



# Route 28 Station - South Study Existing Conditions and Planned Improvements

Presented by:  
Fairfax County Department of Transportation

July 8, 2010

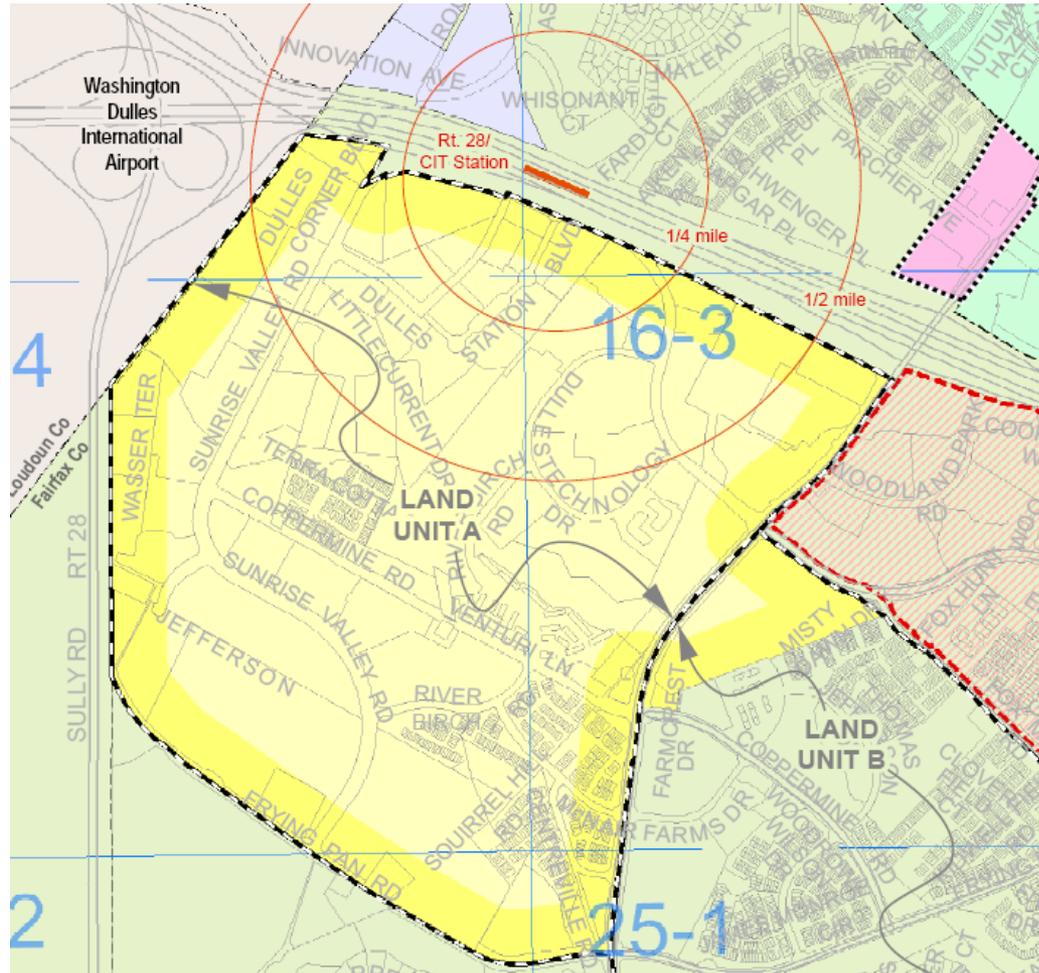


# Outline

- Transportation Characteristics of the Study Area
- County's Current Transportation Plan (Comprehensive Plan)
- Transportation Demand Management (TDM) Goals



