MARC RAIL COMMUNITIES

A study of the Germantown MARC Station

Urban Land Institute Washington

mTAP

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Contents

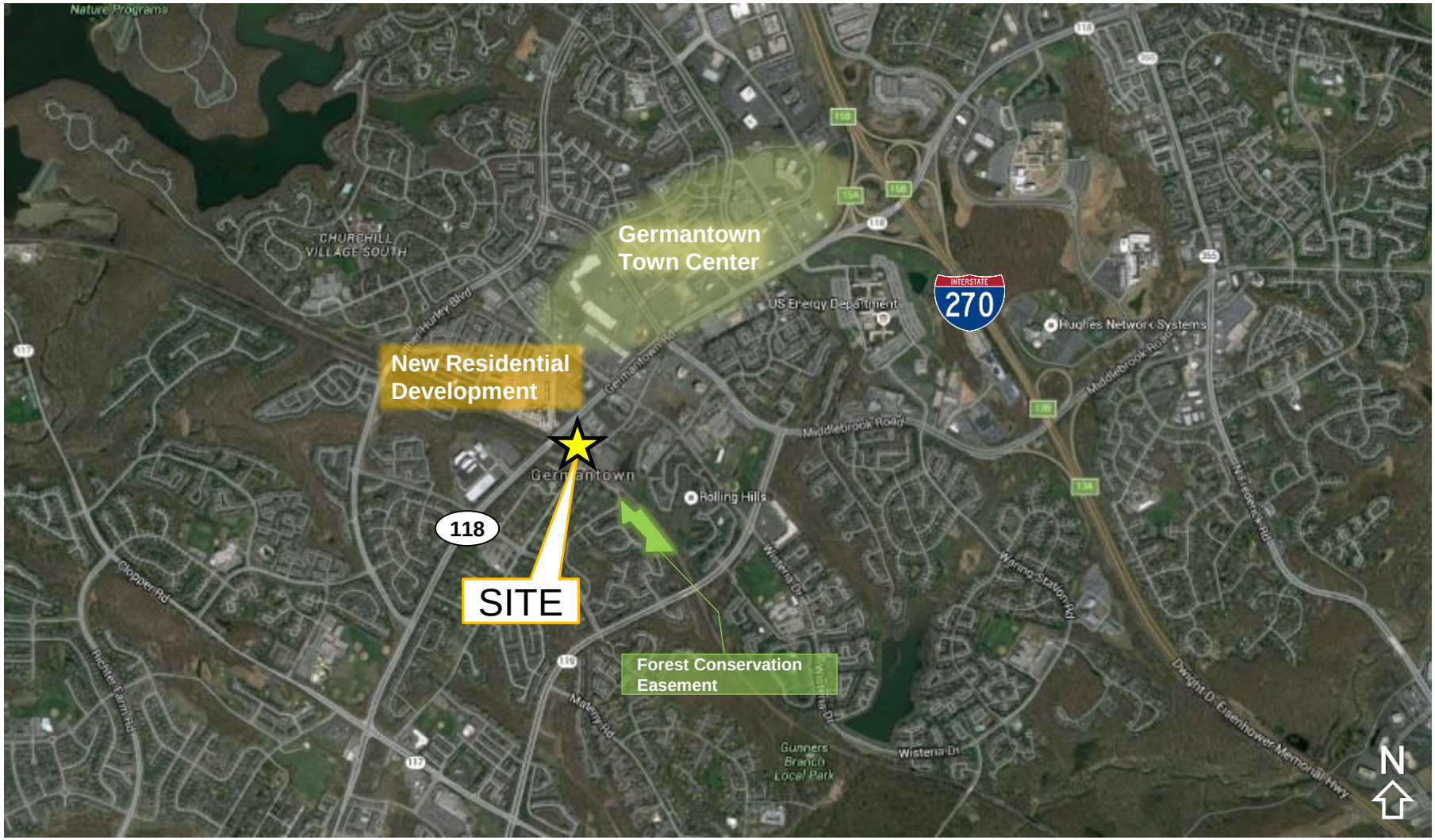
Understanding of the Challenge

- How can the parking situation be improved at the Germantown MARC station?
- What public/private development is possible/appropriate?
- Are there any creative options for financing?
- How can the Germantown MARC station help the county and the region?
- What lessons can be learned to apply elsewhere?

Stakeholder Interviews & Data Sources

- Stakeholders:
  - MARC
  - MNCPPC
  - Ride-On
- Market Data
  - CoStar
  - Delta Associates
  - Leasing & sales data for Adjacent properties
- Local Experts
  - Chamber of Commerce
  - Historical Society
  - Developers
  - Civil Engineers
  - Land Use Planners
  - Metro

