Veirs Mill Corridor
ULI mTAP

2016-2017 ULI Regional Land Use Leadership Institute

Mini Technical Assistance Panel

Bill Eger | Sarah Goss | Jill Griffin | Walter Ploskon | Joyce Tsepas

Urban Land Institute
Washington

Contents

- mTAP Assignment and Approach
- Background and Research
- Recommendations
  - Improving safety, security and accessibility
  - Strengthening community cohesiveness
  - Leveraging development opportunities
- Appendix

Questions to be addressed by the Panel

- How will BRT influence market affordability, property values, and development pressure adjacent to the transit corridor?
- Can BRT and the associated stations act as a catalyst for reinvestment and/or redevelopment?
- What are the most appropriate uses of the single-family residential homes immediately adjacent to Veirs Mill Road?
- What are potential land use and station area typologies? What improvements should be considered to provide safe and convenient access to the BRT stations along the corridor?
- Should the current station locations be changed? How can the stations be designed and/or located to serve as an instrument for placemaking?

Assumptions

- Recommendations assume BRT is implemented through Alternative #3: New BRT Service in Dedicated Curb Lanes (where feasible)

- BRT stops within the Master Plan area will be located at:
  - Twinbrook Parkway
  - Parkland Drive
  - Connecticut Avenue
  - Aspen Hill Road
  - Randolph Road
  - Newport Mill Road

- Temporal boundary of Master Plan is 20 years

Background and Research

Population and Housing Characteristics

Urban Land Washington Institute

Regional Land Use Leadership Institute

Veirs Mill Corridor

Corridor Overview

KEY FACTS

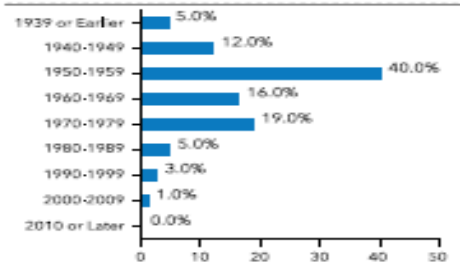
9,064
Population

36.1
Median Age

3.4
Average Household Size

$57,173
Median Household Income

HOUSING UNITS – YEAR BUILT



KEY FACTS

2,640
2016 Total Households

$46,807
2016 Median Disposable Income

HOUSING REMODELING

$1,560.64
Maintenance & Remodeling Services for Owner-Occupied

HOUSING STATS

$332,130
Median Home Value

$8,450
Average Spent on Mortgage & Basics

$1,224
Median Contract Rent

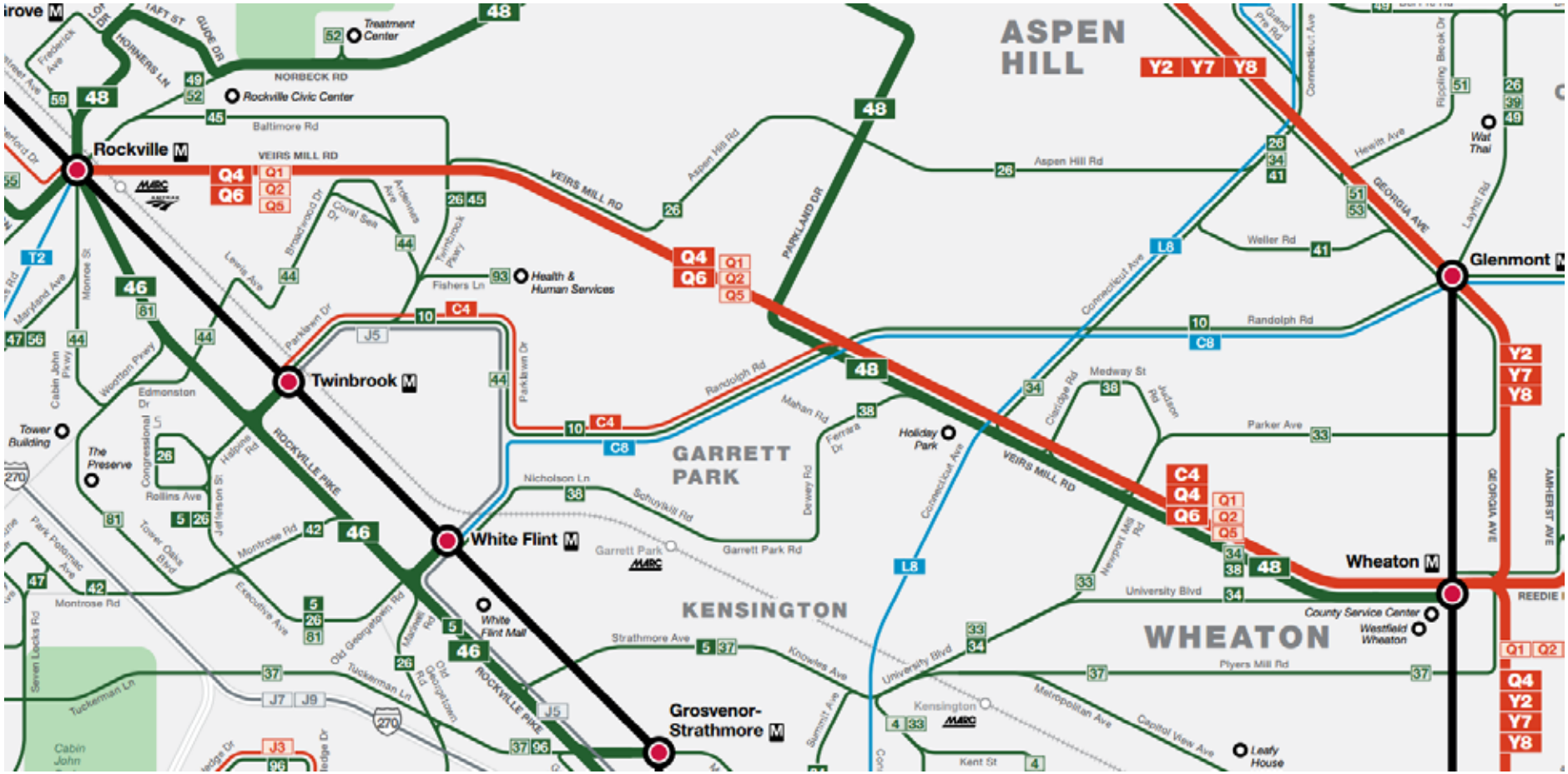
PUBLIC TRANSPORTATION – RIDERSHIP

25.97%
ACS Workers 16+: Public Transportation

Physical Characteristics

- Mix of frontage conditions and setbacks
- State of sidewalks and variable widths
- Service roads
- Variable roadway widths
- Terrain
- Limited transit access
- Uniform residential housing stock

Existing Transit Options



BRT Research

- BRT Case Studies
  - Bogotá
  - Boston
  - Cleveland
  - Los Angeles
  - Ontario
  - Ottawa
  - Pittsburgh
  - Seoul

Euclid Avenue HealthLine BRT (Source: Cleveland.com)

Boston Silver Line (Source: Wikipedia

- Light transportation systems & facilities
  - Standard bus service
  - Light rail
  - BRT

TransMilenio BRT (Bogota, Colombia,)

BRT Research: Example Economic Impacts

- Example BRT system economic impacts:
  - Boston: Approximately 7% increase in condominium value premium
  - Cleveland: Upwards of 2.4% and 1.4 % increase in commercial and residential value premiums, respectively, over 6-year period
  - Ontario:
    - Residential/MF (dedicated-lane = 4-8%, mixed-lane = 2-4%)
    - Commercial (dedicated-lane = 2-4%, mixed-lane = 1-2%)
  - Pittsburgh: Upwards of 11% increase in single-family dwelling value premium

- Example light rail system economic impacts:
  - Range from -4-33% for single-family and condominiums
  - 4-9% for multi-family
  - 5-15% for commercial

BRT Research: Opportunities

- Mixed-lane or dedicated-lane BRT can provide significant transportation benefits and have the potential to increase property value, particularly when implemented with public realm improvements, however they are unlikely to be a primary catalyst for new development

- Support transit-oriented development (TOD) and pro-development policies for new developments to increase potential economic development opportunities leveraging BRT
  - Zoning reforms
  - Development finance and tax policies
  - Land assemblage
  - Supportive infrastructure

- Should new development or redevelopment occur, implementing parking mitigation measures to increase transit ridership and decrease congestion provide additional benefit

