Community Meeting - November 18, 2015
Rocking Horse Road Center
Tonight’s Agenda

6:30 - 6:45 p.m: Background and recap of prior meetings
- White Flint 1
- Transportation Policies
- White Flint West Workaround

6:45 p.m - 7:30 p.m: Transportation Modeling
- Regional Model
- Area Wide and Local Transportation Analysis

7:30 p.m - 8:00 p.m: Questions

8:00 p.m - 8:30 p.m: Connection Priorities
Prior Public Meetings

June 25, 2015: White Flint 2 Open House

September 17, 2015: Walter Johnson Schools Meeting

October 14: Transportation and connections; parks and open space; and land use and density
Breakout Groups

- Vision, Image and Character
- Transportation and Connections
- Parks and Open Space
- Public Facilities
- Land Use and Density
Summary Comments

Table with Nkosi and Rick top priorities:
- Redevelop Randolph Hills Shopping Center.
- Connectivity, pedestrian and bicyclists to White Flint 1.
- MARC Station.
- Roadway improvements at Boiling Brook Parkway [and Rocking Horse Road].
- MCPS property transition to parkland, which is adjacent to Rocking Horse Road.

Table with Nancy, Steve and Robert top priorities:
- School capacity – WJHS needs solution. Add capacity or re-open Woodward – Keep students in these boundaries. What about Middle School?
- Parks and Green Space – Need grass and trees, not just bricks and benches
- Sidewalk improvements/streetscape along Montrose Road
- Improved pedestrian access across Rockville Pike
- 55+ active communities needed
- Connections across train tracks.

Table with Emily, Don and Eric top priorities:
- Road connection to Green Acres.
- Public pool, including special needs on East Jefferson Street.
- Pedestrian crossing at Montrose Crossing and Montrose Road.
- Federal Plaza needs better egress and a thru street?
- High rises are OK close to the Pike; low-rise mixed use along Executive Boulevard.
- Montrose Crossing needs a community center/park space.
- Montrose school is an urban desert. Community park? Center?
- Need another connection between Parklawn Drive and Randolph.
- Bike path to Rock Creek Park along Boiling Brook.
Summary of comments from Oct. 14 meeting
White Flint I Street Network

New street network-public and private streets

Rockville Pike as an urban boulevard

White Flint Metro Station
New Metro Entrance
Proposed MARC Train Station
A-90 Master Plan of Highways Road #
# White Flint I Street Network

