



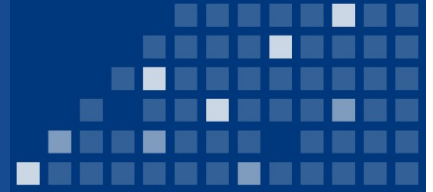
Economic Benefits of Smart Growth, TOD and Walkable Communities

Arlington's Experience



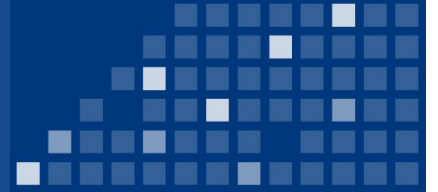
ARLINGTON
VIRGINIA

The Community Development – Transportation Question



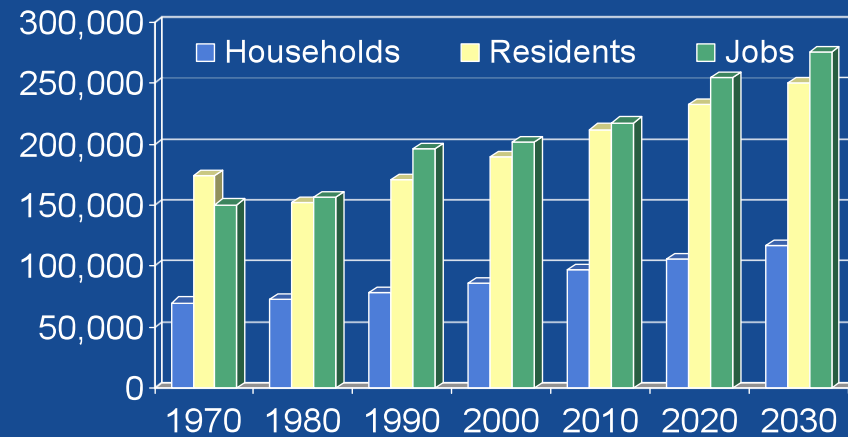
- Can communities support increased economic activity, population/jobs growth while reducing reliance on auto travel and associated VMT growth?
 - In Arlington, the answer is yes, but it takes commitment and continued innovation
 - Transportation infrastructure investments and services must be closely aligned with development
- Are there other ancillary community benefits?
 - The reduced reliance on auto travel yields many other community benefits: more efficient use of land, reduced environmental impacts, lower energy use, a lower carbon footprint, improved public health

Topics to be covered



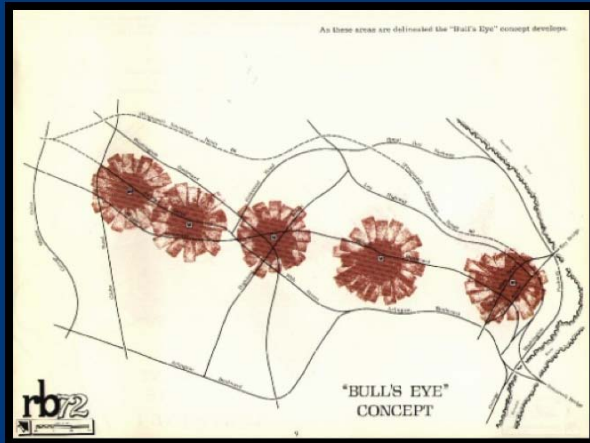
- Development strategies and results
- Transportation strategies
- Transportation system features, use and performance
- Economic & other community performance measures
- Importance of ongoing investments in transportation infrastructure

Context



- Arlington, Virginia – 25.8 sq. miles in area including federal lands
- At the confluence of major regional transportation facilities
- Home to major federal facilities: Pentagon, Fort Meyer, Arlington Hall
- Located in the core of a rapidly growing Washington region (over 5 million residents, 3 million jobs and 1,200 sq. miles of urbanized area)
- Continuing to grow – with over 252,000 residents and 281,000 jobs projected by 2040

Development Concepts



- Concentrate high and mid-density redevelopment around transit stations (highly targeted) and taper down to existing neighborhoods
- Encourage a mix of uses and services in station areas
- Create high quality pedestrian environments and enhanced open space
- Preserve and reinvest in established residential neighborhoods

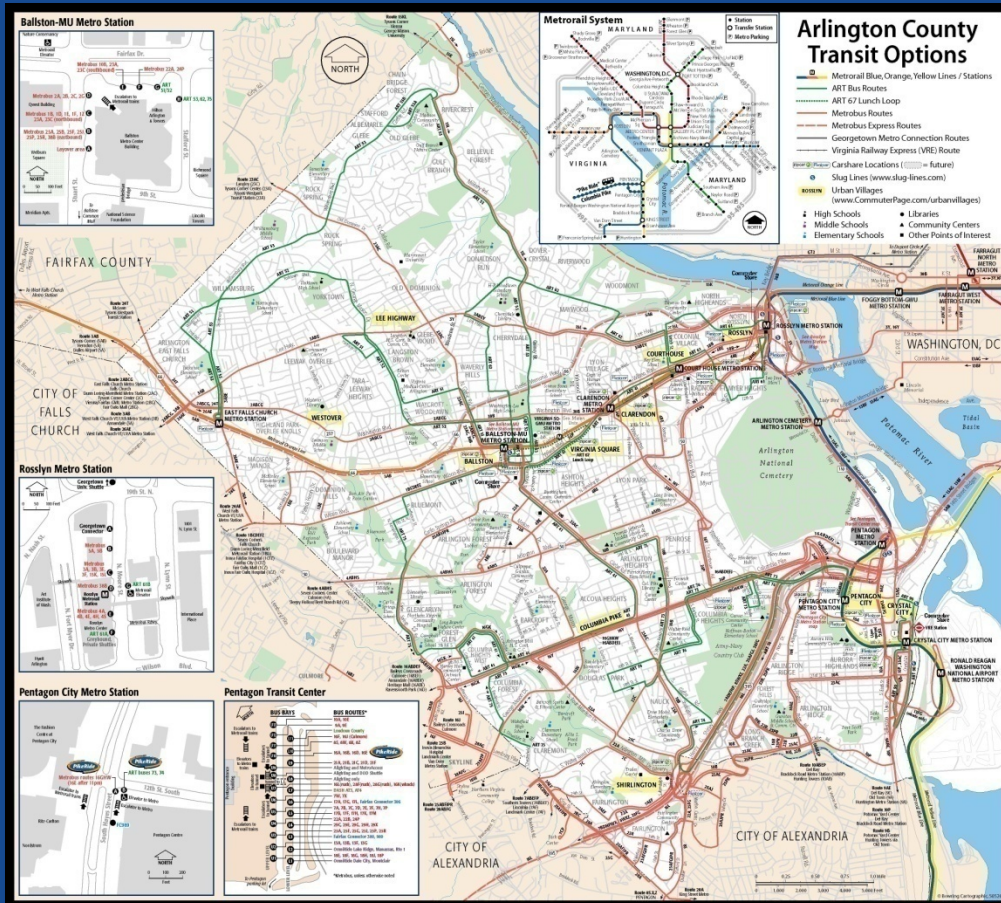
Development Characteristics



- 43.6 million sq. ft. of office space*, 41 million sq. ft. in Metro station areas* with over 4 million sq. ft. of supporting retail & services
- 107,400 housing units (over 42,700 in Metro station areas)
- Over 1,700 housing units, 1.3 million sq. ft of office, 138,000 sq. ft of retail under construction in July 2011

* Includes the Pentagon @ 5 million sq. Ft.

Transportation Facilities & Services – Expanding Travel Options



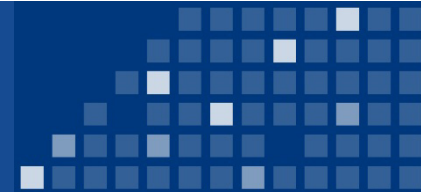
- 1,094 lane-miles of streets and 19 miles of HOV lanes
- Over 5,000 on-street metered parking spaces
- 12 miles of Metrorail lines and 11 stations
- VRE commuter rail
- Extensive regional (Metrobus) and local bus (ART) service
- And expanding car-share program with over 80 cars
- A growing bikesharing program with 18 stations w/ 54 additional stations funded
- 50 miles of multi-use trails and 31 miles of on-street bike lanes and sharrows
- Extensive and growing network of sidewalks

Transportation System Users

- **Residents**
 - Over 213,300 in 2010
 - 134,000 workers with 70% working outside the County
 - Lowest resident drive-alone commute rate in all VA regions
 - 46% residents use non-SOV as primary commute mode
- **Employees commuting to Arlington-based jobs**
 - Over 209,200 jobs in 2010
 - 200,000+ jobs clustered around transit in Arlington's high-density corridors.
 - 160,000+ workers commute into Arlington daily
- **Visitors**
 - 4 million plus visitors to Arlington National Cemetery
 - Over 10,000 hotel rooms used as a base for visitors from outside the region
 - Many daily visitors from adjacent jurisdictions
- **Through travelers & commuters**