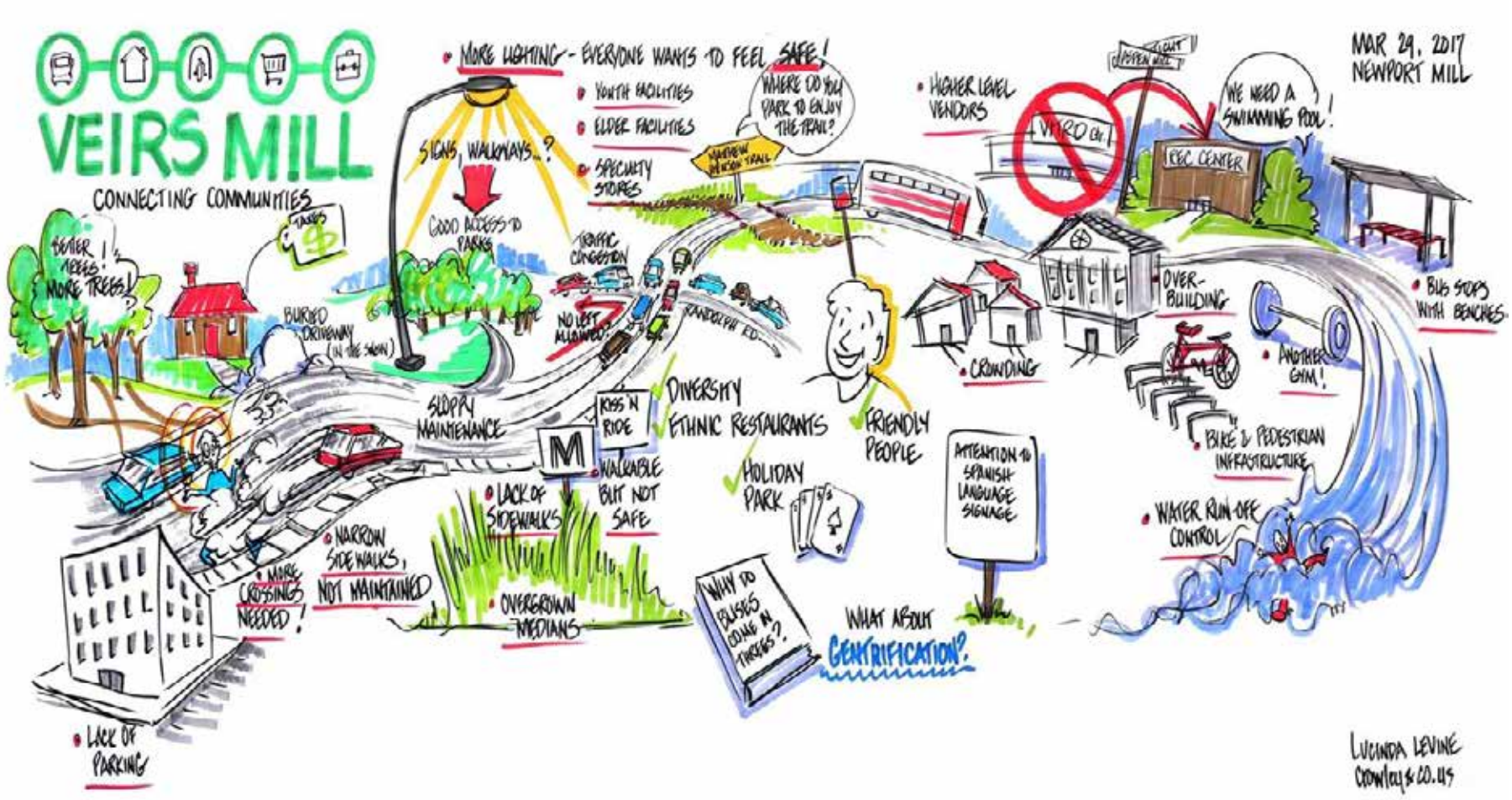
BRT Research: Limitations

- Land with limited development potential is unlikely to develop regardless of the quality of transit investment
- A mass transit corridor is more likely to have a significant development impact — without additional government interventions — if it passes through a lot of land that is moderately desirable for redevelopment as opposed to through a small amount of such highly desirable land
- Inability to catalyze private development in an area with limited or no existing market activity
- While physical BRT features convey a sense of permanence to developers, deficient in major institutional, employment, and activity centers along or near the BRT corridor that can sponsor development projects
- BRT corridors appear to be gaining share of new offices; where new transit corridors increased their share of new office space from 11.4 percent to 15.2 percent, but very little of such space exists in the Veirs Mill corridor

BRT Research: Possible Outcomes

- Evidence from other BRT and light-transportation system projects suggests possible outcomes may include:
  - Modest property land value appreciation within ~¼ mile radius of BRT stops; primarily commercial or mixed-use properties
  - Property land values may appreciate beyond the ~¼ mile radius of a BRT stop, but less than properties within closer proximity to BRT stops
  - In the short run, will likely not increase development pressures or change market conditions for redevelopment of existing housing stock
  - Leverage as a benefit for future infill or development opportunities in select locations
  - Leverage existing conditions to maximize benefit and ridership of BRT system

Community Input



Planning Objectives

Improving safety, security and accessibility

Strengthening community cohesiveness

Leveraging development opportunities

Recommendations

Safety, Security, Access

Data

- Mix of frontage conditions
- Service roads
- Mix of setbacks
- Inconsistent sidewalks
- Transit access
- Variable terrain

Recommendations

- Consistent sidewalks
- Street edge beautification
- Corridor maintenance
- Streetscape
- Parking management

Implementation

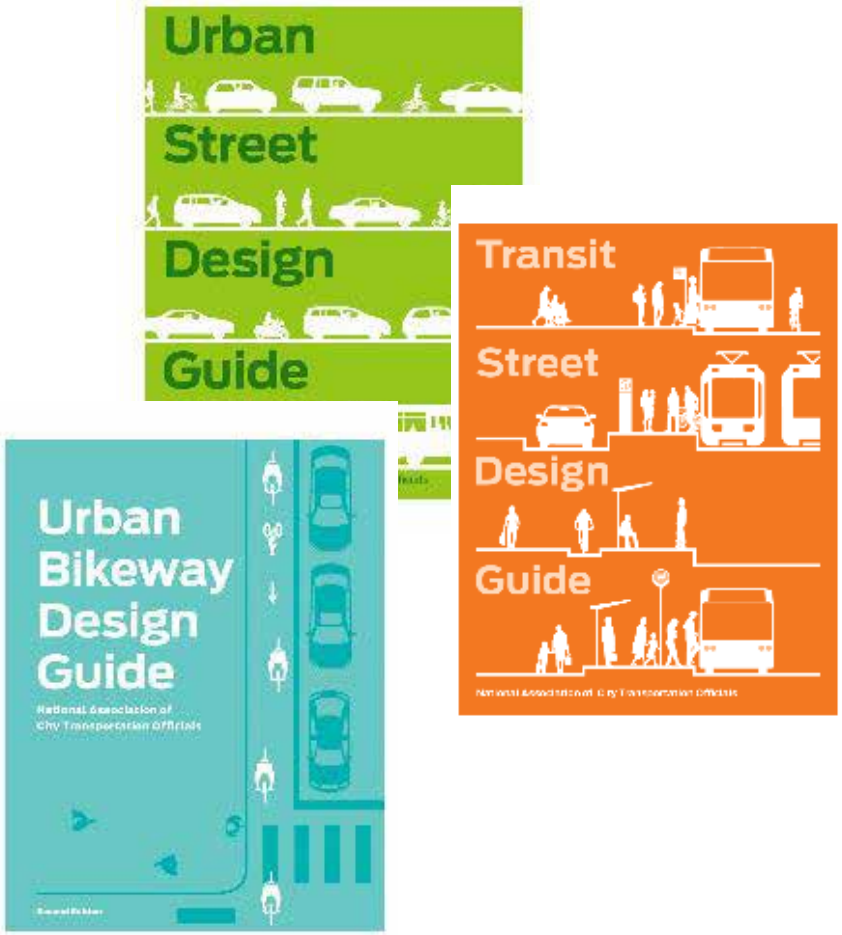
- State MOU
- Dedication of property taxes to O&M obligations

Safety, Security, Access

Safety, Security, Access

Recommendations

- Consistent sidewalks
- Street edge beautification
- Corridor maintenance
- Streetscape, “Green” corridor
- Complete streets (BRT, bikeway)
- Parking management analysis (consider BRT parking at Randolph)



Resources from NACTO: https://nacto.org/

Safety, Security, Access

Ocean City, NJ (SHA)

Arlington, VA (Ballston BID)

Safety, Security, Access

Implementation Tools

- State MOU for streetscape/beautification
- Dedication of property taxes to O&M obligations
- Develop Complete Streets Policy
- Restricted neighborhood parking
- Revenue generating parking

Example property tax dedication breakdown

	Annual	Capital Raised*
General County Taxes Generated by Veirs Mill Corridor	$8,741,708	
5% Dedication	$437,085	$5,447,050
10% Dedication	$874,171	$10,894,101

*Assuming 5% interest rate and 20 year term

Community Cohesiveness

Data

- BRT System Review
- Analysis of property sales
- Missing Middle typology

Recommendations

- Maintain existing zoning and density
- Preserve home values
- Placemaking
- Offset ped/bike path along Rock Creek extent (low bollard lighting)

