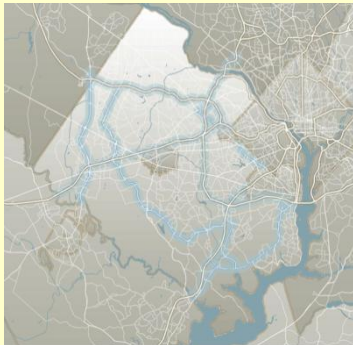




County of Fairfax, Virginia



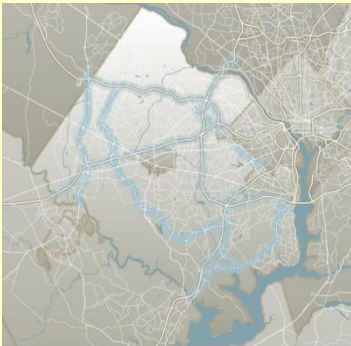
Fairfax County Countywide Transit Network Study

Transportation Advisory Commission (TAC)

Fairfax County Dept. of Transportation
May 15, 2012

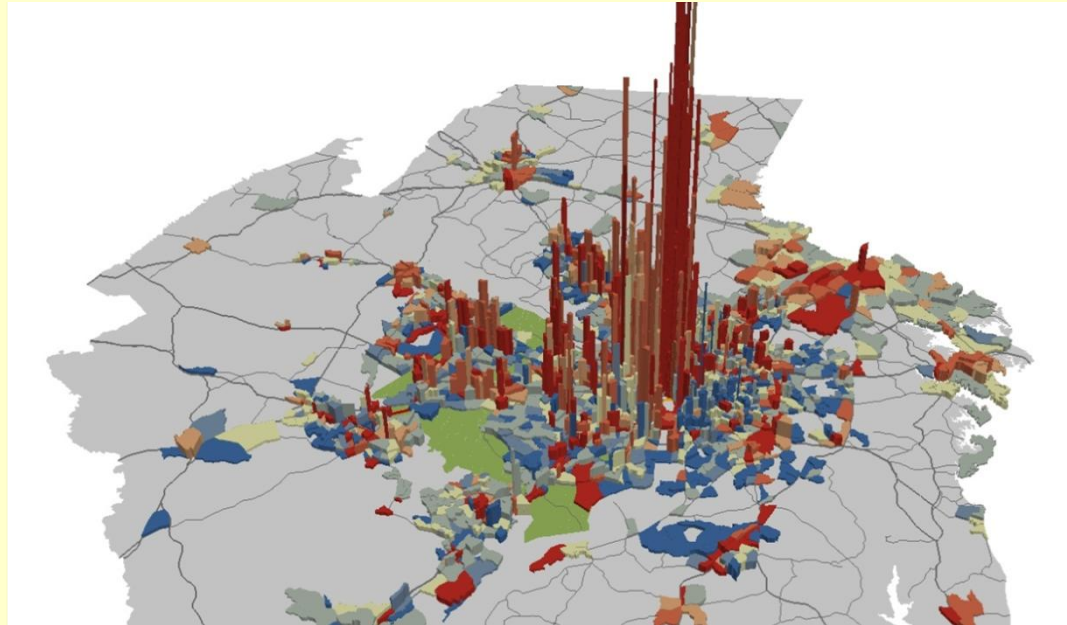


County of Fairfax, Virginia



Study purpose:

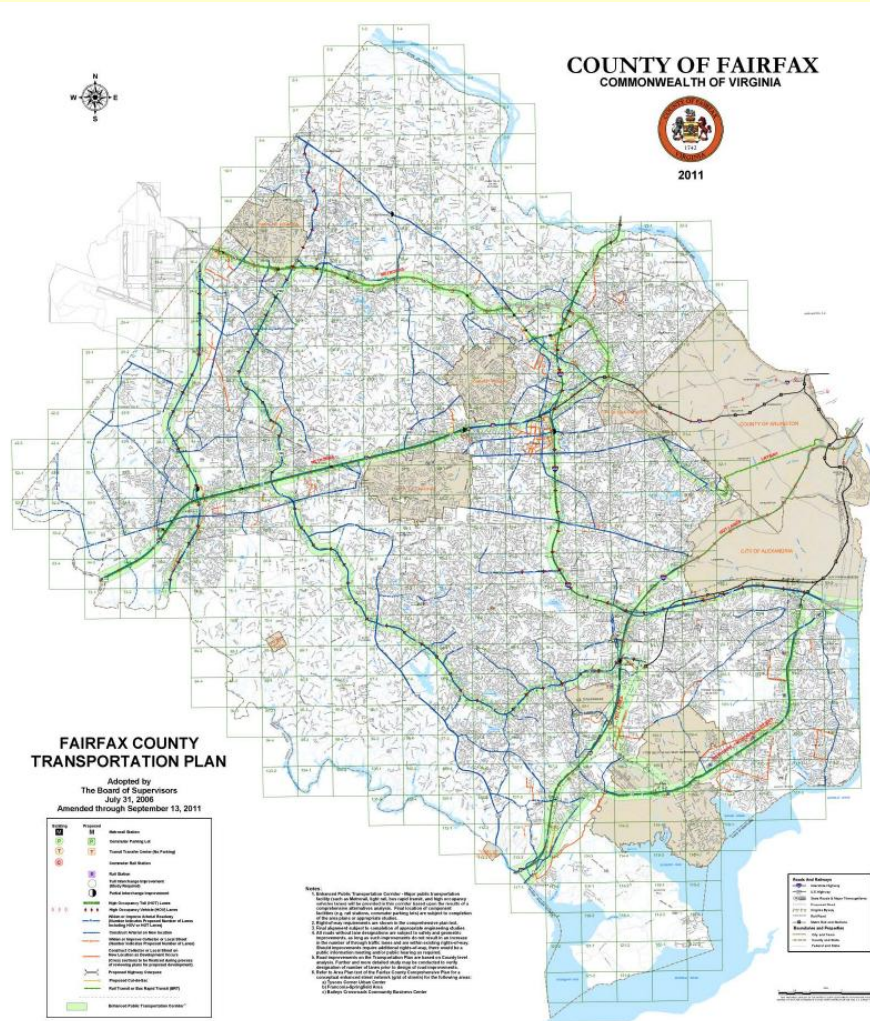
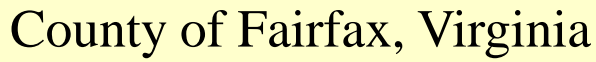
Determine the most effective way to serve the County's' long term mobility needs and accommodate planned growth by establishing a network of high quality transit corridors.