Transportation System Use



79% Arlington workers live outside of Arlington

Greater than 4 in 10 use transit, bike, or walk to work

Transportation System Use

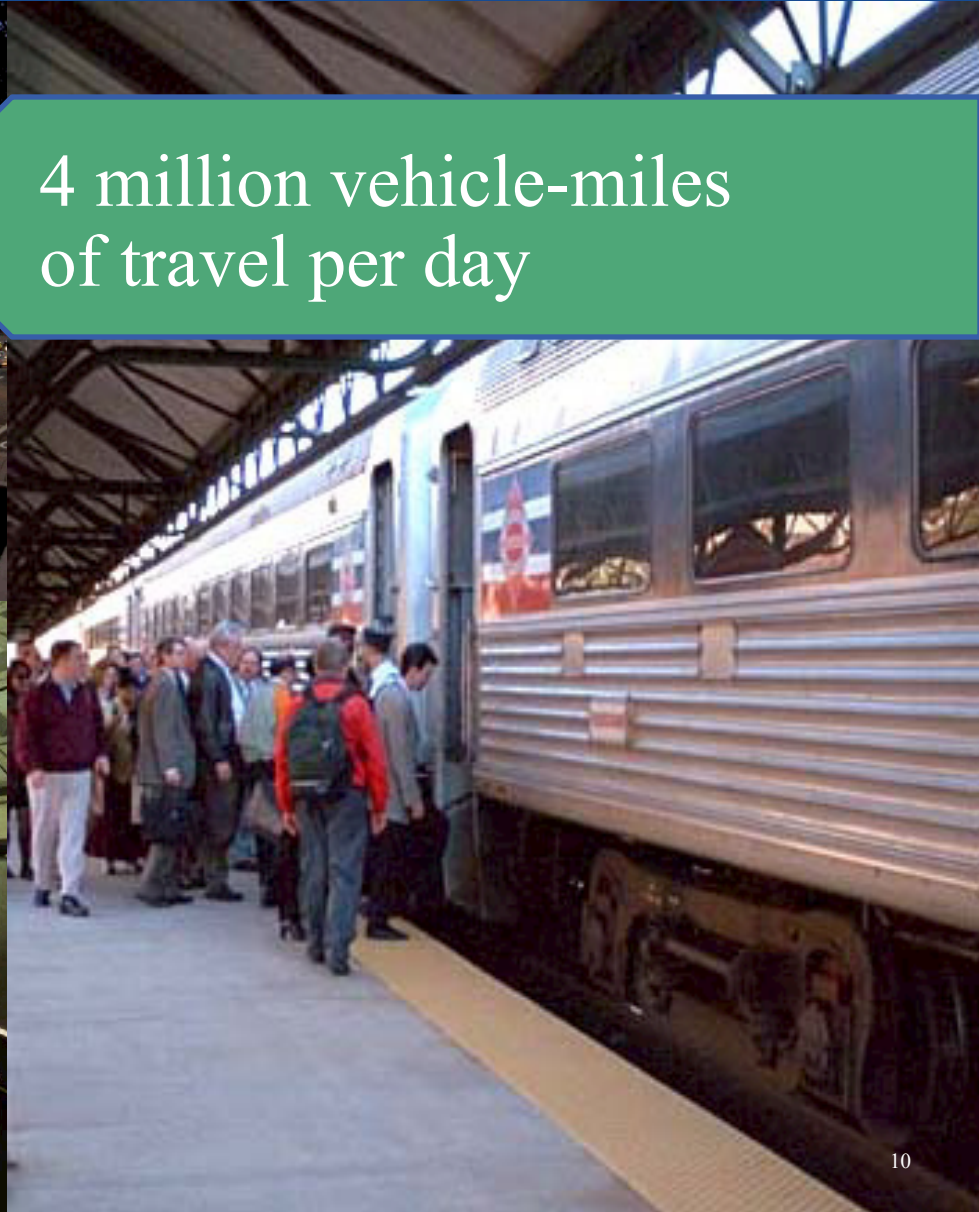


4 million vehicle-miles of travel per day

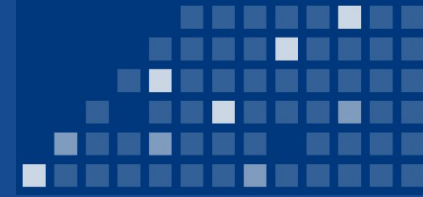


222,000 Metrorail boardings/alightings

3,000 commuter rail boardings/alightings



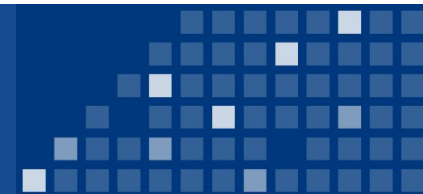
Transportation System Use



64,000 Daily Trips

10.23.2003

Transportation System Use



Over 200,000 Transit-Related Walking Trips

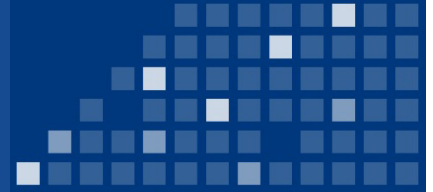


Transportation System Use

5,000+ Carsharing Members

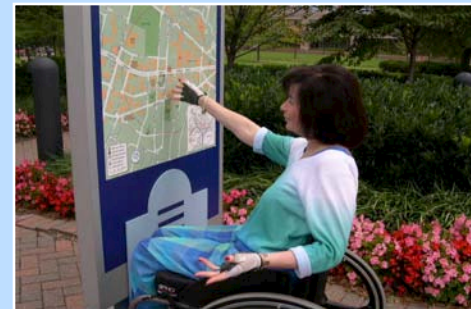


Transportation Strategies to Influence Travel Patterns



- Concentrate mixed use development around transit stations
- Create environments rich in travel choices
- Time transportation improvements including expansion of transit service to development
- Provide comprehensive travel information and encouragement
- Expand development-specific TDM requirements
- Increase focus on parking management (supply and pricing)

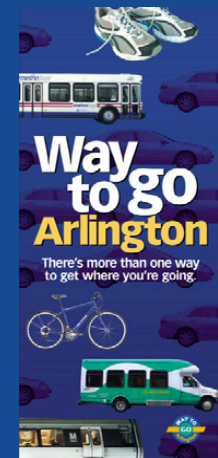
Creating Environments Rich In Travel Choices



- Site Plan Development
- County Infrastructure Investments
- Expanded Transit Service
- Support for Emerging Travel Options

Providing Comprehensive Travel Information and Encouragement

- Sales – Arlington Transportation Partners
- Retail Commuter Information and Support – three commuter stores, one mobile store
- Marketing
- Operations & Logistics
- Special Initiatives – BikeArlington, WalkArlington, Carsharing, Bikesharing
- Transportation research



Requiring Development-Specific Transportation Demand Management

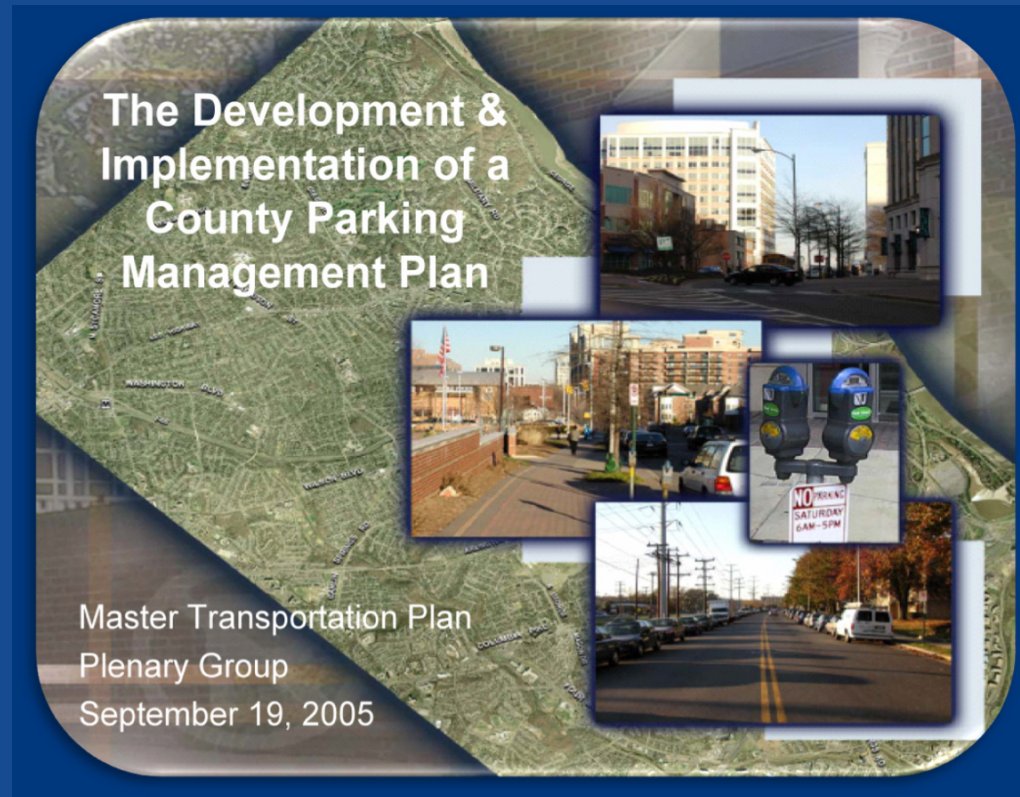
- Participation in County-wide Commuter Services programs
- Transit subsidies
- On-site improvements including sidewalk/streetscape and bicycle facilities
- On-site travel information
- Parking management
- Transportation performance surveys



EPA – Potomac Yard (completed 2006)
ATP participant
Employee transit subsidies
Dedicated transitway and station
Sidewalk and bicycle improvements
Market-rate parking charges
On-site transportation coordinator

Managing Parking

- Management of the on-street supply
 - Residential permit parking
 - On-street metered parking
- Influence off-street private parking
 - Parking information
 - Shared/public parking
 - Pricing
 - Amount provided



Traffic Trends - Arterial Streets



Street Segment	Street Type	1996	2001	2006	2009	% Change 1996-2009
Lee Hwy - Rosslyn	EW 6-lane arterial	37,770	33,632	32,428	34,000	-10.0%
Wash. Blvd – VA Sq.	EW 4-lane arterial	20,469	19,478	18,069	Not Available	-11.8%
Clarendon Blvd.	EW 2-lane 1-way arterial	13,980	14,199	14,539	13,080	-6.4%
Wilson Blvd. - Clarendon	EW 2-lane 1-way arterial	16,368	16,265	13,797	12,194	-25.5%
Arlington Blvd.	EW 6-lane arterial	55,865	63,272	60,223	62,000	11.0%
Glebe Road - Ballston	NS 6-lane arterial	35,230	39,409	35,900	33,000	-6.3%
G. Mason Drive	NS 4-lane arterial	20,002	22,578	23,386	Not Available	16.9%

* No discernable pattern of growth on the local road system over the 13 year period

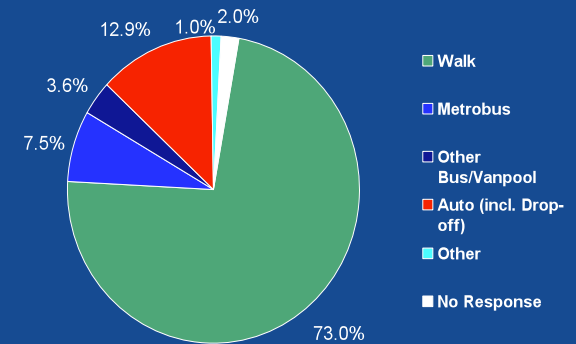
Transit Ridership Trends – Arlington-Related Trips

	FY1996 Actual	FY 2001 Actual	FY 2006 Actual	FY 2009 Actual	% Growth
Metro rail Arlington Stations	45,335,000	56,278,412	60,864,000	61,935,000	36.6%
Metrobus Arlington Routes	12,049,000	11,614,599	13,221,100	16,135,000	33.9%
VRE – Crystal City	567,000	586,069	992,600	1,027,000	81.1%
Arlington Transit (ART)	105,000	147,813	926,600	1,428,800	1,361%
Total Annual Ridership	58,076,000	68,626,893	76,004,300	80,525,800	38.6%

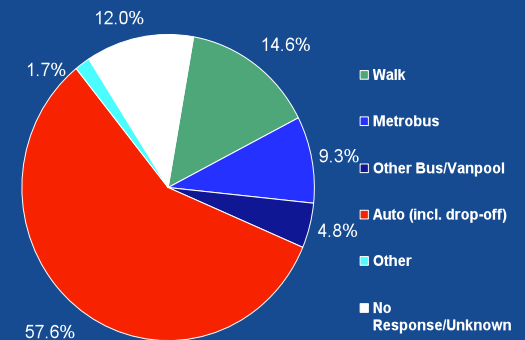
* 2.6% average annual growth across all transit services over the 13 year period



5 R-B Corridor Stations – 48,100
Weekday Boardings (June 2009)



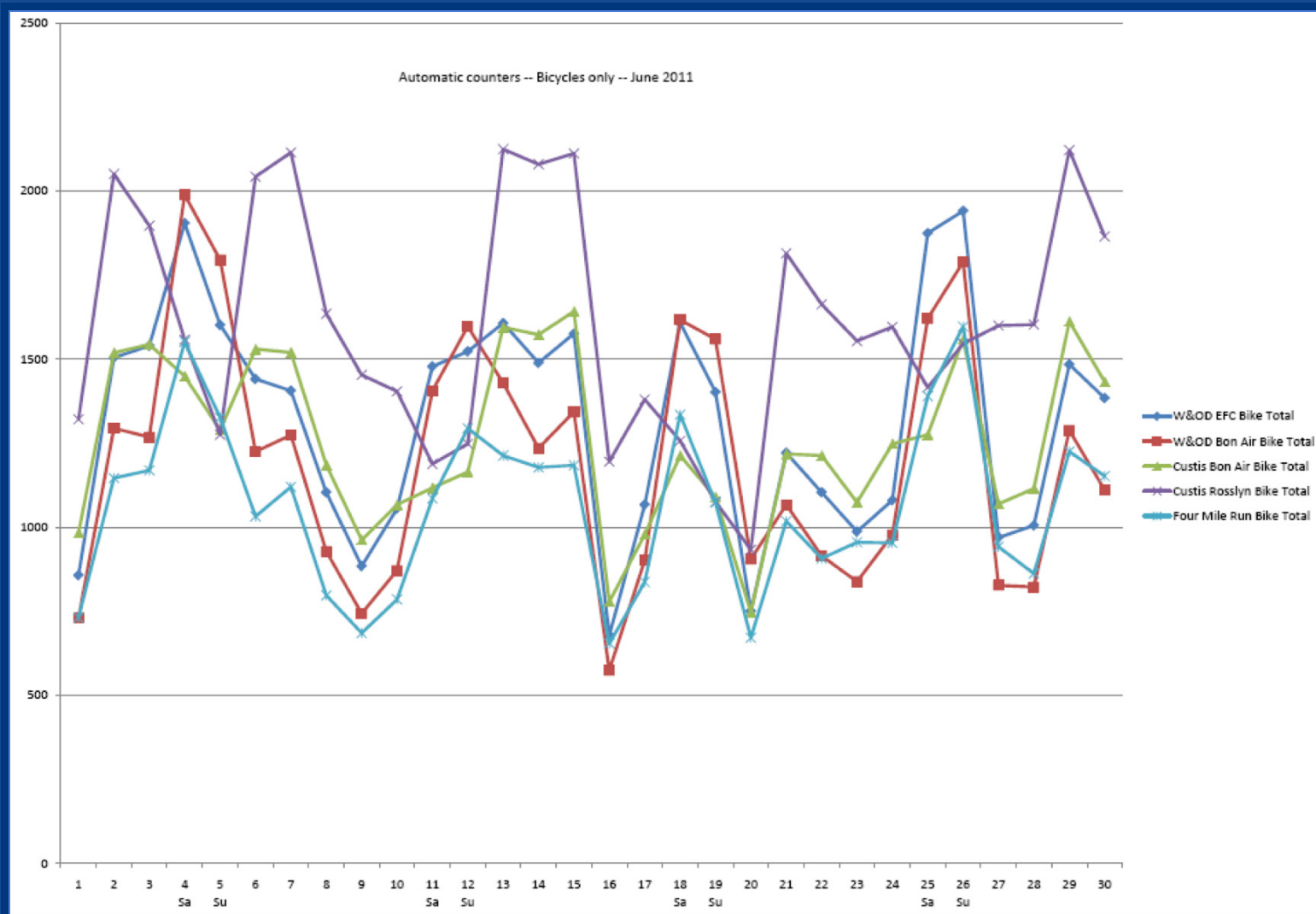
4 Suburban Stations – 36,000
Weekday Boardings (June 2009)