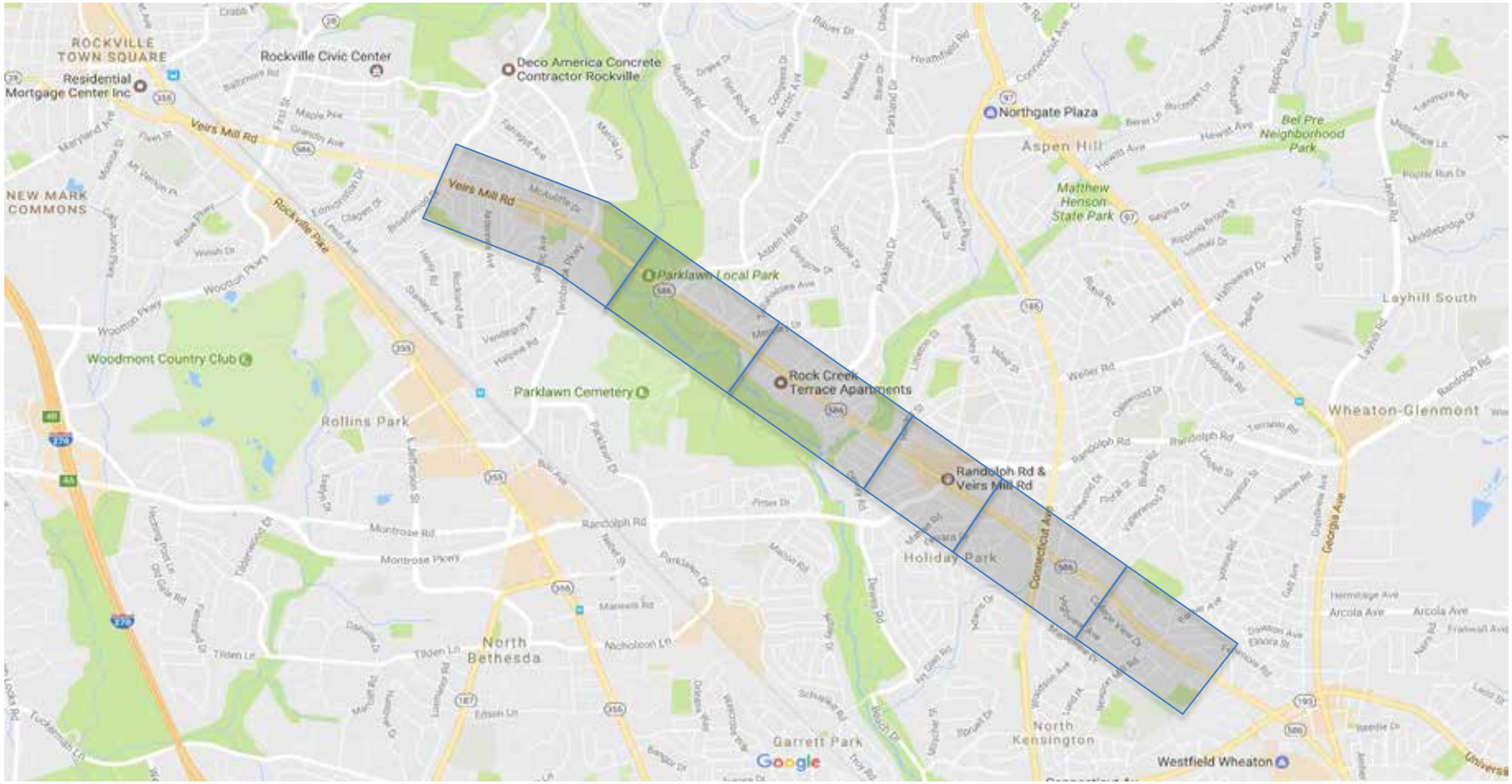
Implementation

- Home improvement opportunities
- Permitting processes
- Improving compatibility of land uses
- Pop-up programming, public art, markets
- Partnership with churches & community organizations
- Conservation districts

Community Cohesiveness

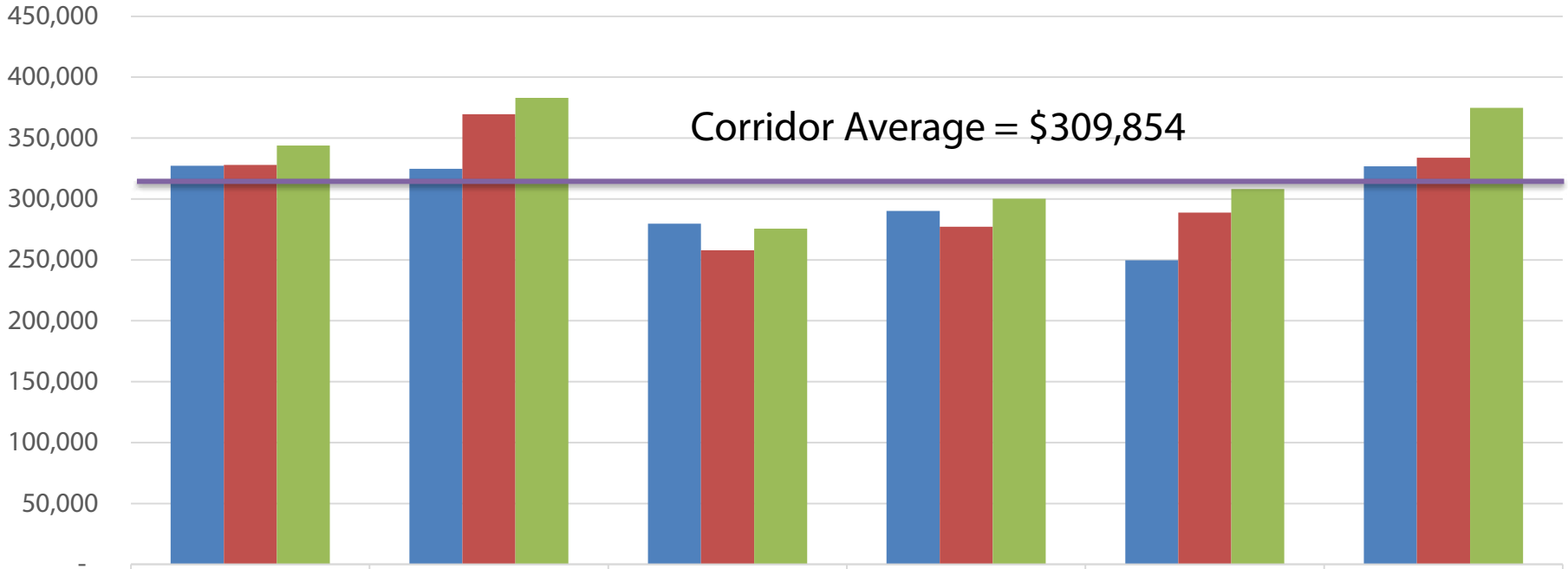
Community Cohesiveness

Node Boundaries



Community Cohesiveness

Average Sales Price by Node

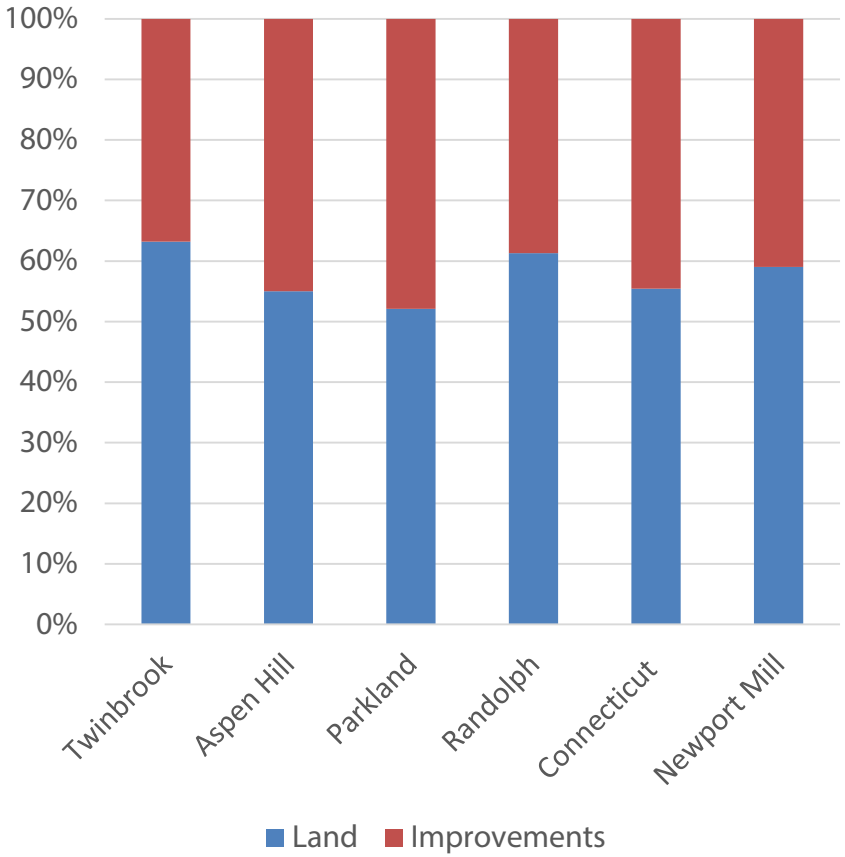


	Twinbrook Parkway	Aspen Hill Road	Parkland Drive	Randolph Road	Connecticut Avenue	Newport Mill Road
2014	327,314	324,673	279,722	290,102	249,573	326,760
2015	327,938	369,687	257,864	277,129	288,752	333,894
2016	343,891	383,111	275,611	300,194	308,101	374,821

