



TIP Actions

Transportation Improvement Program

New Jersey TIP (FY2018-2021)

Pennsylvania TIP (FY2019-2022)

June 2019





Outdoor Advertising Control

Various Counties | Add New Project to TIP

edvrpc

▶ TIP AMENDMENT

- ▶ **ACTION:** Add a new project to the TIP, by programming a \$600,000 ROW phase:
 - ROW in FY19 (\$266,000 STU)
 - ROW in FY20 (\$334,000 STU)
- ▶ PennDOT is federally required to conduct regular surveillance of outdoor advertising devices (*23 CFR 750.705b*)
- ▶ A total of 1,450 approved signs must be inspected on a regular basis, including:
 - Bucks County – 300 signs
 - Chester, Delaware, and Montgomery Counties – 150 signs each
 - City of Philadelphia – approximately 700 signs

TIP Action | Proposed – PA



Recommend Board approval to amend the TIP by adding new project to TIP:

Outdoor Advertising Control

\$600,000 ROW phase:

- FY19 (\$266,000 STU)
- FY20 (\$334,000 STU)

I-95 Philadelphia to Scudder Falls Bucks County I Add Project Back into the TIP



▶ TIP AMENDMENT

▶ **ACTION:** Add project back into the TIP for CON in the amount of \$8,000,000:

- FY20 CON (\$608,000 State 581)
- FY21 CON (\$7,316,000 State 581)
- FY22 CON (\$76,000 State 581)

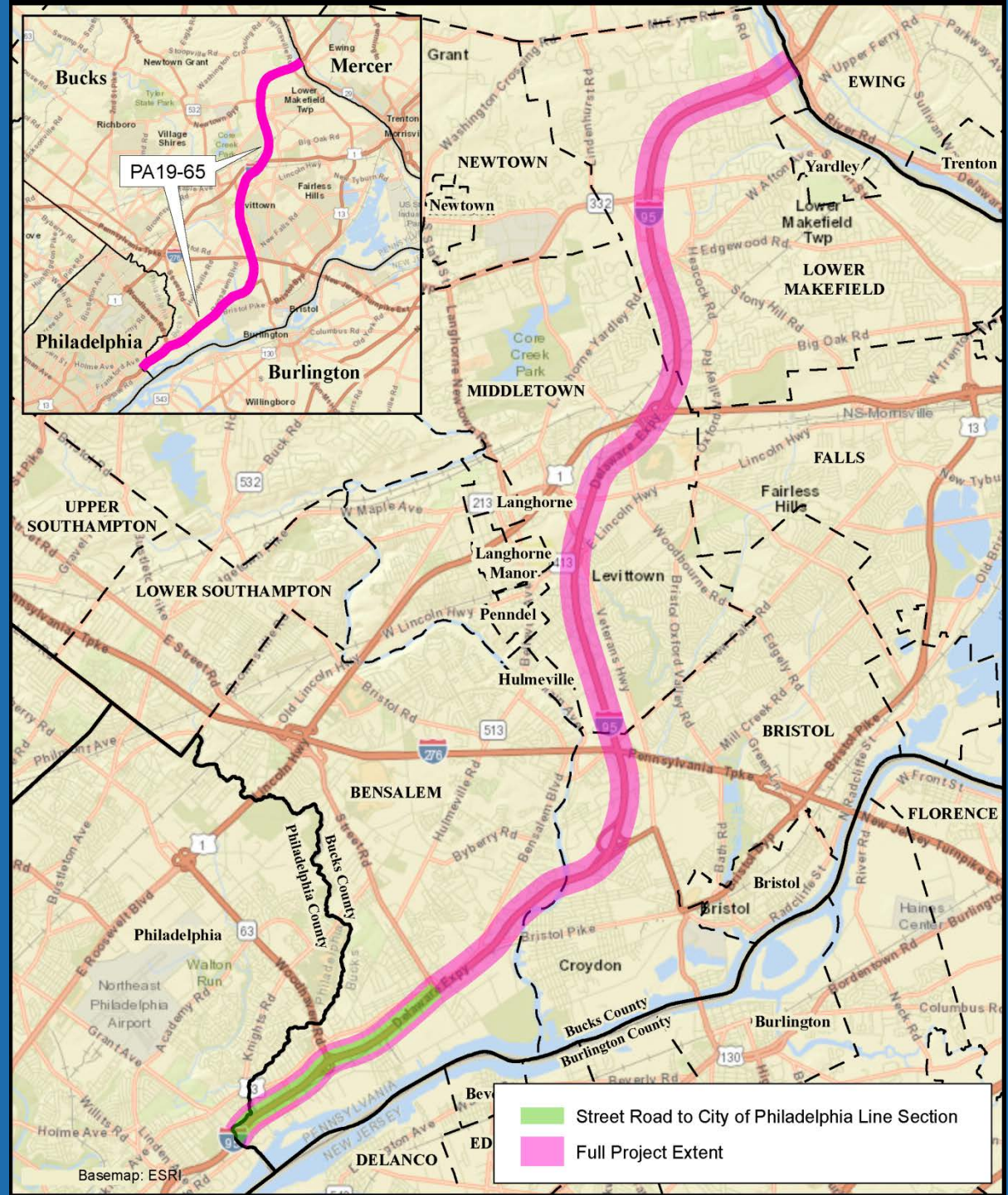
▶ REASON:

- Additional pavement preservation needs and safety upgrades to meet new standards identified since project was originally designed

▶ BACKGROUND:

- This cost increase would bring the total estimated CON cost to \$40,596,000

- I-95 southbound from Street Road to the City of Philadelphia line (approximately 3.7 miles) was not included in original project scope;
- As of 2016 design phase, this area had recently been maintained;
- Since that time, significant deterioration has occurred.



TIP Action | Proposed – PA



Recommend Board approval to amend the TIP by adding project back into the TIP:

I-95 Philadelphia to Scudder Falls

\$8,000,000 CON phase:

- FY20 (\$608,000 State 581)
- FY21 (\$7,316,000 State 581)
- FY22 (\$76,000 State 581)

59th Street over AMTRAK (Bridge)

City of Philadelphia

Draw Funding Down from Line Item



TIP

edvrpe

▶ TIP AMENDMENT

▶ **ACTION:** Draw down \$28,140,000 from County Bridge Line Item:

- PE for \$2,040,000
 - FY20 PE (\$816,000 State 183/\$204,000 Local)
 - FY21 PE (\$816,000 State 183/\$204,000 Local)
- FY23 FD (\$1,600,000 State 183/\$400,000 Local)
- FY23 UTL (\$3,280,000 State 183/\$820,000 Local)
- FY23 CON (\$16,000,000 State 183/\$4,000,000 Local)

▶ **REASON:**

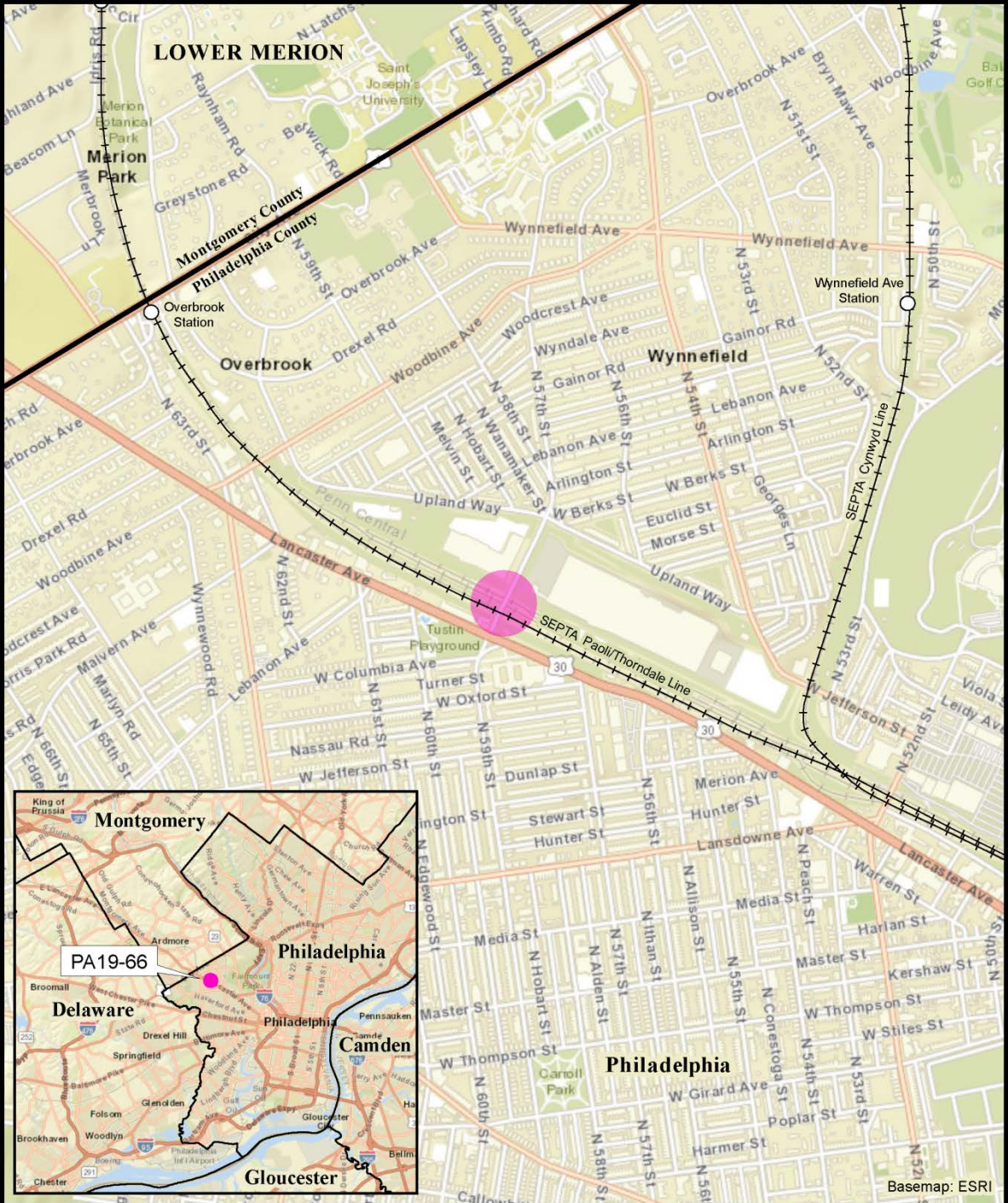
- Replace existing poor condition bridge with a safe and reliable proposed structure

▶ **BACKGROUND:**

- Previously planned as rehabilitation; after recent inspection, complete replacement warranted

Work includes:

- Demolition and removal of existing bridge, including portions of existing reinforced concrete abutment and pier substructures carrying 59th Street over and above the tracks of Amtrak and SEPTA;
- Construction of a proposed steel multi-girder bridge with a reinforced concrete composite deck atop reinforced concrete abutments and piers;
- Full depth roadway reconstruction and limited repaving;
- Curb and sidewalk reconstruction;
- Street lighting improvements;
- ADA-compliant curb ramp construction;
- Railroad electric traction system modification;
- Utility relocation.



TIP Action | Proposed – PA



Recommend Board approval to amend the TIP by drawing down funds from the County Bridge Line Item:

59th Street over AMTRAK (Bridge)

Draw down \$28,140,000 funding:

- PE for \$2,040,000
 - FY20 PE (\$816,000 State 183/\$204,000 Local)
 - FY21 PE (\$816,000 State 183/\$204,000 Local)
- FY23 FD (\$1,600,000 State 183/\$400,000 Local)
- FY23 UTL (\$3,280,000 State 183/\$820,000 Local)
- FY23 CON (\$16,000,000 State 183/\$4,000,000 Local)

Railroad Grade Crossing projects

Various Counties | Add New Projects to TIP



▶ TIP AMENDMENT

- ▶ **ACTION:** Add three new Statewide Railroad Grade Crossing projects in the amount of \$628,000 for CON:
 - Chambers Road Grade Crossing: \$208,000 RRX in FY19
 - Thompson Road Railroad Warning Devices: \$100,000 RRX in FY19 and \$120,000 in FY20
 - Highland Avenue Railroad Preemption: \$200,000 RRX in FY22
- ▶ **REASON:**
 - Improve safety at three railroad grade crossing locations
- ▶ **BACKGROUND:**
 - These funds are additional to the region



Chester County

- Chambers Road Grade Crossing project will install railroad warning lights between Hillendale Road and Baltimore Pike in New Garden Township.
- Thompson Road Railroad Warning Devices project will install railroad warning devices between Chambers Road and Scarlett Road in New Garden Township.

Delaware County

- Highland Avenue Railroad Preemption project will install signal preemption for the traffic signal at PA 291 and Highland Avenue in the City of Chester.

TIP Action | Proposed – PA



Recommend Board approval to amend the TIP by adding three new projects to the TIP:

- Chambers Road Grade Crossing**
- Thompson Road Railroad Warning Devices**
- Highland Avenue Railroad Preemption**

Add three new projects to the TIP for CON in the total amount of \$628,000:

- Chambers Road Grade Crossing: \$208,000 RRX in FY19**
- Thompson Road Railroad Warning Devices: \$100,000 RRX in FY19 and \$120,000 in FY20**
- Highland Avenue Railroad Preemption: \$200,000 RRX in FY22**

Bethel Road Roundabout

Delaware County

Add Preliminary Engineering Phase



▶ TIP AMENDMENT

- ▶ **ACTION:** Add a \$579,000 sHSIP/Toll Credit Match Preliminary Engineering phase to the Bethel Road Roundabout project in FY19:
 - FY19 PE (\$579,000 sHSIP/Toll Credit Match)

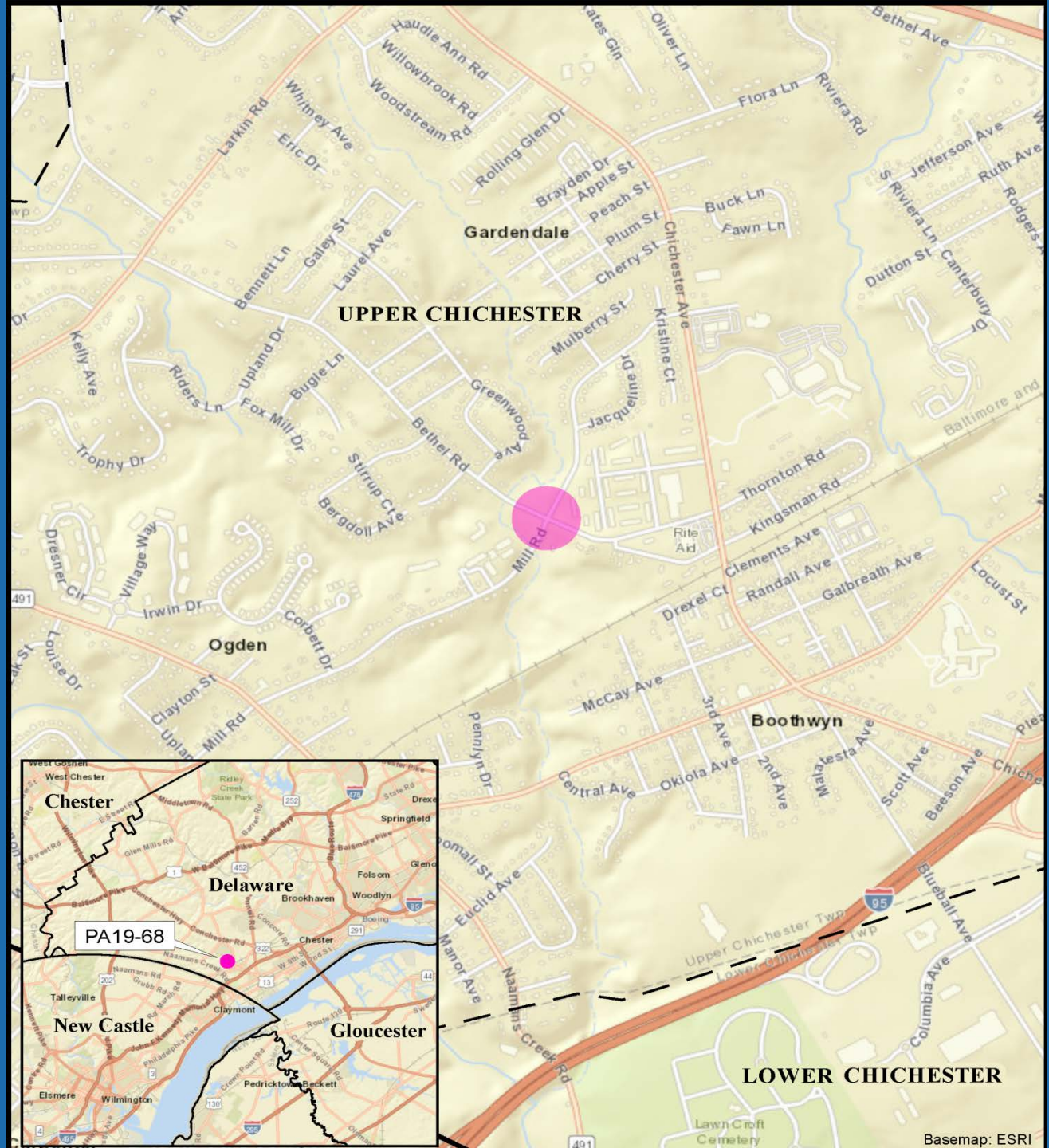
▶ REASON:

- PE phase inadvertently omitted during FY2019 TIP update process

▶ BACKGROUND:

- These funds are additional to the region

Project will install a roundabout at Bethel Road and Mill Road in Upper Chichester Township, Delaware County.



