R-B CORRIDOR 1970



R-B CORRIDOR TODAY





Meeting Community Sustainaility Goals Through Coordinated Development and Transportation Strategies

June 15, 2012







The Community Sustainability – Transportation Question

- Can communities support increased economic activity, improved environmental performance and quality of life 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



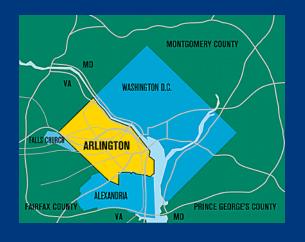
Topics to be covered

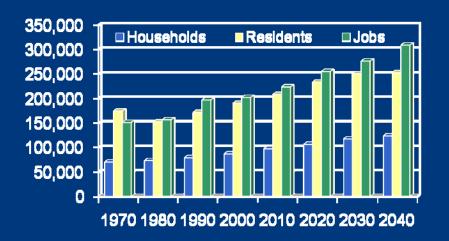
- Overview of development and transportation in Arlington
- Neighborhood case studies
 - Rosslyn-Ballston Corridor Ballston
 - Jefferson Davis Corridor Potomac Yard
 - Shirlington
- Selected community performance indicators
 - Economic and social
 - Transportation
 - Energy
- Lesson learned





Context

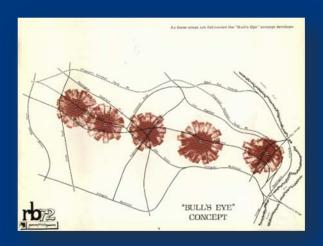




- Arlington, Virginia 25.8 sq. miles in area including federal lands
- At the confluence of major regional transportation facilities
- Home to major federal facilities: Pentagon, Fort Meyer, Arlington Hall
- Located in the core of a rapidly growing Washington region (over 5 million residents, 3 million jobs and 1,200 sq. miles of urbanized area)
- Continuing to grow with over 252,000 residents and 308,000 jobs projected by 2040



Development Concepts

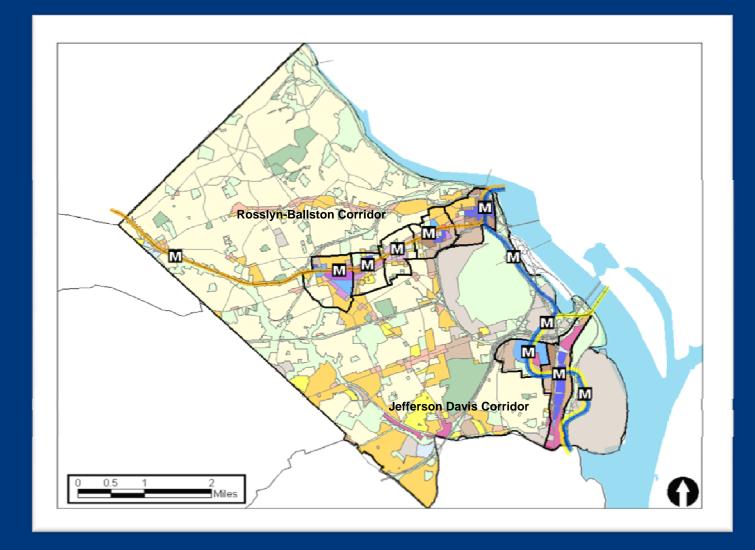




- Concentrate high and middensity redevelopment around transit stations (highly targeted) and taper down to existing neighborhoods
- Encourage a mix of uses and services in station areas
- Create high quality pedestrian environments and enhanced open space
- Preserve and reinvest in established residential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



General Land Use Plan







Development Characteristics



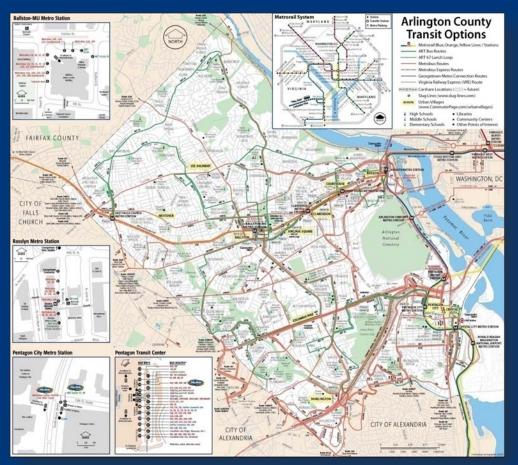


- 44.5 million sq. ft. of office space*, 41 million sq. ft. in Metro station areas* with over 4 million sq. ft. of supporting retail & services
- 107,500 housing units (over 42,700 in Metro station areas)
- Over 1,500 housing units, 1.3 million sq. ft. of office, 150,000 sq. ft. of retail under construction in April 2012.