Source: SDAT 2014-2016 Property Sales within 0.25 miles of Veirs Mill Road

Community Cohesiveness

Breakdown of Price by Land vs Improvements



Price Point by Dwelling Type

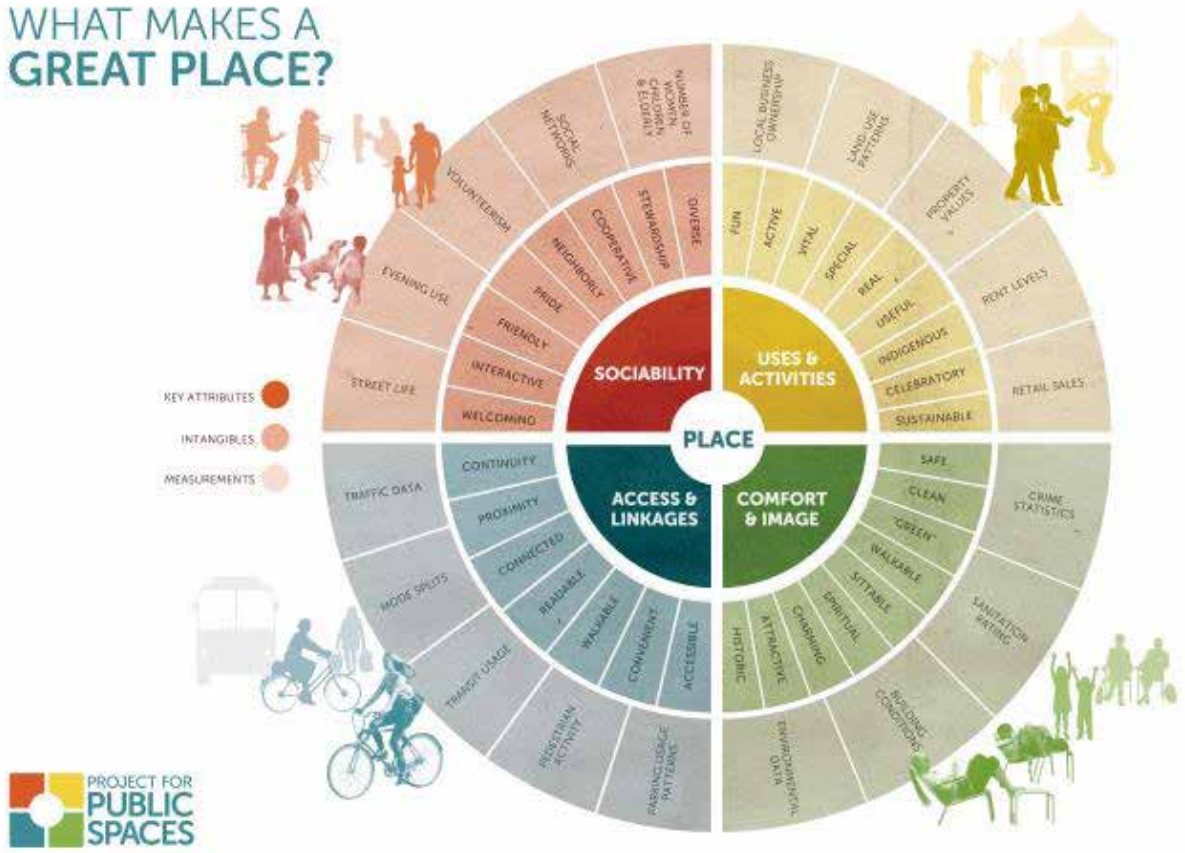
	SFD 1 STY	SFD 1.5 STY	SFD 2 STY	TH	Condo
Avg	308,450	330,766	373,348	260,007	192,848
Upper Midpoint	350,000	370,000	407,000	334,900	227,000
Max	599,000	473,000	700,000	374,000	415,000
Min	60,000	65,275	193,000	100,000	115,000
Median	315,750	340,000	371,500	246,000	151,000

Source: SDAT 2014-2016 Property Sales within 0.25 miles of Veirs Mill Road

Community Cohesiveness

Recommendations

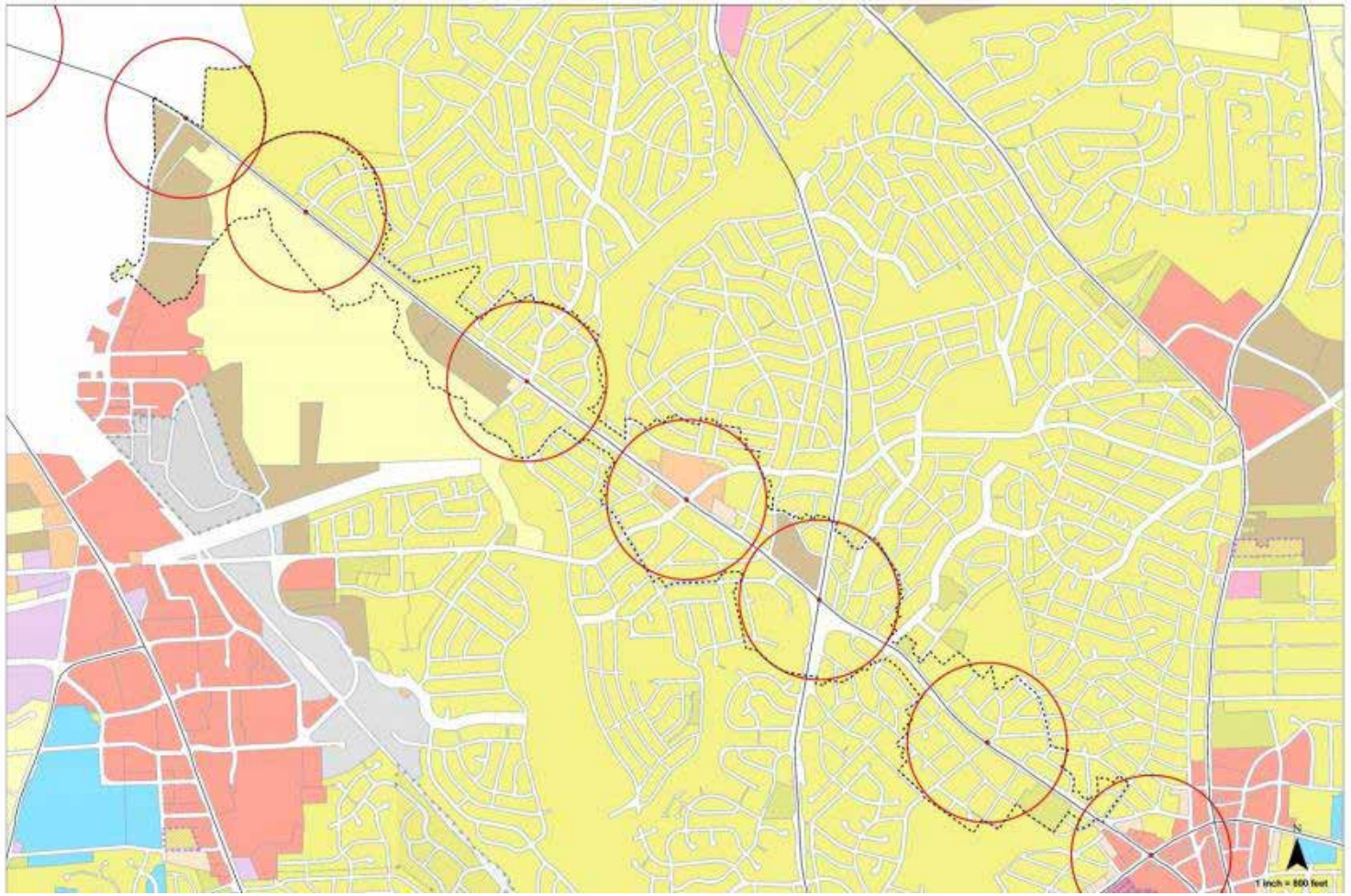
- Maintain existing zoning and density
- Preserve home values
- Placemaking
- Explore Low Impact Development Opportunities
- LED lighting retrofit and Rock Creek Park pathway
- Evaluate feasibility of Neighborhood Conservation District/ elements



https://www.pps.org/reference/what_is_placemaking/

Community Cohesiveness

PLAN AREA – LAND USE AND ZONING



Community Cohesiveness

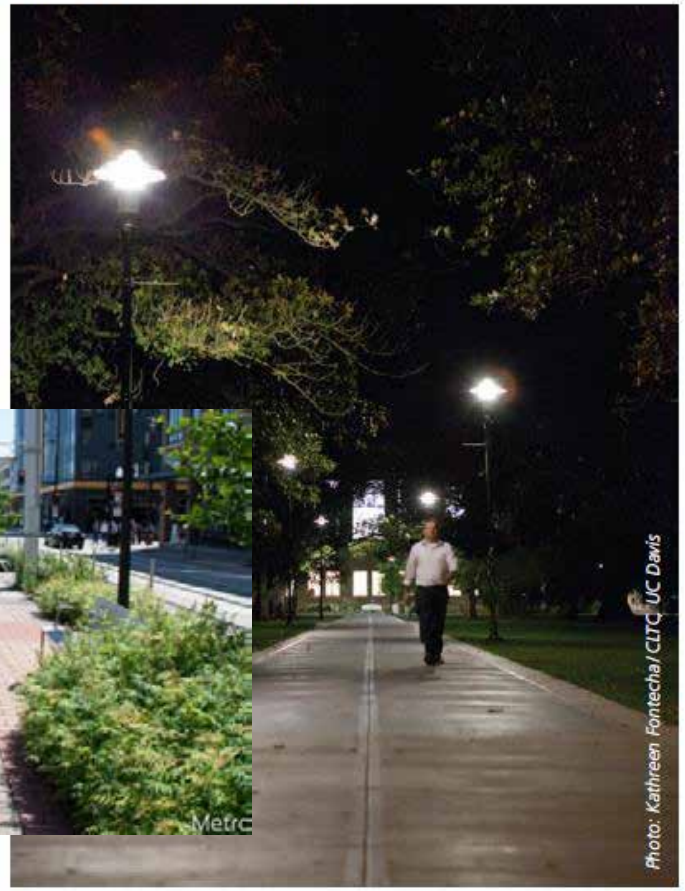
Community Cohesiveness

Implementation Tools

- Home improvement programs
- Permitting processes
- Pop-up programming, public art, markets
- Partnership with churches, community organizations
- Neighborhood Conservation Districts
- LED lighting retrofit
- Low Impact Development