TIP Action | Proposed – PA



Recommend Board approval to amend the TIP by adding a Preliminary Engineering phase the TIP:

Bethel Road Roundabout

- Add \$579,000 sHSIP/Toll Credit Match funded PE phase in FY19



Transportation
Improvement
Program

TIP

Thank You!

www.dvrpc.org/TIP

Kwan Hui
June 11, 2019 RTC

RTC Agenda Item #6:

Open Public Comment Period for

-DRAFT FY2020 TIP for NJ

-DRAFT Conformity Determination for the

Connections 2045 Long-Range Plan, FY2019 TIP for PA, and the

Draft FY2020 TIP for NJ

Public Comment Periods

- **Draft FY2020 NJ TIP**
 - July 9 to Aug. 9, 2019
- **Draft Conformity Determination**
 - July 23 to Aug. 23, 2019

Public Meetings

- **Draft FY2020 NJ TIP**

- Mon. July 29th from 6 to 8 p.m.
- Mercer County's McDade Administration Bldg.

- **Draft Conformity Determination**

- Mon. July 29th (same time & location as above)
- Tues. July 30th from 2 to 3 p.m. at DVRPC

Action Proposed

That the RTC recommends Board approval of staff request to open a public comment period for the purpose of gathering public and agency comments on the

- Draft FY2020 TIP for NJ
- Draft Conformity Determination for the
 - *Connections 2045* Long-Range Plan (LRP)
 - FY2019 TIP for PA, and
 - Draft FY2020 TIP for NJ

as well as to

- issue proper public notifications;
- publish the draft documents of the respective LRP and TIPs and conformity findings on the internet;
- make copies available at certain public libraries; and
- hold public meetings.

Thank you!



Questions?

Contact: Kwan Hui at khui@dvrpc.org

DVRPC SELF CERTIFICATION

METROPOLITAN TRANSPORTATION
PLANNING AND PROGRAMMING
PROCESS

**DVRPC
RTC
Meeting**

JOHN WARD
Deputy Executive
Director

June 11, 2019



Presentation to RTC | June 11, 2019



Community Impacts of Multifamily Development



Presentation to RTC | June 11, 2019



Community Impacts of Multifamily Development

The Inquirer
DAILY NEWS philly.com

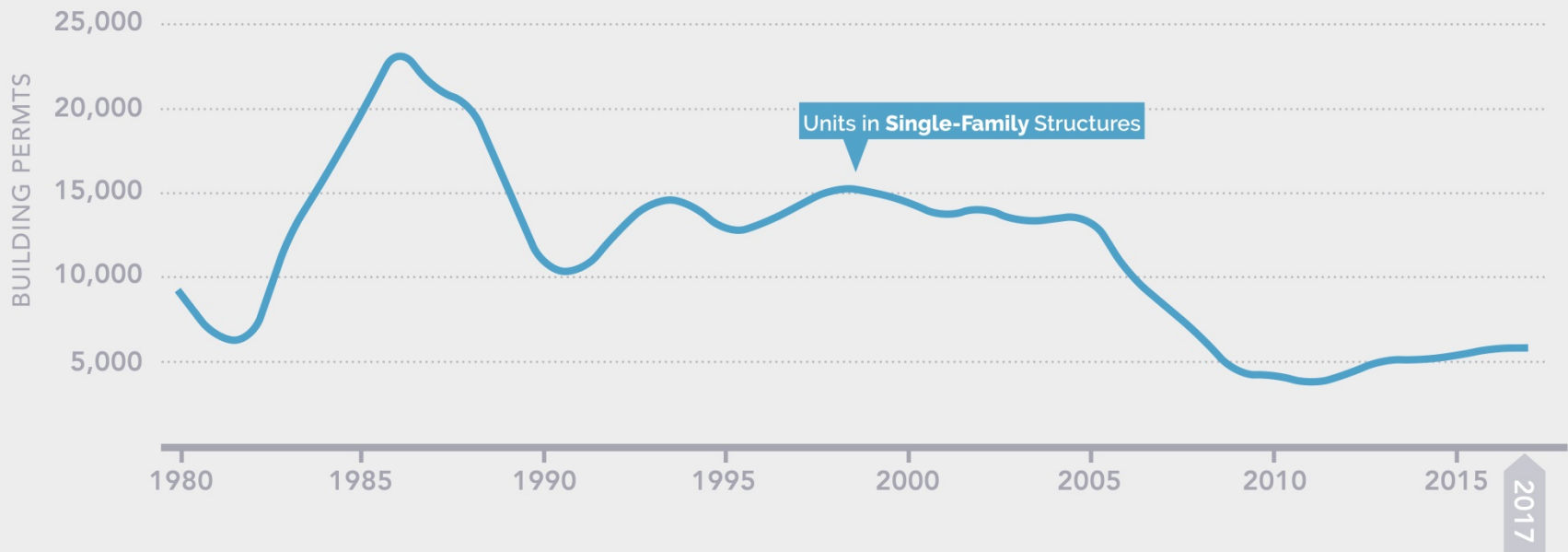
COLUMN

Is Philadelphia getting too crowded? City Council president wants fewer apartments and more parking. | Inga Saffron

Updated: May 16, 2019 - 5:45 AM

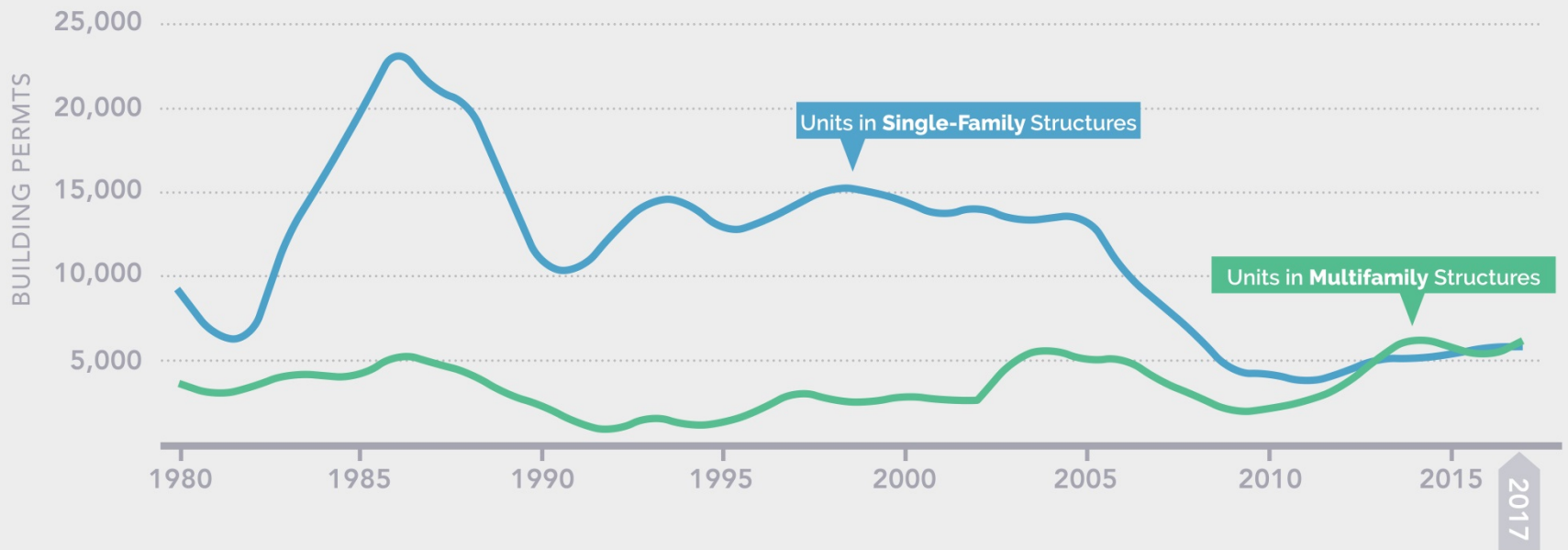
Community Impacts of Multifamily Development

Building Permits in the Philadelphia-Camden-Wilmington CBSA (1980-2017)



Community Impacts of Multifamily Development

Building Permits in the Philadelphia-Camden-Wilmington CBSA (1980-2017)



Community Impacts of **Multifamily Development**

Study Goal

Improve our understanding of the **local impacts** and **benefits** of higher density residential development in communities throughout Greater Philadelphia.

Community Impacts of **Multifamily Development**

Today's Presentation

- Why study multifamily development?
- Project approach
- Key travel impacts and findings

Why study multifamily development?

Smart Growth development, with a mix of uses and housing types, is being embraced as an alternative to sprawl.

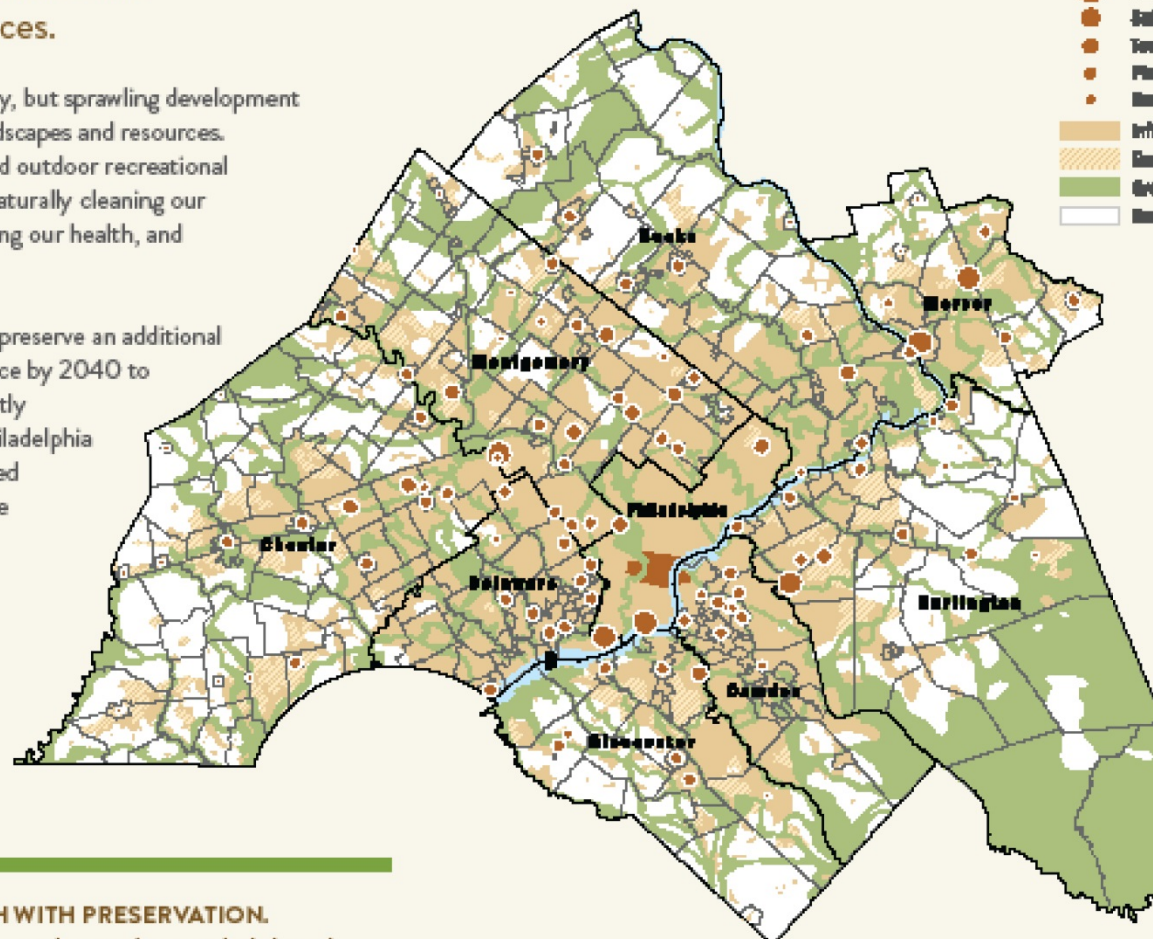
HOW CAN WE GROW RESPONSIBLY?

Manage growth and development while protecting our natural resources.

Our region is home to breathtaking beauty, but sprawling development patterns threaten our region's natural landscapes and resources. Our land is a source of local food, jobs, and outdoor recreational opportunities. It also saves us money by naturally cleaning our air and water, mitigating flooding, improving our health, and enhancing our quality of life.

Connections 2040 outlines strategies to preserve an additional 450,000 acres of farmland and open space by 2040 to help reach a goal of one million permanently protected acres in our region. Greater Philadelphia has already made progress having preserved more than 75,000 acres over the past five years. The Plan's land use vision continues this progress.

LAND USE VISION



BALANCING GROWTH WITH PRESERVATION.

Development and environmental protection must be balanced. Growth should be encouraged where infrastructure already exists to limit the cost of new transportation facilities and reduce energy use and environmental impacts.

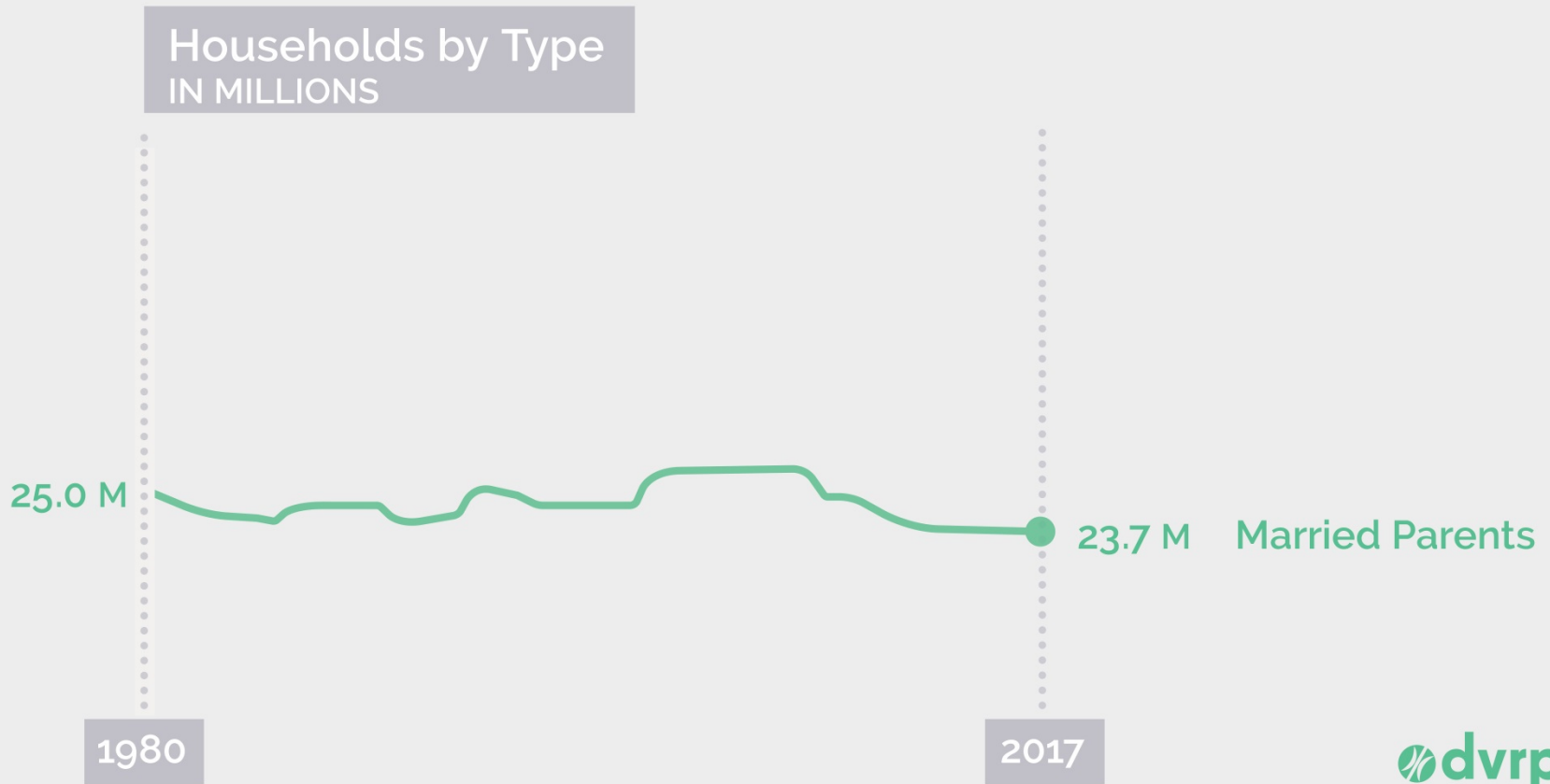
The Land Use Vision Map defines areas for open space preservation (Rural Resource Lands and Greenspace Network) as well as development (Centers, Infill and Redevelopment, and Emerging Growth).

