

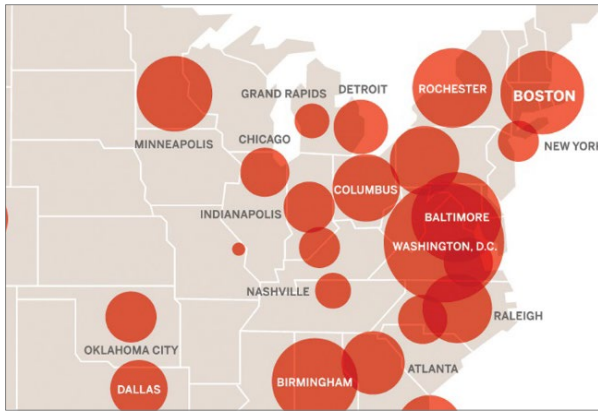
There Are No Small Plans: Local Land Use Plans and Regional Prosperity

Shyam Kannan, Managing Director
WMATA Office of Planning
October 2018



- Metro creates land use value
- Planning for prosperity...or bankruptcy
 - Grow near transit
 - Improve access to your stations
 - Maximize existing infrastructure
- Benefits of planning for prosperity
- Partnering to make this happen

Metro Station Areas Hold 4% of Region's Land, and...



33% of economic activity



37% of workforce



28% of land value



\$3.1B property tax revenues



+7%-10% property value premium

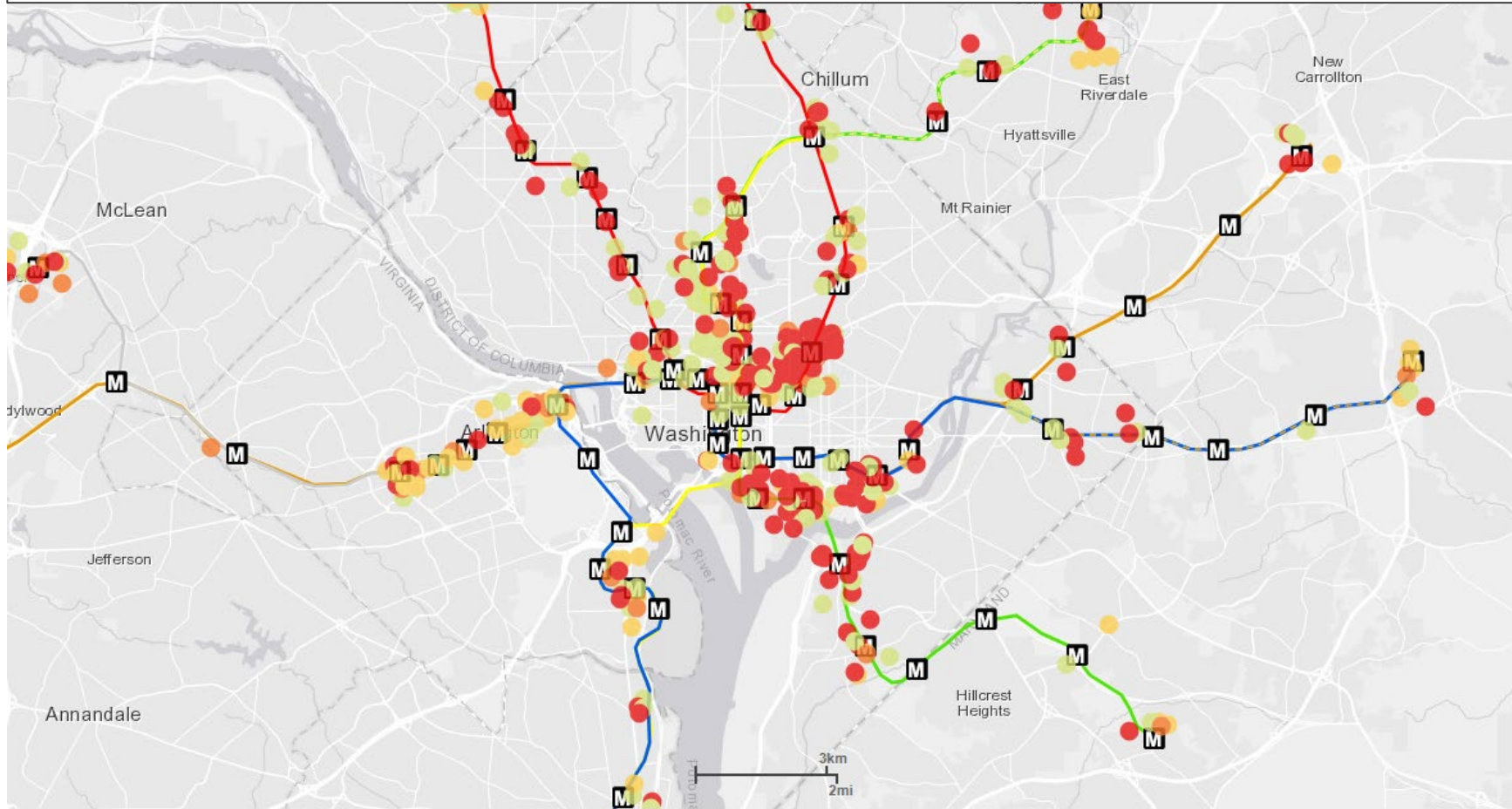
Metro Builds Business





Metro Drives Economic Activity

- 662 projects, 221M sf
 - 150,000 residential units
 - 20,000 hotel rooms
 - 67M sf office, 14M sf retail
 - Space for 300,000 jobs

5-Year Construction Pipeline – Station Areas



Tax and Fee Revenues Generated per \$1 Spent on Public Services	
TOD Projects	Non-TOD Projects
\$1.13 - \$2.20	\$0.77 - \$1.35
	