NACTO Stormwater Guide

Figure 11. LED pathway lighting at UC Davis



NPS Outdoor Lighting Retrofits Guide

Community Cohesiveness

Home Improvement Programs

- Educate Homeowners on existing home improvement financing options
  - HUD Section 203(k) Loan Program
  - HUD Property Improvement Loan Insurance (Title I)

- Amend the Single Family Home Improvement Loan Program to allow for uses beyond addressing code violations and modify the repayment terms

- Offer an income tax credit on qualifying repair, renovation or improvement work

- Create an alternative to the Homestead Property Tax Credit by offering one-time incentive payments based on the amount of the increase in County taxes

Community Cohesiveness

Pop-up Programming

Open streets initiatives temporarily close streets to automobile traffic, so that people may use them for walking, bicycling, dancing, playing, and socializing.

http://openstreetsproject.org/

Community Cohesiveness

Public Art

- Station design can:
  - provide a sense of place
  - project community values
  - foster ownership

Public art can be a tool to facilitate community dialogue & enhance station design.

TriMet Orange Line - Portland, OR

Krumback, Austria (via CityLab.com)

Potomac Yard/CrystalCity Transit Way - Arlington County, VA

Community Cohesiveness

Community Art

Photo: www.greatcity.org, Seattle, WA

Photo: Greg Raisman, Portland, OR

What is an Intersection Mural?

It's a permanent mural that's painted on the pavement at an intersection. It's used as a community-building tool—murals are generally designed by the neighborhood, and represent the local community. Experience from other cities shows that intersection murals can help calm traffic, and foster a sense of community identity (these murals can be found in multiple cities, including Seattle, WA, Portland, OR and Ft. Lauderdale, FL).

Intersection murals are a simple, low cost way to reclaim streets as a shared space for the whole community to enjoy.

What are the benefits of Intersection Murals?

Intersection murals have many benefits, including:

- Bringing neighbors together to create a sense of community
- Traffic-calming
- Place-making—murals can represent the communities that surrounds them
- Making streets more enjoyable!

The mural continues to be an important neighborhood anchor, slowing down cars and providing residents with a safer place to walk, cycle, or admire the work of their community. Over time, as the mural begins to fade from sun and use, Haley and others see this as a perfect opportunity to bring everyone together again to repaint the mural and create a tradition around co-creation. With each quilt "square," Montclair's Placemaking movement will continue to grow.

Montclair, NJ (from PPS.org)

Community Cohesiveness

Neighborhood Conservation Districts

- Types
  - Purpose to preserve historic resources or architecture character
  - Purpose to regulate urban form or land use, in anticipation of redevelopment

- Administration
  - Zoning or planning board/ commission
  - Planning department
  - Independent neighborhood group/ commission

Community Cohesiveness

Example: Lincoln Park Neighborhood Conservation District

- Assemblage of separate lots not permitted
- 25% lot coverage at 25' height (45% line of sight slope)
- Resubdivision of existing original lots not permitted
- Roof heights of new additions should not dominate
- Irregular setback patterns should be maintained
- Additions constructed on rear or side
- "Sympathetic materials" for new construction

FEBRUARY 26, 2007

CITY OF ROCKVILLE
MARYLAND

325 Lincoln Avenue

325 Lincoln Avenue

- 1-1/2 stories. Less than 25 feet high
- 1,120 square foot lot coverage excluding porch
- Full basement
- Substantial portico
- Total square footage: 2,660 SF with basement
- No garage

http://www.rockvillemd.gov/index.aspx?NID=189

Development Opportunities

Data

- BRT Review
- Analysis of property ownership
- Review of ridership patterns
- Analysis of local shopping centers
- Community feedback

Recommendations

- Leverage BRT for infill or future development opportunities at:
  - Stoney Mill Square Shopping Center
  - Parklawn Local Park
  - Rock Creek Terrace

Implementation

- Rezone & missing middle typologies
- Land dispositions
- Partnership with churches & community organizations
- P3's
- Shift BRT stops

Development Opportunities

Development Opportunities

Potential HH Income absent induced growth	
2010 Montgomery Co. Per Capita Personal Income	$68,454
2010 Montgomery Co. Median HH Income	$88,559
Median HH Income : Per Capita Personal Income	129%
2015 Montgomery Co. Average Income	$133,543
2015 Veirs Mill Corridor Average Income	$82,023
Veirs Mill Corridor : Montgomery Co.	61%
2016 Veirs Mill Corridor Median HH Income	$57,713
2016 Veirs Mill Corridor Average HH Income	$73,080
Average HH Income : Median HH Income	128%

"…none of the project alternatives *will cause growth-inducing effects nor other effects related to induced changes in the current and planned pattern of land use, population* density, or growth rate…"

MD 586/ Veirs Mill Road Bus Rapid Transit Study

Potential Home Prices	2015	2020	2025	2030	2035
Montgomery Co. Projected Per Capita Personal Income	$70,996	$77,059	$80,945	$83,769	$86,701
Montgomery Co. Projected Median HH Income	91,848	99,691	104,719	108,372	112,165
Veirs Mill Corridor Projected Median HH Income	56,413	61,231	64,319	66,563	68,893
Veirs Mill Corridor Projected Average HH Income	72,109	78,267	82,214	85,082	88,060
Housing Costs as 30% of Average HH Income	21,633	23,480	24,664	25,525	26,418
Estimated Sales Prices	$365,000	$400,000	$420,000	$435,000	$450,000

Sources: 2014 Maryland Statistical Handbook; Veirs Mill Scope of Work Planning Board Presentation; Esri Market Profile 0.25 mile radii

