



## **The Arlington Experience: Congestion to Mobility - TOD and Community Sustainability**

**Joint Subcommittee to Study the Feasibility of  
Creating a Regional Rapid Transportation Network,  
October 6, 2009**

# The Community Development – Transportation Question



- Can communities support economic development, population & job growth while reducing reliance on auto travel and VMT growth?
  - The Arlington experience says “Yes We Have!”

# The Community Development – Transportation Question



- Are there other ancillary community benefits?
  - 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,
    - Enhanced quality of life, and
    - Improved public health

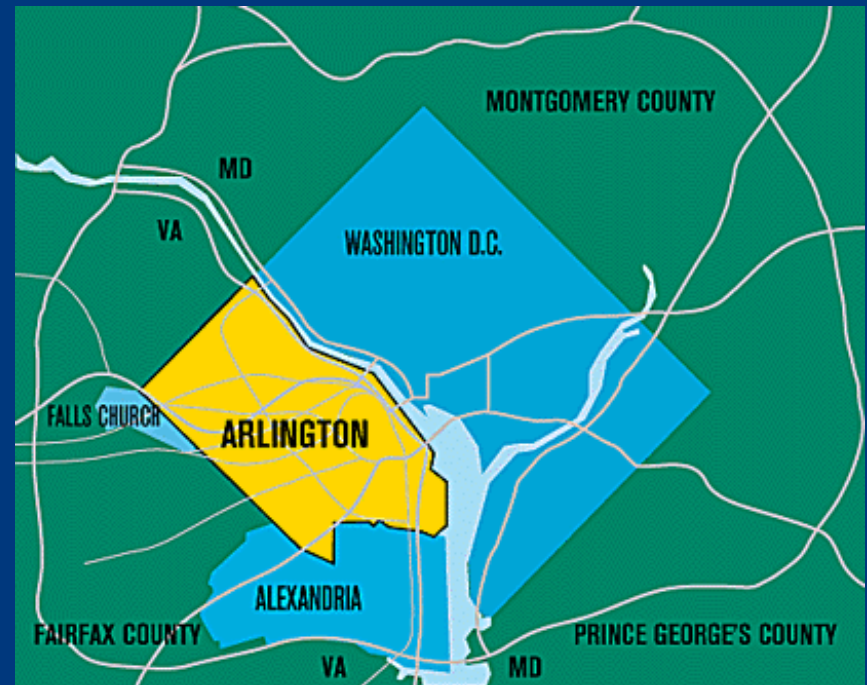
# Arlington Experience



- Vision, Commitment and Innovation
- Integration of Land Use and Transportation Principles, Planning and Implementation
- Transportation investments, infrastructure and services aligned with development
- Maximize Market Opportunities – Proximity to DC - Extension of CBD

# Context

- Arlington, Virginia – 25.8 sq. miles in area including federal lands
- Home to major federal facilities: Pentagon, Arlington Cemetery
- At the confluence of major regional transportation facilities (I-95/395, I-66, Two Metrorail corridors)
- 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 247,000 residents and 280,000 jobs projected by 2040