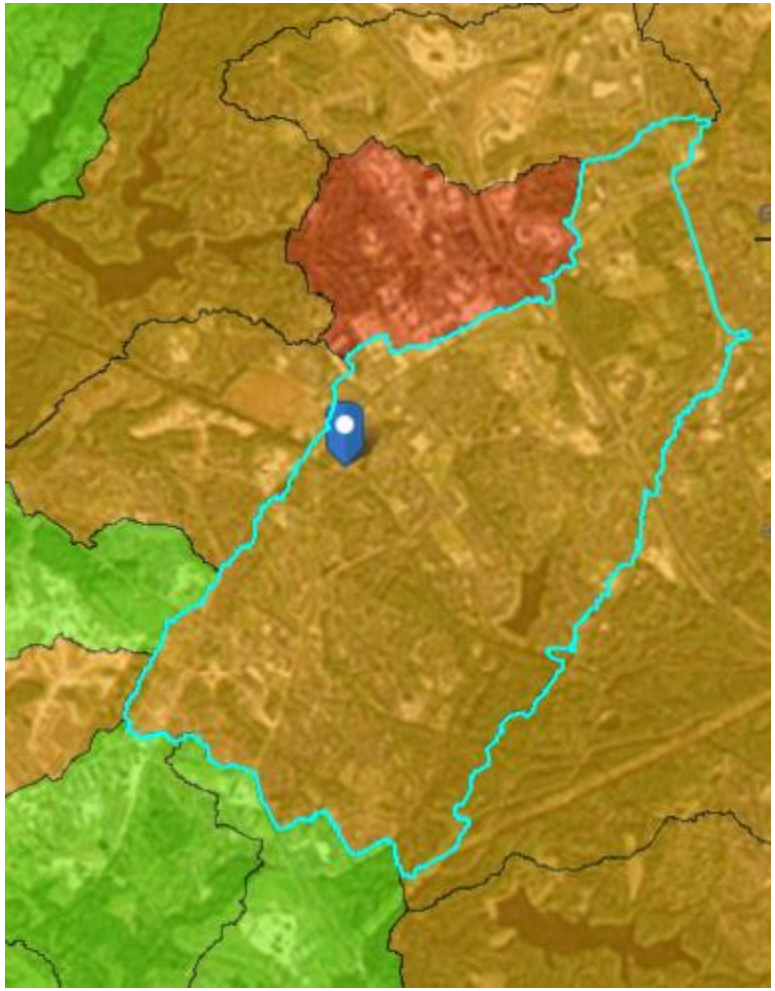
Site – Local Context



Site – Aerial View

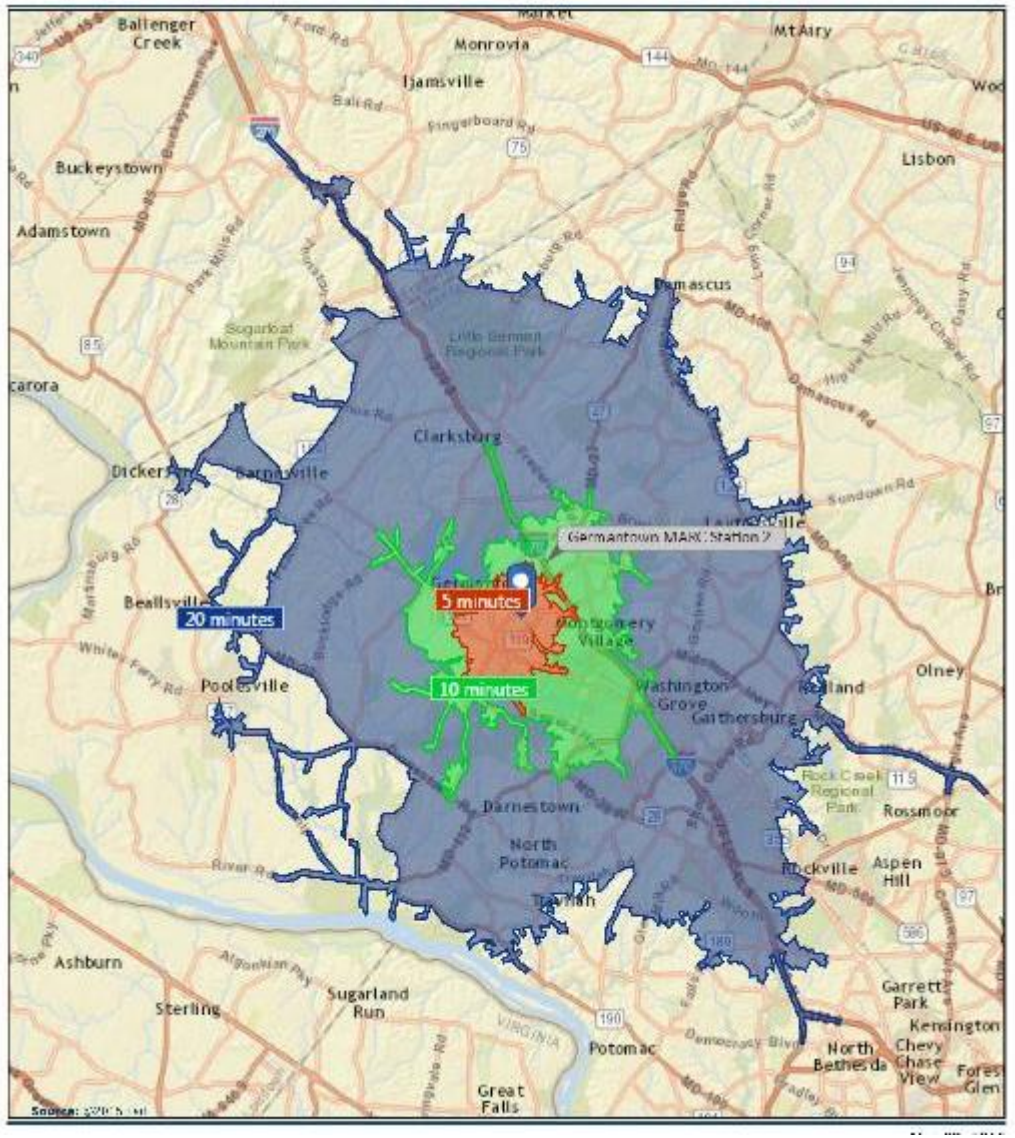
Site Watershed

- Station drains into Gunners Branch which drains to Middle Seneca Creek. Stream condition is Fair
- The pond adjacent to MARC station holds much of the runoff from the south/east side of the town center
- Park & Ride listed as a priority project in the Montgomery County 2012 Great Seneca Watershed Improvement Plan
- Conservation easement adjacent to pond/stream for future walking & biking path