^{*} 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 5,300 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 41 stations w/ 30 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



Residents

- Over 211,700 in 2012
- Over 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 227,500 jobs in 2012
- 200,000+ jobs clustered around transit in Arlington's high-density corridors.
- 160,000+ workers commute into Arlington daily Over 40% take transit, walk or bike to work.

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







- > 4 million vehicle-miles of travel per day
- 220,000 Metrorail boardings/alightings
- > 64,000 bus trips
- > 3,000 commuter rail boardings/alightings
- > 6,000 car-share members
- > 200,000 transit-related walking trips
- < 50% of all resident and worker trips in the Metro Corridors by SOV







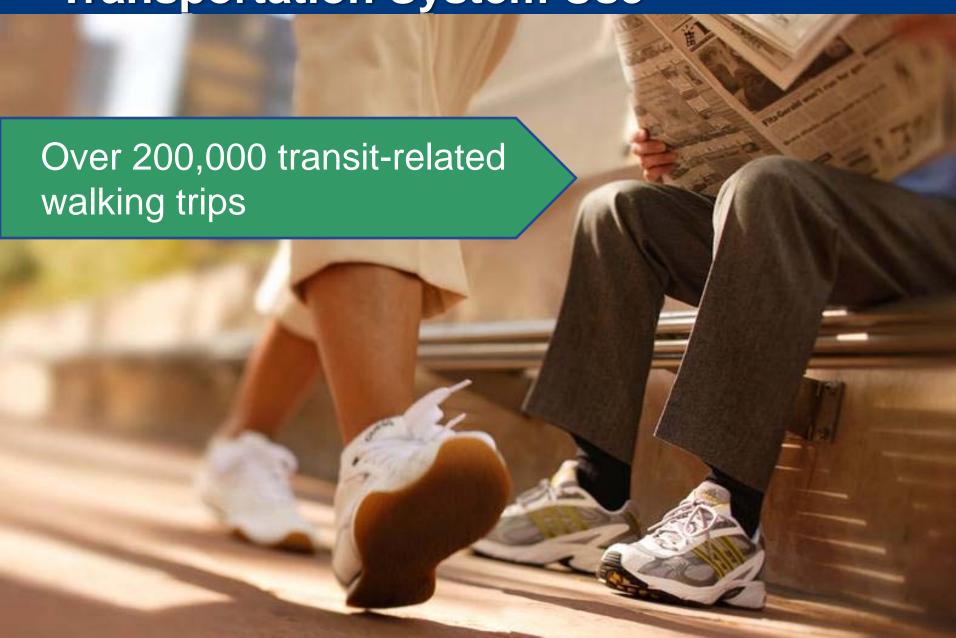




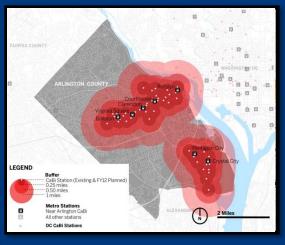






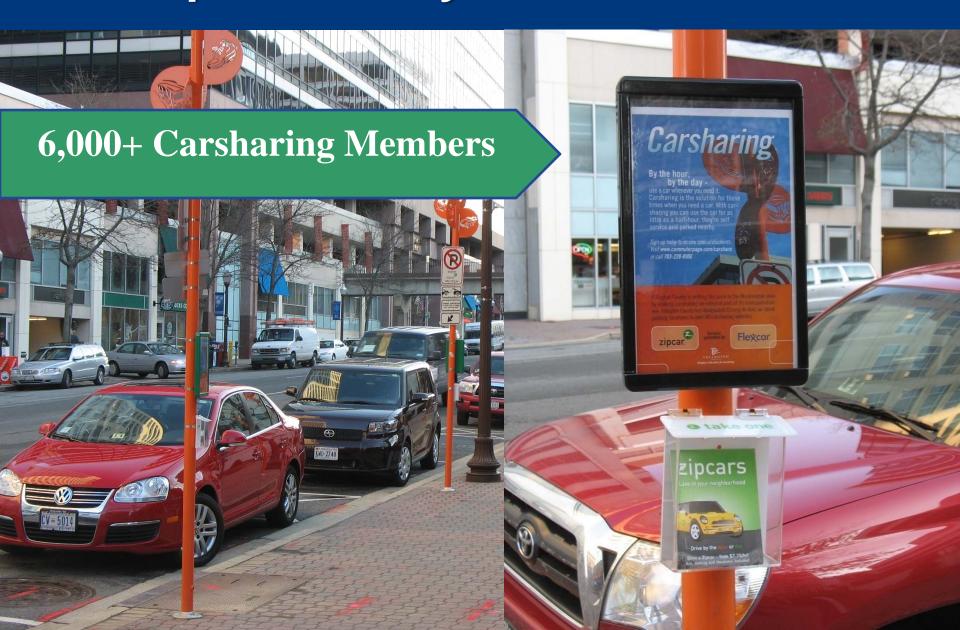












