Shifting City Structures: The Suburb Grow Up

Presented by
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Moderator: Elizabeth Mros-O’Hara, AICP, David Evans and Assoc.
Serving the Emerging Travel Market

Purple Line Project Example

October 17, 2010
• 16-mile east-west corridor extending from Bethesda in Montgomery County to New Carrollton in Prince George’s County
  • Just north of Washington, D.C. and inside the Capital Beltway (I-495)
  • Illustrates emerging underserved travel market
Purple Line Locally Preferred Alternative

- 16-mile east-west light rail line between Bethesda and New Carrollton
- Connects major activity centers
- Connects to:
  - Metro’s Red, Green and Orange Line
  - All three MARC commuter rail lines, Amtrak and local bus services
Project Goals and Benefits

- Provide faster and more reliable transit for the region’s east-west travel market
- Improve access and connectivity to:
  - Metrorail Red, Green and Orange lines
  - All three MARC commuter rail lines
  - Local Ride-on and “The Bus” service
  - Amtrak
  - Intercity bus services
- Increase service for transit-dependent populations
Project Goals and Benefits

• Improve connectivity and access to existing activity centers and planned development including:
  • Bethesda
  • Silver Spring
  • Takoma/Langley Park
  • University of Maryland/College Park
  • New Carrollton

• Support local, regional and state policies and adopted Master Plans

• Strengthen and revitalize communities in the corridor

• Increase potential for Transit Oriented Development at existing and proposed stations in the corridor as identified in local land use plans
New Carrollton TOD
Locally Preferred Alternative

- Twenty-one stations
- Ridership: 60,000 daily riders
  - 30% will use Metro for part of their trip
- Cars off the road: 20,000 daily
- Two maintenance and storage facilities
- Capital Cost: $1.9 Billion (Year of Expenditure)
Political / Institutional Setting

• Multi-jurisdictional Project Corridor
  – Two counties (executives, legislatures, planning commissions, DPW&Ts, etc.)
  – Four incorporated cities: Takoma Park, College Park, Riverdale Park, and New Carrollton

• Political Sensitivity
  – Very visible
  – Elections
  – Established positions

• Sophisticated Stakeholder Groups

• Multiple Transit Operators
Travel Market Problems and Purpose

• Problem → High ridership on slow, disjointed bus routes
  – Degraded mobility & accessibility between major activity centers and residential areas
  – Degraded transit accessibility between corridor and the larger metropolitan region due to inferior connections to radial Metrorail lines and other rail and bus services

• Purpose → Improve travel times between corridor land uses and Metrorail services with dedicated / exclusive guideway
Context

• Established inner ring suburbs
  – Mix of residential, commercial and institutional land uses
  – Key employment and activity centers: Bethesda, Silver Spring, Takoma/Langley Park, University of Maryland/College Park, and New Carrollton

• Major transportation routes generally radial
  – Limited continuous major east-west arterials & bus routes

• High levels of congestion
  – Most Intersections operate at LOS E/F
  – Many bus routes operate slower than 10 mph

• Limited opportunities to expand roadway capacity

• Heavy transit usage on Metrorail and Bus
Context / Activity Levels - 2005

• Employment
  – Corridor employment   201,000
  – DC employment        736,400

Comparable CBD Employment
  Denver – 126,000
  Seattle – 155,100
  Boston – 257,000

• Population
  – Corridor residents    280,600
  – Large transit-dependent population
    • 12.4% zero car households
Transit Usage

• Four radial Metrorail routes/stations
  – Red Line-west leg: Bethesda & Medical Center
  – Red Line-east leg: Silver Spring (also MARC)
  – Green Line: College Park (also MARC)
  – Orange Line: New Carrollton (also MARC/AMTRAK)
  – East-west trips on Metrorail require users to go into and out of DC

• Buses
  – Ride On
  – The Bus
  – WMATA
  – U of Maryland Shuttle (over 750 buses/day in corridor)
  – 75 bus routes in corridor
  – Only 12 provide E-W service – some E-W routes are the busiest in system
  – No 1-seat ride for length of corridor
Current Conditions

Slow Transit Travel Times

• Disjointed Roadway System
  – Few continuous major east-west arterials

• High Congestion Level
  – Slow speeds; intersections at dominant radial arterials

