will students be accommodated in the future (food, housing). – Those questions would need to be answered. Can't answer those today. These points may educate the “next steps” solutions we hope to identify tomorrow. A good university is

-
- attractive not just to the faculty/students but also to the community that lives around it. It's about creating an environment that is attractive to many
 - What though in planning these options has been given in planning these options – haven't yet wrapped our arms round this since yesterday. County doesn't have that many walkable neighborhoods. Concepts need to provide multiple options for transportation (walking, biking, etc.). Transit definitely needs to be discussed as part of design and implementation planning
 - Question about Mason on/off campus population. More housing with less commuters helps both with vibrancy and traffic.
 - Ox Rd and Braddock has proposed some sort of interchange there. Is that still being planned – Yes. Need to look at this in context of schemes. Funding TBD (\$300M or more).
 - What will happen farther down Braddock rd? More traffic coming from West to East. Widening of Braddock Rd. has been nixed by community therefore no increased capacity on Braddock expected.
 - Center for the Arts – Serves large number and not sure how it is being treated in schemes – Braddock scheme put CFA in the Innovation district, OxBridge has it adjacent to Center of campus
 - Trees are beautiful – any thought on how Mason can keep the natural beauty? Where should we retain the green area and where are places where it could change? Choices to be made. Campus is larger enough to have different characters on campus – more green vs. more open / visible
 - Recruited students like that campus feels like a campus. Bethany Usher likes the idea of separate zones
 - Biking important. WE have very disconnected bike infrastructure today. Need to build in infrastructure to support biking especially within the 3-5 mile range which is too far to walk, too short to drive. Also reintroduce bike share again.
 - How do the annexed buildings relate to the Innovation development (Chain Bridge Town houses and the area at corner of University and 123)
 - The pathway in especially through new campus drive could be an attractive entry / arrival into campus. Can incorporate wellness more
 - Do not compare to UNC and Duke (Research Triangle) – you can fly by their innovation centers without noticing or stopping.
 - Many seem to be gravitating to OxBridge Option
 - Many seem to be gravitating to OxBridge Option
 - Appears more like campus expanding vs. Innovation center being separate from campus center.
 - This would draw people into the Innovation Center more than other schemes.
 - Want to invite many to Innovation even if they naturally do not initially have “business” there
 - Could re-orient the campus axis and redefine it. In addition to the
 - Counter to the OxBridge Option:
 - Develops space within East campus footprint along 123 to be Innovation Center when we may need that space for academic growth that connects existing campus to Innovation
 - Shifting athletics and rec west only moves it wellness farther away from mainstream
 - Today some people think RAC is too far away
 - Need to be mindful of growth on the academic side. Already space constrained. How can we grow academics into the Innovation Center?
 - Need to address how we can compete against places with stronger transportation networks
 - Housing also key
 - May need concessions by University, City, County to make this successful

A.10 MEETING NOTES

- Consider if Patriot Square could be incorporated into thinking along Braddock Rd.
- Summary Presentations:

OxBridge:

- People liked b/c of vitality in the center
- Should consider Field adjacencies to housing as an amenity
- Desire to get more signature space along Braddock on West campus – so you can see what's going on at Mason
- Food shopping
- Affordable housing – multifamily and single family options, across generations
- Consider taller buildings – markers, visible, attractors
- Considerations for cross road
 - Transition and Transform – speed issues, slow traffic
- Center Innovation Center could be more open with less impact to natural green areas
- Concerns about congestion with major events consolidated in one area
- Sports need to have move presence
- Relocate transit depot to Innovation District
- Could elements of the JC move to the Innovation District? Repurpose space in JC
- Better connection between Masonvale to Innovation District
- Consider the Chain Bridge townhouse area in this concept as well

OxBrad Corner:

- Concern about traffic and congestion
- How do you solve parking in this issue – loss of surface parking in this concept
- Extend bike path / running path along stream valley
- Consider growth for academic uses
- Visible connection between Innovation District and Performing Arts Center

Braddock New Town:

- Advantages
 - Building may not need to be of the same institutional quality could be a better fit in New town
 - Area can develop at its own rate/pace/Scale
 - Own entry point and possible identity
- Disadvantages:
 - Would need some sort of connection or shuttle that would run back and forth between the New town and campus proper
 - Safety Issues if traveling back and forth particularly after hours
 - Might squeeze growth for Athletics

