

University Drive Extension

City Council Meeting
December 13, 2016

Tonight's Agenda

- ▶ Project Overview by Staff
- ▶ Public Hearing
- ▶ City Council Discussion
- ▶ City Council Decision

Project Timeline

- July 7, 2015 (CC work session): Discuss HB2 process and potential projects. University Drive included on list.
- July 15, 2015 (CC work session): Review of potential projects to submit for funding. Staff directed to proceed with traffic analysis & application including cost estimate preparation for University Drive (and Government Center Pkwy).
- September 8, 2015 (CC work session): Review traffic analysis and project costs for two recommended HB2 projects.
- September 29, 2015 (CC meeting): Council adopted Resolution to approve the City's submission to VDOT

Project Timeline

- ▶ June 14, 2016: Commonwealth Transportation Board approved its SYIP with funding for University Drive Extension and Government Center Pkwy Extension
- ▶ City received \$9,994,370 in Federal Smart Scale Funds

HB2 Funding the Right Transportation Projects

PROJECT SCORECARD
University Drive Extension App Id: 633

Project extends University Drive from Fairfax Boulevard to Eaton Place.

Project Location	..... Fairfax
HB2 Area Type	..... A
Submitting Entity	..... Fairfax City
Total Project Cost	..... \$9,994,370
HB2 Request	..... \$9,994,370
Preliminary Engineering	..... Underway
Right of Way	..... Not Started
Construction	..... Not Started
Expenditures to Date	..... N/A
Key Fund Sources	..... N/A
Administered By	..... Locality
Eligible Funding Program(s)	..... Both



Performance	Project Benefit Score	HB2 COST	TOTAL COST
VTrans Need: NOVA Regional Network	4.7	Final Score 4.7	4.7
<i>Click for details</i>		Statewide Rank 93/287	84/287
		District Rank 13/45	12/45

Congestion Mitigation		Safety		Accessibility			Environment		Economic Development			Land Use									
45% of score		5% of score		15% of score			10% of score		5% of score			20% of score									
Increase in Daily Person Throughput	50%	Decrease in Person Hours Delay	50%	Increase in Access to Jobs	60%	Increase in Access to Jobs for Disadvantaged Populations	20%	Improved Access to Multimodal Choices (Users Benefit Value)	20%	Air Quality (Total Benefit Value)	50%	Acres of Natural/Cultural Resources Potentially Impacted	50%	Economic Development Support (\$q. ft.)	60%	Intermodal Access Improvements (Tons Benefit Value)	20%	Travel Time Reliability Improvement	20%	Transportation Efficient Land Use	100%
1.9	2.4	1.5	0.1	0.1	0.3	0	0	0.7	0.4	58.6	15.2	4									