• Existing Bus Routes
  – Operate over this roadway system
  – Low operating speeds
  – Speeds: many below 10 mph
  – Disjointed service along corridor due to local service providers
### How Conditions Change by 2030

#### Demographic Growth

<table>
<thead>
<tr>
<th></th>
<th>2030 Corridor</th>
<th>Corridor Growth from 2005</th>
<th>2030 Total Region</th>
<th>Regional Growth from 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>223,864</td>
<td>+11%</td>
<td>4,667,981</td>
<td>+26%</td>
</tr>
<tr>
<td>Residents</td>
<td>335,322</td>
<td>+19%</td>
<td>7,668,921</td>
<td>+22%</td>
</tr>
<tr>
<td>Households</td>
<td>128,622</td>
<td>+21%</td>
<td>2,935,720</td>
<td>+25%</td>
</tr>
</tbody>
</table>

- Major employment growth in Bethesda and College Park
- Major residential growth in Bethesda, Silver Spring and College Park
Transit Conditions

• Roadway system on which buses operate increases in congestion levels
  – Peak auto trip from UM to Silver Spring increases from 24 minutes to 37 minutes; Bethesda to Silver Spring from 14 minutes to 21 minutes

• No roadway capacity increases

• Lower operating speeds

• Increasing demand for transit
  – Population and employment growth
  – Degraded roadway travel times
Purpose of Improvement Alternatives

Improve Travel Times For

• Travel within the corridor
  – Major activity centers
  – Adjacent communities

• Travel from corridor to areas outside
  – Feeding to and distributing passengers from radial corridors via Metrorail/MARC
  – Especially to DC

• Travel to corridor from areas outside
  – Especially north and east of corridor
  – Along Metrorail lines and major arterials
Three Predominant Markets
- Within the Corridor (52% of the benefits)
- From the Corridor (19% of the benefits)
- To the Corridor (26% of the benefits)
- Un-related to Corridor (3% of the benefits)

Percent of Benefits by Trip Purpose
- HBW → 58%
- HBO → 21%
- NHB → 21%
Bethesda $\rightarrow$ Silver Spring

In-vehicle Time Comparison

- By Bus $\rightarrow$ 40.3 minutes
- By Metrorail $\rightarrow$ 34.4 minutes
- By Purple Line $\rightarrow$ 8.5 minutes
Conclusions

Purple Line illustrates the role of fixed guideway transit in serving an established and emerging suburban travel market

- Travel within the corridor
  - Major activity centers
  - Adjacent communities
- Travel from corridor to areas outside
  - Feeding to and distributing passengers from radial corridors via Metrorail/MARC
  - Especially to DC
- Travel to corridor from areas outside
  - Especially north and east of corridor
  - Along Metrorail lines and major arterials
Rockville’s Pike: Envision a Great Place

Presentation to Rail~Volutions
October 17, 2011

David B. Levy
Chief of Long Range Planning and Redevelopment
City of Rockville, Maryland
Rockville Rail-Related History in a Slide

- 10,000 Years ago: Rockville Pike was probably already a path/road.
- 1860: City of Rockville incorporates.
- 1873: Baltimore & Ohio Railroad started service from DC to Rockville.
- 1940s-1960s: Spread of the DC Metropolitan Area led to growth of auto-oriented suburbs and, eventually, filling in all empty space.
- 1984: Commuter rail returned with the opening of the Rockville and Twinbrook Metro Stations, and MARC service.
- Today: Metro, Amtrak and MARC have stops at Rockville station.
Town Center Master Plan
October 22, 2001

• Mix uses
• Variety of densities and scales
• Attractive pedestrian environment
• L-Shaped Spine from Metro across
• Link to various transportation options
• Improve connections to neighborhoods, while protecting neighborhoods
• Local and regional attraction
• Focus on aesthetics and amenities
Rockville Pike Corridor