Why study multifamily development?

Our changing population is driving demand for new types of homes, offices, and retail spaces.

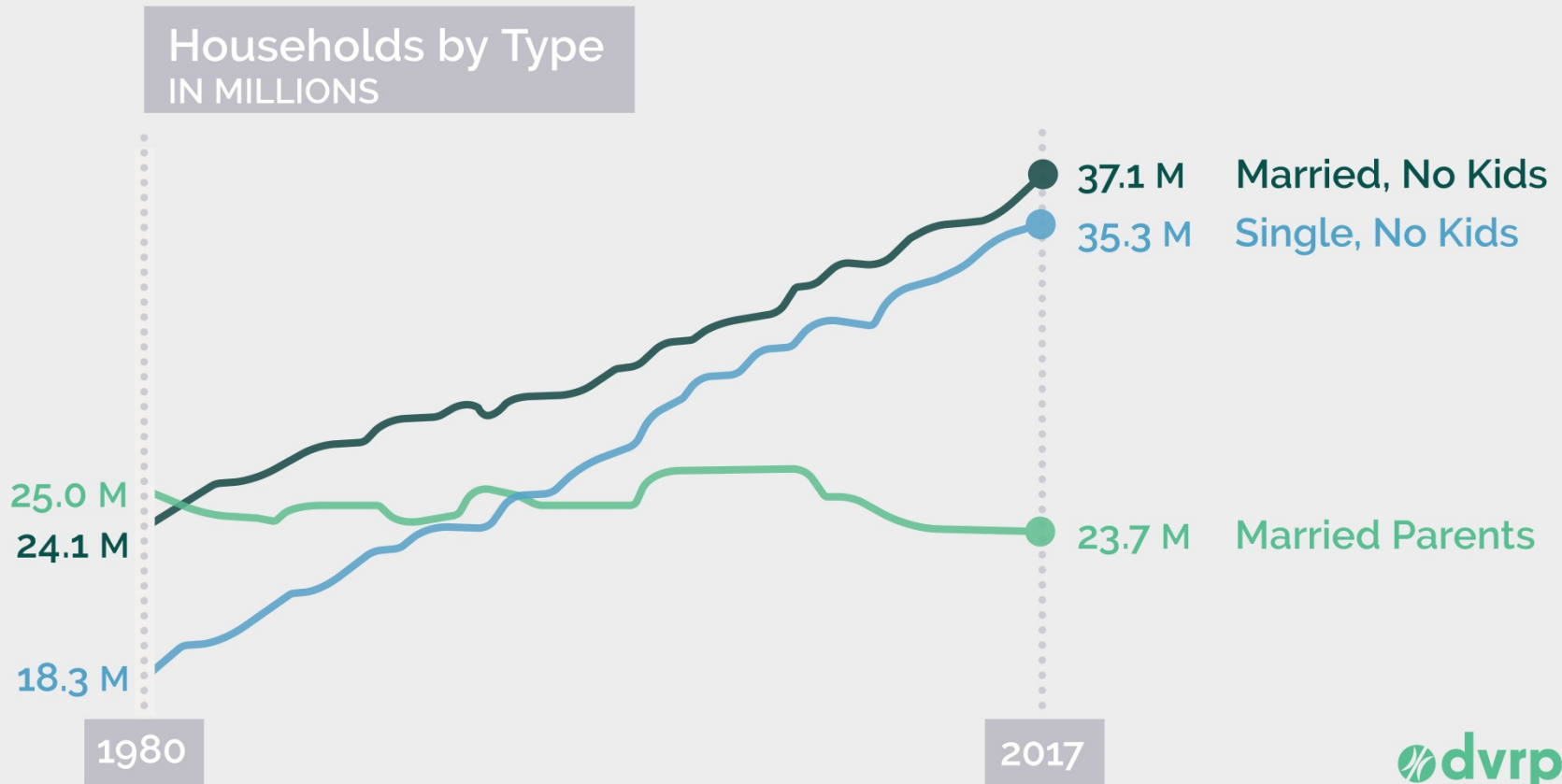
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Why study multifamily development?

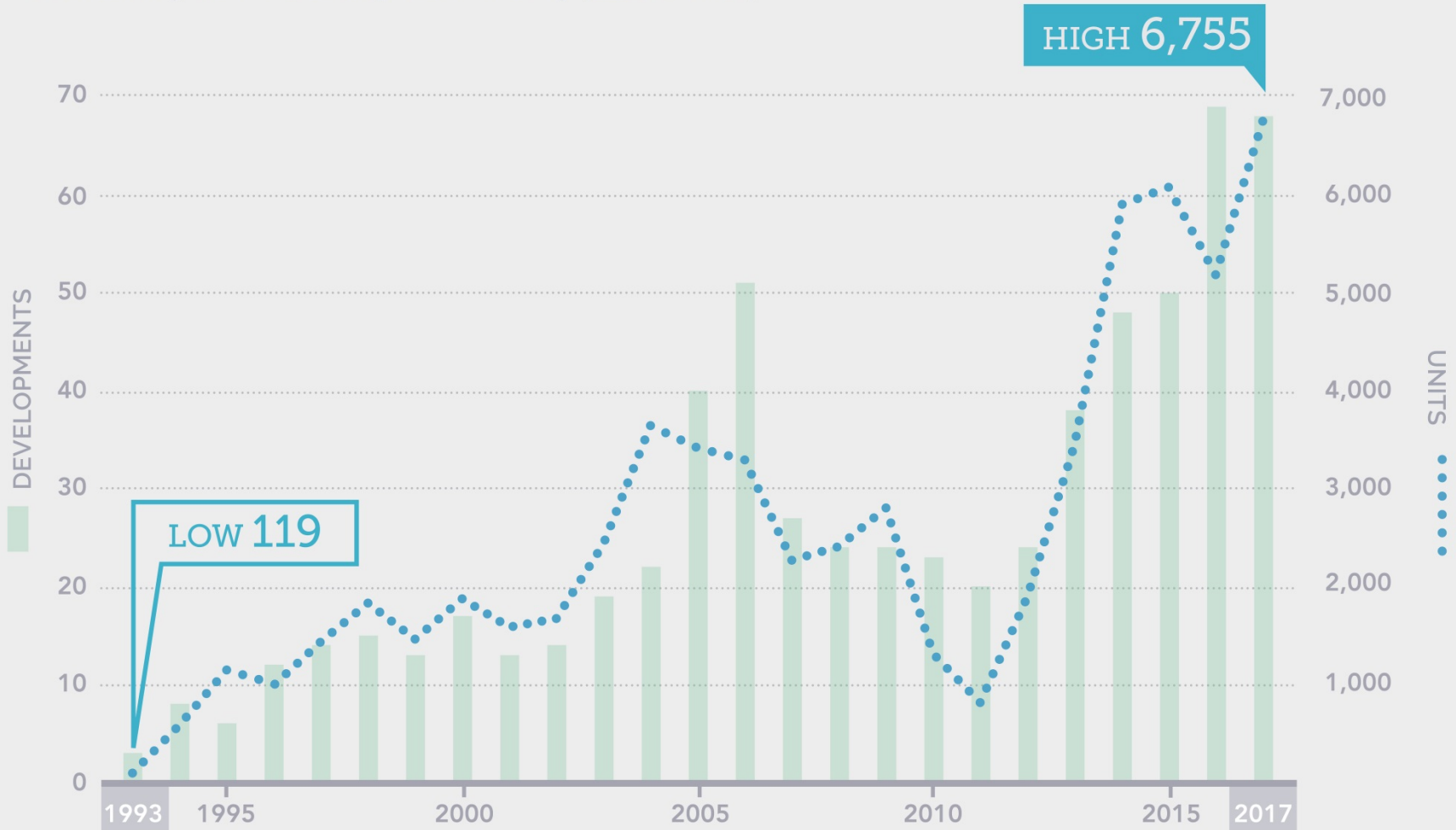
Our changing population is driving demand for new types of homes, offices, and retail spaces.



Development Trends

Greater Philadelphia's Multifamily Housing Boom

Multifamily Rental Development Activity (1993 to 2017)



Why study multifamily development?

Higher density, mixed-use development is often **difficult to construct** because of existing zoning codes and opposition from the community.

Why study multifamily development?

Higher density, mixed-use development is often **difficult to construct** because of existing zoning codes and opposition from the community.

The New York Times

The Bipartisan Cry of ‘Not in My Backyard’

The housing secretary wants to encourage mixed-income, multifamily development as a way of making housing more affordable. But it’s a notion homeowners of all political leanings tend to oppose



By **Emily Badger**

Aug. 21, 2018

Why study multifamily development?

Higher density, mixed-use development is often difficult to construct because of existing zoning codes and opposition from the community.

How will it change the neighborhood?

What will happen to property values?

What about crime?

Will it make traffic worse?

Development Trends

Greater Philadelphia's Multifamily Housing Boom

The Inquirer
DAILY NEWS philly.com

RESIDENTIAL

Upscale apartments are booming in Philly's suburbs

Posted: January 6, 2017 - 6:00 AM

Caitlin McCabe, Staff Writer



Development Trends

Greater Philadelphia's Multifamily Housing Boom

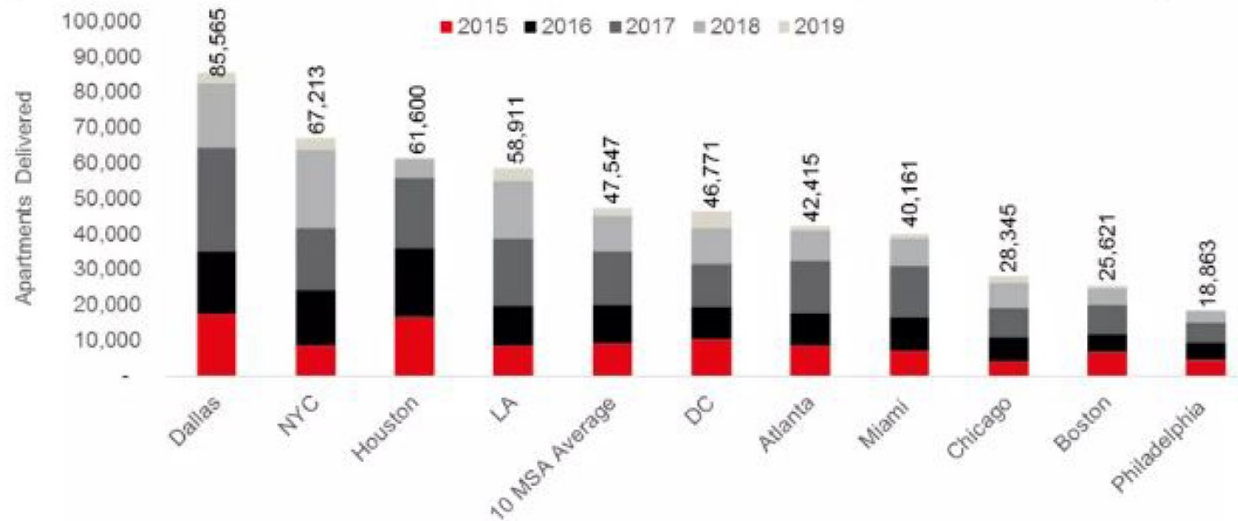
“Yet Philly's ‘boom’ is peanuts compared to Dallas, NYC, and other metros...”



Philadelphia Snapshot

May 29, 2017

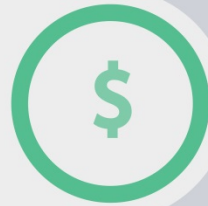
New apartment construction levels high across the region, but Philly is just catching up to the party



Organizing the Potential Impacts of Development



DEVELOPMENT
PROPOSAL



ECONOMIC

- Infrastructure Costs
- Locally-Provided Services
- Tax Revenue
- Property Values



TRANSPORTATION

- Traffic and Congestion
- Parking Demand and Supply
- Traffic and Safety



COMMUNITY

- Public Safety
- Community Character



DEVELOPMENT
PROJECT

Project Approach

Measuring the impacts and benefits of development

STEERING
COMMITTEE

DEVELOPER
INTERVIEWS

LITERATURE
REVIEW

MARKET
TRENDS

DEMOGRAPHIC
MULTIPLIERS

TRAVEL
OBSERVATIONS

Project Approach

Measuring the impacts and benefits of development

STEERING
COMMITTEE

DEVELOPER
INTERVIEWS

LITERATURE
REVIEW

MARKET
TRENDS

DEMOGRAPHIC
MULTIPLIERS

TRAVEL
OBSERVATIONS

What is a demographic multiplier?

An average ratio of demographic measures per occupied housing unit or per household.

Key Measures

- Average household size
- Number of school age children
- Vehicle availability

Project Approach

Measuring the impacts and benefits of development

STEERING
COMMITTEE

DEVELOPER
INTERVIEWS

LITERATURE
REVIEW

MARKET
TRENDS

DEMOGRAPHIC
MULTIPLIERS

TRAVEL
OBSERVATIONS

Data Products

Demographic Multipliers

- Average Household Size
- School-Age Children
- Vehicles Available per Household

Demographic Statistics

- Age Cohorts
- Educational Attainment
- Means of Commute
- Commuting Time
- Income
- Occupation
- Race
- Hispanic Origin
- Household Type

Key Takeaways

Focus on Vehicles Per Household

DRAFT

	Single-Family		Multifamily Rentals		
	DETACHED	ATTACHED	STUDIO/1-BR	2-BR	3-BR
DVRPC REGION	1.99	1.26	0.76	1.23	1.33
CORE CITIES	1.55	1.00	0.55	0.95	0.83
DEVELOPED COMMUNITIES	2.01	1.52	0.90	1.34	1.72
GROWING SUBURBS	2.09	1.71	0.92	1.38	1.43

Project Approach

Measuring the impacts and benefits of development

STEERING
COMMITTEE

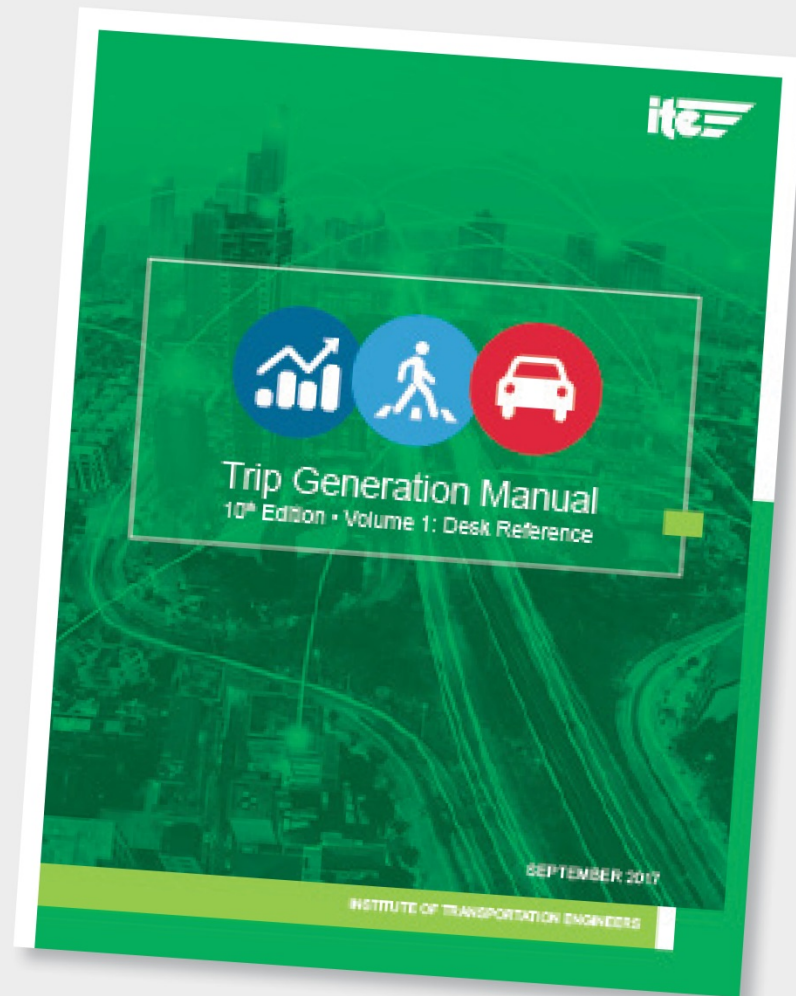
DEVELOPER
INTERVIEWS

LITERATURE
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Project Approach

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TRAVEL
OBSERVATIONS

ITE TRIP GENERATION PER DWELLING UNIT: DAILY TRIP RATE

10th Edition, September 2017

SINGLE-FAMILY		MULTIFAMILY		
DETACHED	LOW-RISE <i>1-2 stories</i>	MID-RISE <i>3-10 stories</i>	HIGH-RISE <i>11+ stories</i>	
9.54 Trips per day	7.32	5.44	4.45	