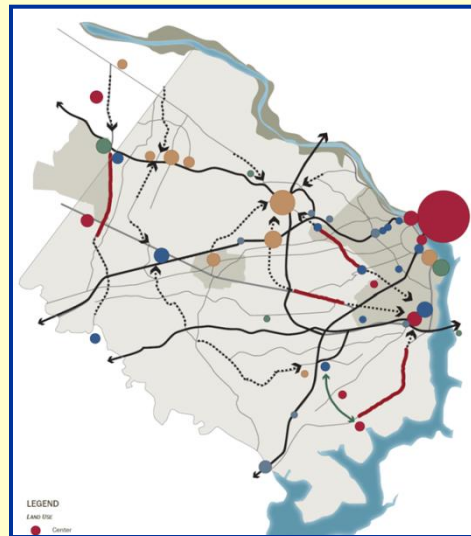
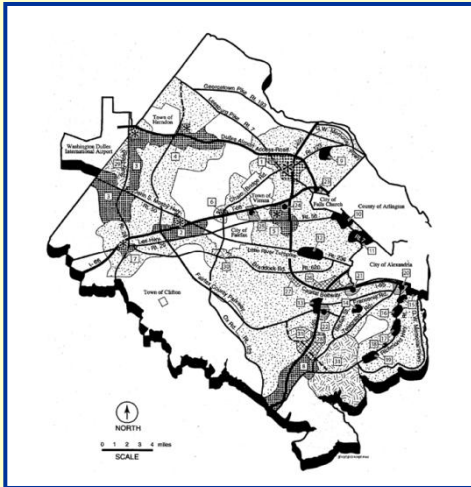


Study objectives:

- Establish a ***connected rapid transit system*** to meet demands in the year 2050
- Define transit corridor functions, station locations, modes and rights-of-way to guide subsequent comprehensive plan amendments and development review
- Coordinate with other regional, state, and local jurisdictional plans
- Identify policies, programs, and actions to support phased implementation and expedite delivery of priority elements



Current Plan



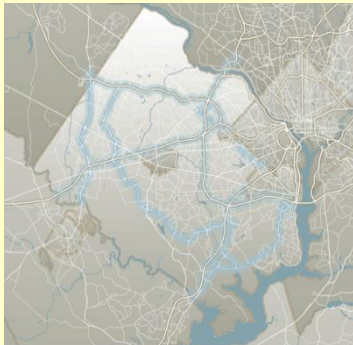
Study process:

- Develop functional plan for transit connections reflecting functions of activity centers served
- Conduct travel demand forecasting and assess implementation feasibility
- Solicit input from partner agencies, stakeholders, and Board

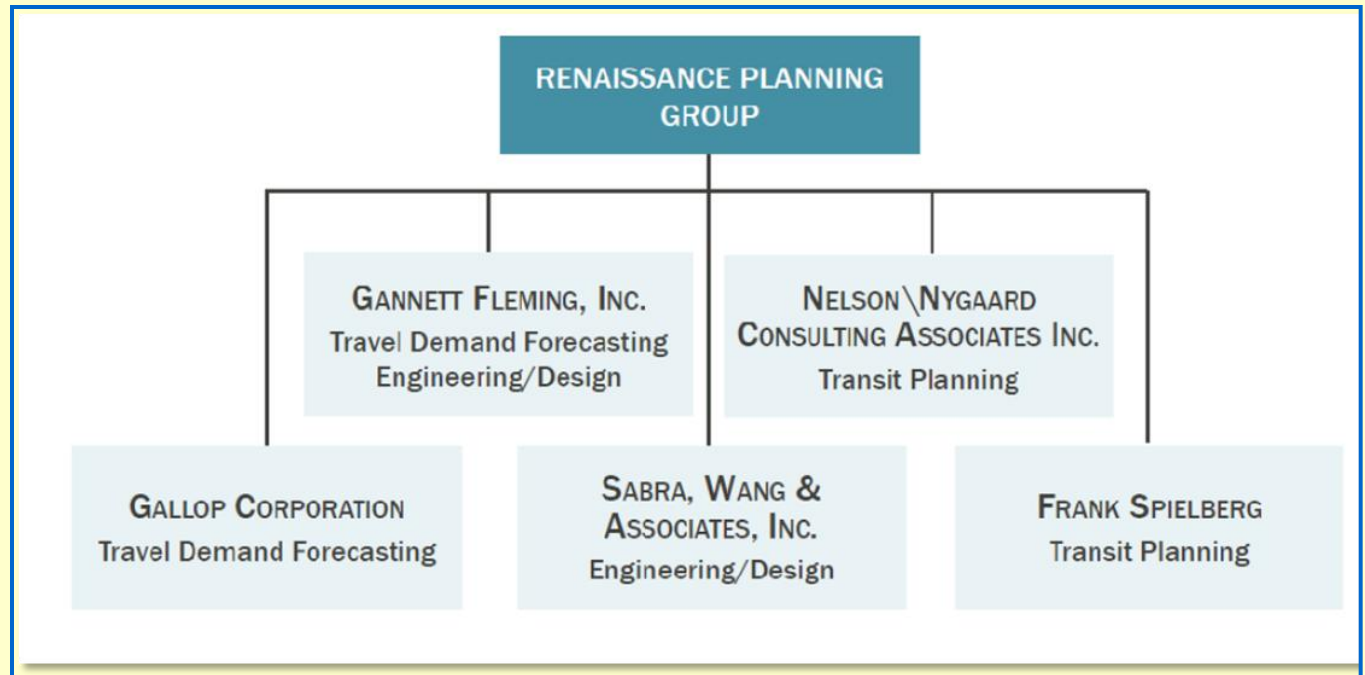




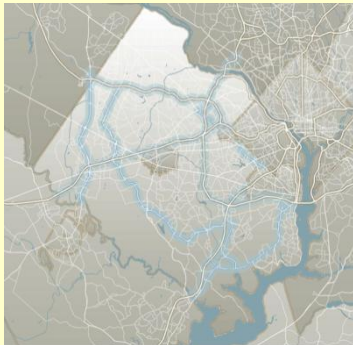
County of Fairfax, Virginia



Consultant team:



Project manager: Dan Hardy, P.E., PTP



Study schedule:

- Goals and objectives (spring 2012)
- Scenario analysis / public input
 - Initial concepts (summer 2012)
 - Refined concepts (fall 2012)
 - Recommended concepts (spring 2013)
- Board endorsement of study recommendations, with subsequent comprehensive plan amendments as warranted



County of Fairfax, Virginia

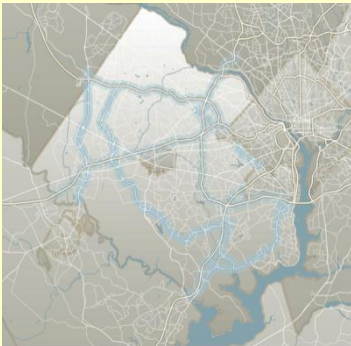


Initial tasks:

- Documentation and info
- Online attitudinal survey to refine study goals and objectives
- Travel demand model forecasting



Photo credits: Tri-Met



Review of Documentation & Information

- Data Collection
- Review of Ongoing Studies
- Drafting of Literature Review
 - Similar Transit Systems
 - ✓ National
 - ✓ International



County of Fairfax, Virginia

Countywide Transit Network Study - Fairfax County, Virginia - Windows Internet Explorer

http://www.fairfaxcounty.gov/fcdot/2050transitstudy/

File Edit View Favorites Tools Help

Security Appliance Configur...