Transportation Strategies to Influence Travel Patterns





- 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



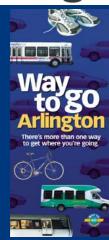














Requiring Development-Specific Transportation Demand Management

- Participation in Countywide 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

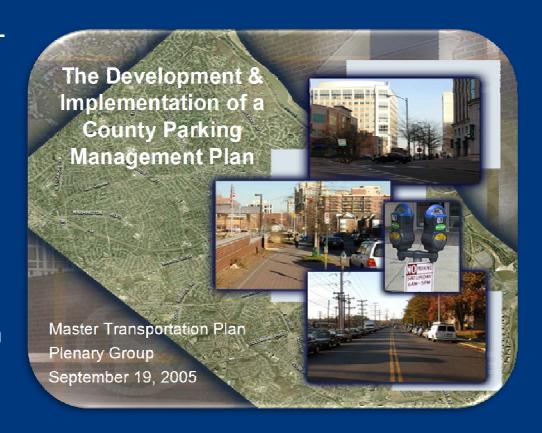
Market-rate parking charges

On-site transportation coordinator



Managing Parking

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





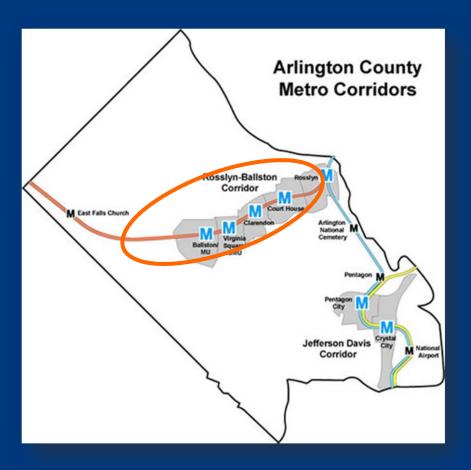
Neighborhood Case Studies

- Rosslyn-Ballston Corridor Ballston
- Jefferson Davis Corridor Potomac Yard
- Shirlington Village





The Rosslyn-Ballston Corridor (METRO Orange Line)



- Two square mile area
- Served by five Metrorail
 Stations & numerous bus
 transit routes
- Supported by a network of arterial and local streets
- Over 21.7 million sq. ft. of office space and 2.5 million sq. ft. of retail
- Over 28,600 housing units (a four-fold increase since 1980)