But the Region is Facing Major Challenges

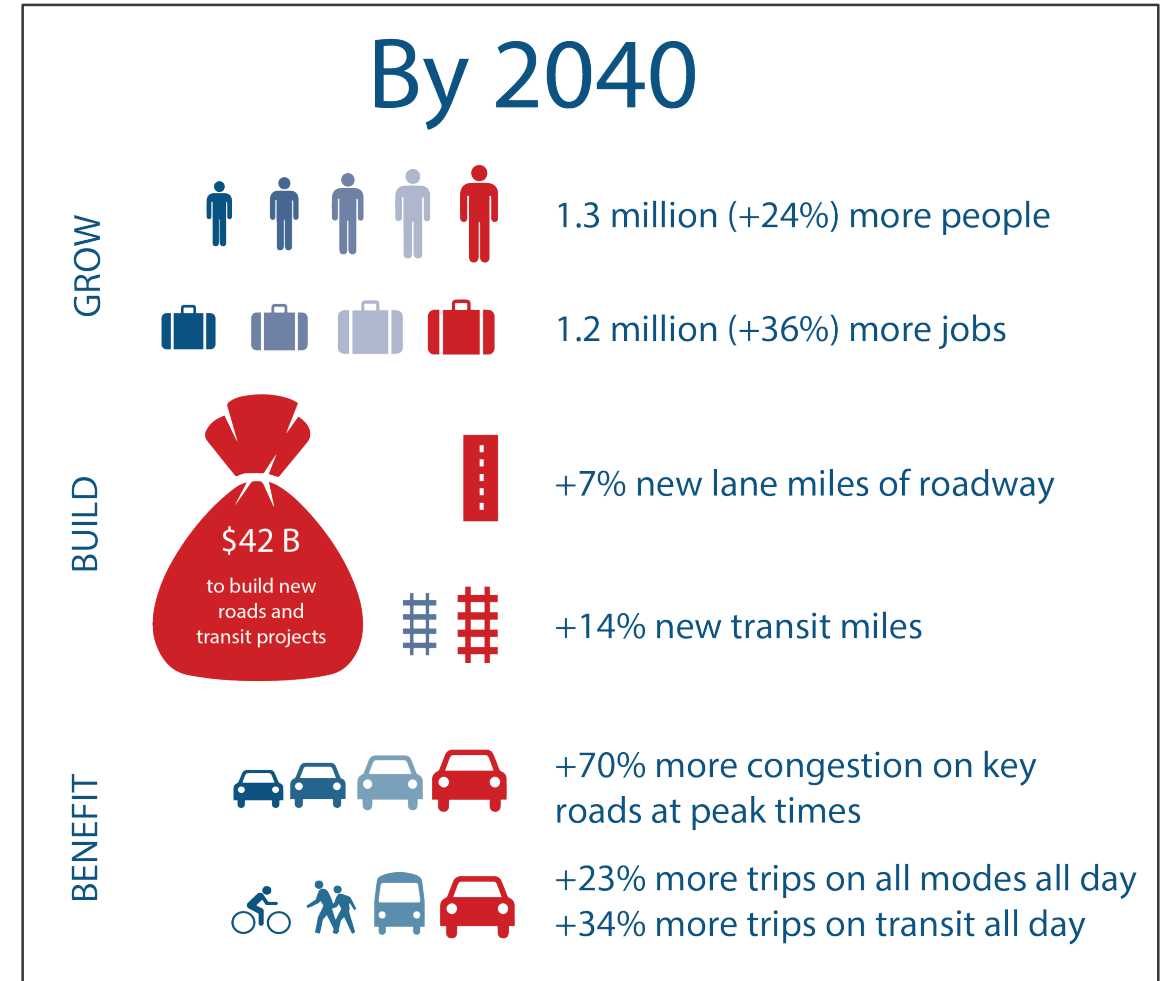
We say we want...

But our plans create this:



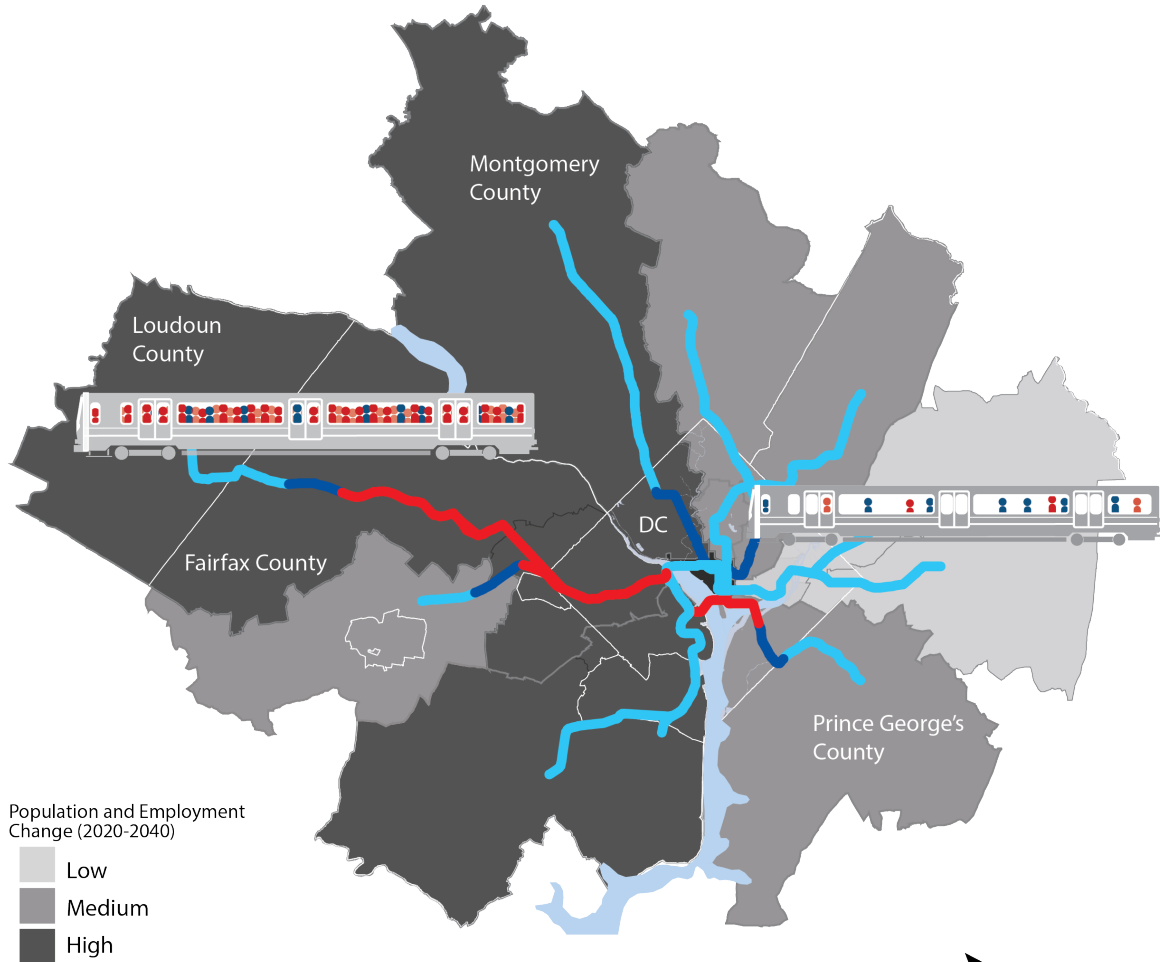
Impacts of Forecasted Planning and Investments

- VMT up, costs up, mobility down
- Planned transportation investments result in more congestion, crowding
- Housing supply insufficient to meet demand, driving up costs, limiting competitiveness, access to opportunity
- Long range plan = congestion, higher costs, higher subsidies, inequality