Growth in ART Local Transit Ridership



Bicycle Usage on Trails - 2011



11% increase in selected trail use between May 2010 and May 2011

Office Worker Travel Patterns by Station Area

Ballston/
Courthouse
n = 585

Crystal City
n = 493

Rosslyn
n = 248

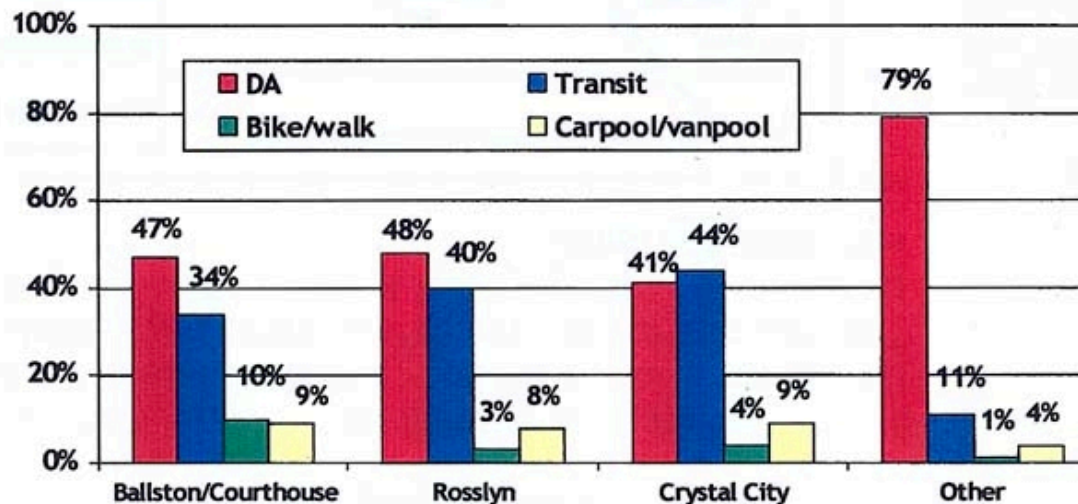
Other
n = 107

Arlington County
Commercial
Building Research
June 2008

Primary Mode by Area

The DA rate was similar for Ballston, Rosslyn, and Crystal City, but **dramatically** higher (79%) for areas outside Metro corridors

Crystal City had the highest transit share, but Ballston had much higher bike/walk use. CP/VP use was similar in the three Metro corridors and lower in "Other" areas.



Q 3 How many weekdays would you typically use each of the following types of transportation to get to [street address]?

LDA

92



Daily Household Travel in the Greater Metropolitan Washington Region

Jurisdiction in the Greater Metropolitan Washington Region	Average Weekday Trips per Household	% of of Daily Household Trips by Mode of Travel					Average Weekday Auto Driver Trips*	Average Weekday Auto Driver VMT	% of Regional HH
		Auto Driver	Auto Passenger	Transit	Walk/Bike	School Bus/Other			
Core									
District of Columbia	7.0	37.0	14.4	18.3	27.5	2.5	2.6	12.8	13.60%
Arlington	7.8	52.9	16.5	10.7	16.6	3.3	4.1	21.6	5.26%
- Rosslyn-Ballston Corridor	6.0	45.0	13.4	19.0	19.7	2.9	2.7	17.4	
- Jefferson Davis Corridor	5.6	35.2	11.2	20.6	29.2	3.8	2.0	10.9	
- Columbia Pike	6.5	58.2	16.0	11.3	12.1	2.4	3.9	21.2	
- Shirlington	6.2	64.5	8.2	12.3	13.9	1.1	4.0	19.3	
- Arlington outside activity centers	9.6	56.0	18.5	6.8	15.1	3.6	5.4	26.1	
Alexandria	7.1	56.1	16.9	9.2	15.9	1.9	4.0	22.1	3.60%
Inner Suburbs									
Fairfax County	9.1	61.1	25.0	4.0	5.4	4.4	5.6	35.2	19.27%
Montgomery County	9.4	57.4	23.0	5.7	9.4	4.5	5.4	33.3	18.89%
Prince Georges County	8.3	58.1	25.2	6.5	5.8	4.5	4.8	36.3	16.80%
Outer Suburbs									
Loudoun County	8.8	63.3	26.4	1.3	3.9	5.2	5.6	50.1	5.42%
Prince William County	9.9	59.7	28.9	2.2	4.1	5.1	5.9	51.0	8.13%
Frederick County	9.8	64.7	25.0	1.3	4.8	4.2	6.3	57.4	2.67%
Charles County	9.4	64.5	24.9	1.8	2.5	6.2	6.1	65.6	4.50%
Regional Average VMT per HH									34.19
Arlington Ave HH VMT/Region Ave HH VMT									63.18%
Arlington Metro Corridors HH VMT/Regional Average HH VMT									45.70%

updated - June 1, 2011

Uses expanded Arlington dataset with new regional weighting factors

Results updated only for Arlington

The Transportation – Economic Connection

- the job access - workforce connection
- the visitor access - spending connection
- the accessibility - income connection
- congestion and reliability cost effects
- business cluster and agglomeration effects



Arlington's Competitive Advantage

“It can move more people without more traffic while waiting maintaining an attractive environment for workers, visitors and residents”

The New York Times

Tuesday, October 6, 2009

An Oasis of Stability Amid a Downturn

By Eugene Meyer

ARLINGTON, Va. — While many metropolitan markets around the country are enduring steep increases in vacancies in their office and retail sectors, the Rosslyn-Ballston corridor in the Northern Virginia suburbs of Washington is an oasis of stability — and even of prosperity.

Served by five Metro subway stops within four miles, the corridor continues to attract new tenants, buyers and developers in the face of the deepest recession since the Great Depression. “It’s really an anomaly, considering the tough economy we’ve been in since December 2007,” said Sigrid G. Zialcita, managing research director for Cushman & Wakefield, a global real estate services firm.

The firm’s most recent figures for the corridor show vacancy rates of 8.6

future,” Cushman & Wakefield said at the end of June. “It has remained resilient during the worst recession in decades, and should continue to do so, as demand will remain healthy and new supply will be low for the next few years.”

The positive economic vibe was evident this summer with the announcement that the Defense Advanced Research Projects Agency would move its 800 employees from older leased space nearby into a new 355,530-square-foot building designed to meet Defense Department antiterrorism standards.

The new Darpa building, slated to be completed in 2012, is part of a 1.2-million-square-foot mixed-use project called Founders Square. The developer is the Shooshan Company, which was already the dominant builder in Ballston. It previously built the Liberty Center a

Barbara A. Favola, chairwoman of the county’s governing board.

Rosslyn was little more than a collection of pawn shops and auto repair shops until the 1960s, when new office buildings rose to accommodate government agencies forced to relocate after the razing of temporary buildings erected on the Mall during World War I. Those early Rosslyn high-rises are now gradually being replaced by office towers.

“The Rosslyn-Ballston corridor, with its immediate access to downtown Washington, D.C., is an ideal submarket for transit-oriented, mixed-use development,” said Brian P. Coulter, chief development officer of the JBG Companies, which has been a major developer in Rosslyn and is also active in Ballston.



87%

of **business leaders** surveyed said that Arlington is a good or very good place to locate a business

2007 Arlington Business Leaders Survey

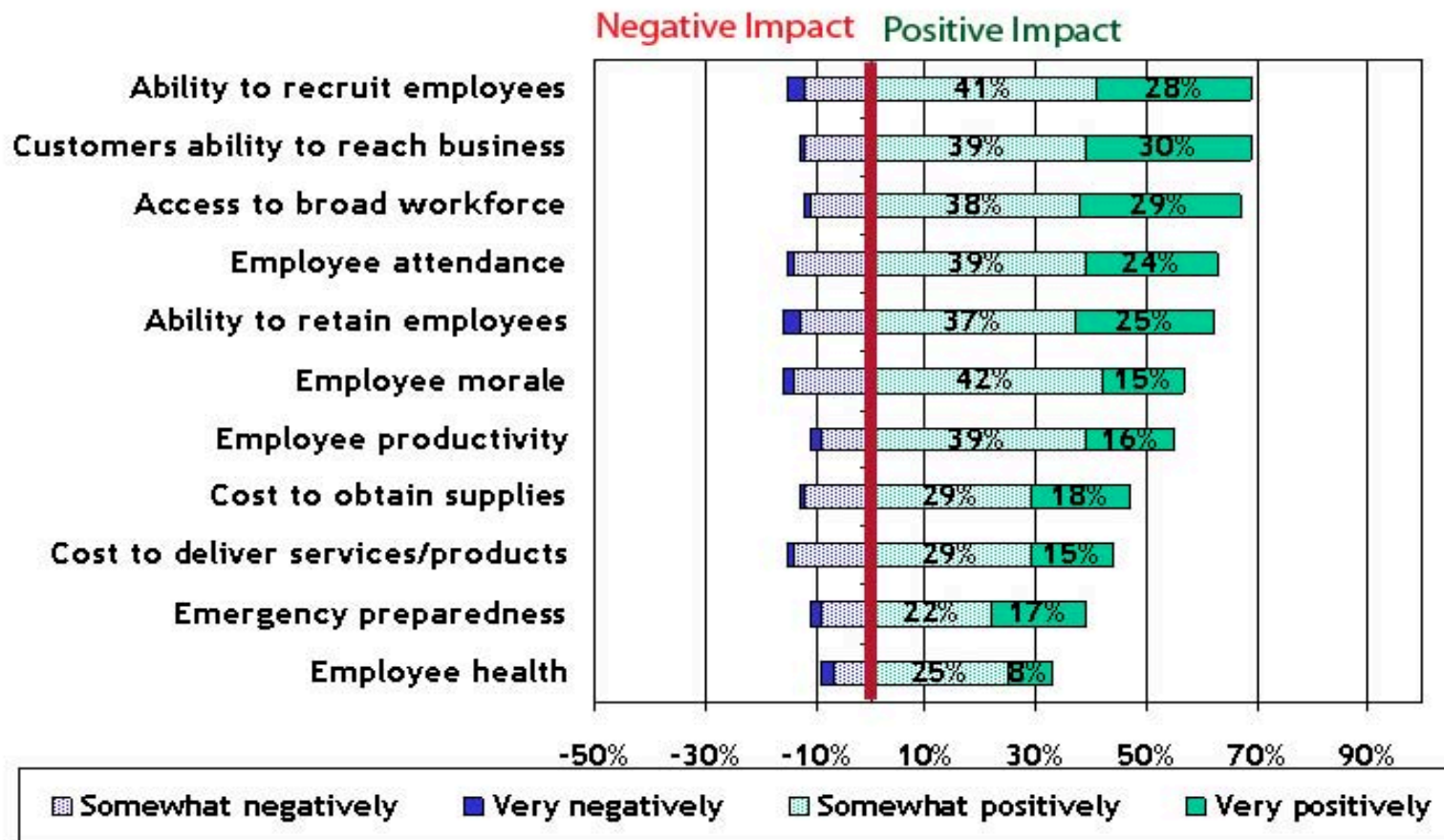
40%

of business leaders surveyed listed **transportation access** as the #1 reason Arlington is a good place to locate a business

2007 Arlington Business Leaders Survey

Arlington County's Business Leaders Believe the County's Transportation System Has a Positive Impact on the Ability to Conduct Business.