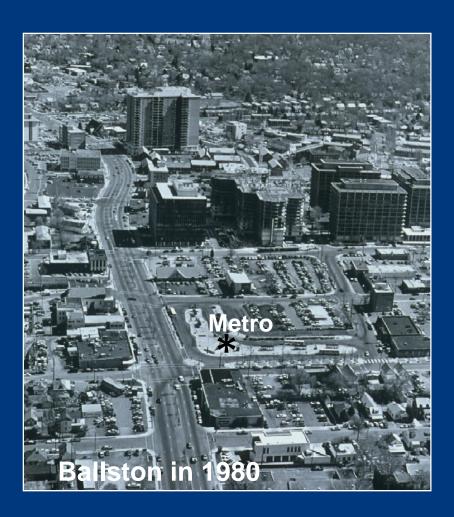
View of Rosslyn-Ballston Metro Corridor





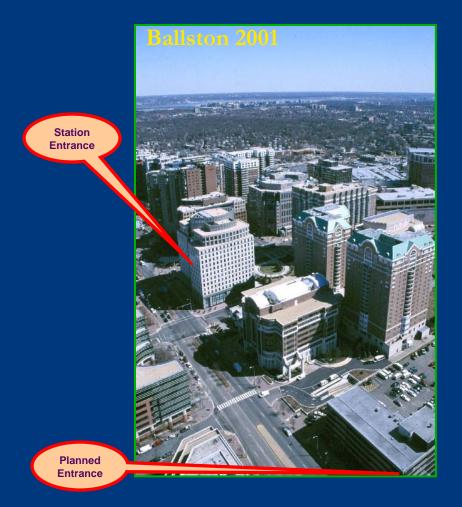
Ballston - Context

- Western anchor of the Rossyln-Ballston Corridor
- 240 acres in area
- Envisioned as a new downtown in Central Arlington
- First station-area sector plan developed in 1980
- Characterized by low-medium density auto-oriented commercial development





Ballston - Development



Existing:

- Over 7 million sq. ft. of office
- 1 million sq. sq. ft. of retail
- Over 7,000 housing units
- 760 hotel rooms

Planned:

 1.7 million sq. ft. of additional mixed use infill development



Ballston











Ballston - Infrastructure

Existing:

- Grid of arterial and local streets with streetscape upgraded with redevelopment
- Metrorail station with 3-6 minute headway service in the peak (27,000 daily boardings/alightings)
- Nine Metrobus routes serving 9,000 passengers daily
- Seven local ART routes carrying over 4,000 passengers daily
- Incomplete network of bike lanes
- On-street car-sharing services and 7 bikesharing stations

Proposed:

- Streets improved to provide a cohesive pedestrian environment
- Second Metrorail Entrance (to provide access for up-to 13,000 daily trips)
- Expanded regional and local bus service
- Renovated bus-rail transit plaza with new on-street Commuter Store
- Upgraded on-street bicycle faclities, additional bike-sharing stations and parking



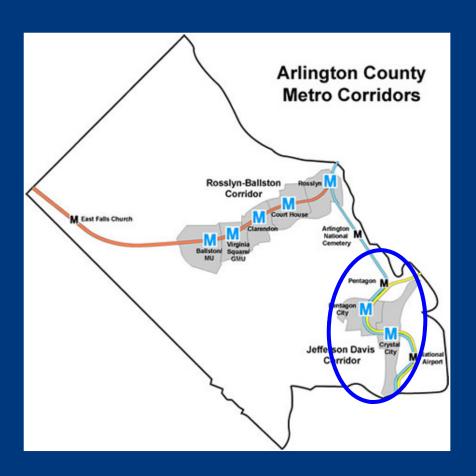
Ballston – Expanding Travel Options and Information





The Jefferson Davis Corridor

(Blue and Yellow lines)



- One square mile area
- 2 stations (Pentagon City, Crystal City)
- Adjacent to the Pentagon and National Airport
- 12.4 million sq. ft. of office space
- 12,500 housing units
- New transit-oriented neigbhorhood under development in Potomac Yard



Potomac Yards - Context



- Obsolete rail yard made available for redevelopment
- Arlington portion is about 45 acres (the remainder of the yard is in the City of Alexandria)
- Phased development site plan approved in 2000
- Planned as a new transit-oriented mixed use neighborhood
- Plan provides an integrated approach to development, transportation infrastructure and open space



Potomac Yards - Development

- Office: 2.1 million sq. ft.
- Residential: 1.7 m sq. ft.,
 1,700 housing units
- Retail: 250,000 sq. ft. including a 45,000 sq. ft. grocery store
- Hotel: 430,000 sq. ft.
 (All development sites approved as of Dec. 2007)











Potomac Yards - Infrastructure

- 1.1 mile dedicated transitway with 3 stations
- High frequency bus transit introduced with the first phase of development
- 7 new or extended streets
- Comprehensive system of sidewalks and trail connections
- System of open spaces including a central park
 Goal of development is 40 percent of trips non-auto