Project Timeline

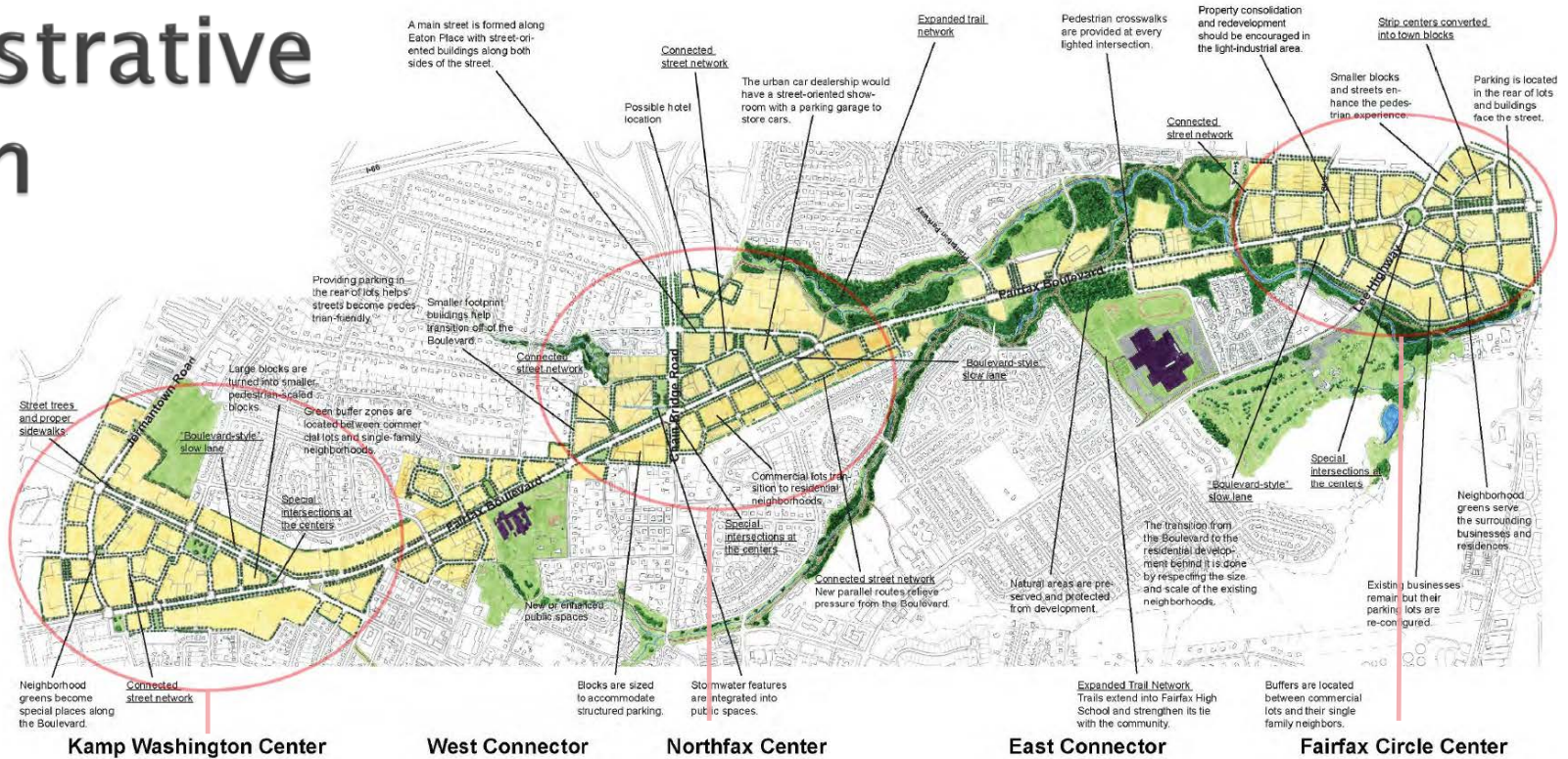
- ▶ November 1: Public Outreach Meeting/City Council Work Session
- ▶ November 8: City Council Work Session
- ▶ December 6: City Council Work Session
- ▶ December 13: Public Hearing/City Council Meeting

University Drive Extension

- ▶ Comprehensive Plan recommends a connected street network in the Northfax area
- ▶ The Fairfax Boulevard Master Plan Vision and Summary depicts an extension of University Drive between Fairfax Boulevard and Eaton Place
 - ▶ New vehicular access way between Fairfax Boulevard and Eaton Place
 - ▶ Connection to an internal east–west street through to Chain Bridge Road
- ▶ A connected street network supports additional capacity for vehicles while creating greater accessibility for other modes of transportation