- Potentially may lead to less casual interactions
- What is the attraction if separate district from campus proper?
- High density vs. low density

Fairfax Connection:

- Pros:
 - Like connections up to city – possible redevelopment of some sites in city (Massie) to merge town/gown
 - Filed house location on Braddock – visibility, access, ability to group athletic and rec areas consolidated / grouped together
 - Some difference of opinions between Athletics and community members
 - Campus thresholds
 - Visibility on Ox
 - Some liked the filed house location as a buffer to noise issues
 - Like the green in the middle
 - Keep the Eagle Bank as-is
 - Potential walkability
- Cons:
 - Location of field house too far west and away from majority of students
 - Could shift east on west campus to be more directly adjacent to Innovation District
 - Must have a trolley on campus
 - Do not want something like a Freedom Center

West Campus Charrette – Day 3

May 24, 2017

- Reviewed concepts from yesterday
- Presented new scheme that incorporate comments from yesterday
 - OxBridge + Option that pushes into Fairfax City
 - Creates Innovation center along both sides of Ox road
 - Creates more connections across Ox Road
 - Idea of 3 centers – Innovation Center in the middle, Academic Core/Center where it is which is to the right of proposed Innovation Center, Athletics and Rec Center to the left of Innovation Center on West Campus
 - Athletics not pushed so far west – field house may be placed adjacent to Innovation Center in center overlap area

Implementation:

- Required collaboration and coordination between Mason, Private Section and Agencies

A.10 MEETING NOTES

- 1st five years are most critical
- If you don't show progress within first 5 years then no one believes this idea is real
- Short Term: 2-5 Years
- Within 2 years:
 - Identify possible partners (developers, companies, individuals)
 - Develop administration and management structure
 - Campus programming
 - Entitlements
 - Budgeting
 - Infrastructure planning
- Within 5 years (maybe 5-10)
 - Complete first phase
 - Plan and entitle future phases
 - Plan academic backfill – some may move to Innovation center. Things moving to Innovation Center open up space within academic core for growth of things that do not move to Innovation Center
- What might we / should we see in the Innovation Center?
 - Research and Collaboration
 - Academic Space
 - Innovation Maker places
 - Student activities & organizations
 - Diverse residential offerings
 - Arts and culture
 - Retails
 - Flexible spaces (example loft buildings can be housing, research, office, etc.)
- What kind of place should this be?
 - Walkable
 - Bump-able
 - Compact
 - Diverse
 - Flexible
 - Green – need green space
 - Active
 - Healthy
 - Accessibly – easy to get to, inviting, welcoming

Next Steps/ Homework:

Housing and Campus Life:

- Develop 1st phase housing grid
- Identify amenities
- Identify user groups – grads, retirement
- Identify funding sources
- Program initial open space for campus activities

Athletics and Rec:

- Develop first phase wellness program
- Review collaboration possibilities between ICA and Rec
- Review current ICA and Rec facility and fields plan for campus
- Initial programming for new field house
- Within 5-10 years: reposition ICA and rec facilities

Transportation and Infrastructure:

- Identify transit initiatives and priorities
- Determine non-motorized transportation strategies/networks
- Identify infrastructure strategies (physical plant, neighborhood or distributed energy, service spines, renewables)
- Draft transportation demand management guidelines for private sector
- Restore bike share
- Work with transit providers
- Get approvals for redesign
- Within 5-10 years – study VRE
- Evaluate parking requirements

Economic Development:

- Identify potential partners
- Figure out how to attract them
- Establish university priorities and guidelines
- Figure out how we are willing to transact (lease, sell, partner, etc.)
- What types of private uses/development are most appropriate
- What are requirements to align university goals with private sector goals

A.10 MEETING NOTES

- Analyze need and market analysis and opportunities
- Solicitation process
- Create organization structure
- Years 2-10:
 - Execution, planning investment – create implementation plan from master plan
 - Begin to build out operating entity for innovation neighborhood
 - Refine partnerships and attraction strategy
 - Evaluate new needs