Appendix

LAND USE & TRANSIT CONTEXT



SUBURBAN CENTER



SUBURBAN NEIGHBORHOOD



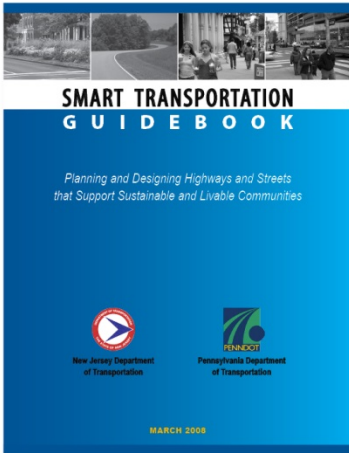
TOWN CENTER



TOWN NEIGHBORHOOD



URBAN CENTER/NEIGHBORHOOD

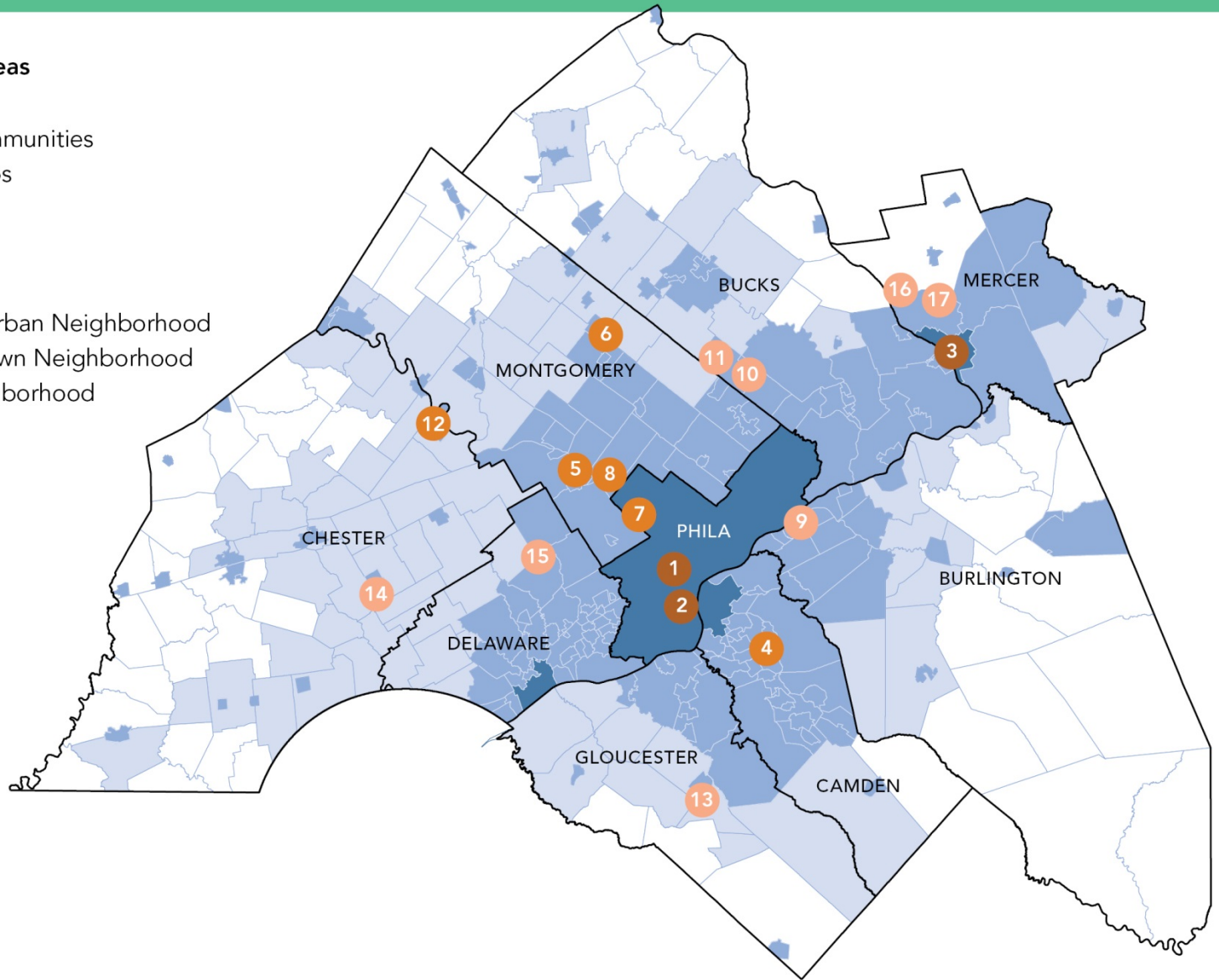


DVRPC Planning Areas

- Core Cities
- Developed Communities
- Growing Suburbs
- Rural Areas

Land Use Context*

- Urban Center/Urban Neighborhood
- Town Center/Town Neighborhood
- Suburban Neighborhood



* The land use contexts of each development site is based on classifications described in the *Smart Transportation Guidebook*. For more information, please visit: www.dvrpc.org/products/08030A.

Figure 1: Observed AM Peak Hour Vehicular Trips per Dwelling Unit

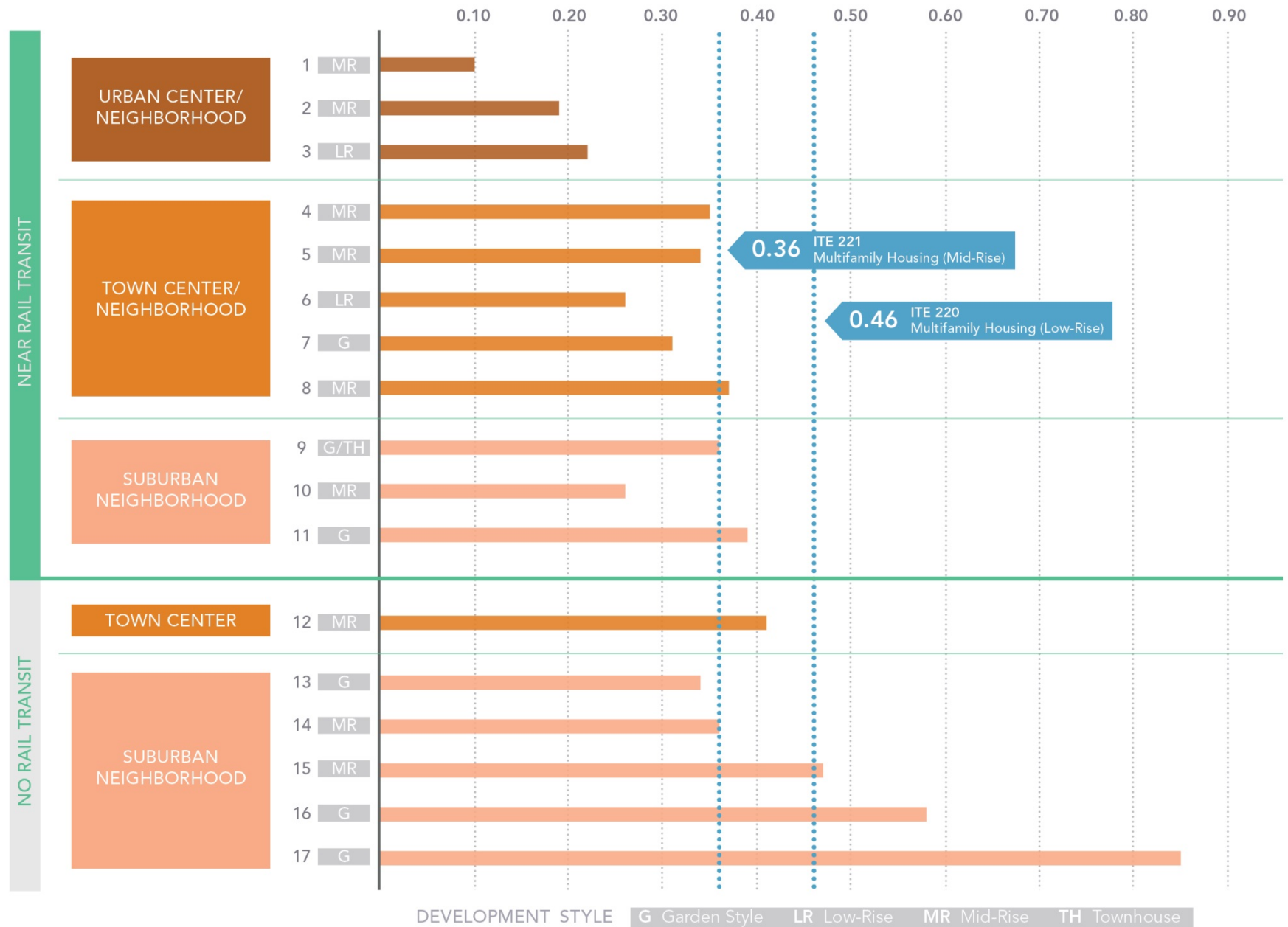
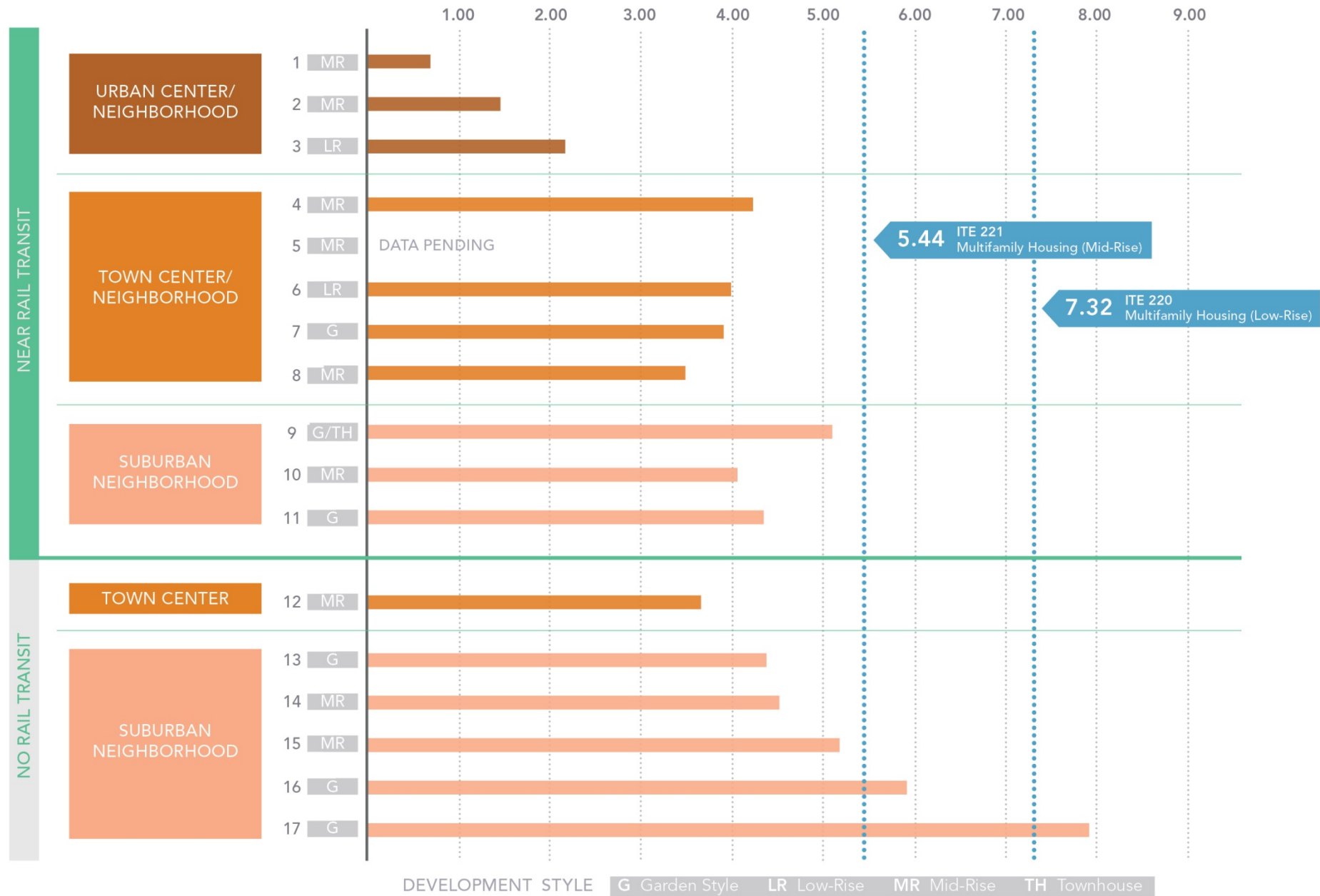


Figure 2: Observed Daily Vehicular Trips per Dwelling Unit



Traffic Impacts of Multi-Family Development

QUESTION

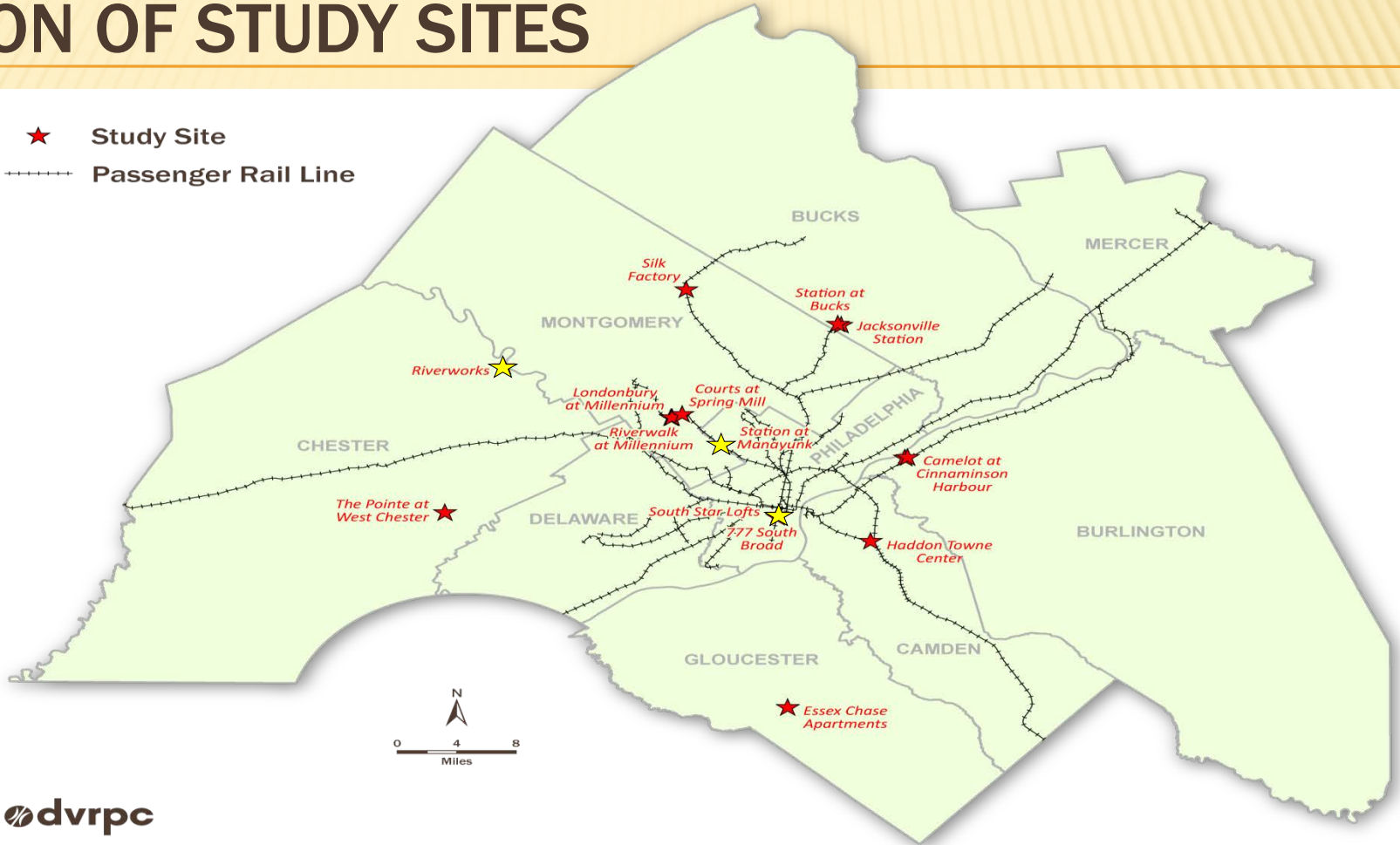
- ✘ What is the vehicle trip reduction benefit of TOD?
- ✘ There are only a few studies of vehicle trip generation and parking demand at multifamily developments near transit.
- ✘ The question of how much vehicle trip and parking demand reduction occurs with TOD is largely unexplored in the literature.
- ✘ Everyone agrees that there should be some reduction, but how much?