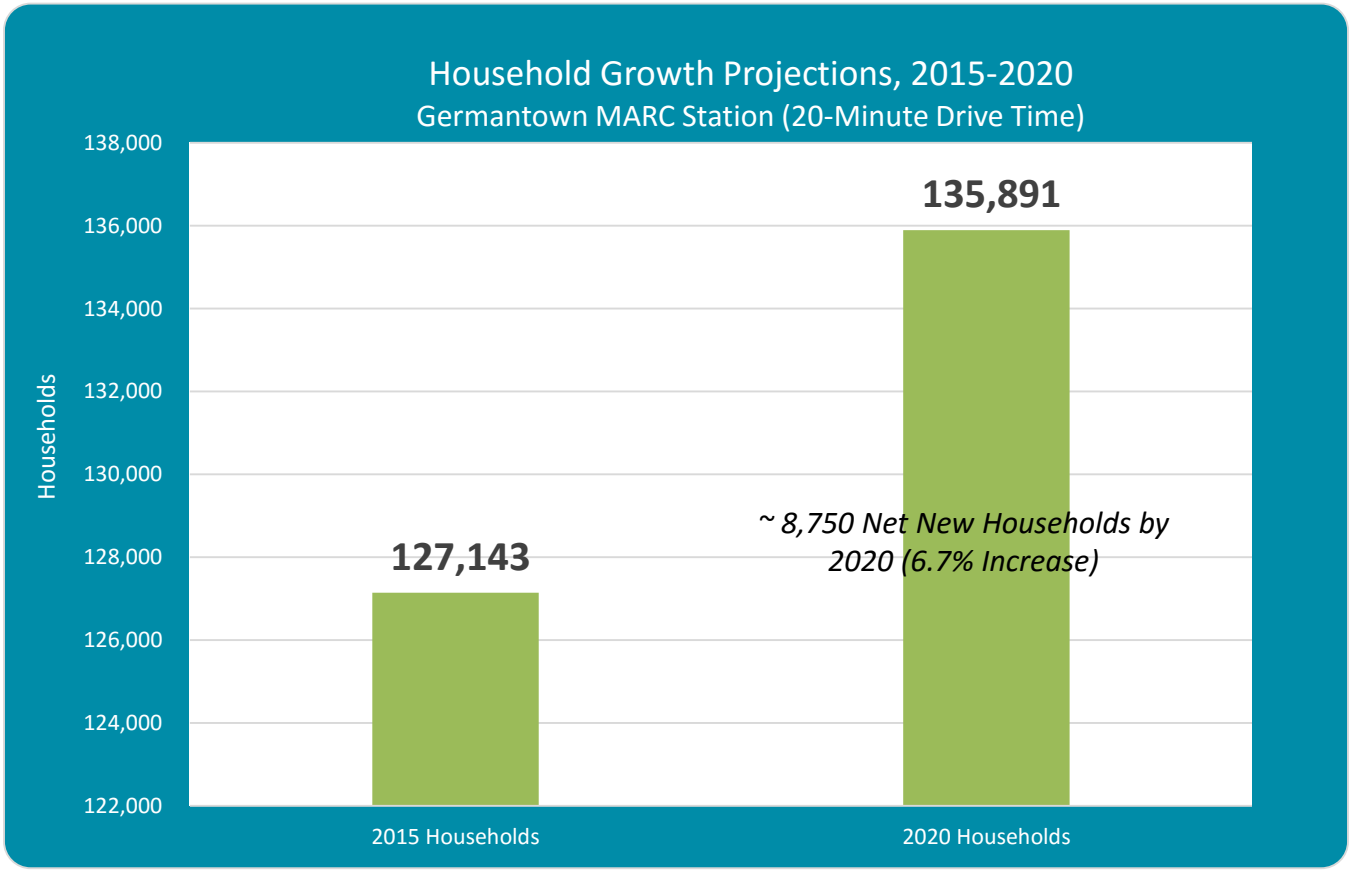
Demographic & Economic Trends

- Germantown MARC Station primary submarket defined as 20-minute drive time



Demographic & Economic Trends

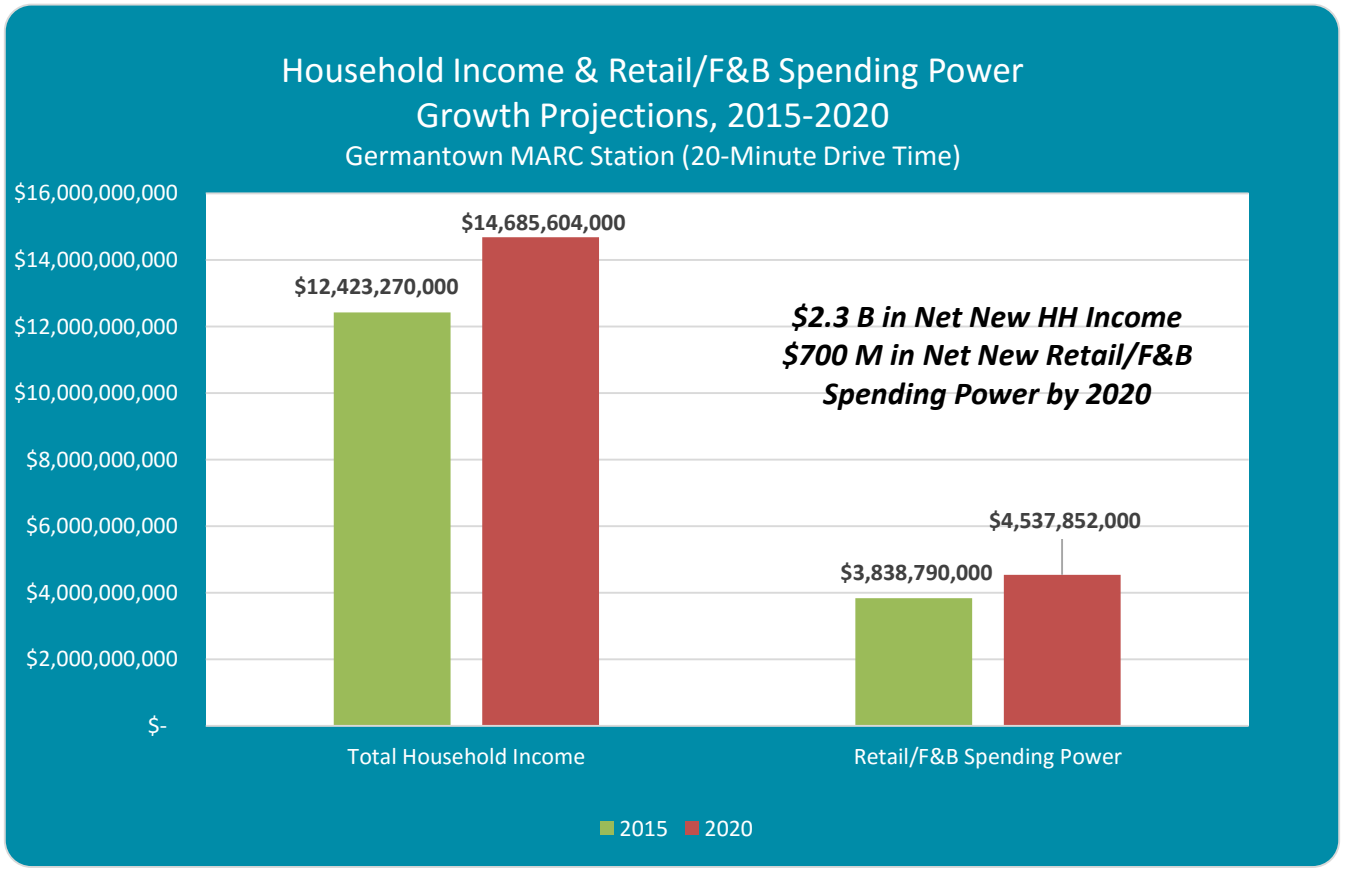
- Strong household growth forecasted through 2020 will drive housing starts, retail spending and commuter traffic



Source: ESRI, based on U.S. Census data

Demographic & Economic Trends

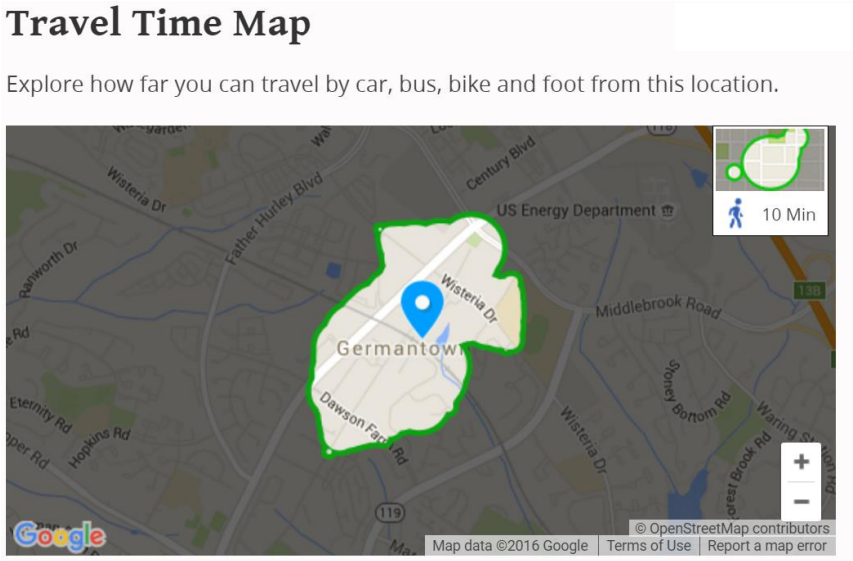
- $700 M in net new household spending could support up to 1.7 M Sq. Ft of new development in submarket by 2020