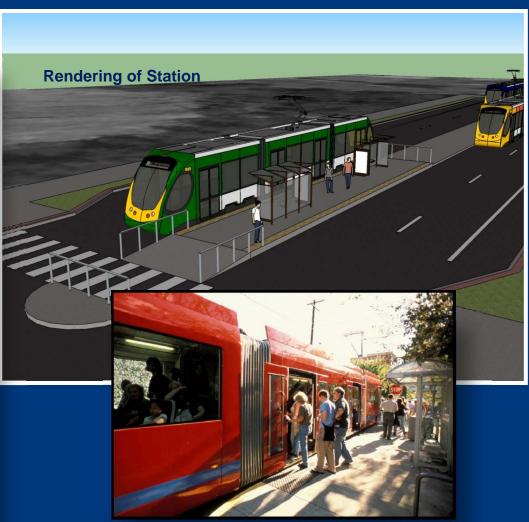




Potomac Yard Infastructure – Route 1 Streetcar Conversion

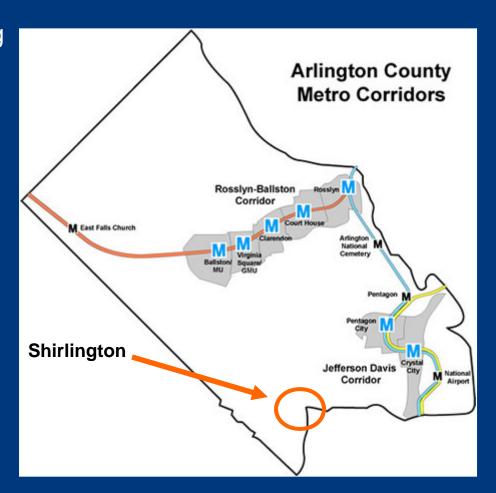
Location of Planned Alignment





Shirlington - Context

- Small auto-oriented shopping center with surface parking located adjacent to Interstate 395
- Outside of the Metrocorridors but served by frequent bus service
- Surrounded by garden-style apartment neighborhoods with limited pedestrian access
- Adjacent to regional park system but with poor connections





Shirlington - Context



1940's Shopping Center



Regional Context



Shirlington Village – 1989



Shirlington - Development

Existing (2000):

- 400,000 sq. ft. of office in three buildings
- 156,000 sq. ft. of retail
- 1 multi-screen cinema

New Infill (2004 -):

- 195,000 sq. ft. of office
- 58,400 sq. ft. of retail Including a
 2-level grocery store
- 55,500 sq. ft. public library and theater
- 634 housing units
- 106 room hotel







Shirlington Development







Shirlington - Infrastructure







- New street grid and network of sidewalks
- Three new traffic signals and intersection improvements to connect Shirlington with an adjacent arterial street and the regional park
- Two new shared use garages
- ½ mile of new landscaped connecting sidewalks to link to an adjacent neighborhood
- ½ mile new regional trail connection to the neighborhoods east of I-395
- Arlington's first bus transfer station
 & restructuring/expansion of bus
 service
- On-street carsharing



Selected Community Performance Indicators

- Economic & Social
- Transportation
- Energy





Arlington's Competitive Advantage

"It can move more people without more traffic while 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

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.

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 Rollston.



Private Office Market Comparisons

	Office	Total	Average
Submarket	Inventory	Vacancy	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



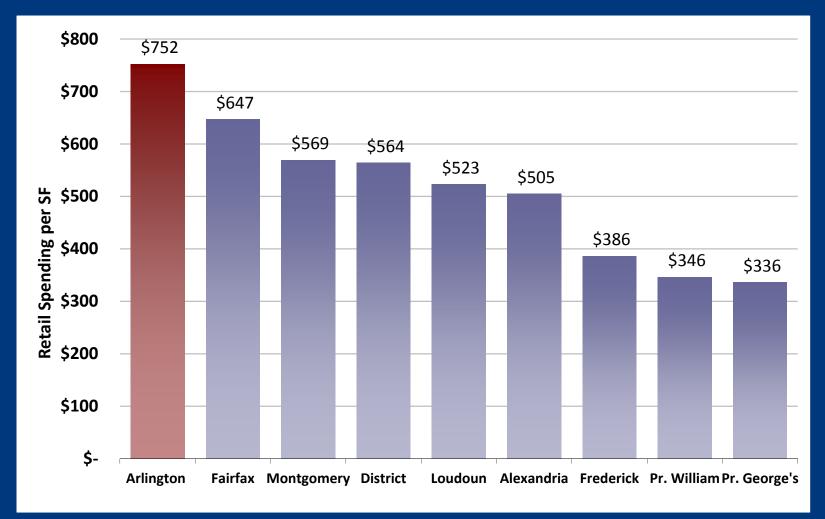
Regional Office Availability

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



Total Retail Sales per SF





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)

	C	omm. Value*	%	R	esid. 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.