Fairfax County VIRGINIA

Home Living Here Doing Business Visiting Departments & Agencies

Search Site: Go Advanced Search

Index

- Contacts/Directions
- Countywide Transit Network Study
- Participate
- Resources
- FCDOT Home

Related Links

- Fairfax Connector
- Community and Recreation Services
- Police
- Public Works and Environmental Services
- Tax Administration
- Transportation Subject Page

Online Services

Our Government

News and Events

Maps, Facts & Stats

State & Federal

homepage > department of transportation:

Countywide Transit Network Study

The Fairfax County Department of Transportation is beginning the Countywide Transit Network Study to determine the type of transit systems needed to accommodate desired economic growth throughout the county over the next several decades. The study will develop recommendations for where Metrorail should be extended, where streetcar or light-rail systems are appropriate, and where dedicated lanes that allow buses to move faster could go. The study will also recommend how the system can be phased in and funded over time.

The purpose of the Countywide Transit Network Study is to establish a network of high quality transit corridors in a cost-effective way to serve the county's needs to accommodate planned growth over the long term.

The study has three primary objectives:

- Determine future countywide transit needs:**
 - Which highway corridors show a very high level of congestion in future?
 - What quality of transit service do we need?
 - Where do we need exclusive right-of-way?
- Determine travel markets:**
 - Which of the county's activity centers have the highest level of travel demand to, from, within, or between them?
- Determine countywide connected transit network:**
 - Where are there gaps in the network?
 - Where should connections occur?
 - How well are the needs to move people and goods and to support economic growth being served?

We Want to Know!

- Answer** - Take the online survey for the Countywide Transit Network Study.
- Comment** - Send us comments or questions regarding the Countywide Transit Network Study.
- Read** - See other local or regional comprehensive plans.
- Engage** - Sign up to receive emails about public meetings and other study related updates.

100%

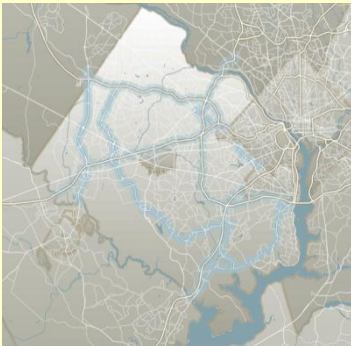
Start

10:02 PM
4/25/2012

www.FairfaxCounty.gov/FCDOT/2050TransitStudy



County of Fairfax, Virginia



Fairfax County 2050 Transit Study

The Fairfax County Department of Transportation is conducting a 2050 Transit Study during 2012 to determine how public transit system expansion plans can best serve the county's long-term economic growth objectives. Transit systems can be designed to serve many different objectives. This survey will help us understand your needs and preferences for traveling within or through Fairfax County and how your travel needs are connected to other elements affecting your quality of life. We expect this survey will take you about 10 minutes to complete and we thank you for your participation.

Tell us about how important travel options are for you.

1. How important is it for you to live in a place that provides:

	Not Very Important	Somewhat Important	Important	Very Important
As large of a house as you can afford	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A front yard and / or back yard	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A mix of different housing sizes, types and styles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A mix of different ages and incomes among your neighbors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An easy walk (under 10 min) to work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An easy walk (under 10 min) to shopping / dining / entertainment / cultural destinations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An easy walk (under 10 min) to healthcare or a pharmacy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An easy walk to recreational facilities (i.e. park or fitness center)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Easy access to the highway	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Easy access to rail transit by park-and-ride	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Easy access to rail transit by walk / bike	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Easy access to rail transit by bus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Easy access to bus transit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Privacy from neighbors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality public schools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page 1

Study stated preference survey

www.FairfaxCounty.gov/FCDOT/2050TransitStudy/Contact.htm



County of Fairfax, Virginia



Goal	Performance Measure	Data Analyzed	Presentation of Findings
CONNECT <i>Provide more transportation choices for Fairfax County and regional connectivity</i>	1. Transit integration	<ul style="list-style-type: none"> Assessment of ease of connections to other services within and beyond the County Assessment of impacts on existing and planned transit operations Assessment of standardization of mode on operating and maintenance costs 	<ul style="list-style-type: none"> Base map highlighting specific impacts (positive and negative) related to ease of connections and operational and maintenance impacts
	2. Ridership potential	<ul style="list-style-type: none"> Activity centers served Activity levels within ¼ mile of corridor: <ul style="list-style-type: none"> Employees Housing units Hotel rooms Special event venues Quality of connections between activity centers and corridor Quality of pedestrian environment in and around corridor 	<ul style="list-style-type: none"> Map showing activity centers within ¼ mile of EPTC Table showing numbers for each type of land use activity Table showing transit and non-motorized mode shares for each activity center Table showing mode of access for each EPTC Map highlighting strengths and weaknesses of pedestrian environment and connections to alignment and activity centers
	3. Directness of travel	<ul style="list-style-type: none"> Objective estimate based on average travel speeds and length of each corridor Analysis of estimated level of transfer activity and ease of transfers between EPTCs and existing services 	<ul style="list-style-type: none"> Base map with call out boxes showing projected travel times between key points along corridor Estimated transfer matrix based on regional travel demand model
	4. Conceptual capital costs	<ul style="list-style-type: none"> Conceptual cost estimate for each corridor (by mode) using general unit costs, adjusted for specific route differences like the relative number of utility conflicts Assessment of viability of right-of-way acquisition based on infrastructure requirements (such as grade-separation) and associated capital costs 	<ul style="list-style-type: none"> Table showing costs for each option, broken down according to major cost categories, include explanatory comments as appropriate
	5. Conceptual operating costs and cost effectiveness	<ul style="list-style-type: none"> Calculated based on unit costs and common assumptions for service frequency and span 	<ul style="list-style-type: none"> Table showing level of service assumptions, projected cost, and estimated cost effectiveness ratio for each option
GROW <i>Support local and regional economic development goals</i>	1. Existing development	<ul style="list-style-type: none"> Total value base (including tax exempt) within ¼ mile of corridor Taxable base within ¼ mile of corridor 	<ul style="list-style-type: none"> Table showing value base and taxable base
	2. Potential for new development	<ul style="list-style-type: none"> Calculation of total acreage (not on streets) within ¼ mile of corridors Identification / calculation of vacant and redevelopable acres within ¼ mile of corridors Identification of planned developments within ¼ mile of corridors Estimation of new transit-induced development 	<ul style="list-style-type: none"> Table showing amount of total / redevelopable acreage for each EPTC and estimated potential for new development Map showing planned developments within ¼ mile of EPTCs Table showing remaining balance between land use and highway capacity in each activity center
THRIVE <i>Strengthen quality of life by making transit-friendly, sustainable investments</i>	1. Access to cultural venues and community facilities	<ul style="list-style-type: none"> Identification of venues and facilities within ¼ mile of corridors 	<ul style="list-style-type: none"> Base map showing venue locations / facts
	2. Potential environmental impacts	<ul style="list-style-type: none"> Initial GIS data gathered related to environmental areas of concern (historic, community, wetlands, parks, etc.) 	<ul style="list-style-type: none"> Base map(s) identifying key environmental considerations (positive, neutral, or negative)
	3. Consistency with land use and adopted plans	<ul style="list-style-type: none"> Subjective assessment of how each route addresses County, city, and neighborhood land use and other plans with attention to community concerns such as noise and visual impacts 	<ul style="list-style-type: none"> Base map showing land use and key points of relevancy to adopted plans