*Based on 2013 CLRP and Round 8.3 Cooperative Forecasts

Impacts of Forecasted Planning and Investments



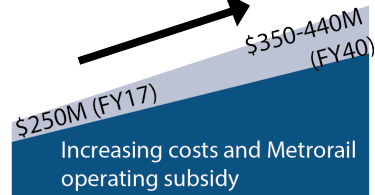
Population and Employment Change (2020-2040)

- Low
- Medium
- High

2040 Metrorail Peak Hour Passenger Loads

- Everyone sits
- Some standing
- Very crowded

Subsidy
Revenue



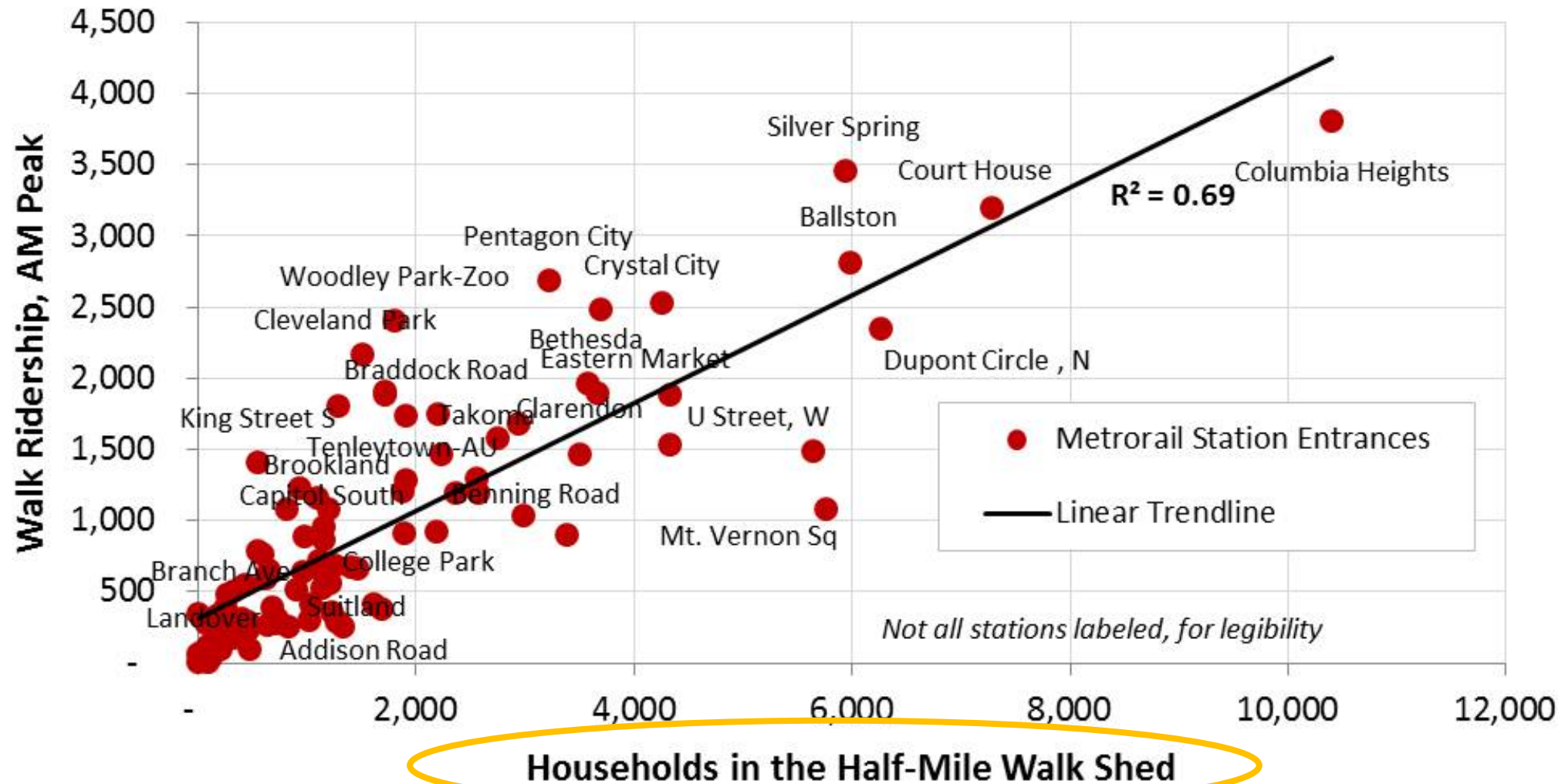
Passenger Load	Cost to Provide	Revenue Generated	Subsidy Provided
 Passengers per train car: 100	\$	\$\$\$	€
 Passengers per train car: 10	\$	€	\$\$\$

Why Does Local Land Use Planning Matter?

Caojiawan Station, Chongqing



Why Does Local Land Use Planning Matter?



Why Does Local Land Use Planning Matter?

The Potential of Acting as a Region

- **Metrorail can pay for itself and save the region millions**
- **Lower congestion and time stuck in traffic**
- **Greater access to jobs**

Act as a Region

- Stop competing against one another for jobs and people
- Guide growth to activity centers with many ways to get around and where Metro has capacity

**\$270 M
Surplus**

Status Quo Results:

- **Worsening congestion at peak times on key roads**
- **Higher Metrorail subsidy for the same service**
- **Lower access to jobs**

Continue the Status Quo

- Jurisdictions compete with each other for jobs and people
- Guide growth to areas where driving is the only option and transit is at capacity

**\$500 M
Subsidy**

Actions Planners can Take to Turn the Tide



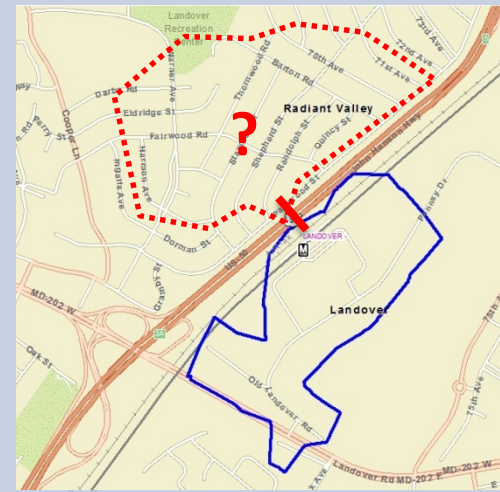
Grow Near Transit

- TOD
- Zoning
- Affordable housing
- Rebalance regional land use



Improve Access to Your Stations

- Fix pedestrian barriers
- Build paths and sidewalks
- Bike paths/parking



Maximize Existing Infrastructure

- Grow ridership and balance trip flows
- Rationalize/improve bus system
- Prioritization tools