Planning Area

- 410 Acres
- 2.2 miles long
Rockville Pike: The Present

- Uses are segregated…
- Retail and offices dominate…
- Public open space is non-existent…
- It is mostly pavement…
- Block size is not conducive to walking…
- Long set backs and low buildings…
- It is neither pedestrian- nor transit-friendly, nor vehicle-effective…

www.rockvillemd.gov
Rockville Pike Plan

• Manage the transformation of the corridor
• Think big -- Make it, over time, a GREAT PLACE
• Principles:
  – Mix uses
  – Pedestrian and bike oriented
  – Embrace transit – shift modal split, over time
  – Activate sidewalks
  – Make it green, with good public gathering spaces
• More intense development than what is on the ground
  --- not as much as White Flint (to the south)
Existing Conditions
1989 Plan

3 Travel Lanes
Draft Plan for Rockville Pike Boulevard

www.rockvillemd.gov
Alternative A

4 Travel Lanes / 1 Access Lane / Two-way Bike Path
Alternative B

Center BRT Lanes / 3 Travel Lanes / 1 Access Lane / Two-way Bike Path
Proposed Rockville Pike Corridor Street Plan

- Better pedestrian connections to transit and among uses
- Parallel streets
- Extension of the grid
- Smaller blocks
- The Jefferson extension
Proposed

Rockville Pike
Form-Based Code
Community Conversation

- Rockville is *all* of the following
  - Comfortable suburban bedroom community
  - Third largest city in Maryland
  - Very diverse population
  - Desirous of a slower pace than the broader region
  - Desirous of staying connected with the region and the world
Local vs. Regional

• Most people want both vitality and tranquility
• Regional imperatives call for higher densities in 270/355 corridor
• School overcrowding and high traffic affect citizens’ perceptions of the impacts of redevelopment.
Infill May Be Cheaper….
but it is *not* Free

- New, expanded and reconfigured schools
- New community/recreation centers
- How is open/park space provided?
- Retrofit and upgrade infrastructure – sewer, water, roads, bridges, etc.
Rockville Schools
Projected Enrollment/Capacity

<table>
<thead>
<tr>
<th>RM Cluster</th>
<th>2015/16</th>
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<tbody>
<tr>
<td>Beall ES</td>
<td>159%</td>
</tr>
<tr>
<td>College Gardens ES</td>
<td>124%</td>
</tr>
<tr>
<td>Ritchie Park ES</td>
<td>148%</td>
</tr>
<tr>
<td>Twinbrook ES</td>
<td>116%</td>
</tr>
<tr>
<td>Julius West MS</td>
<td>132%</td>
</tr>
</tbody>
</table>
Transit-Oriented Development Advocates Must…..

• Advocate for more than just increased density near rail stations
• Also all of the services and infrastructure that supports a complete community

*Otherwise, citizens will be justifiably skeptical and will react/reject*
Rockville’s Pike: Envision A Great Place

Schedule for Adoption

Mayor and Council Direct Staff to revisit 1989 Plan 2006-2007
Award consulting contract to ACP and AECOM 2007
Public presentations and meetings, charette and outreach 2007 - 2010
Draft Released – Public Record open for testimony Dec 2010
Public Presentations of Draft Jan/Feb 2011

Planning Commission Public Hearings March 9 and 16
Public Record Open for Written Testimony Dec 2010 – Sept 2011
Planning Commission Work Sessions April 2011 – TBD
Planning Commission Recommendation to Mayor and Council TBD

Mayor and Council Public Hearing (s) TBD
Mayor and Council Work Sessions TBD
Mayor and Council Decision TBD

www.rockvillemd.gov
VRE and the North Woodbridge Emerging Town Center

Dale Zehner, VRE Chief Executive Officer
Rail~Volution
October 17, 2011
Prince William County

- Population 407,000
  - Second largest county in VA
  - Median household income $90,000
- 61% growth in population projected by 2040
- 900,000 northern VA workers live within 30-minute commute of the county center
Virginia Railway Express (VRE)

- Established in 1992
  - 30 daily trains
  - 18 stations
  - 9 member jurisdictions

- Ridership
  - 1992 - 5,700 daily riders
  - 2011 - 19,000 daily riders

- Four Prince William stations account for 28% of VRE boardings
Woodridge, VA

- Historic location dating to the 1700’s
- Mid-scale urban community (50,000+ residents)
- Includes many older neighborhoods established in 1960’s
- Auto-oriented commercial uses along US Route 1
Existing Conditions