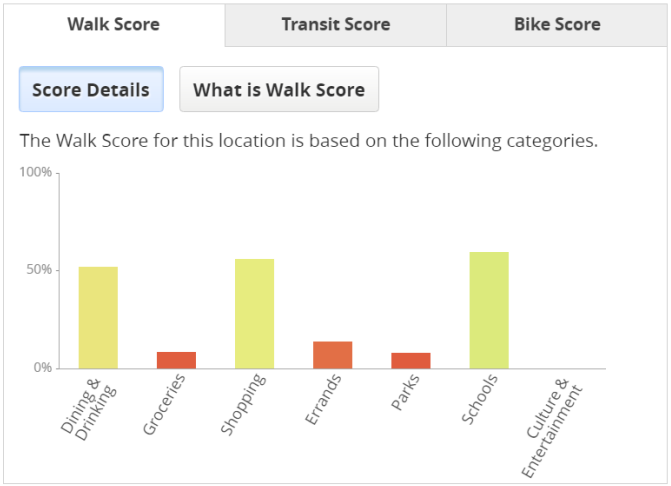


Source: ESRI, based on U.S. Census data

Connectivity Considerations

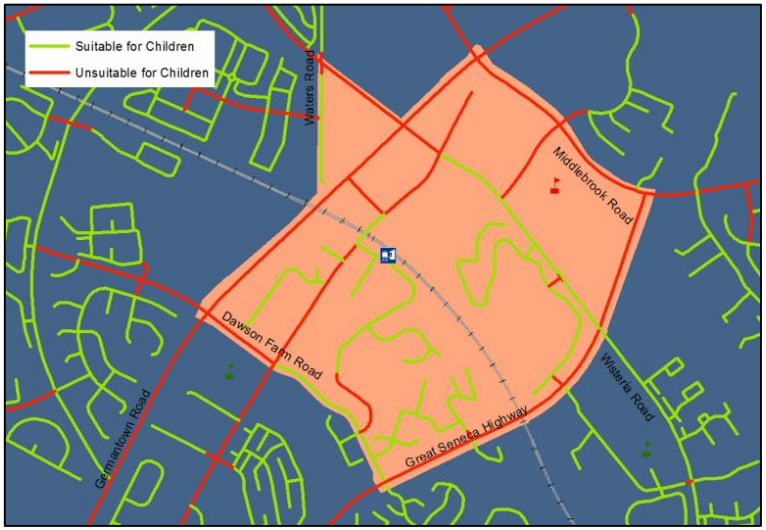
- Pedestrian
  - Walk score = 32 (of 100)
    - Based on destinations reached within 10 min walk
  - Challenges
    - Auto-dominated area with major roadways
    - Sidewalk gaps
  - Opportunities
    - Increase access to MARC station using existing street network as well as proposed expansion
    - Private development to help fund infrastructure improvements





Connectivity Considerations

- Bicycle
  - Bike rack capacity available at the Germantown MARC station
  - Additional bikeway facilities would enhance bicycle access to the MARC station
  - Shared use path proposed adjacent to Germantown Rd.
  - Expansion of bicycle network planned along Bowman Mill and Walter Johnson Rd.



Bicycle Suitability

Bikeway Recommendations

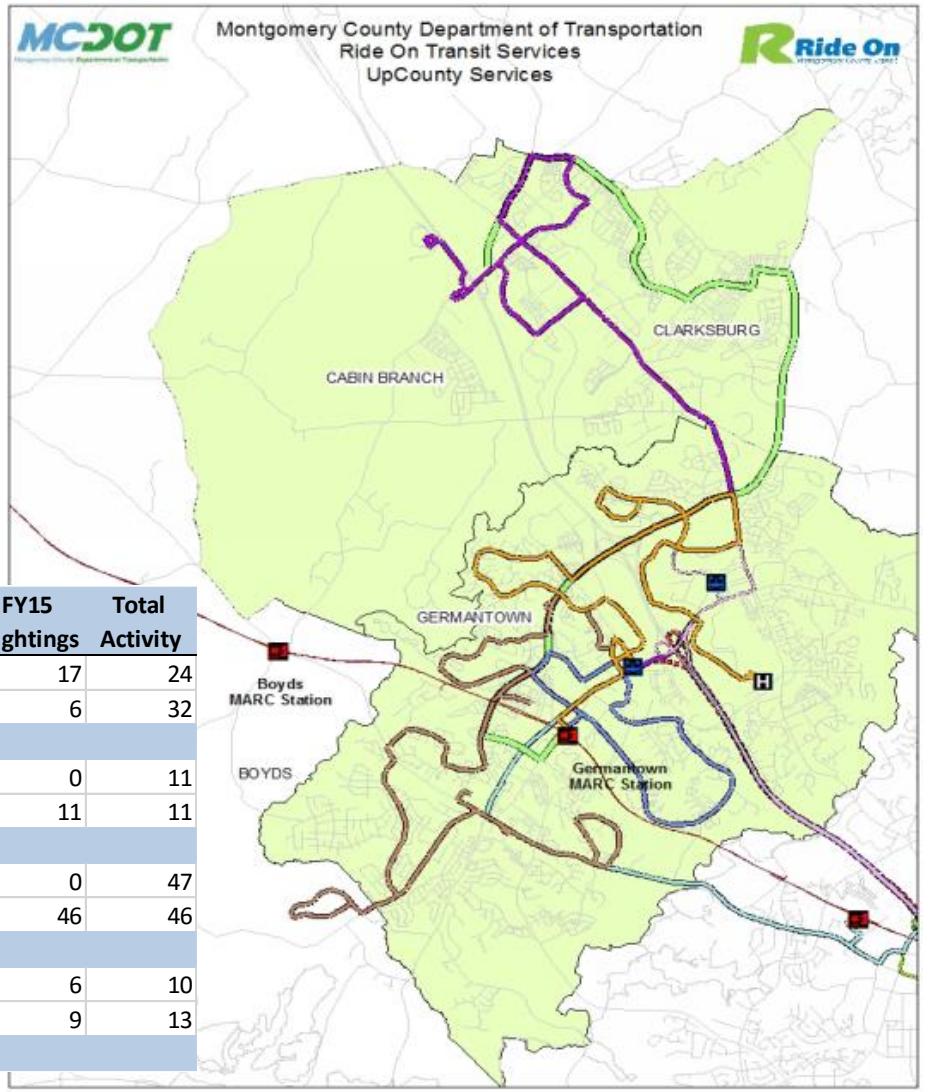
Bike station

Shared-use path

Photos Source MNCPPC

Connectivity Considerations

- Buses
  - Four Ride On routes serve the Germantown MARC Station
  - Approximately 200 weekday trips in FY15
  - Additional space needed for bus circulation