DATA COLLECTION METHODOLOGY

- ✘ We counted vehicle trips at 13 sites
- ✘ Data collected in 2018
- ✘ In most cases, both Daily and AM Peak Hour
- ✘ Trip rates are per occupied unit
- ✘ We also counted parking occupancy
- ✘ Compared local data to ITE rates (10th edition Trip Gen, 4th edition Parking Gen)

LOCATION OF STUDY SITES

- ★ Study Site
- Passenger Rail Line



URBAN CENTER NEAR RAIL- SOUTHSTAR LOFTS



SITE DATA

Number of Units	Occupied	Floors	Distance to Rail Transit (miles)
85	78	7	0.0 - subway station right below building

VEHICLE TRIPS – ITE VERSUS OBSERVED

ITE Category	Trips - AM Peak Hour	Trips -Daily	Trip Rate – AM Peak Hour	Trip Rate - Daily
Mid-rise apartment (221)	28	424	0.36	5.44

Observed	Trips - AM Peak Hour	Trips -Daily	Trip Rate – AM Peak Hour	Trip Rate - Daily
	8	54	0.10	0.69

PARKING – ITE VERSUS OBSERVED

ITE Category	Units	Spaces	Spaces per Unit
Mid-rise apartment (221)	85	119	1.40

Observed (5:00 AM)	Spaces	Spaces per Unit	Occupied Spaces	Empty Spaces
	85	1.00	85	0

TOWN CENTER NEAR RAIL -STATION AT MANAYUNK



SITE DATA

Number of Units	Occupied	Floors	Distance to Rail Transit (miles)
149	142	3	0.0 – rail station is right outside their front door

VEHICLE TRIPS – ITE VERSUS OBSERVED

ITE Category	Trips - AM Peak Hour	Trips -Daily	Trip Rate – AM Peak Hour	Trip Rate - Daily
Mid-rise apartment (221)	51	772	0.36	5.44

Observed	Trips - AM Peak Hour	Trips -Daily	Trip Rate – AM Peak Hour	Trip Rate - Daily
	44	555	0.31	3.91

PARKING – ITE VERSUS OBSERVED

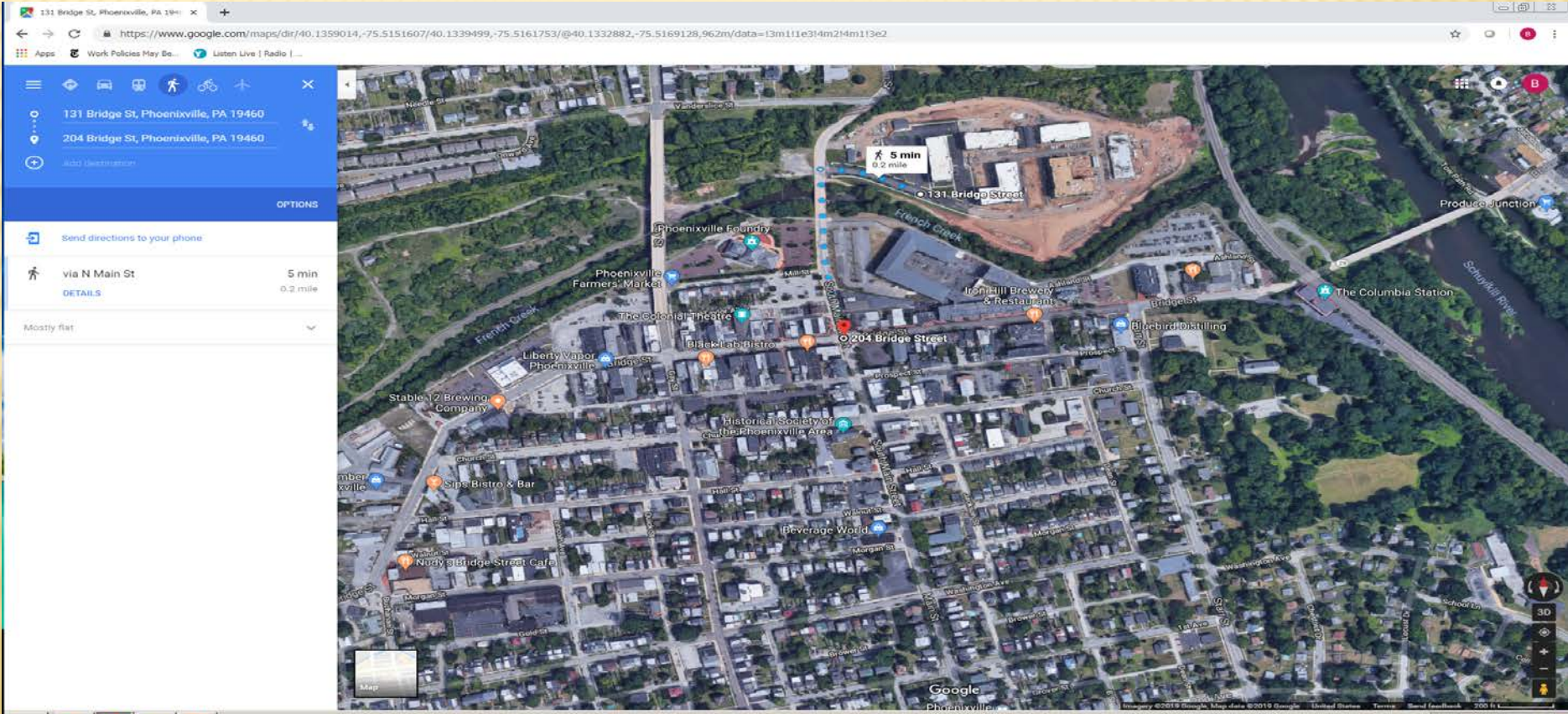
ITE Category	Units	Spaces	Spaces per Unit
Mid-rise apartment (221)	149	209	1.40

Observed (5:00 AM)	Spaces	Spaces per Unit	Occupied Spaces	Empty Spaces
	241	1.62	195	46

TOWN CENTER NO RAIL – RIVERWORKS



PROXIMITY TO DOWNTOWN PHOENIXVILLE



SITE DATA

Number of Units	Occupied	Floors	Distance to Rail Transit (miles)
349	276	5	Not located near rail – 12 miles to Norristown Transportation Center

VEHICLE TRIPS – ITE VERSUS OBSERVED

ITE Category	Trips - AM Peak Hour	Trips -Daily	Trip Rate – AM Peak Hour	Trip Rate - Daily
Mid-rise apartment (221)	99	1,501	0.36	5.44

Observed	Trips - AM Peak Hour	Trips -Daily	Trip Rate – AM Peak Hour	Trip Rate - Daily
	112	1,010	0.41	3.66

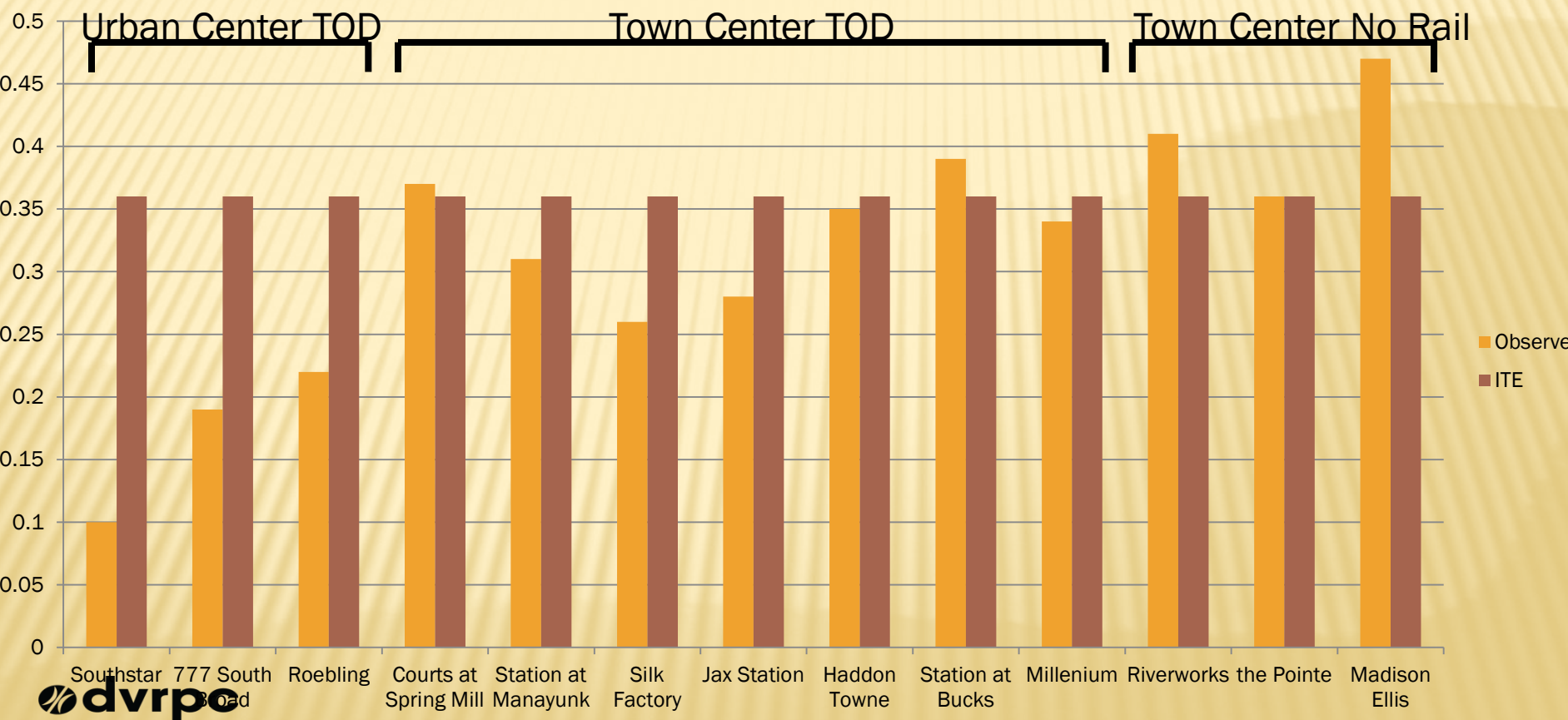
PARKING – ITE VERSUS OBSERVED

ITE Category	Units	Spaces	Spaces per Unit
Mid-rise apartment (221)	349	489	1.40

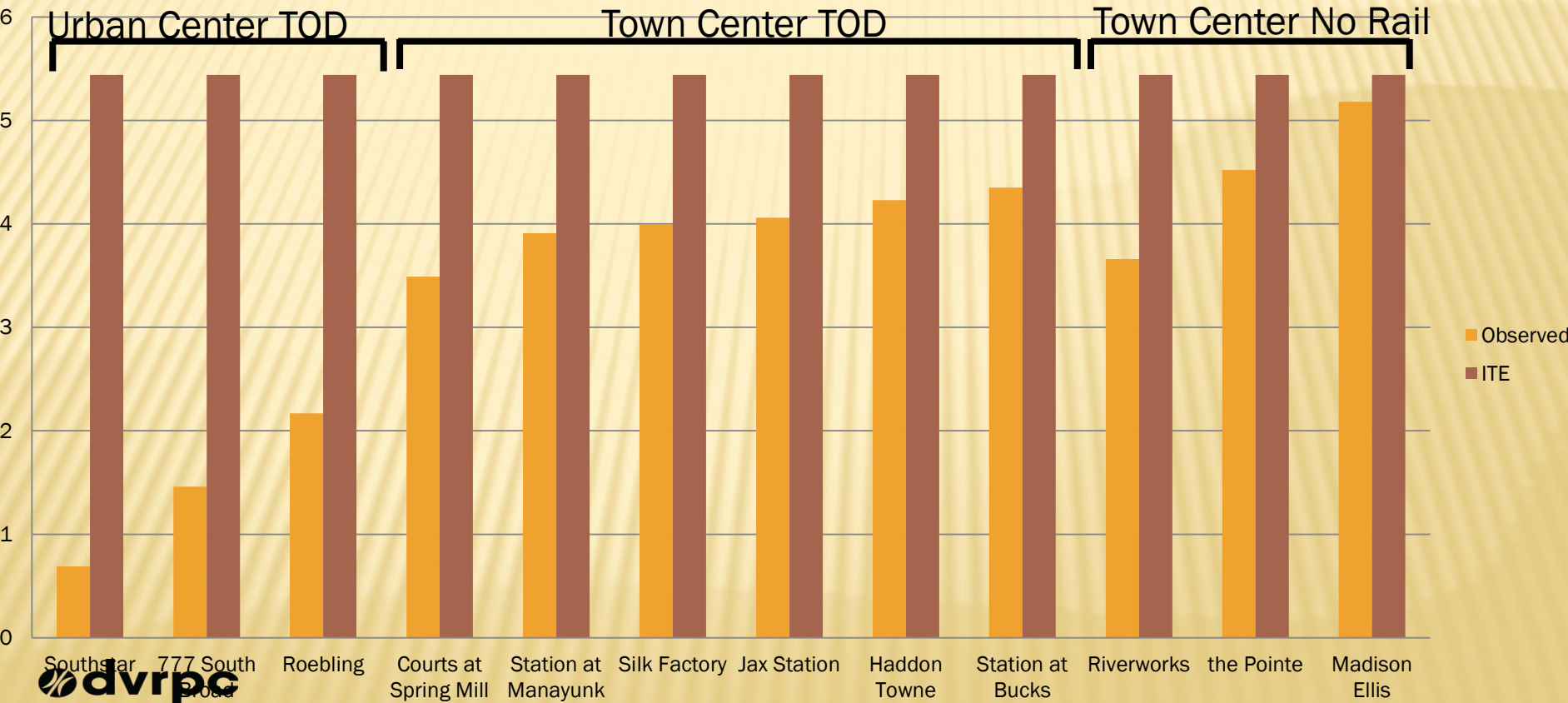
Observed (5:00 AM)	Spaces	Spaces per Unit	Occupied Spaces	Empty Spaces
	515	1.48	335	180

DATA FOR ALL STUDY SITES

AM PEAK HOUR



DAILY



SUMMARY – RANGES FOR ALL SITES

	Number of sites	AM Peak Trip Rate		Daily Trip Rate	
		ITE	Observed	ITE	Observed
Urban Center TOD	3	0.36	0.10 – 0.22	5.44	0.69 – 2.17
Town Center TOD	7	0.36	0.26 – 0.39	5.44	3.49 – 4.35
Town Center No Rail	3	0.36	0.36 – 0.47	5.44	3.66 – 5.18

CONCLUSIONS / RECOMMENDATIONS

- ✘ The data shows real vehicle trip reduction benefits to TOD – especially at the “urban” sites
- ✘ Use our local trip gen rates, not ITE
- ✘ But for parking, wondering whether we should recommend using ITE’s 1.40 spaces / unit as an upper threshold?