Less Than 16% Think it Has a Negative Effect



Source: 2007 Arlington County Survey of Business Leaders by SIR/LDA
 "No Impact" responses not shown in graph.

Private Office Market Comparisons

Submarket	Office Inventory	Total Vacancy	Average Asking Rate
Downtown Philadelphia	43,694,641	14.6%	\$25.58
Chicago Central Loop	43,608,407	15.8%	\$31.11
Houston CBD	40,888,017	10.2%	\$30.61
Washington CBD	38,631,963	10.5%	\$53.20
Boston CBD	36,899,952	12.6%	\$42.22
Arlington County	36,468,163	7.0%	\$38.92
Los Angeles Downtown	31,125,339	17.7%	\$33.60
Dallas CBD	30,180,216	26.8%	\$19.30
Denver Downtown	25,545,755	14.3%	\$25.52
Minneapolis CBD	23,321,130	19.0%	\$12.30
Seattle CBD	20,313,798	17.7%	\$29.40
Atlanta Downtown	18,071,365	20.9%	\$18.28

Source: CB Richard Ellis, 4th Quarter 2010

Regional Office Availability

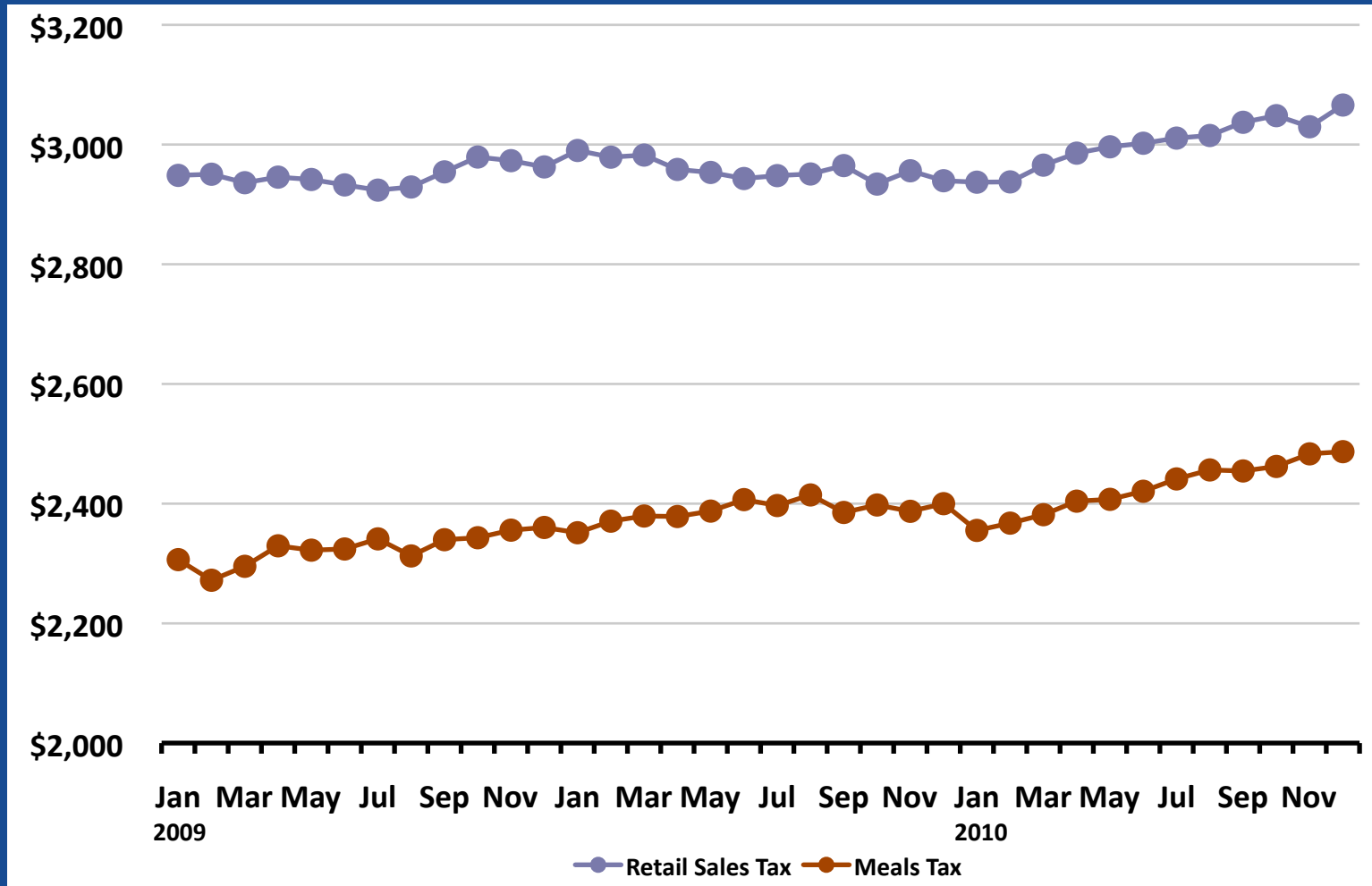


Submarket	Rentable Building Area	Total Available	Total Sublet Available	Total Vacant	Direct Vacant	Average Rate
Washington East End	46,514,181	5,921,100	840,130	9.7%	8.3%	\$52.77
Washington CBD	42,974,044	6,221,927	861,186	9.8%	8.5%	\$48.52
Tysons Corner	28,279,490	6,152,326	902,156	15.9%	14.5%	\$29.76
RB Corridor	23,429,308	3,372,808	734,654	11.1%	9.6%	\$39.18
Reston	19,254,402	4,974,875	654,735	19.3%	17.4%	\$26.76
Crystal City/Pentagon City	13,299,713	2,586,822	58,694	9.0%	8.7%	\$39.50
Herndon	12,366,569	2,290,648	2,139,110	16.6%	15.7%	\$28.39
Bethesda/Chevy Chase	11,962,618	1,473,417	1,217,019	9.7%	8.0%	\$34.21
NoMa	9,668,580	1,530,721	1,510,120	18.0%	17.8%	\$47.28
Capitol Hill	5,985,568	761,133	30,894	8.0%	7.7%	\$51.71
Capitol Riverfront	4,638,092	730,752	13,713	11.7%	11.6%	\$46.40

Source: CoStar 3/4/11

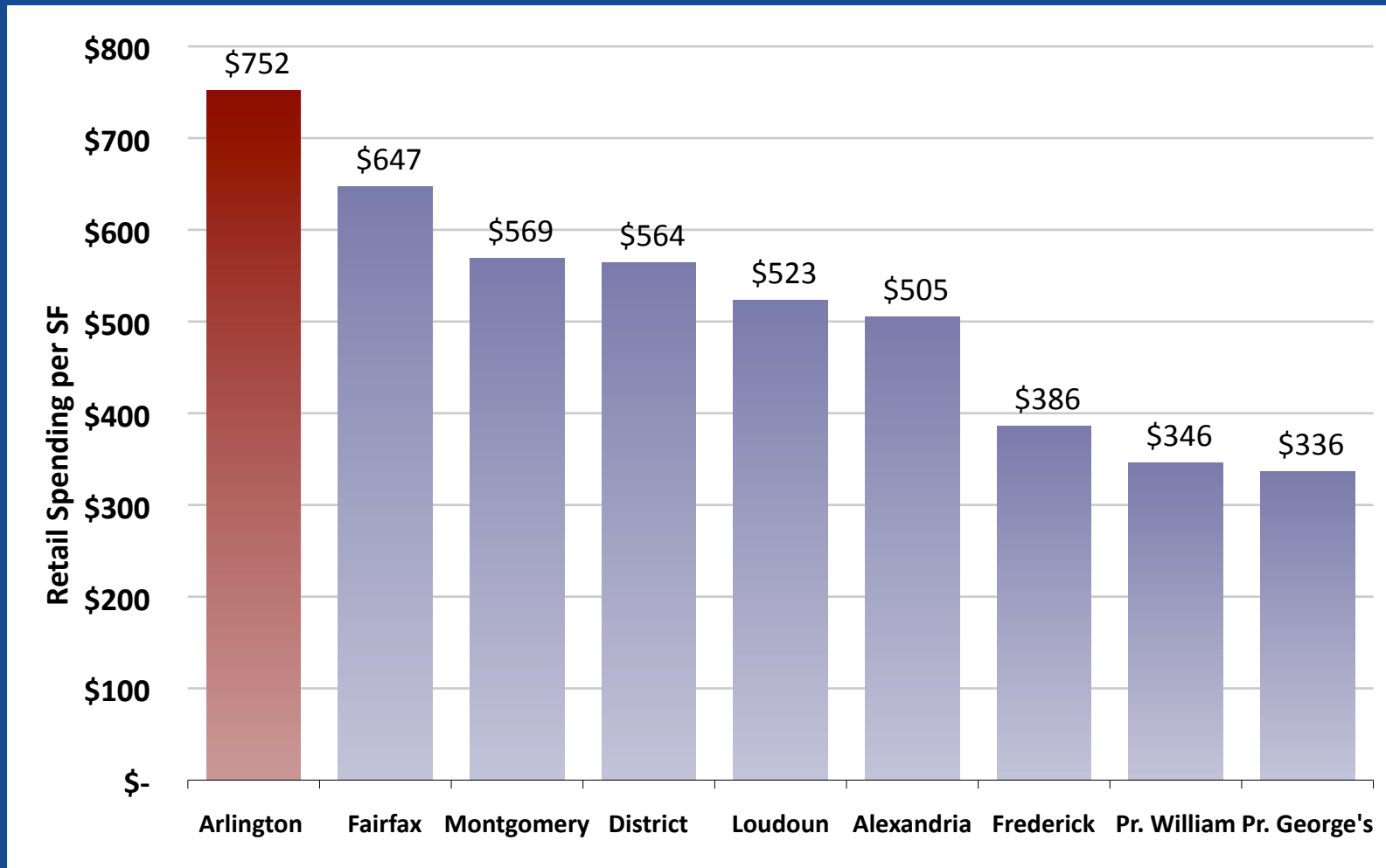
Consumer Revenues

24-month rolling average (000\$)



Source: Arlington County Department of Management and Finance

Total Retail Sales per SF



Source: TrendLines 2011 - ERSI; Delta Associates

Real Estate Values in Transit Districts

Arlington County Real Estate Assessed Values by Sub-area (2011)

	Comm. Value*	%	Resid. Value **	%	Total Value	%
R-B Corridor	\$ 8,770,173,300	51%	\$ 9,218,388,700	23%	\$ 17,988,562,000	31%
J-D Corridor	\$ 6,490,559,100	38%	\$ 3,315,434,200	8%	\$ 9,805,993,300	17%
Columbia Pike	\$ 342,617,000	2%	\$ 3,604,671,400	9%	\$ 3,947,288,400	7%
Shirlington	\$ 312,391,700	2%	\$ 816,882,600	2%	\$ 1,129,274,300	2%
Other ***	\$ 1,128,291,900	7%	\$ 23,399,656,100	58%	\$ 24,527,948,000	43%
Total	\$ 17,044,033,000	100%	\$ 40,355,033,000	100%	\$ 57,399,066,000	100%

Arlington County Real Estate Taxes Levied by Sub-area (2011)

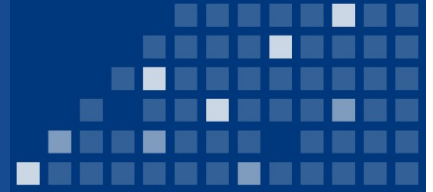
	Comm. Value*	%	Resid. Value **	%	Total Value	%
R-B Corridor	\$ 82,878,138	51%	\$ 87,113,773	23%	\$ 169,991,911	31%
J-D Corridor	\$ 61,335,783	38%	\$ 31,330,853	8%	\$ 92,666,637	17%
Columbia Pike	\$ 3,237,731	2%	\$ 34,064,145	9%	\$ 37,301,875	7%
Shirlington	\$ 2,952,102	2%	\$ 7,719,541	2%	\$ 10,671,642	2%
Other ***	\$ 10,662,358	7%	\$ 221,126,750	58%	\$ 231,789,109	43%
Total	\$ 161,066,112	100%	\$ 381,355,062	100%	\$ 542,421,174	100%

* Commercial use = office, retail, hotel

** Residential includes apartments

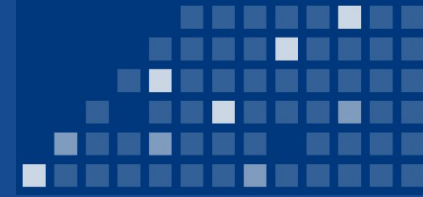
*** All other parcels outside listed areas.