# County of Fairfax, Virginia

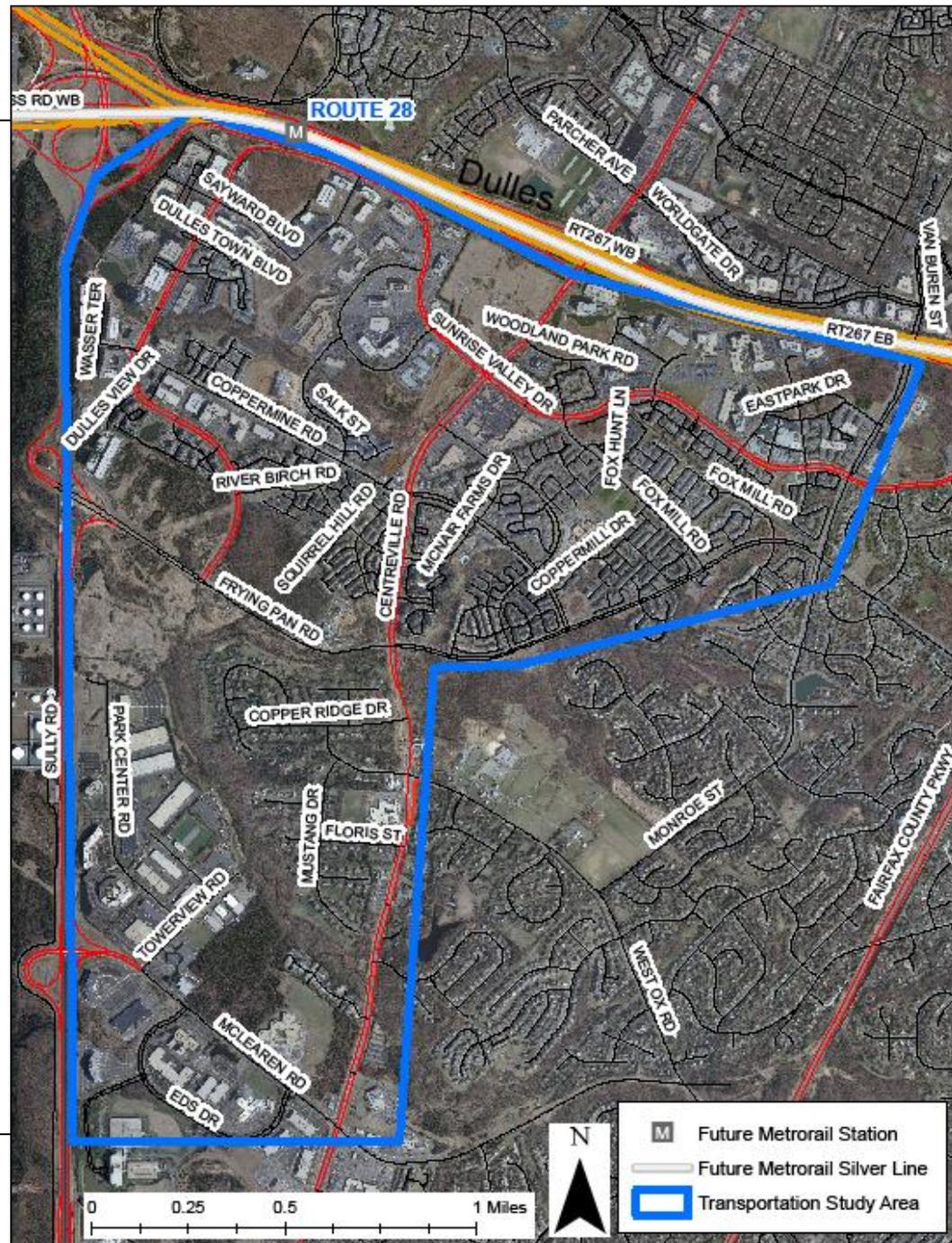


Current land use study area- Transportation study area larger



## Transportation Study Area

- East of Route 28
- South of the Dulles Toll Road
- West of Monroe Street and Centreville Road
- North of McLearen Road





# Travel Patterns in Study Area



## Commute to Work Mode

### Reston & Herndon Residents

40,000 workers

- Drive Alone 78%
- Transit 5%
- Carpool 9%
- Walk 2%
- Work At Home 5%

Source: American Community Survey, 2006-2008; US Census Bureau



## Work Location of Residents Upper Potomac Planning District

• Reston	24%
• Herndon	13%
• Tysons	9%
• Washington DC	7%
• Centreville/Chantilly	8%
• Arlington/Alexandria	3%

- Source: 2005 Fairfax County Household Travel Survey



# Review of the Current Roadway System Performance

- Two ways to measure Road Performance:
1. Volume to capacity (V/C) ratio of the intersections and links.
  2. Assigns a “grade” to indicate the relative operational efficiency of the intersections and links. The grades are typically shown as “A” through “F”.



## L.O.S. Roadway Segments or Controlled Access Highways

- A** Free flow, low traffic density.
- B** Delay is not unreasonable, stable traffic flow.
- C** Stable condition, movements somewhat restricted due to higher volumes, but not objectionable for motorists.
- D** Movements more restricted, queues and delays may occur during short peaks, but lower demands occur often enough to permit clearing, thus preventing excessive backups.
- E** Actual capacity of the roadway involves delay to all motorists due to congestion.
- F** Forced flow with demand volumes greater than capacity resulting in complete congestion. Volumes drop to zero in extreme cases.

## Intersections

No vehicle waits longer than one signal indication.