- VRE Station
- Old Belmont neighborhood
- "Auto row" commercial development
- US Route 1
- Future Kiss-n-Ride
- Occoquan Rd
- Redevelopment area
North Woodbridge Planning Timeline

- 1992: VRE Station Opens
- 2003: Potomac Communities Revitalization Plan
- 2004: VRE Strategic Plan
- 2007: Woodbridge Regional Activity Center
- 2008: Woodbridge Station TLC Study
- 2010: North Woodbridge Charrette
- 2011: Route 1 BRT Feasibility Study
- 2012 TBD: Woodbridge Station 2nd Platform & Kiss-n-Ride
1992 Woodbridge VRE Station

- Atypical design among VRE stations
  - Prince William funded enhanced “headhouse”
  - Established a unique image for the station
  - Includes retail space
  - Parking garage part of original station facility
- 5% of VRE riders board at Woodbridge
2003 Potomac Communities Revitalization Plan

- Plan vision is for “a premier residential, business, and visitor location on the Potomac River”
  - Encourages the expansion of transit opportunities
  - Land use promotes a balance of jobs and housing
  - Envisions livable communities that foster enhanced quality of life
2004 VRE Strategic Plan

- Targeted growth scenario endorsed
  - Up to 30,000 daily riders by 2025
  - Expansion includes Cherry Hill station and Gainesville-Haymarket branch in Prince William County

- Developing core system capacity is the top priority
  - 2\textsuperscript{nd} platforms
  - Additional station parking and rail infrastructure

- TOD policy implemented to promote TOD and compatible land use in VRE station areas
Woodbridge designated an Emerging Employment Center

- Based on local comprehensive plans and zoning
- Substantial future employment growth projected for the area
2008 North Woodbridge Charrette

“Transit Triangle” – multiple modes help maximize TOD potential

I-95
BRT in
HOT Lanes

Park-n-ride lot

Ferry

VRE
2009 Woodbridge Station TLC Study

- Recommended a development program to maximize the potential of the area
  - 500,000-760,000 SF office
  - 250,000-375,000 SF retail
  - 2,500-3,300 units residential
  - 260 room hotel
2010 Comprehensive Plan & Mass Transit Plan

- Plan establishes mixed-use centers served by transit for future population & job growth
  - Centers of Commerce – North Woodbridge
  - Centers of Community

- Links land use and transportation
  - Mixed-use centers are coupled with significant infrastructure investment
  - Greater density at Centers increases viability of alternative transportation modes
  - Focuses most intense development in those areas well-served by transit such as VRE stations
2011 VRE Station Second Platform and Kiss-n-Ride

Connection to future town center
2011-2012 Street Standards

- Pedestrian facility and street standards under development
  - Implements Comprehensive Plan policies for walkable communities
  - Creates new street typologies and cross sections for centers such as North Woodbridge

- County Design and Construction Standards Manual (DCSM) will be revised to reflect new standards
Town Center Opportunities

- Evolving transit hub at VRE station
  - Amtrak
  - Tysons Express service
  - Local bus
  - Commuter bus
  - Greyhound

- County working to define development standards for town center implementation

- US Route 1 widening funded
**Town Center Challenges**

- Available transit is not high-frequency or bi-directional
  - 30-40 minute VRE/commuter bus frequency
  - Peak period, peak direction only
- VRE is high capacity…but trains are full before reaching Woodbridge station
- Development activity slowed by economic downturn
  - Land use in place but nothing in the ground yet
  - Transportation improvements (2013-2015) expected to spur activity
VRE Lorton Station Example

- Lorton as a possible model for North Woodbridge
  - Town center planned around station
  - 16% of VRE riders walk to the station
  - Largest destination station outside of DC-Arl-Alex core

- Expanding transit hub

- Due to BRAC, Lorton-Springfield area is expanding as a regional employment center
North Woodbridge as a Destination

- North Woodbridge offers a shorter commute from the southern VRE service area
- 120,000+ work trips per day (from Prince William & south) in the I-95 corridor alone to DC-Arl-Alex
Future Conditions?

- VRE Station
- Walkable connections
- Enhanced Bus/BRT
- US Route 1
- 100% corner opportunity
- Occoquan Rd.
Questions?