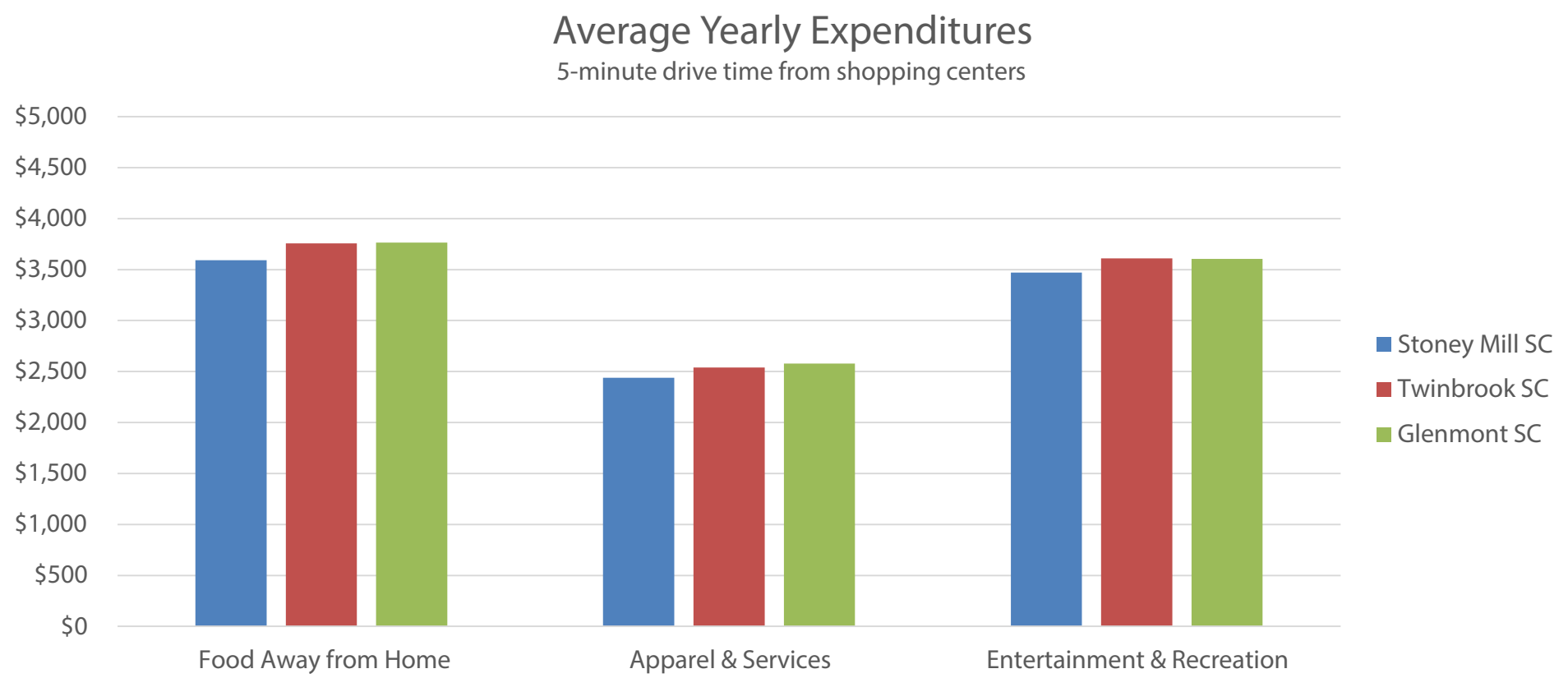
Development Opportunities

Simplified Pro Forma	SFD Renovation	SFD Expansion	SFD New Build	3 Story TH	2 over 2 TH
Acquisition	281,148	281,148	281,148	281,148	281,148
Hard and Soft Costs	67,627	74,575	151,437	415,2878	445,276
Total Costs	348,775	355,723	432,585	696,435	726,424
Average Sale Price (2014-2016)	398,187	426,995	481,965	335,651	248,953
Total Revenues	398,187	426,995	481,965	1,006,953	1,493,718
Profit/(Loss)	49,412	71,272	49,380	310,517	767,294
IRR	5%	12%	3%	29%	61%

Key Assumptions					
Number of Units	1	1	1	3	6
Land SF	6,000	6,000	6,000	6,000	6,000
Existing Improvements SF	1,200	1,200	1,200	1,200	1,200
Construction SF	1,200	600	2,400	6,300	8,400
Land Cost per SF	25.85	25.85	25.85	25.85	25.85
Existing Improvement Cost per SF	105.04	105.04	105.04	105.04	105.04
Hard Costs per SF	56.36	124.29	63.10	65.92	53.01

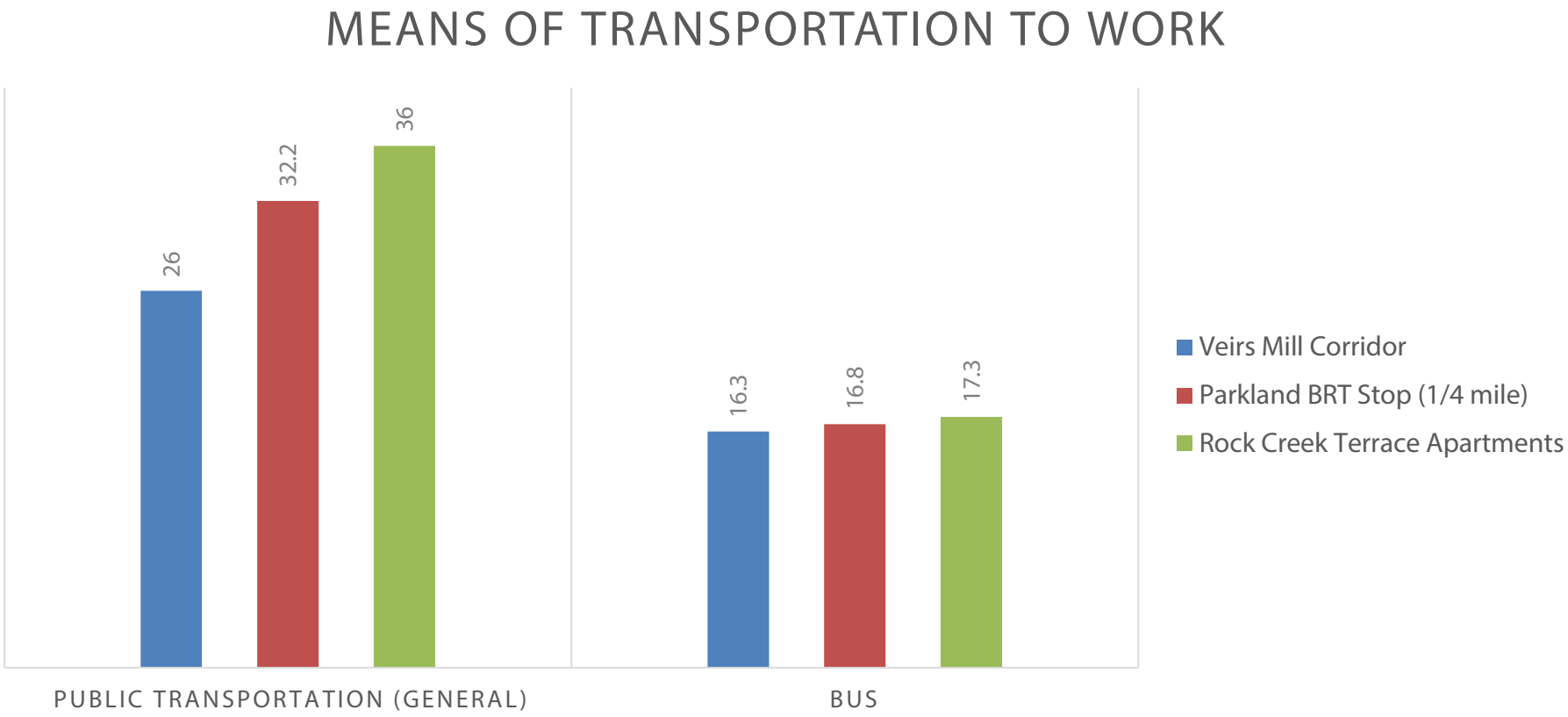
Source: SDAT 2014-2016 Property Sales within 0.25 miles of Veirs Mill Road, Montgomery County Residential Building Permits issued since 2000

Development Opportunities



Source: Esri; Consumer Spending data are derived from the 2013 and 2014 Consumer Expenditure Surveys, Bureau of Labor Statistics.

Development Opportunities



Source: ACS Population Summary prepared by Esri from U.S. Census Bureau, 2010-2014 American Community Survey

Development Opportunities

Recommendations

- Use BRT as a catalyst for infill development or future development:
  - Stoney Mill Square SC
  - Parklawn Recreation Center
  - Twinbrook SC
  - Rock Creek Terrace