<table>
<thead>
<tr>
<th>Street</th>
<th>From</th>
<th>To</th>
<th>Road Number</th>
<th>ROW (feet)</th>
<th>Lanes*</th>
<th>Road Code Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major Highways</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Old Georgetown Rd (MD 187)</td>
<td>Nicholson Ln</td>
<td>Executive Blvd</td>
<td>M-4</td>
<td>160</td>
<td>6, divided</td>
<td>2008.02 mod.</td>
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<tr>
<td></td>
<td>Executive Blvd</td>
<td>Rockville Pkwy (MD 355)</td>
<td>M-4</td>
<td>120</td>
<td>4, divided</td>
<td>2008.01 mod.</td>
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<tr>
<td></td>
<td>Executive Blvd</td>
<td>Montrose Pkwy</td>
<td>M-4a</td>
<td>120</td>
<td>4, divided</td>
<td>2008.01 mod.</td>
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<td></td>
<td>Rockville Pkwy (MD 355)</td>
<td>Sector Plan southern boundary</td>
<td>M-6</td>
<td>160</td>
<td>6, divided</td>
<td>2008.02 mod.</td>
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<td><strong>Arterials</strong></td>
<td></td>
<td></td>
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<tr>
<td>Montrose Pkwy</td>
<td>Hoya St</td>
<td>Sector Plan eastern boundary</td>
<td>A-270</td>
<td>900</td>
<td>4, divided</td>
<td>2007.01 mod.</td>
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<tr>
<td><strong>Business Roads</strong></td>
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<tr>
<td>Chapman Ave (Maple Ave)</td>
<td>Marinelli Rd</td>
<td>Old Georgetown Rd</td>
<td>B-12</td>
<td>70</td>
<td>2</td>
<td>2006.02</td>
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<tr>
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<td>Old Georgetown Rd</td>
<td>Montrose Pkwy</td>
<td>B-12</td>
<td>70</td>
<td>2</td>
<td>2006.03</td>
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<tr>
<td>Citidel Ave/Boydston St</td>
<td>Nicholson Ln</td>
<td>Old Georgetown Rd</td>
<td>B-4</td>
<td>70</td>
<td>2</td>
<td>2005.02</td>
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<tr>
<td>Edison Ln</td>
<td>Woodglen Dr</td>
<td>Rockville Pkwy (MD 355)</td>
<td>B-5</td>
<td>70</td>
<td>2</td>
<td>2004.21 mod. / 2005.02 mod.</td>
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<tr>
<td>Executive Blvd Extended</td>
<td>Marinelli Rd</td>
<td>Nebel St Extended (B-5)</td>
<td>B-7</td>
<td>80</td>
<td>4</td>
<td>2004.01</td>
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<tr>
<td>Huff Ct Huff Ct Extended</td>
<td>Executive Blvd Extended</td>
<td>Nicholson Ln</td>
<td>B-4</td>
<td>70</td>
<td>2</td>
<td>2006.02</td>
</tr>
<tr>
<td>Huff Ct Huff Ct Extended***</td>
<td>Nebel St Extended (B-5)</td>
<td>Executive Blvd Extended</td>
<td>B-4</td>
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<td>2</td>
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<tr>
<td>Station St</td>
<td>Marinelli Rd</td>
<td>Old Georgetown Rd</td>
<td>B-11</td>
<td>70</td>
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<td>Marinelli Rd</td>
<td>Executive Blvd</td>
<td>Nebel St</td>
<td>B-8</td>
<td>60</td>
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<td>Market St</td>
<td>Old Georgetown Rd (MD 187)</td>
<td>Rockville Pkwy (MD 355)</td>
<td>B-10</td>
<td>70</td>
<td>2</td>
<td>2006.02</td>
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<tr>
<td>McGrath Blvd</td>
<td>Rockville Pkwy</td>
<td>Wentworth Pl (B-13)</td>
<td>B-10</td>
<td>70</td>
<td>2</td>
<td>2005.02</td>
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<tr>
<td>Mid-Pike spine street</td>
<td>Marinelli Rd</td>
<td>Old Georgetown Rd (MD 187)</td>
<td>B-15</td>
<td>60</td>
<td>4</td>
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<tr>
<td></td>
<td>Old Georgetown Rd (MD 187)</td>
<td>New Street (Mid-Pike rung)(B-10)</td>
<td>B-15</td>
<td>70</td>
<td>2</td>
<td>2006.02</td>
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<tr>
<td>Nebel St Extended</td>
<td>Randolph Rd</td>
<td>Plan northern boundary</td>
<td>B-5</td>
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<td>4</td>
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<td>Nicholson Ln</td>
<td>Randolph Rd</td>
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<td>60</td>
<td>2</td>
<td>2004.24 mod.</td>
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<tr>
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<td>Rockville Pkwy</td>
<td>Nicholson Ln</td>
<td>B-5</td>
<td>60</td>
<td>2</td>
<td>2006.01 mod. / 2006.02 mod.</td>
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<tr>
<td>new street (Mid-Pike rung)</td>
<td>Hoya St</td>
<td>Rockville Pkwy (MD 355)</td>
<td>B-16</td>
<td>80</td>
<td>2</td>
<td>2006.02 mod.</td>
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<td>Nicholson Ct (reassigned)</td>
<td>Nebel St Extended</td>
<td>400 feet east of Nebel St Extended</td>
<td>B-16</td>
<td>70</td>
<td>2</td>
<td>2005.02</td>
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<td>Security Ln/Secory Ln Extended</td>
<td>Woodglen Dr</td>
<td>Huff Ct Extended (B-4)</td>
<td>B-17</td>
<td>70</td>
<td>2</td>
<td>2005.02</td>
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<tr>
<td>Wentworth Pl</td>
<td>Marinelli Rd</td>
<td>Nebel St</td>
<td>B-13</td>
<td>70</td>
<td>2</td>
<td>2006.02</td>
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<tr>
<td>Woodglen Dr</td>
<td>Edston Ln</td>
<td>Nicholson Ln</td>
<td>B-3</td>
<td>70</td>
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<td>2005.02 mod.</td>
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<td>Woodglen Dr ***</td>
<td>Nicholson Ln</td>
<td>Marinelli Rd</td>
<td>B-3</td>
<td>60</td>
<td>2</td>
<td>2005.02 mod.</td>
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<tr>
<td>Woodglen Dr ***</td>
<td>Marinelli Rd</td>
<td>Mid-Pike RunG (B-16)</td>
<td>B-3</td>
<td>70</td>
<td>2</td>
<td>2006.02 mod.</td>
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<td>new street ***</td>
<td>Chaparral Ave</td>
<td>Nebel St</td>
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<td>new street ***</td>
<td>Nicholson Ln</td>
<td>Executive Blvd Extended</td>
<td>B-19</td>
<td>70</td>
<td>2</td>
<td>2005.02</td>
</tr>
</tbody>
</table>