Other Community Economic Indicators



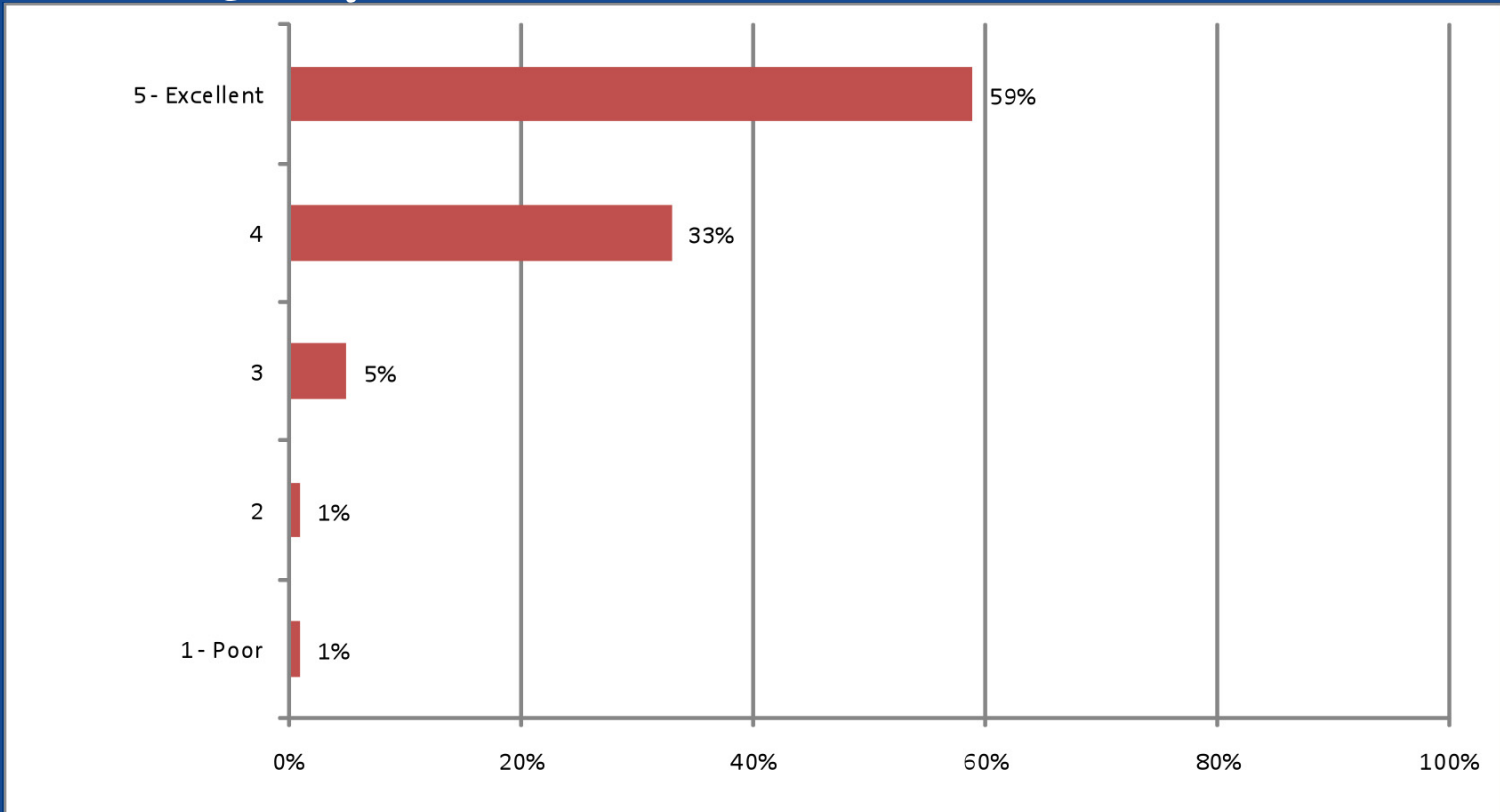
- The unemployment rate for Arlington residents stood at 3.4% for November 2011, 5.1% below the national average.
- Average Arlington worker incomes of \$102,373 ranked 2nd nationwide to Manhattan in 2009
- Median resident household income @ \$94,986 in 2009 rank 5th nationwide according to US Census ACS survey
 - Arlington County's 2011 estimates show an increase to \$103,900 for median HH income and \$74,700 for per capita income.
- 69% of Arlington residents over 25 have at least an undergraduate degree making Arlington the most highly educated large community in the Country
 - Educational attainment has a strong correlation with economic health and wealth creation.
- The foreclosure crisis that gripped the nation largely bypassed Arlington
 - Between 2005 and 2008, a total of 199 properties went into foreclosure on a base of over 100,000 owner occupied and rental units.

2009 Arlington Residents Survey



9 in 10 Residents Give Arlington County High Ratings for Overall Quality of Life

Long + Mini
Survey
n = 4,325

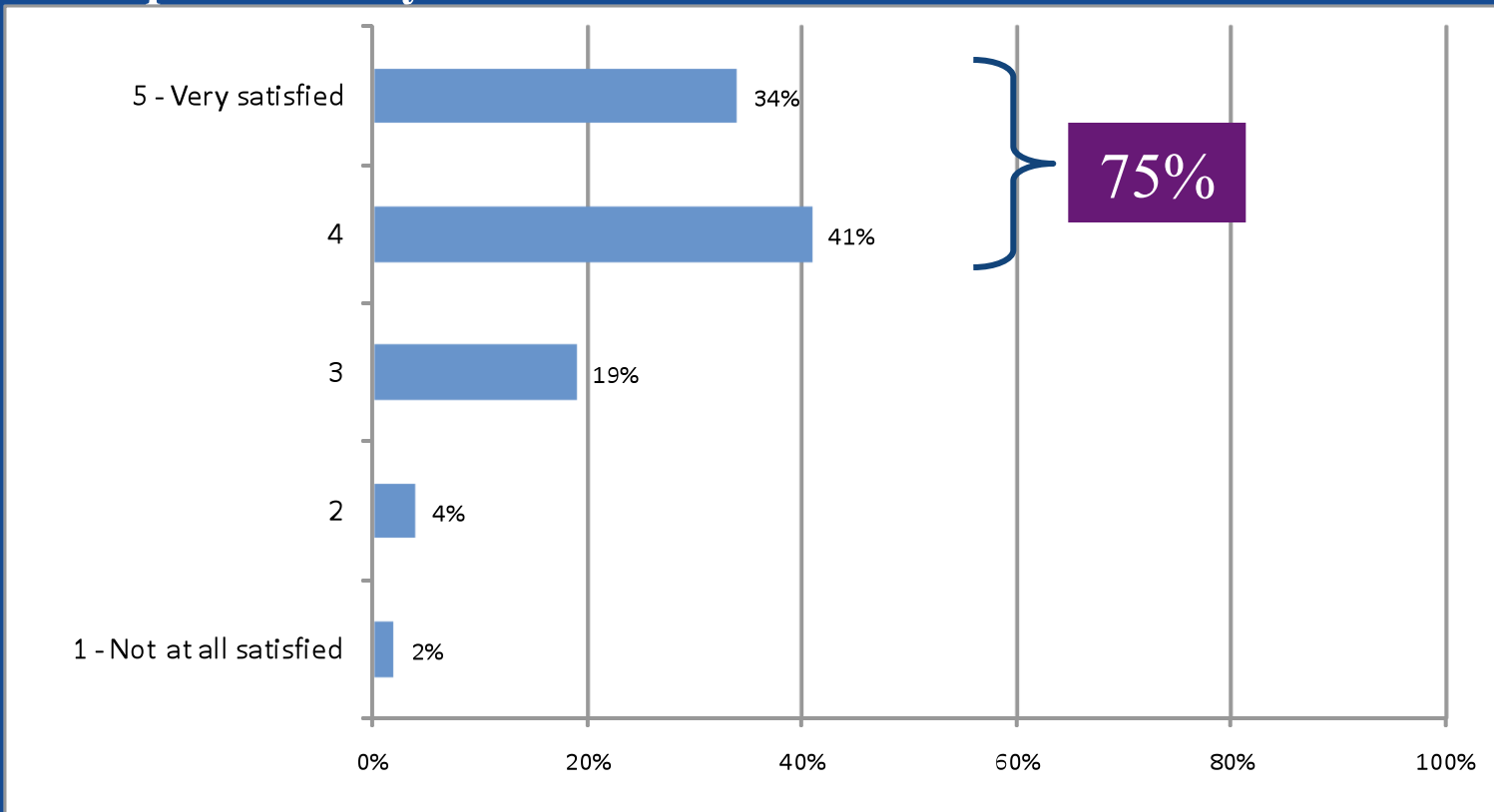


Q10 Overall, how would you rate the quality of life in Arlington County?

2009 Arlington Residents Survey – cont'd

Three-Quarters of Residents are Satisfied with Arlington's Transportation System

Long + Mini
Survey
n = 4,204



Q11 How satisfied are you with the transportation system in Arlington County?

2009 Arlington Residents Survey – cont'd

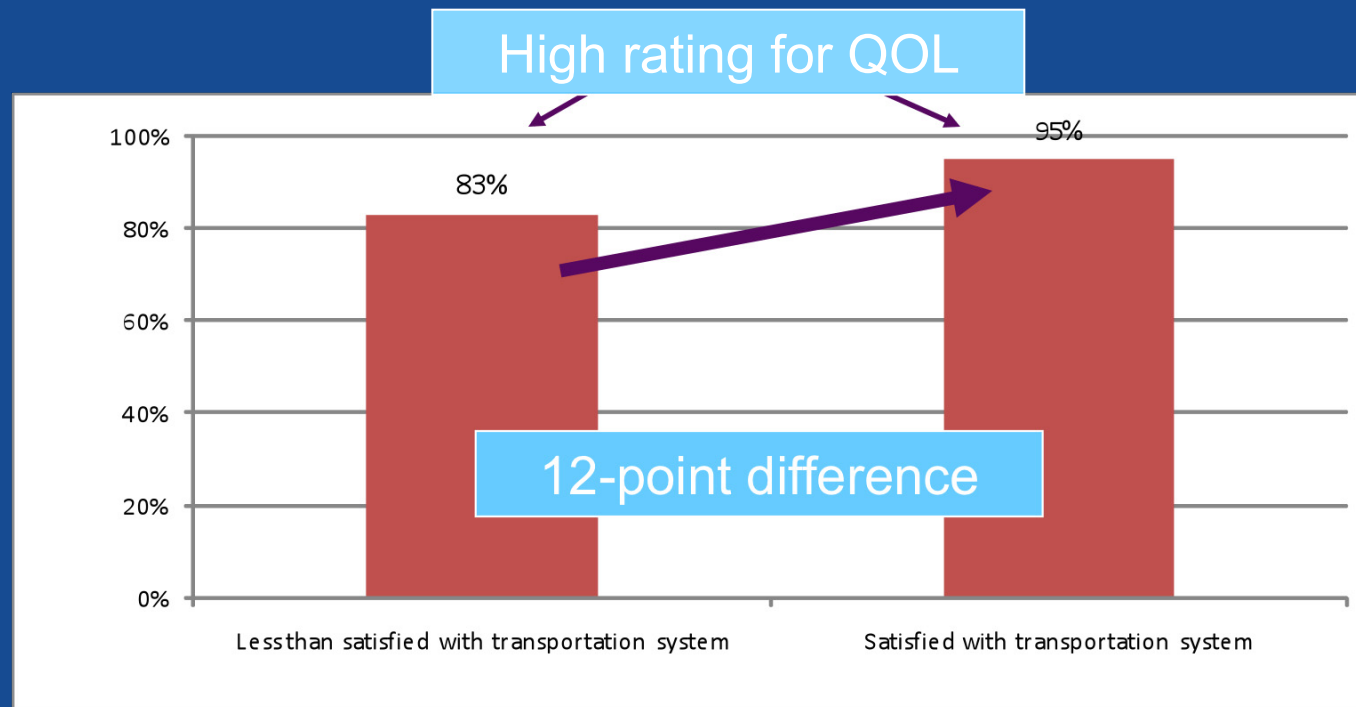
QOL Ratings are Higher for Residents who are Satisfied with Transportation System

95% of residents who are satisfied with the transportation system rated quality of life favorably, compared with 83% who are less than satisfied with the transportation system.