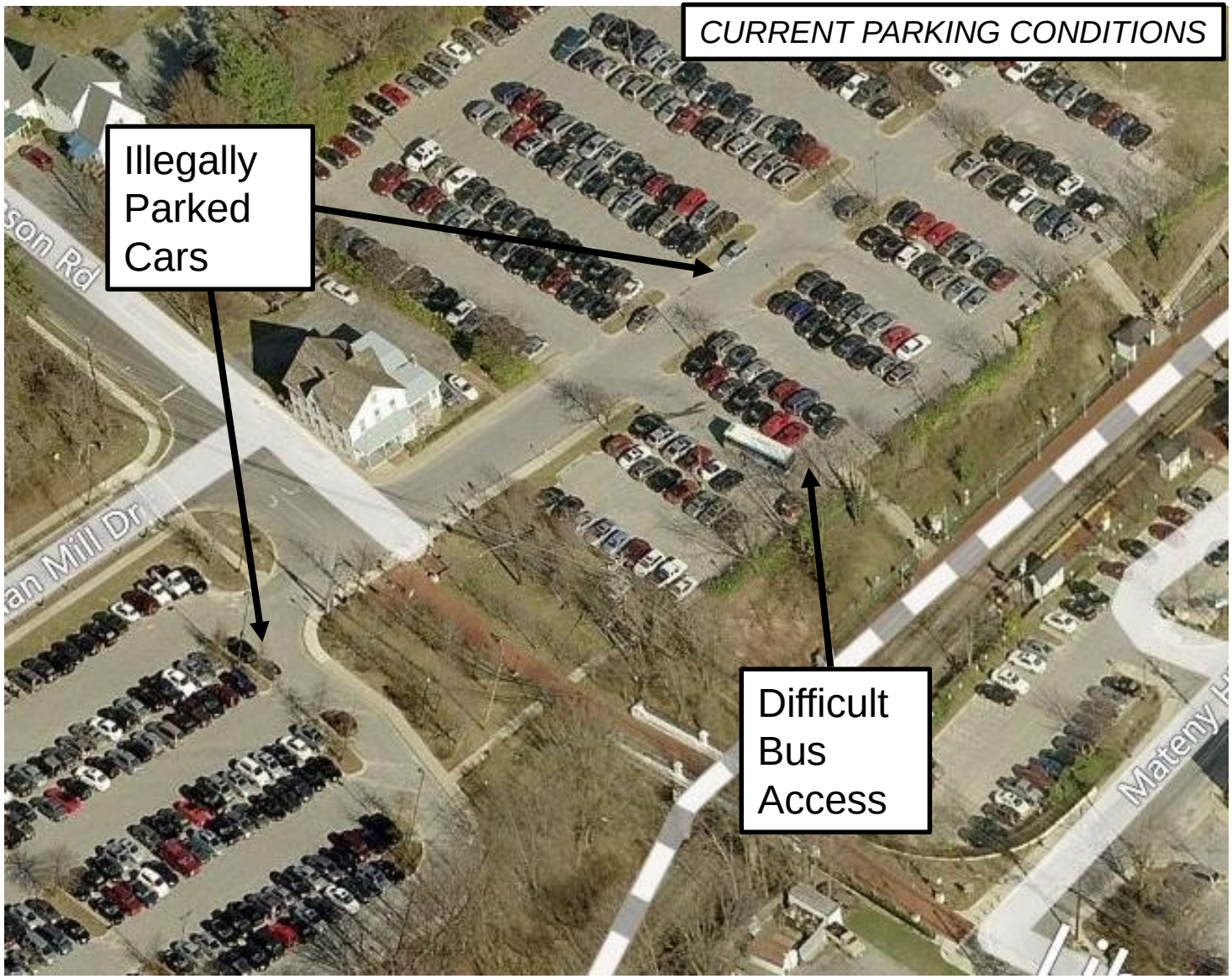


Route	Direction	Route Description	FY15 Boardings	FY15 Alightings	Total Activity
61	North	Stops on Germantown Road near north MARC	7	17	24
61	South	parking lot	26	6	32
83	North	Service between Germantown Transit Center	11	0	11
83	South	and MARC Germantown station	0	11	11
94	North	Express service between Clarksburg and MARC	47	0	47
94	South	Germantown station	0	46	46
97	AM Loop	Service between Germantown Transit Center	4	6	10
97	PM Loop	and Germantown MARC station	4	9	13

Source: MCDOT

Source: MCDOT

Connectivity Considerations



Connectivity Considerations

New Road Connections

- Waters Road Realignment
  - Facilitate bike and pedestrian access across Germantown Rd.
- Road connecting Walter Johnson Rd to Germantown Rd
  - Facilitate access to new parking garage.
  - Helps create a street grid
- Other
  - Mateny Hill Rd extension

Community Concerns

- Preserve Historic Resources
  - Including road network – primarily on the south/west side of tracks
- Maintain Location for Flea Market
  - Publicly accessible
  - Protected from elements
- Create Community Amenity Space
  - Adjacent to station, per Master Plan guidance

MARC Service – Brunswick Line

- Germantown Station Today
  - 9 trains serve station in both AM and PM per weekday
  - Approximately 900 boardings at station per weekday
    - Parking – 694 plus (carpooling)
    - Ride On – 95
    - Walk/bike – <100
- MARC average annual growth 2007 to 2012 - 1.7%
- Germantown Station Tomorrow and Beyond
  - Explore parking facility expansion
  - Lengthen existing trains to accommodate growing ridership
  - Install additional bike racks/lockers at stations
  - Additional triple tracking
  - Increased peak and off-peak service
  - Reverse commute service

Development Factors: Parking Garage

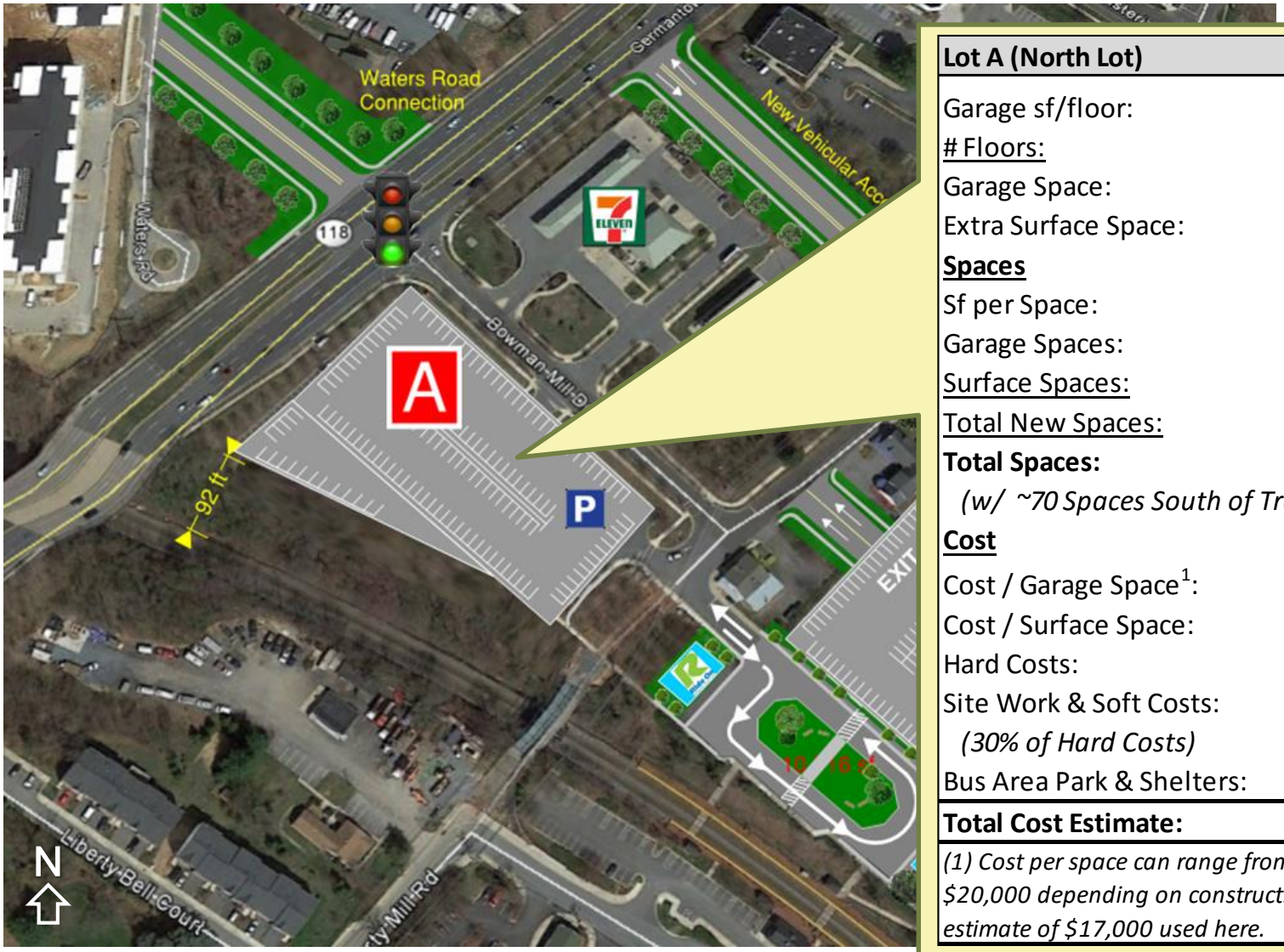
- Considerations
  - Determine whether precast or cast-in-place construction
  - Cost drivers include:
    - Façade treatment
    - Number of elevators
    - Site work (more expensive on South Lot due to topography)
- Due to the high cost of foundation & site work, it is more efficient to build higher garages (3+ stories)
- The most efficient approach will be to build only one garage
- North Lot (Lot A) is generally more valuable for private development due to road frontage