Fairfax Boulevard Vision and Summary

Illustrative Plan



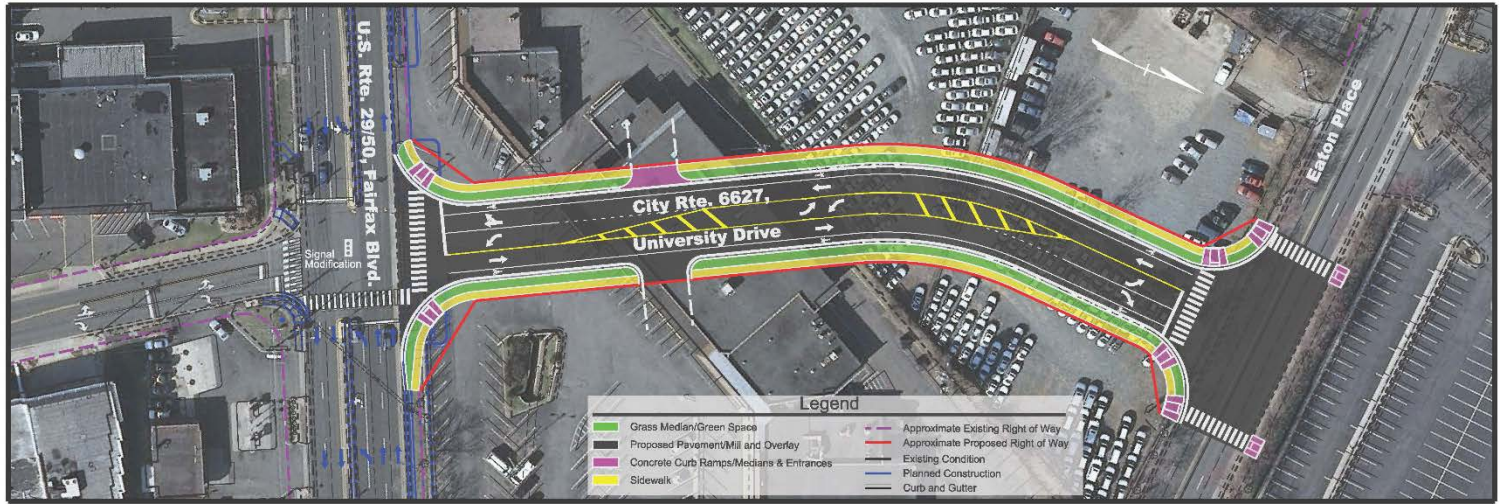
Northfax Center

- ▶ Connected street network
- ▶ Strip centers converted into town blocks

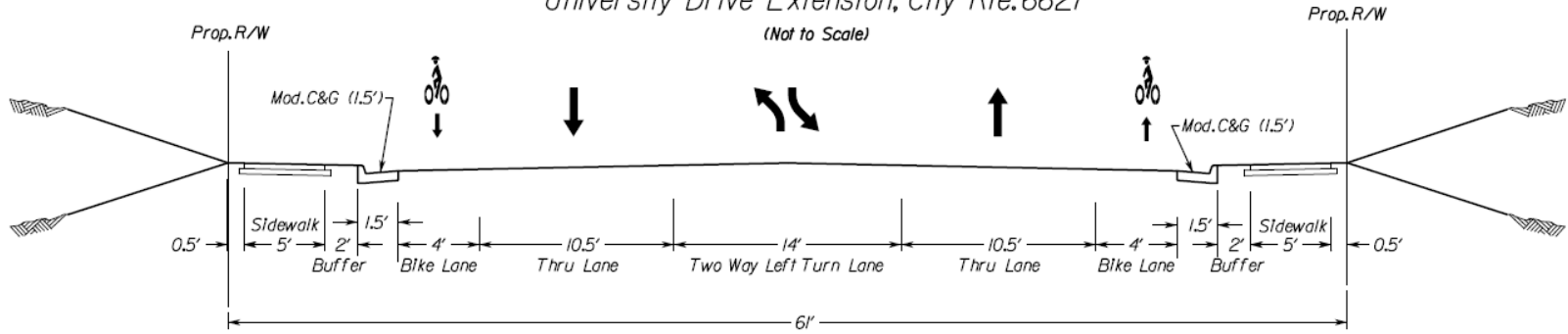




University Drive Extension



University Drive Extension, City Rte.6627



University Drive Extension

- ▶ Traffic study based on 2018 traffic volume forecasts
 - Baseline condition
 - Roadway extension condition
- ▶ Traffic diversion forecasts based on existing patterns
- ▶ Land use approvals will influence future traffic patterns and equilibrium

University Drive Extension

- ▶ Roadway achieves connectivity/ Comp Plan goals
- ▶ Level of Service remains unchanged at most intersections
- ▶ Project slightly improves delay at Chain Bridge Road/Fairfax Boulevard intersection
- ▶ Vehicle delay and queues expected to increase on Fairfax Blvd, Eaton Place, and University Drive Extension



University Drive, South of Fairfax Blvd.