1. Investment in Transit Nodes Pays Dividends

Silver Spring

Weekday Passenger Entries: 12,000

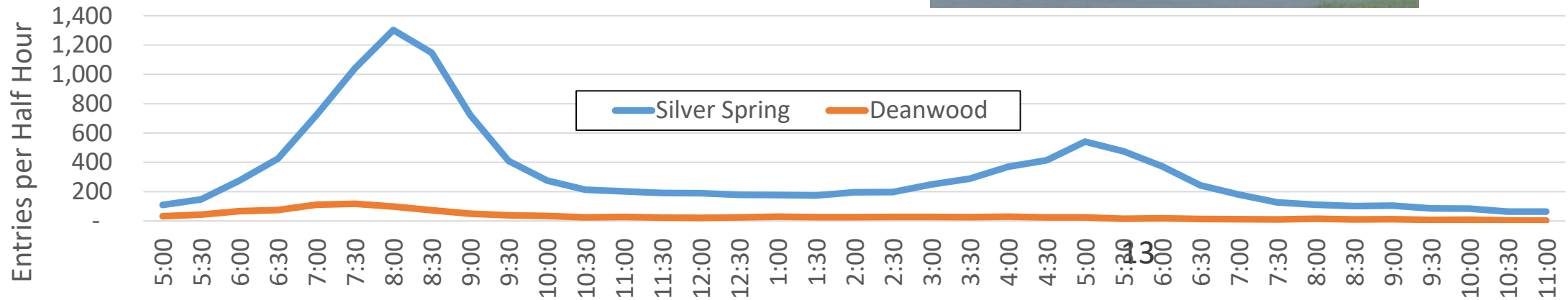
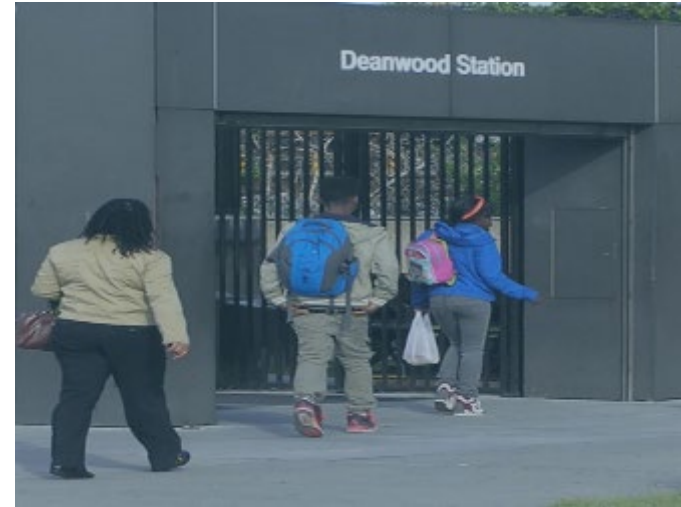
Weekday Average Revenue: \$39,500



Deanwood

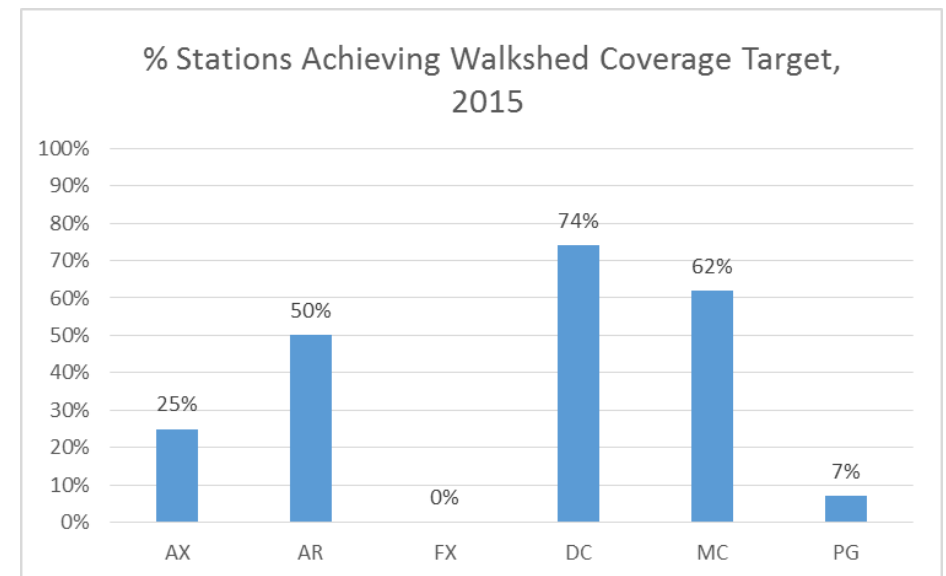
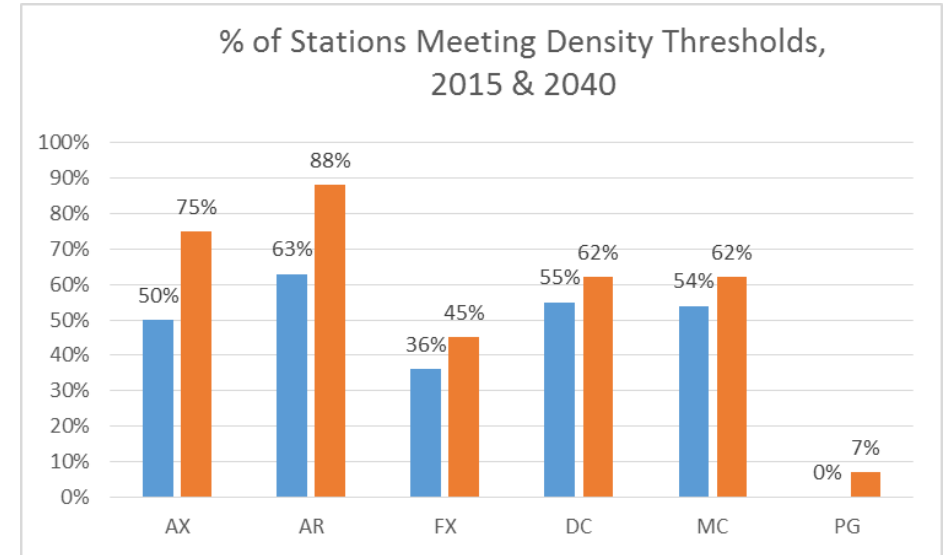
Weekday Passenger Entries: 1,300

Weekday Average Revenue: \$3,300



How Planning can Turn the Tide

- Over the past ten years, the net new daily ridership on Metrorail from Prince George's County is ... zero
- Silver Line ridership is about half of what was forecasted in FEIS – and the cost burden is unsustainable
- Data centers are not transit-oriented development – the region will have to cover the bill (or bankrupt the service)



Transit-Supportive Land Uses – Low- to Mid-Density

Targets for suburban Metrorail stations

Mode	Metric	KPI Target
Suburban Metrorail	Households per Acre	12-18
	Employment per Acre	19-26