Preliminary goals and objectives

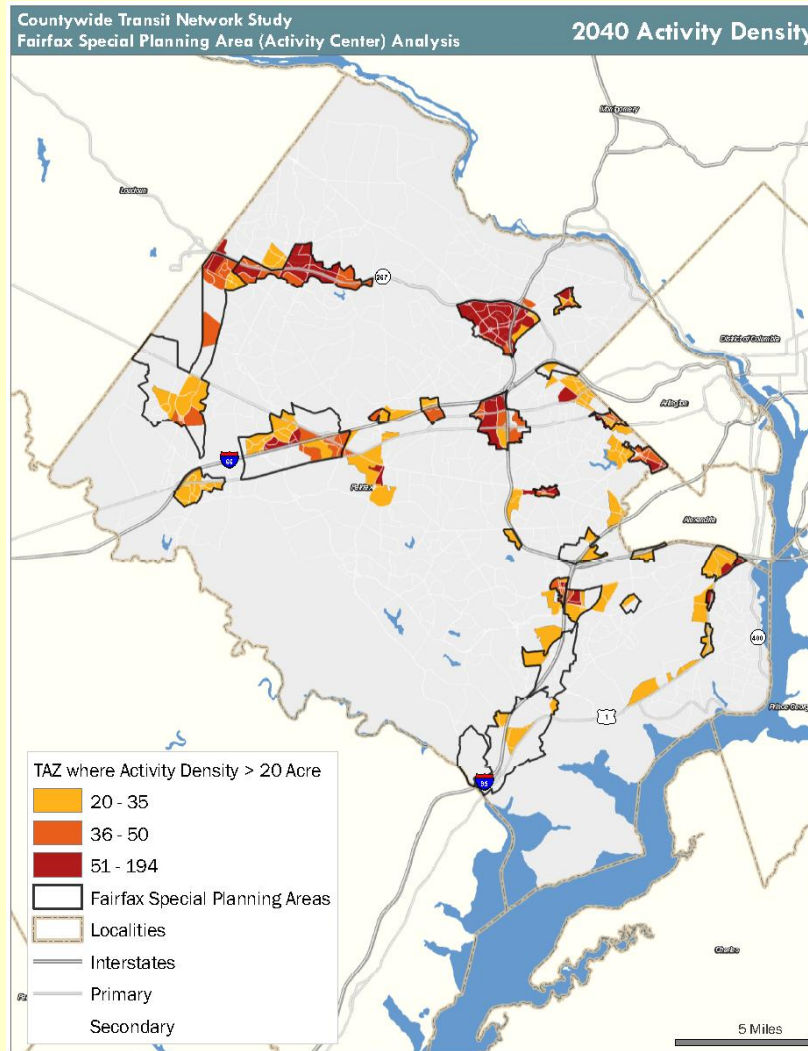


Travel Demand Modeling

- Metropolitan Washington Council of Governments (COG)
- 2040 Land Use Projections
(Extended to 2050 for this Study)
- Forecast Trips
 - Auto
 - Transit Ridership