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*The number of planned through travel lanes for each segment, not including turning, parking, acceleration, deceleration, or other auxiliary lanes.

**The Rockville Pike 150-foot right-of-way can be expanded to 162 feet (additional feet to be obtained through reservation).

***New streets B-18, B-19, Huff Ct Extended (B-4), and the portion of Woodglen Drive (B-3) north of Nicholson Lane may be constructed as private streets subject to use agreements meeting the requirements described in the Plan text.

*mod.* indicates that some modification is needed to the referenced design standard to reflect planned elements such as transit priority, bike lanes, or turn lanes.

*The target speed for all master planned roadways in the Plan area is 25 m.p.h., except for Montrose Parkway with a target speed of 35 m.p.h. in the Plan area.*
White Flint 1 Transportation Policies

- No Local Area Transportation Review (LATR) and Transportation Policy Area Review (TPAR).

- White Flint Special Tax District-10% ad valorem tax on all commercial properties, excluding existing multifamily rental, condominiums, townhouses and religious institution.
  - Council Bill No. 50-10
  - Resolution No. 16-1570 (White Flint Sector Plan Implementation Strategy and Infrastructure Improvement List)

- Staging and monitoring of development
White Flint 1 Special Taxing District

To provide greater assurance of achieving this vision, the Plan identified a need for a public financing mechanism to fund a portion of the transportation infrastructure. This public financing mechanism anticipates assessments against property or other means of revenue generation and is intended to replace payments that projects redeveloping in the plan area would have to pay under current adequate public facilities requirements for local area transportation and policy area mobility reviews (LATR and PAMR).

The Council enacted Bill 50-10, creating the White Flint Special Taxing District to raise revenues to fund certain transportation improvements. The White Flint Special Taxing District will provide greater assurances of reliable and consistent revenue generation and materially greater funds for transportation improvements than would be anticipated from combined payments under otherwise applicable transportation development impositions, including LATR, PAMR, and transportation impact taxes.

Policy Area Mobility Review (PAMR) is now Transportation Policy Area Review (TPAR).