Garden Apartments: 8-40 HH/Acre



Townhomes: 8-30 HH/Acre



Low Rise Office with Retail:
30-40 Employees/Acre



Low/Mid-Rise Office:
10-50 Employees/Acre

Transit-Supportive Land Uses – Higher Density

Targets for urban Metrorail stations

Mode	Metric	KPI Target
Urban Metrorail	Households per Acre	15-20
	Employment per Acre	75-150



Rowhouses: 8-30 HH/Acre



High-Density Mixed Use 60-200+ HH/Acre



High-Rise Office with Retail:
100+ Employees/Acre



Regional Retail: Varies

Missed Opportunities for Transit-Supportive Density

Rhode Island Avenue

2015 PIUD Proposal:

- 1,631 housing units
- 300,000 sq ft of retail

Current Plan:

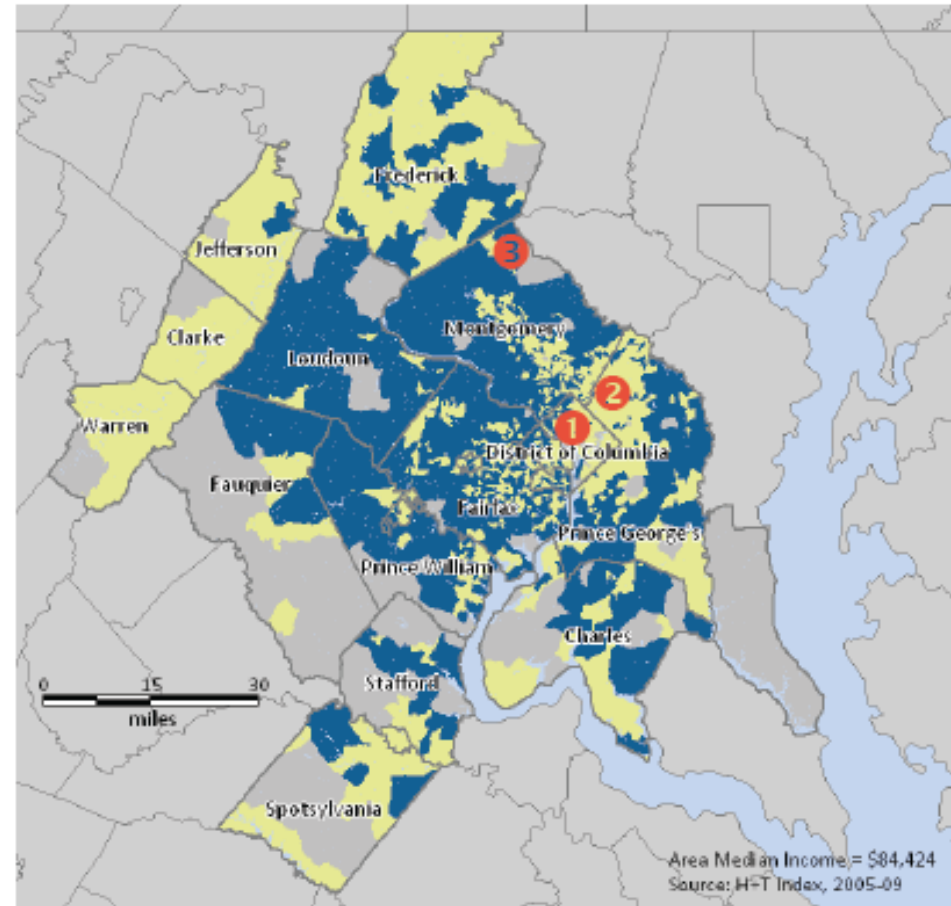
- ≤1,450 housing units
- ≤250,000 sq ft retail

Estimated Impact to Metro:

-200 trips per weekday -\$121,500 annual revenue foregone

Affordability Matters

- Only 61% of neighborhoods in the DC area are affordable (H+T Index)*
- East-west divide persists; low-income people pushed to car-centric suburbs
- Transit connects people to jobs and economic opportunities; lowers costs
- Transit expands business access to broader labor pool
- Need to produce *and* preserve affordable housing