Long + Mini Survey

Less than satisfied
n = 1,109

Satisfied
n = 3,098

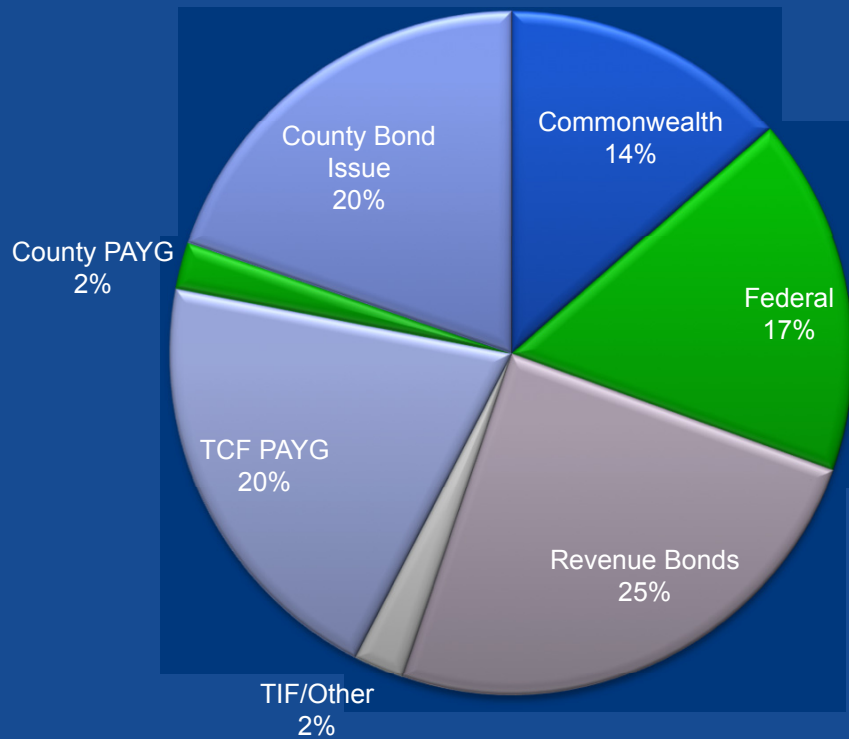


Q10 Overall, how would you rate the quality of life in Arlington County?

In order to keep Arlington as a great place to do business and to promote long-term economic sustainability, it is important to continue to invest in the transportation system.

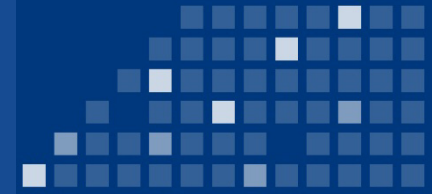


Transportation Capital Program Sources Fiscal Years 2011 - 2016



Programs	Revenues (FY11- FY16)
Revenue Bonds (TCF)	\$ 117,039,000
Transportation Capital Fund (TCF)	\$ 96,977,000
County Bond Issue	\$ 93,850,000
Federal	\$ 80,320,000
Commonwealth	\$ 64,604,000
TIF/Other	\$ 11,410,000
County PAYG	\$ 10,500,000
Total Revenues	\$ 474,700,000

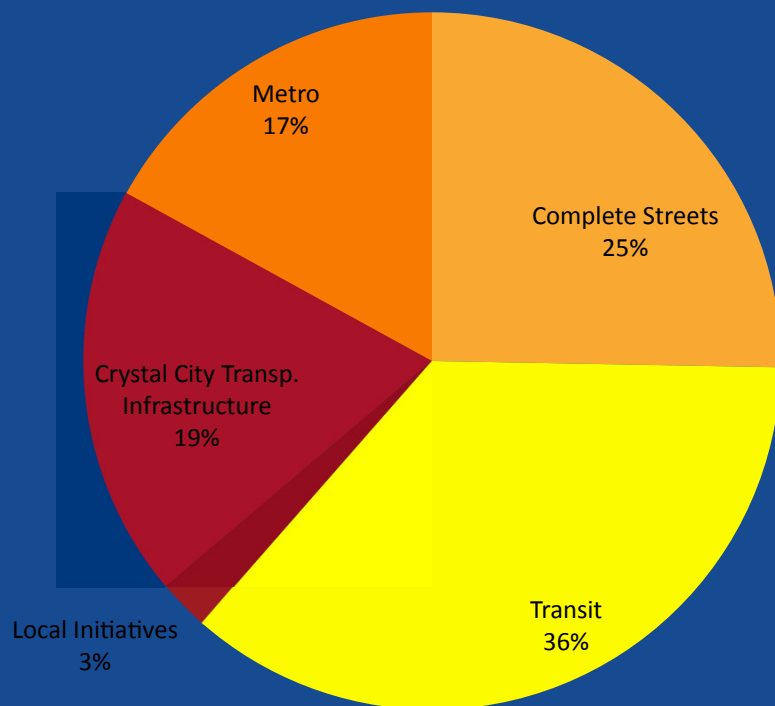
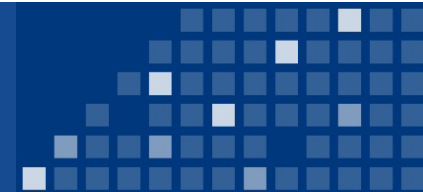
Transportation Capital Fund



- **Stabilizes** existing program
- **Accelerates** implementation of capital improvements
- **Leverages** external sources of funding

Fiscal Year	Transportation Revenue
2008	\$ 10,419,000
2009	\$ 20,838,000
2010	\$ 20,370,459
2011	\$ 19,735,913
2012	\$ 21,082,282

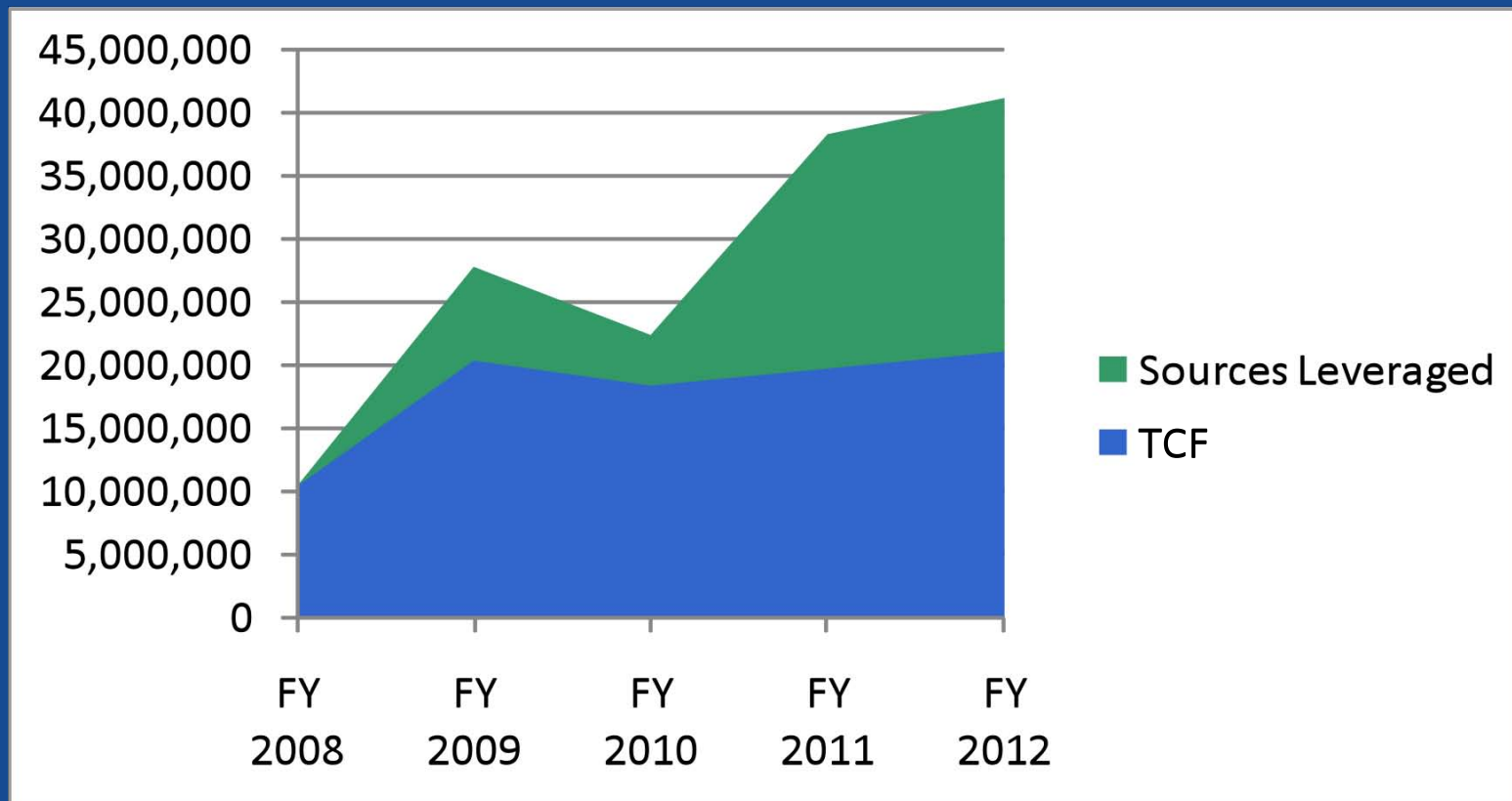
Transportation Capital Program Cost Fiscal Years 2011 - 2016



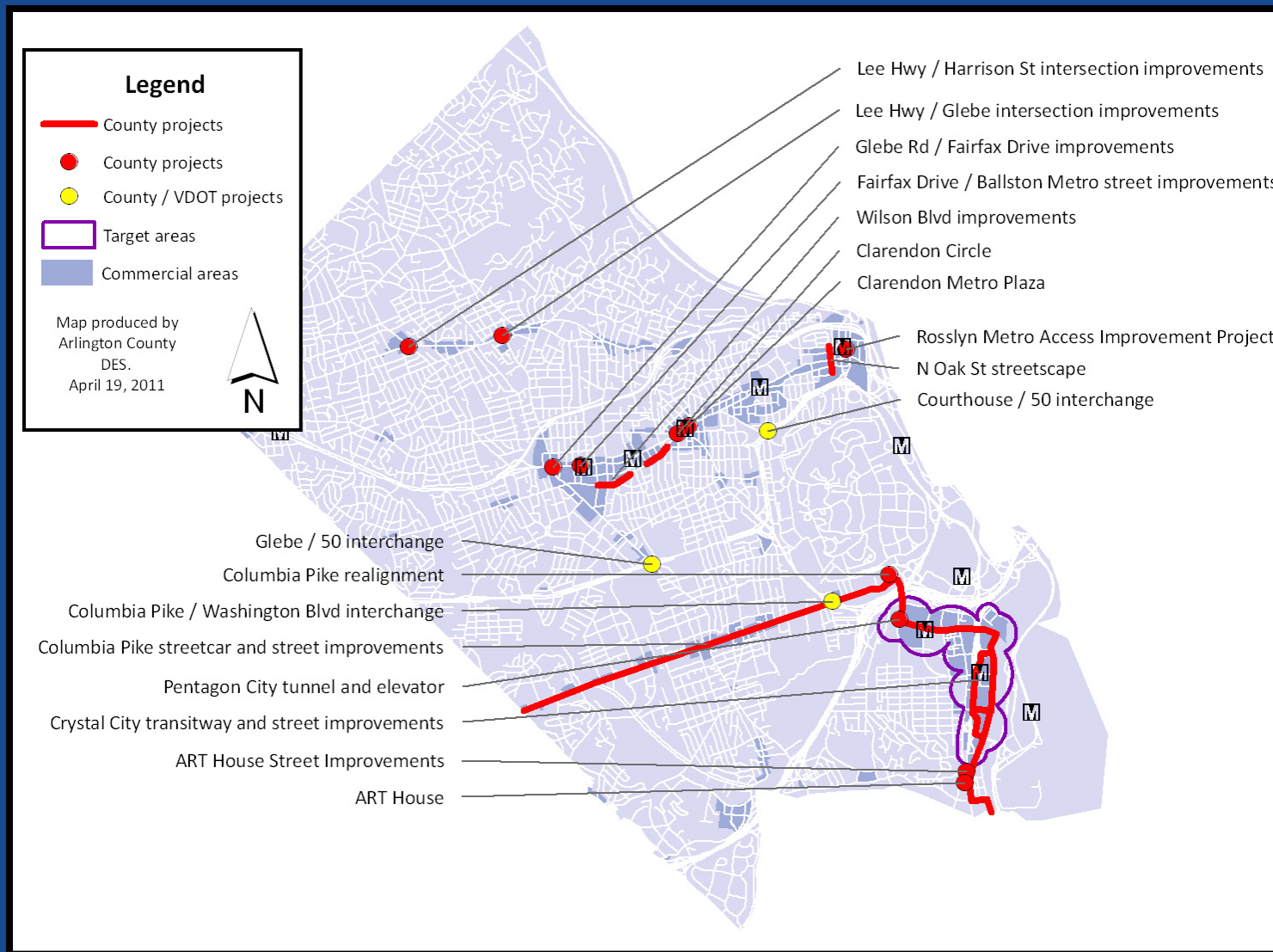
Programs	Expenditures (FY11- FY16)
Transit	\$171,775,000
Complete Streets	\$120,045,000
Crystal City Infrastructure	\$ 90,980,000
Metro*	\$ 80,700,000
Local Initiatives	\$ 11,200,000
Total	\$ 474,700,000

*Excludes ~ \$25M annual local contribution for Metro operating expenses.