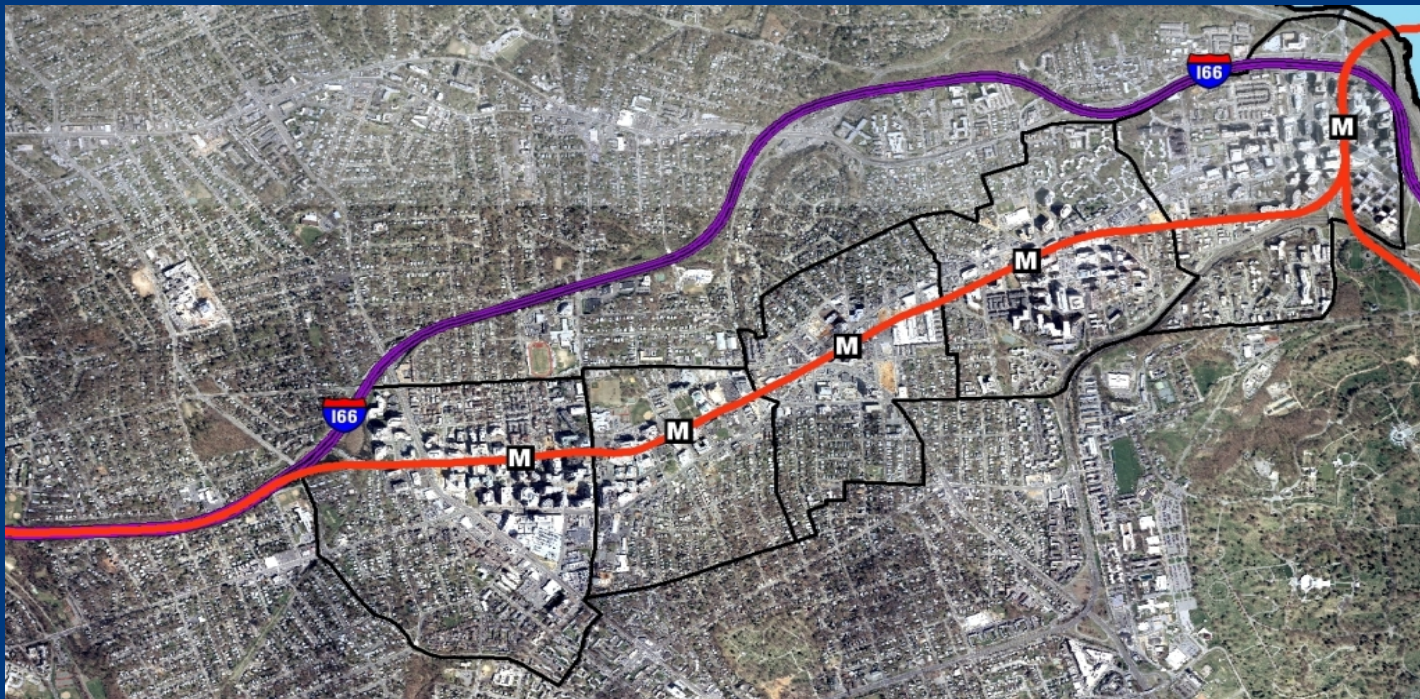
# SETTING THE STAGE



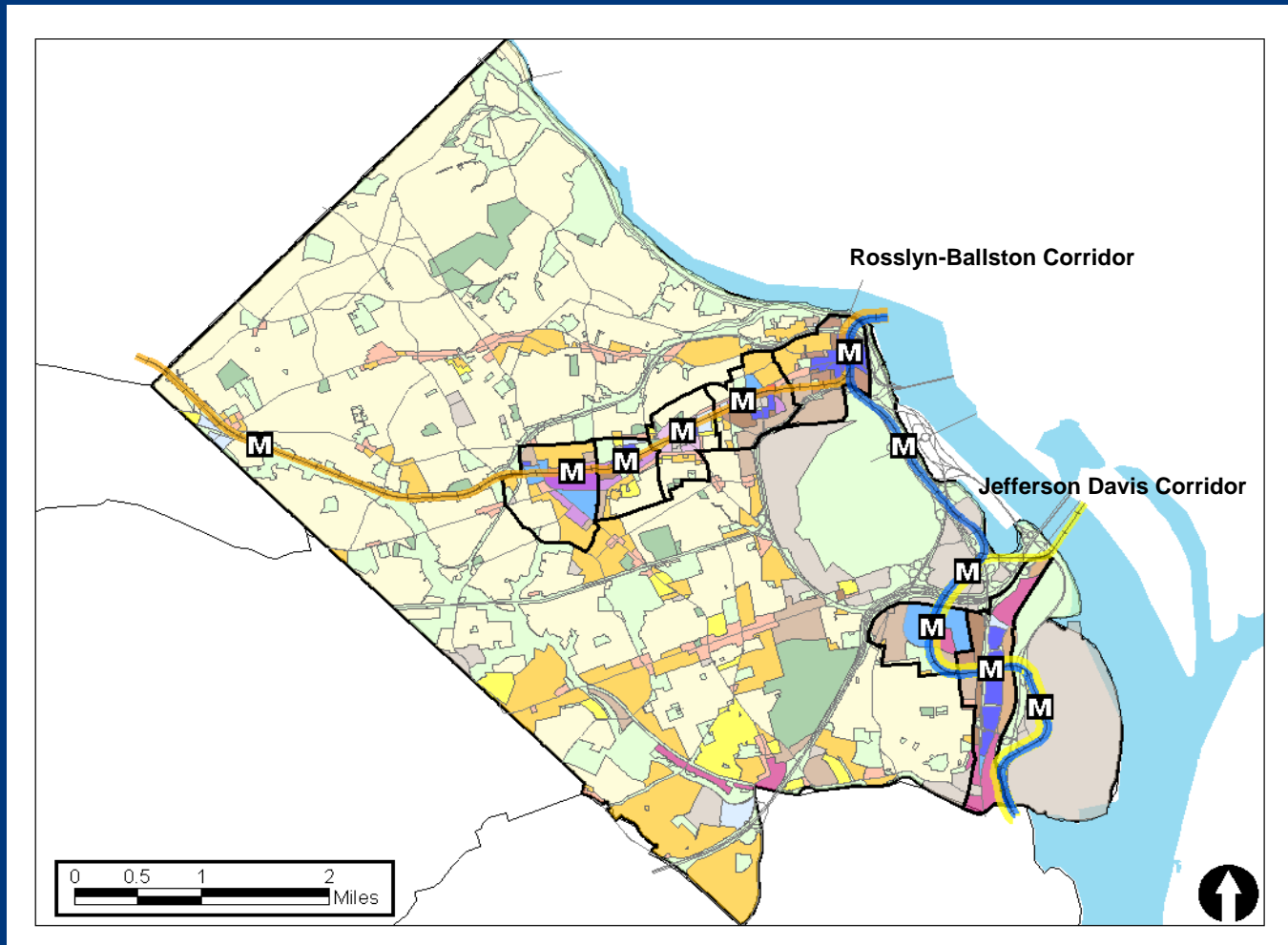
- 1960 - 7.5 million sq. ft. Office
- Declining retail corridors
- Emerging market for government office space
- Strong single family neighborhoods
- Large number of garden apartments, some beginning to decline
- 97,505 jobs
- 71,230 housing units

# PLANNING HISTORY

- Arlington lobbied strongly for an underground route along the old commercial corridor vs. along the median of future highway
- Put up \$300 million local money for preferred routes and more stations