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%

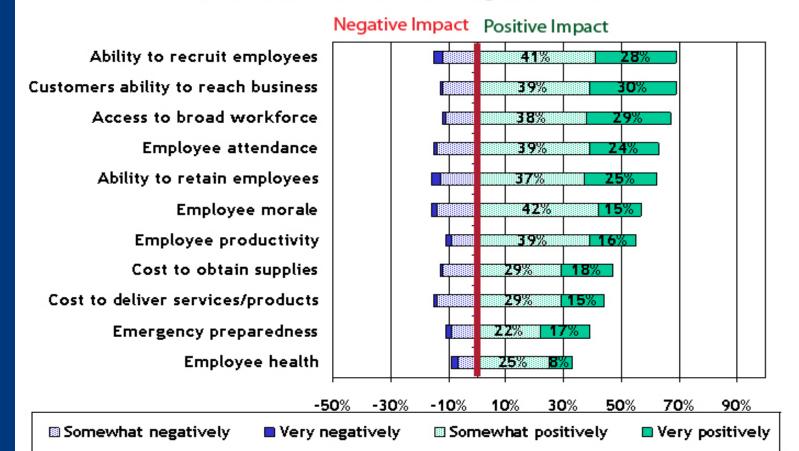
of business leaders surveyed listed transportation access as the #1 reason Arlington is a good place to locate a business

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.

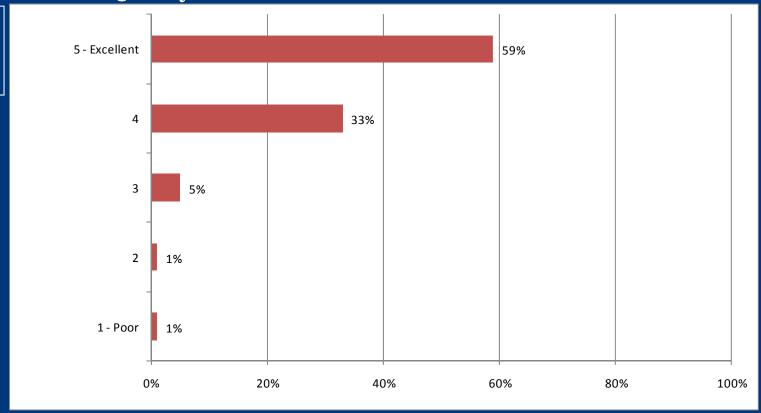


2009 Arlington Residents Survey

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

Long + Mini Survey

n = 4,325



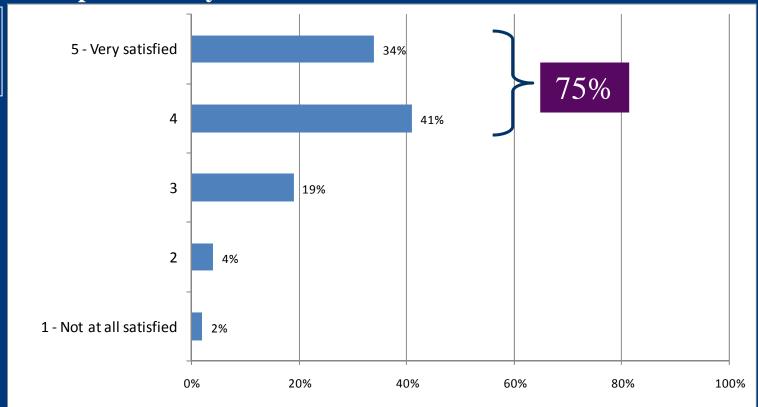
Q10 Overall, how would you rate the quality of life in Arlington County?



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?



Other Community Indicators

- The unemployment rate for Arlington residents stood at 3.1% for May 2012,
 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 forclosure on a base of over 100,000 owner occupied and rental units.



Office Worker Travel Patterns by Station Area

Ballston/ Courthouse n = 585

Crystal City n = 493

> Rosslyn n = 248

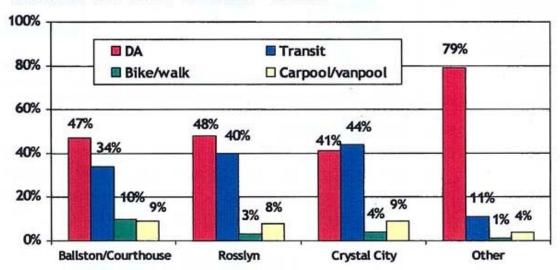
Other n = 107

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]?