Glenmont Metro Station 1200 space parking garage.

MARC Parking Garage Analysis

- MARC parking
  - 694 spaces, 99% utilization rate
  - 55% of riders driving to station from < 2 miles away
  - Two parking garage options:
    - Option A – North parking lot
    - Option B – South parking lot
- Both options provide 900 -1,100 total spaces that would serve mid-term (15-year) growth in ridership
- Bus Circulation, Bike Rooms & Bus/Rider Shelter

Lot A - Space Yield & Cost Estimate



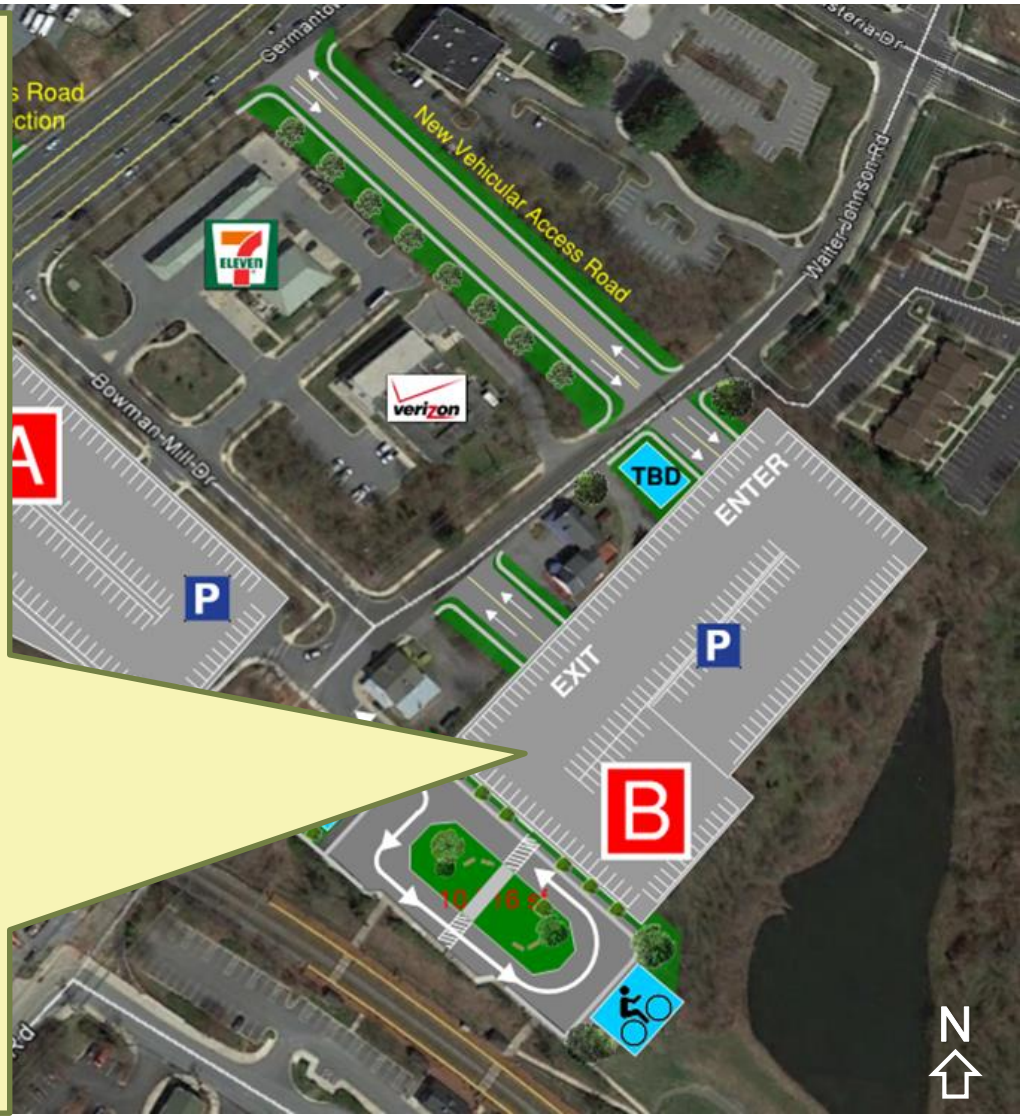
Lot A (North Lot)	
Garage sf/floor:	72,000 sf
# Floors:	4
Garage Space:	288,000 sf
Extra Surface Space:	16,000 sf
Spaces	
Sf per Space:	350 sf
Garage Spaces:	823
Surface Spaces:	46
Total New Spaces:	869
Total Spaces:	**939**
(w/ ~70 Spaces South of Track)	
Cost	
Cost / Garage Space[1]:	$17,000
Cost / Surface Space:	$7,000
Hard Costs:	$14,300,000
Site Work & Soft Costs:	$4,300,000
(30% of Hard Costs)	
Bus Area Park & Shelters:	$1,000,000
Total Cost Estimate:	**$19,600,000**

(1) Cost per space can range from $14,000 - $20,000 depending on construction type. Middle estimate of $17,000 used here.