Peak Hour Traffic Volume on University Drive, south of Fairfax Boulevard (vehicles per hour)

Direction	2018 Baseline Condition		2018 University Drive Extension Condition		Traffic Volume Increase	
	Weekday AM Peak	Weekday PM Peak	Weekday AM Peak	Weekday PM Peak	Weekday AM Peak	Weekday PM Peak
Northbound	369	392	433	456	+64	+63
Southbound	118	324	198	382	+80	+58
Total	487	716	631	838	+144	+121

- ▶ Daily volume increase: 1,000–1,500 vehicles per day
 - Approximately 1 vehicle per minute in each direction during peak hours
- ▶ Low existing daily volume and future volume remains well below maximum roadway capacity

Traffic Study

▶ University Drive impacts:

- University Drive NB: Decrease in left turns, increase in through movements, and little change to right turns.
- Overall an increase of 64 trips in the AM and 63 trips in the PM.

University Drive	Baseline AM/PM Peak Hour Traffic Volume	Future with Extension AM/PM Peak Hour Traffic Volume
Northbound Left Turn	110/161	55/81
Northbound Through	1/4	125/153
Northbound Right Turn	258/227	253/222

Traffic Study

- ▶ Vehicle queuing information provided in Appendix B
 - All of the turn movements would experience some increase
 - Only significant increase in future condition would be right turn movements in the PM peak.

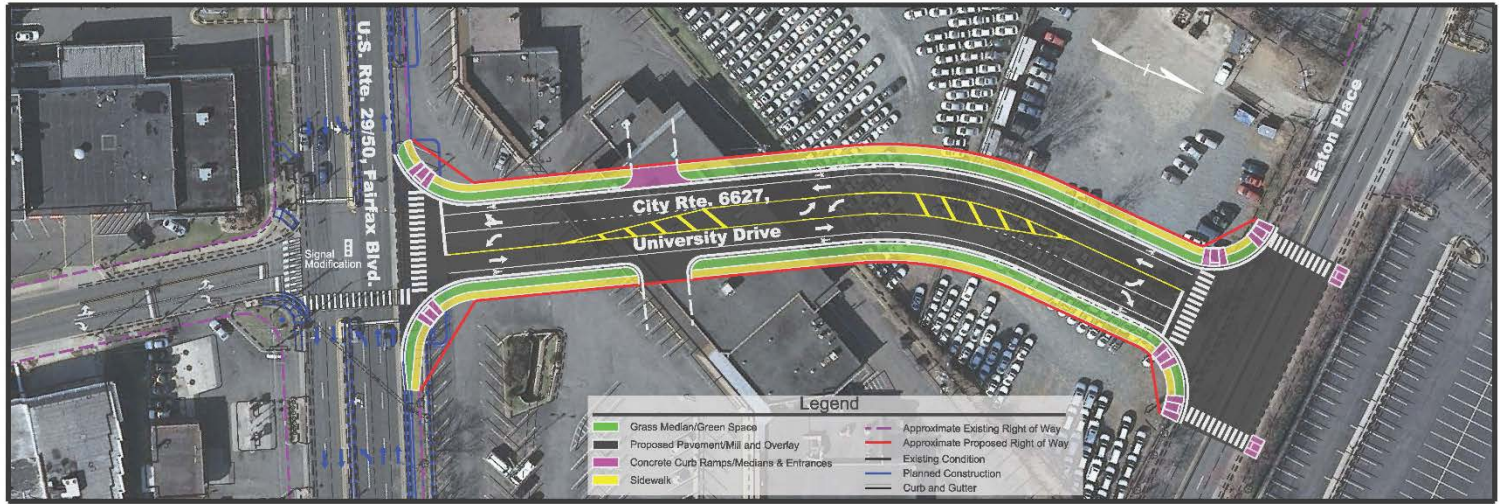
University Drive Northbound at Fairfax Blvd	Maximum Queue			
	2018 No-Build		2018 Build	
	AM Peak	PM Peak	AM Peak	PM Peak
	(ft.)	(ft.)	(ft.)	(ft.)
Left Turn Movement	471.0	644.0	554.0	710.0
Thru Movement	471.0	644.0	554.0	710.0
Right Turn Movement	227.0	109.0	380.0	706.0