Questions?

DATA FOR THE SURROUNDING CENSUS TRACT

Walk Share	Transit Share	Vehicles per HH	Median HH Income
37.2%	24.7%	0.58	\$72,869

DATA FOR THE SURROUNDING CENSUS TRACT

Walk Share	Transit Share	Vehicles per HH	Median HH Income
1.8%	25.3%	1.54	\$71,280

DATA FOR THE SURROUNDING CENSUS TRACT

Walk Share	Transit Share	Vehicles per HH	Median HH Income
2.0%	2.8%	1.71	\$89,360

CAVEATS

- ✘ This data reflects Philadelphia conditions / travel behavior
- ✘ This was a pretty simple (but feasible and affordable) approach
- ✘ Small sample size
- ✘ Question as to how representative residents of these new multifamily projects are, in terms of race, age, income,

- US DOT Metropolitan Transportation Planning and Programming Regulations require MPO's to certify that its transportation planning and programming process is in conformance with all applicable federal regulations
- Undertake a Continuing, Cooperative, and Comprehensive performance-based, multimodal transportation planning and programming process
- TIP and Long Range Plan are consistent with the Clean Air Act

- Private citizens and affected public agencies were provided with a reasonable opportunity to comment on the TIP, Long Range Plan, and planning process
- The TIP is financially constrained
- The CMP requirements have been met
- Performance-based planning approach is being integrated through coordination with state and federal partners on the development of performance measure targets

- Developed and maintain a Coordinated Human Services Transportation Plan (currently titled Equity Through Access) with state, county, and transit agency partners
- The planning process considers improvements to resiliency and reliability of the transportation system and enhancements to travel and tourism
- Meets restrictions on lobbying
- Complies with the requirements of Title VI of the Civil Rights Act, and incorporates Environmental Justice considerations for minority and low-income populations
- Prohibits discrimination and complies with the guidelines of EEO, DBE, ADA, and OAA

- DVRPC's Four-Year Federal Certification Review Final Report indicates that the Review's one Corrective Action related to updates to required language in our contracts has been addressed
- DVRPC elects to continue to use the exception provision regarding transit agency representation on MPO boards while continuing the transit agencies participation as non-voting members of the Board and voting members of the RTC
- DVRPC certifies that it qualifies for this exception

Action Proposed

That the RTC recommends that the Board adopt Resolution No. B-FY19-002 certifying that the DVRPC Metropolitan Transportation Planning and Programming Process is in conformance with federal regulations implementing the FAST Act, MAP-21, the Clean Air Act Amendments, and other pertinent federal legislation.

Ben Gruswitz, AICP
Regional Technical Committee
June 11, 2019

2020 Census Participant Statistical Areas Program (PSAP) Update

What's PSAP?



PSAP 2020 What is it?

- Participant Statistical Areas Program (PSAP)
- Review & update statistical area boundaries
 - Census tracts
 - Block groups
 - Census designated places (CDPs)
- For 2020 Census data tabulation & subsequent 10 years of ACS data

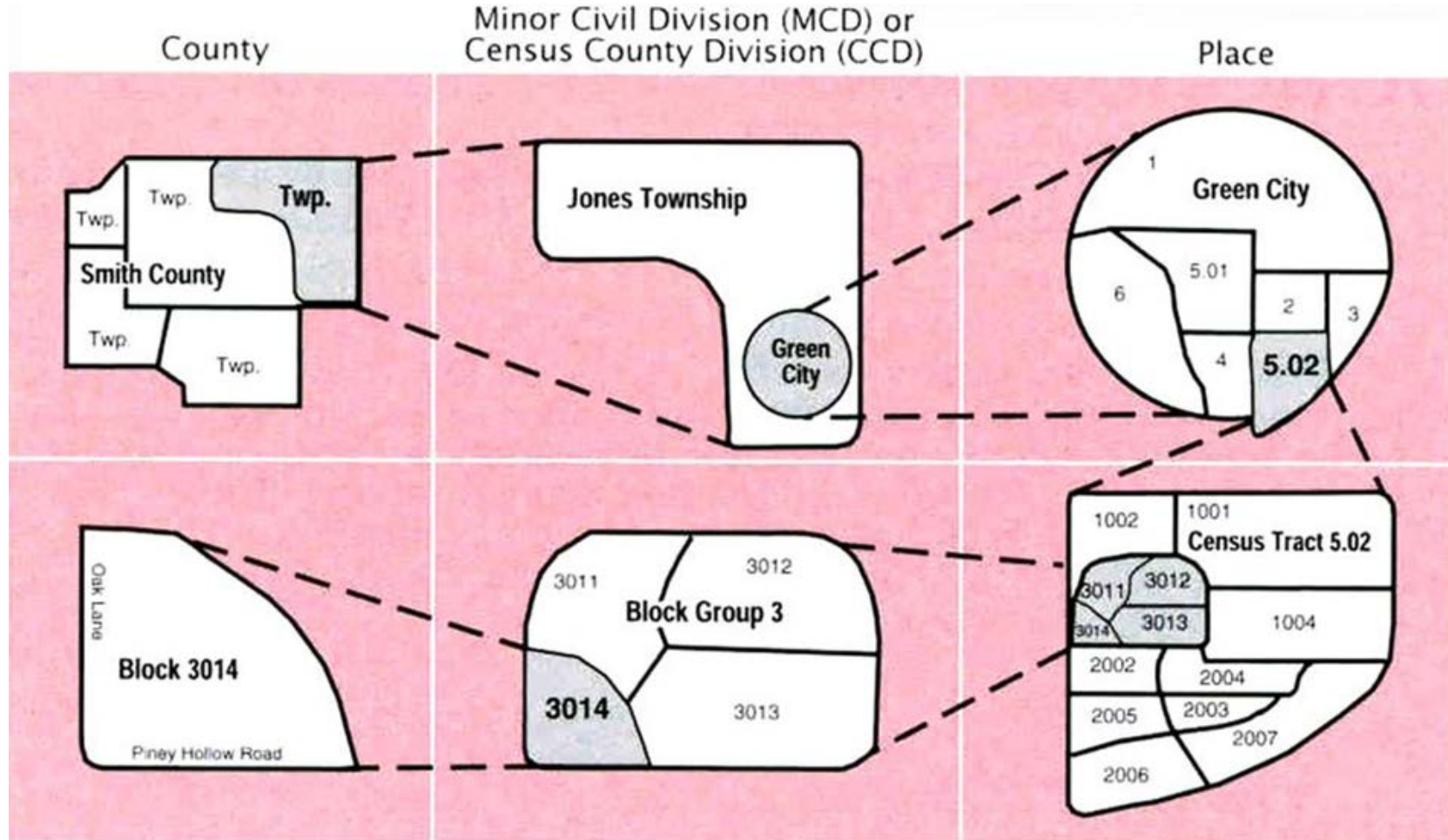
Census Geography Hierarchy

BAS

Boundary & Annexation Survey

Minor Civil Division (MCD) or
Census County Division (CCD)

PSAP



County

Place

Block

Block Group

Census Tract

Redistricting

PSAP

PSAP

Basic PSAP Criteria & Actions

Tracts

- Population: 1,200 - 8,000
- Housing Units: 480 - 3,200

Block groups

- Nest within Tract
- Population: 600 - 3,000
- Housing Units: 240 - 1,200

What if it's...

Under?

merge with adjacent polygons until it meets criteria

Over?

split into 2 or more new polygons meeting criteria

Roles

To the Census Bureau, DVRPC is a Primary Participating Organization (PPO)

- Kim Korejko | Primary Contact
- Ben Gruswitz | Technical Contact
- Mark Gatti | Technical Contact

DVRPC Member Counties

- Coordinate with DVRPC, municipalities, others
- Review current geographies and resources
- Meet with DVRPC to propose changes

Challenges & Changes for 2020



Challenges & Changes for 2020

- Census Bureau discontinued support of the transportation analysis zones (TAZ)
- Census Transportation Planning Products (CTPP)
 - special tabulation reported by TAZ
 - key for local travel model data inputs
- No more TAZ Delineation Program

Challenges & Changes for 2020

Response from CTPP Program Oversight Board

- For new data releases changed smallest geography to block group instead of TAZ
- Got word out to MPOs and others to
 - help change PSAP rules to allow block groups to be more like TAZs
 - get involved with PSAP

Challenges & Changes for 2020

Pre-delineation efforts from DVRPC

- Submitted proposed changes PSAP Criteria to Federal Register along with MPOs across the country
- Reached out to counties to anticipate an effort to bring block groups and TAZ into conformance with each other

Successful Criteria Change

“Special Use” tracts and block groups

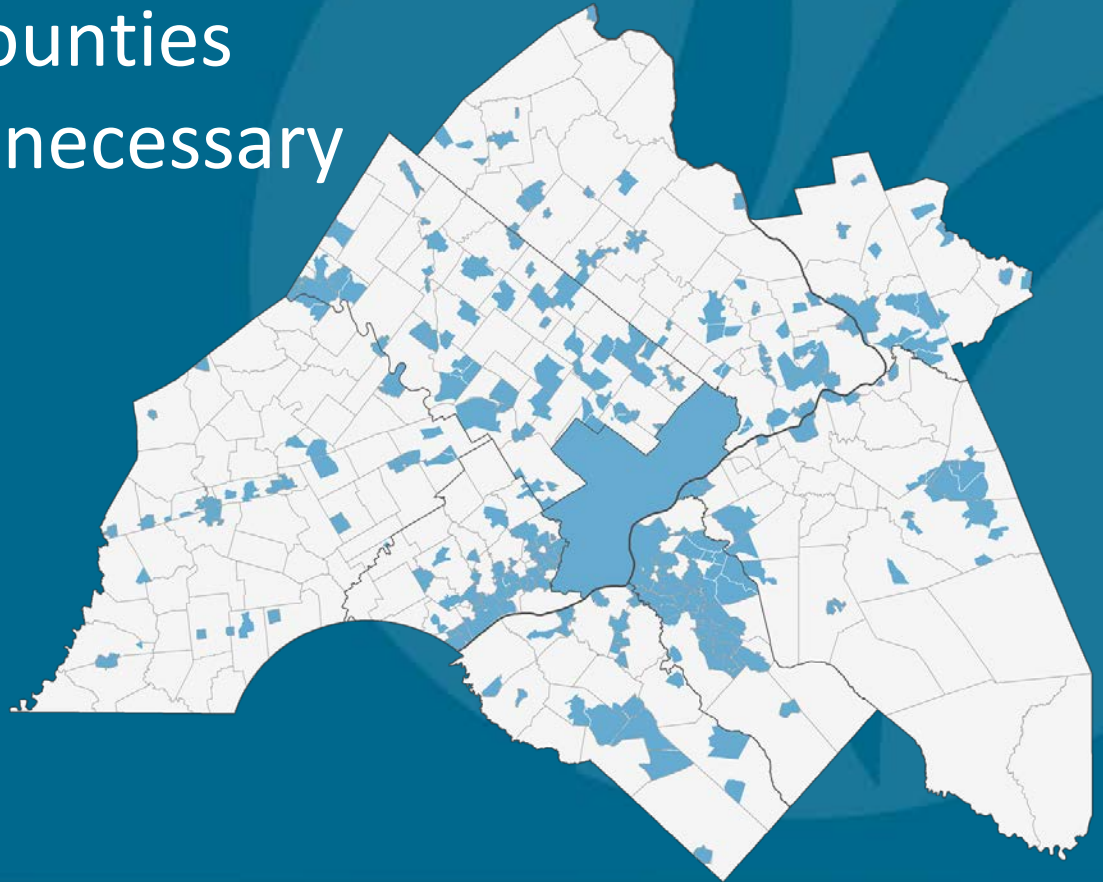
- non-residential areas like large parks or airports
- dropped previous minimum 1 square mile requirement
- similar size to surrounding residential geographies
- employment centers: suggested minimum jobs
 - tract: 1,200
 - block group: 600

Approach to Delineation



Census Designated Place (CDP)

- deference to counties
- create/alter as necessary



Tracts

- Generally preserve unless merge or split needed
- Create special land use tracts in clearly defined non-residential employment centers
- Municipal or Planning District boundary adjustments

Reconciling Block Groups & TAZs

1 Block Group = 1 TAZ

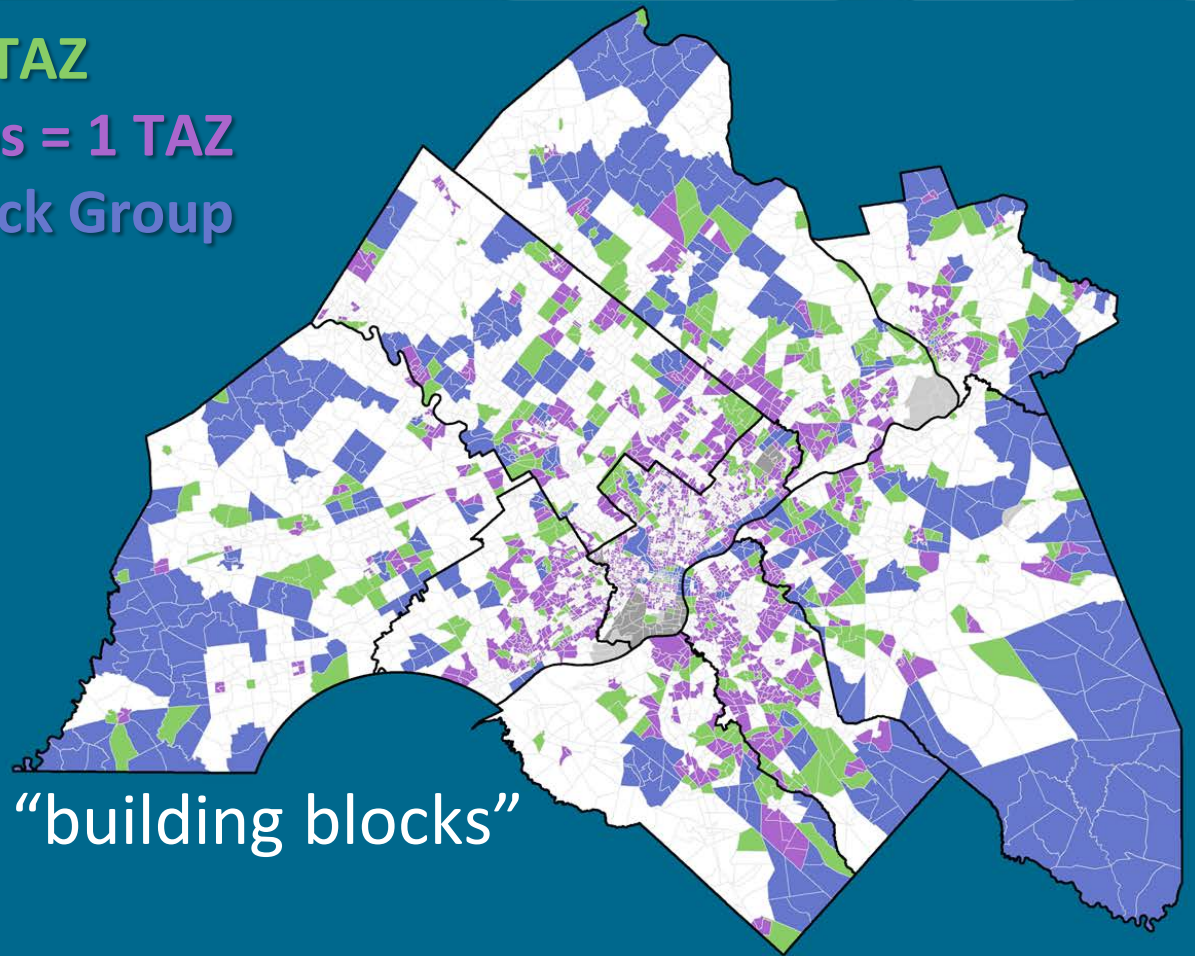
Many Block Groups = 1 TAZ

Many TAZs = 1 Block Group

Minimal Pop

No Population

The Rest



Created layer of “building blocks”
for block groups

County Meetings

11 (mostly) day-long meetings in “geographic war room”



Benefits of Nesting & New Criteria

- Model outputs align with census geographies
- Model inputs align with latest 5-year ACS
- Better alignment with MCDs & Planning Districts
- More block group level data via the CTPP
- Land use distinctions (malls don't have demographics)

Census Bureau PSAP 2020 Timeline

Delineation

January – June 2019

Census Bureau Review

July – December 2019

Verification

January – March 2020

Final PSAP updates complete

May 2020

Municipal Boundaries

- Census municipal boundaries often off from reality
- PSAP not time to correct it
- Tied tract & block groups to municipal boundaries where appropriate
- Boundary & Annexation Survey (BAS) is the annual opportunity to correct
- Tracts & block groups will move with MCD

THANK YOU! to County
& DVRPC staff members!