Lot B - Space Yield & Cost Estimate

Lot B (South Lot)	
Garage sf/floor:	110,000 sf
# Floors:	3
Garage Space:	330,000 sf
Extra Surface Space:	0 sf
Spaces	
Sf per Space:	350 sf
Garage Spaces:	943
Surface Spaces:	-
Total New Spaces:	943
Total Spaces:	**1,013**
(w/ ~70 Spaces South of Track)	
Cost	
Cost / Garage Space[1]:	$17,000
Cost / Surface Space:	$7,000
Hard Costs:	$16,000,000
Site Work & Soft Costs:	$4,800,000
(30% of Hard Costs)	
Bus Area Park & Shelters:	$1,000,000
Total Cost Estimate:	**$21,800,000**

(1) Cost per space can range from $14,000 - $20,000 depending on construction type. Middle estimate of $17,000 used here.



Private Development Factors: General

- If a parking garage is built on one lot, the other lot is available for private development
- This also works well for Private development, which works best with a full lot (critical mass & autonomy)
- Land acquisition costs for CSX land & adjacent parcel along Walter Johnson Rd. must be quantified and established
- Value to developers is quantified using Residual Land Value Approach

Residual Land Value: Example

FINAL VALUE AT COMPLETION:	**$10,000,000**
(aka Stabilized value)	
LESS:	
Known Costs:	
- Construction (Hard) Costs	$6,000,000
- Soft Costs (Design Fees, Consulting, Marketing, Etc.)	$1,000,000
- Developer/Investor Profit Margin	$1,000,000
TOTAL COSTS	**$8,000,000**
REMAINING RESIDUAL LAND VALUE:	**$2,000,000**

Private Development Factors: Residential

- For rental apartments, North Lot Works better for visibility & access
- Surface-Parked Apartments are feasible but have low yield (max. ~95 units on North Lot)
- Structured Parking could fit, but is not economically feasible
- Townhouses work well in this area, but would only work on South lot away from busy street
- Townhouses could yield 35-40 towns on South Lot

Private Development Factors: Retail

- North Lot (Location A) is the only suitable retail location
- Site is too small to attain critical mass with Anchors
- Retail core in Germantown Town Center will maintain competitive advantage
- Retail demand would need to be destination retail (e.g. national pad chains) or;
- Wait until new development advances to a point where neighborhood retail or a specialty use (e.g. childcare facility) could be feasible

Private Development Options - Summary

Use	Does it Fit?	Can the Use Perform?	Economically Feasible?	Value
Residential				
Apartment - Surface Park	✓	✓	✓	**Low**
Apartment - Garage Parking	✓	✓	✗	-
Townhomes	✓	✓	✓	**Mid/High**
Condo	✓	✗	-	-
Single Family	✓	✗	-	-
Retail				
Anchored Center	✗	-	-	-
Neighborhood Retail	✓	✓	✓	**Low/Mid**
Pad Retail	✓	✓	✓	**Variable**
Multi-Story Retail or Retail/Office Mixed Use - Garage Parking	✓	✓	✗	-
Office				
Mid/Low-Rise Office	✓	✗	-	-
Other				
Specialty (e.g. Childcare Facility)	✓	✗	-	-
Affordable Housing	✓	**TBD**	-	-

Development Example Scenario #1
Residential Apartments w/ Surface Parking (Lot A)

Residual Land Value Estimate – Scenario 1 - Apartments

Building Profile	
Stories:	4
Units	95
FAR:	0.9
Parking Spaces:	149
Parking Ratio	1.6
Net Operating Income	$1,500,000
Sales Value :	**$22,800,000**
(6.5% Cap Rate, 2% Transaction Costs)	

Budget	
Hard Costs	$14,500,000
Soft Costs	$3,600,000
Investor Profit Margin	$3,300,000
Total Costs	**$21,400,000**

REMAINING RESIDUAL LAND VALUE:	**$1,400,000**
(before cost of CSX land acquisition)	

Development Example Scenario #2
Residential Townhomes (Lot B)

Design is a conceptual site plan and not to scale

Land Value Estimate
Scenario 2 -Townhomes

	Townhouse Yield Study					
	Development Name		**# of Towns**	**Land Area (SF)**	**Land Area (Acres)**	**Density (Units/Acre)**
1.	Waterford Hills North	Germantown	79	243,734	5.6	14.1
2.	Waterford Hills South	Germantown	85	254,361	5.8	14.6
3.	Harvest Glen	Germantown	103	319,600	7.3	14.0
4.	Seneca Hill	Germantown	109	351,541	8.1	13.5
5.	Dawson Beach	Woodbridge, VA	116	358,499	8.2	14.1
	Average/Totals		**492**	**1,527,735**	**35.1**	**14.0**
	Indicated Subject Yield		**37**	**115,000**	**2.6**	**14.0**

Land Value Range

Sales Price (per Unit)	Land Value (as a % of Sales Price)* 25%	30%	35%
$375,000	$3,500,000	$4,200,000	$4,900,000
$400,000	$3,700,000	**$4,400,000**	$5,200,000
$425,000	$3,900,000	**$4,700,000**	$5,500,000
$450,000	$4,200,000	$5,000,000	$5,800,000

**Land values are before acquisition cost of adjacent parcel*

Development Example Scenario #3 Neighborhood Retail - (Single Story) (Lot A)

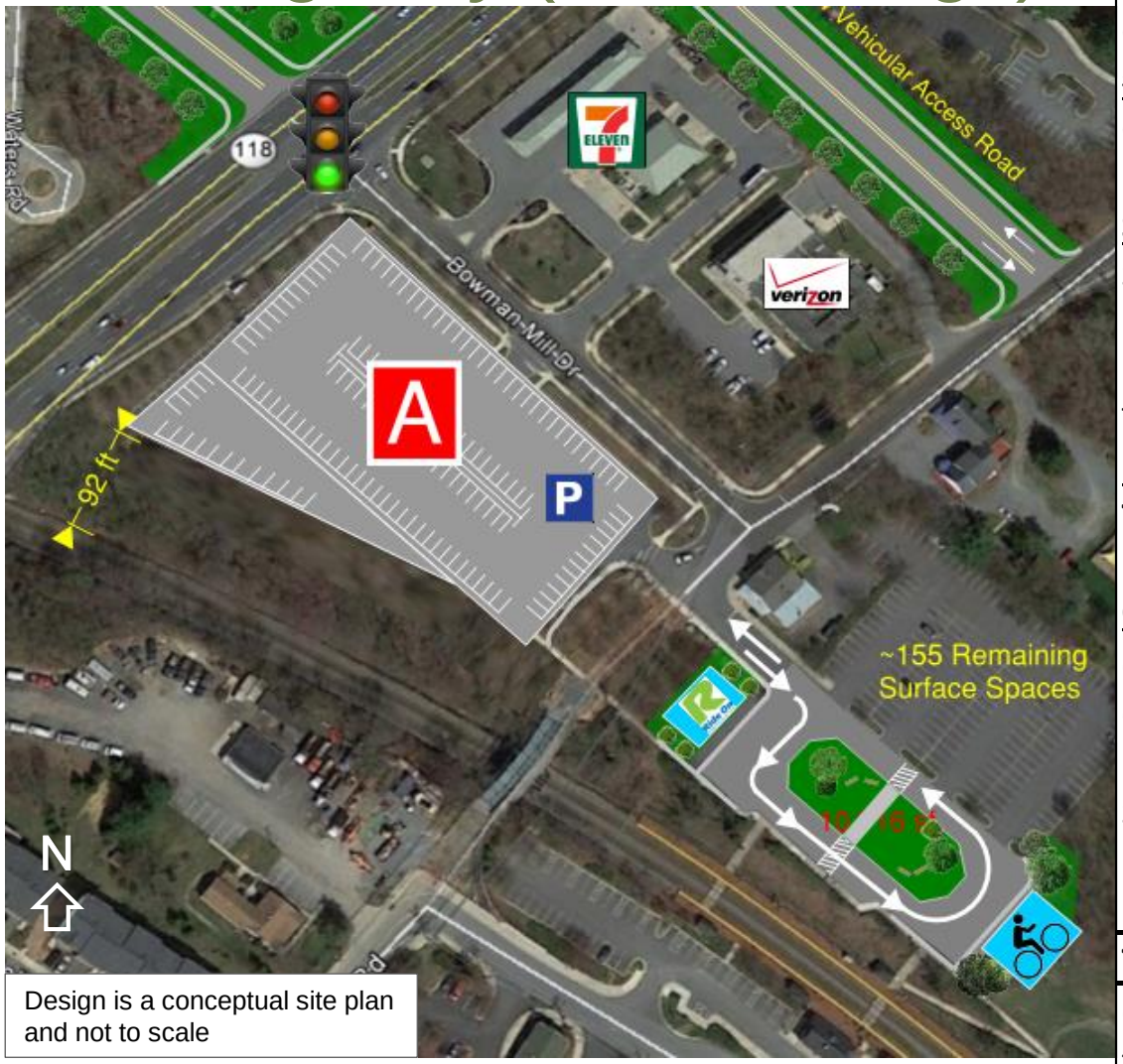
Residual Land Value Estimate – Scenario 3 –Neighborhood Retail