2





Daily Household Travel in the Greater Metropolitan Washington Region

Jurisdiction in the Greater	Average Weekday	% of of	Daily House	hold Trips	Average Weekday	Average Weekday	% of		
Metropolitan Washington Region	Trips per Household	Auto Driver	Auto Passenger	Transit	Walk/ Bike	School Bus/Other	Auto Driver Trips*	Auto Driver VMT	Regional HH
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 cente	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
Arlington Ave HH VMT/Region Ave HH VMT
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



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	17,500**`	-14.5%
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	22,824	14.1%

[•]No dicernable pattern of growth on the local road system over the 13 year period

^{**} Location has no available data for 2009, data shown was collected in 2011



Transit Ridership Trends – Arlington-Related Trips



	FY1996 Actual	FY 2001 Actual	FY 2006 Actual	FY 2009 Actual	FY12 Est.	% Growth
Metrorail Arlington Stations	45,335,000	56,278,412	60,864,000	61,935,000	62,660,000	38.2%
Metrobus Arlington Routes	12,049,000	11,614,599	13,221,100	16,135,000	14,910,000	23.7%
VRE – Crystal City	567,000	586,069	992,600	1,027,000	1,153,700	103%
Arlington Transit (ART)	105,000	147,813	926,600	1,428,800	2,500,000	2,380%
Total Annual Ridership	58,076,000	68,626,893	76,004,300	80,525,800	81,223,700	39.9%

^{* 2.1%} average annual growth across all transit services over the 16 year period



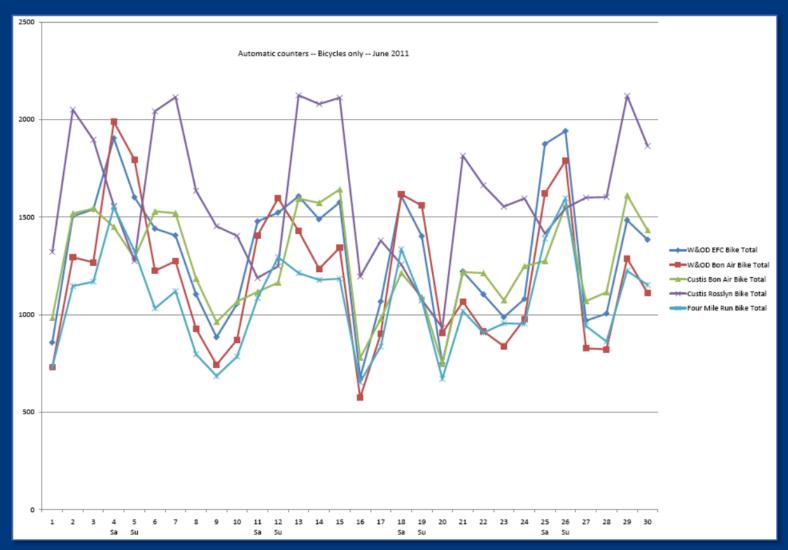
Growth in ART Local Transit Ridership



Fiscal Year



Bicycle Usage on Trails - 2011





Population, Employment and Accident Trends

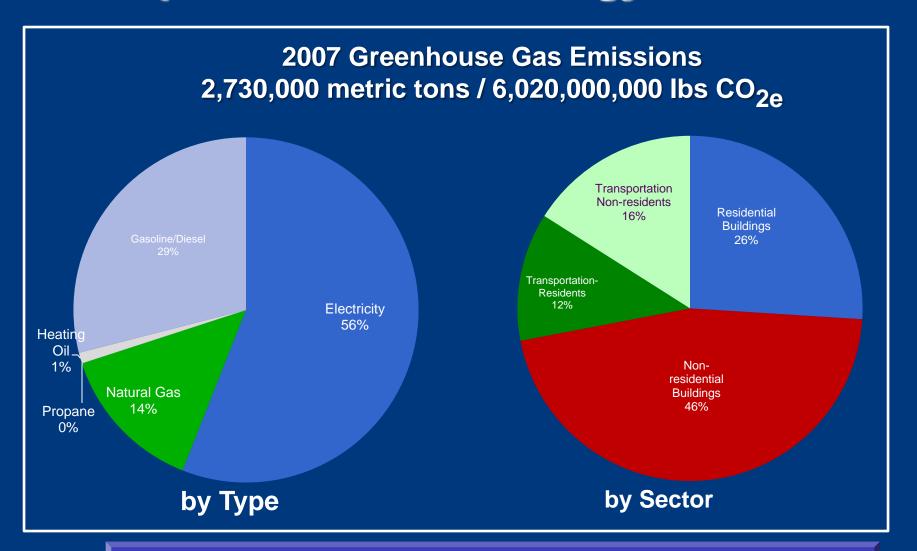
Total Reported Crashes Relative To Population and Employment (2004 - 2008)