<table>
<thead>
<tr>
<th>Improvement Description</th>
<th>Estimated Cost</th>
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<tbody>
<tr>
<td>Old Georgetown Road (MD 187): Nicholson Ln./Tilden Ln. to Executive Blvd.</td>
<td>$17,774,000</td>
</tr>
<tr>
<td>Old Georgetown Road (MD 187): Hoya St. to Rockville Pike (MD 355)</td>
<td>1,789,000</td>
</tr>
<tr>
<td>Hoya Street (formerly Old Old Georgetown Rd.): Executive Blvd. to Montrose Pkwy.</td>
<td>15,344,000</td>
</tr>
<tr>
<td>Rockville Pike (MD 355): Flanders Ave. to Hubbard Drive</td>
<td>66,961,000</td>
</tr>
<tr>
<td>Nicholson Lane: Old Georgetown Rd. (MD 187) to CSX tracks</td>
<td>12,942,000</td>
</tr>
<tr>
<td>Executive Blvd. Ext.: Marinelli Rd. to Old Georgetown Rd (MD 187)</td>
<td>23,500,000</td>
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<tr>
<td>Main St./Market St.: Old Georgetown Rd. (MD 187) to Executive Blvd. Extended (Bikeway)</td>
<td>1,713,000</td>
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<tr>
<td>Main St./Market St.: Old Georgetown Rd. (MD 187) to Executive Blvd. Ext.</td>
<td>4,933,000</td>
</tr>
<tr>
<td>Main St./Market St.: Executive Blvd. to Rockville Pike (MD 355)</td>
<td>4,661,000</td>
</tr>
<tr>
<td>Market Street from Maryland Route 355 to Station Street</td>
<td>7,200,000</td>
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<tr>
<td>Executive Blvd. Ext. (East): Rockville Pike (MD 355) to Nebel St. Ext. (South)</td>
<td>16,700,000</td>
</tr>
<tr>
<td>Nebel St. Ext. (South): Nicholson Ln. to Executive Blvd. Ext. (East)</td>
<td>8,200,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$181,717,000</td>
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## Table 6: Staging Plan

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3,000 dwelling units</strong>&lt;br&gt;2 million square feet non-residential</td>
<td><strong>3,000 dwelling units</strong>&lt;br&gt;2 million square feet non-residential</td>
<td><strong>3,800 dwelling units</strong>&lt;br&gt;1.69 million square feet non-residential</td>
</tr>
</tbody>
</table>

- **Contract for the construction of the realignment of Executive Boulevard and Old Georgetown Road.**
- **Contract for construction of Market Street (B-10) in the Conference Center block.**
- **Fund streetscape improvements, sidewalk improvements, and bikeways for substantially all of the street frontage within one-quarter mile of the Metro station: Old Georgetown Road, Marinelli Road, and Nicholson Lane.**
- **Fund and complete the design study for Rockville Pike to be coordinated with SHA, MCDOT and M-NCPPC.**
- **Achieve 34 percent non-auto driver mode share for the Plan area.**

The Planning Board should assess whether the build out of the Sector Plan is achieving the Plan’s housing goals.

- **Construct streetscape improvements, sidewalk improvements, and bikeways for substantially all of the street frontage within one-quarter mile of the Metro station: Old Georgetown Road, Marinelli Road, and Nicholson Lane.**
- **Complete realignment of Executive Boulevard and Old Georgetown Road.**
- **Construct the portion of Market Street as needed for road capacity.**
- **Fund the second entrance to the White Flint Metro Station.**
- **Explore the potential for expediting portions of Rockville Pike where sufficient right-of-way exists or has been dedicated. It should be constructed once the “work-around” roads are open to traffic.**
- **Increase non-auto driver mode to 42 percent.**

The Planning Board should assess whether the build out of the Sector Plan is achieving the Plan’s housing goals.

The Planning Board must develop a plan to determine how to bring the mode share to 51 percent NADMS for residents and 50 percent NADMS for employees during Phase 3.