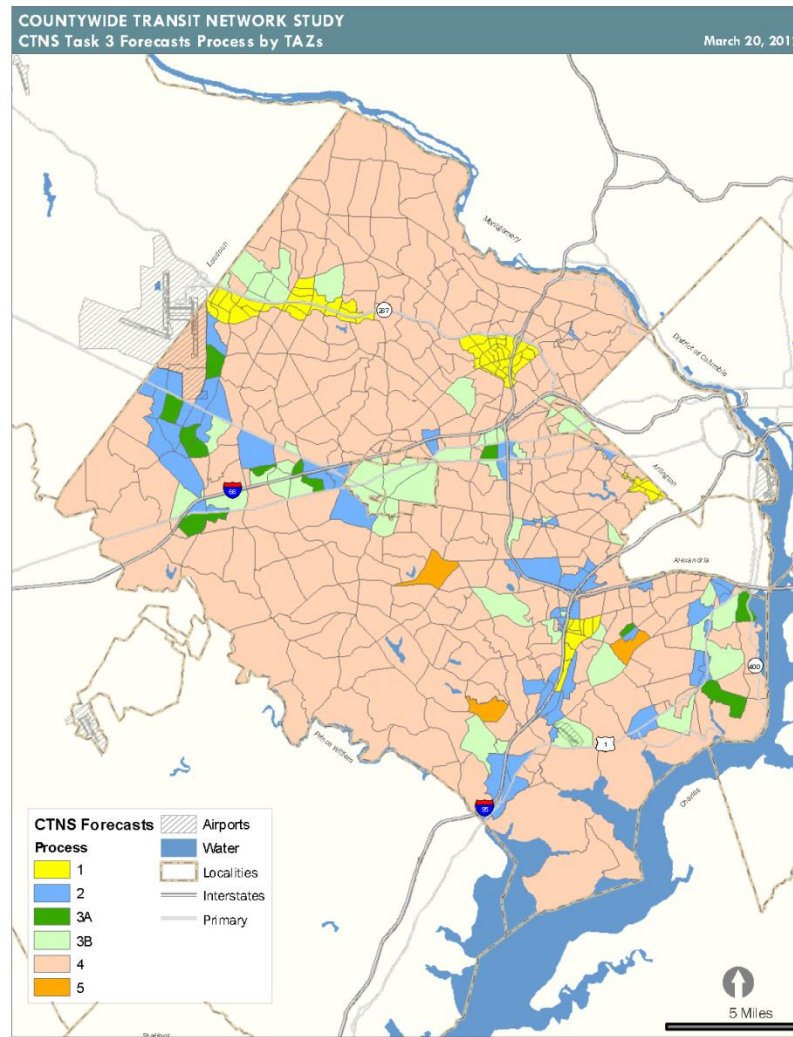
County of Fairfax, Virginia



2040 Land Use



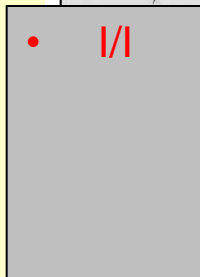
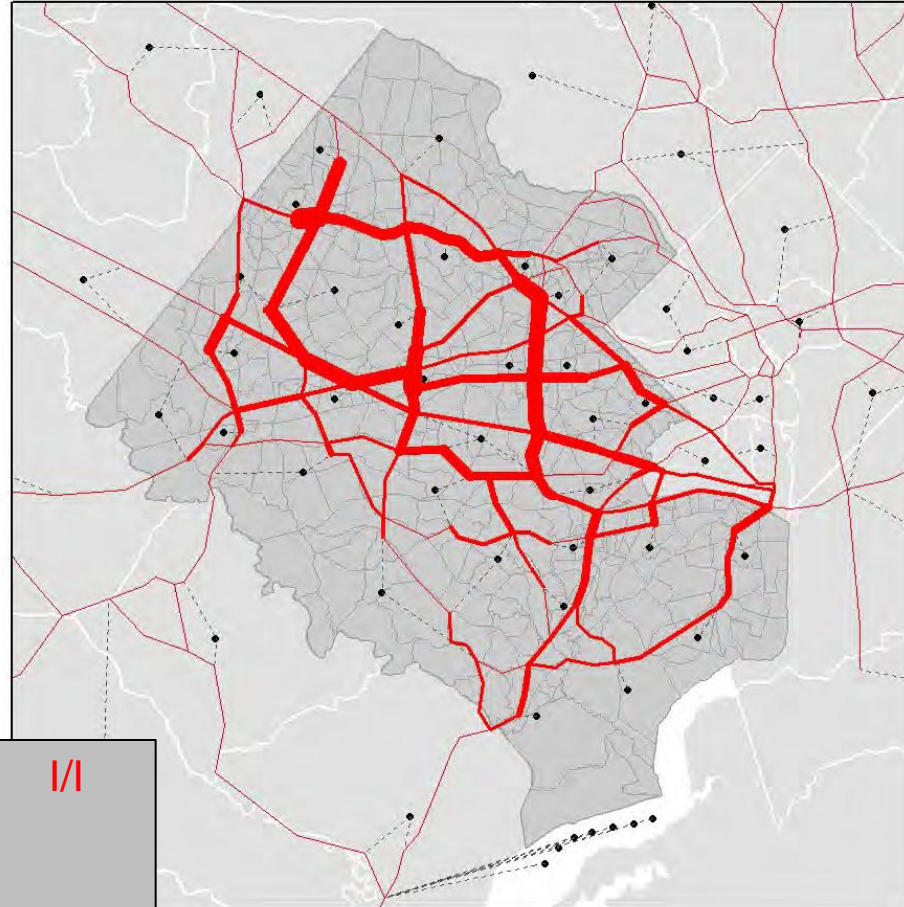
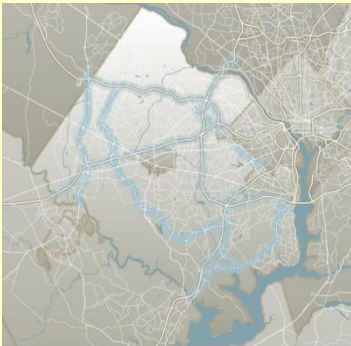
County of Fairfax, Virginia



2050 Land Use



County of Fairfax, Virginia



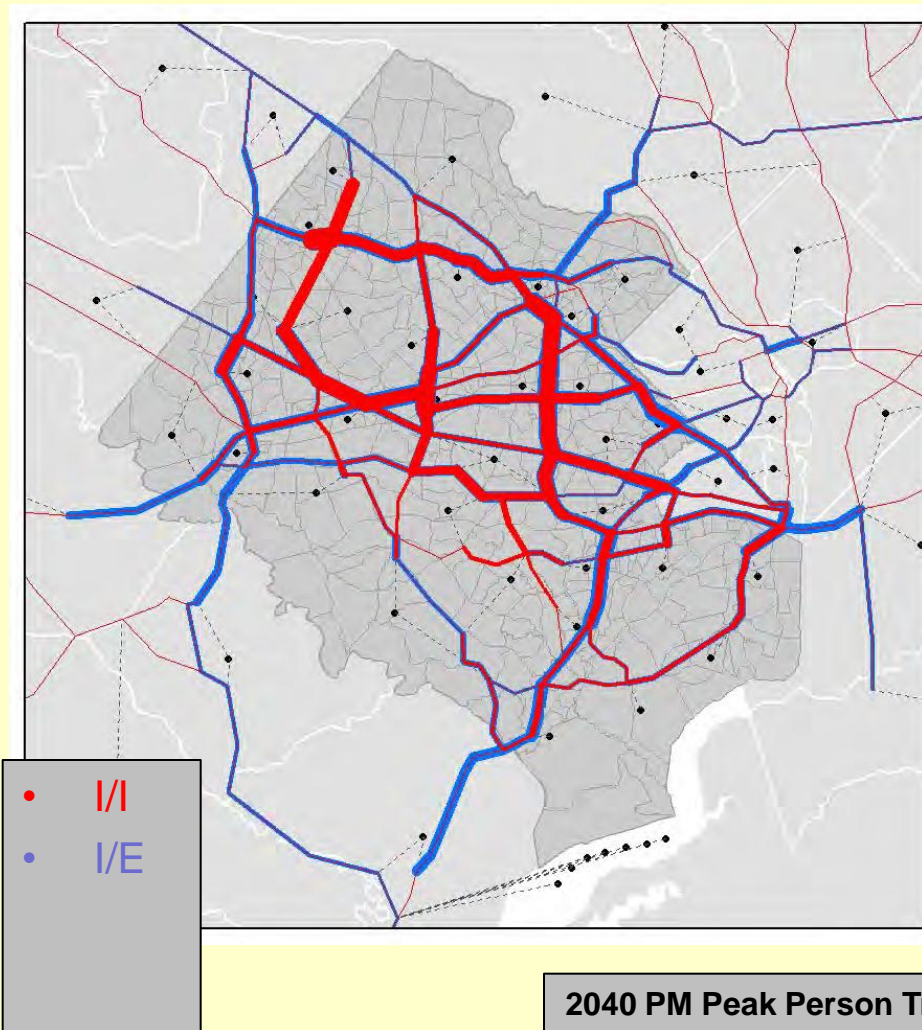
2040 PM Peak Person Trips

Quick
response
travel
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processes