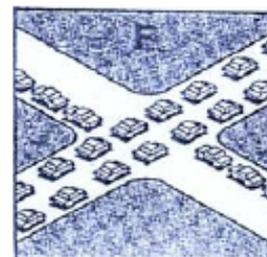
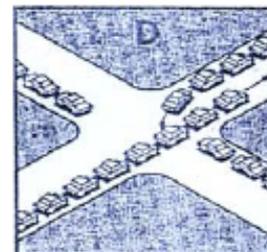
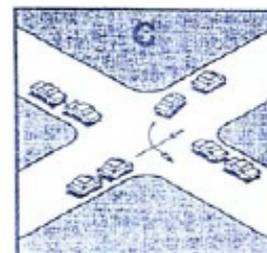
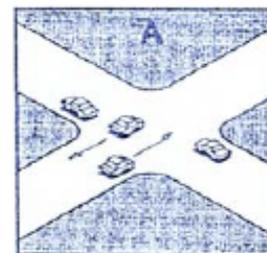
On a rare occasion motorists wait through more than one signal indication.

Intermittently drivers wait through more than one signal indication, and occasionally backups may develop behind left turning vehicles, traffic flow still stable and acceptable.

**Delays at intersections may become extensive with some, especially left-turning vehicles waiting two or more signal indications, but enough cycles with lower demand occur to permit periodic clearance, thus preventing excessive back-ups.**

Very long queues may create lengthy delays, especially for left turning vehicles.

Backups from locations downstream restrict or prevent movement of vehicles out of approach creating a storage area during part or all of an hour.





# Existing Intersection Level of Service



A B

AM/PM  
Level of  
Service

F D

F D

A A

A A

C E

B C

Centreville  
&  
McLearen

D D

D E

- -



Source: Fairfax DOT; Rocks Traffic Study; Middleton Farms Traffic Study



# Fairfax County Transportation Plan

- What Transportation Services and Facilities Are Planned for the Study Area?