University Drive Accident Data

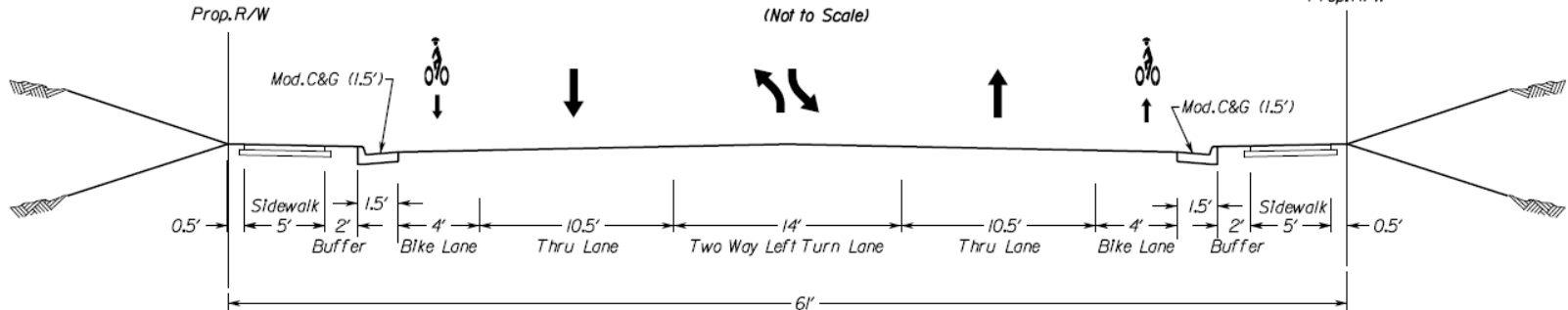
- ▶ 51 accidents and 1,962 traffic tickets in the past 10 years
- ▶ 23 accidents in the past 3 years

	Sager Avenue	Maple Street	University Drive
Vehicles Per Day	3,200	3,000	6,000
Total accidents (3 year period)	11	15	23
Parked Cars	2	7	9
Angle	3	4	4
Side swipe		1	
Pedestrian		1	
Rear end	3	1	5
Backing		1	
Fixed Object	2		5
Bicycle	1		

University Drive Extension



University Drive Extension, City Rte.6627



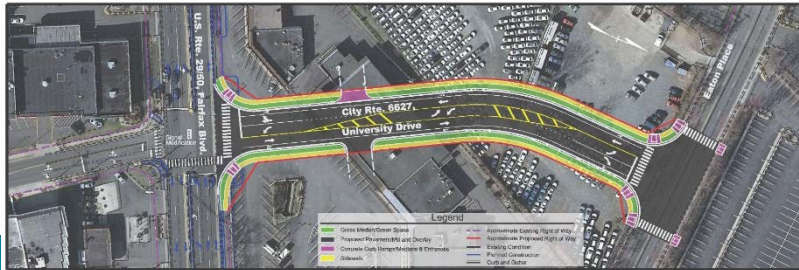
Total Width (R/W to R/W)
 (Design Waiver May be Req'd. for 10.5' Thru Lanes)

University Drive Extension Lane Configuration

- ▶ Dedicated right turn lane onto Fairfax Blvd
- ▶ Shared left turn/through lane to slow/meter the through movement
- ▶ Consider alternatives such as channelized left right turn lane onto Fairfax Blvd to restrict through movement into the neighborhood