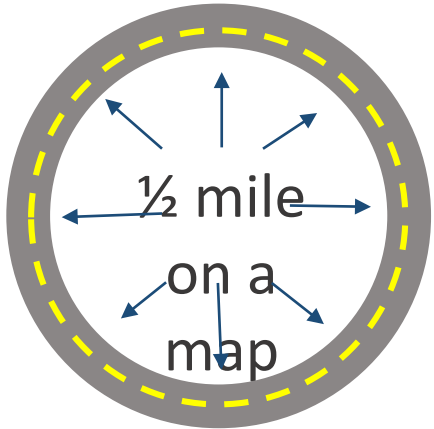


**AFFORDABILITY:
HOUSING AND
TRANSPORTATION
COSTS AS PERCENT OF
AREA MEDIAN INCOME**

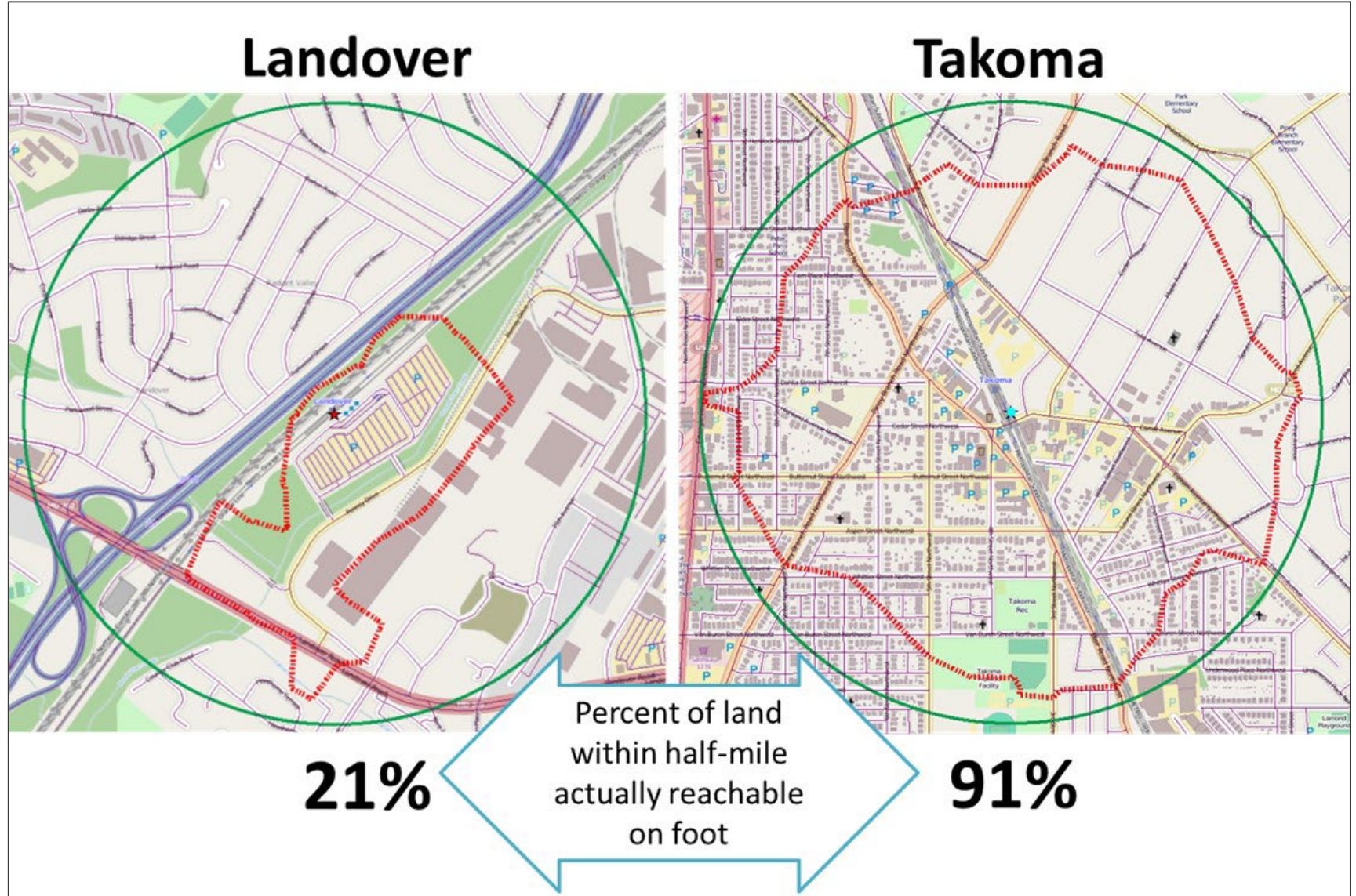
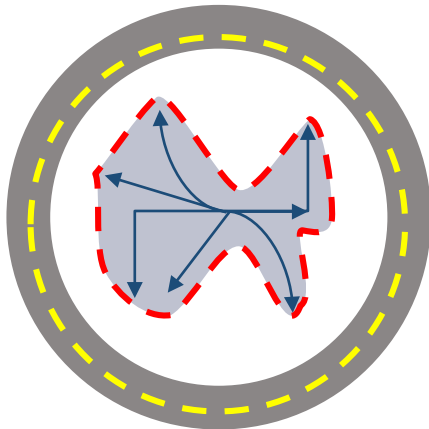
- 0 to 45%
- Greater than or equal to 45%
- Data not available

*Center for Neighborhood Technology, Beltway Burden

Walkability Matters



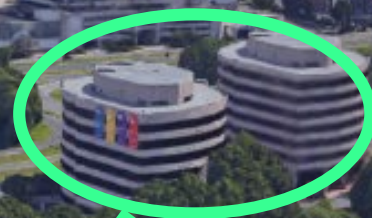
vs.
actual 10 minute
walk:



2. Improve Access to Stations

62% of daily riders access Metro by walking

4,000+ jobs cut off from Tysons stations. Better connections would add:
500 entries/day, \$625,000 fares/yr



Lack of sidewalks and crosswalks means employees walk twice the distance to Greensboro station

2. Improve Access to Stations

Ribbon-Cutting for Sidewalks and Bike Parking = High ROI

Capital Bikeshare




Bike & Ride (College Park)



New Pathway (Vienna)



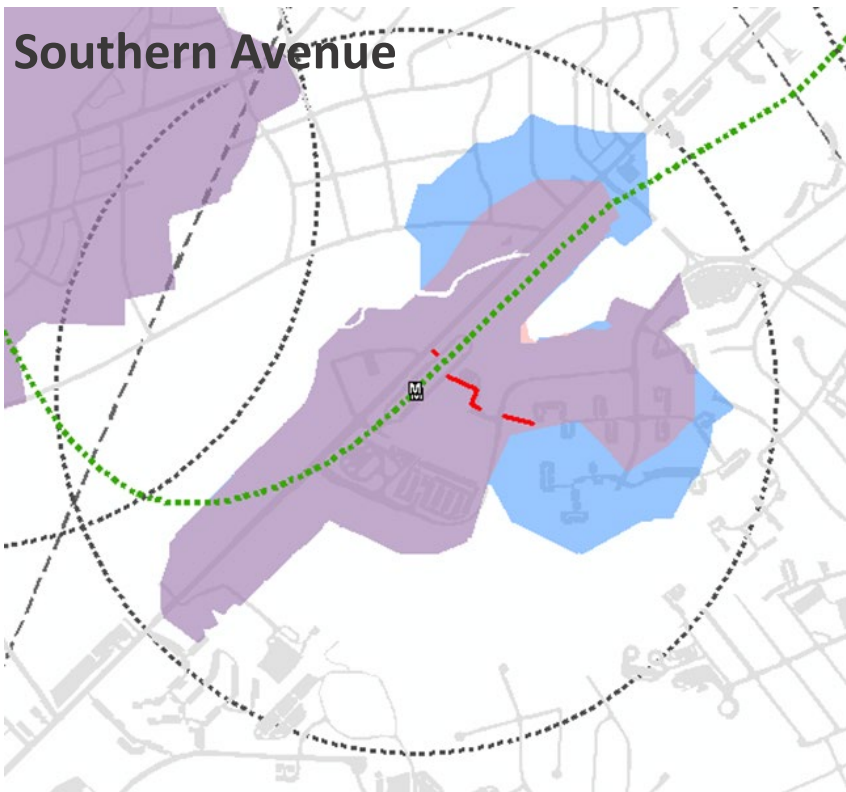
Return on Investment

- \$1.8 M capital cost for pedestrian/bicycle projects
- 
- \$15 M annual revenue from new walk/bike trips

Avoided Costs

- Parking space: \$17,000/space
- Additional buses: \$750,000/bus
- Operations and maintenance costs

Metrorail Station Investment Strategy (MSIS)



Total Score: 89
 Top Priority For Prince George's County

Criteria	Result	Score	Weighted Score
Safety	0 crashes	1	4
Ridership Impacts	275 new daily riders	5	20
Proximity to Station Entrances	Within 500 ft	5	15
Walkshed Coverage	0%	0	0
Population and Employment (2015)	2,246	1	2
Population and Employment Growth (2015-2040)	615	1	1
Path to Services	0 facilities	1	3
Low-Income Populations	100%	5	15
Changing Mode Access	6% Walk Mode Share	4	8
Ease of Implementation/Cost	\$72,960	5	10
MetroAccess Trips	510 trips	4	4
Neighborhood Parking	128 customers	4	4
Walk Score	52	3	3

Return on Investment

- 62 ped projects
 - \$12.8 M cost
 - \$11.4 M net ROI
- 141 bike projects
 - \$4 M cost
 - \$11 M net ROI