Development Opportunities

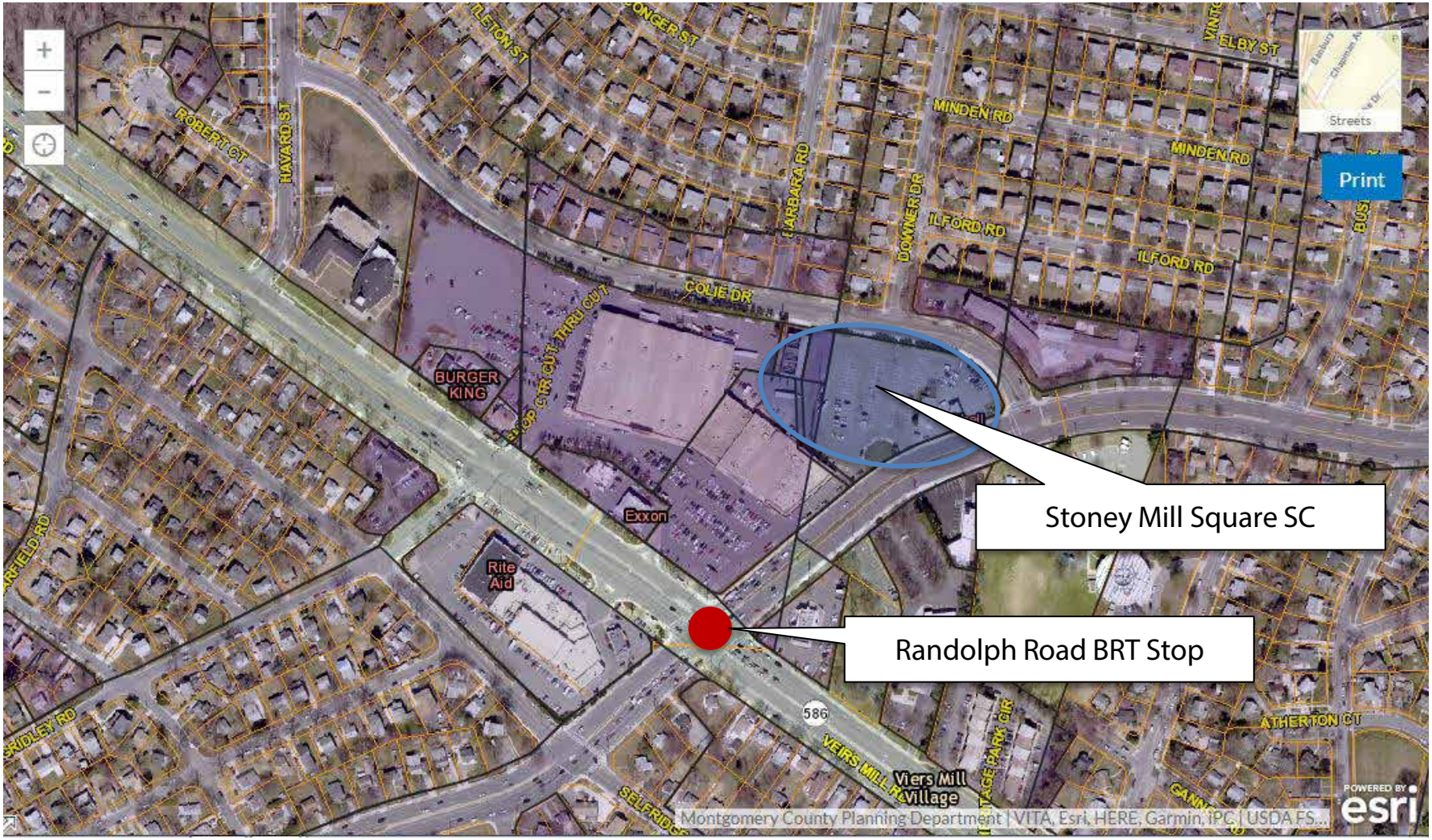
Mixed-use Mid-Rise Development

- Dense, urban development combining multiple uses
  - Residential, commercial, cultural, institutional and/or industrial
- Uses are physically and functionally integrated into 'walkable communities'

Missing Middle Housing

- Multi-unit housing structures
  - duplex, fourplex, courts, carriage house
- Compatible scale to large single-family homes
- Often integrated in 'walkable communities'

Development Opportunities - Housing



Development Opportunities - Housing

- Side-by-Side Duplex

- Stacked Duplex

- Fourplex

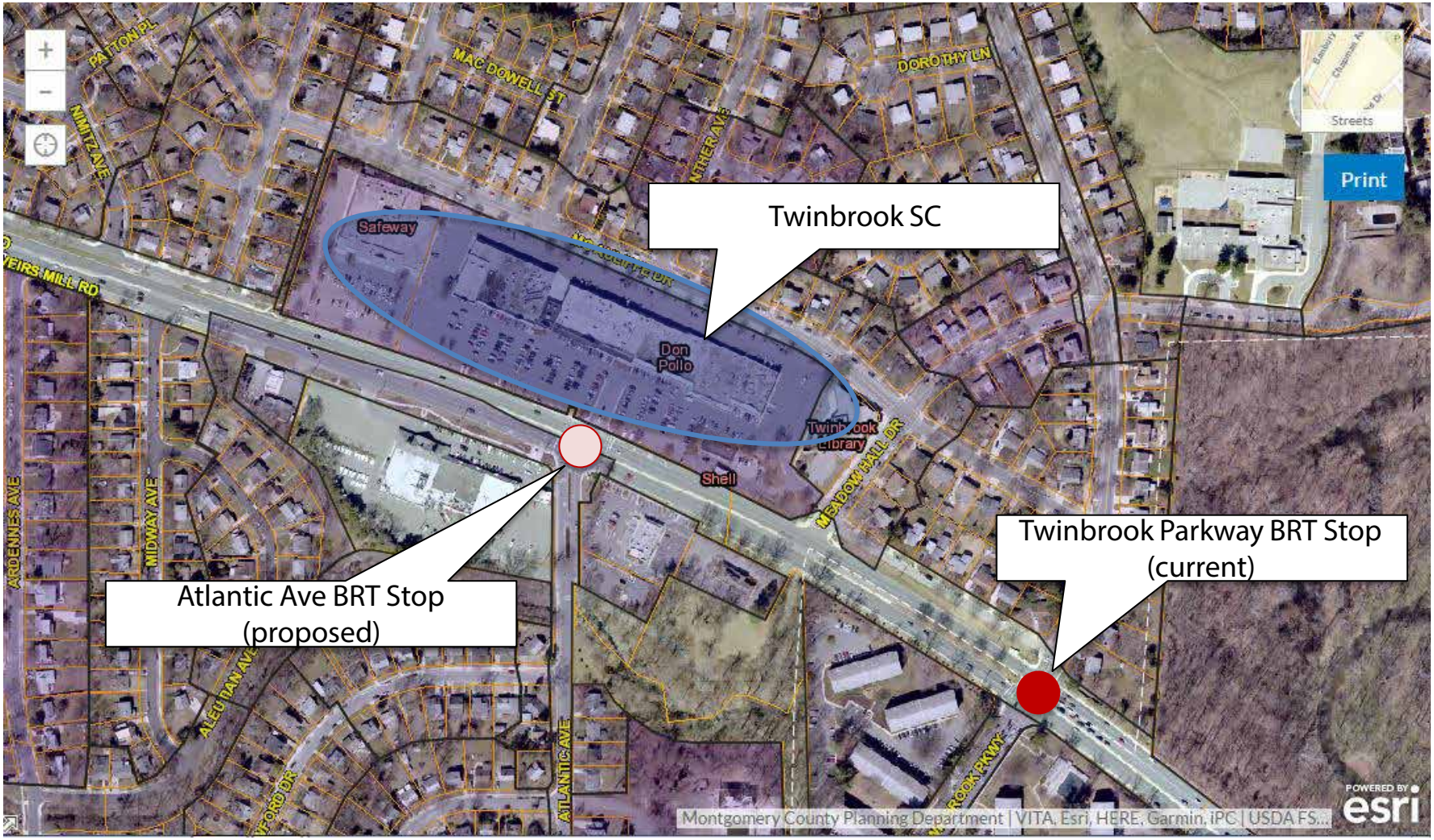
Development Opportunities - Recreation

Development Opportunities - Recreation

Arlington Mill, Arlington, VA
Affordable housing development co-located with a community center

- shared underground garage
- shared infrastructure costs saved nearly $9 million (almost $75,000 per unit)
- public land with discounted ground lease
- unique financing structure
- Low Income Housing Tax Credits
- combination of bonds and carry-over funds

Development Opportunities – Mixed-Use



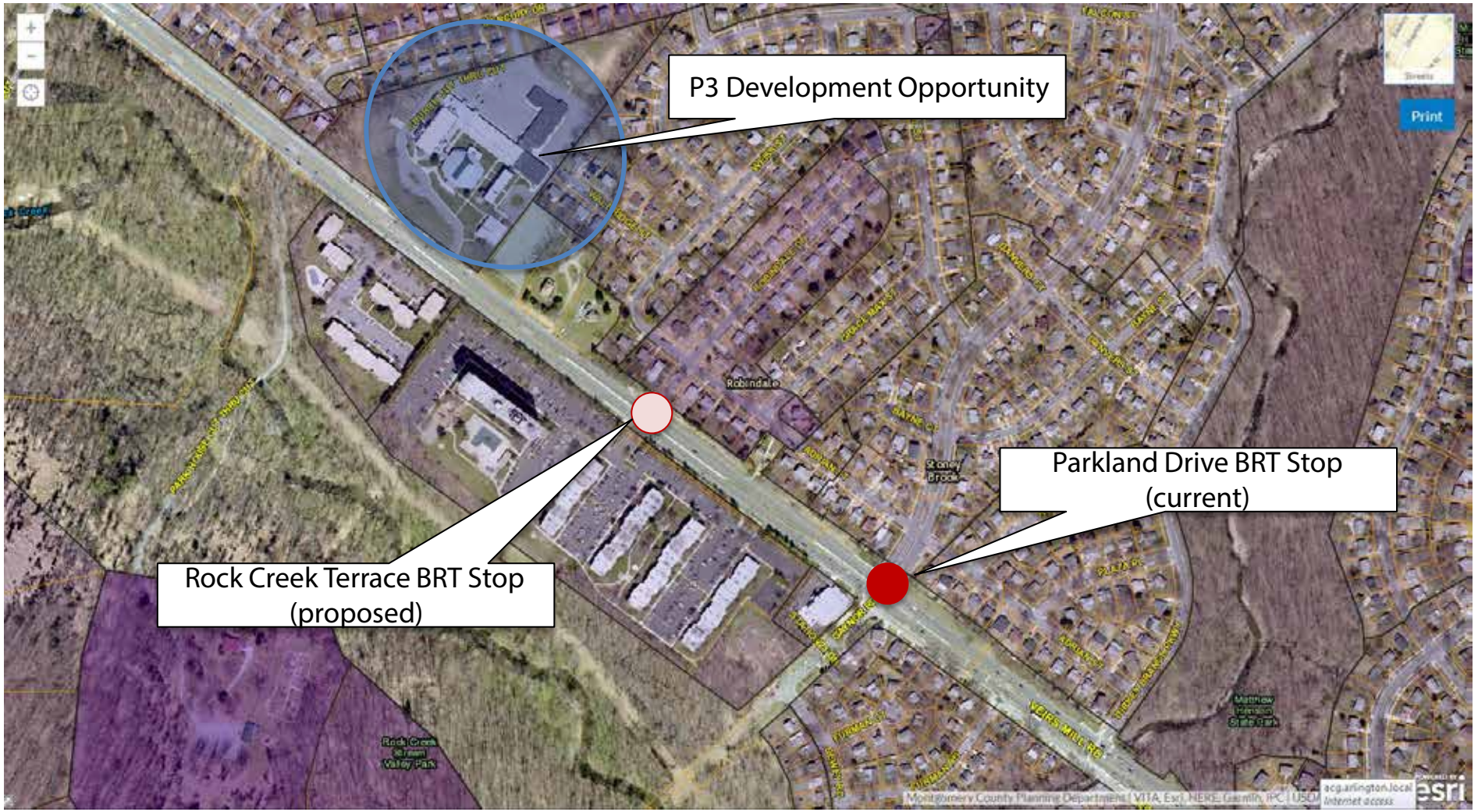
Development Opportunities – Mixed-Use

Galvan, Rockville MD
- 356 apartments
- 100,000 sf ground floor retail
- Walkable to public transportation