- **Complete all streetscape improvements, sidewalks, and bikeways outside one-quarter mile from the Metro.**
- **Reconstruct any remaining portion of Rockville Pike not constructed during prior phases.**
- **Achieve the ultimate mode share goals of 51 percent NADMS for residents and 50 percent NADMS for employees.**
White Flint 1 Development

Allocated Residential Development: 861 units (all at Pike & Rose)

Allocated Non-Residential Development: 212,958 sq.ft. (all at Pike & Rose)
White Flint 1 Western Workaround
White Flint 1 Western Workaround

Main/Market Street
White Flint 1 Western Workaround

Towne Road

2' 8' 5' 6' 11' 11' 12' 10.5' 12' 11' 6' 6' 10' 6' 8'

SIDEWALK BIKE LANE BIKE LANE SHARED USE PATH SIDEWALK

13' 79.5' 124.5' RIGHT OF WAY
Chapman/Maple Avenue
## Recent White Flint 1 Traffic Studies

<table>
<thead>
<tr>
<th>Traffic Impact Study Source</th>
<th>Modeling Tool/Methods</th>
<th>Performance Measures</th>
</tr>
</thead>
</table>
| Stantec, Inc. (MCDOT)       | - Critical Lane Volume (CLV)  
- Synchro                | - Critical Lane Volume (CLV)  
- Highway Capacity Manual (HCM) level of service  
- HCM volume-to-capacity (V/C) ratio |
| STV Group, Inc. (White Flint Partnership) | - VISSIM (micro-simulation) | - CLV  
- HCM level of service  
- HCM v/c ratio  
- Person Throughout |
| Sabra, Wang & Associates, Inc. (City of Rockville) | - Critical Lane Volume  
- Synchro  
- VISTRO (micro-simulation) | - CLV  
- HCM level of service  
- HCM v/c ratio  
- Connectivity Index  
- Person Throughput |
Transportation Balance

Current conditions
- Existing roadways
- Transit and TDM

Staff Analysis Tools
- TRAVEL/4 travel demand model
- Cordon Line Analyses
- Local Area Model (LAM)

County Council findings
- Transportation Policy Area Review (TPAR)
- Local Area Transportation Review (LATR)
- Highway Capacity Manual (HCM)

Other
- Zoning capacity/flexibility
Transportation Modeling Overview

- Regional Modeling Process
- Area-wide Transportation Analysis
- Local Area Transportation Analysis
Regional Transportation Model

- Same tool as that used by Metropolitan Washington Council of Governments
- Reflects county-wide and regional traffic effects
- Outputs:
  - Transportation Policy Area Review (TPAR) results. Used to evaluate area-wide land use/transportation balance and transportation adequacy.
  - Through traffic and intersection approach volume results. Used in support of local intersection analysis.
Montgomery County & MWCOG/TPB Model Region

Montgomery County

Washington Region
Regional Model Framework

Four-Step Regional Travel Forecasting Model

1. Trip generation
2. Trip distribution
3. Mode choice
4. Trip assignment

Land use data

Highway and transit networks
Zone-to-zone travel times, costs, etc.

Congested traffic speeds

Highway and transit trips
Traffic volumes
Regional Model Framework

- **Trip Generation:** How may trips are produced?
- **Trip Distribution:** Where are people going?
Regional Model Framework

- **Mode Choice:** What method/mode of travel are people using?
- **Trip Assignment:** What route are people taking?
Transportation Network Assumptions: Constrained Long Range Transportation Plan (CLRP)
Regional Land Use Assumptions

**Job Growth**

- By 2040, the regional jobs are expected to grow by 36% to over 4.3 million jobs. This is an increase of 1.1 million new jobs.
- The fastest rates of job growth are expected in the outer jurisdictions of Virginia, while the inner suburban jurisdictions and regional core will continue to be home to the greater number of jobs.
- More new jobs will locate on the western side of the region, and the majority of all new jobs are expected to be in denser population centers throughout the region.
Regional Land Use Assumptions

Population Growth

- By 2040, the region is expected to grow by 24% to over 6.6 million people, an increase of 1.3 million people.
- The region’s outer suburban jurisdictions are expected to see the highest rates of growth, while the inner suburban jurisdictions and regional core will continue to be home to the most population.
- The majority of new residents are expected to live in denser population centers throughout the region.
Area-wide and Local Transportation Analysis
LATR and TPAR

There are two tests for determining transportation adequacy: Local Area Transportation Review (LATR) test and the policy area test called Transportation Policy Area Review (TPAR). These tests are required by the 2012-2016 Subdivision Staging Policy.