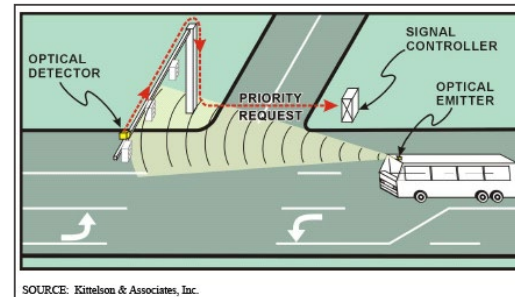
3. Maximize Existing Infrastructure

Capitalize on the Bus Network's Potential

- Geographic reach of transit system
- 80% of Compact jobs accessible by bus
- Bus network carries daily ridership comparable to Metrorail
- Counties and cities own streets and are equally responsible for bus performance, ridership, and investment
- **Huge** potential for TOD, affordable housing



Limited stops, high frequencies



Traffic signal priority (TSP)



Bus lanes (all day or peak-only)



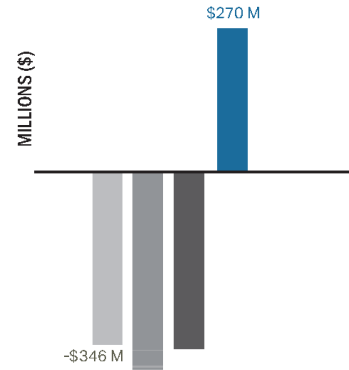
Fast fare payment and boarding

Land Use as a Transportation Strategy Offers Huge Benefits

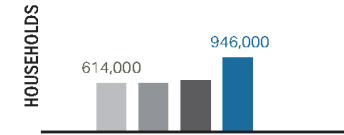
\$83 M increase in PROPERTY TAX REVENUES REGION-WIDE



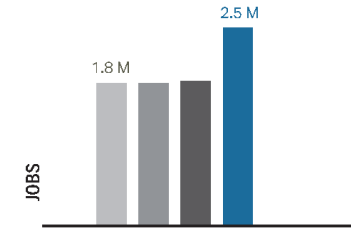
\$270 M OPERATING SURPLUS



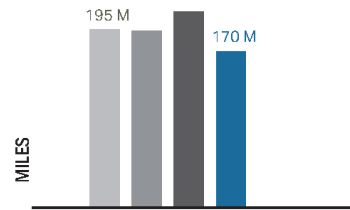
54% more HOUSEHOLDS ACCESSIBLE TO TRANSIT



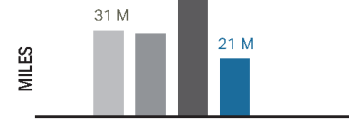
39% more JOBS ACCESSIBLE BY TRANSIT



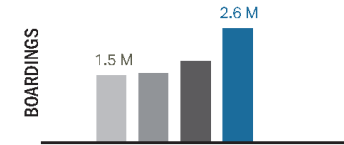
12% reduction of VEHICLE MILES TRAVELED



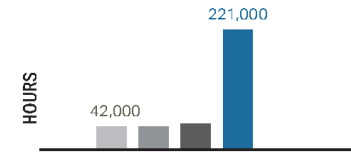
32% reduction of CONGESTED AUTO TRAVEL



73% more METRORAIL BOARDINGS



426% increase in CROWDED HOURS ON METRORAIL



AT A GLANCE: THE CONNECTGREATERWASHINGTON MODEL SCENARIOS

LAND USE STATUS QUO

LAND USE STATUS QUO + NEW TRANSIT POLICIES

GROW SMARTER WITHIN JURISDICTIONS + NEW TRANSIT POLICIES

GROW SMARTER AS A REGION + NEW TRANSIT POLICIES

- **Maintain regional growth***

- Maintain regional growth
- **Transit-supportive refinements****

- Maintain regional growth
- Transit-supportive refinements
- **Guide future population and job growth into activity centers with high-quality transit**

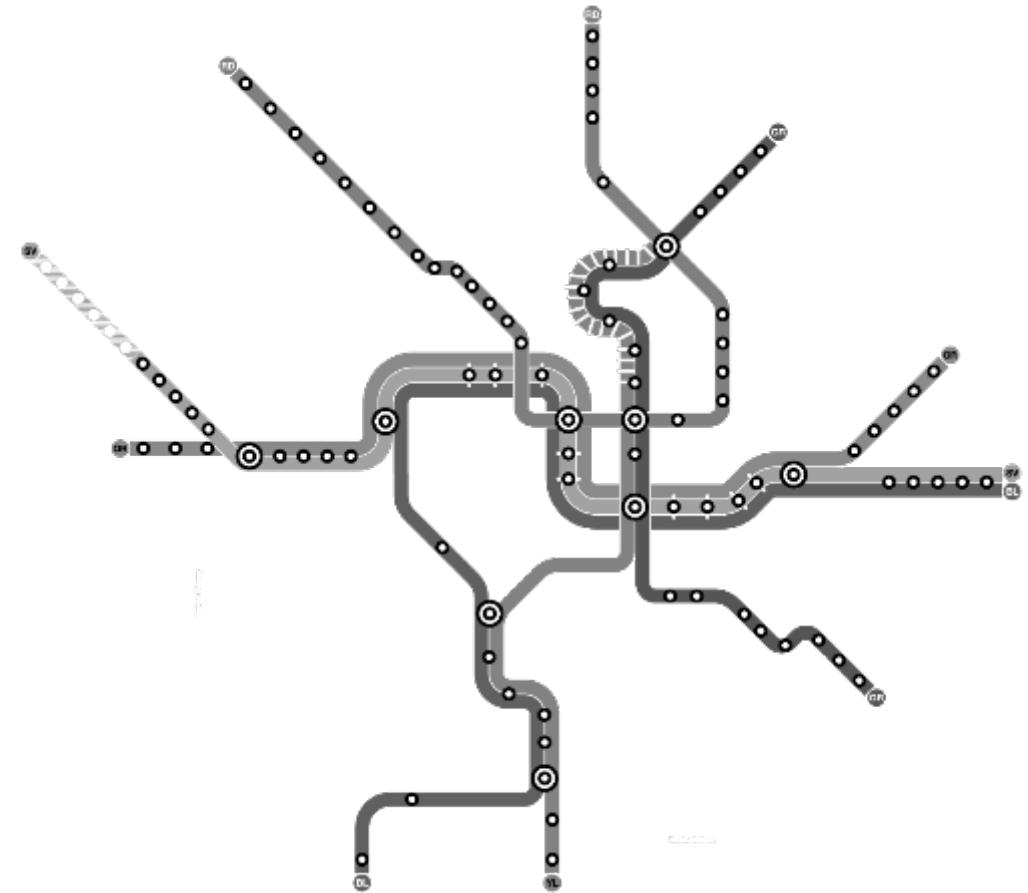
- Maintain regional growth
- Transit-supportive refinements
- Guide future growth into activity centers with high-quality transit
- **Guide future growth across jurisdictional boundaries**

* 'Regional growth' is defined as the cooperative land use forecast (Draft Round 8.3) as proposed and adopted by the region.