Academic & Research:

- Phase 1 collaborations
- Develop 5 year academic and research plan
- Community and industry partnership opportunities
- Program later phase multidisciplinary opportunities
- Identify how other mason campuses / sites are part of strategic plan for the Innovation neighborhood

Questions / Comments:

- Would there be civic functions (public library, etc.) or public government offices? We should not rule anything out and that may be a possibility
- Need to remember while this is “of Mason” this concept is very much tied to the city of Fairfax.
- Getting started is key: develop a solid concept document – comprehensive document. Needs to be easy for everyone to understand
- Partnerships – have seen major mixed use developments so feel there will be interested developers once there is a strong concept plan to use in conversations.
- Strong supporter of proposed plan (former city executive of some sort)
- Needs to be sensitivity to city and county even though State entities do not need to follow same guidelines/rules
 - Because of social media – some of these images will get out
 - Images show high rise development in the Innovation Center which will scare neighbors. Might not want to show as much high rise
 - Use something like shared enterprise center as a start point on the city side – already partnership and buy-in support
 - Need to consider impacts if all tax producing entities end up on the campus would be an issue for the city and/or county. Need to partner to find a way to address this
- Not all faculty will see how they may fit into this or how this may impact them positively. This may seem alien to many faculty. Need to communicate well with faculty. Faculty need to develop future of their fields and efforts and consider how there might be synergies between their academic efforts and an Innovation Center
- Are their known or proposed champions for each sector that may be represented in Innovation District? No - Too early – not quite there yet. Need to set up a process by which people can engage and share ideas vs. having people stake out positions. Process over positions.
- County rep – this has been a great process (the workshop) which has opened lines of communication which are new.
- Guidelines regarding outcomes and partnerships would be helpful to engage and to tell a story. Example: desired relationships, desired outcomes, etc.

- What is the vision and how does this relate to everything else? “Something no-one else in the world has done”. Response – wouldn’t say we are not trying to do something that no one else has done. We are about striving for excellence, a place people want to be, a place that creates conversations and opportunities. Better to study places that work well. Broader appeal, can change over time based on interest, market, etc. Novelty will be intersection of public & private environment and the partnerships that come from it.
- Person doing housing study: Innovation Center as a microcosm of the real world. Place that positions students of all ages, backgrounds, etc. for success and real world experience
- Set up a designated small group of stakeholders that remain involved past this charrette to keep this moving forward

Design team:

- Implement in a way that people can see.
- Everyone has different agenda – not everyone will get everything they want but everyone sees something in the solution that brings value to them.
- Vision needs to stay clear, framework strong but flexible
- Use college plans (vetted plans) to inform what might be suitable for Innovation District
- Don’t repeat mistakes or missteps already made – example Mason Inn
- Bethany: Theme and vision very important. Intersection of Intellectual Inquiry and public partnerships, etc. Destination place. Theme may help calm any fears, trust issues, etc. Response: words that accompany vision are very important.

Cabrera Summary:

- Gratitude for amount of energy put into this process
- Every big idea starts with an inspired group of people coming together
- Happy to hear most comments or questions are about how we will make this happen
- Nothing can move ahead without a great idea or vision
- Concept of an Innovation neighborhood that invites the city to be a part of it is exciting and attractive.
- Mason as an anchor that brings energy to the city and county
- Mason’s track record very good. From building a college in the “woods” to a thriving campus (largest in the State) with renowned performing arts facilities, athletics, etc.

A.11. WORKSHOP TEAM ROSTER

GEORGE MASON UNIVERSITY

Traci Kendall	Government & Community Relation
Tom Calhoun	Facilities Administration
Beth Long	Facilities Administration
Preston Williams	Strategic Communications
Thomas Hardy	Housing & Residence Life
Cathy Pinsky	Facilities Administration
Rose Pascarell	University Life
Bradford Edwards	Intercollegiate Athletics, Intercollegiate Athletics
Ann Moran	Parking & Transportation
Josh Cantor	Parking & Transportation
Frank Strike	Facilities Administration
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Paul Liberty	Government & Community Relations
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Laura Manno	Facilities Administration
Joy Staulcup	Facilities Administration
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Pamela Patterson	University Life

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