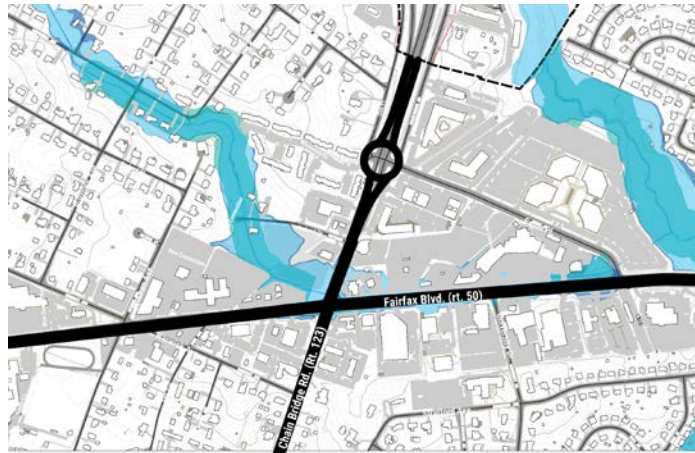
Street Design Alternatives

- ▶ This option has been introduced as a potential alternative concept that needs additional study.
- ▶ Design is at the 10% conceptual phase. No aspect of the design has been approved by the City Council.
- ▶ There would be a Design Public Hearing at the 60% phase to approve the design features.



Additional Network Improvements

- ▶ Chain Bridge Road/Eaton intersection Improvements
 - Project can be included in CIP for FY 18 or beyond
 - City has done preliminary evaluation of this intersection
 - VDOT constructing new connection from Willow Crescent Drive to CBR as part of the I-66 project



Additional Improvements

- ▶ Address safety issues on University Drive
 - City has implemented the following measures:
 - Advance warning signs at both ends of crosswalk
 - Mid-crosswalk signs on University Drive
 - New stop sign on southbound University Drive at Stratford
 - Staff proposes the following additional measures
 - Construction of missing sidewalk link on west side of street
 - Construction of bulb outs at University/Ford intersection



Project Overview – Funding

- ▶ Federal Smart Scale Funds (no local match)
- ▶ Just under \$10M awarded to the City

Engineering (PE):	\$300,000
Right of Way and Utilities (RW):	\$7,500,000
<u>Construction (CN):</u>	<u>\$2,200,000</u>
Project Estimate:	\$10,000,000

- ▶ This estimate includes contingency for both right of way and construction.

Public Input Questions – Funding

- ▶ If City Council cancels the project in the future, the City is required to repay VDOT for funded that have been spent.

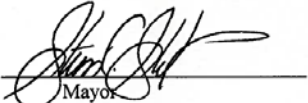
BE IT FURTHER RESOLVED THAT The City of Fairfax hereby agrees to enter into a project administration agreement with VDOT and provide the necessary oversight to ensure the project is developed in accordance with all applicable federal, state and local requirements for design, right-of-way acquisition, and construction of the project.

BE IT FURTHER RESOLVED THAT The City of Fairfax will be responsible for maintenance and operating costs of the facility as constructed unless other arrangements have been made with VDOT.

BE IT FURTHER RESOLVED THAT If the City of Fairfax subsequently elects to cancel the project, the City of Fairfax hereby agrees to reimburse VDOT for the total amount of costs expended by VDOT through the date VDOT is notified of such cancellation. The City of Fairfax also agrees to repay any funds previously reimbursed that are later deemed ineligible by the Federal Highway Administration or VDOT.

BE IT FURTHER RESOLVED THAT The City Council of the City of Fairfax hereby grants authority for the City Manager to apply for funds and execute project administration agreements, as well as other documents necessary for approved projects.

Adopted this 8th day of November, 2016.



Mayor

Tonight's Action

- 1) Public Hearing and Council Action (Resolution) on whether to proceed with or cancel project

If Resolution to proceed is approved:

- 2) Council would be asked to approve award of design contract to initiate further engineering
- 3) Public Hearing at 60% design: Council would be requested to approve design features and authorize completion of project including ROW acquisition, utility relocation and construction
- 4) If at that that point Council cancels project, City would be required to reimburse VDOT for expended federal funds

Questions / Comments?