Internal-
Internal
Trips



County of Fairfax, Virginia

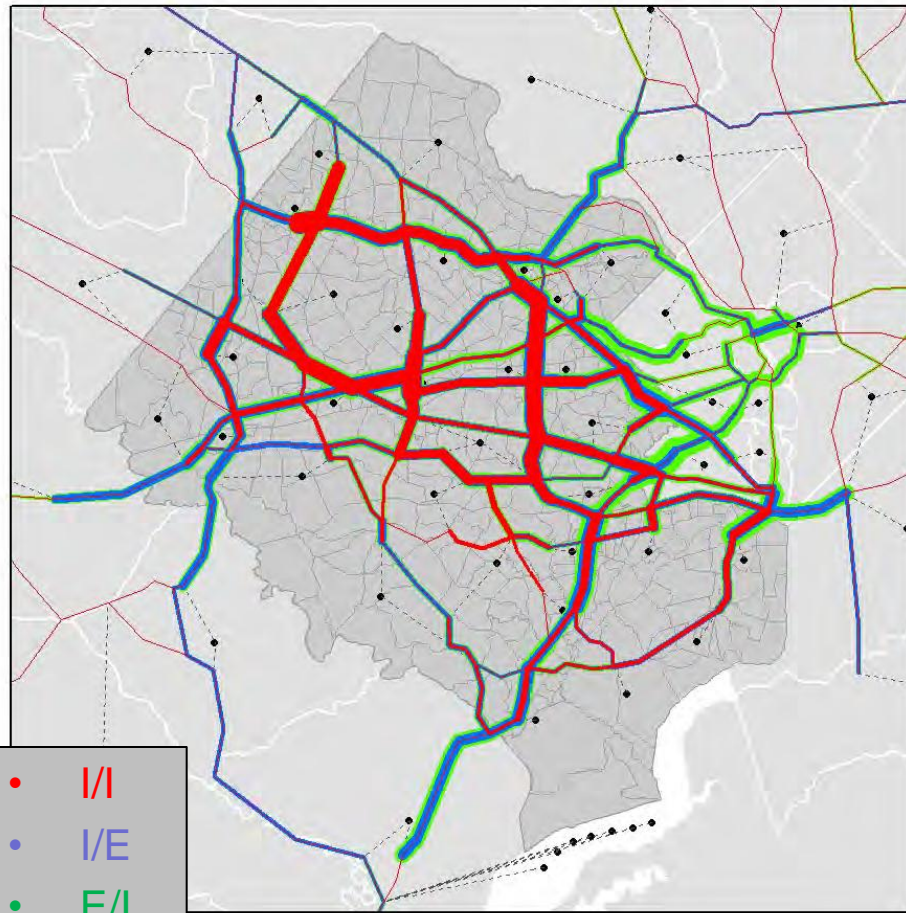


Quick
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+
Internal-
External
Trips



County of Fairfax, Virginia



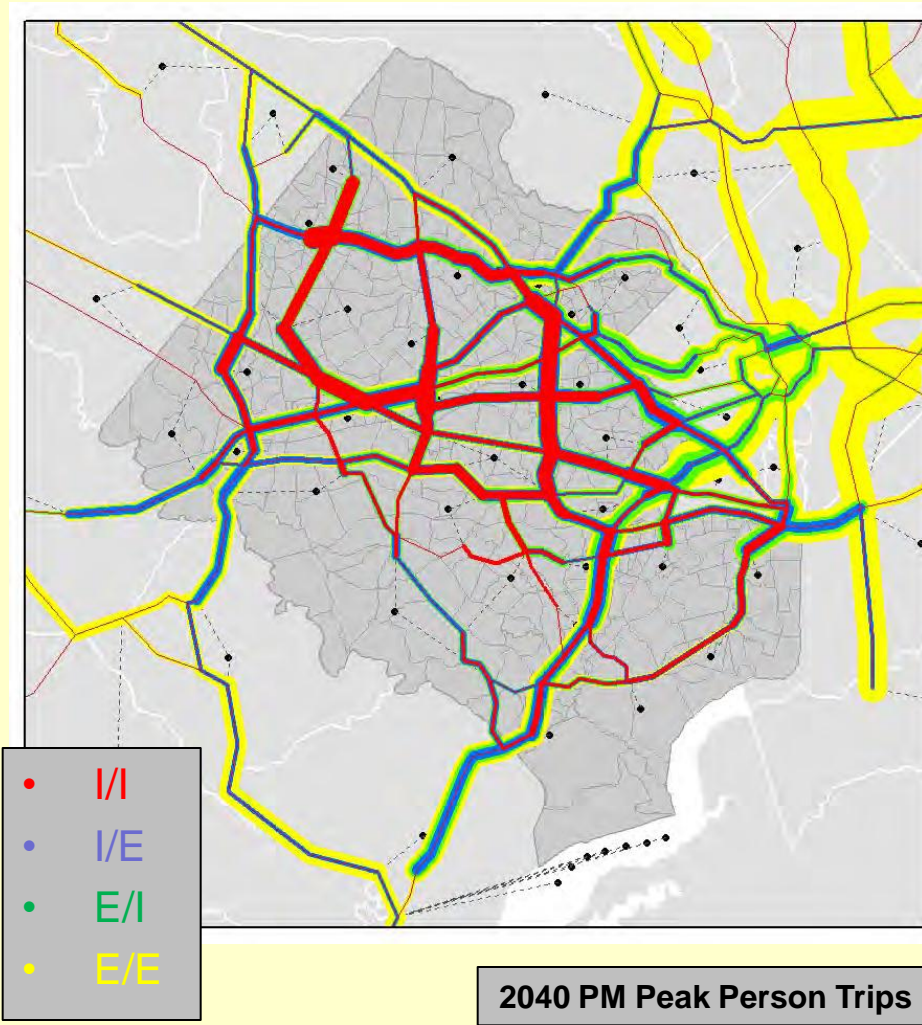
2040 PM Peak Person Trips

Quick
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+
External-
Internal
Trips

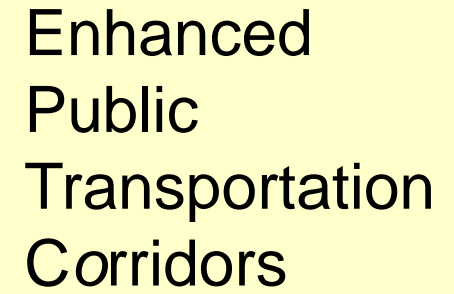
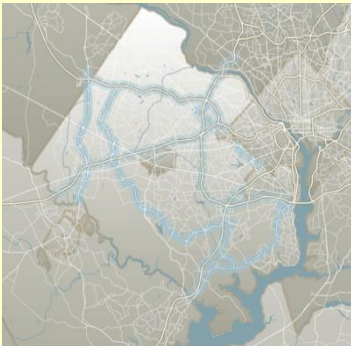
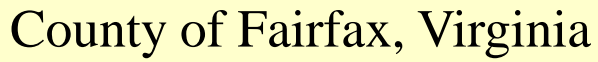


County of Fairfax, Virginia



Quick
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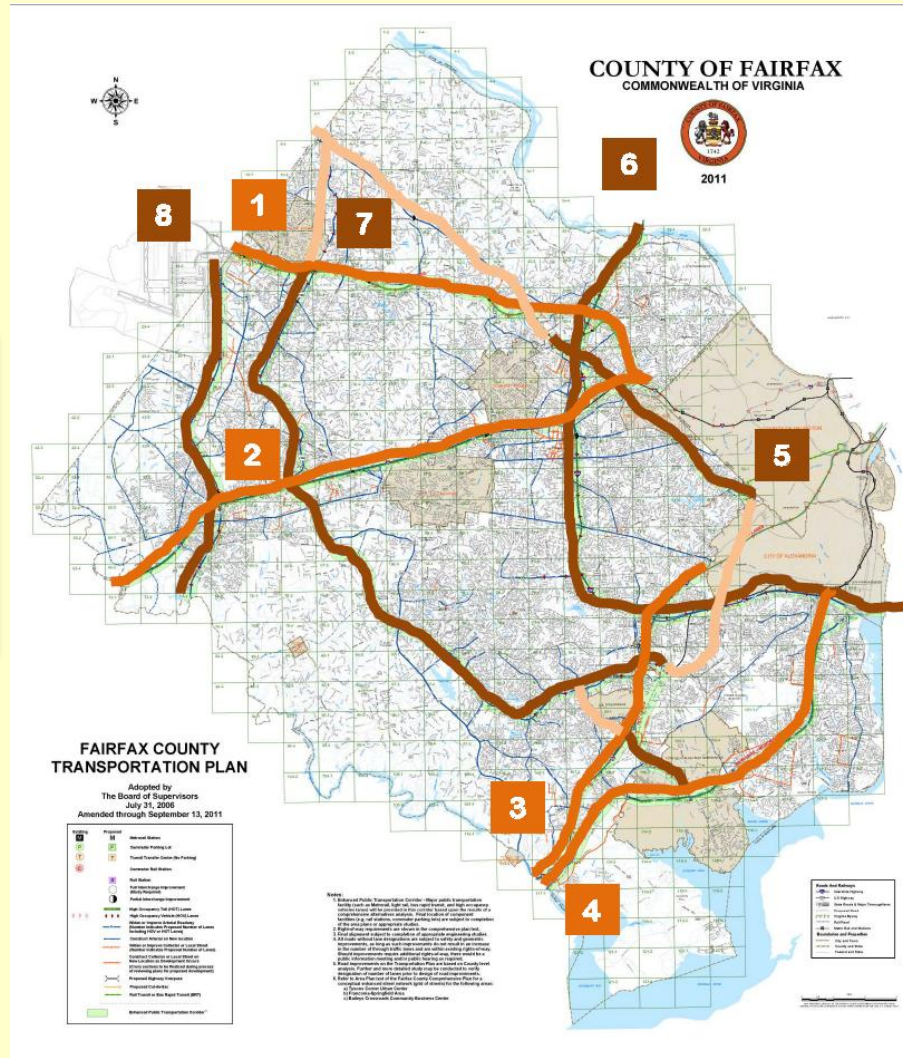
+
External-
External
Trips