External Funding Sources Leveraged



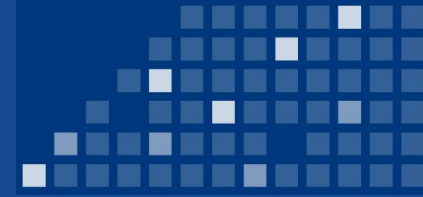
Selected Capital Improvement Projects



Transit Projects

- Rosslyn Metro Elevators
- Route 1 Corridor Streetcar
- Crystal City-Potomac Yard Transitway
- Columbia Pike Streetcar
- ART Fleet Enhancements
- Bus Stop and Shelter Program

Rosslyn Metrorail Station Access Improvements



KGP Design Studio



KGP Design Studio

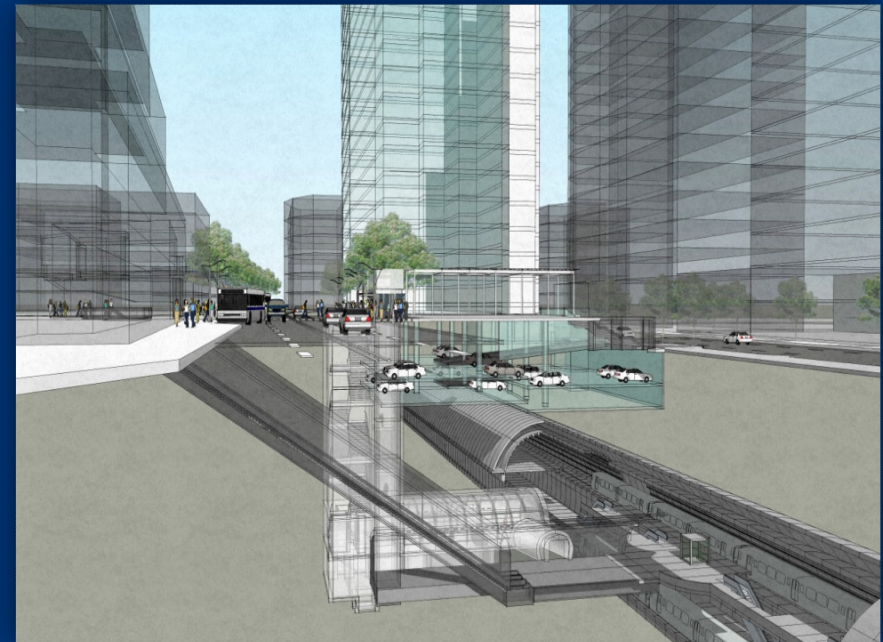


Location



- 1 New Elevator
- 2 Existing Metro Escalator
- 3 Proposed Towers
- 4 Pedestrian Crosswalk
- 5 Existing Metro Platform
- 6 Existing Buildings
- 7 Proposed Plaza
- 8 New Mezzanine
- 9 Existing Passageway

KGP Design Studio



Crystal City - Potomac Yard Transitway



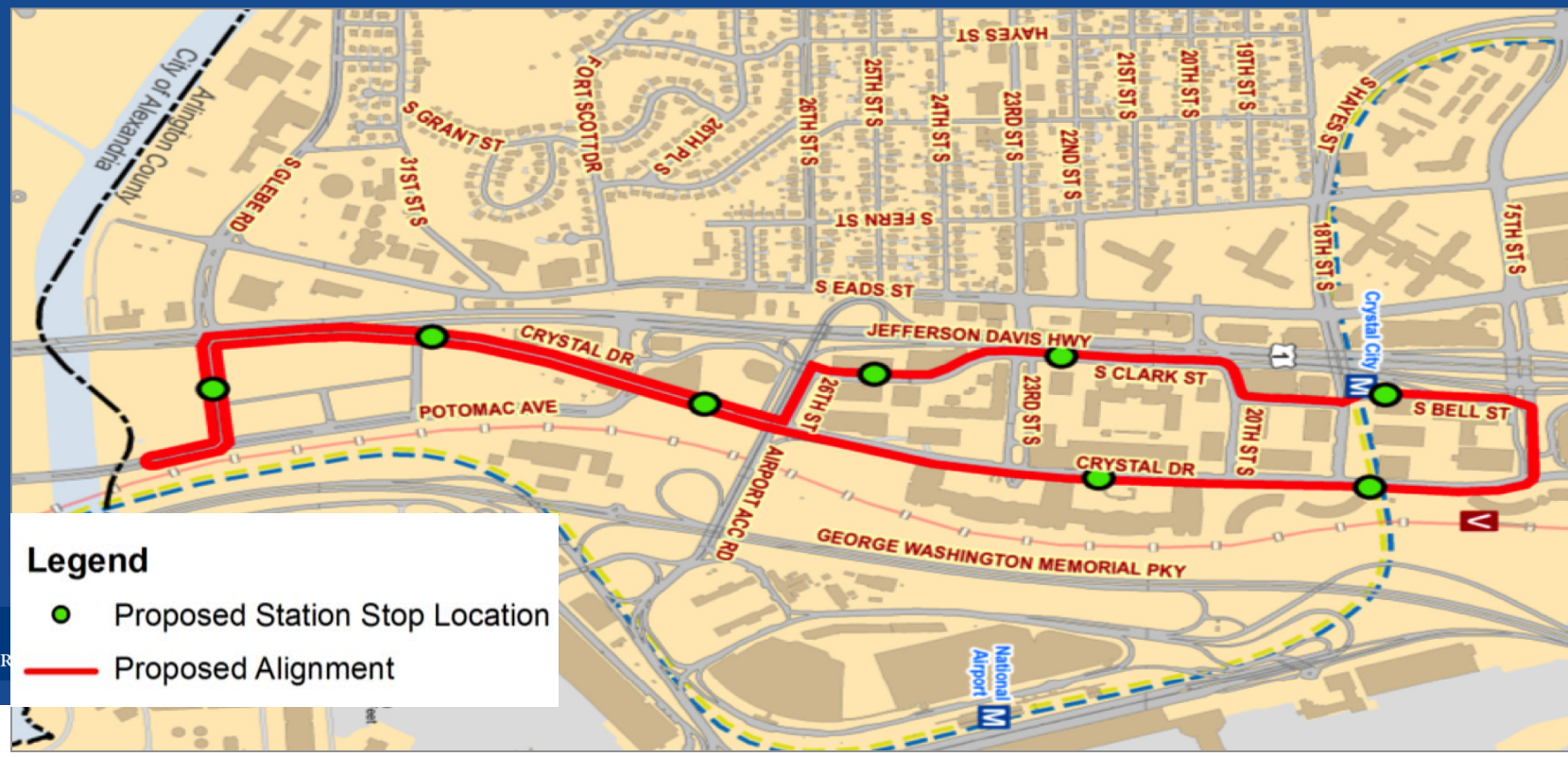
Stop Design (North End)



Stop Design (South End)



Location



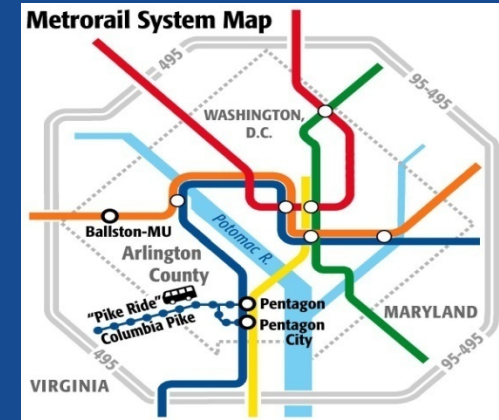
Columbia Pike Streetcar



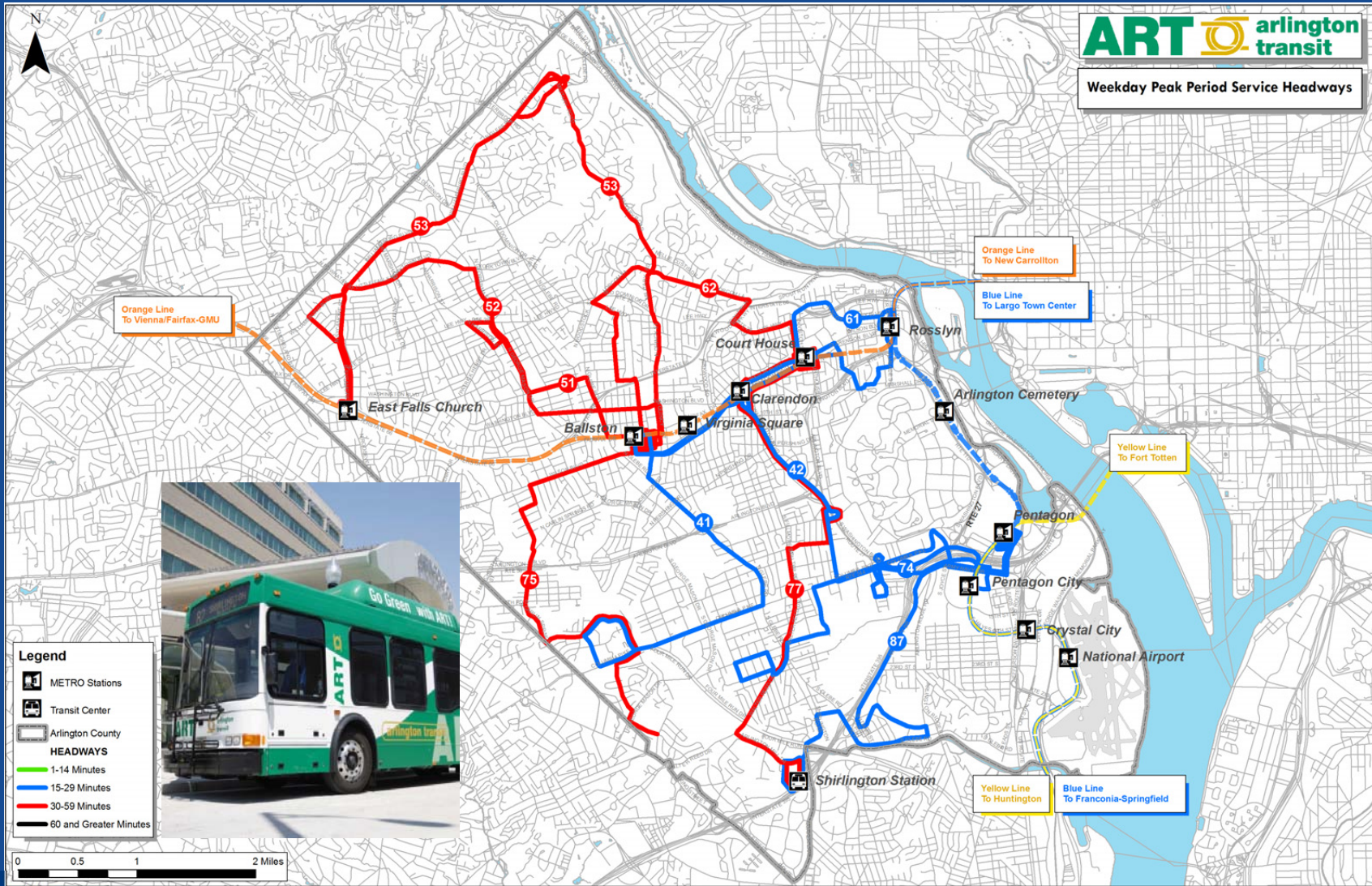
Proposed Streetcar Design



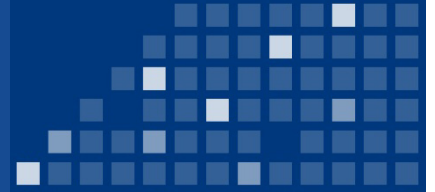
Stop Design



ART Fleet Enhancements

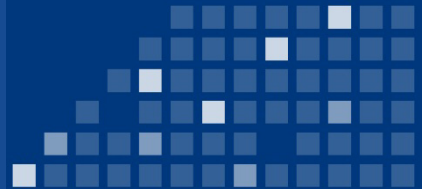


Streets and Other Multi-Modal Projects



- Complete Streets Program (Arterials)
 - Virginia Square/Ballston
 - Rosslyn
 - Crystal City
 - Columbia Pike
- Traffic Signal System Upgrade
- Streetlight Program Upgrade (Commercial Districts)
- WalkArlington (Commercial Districts)
- BikeArlington (Countywide)
- Bridge/Interchange Improvements (State lead)