Upstairs at Bethesda
- 180 apartments
- 45,000 sf ground floor retail
- Below grade parking
- Walkable to public transportation

Terano, Rockville MD
- 214 apartments
- ground floor retail
- Walkable to public transportation

Development Opportunities – P3



Development Opportunities – P3

Matthew Memorial Terrace, DC
- 99 new senior and low to mid-income apartments
- New admin and community support building program space

Central, Silver Spring MD
- 234 apartments
- 16,000 sf ground floor retail
- New sanctuary
- $50 million

Riverside Baptist Church, DC
- 170 mixed-income apartments
- 6,900 sf ground floor retail
- New two-story sanctuary
- $50 million

Summary

Improve safety, security and accessibility

Strengthen community cohesiveness

Leverage development opportunities

Thank you!

Appendix

Development Opportunities with Alternative Costs

Simplified Pro Forma	SFD Renovation	SFD Expansion	SFD New Build	3 Story TH	2 over 2 TH
Acquisition	281,148	281,148	281,148	281,148	281,148
Hard and Soft Costs	71,313	89,788	332,426	932,492	1,347,175
Total Costs	352,461	370,936	613,574	1,213,640	1,628,323
Average Sale Price (2014-2016)	398,187	426,995	481,965	335,651	248,953
Total Revenues	398,187	426,995	481,965	1,006,953	1,493,718
Profit/(Loss)	45,725	56,060	(131,609)	(206,687)	(134,605)
IRR	4%	7%	-39%	-31%	-18%

Key Assumptions					
Number of Units	1	1	1	3	6
Land SF	6,000	6,000	6,000	6,000	6,000
Existing Improvements SF	1,200	1,200	1,200	1,200	1,200
Construction SF	1,200	600	2,400	6,300	8,400
Land Cost per SF	25.85	25.85	25.85	25.85	25.85
Existing Improvement Cost per SF	105.04	105.04	105.04	105.04	105.04
Hard Costs per SF	59.43	149.65	138.51	148.01	160.38

Source: SDAT 2014-2016 Property Sales within 0.25 miles of Veirs Mill Road, NAHB Cost of Constructing a Home, RS Means City Cost Indexes, RLB North American Quarterly Construction Cost Report, Montgomery County Residential Building Permits issued since 2000

References

Broad Street Rapid Transit Study Economic Impacts. Report. Chmura Economics & Analysis. May 2, 2014. Accessed March 2017. http://ridegrtc.com/media/news/BRT_Econ_Impacts_FINAL_2014_May.pdf.

Development Impacts of a Dedicated-Lane Bus Rapid Transit and Mixed-Lane Rapid Bus West Valley Connector Segment in Ontario, California. HR&A. October 10, 2014. Accessed March 2017. http://www.omnitrans.org/news-and-resources/plans-reports-and-guidelines/files/HR&A_OntarioWVC_MemoReport10-20-14.pdf.

Dutta, Utpal, Ph.D., and Jeff Henze. *Economic Impacts of Bus Rapid Transit in Southeast Michigan.* Report no. MNTRC Report 12-34. Mineta National Transit Research Consortium. December 2015. Accessed March 2017. https://transweb.sjsu.edu/PDFs/research/1237-economic-impacts-of-bus-rapid-transit-in-southeast-michigan.pdf.

Cervero, Robert. *Bus Rapid Transit (BRT): An Efficient and Competitive Mode of Public Transport.* Working paper no. Working Paper 2013-01. Institute of Urban and Regional Development, University of California-Berkeley. August 2013. Accessed March 2017. https://iurd.berkeley.edu/wp/2013-01.pdf.

Government Accountability Office. *Bus Rapid Transit: Projects Improve Transit Service and Can Contribute to Economic Development.* By David J. Wise Et Al. July 2012. Accessed March 2017. https://www.gao.gov/assets/600/592973.pdf.

Guthrie, Andrew, and Yingling Fan. *Economic Development Impacts of Bus Rapid Transit.* Technical paper no. Report #11. Center for Transportation Studies, University of Minnesota. January 2016. Accessed March 2017. http://www.cts.umn.edu/Publications/ResearchReports/pdfdownload.pl?id=2666.

Hook, Walter, Stephanie Lotshaw, and Annie Weinstock. More Development for Your Transit Dollar: An Analysis of 21 North American Transit Corridors. Report. Institute for Transportation & Development Policy, University of California-Berkeley. November 13, 2013. Accessed March 2017. https://www.itdp.org/wp-content/uploads/2013/11/More-Development-For-Your-Transit-Dollar_ITDP.pdf.

MD 586 / Veirs Mill Road Bus Rapid Transit Report. Report. Maryland Department of Transportation. September 2016. Accessed March 2017. http://apps.roads.maryland.gov/webprojectlifecycle/MO244_11/HTDOCS/Documents/Additional_Documents/2016Sept6%20Revised%20Draft%20Corridor%20Report%20MD586%20BRT.pdf.

"Missing Middle: Responding to the Demand for Walkable Urban Living." Missing Middle Housing. Accessed April 2017. http://www.missingmiddlehousing.com/.

Nelson, Arthur C., and Joanna Ganning. National Study of BRT Development Outcomes. Report no. NITC-UU-14-650. National Institute for Transportation and Communities, University of Utah. November 2015. Accessed March 2017. http://t4america.org/wp-content/uploads/2016/01/NATIONAL-STUDY-OF-BRT-DEVELOPMENT-OUTCOMES-11-30-15.pdf.

Outdoor Lighting Retrofits: A Guide for the National Park Service and other Federal Agencies. Report. California Lighting Technology Center, University of California, Davis. July 2014. Accessed March 2017. http://cltc.ucdavis.edu/sites/default/files/files/publication/nps-outdoor-lighting-retrofits-guide-july2014.pdf.

Perk, Victoria A., Martin Catala, and Steven Reader, Ph.D. Land Use Impacts of Bus Rapid Transit Phase II—Effects of BRT Station Proximity on Property Values along the Boston Silver Line Washington Street Corridor. Report no. FTA Report No. 00022. National Bus Rapid Transit Institute; Center for Urban Transportation Research, University of South Florida. July 2012. Accessed March 2017. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Report_No._0022.pdf.

Project for Public Spaces. Accessed April 2017. http://www.pps.org/.

Thole, Cheryl, and Joseph Samus. *Bus Rapid Transit and Development: Policies and Practices that Affect Development Around Transit.* Report no. FTA-FL-26-7109.2009.5. National Bus Rapid Transit Institute, Center for Urban Transportation Research, University of South Florida. December 2009. Accessed March 2017. https://www.nbrti.org/docs/pdf/BRT%20and%20land%20use_97ver_508.pdf.

Transit Street Design Guide. National Association of City Transportation Officials. 2016..260.

Urban Street Stormwater Guide. National Association of City Transportation Officials. 2017. 168.

Urban Street Design Guide. National Association of City Transportation Officials. 2013 .192.

Urban Bikeway Design Guide, 2nd Edition. National Association of City Transportation Officials. 2014 .260.

West Broadway Transit Study: Economic Development Impacts of Transit Alternatives. SRF Consulting Group. November 11, 2015. Accessed March 2017. https://www.metrotransit.org/Data/Sites/1/media/about/improvements/westbroadwaytransitstudy/economic-development-impacts-of-transit-11.11.15.pdf.

Data Sources

- United States Census Bureau / American FactFinder. "*2010 – 2014 American Community Survey*. U.S. Census Bureau's American Community Survey Office. <http://factfinder2.census.gov>.
- 2014-2016 Property Sales within 0.25 miles of Veirs Mill Road, http://planning.maryland.gov/OurProducts/downloadFiles.shtml
- 2015-2017 Assessed Values within 0.25 miles of Veirs Mill Road, http://montgomeryplanning.org/tools/gis-and-mapping/gis-data/data-downloads/
- Residential Building Permits issued since 2000 (as of 3/31/2017), https://data.montgomerycountymd.gov/Licenses-Permits/Residential-Permit/m88u-pqki
- NAHB Cost of Constructing a Home, https://www.nahbclassic.org/generic.aspx?genericContentID=248306
- RS Means City Cost Indexes, https://www.rsmeans.com/
- RLB North American Quarterly Construction Cost Report, http://rlb.com/en/index/publications/?filter-region=americas
- ESRI Business Analyst, https://bao.arcgis.com/esriBAO/
- City of Rockville, http://www.rockvillemd.gov/index.aspx?NID=189