# General Land Use Plan



# Development Concepts



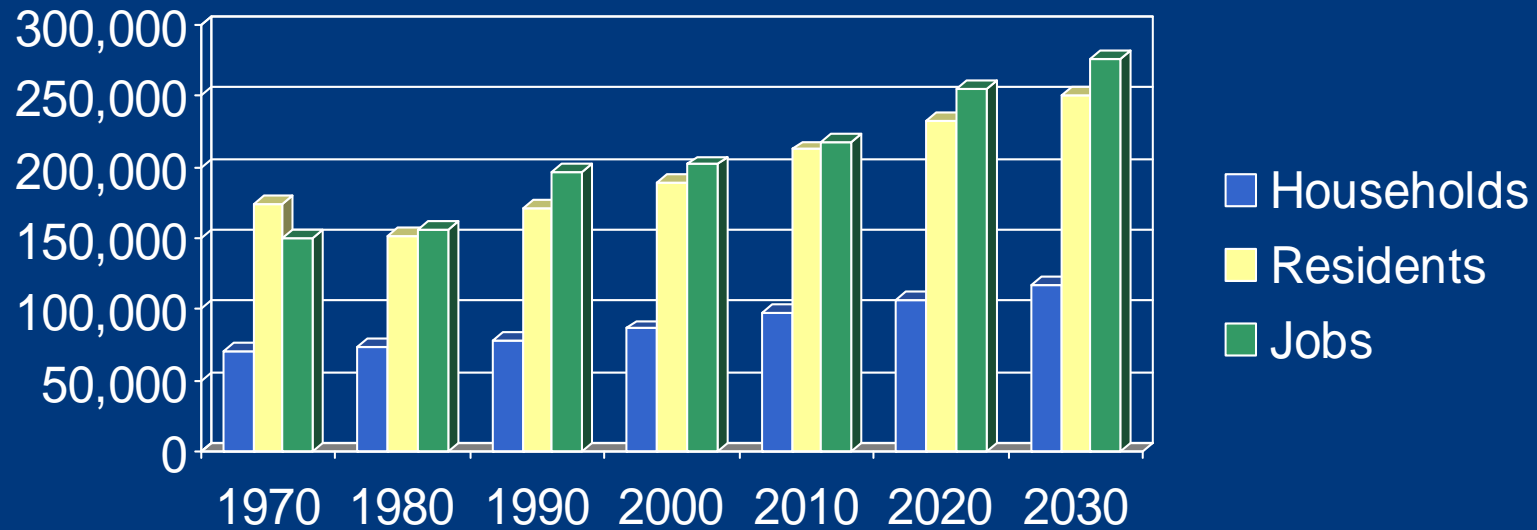
- Concentrate high and mid-density redevelopment around transit stations (highly targeted) and taper down to existing neighborhoods
- Preserve and reinvest in established residential neighborhoods
- Encourage a mix of uses and services in station areas
- Create high quality pedestrian and bicycle environments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

# Development Process



- Comprehensive Plans, Sector - Master Plans & Area Plans establish Vision and Parameters for Potential Development
- Zoning sets By Right Development levels generally lower than Planned Potential
- Maximum Development by Special Exception Site Plan Process
- Site Plan Process allows community and County to negotiate development – and benefits, including transportation infrastructure, limited parking & TDM

# Arlington Growth Trends



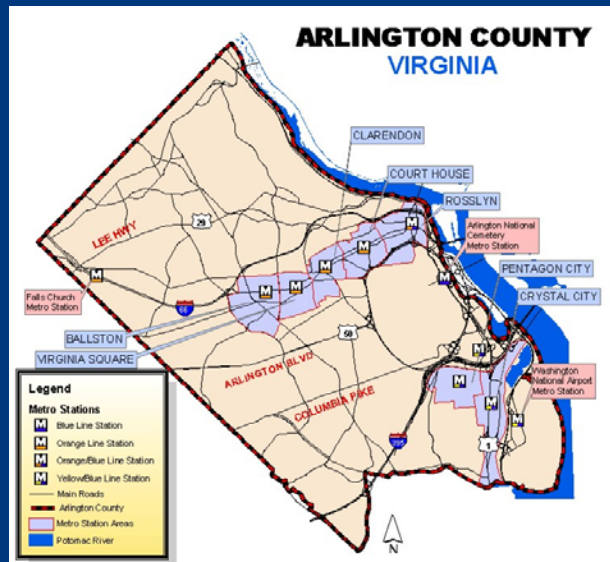
## January 2006

- 93,200 HHs (3,612/sq. mi.)
- 200,200 Res (7,760/sq. mi.)
- 199,700 Jobs (7,740/sq. mi.)

## 2030 Projected

- 118,800 HHs (4,535/sq. mi.)
- 249,500 Res (9,650/sq. mi.)
- 276,000 Jobs (10,680/sq. mi.)