Radial EPTCs



County of Fairfax, Virginia

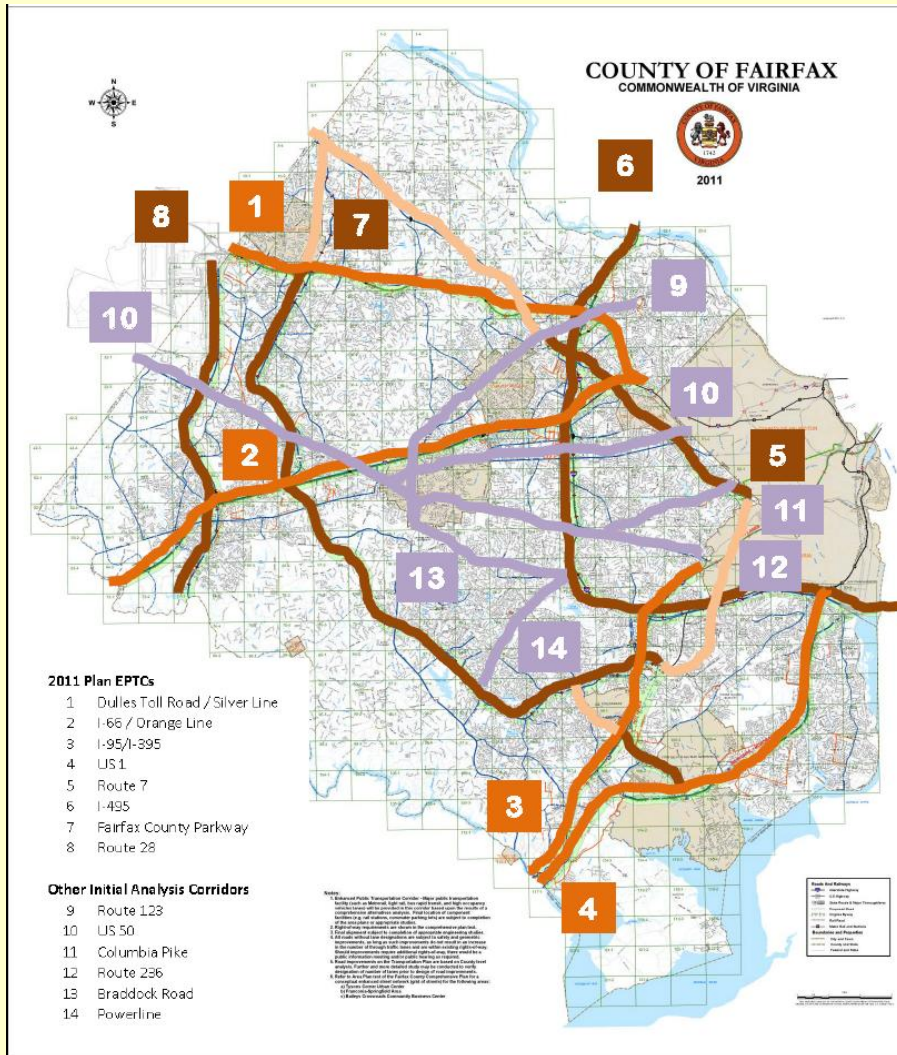
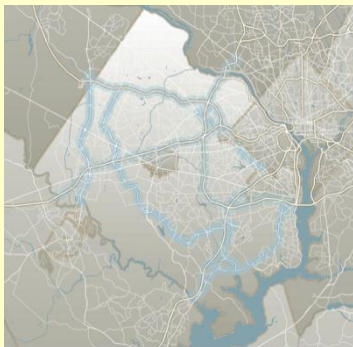


Enhanced
Public
Transportation
Corridors

EPTC
extensions



County of Fairfax, Virginia



Enhanced
Public
Transportation
Corridors

Expanded
network, with
adjacent
jurisdiction
plans, forms
basis for initial
analysis



County of Fairfax, Virginia



Technical Working Group (TWG)