Thank You!



Questions?

Contact: Kim Korejko
or Ben Gruswitz

**US 202 SECTION 100
OPERATIONS ANALYSIS**

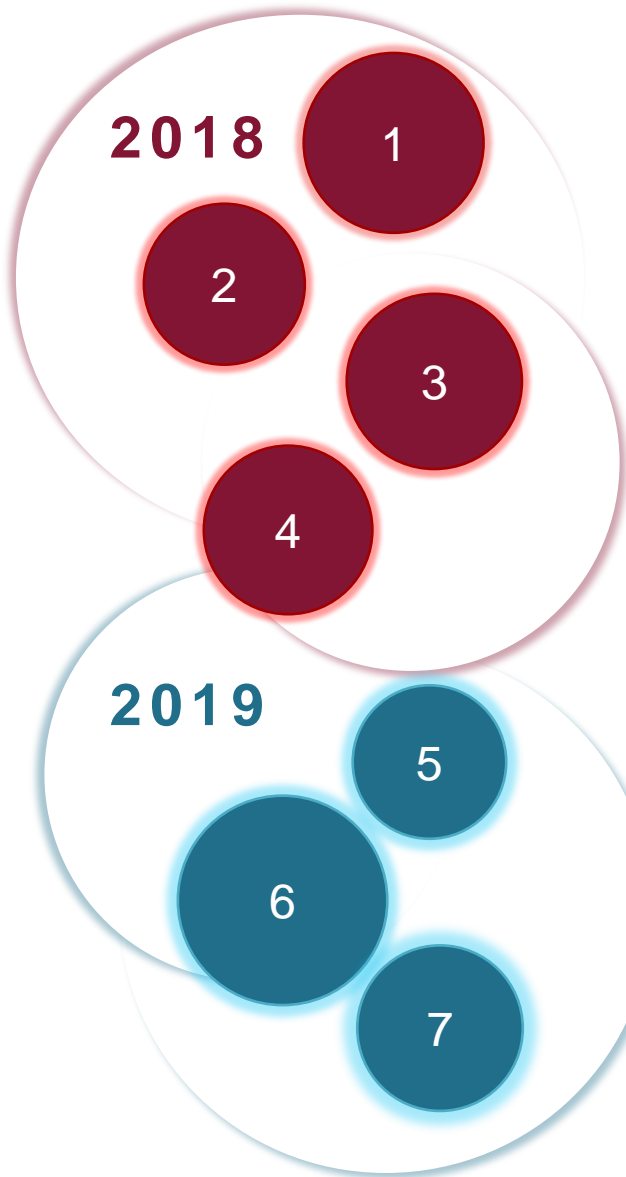


Background

- **US 202** connects **4 suburban PA counties** in the region
- **Section 100** serves as a **vital link to DE and local arterial**
- **Chester County** is the fastest growing county in Southeastern PA
- County **population and employment** are projected to increase by **28.4% between 2015-2045**

Objective

- This study identifies recommendations to **improve the operational efficiency of US 202 Section 100 from Matlack Street to Skiles Boulevard**



2018

1

Identify study area

2

Confirm scope of work

3

Collect and analyze data

4

Model Existing conditions

2019

5

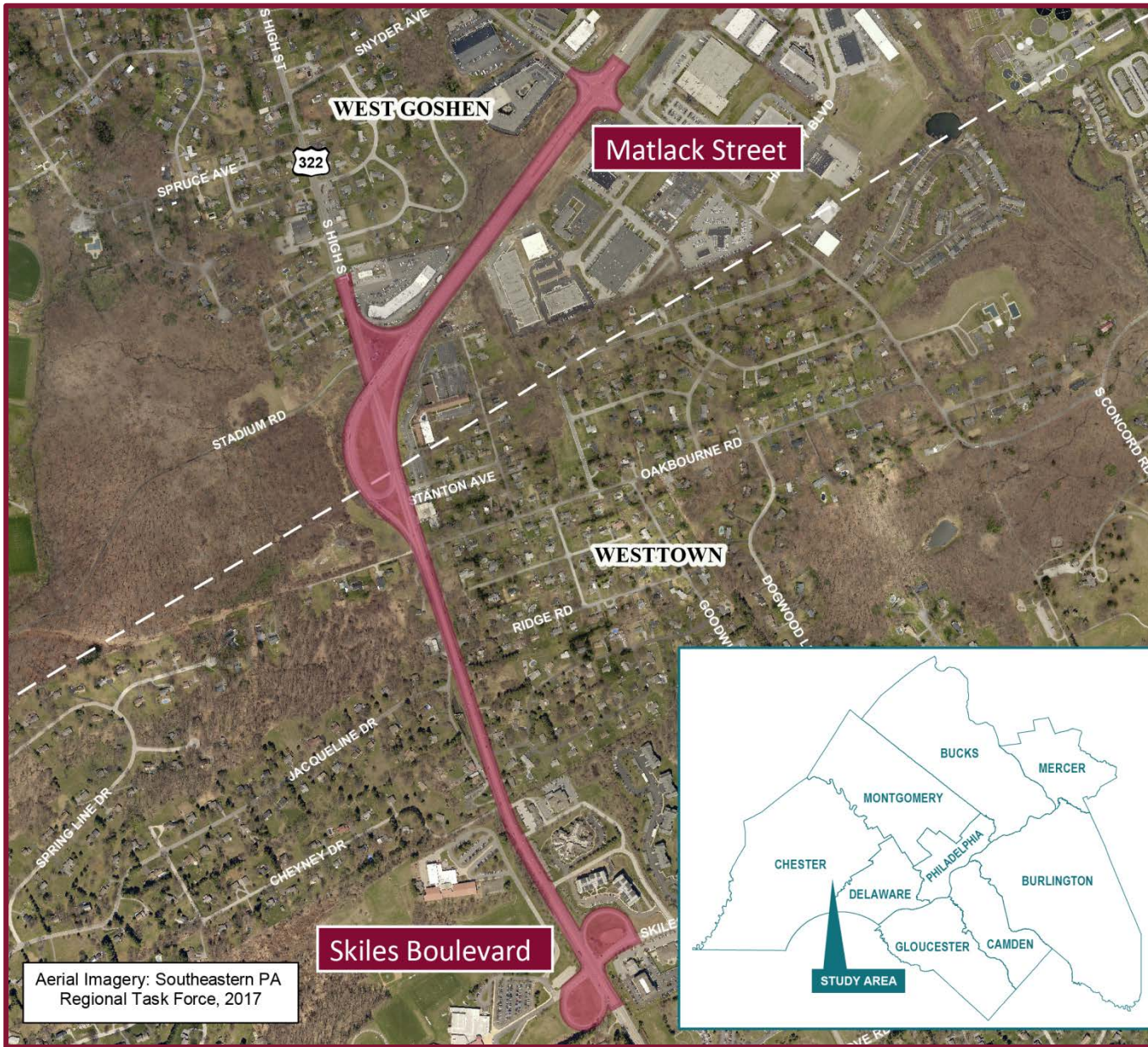
Model future No Build and Build conditions

6

Identify other improvements and congestion mitigation strategies

7

Deliver final report



Study Area Characteristics

Safety: Reported Crashes

- Majority of crashes between 2013-2017 were **rear-end (52%), followed by angle crashes**
- **188 total** crashes (**26% in 2017**)
- A **gradual increase over the 5-year period**
- **2 fatalities**
- **9 crashes on SB ramp or near High Street merge** with SB US 202

Safety: Speeds and Conditions

- **Recommended SB ramp speed** is **30 mph**
- The **average speed** recorded during free flow conditions was **44 mph** (12 observations)
- **No street lights**
- **Rumble strips, RPMs, and chevron signs**



US 202 SB Ramp over High Street

Traffic Volumes

- AM Peak Hour is **7:00 AM to 8:00 AM**
- PM Peak Hour is **4:30 PM to 5:30 PM**
- **NB volumes** are higher than SB volumes in the **AM**
- **SB volumes** are higher than NB volumes in the **PM**
- Significant **EB left-turn queue at Matlack Street** during the peak hours



EB Approach at Matlack Street



EB Approach at Matlack Street

Existing Ramp Design



NB Ramp Existing Conditions





High Street Merge with NB Ramp



N
0 240 480
Feet
dvrpc

Aerial Imagery: Southeastern PA
Regional Task Force, 2017



SB Ramp Existing Conditions



US 202 SB Ramp

Highway Performance

Scenarios

Existing	No Build	Build
<ul style="list-style-type: none"><li data-bbox="92 596 533 704">• Fall 2018 Traffic Counts	<ul style="list-style-type: none"><li data-bbox="681 596 1232 965">• Background growth rate based on 2045 long-range forecasts for development, employment, and population	<ul style="list-style-type: none"><li data-bbox="1271 596 1721 639">• 3 final scenarios

LOS Definitions

LOS ($v/c \leq 1.0$)	Control Delay (sec/vehicle)	Qualitative Description of Traffic Operations
A	≤ 10	Stable and Predictable
B	$> 10-20$	
C	$> 20-35$	
D	$> 35-55$	Predictable, but Approaching Unstable
E	$> 55-80$	Unstable and Unpredictable
F	> 80	

LOS (95%)

	AM Existing	AM No Build	PM Existing	PM No Build
US 202 and Matlack	C	F	D	E
High and Parkway	B	B	B	B
US 202 and Skiles	A	C	A	B

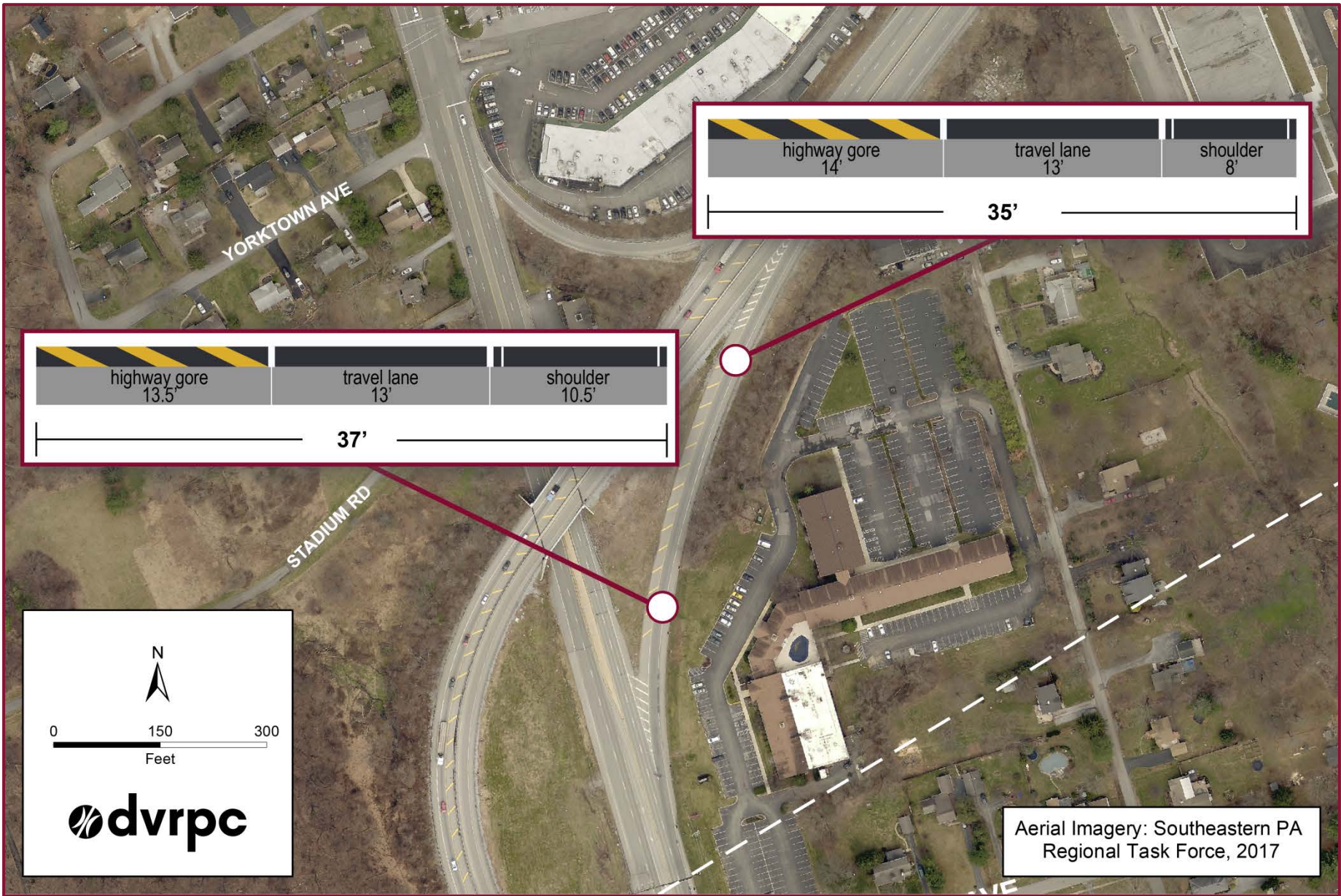
Matlack Street EB Approach

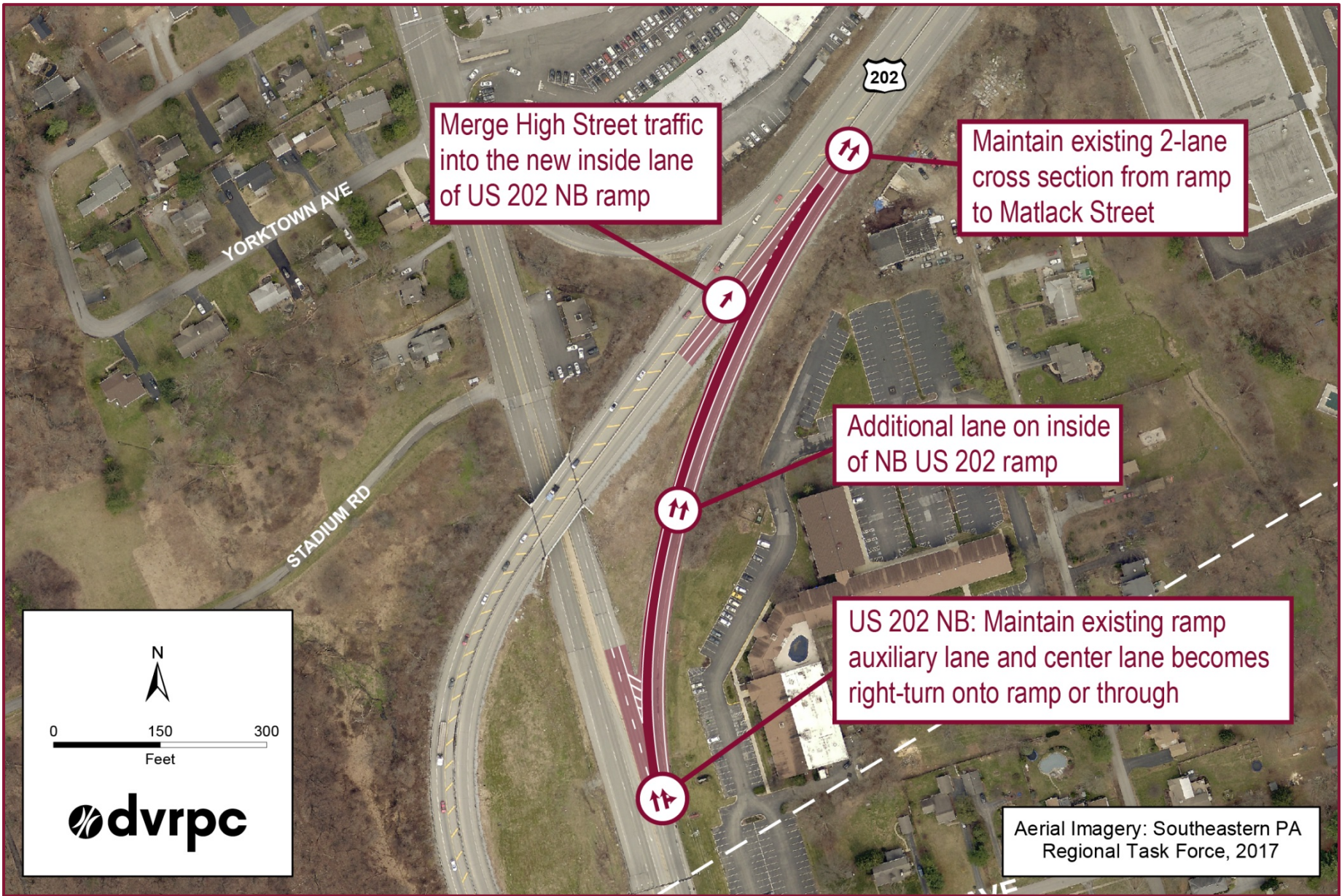
	AM Existing	AM No Build	PM Existing	PM No Build
Approach Volume	387	491	467	600
Approach LOS	E	F	F	F