Building Profile	
Stories:	1
GSF:	32,000
FAR:	0.3
Parking Spaces:	128
Parking Ratio (per 1,000 sf):	4.0
Net Operating Income	$760,000
Sales Value :	**$11,500,000**
(6.5% Cap Rate, 2% Transaction Costs)	

Budget	
Hard Costs	$6,500,000
Soft Costs	$1,600,000
Investor Profit Margin	$1,600,000
Total Costs	**$9,700,000**

REMAINING RESIDUAL LAND VALUE:	**$1,800,000**
(before cost of CSX land acquisition)	

Sample Development Option #4 Parking Only (Lot A Garage)



Design is a conceptual site plan and not to scale

Lot A (North Lot) - Parking Only	
Garage sf/floor:	72,000
# Floors:	4
Garage Space:	288,000
Extra Surface Space:	16,000
Spaces	
Sf per Space:	350
New Garage Spaces:	823
New Surface Spaces:	46
Total New Spaces:	869
Existing Surface Spaces:	155
Total Spaces:	**1,094**
(w/ ~70 Spaces South of Track)	
Cost	
Cost / Garage Space[1]:	$17,000
Cost / Surface Space:	$7,000
Hard Costs:	$14,300,000
Site Work & Soft Costs:	$4,300,000
(30% of Hard Costs)	
Bus Area Park & Shelters:	$1,000,000
Total Cost Estimate:	**$19,600,000**

(1) Cost per space can range from $14,000 - $20,000 depending on construction type. Middle estimate of $17,000 used here.

Funding Sources: Public

- MNCPPC-sponsored land swap or air rights
- Fed/state/local grants
  - HUD/EPA Sustainable Communities Grant
  - Federal DOT Transportation Infrastructure Generating Economic Recovery (TIGER) Grant
    - Application would require a multi-jurisdictional REGIONAL parking strategy to measure the potential for “mode shift” (transitioning auto passengers to public transit riders)

Funding Sources: Public-Private

- Near-Term Feasibility:
  - PPP not feasible for Scenario 1 or 2 due to relationship between costs/ revenues and lack of parking income
  - Tax Increment Financing not feasible due to insufficient commercial density within a reasonable TIF district boundary
    - Annual bond repayment for parking deck is $1.45 M ($25M capital cost, 30 years, 4%)
    - Potential incremental real property revenue from project is insufficient to meet bond repayment needs (estimated <$50K/year at buildout)

Funding Sources: Public-Private

- Mid- to Long-term:
  - Strong demographic and economic indicators (high value HH incomes and growth trends) indicated future opportunity for creative Public/Private Financing
    - Master Developer RFP process recommended to market site/identify high quality, well capitalized development partner with experience securing other public funding sources
    - Combination of developer proffers (in exchange for GC position on garage) and public subsidies
    - Linkage fees (stormwater tax credits, other housing linkage fees)
    - Low income housing tax credits for mixed income housing (buy down on the capital costs for the housing to cross-subsidize the garage

Funding Sources: Private/Commercial

- Conventional Bank Loan
  - Project financing necessitates a stream of income for repayment
  - Commercial financing not a viable option without generating income by charging for parking
    - MARC does not currently charge for parking other than at stations where Metro is also present (shared parking)
    - Additionally, given the amount of available land and parking in the Germantown area, paid parking is not prevalent in the community and would potentially push many users to the next station (which includes free parking) on the MARC line

Summary of Development Challenges

- Private development land value is insufficient to fund parking garage without public subsidies
- Neighborhood compatibility, not economics, should therefore drive private development
- To support new construction w/ structured parking would require Residential rents of approx. $2.50 psf (25% higher than current estimate of $2.00 psf) or retail rents of approx. $30 (20% higher than the current estimate of $25 for this location)
- High value private development alternatives may require fee simple sale of the land (e.g. townhouses or condos) –potentially incompatible with County objectives

Summary of Development Challenges

- Land acquisition
- Competitive disadvantages to other sites
- Reliance on new development to fund infrastructure that would connect station to Town Center
- Circulation and access requirements for buses on east side
- Free commuter parking, riders are likely to drive elsewhere to avoid new parking fees (if instituted)
- Competing desires between improving pedestrian and vehicular safety and preserving community historic character

Recommendations

- Conduct a regional commuter study (including a rider intercept survey) to test potential for expanded utilization of MARC
- Explore potential of regional commuter park and ride system
- Promote “Mode Shift” from auto passengers to public transit and alternative modes
- Target state and federal grants/partnerships to fund regional planning studies and capital requirements for the garage and associated public transit improvements (HUD Sustainable Communities, TIGER, etc.)

Recommendations

- Add public parking at Boyds MARC station in advance to help manage overflow during construction of Germantown garage
- Build Germantown MARC garage before other private uses to maintain parking supply
- Improve access for pedestrians and bicycles, not just cars
  - No vehicular connection over the tracks (at this time)
  - Create a public walking and biking path adjacent to pond/stream (if possible) to provide additional site access as well as a public amenity

Recommendations

- Transition to paid parking
  - Revenue from paid parking could offset costs
  - 1,000 spaces X $6 X 250 days/year = $1.5 million (equal to annual bond payment on construction of $25 M decked garage)
- Engage a broker and legal counsel to explore issuance of a private Master Developer RFP to help defray cost of garage
- Engage local residents to explore ways to address pedestrian safety while preserving historic character of nearby roads

Questions?