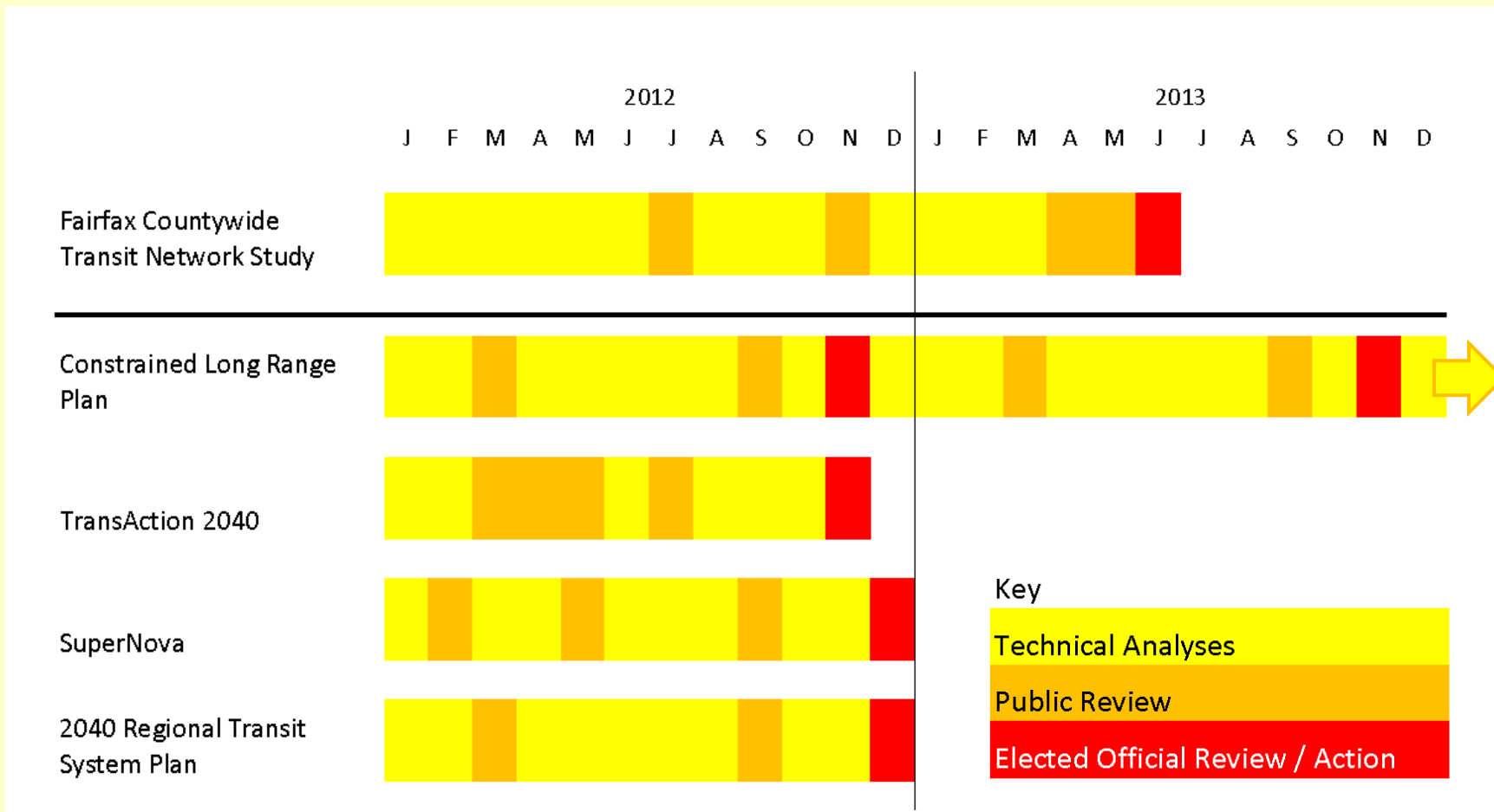
- Neighboring Jurisdictions
- Transit Agencies
- Federal (i.e., Fort Belvoir, FTA)
- Institutional (i.e., GMU)

TWG objectives:

- Coordinate Countywide Transit Network Study findings with other state, regional, and local plans and studies
- Supplement and build upon one-on-one conversations
- Review draft materials and findings at study milestones

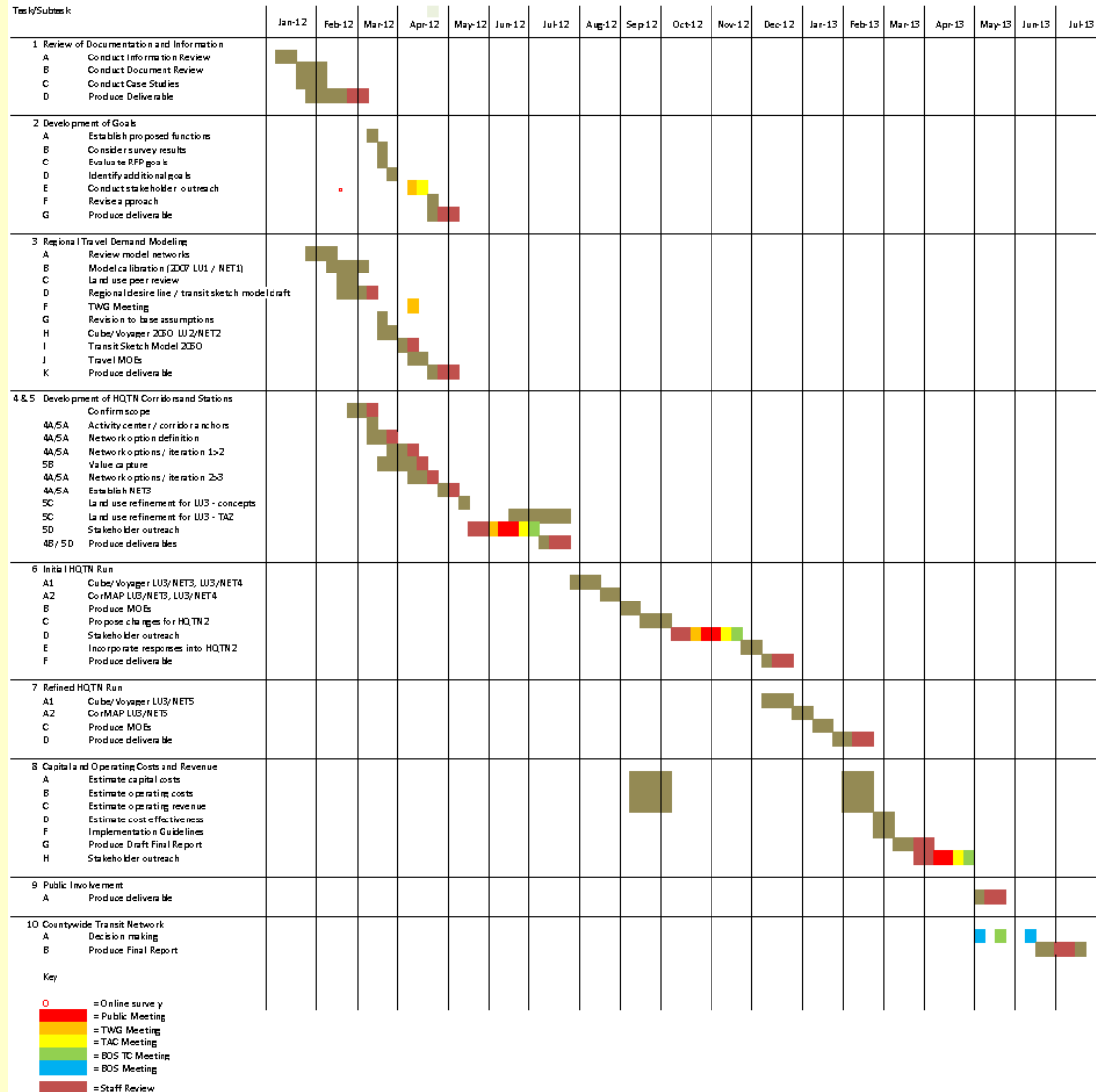


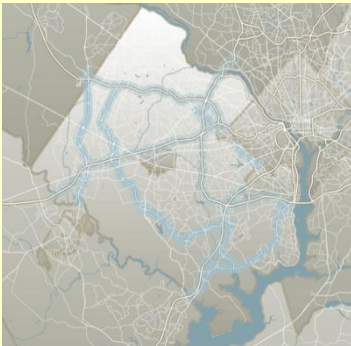
Project schedule coordination





County of Fairfax, Virginia





Countywide Transit Network Study

Questions? Comments?

Thomas Burke (Fairfax County DOT)

Thomas.Burke@FairfaxCounty.gov

703-877-5600