Local Area Transportation Review
LATR determines the adequacy of local roads by measuring congestion at roadway intersections based on critical lane volume (CLV) and volume to capacity (V/C). The estimated vehicle trips generated by a proposed development are compared to the applicable policy area standard to evaluate likely future congestion. The development’s trips that contribute to nearby intersections exceed the standard must be mitigated in some fashion.

Transportation Policy Area Review
TPAR first considers whether a policy area is considered inadequate for transit or roadways (or both). If the area is inadequate, new development in the area must make a Traffic Mitigation Payment based on the number of dwelling units or square footage of nonresidential space, or make improvements that increase transportation capacity in the policy area to address identified specific roadway and transit inadequacies.
Transportation Policy Area Review is a policy area test of adequacy.
Transportation Policy Area Review (TPAR) Roadway Adequacy

Modeling of Roadway Improvements:

- Striped bars show conditions in 2040 with no new projects
- Solid bars show the effect of new roadway improvements
  - Yellow = Direct
  - Tan = Network (indirect) effects
- Green ovals indicate improved conditions
Transportation Policy Area Review (TPAR) Roadway Adequacy

- Process evaluates the ratio of PM peak period speed relative to “free flow” speed for arterial roadway segments in policy areas.*

- Used to assess land use/transportation balance

* Averaged by direction of flow and weighted by vehicle miles traveled
Local Area Transportation Review Intersection Congestion Standard-Critical Lane Volume and Highway Capacity Manual Volume-to-Capacity Equivalencies

<table>
<thead>
<tr>
<th>Critical Lane Volume Congestion Standard</th>
<th>Policy Area</th>
<th>HCM volume-to-capacity equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1550</td>
<td>North Bethesda (White Flint 2)</td>
<td>0.97</td>
</tr>
<tr>
<td>1500</td>
<td>City of Rockville</td>
<td>0.94</td>
</tr>
<tr>
<td>1800</td>
<td>White Flint 1 * Twinbrook * Grosvenor * Rockville Town Center</td>
<td>1.13</td>
</tr>
</tbody>
</table>

* Metro Station Policy Areas
Local Area Transportation Review

Local Area Transportation Review is a test of local intersection adequacy within policy areas.
Local Area Transportation Analysis

- Subarea traffic analysis (Master/Sector Plans)
- Intersection level transportation performance analysis
- Reflects changes to the local land use or transportation network
- Results derived from refined regional model support subarea traffic forecasting
- Turning movements derived using NCHRP 765 post-processing techniques
- CLV (Critical Lane Volume) analysis
  - Intersection Performance Metric
  - AWDT and intersection counts support post-processing validation
    - Intersection approach volumes derived from regional model
- HCM analysis (LOS by Intersection Control Delay)
Model Revision for Subarea Traffic Analysis

- **Windowing and Focusing Approach**
  - Network expansion (regular links: 3,680 → 4,658)
  - TAZ Split (376 → 466)
Proposed Development: Montrose Baptist Church; up to 130 townhouses

Review: Rezoning application (G-964)-standard method

Existing zones: R-90 and R-60

Future zone: Residential Townhouses (RT-15)

School Cluster: Downcounty Consortium

Planning Board Review: November 19, 2015

Hearing Examiner Public Hearing: December 11, 2015

Council Review: TBD
Date: December 9, 2015

Location: Luxmanor Elementary School-6201 Tilden Lane

Time: 7-9 p.m.

Topic: Parks and Open Space and Land Use Concepts
Questions and Priorities

Summary of comments from Oct. 14 meeting

WF2: Connectivity