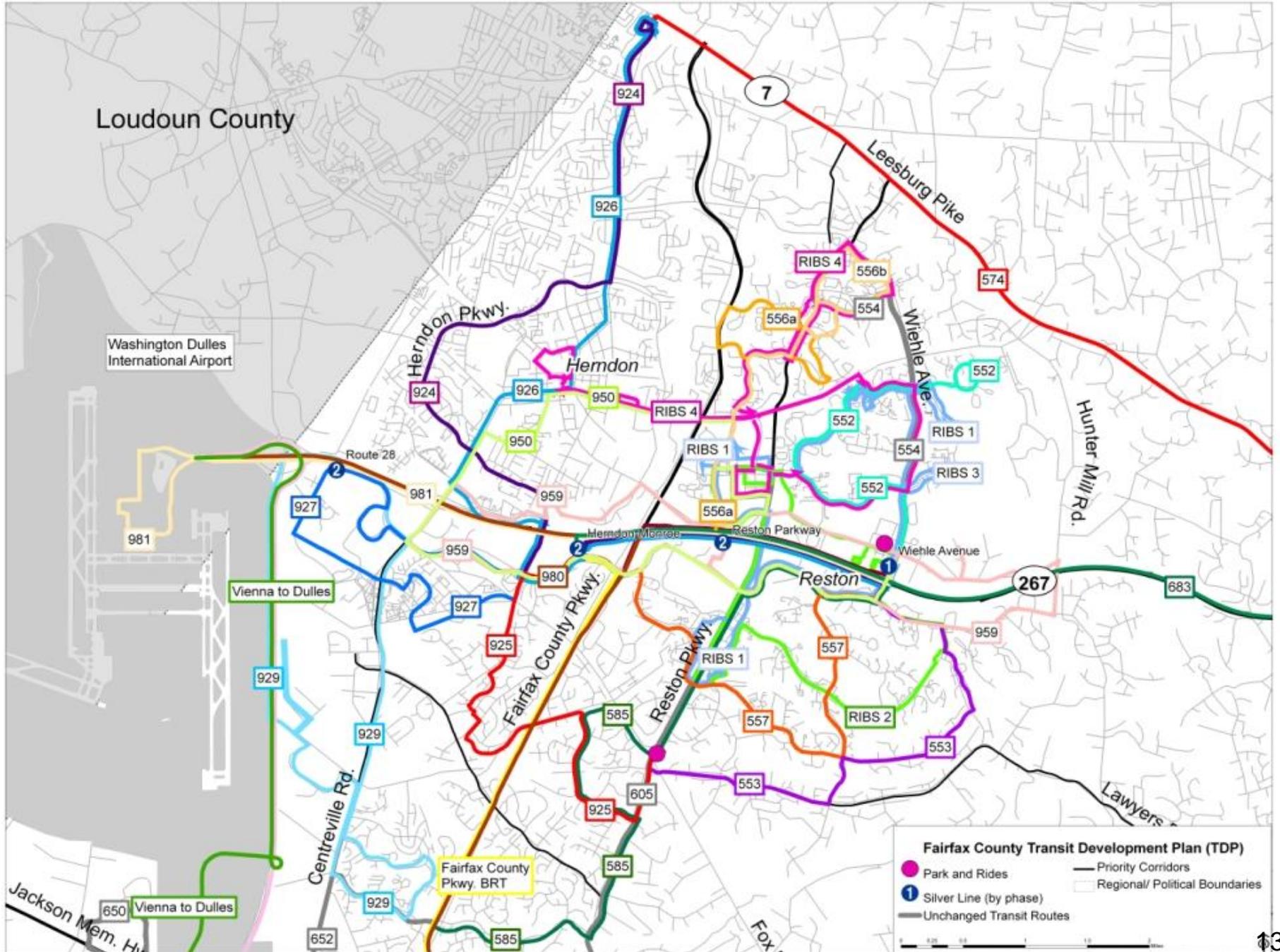


## Fairfax County Transit Development Plan TDP

- A comprehensive 10 year plan for all bus service in Fairfax County (Fairfax Connector and Metrobus)
- Financially Unconstrained
- Prioritized Service Recommendations
- Planning focused on priority corridors and activity centers to best link the County's vibrant economic activity centers
- Commenced in January 2008 and Completed in December 2009

Loudoun County

Washington Dulles International Airport



**Fairfax County Transit Development Plan (TDP)**  
● Park and Rides  
① Silver Line (by phase)  
— Unchanged Transit Routes  
— Priority Corridors  
□ Regional/ Political Boundaries



## TDP Recommendations

- Two Phase Plan for Metrorail
- Restructuring plan covers all roads with bus service
- Streamlines service
- Extensive Span of Service: AM and PM peak service
- Peak Frequency: 30 minutes
- Details at: <http://www.fairfaxcounty.gov/fcdot/tdp.htm>





## Current Fairfax County Comprehensive Plan Transportation Recommendations

- HOV lanes on Route 28 and widen to 10 lanes
- HOV lanes on Fairfax County Parkway
- Route 28 Metrorail Station
- New Road from Frying Pan to Park Center Drive (4 lanes)
- Widening and improvement of some of the major facilities: Sunrise Valley Drive, Centreville Road, Frying Pan Road, Monroe Street, and McLearen Road
- Extension of McLearen Road from West Ox Road to Reston Parkway
- Full interchange at Fairfax County Parkway and McLearen Road
- Improve Centreville Road/Dulles Toll Road interchange
- Overpass west of the Route 28 Metrorail Station over Dulles Toll Road
- Encourage TOD development and TDM measures



County

## Proposed Development Near Planned Route 28 Metro Station

Key

- Alternative 1
- Alternative 2
- Alternative 3



Development  
Concept Plans  
Added

Proposed Route 28/  
CIT Metro Station

1200 FEET

MAP PREPARED MARCH 2010 BY THE DEPARTMENT OF PLANNING AND ZONING  
AERIAL PHOTO FLIGHT DATE MARCH 2009

G:\projects\loc\p\dlav\projects\2009\Rt\_28\_Metro\_Station\_CQJ\Prop\_Dev\_Rt\_28\_Metro\_Sta\_2009\_AERIAL\_sm\_scale.mxd  
Aerial\_with\_Dev\_Plans\_3-2010 version 2







## Rationale for Overpass Recommendation

- Opportunity to link developments across DTR
- Opportunity for transit connection
- Provide relief to Centreville Road
- Keep a regional access link on the Plan
- Provides a link to connect a spine road from Church Pool Road (Loudoun) to McLearen Road (Fairfax)
- Current location conflicts with Metrorail station and the bus and parking facilities
- Station location cannot move to the west
- Current location incompatible with planned mixed-use transit-oriented development (counter to County's TOD policy)



## Implications of the Overpass

- Requires reconstruction of Sunrise Valley Drive
- Impacts on access for properties north of Sayward Boulevard along Sunrise Valley Drive
- Potential for more traffic in area



# TDM Goals

- What Are Reasonable TDM Goals in Transit Station Areas?



# County TDM Study

## Study Objective

- Develop a TDM Manual and process to provide Fairfax County and the development community a clear and consistent application of TDM within the development review process
- Recommend changes to parking requirements for TOD locations

## Study Status

- Nearly Complete



# Transportation Demand Management Trip Reduction Goals Consultant Recommendations

➤ Trip Reduction Goals - Office and Residential Development

High Level of Transit Service

% Reduction from ITE PM Peak Hr Rates

With TDM                      35% - 45%

\* High = within 1/2 mile walking distance of a rail transit station

Source: County TDM Study (Preliminary Recommendations)

ITE – Institute of Traffic Engineers



# Questions/Comments?