Year



Transportation Sector Energy Use

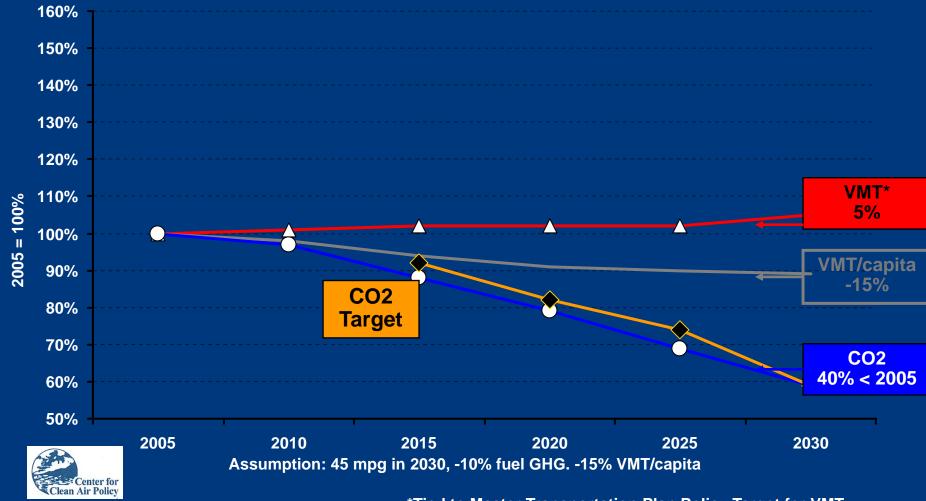


Transportation uses 21% of all energy



Arlington Scenario VMT -15% / Capita 40% < 2005 GHG in 2030

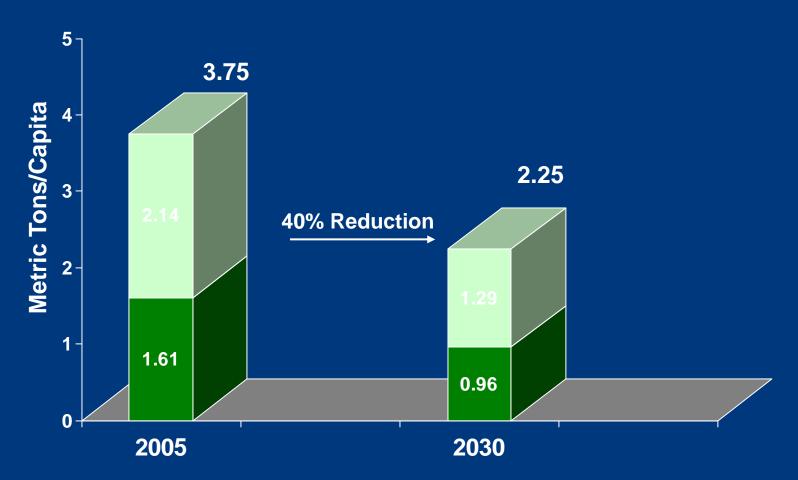
(path to 80% < 2005 GHG by 2050)



Framework provided by S. Winkelman, CCAP

*Tied to Master Transportation Plan Policy Target for VMT

Transportation Sector Reductions in CO₂ Emissions Through 2030





Lessons Learned – Effectiveness Coordinated Development & Transportation Strategies

- Arlington's strategies have yielded substantial economic, transportation, and environmental 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
- Sustaining community performance requires ongoing investments in infrastructure.
- It's not a short term commitment to achieve the full benefits, it requires sustaining and enhancing programs and policies over time
- It also requires ongoing community and institutional exposure to/and assimilation of best practices from other communities in the US and abroad







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