Wilson Boulevard Street Improvements



Before
After

Location



Columbia Pike "Town Center" Improvements

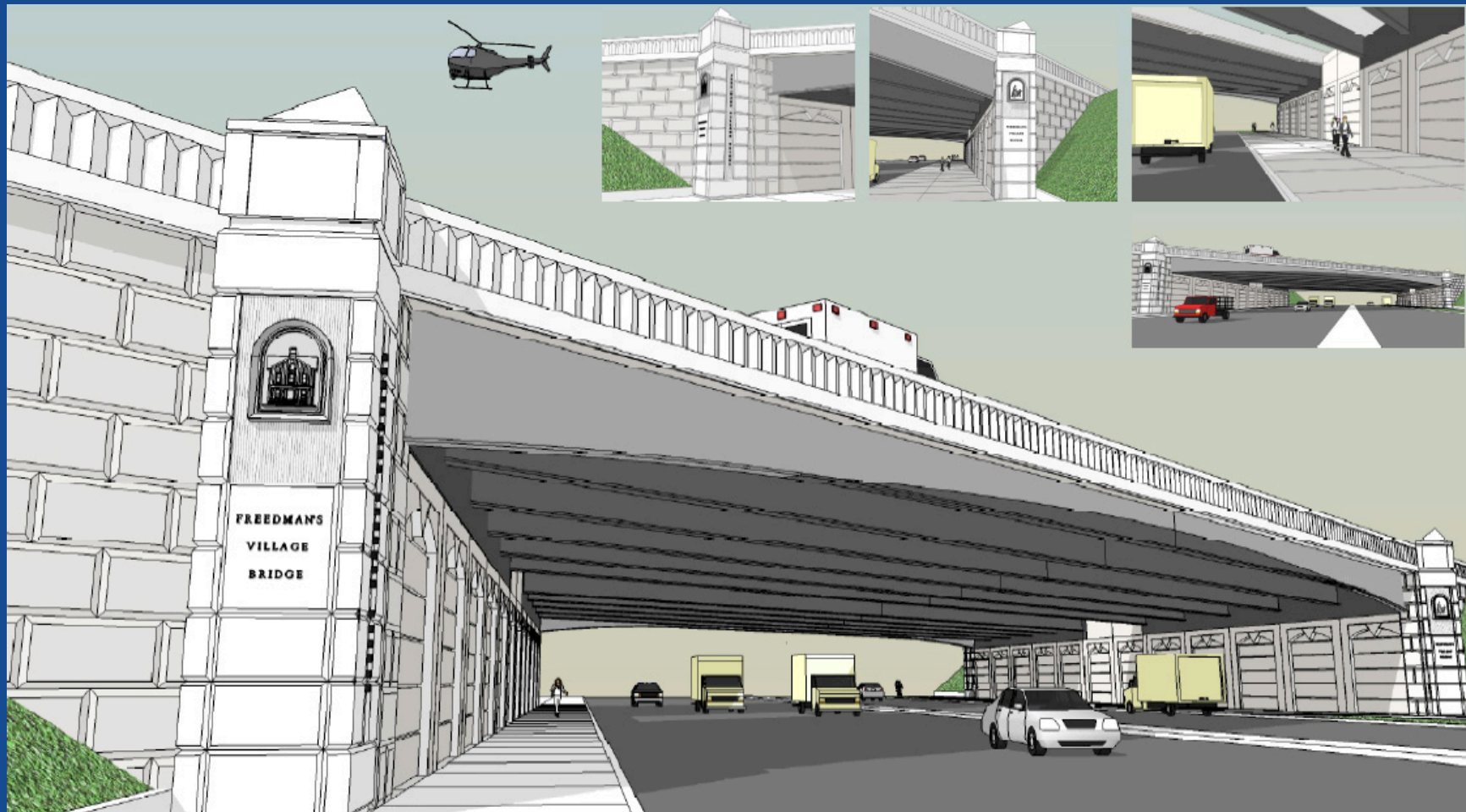


Before
After

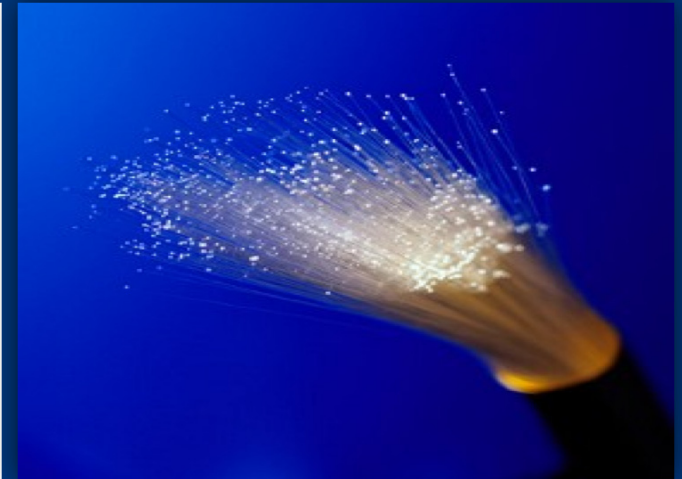
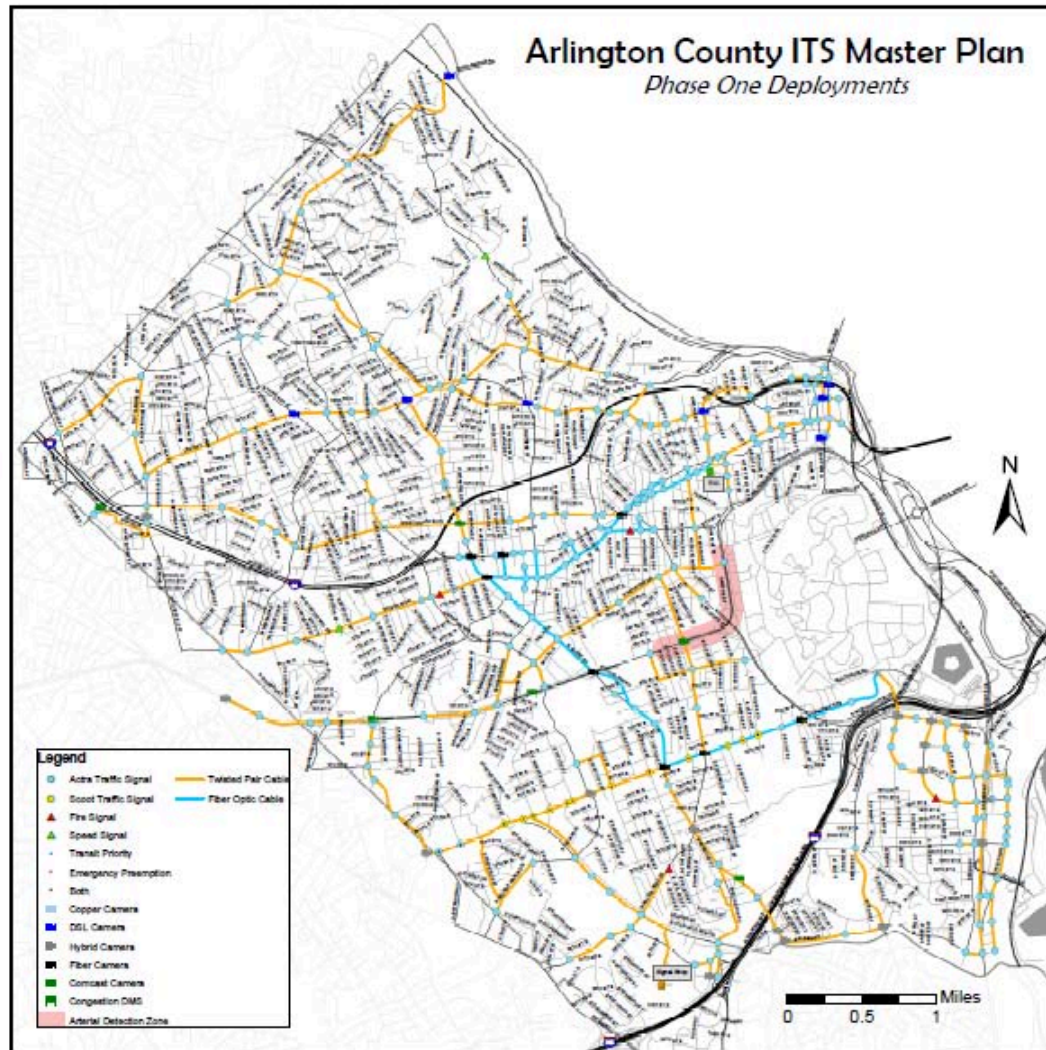
Location



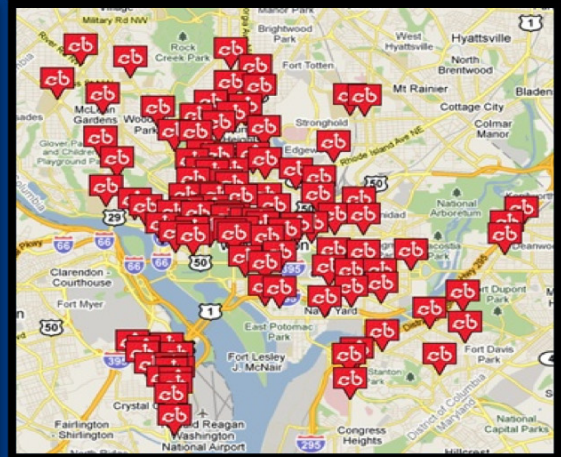
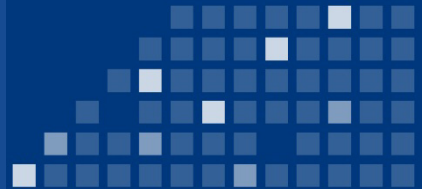
Washington Boulevard/Columbia Pike Interchange Improvements



TSM Fiber Project



Capital Bikeshare Program



Lessons Learned – Effectiveness Coordinated Development & Transportation Strategies

- Arlington’s strategies have yielded substantial transportation, environmental and economic benefits - allowing continued growth with less reliance on auto trips, and more use of transit and other travel options.
- It isn’t just one policy but many that contribute to enhanced performance such as:
 - Building mixed use environments with highest densities around transit stops
 - Expanding viable and attractive transportation options
 - Making user information readily available and providing ongoing education and encouragement
 - Sustaining and strengthening transportation demand management (TDM)
 - Actively managing parking
- It’s not a short term commitment - to achieve the full benefits, it requires sustaining and enhancing programs and policies over time
- Sustaining strong economic and overall community performance requires ongoing investments in infrastructure.



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