# Development Characteristics



- 43.6 million sq. ft. of office space\*, 39 million sq. ft. (90%) in Metro station areas with 4 million sq. ft. of supporting retail & services
- 93,200 housing units, over 40,000 (43%) in Metro station areas
- Over 3,200 housing units, 800,000 sq. ft of office, 240,000 sq. ft of retail and 940 hotel rooms under construction in 2009

\* Includes the Pentagon @ 5 million sq. Ft.

# View of Rosslyn-Ballston Metro Corridor

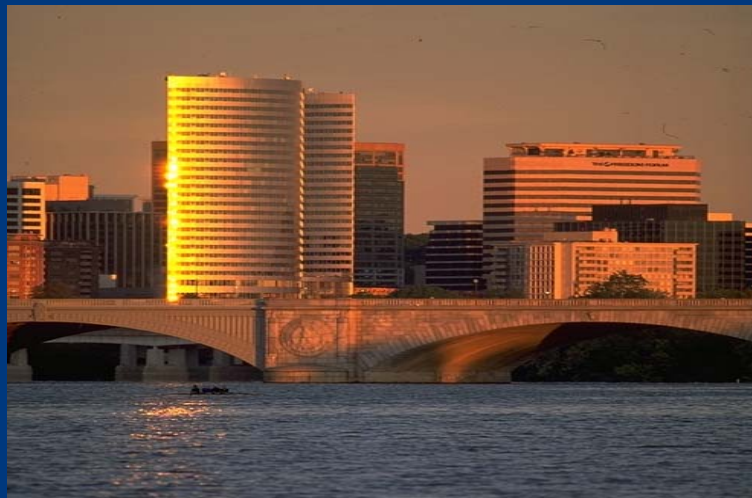
## Orange Line



# ROSSLYN THEN



# ROSSLYN TODAY



C-O Rosslyn  
Development: 10 FAR



# COURT HOUSE



# COURTHOUSE TODAY



# CLARENDON



# CLARENDON TODAY



# VIRGINIA SQUARE



# VIRGINIA SQUARE TODAY



# PARKINGTON (BALLSTON)

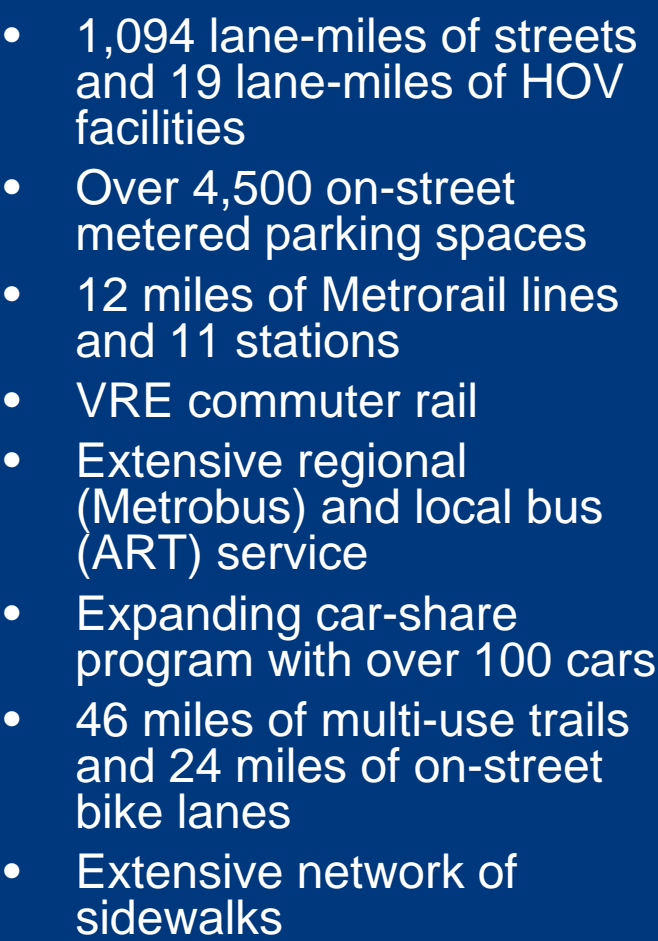


# BALLSTON TODAY



# BALLSTON TODAY





# Transportation System Use



- > 4 million vehicle-miles of travel per day
- 222,000 Metrorail boardings/alightings (June 08)
- > 50,000 bus trips
- > 3,000 commuter rail boardings/alightings
- > 3,300 car-share members
- > 200,000 transit-related walking trips
- Increasing bike commute trips
- Increasing non-transit walking and biking activity