**Transit-supportive refinements include: discounted reverse-peak direction and uncongested peak direction trips, increased bike and walk accessibility, expanded parking on underutilized lines, and parking costs that reflect market pricing.

Key Take-Aways

- Jurisdictions play critical role in promoting regional fiscal strength by
 - Smarter land use decisions
 - Ensuring safe, direct pedestrian access to stations
 - Smarter use of economic development dollars
- The price tag for avoiding these realities is unaffordable



*Based on 7 stations with lowest walk ridership by jurisdiction

Working Together for Everyone's Benefit

- Think regionally and formalize planning partnerships
- Maximize the infrastructure we already have
- Bus-oriented development and zoning
- Align targets, zoning changes, and incentives
- Affordable housing strategies
- Invest in bike and pedestrian connections



1. Investment in Transit Nodes Pays Dividends

Ridership and Land Use: Strong Performers

Station	Current Walk Ridership	Current Total Ridership	Current Shed Coverage	Current Household Density	Current Jobs Density	Average Weekday Revenue
FARRAGUT NORTH	21,532	24,800	71%	16.4	320.2	\$ 67,279
METRO CENTER	21,085	24,712	69%	12.1	247.1	\$ 71,219
GALLERY PL-CHINATOWN	20,467	24,319	70%	15.7	209.4	\$ 62,294
FARRAGUT WEST	18,520	22,085	72%	9.8	312.5	\$ 60,610
FOGGY BOTTOM-GWU	16,413	19,397	75%	16.8	192.3	\$ 54,025
L'ENFANT PLAZA	16,083	21,894	70%	5.2	147.5	\$ 57,065
DUPONT CIRCLE	15,209	18,601	79%	25.6	177.5	\$ 47,984
SILVER SPRING	6,904	11,954	72%	15.6	38.4	\$ 39,354
BETHESDA	6,729	10,083	70%	10.6	59.1	\$ 30,174
FRIENDSHIP HEIGHTS	5,435	8,054	72%	10.1	22.7	\$ 22,594
MEDICAL CENTER	3,864	5,561	72%	2.4	30.3	\$ 17,430
TAKOMA	2,798	5,113	68%	6.0	5.7	\$ 14,740
WHITE FLINT	2,215	3,655	62%	7.0	40.4	\$ 12,695
TWINBROOK	2,162	4,256	62%	5.2	29.2	\$ 15,646
CRYSTAL CITY	9,616	12,862	47%	12.3	60.3	\$ 30,912
ROSSLYN	9,122	12,968	61%	15.9	69.3	\$ 34,735
BALLSTON-MU	7,875	11,070	66%	18.6	66.5	\$ 30,484
PENTAGON CITY	7,288	12,068	58%	14.0	35.5	\$ 31,490
COURT HOUSE	6,650	7,369	65%	21.8	44.8	\$ 17,548
KING ST-OLD TOWN	5,142	7,999	71%	7.2	32.2	\$ 25,034
VIRGINIA SQUARE-GMU	3,089	3,538	64%	16.5	49.4	\$ 10,419

1. Investment in Transit Nodes Pays Dividends

Ridership and Land Use: Under-Performers, Missing Riders

Station	Current Walk Ridership	Current Total Ridership	Current Shed Coverage	2040 Projected Jobs Density	Projected 2040 Household Density	Missing Ridership at Station	Missing System Ridership	Average Weekday Revenue Station	Annual Missing Low	Annual Missing High
SOUTHERN AVENUE	432	4,986	24%	2.7	6.7	475-650	950-1325	\$ 12,500	\$ 790,000	\$ 1,100,000
CAPITOL HEIGHTS	495	1,869	70%	3.9	5.8	300-400	575-800	\$ 5,400	\$ 550,000	\$ 770,000
DEANWOOD	482	1,242	62%	1.4	4.1	425-600	850-1200	\$ 3,300	\$ 730,000	\$ 1,010,000
CONGRESS HEIGHTS	1,014	2,536	55%	7.8	7.9	325-450	675-950	\$ 5,500	\$ 530,000	\$ 730,000
MINNESOTA AVE	1,048	2,320	62%	7.4	9.0	175-250	350-500	\$ 5,600	\$ 280,000	\$ 390,000
ANACOSTIA	1,258	6,609	59%	22.7	11.2	50-75	125-150	\$ 12,100	\$ 80,000	\$ 110,000
BENNING ROAD	1,317	2,506	62%	5.9	10.7	75-100	150-200	\$ 6,700	\$ 130,000	\$ 180,000
LANDOVER	121	1,644	18%	2.4	2.6	425-575	850-1175	\$ 5,700	\$ 900,000	\$ 1,250,000
CHEVERLY	225	1,221	27%	3.0	1.6	600-825	1200-1675	\$ 3,700	\$ 1,160,000	\$ 1,610,000
ADDISON ROAD-SEAT PLEASANT	375	2,865	49%	2.0	2.4	400-550	775-1075	\$ 9,200	\$ 750,000	\$ 1,050,000
GREENBELT	415	6,046	42%	2.4	2.8	325-450	650-900	\$ 24,400	\$ 810,000	\$ 1,120,000
LARGO TOWN CENTER	440	4,479	44%	12.1	3.4	350-475	675-950	\$ 17,700	\$ 840,000	\$ 1,170,000
NEW CARROLLTON	447	7,754	55%	18.5	2.7	275-400	575-800	\$ 28,300	\$ 690,000	\$ 960,000
SOUTHERN AVENUE	432	4,986	24%	2.7	6.7	475-650	950-1325	\$ 12,500	\$ 790,000	\$ 1,100,000
VAN DORN STREET	392	3,202	26%	10.2	6.1	175-250	350-500	\$ 11,700	\$ 400,000	\$ 560,000
FRANCONIA-SPRINGFIELD	432	7,286	39%	11.8	3.6	275-375	550-750	\$ 31,700	\$ 750,000	\$ 1,030,000
WEST FALLS CHURCH-VT/UVA	544	2,767	32%	2.7	3.5	425-575	825-1150	\$ 9,800	\$ 900,000	\$ 1,240,000
MCLEAN	749	1,557	41%	61.2	19.0			\$ 6,200	\$ -	\$ -
WIEHLE-RESTON EAST	787	7,226	49%	23.5	12.4			\$ 37,000	\$ -	\$ -
SPRING HILL	793	1,313	56%	60.8	27.0			\$ 4,700	\$ -	\$ -
GREENSBORO	841	1,220	40%	77.9	24.3			\$ 4,400	\$ -	\$ -