# Transportation Strategies to Influence Travel Patterns



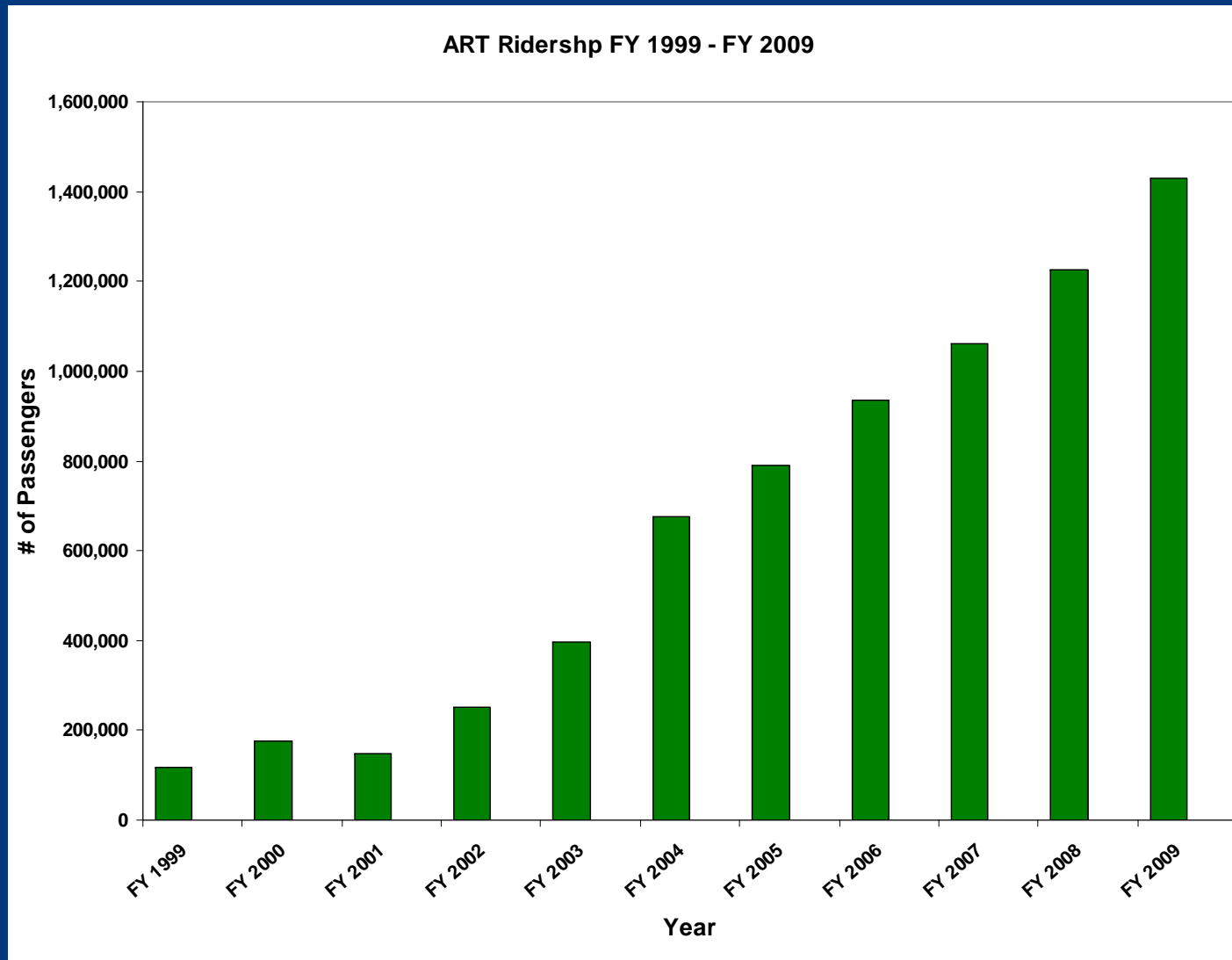
- Concentrate mixed use development around transit stations
- Create environments rich in travel choices
- Time transportation improvements including expansion of transit service to development
- Provide comprehensive travel information and encouragement
- Expand development-specific TDM requirements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

# Transit Trends



Average Weekday Ridership	Metrorail	Metrobus	ART	Total
1999	165,686	49,983	635	216,304
2000	173,110	52,921	695	226,726
2001	186,320	49,108	694	236,122
2002	177,580	52,745	765	231,090
2003	184,868	49,888	1,521	236,277
2004	194,188	43,617	2,640	240,445
2005	195,586	44,591	2,812	242,989
2006	203,700	47,129	2,992	253,821
2007	205,082	49,597	3,663	258,342
2008	213,974	51,807	4,243	270,024
2009	210,504	56,620	4,936	272,060
% Growth	27%	13%	677%	26%

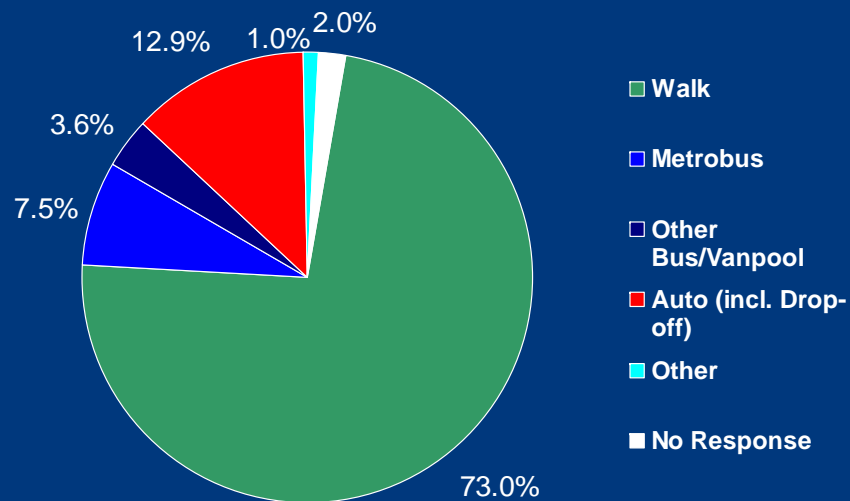
# Transit Trends



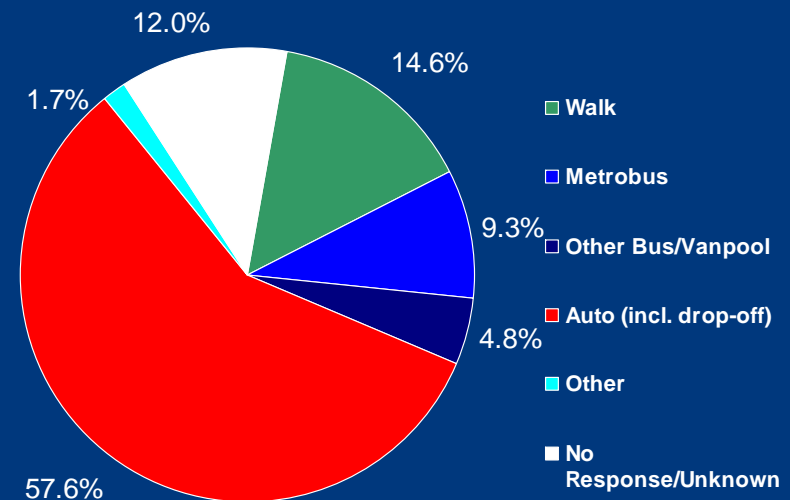
# Transit Ridership Trends – Related Trips

## – Orange Line

5 R-B Corridor Stations – 48,100  
Weekday Boardings (June 2008)



4 Suburban Stations – 36,000  
Weekday Boardings (June 2008)



# Traffic Trends - Arterial Streets

Street Segment	Street Type	1996	2001	2006	% Change 1996-2006
Lee Hwy - Rosslyn	EW 6-lane arterial	37,770	33,632	32,428	-14.1%
Wash. Blvd – VA Sq.	EW 4-lane arterial	20,469	19,478	18,069	-11.8%
Clarendon Blvd.	EW 2-lane 1-way arterial	13,980	14,199	14,539	4%
Wilson Blvd. - Clarendon	EW 2-lane 1-way arterial	16,368	16,265	13,797	-15.8%
Arlington Blvd.	EW 6-lane arterial	55,865	63,272	60,223	7.8%
Glebe Road - Ballston	NS 6-lane arterial	35,230	39,409	35,900	1.2%
G. Mason Drive	NS 4-lane arterial	20,002	22,578	23,386	16.9%



# Commuting Trends by Mode of Travel



Commute Mode	Washington Region – COG 2004 State of Commute Survey	Arlington – COG 2004 State of Commute Survey	Washington Region – COG 2007 State of Commute Survey	Arlington – COG 2007 State of Commute Survey	Arlington – ACCS 2006 Resident Travel Survey*
Drive Alone	74%	58%	71%	55%	47%
Carpool/ Vanpool	6%	5%	8%	8%	5%
Train (subway/ commuter rail)	13%	26%	13%	26%	27%
Bus	6%	7%	5%	6%	12%
Walk	1%	3%	3%	4%	6%
Bike	1%	1%	0%	1%	3%

\* Travel survey conducted by Arlington County Commuter Services

# Commuting Trends by Mode of Travel

## Greater Washington Metropolitan Region 2007/2008 Household Transportation Survey Draft Summary Results June 2009

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	7.7	52.4	17.8	10.7	16.0	3.2	4.0	20.7	5.28%	
- Rosslyn-Ballston Corridor	6.1	45.0	11.0	19.0	22.0	3.0	2.7	17.7		
- Jefferson Davis Corridor	6.1	36.0	17.0	19.0	25.0	4.0	2.2	12.3		
- Arlington outside activity centers	9.0	57.0	20.0	7.0	13.0	3.0	5.1	24.3		
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										34.14
Arlington Ave HH VMT/Region Ave HH VMT										60.60%
Arlington Metro Corridors HH VMT/Regional Average HH VMT										45.70%

\* Arlington Rosslyn-Ballston Corridor multi-family residential building garage ingress/egress analysis (2,000 Metro Station area units covered) documents that home-based auto-driver trips average 1.3 per 24 hour period on weekdays

# Arlington's Future



- Second Generation of TOD at Existing Rail Stations
  - Higher Densities through Redevelopment
  - Enhanced Access – 2nd Entrances, Elevators
- Extension of TOD to New Corridors & Communities
  - Shirlington
  - Crystal City Potomac Yard Transitway – Streetcar
  - Columbia Pike Streetcar

# Lessons Learned



- Arlington's strategies have yielded substantial transportation, environmental, economic and quality of life benefits - allowing continued growth with less reliance on auto trips, and more use of transit and other travel options.
- Integration of Planning, Development and Transportation Strategies
- Many policies contribute to enhanced performance such as:
  - Building mixed use environments with highest densities around transit stops and protecting adjoining neighborhoods
  - Expanding viable and attractive transportation options
  - Making user information readily available and providing ongoing education
  - Sustaining 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



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