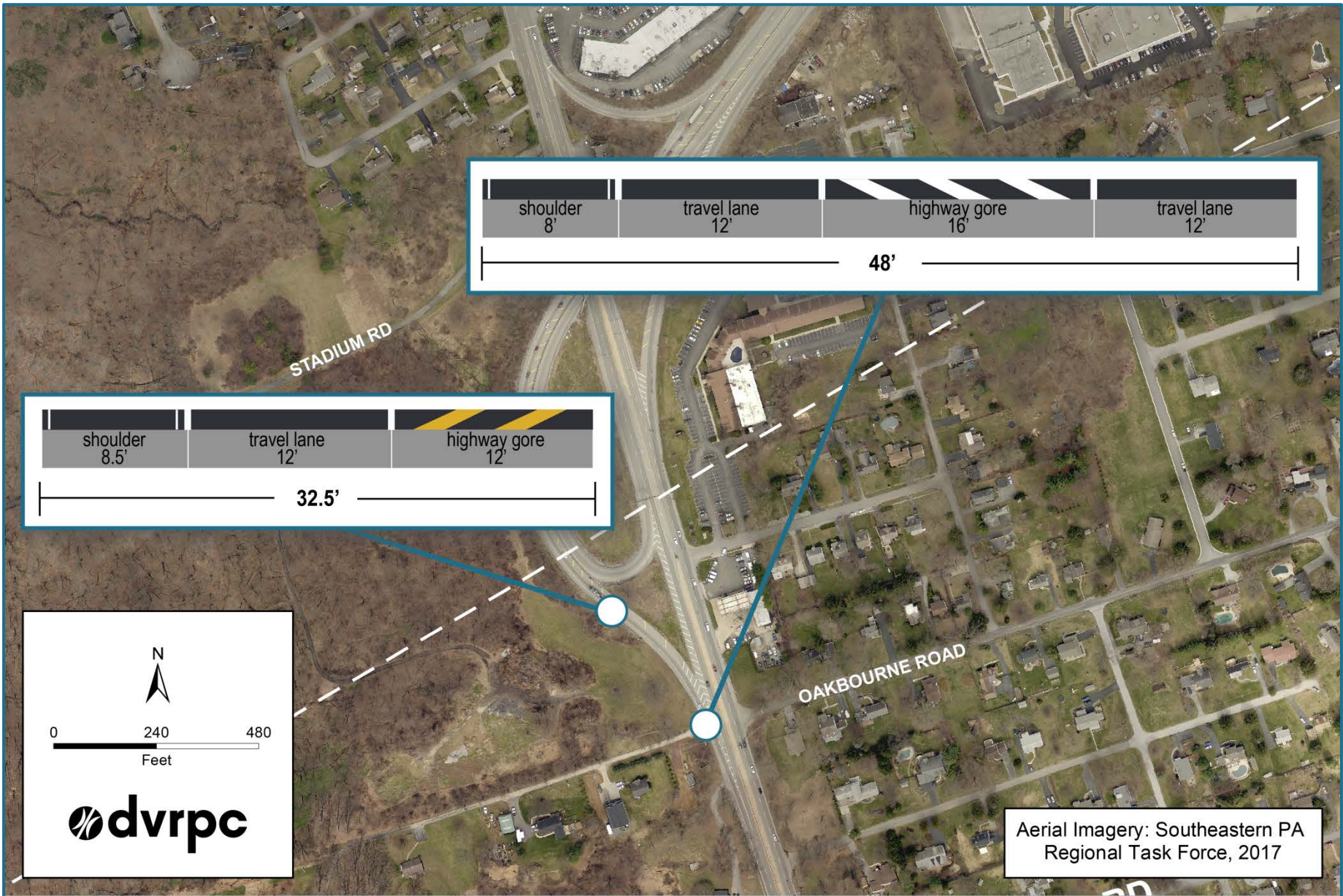
Travel Times (95%)

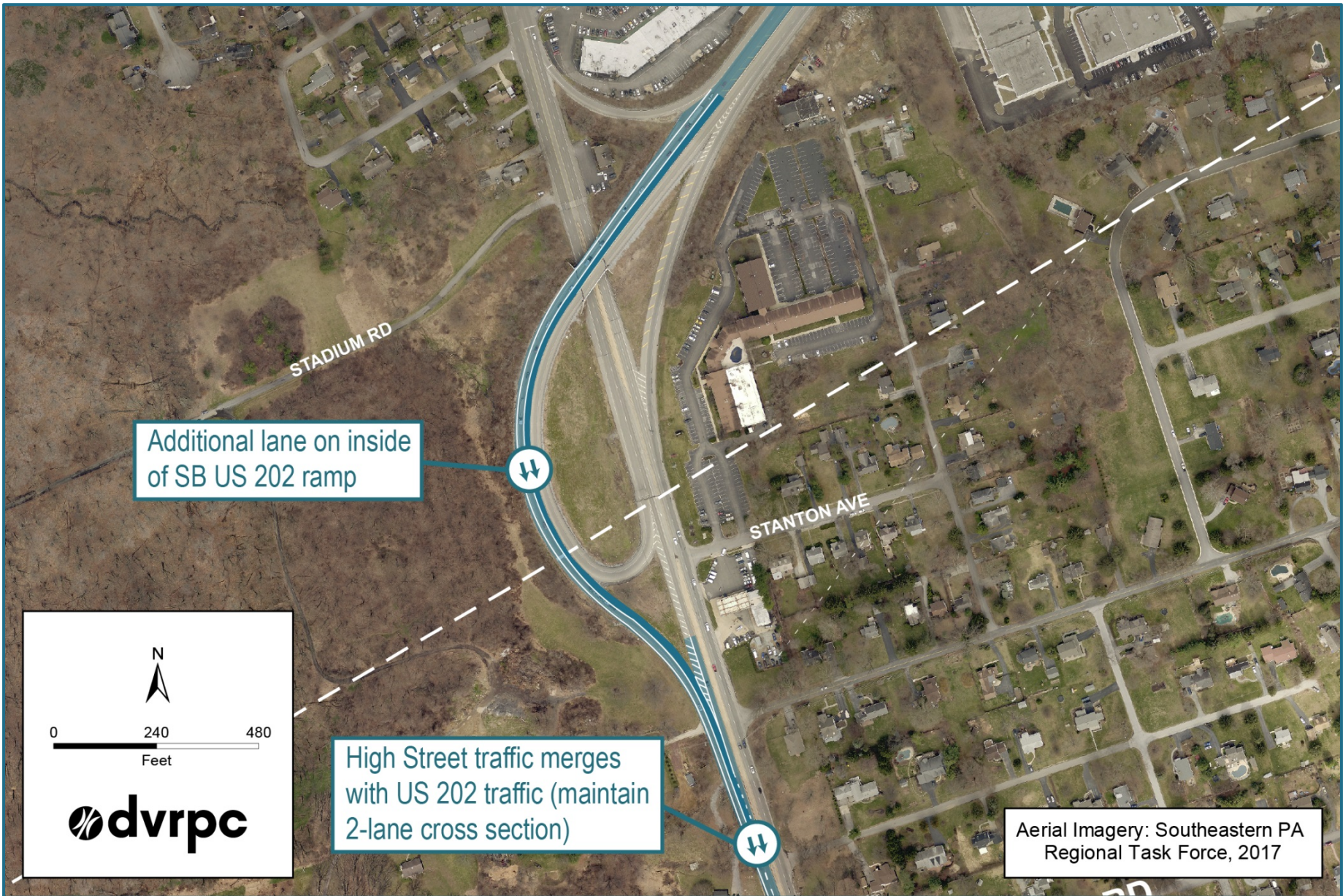
	AM Existing	AM No Build	PM Existing	PM No Build
NB US 202 (1.4 mi)	3 min	6 min	3 min	5 min
SB US 202 (1.5 mi)	3 min	6 min	3 min	4 min
EBL Matlack (0.3 mi)	2 min	6 min	4 min	3 min

Improvement Alternatives





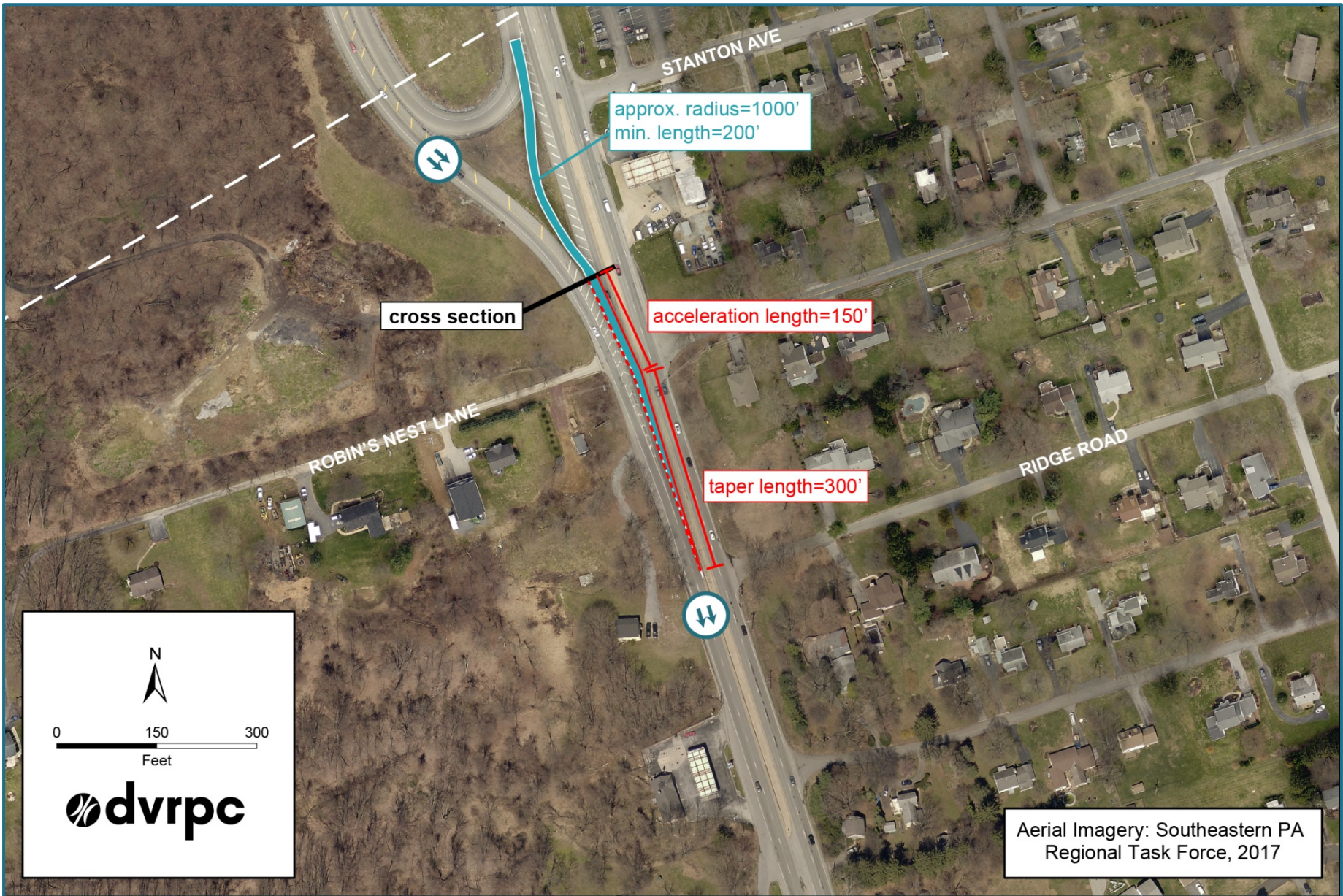




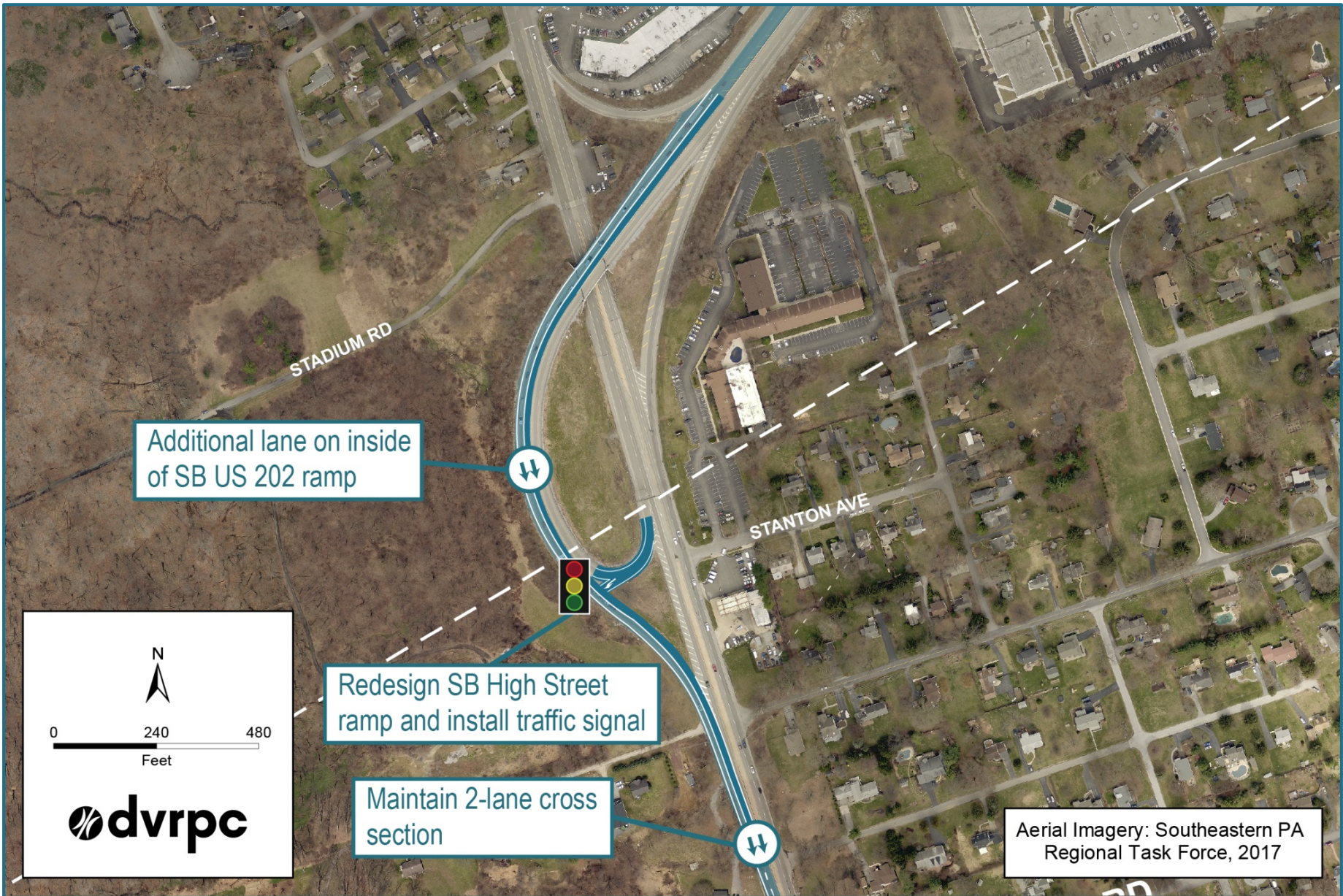
Additional lane on inside of SB US 202 ramp

High Street traffic merges with US 202 traffic (maintain 2-lane cross section)

Aerial Imagery: Southeastern PA Regional Task Force, 2017



Aerial Imagery: Southeastern PA
Regional Task Force, 2017



Build Scenarios

Benefits of Build Scenarios

- **Improve LOS** at nearby intersections
- **Decrease travel times** in future year 2045
- **Eliminate bottlenecks** at start of the NB and SB ramps
- Additional traffic control and clearer transitions from High Street to US 202 could **improve safety**
- **Double left-turn lane** on EB Matlack approach **reduces intersection delay**
- **Maintain 2-lane cross section** on US 202 main line

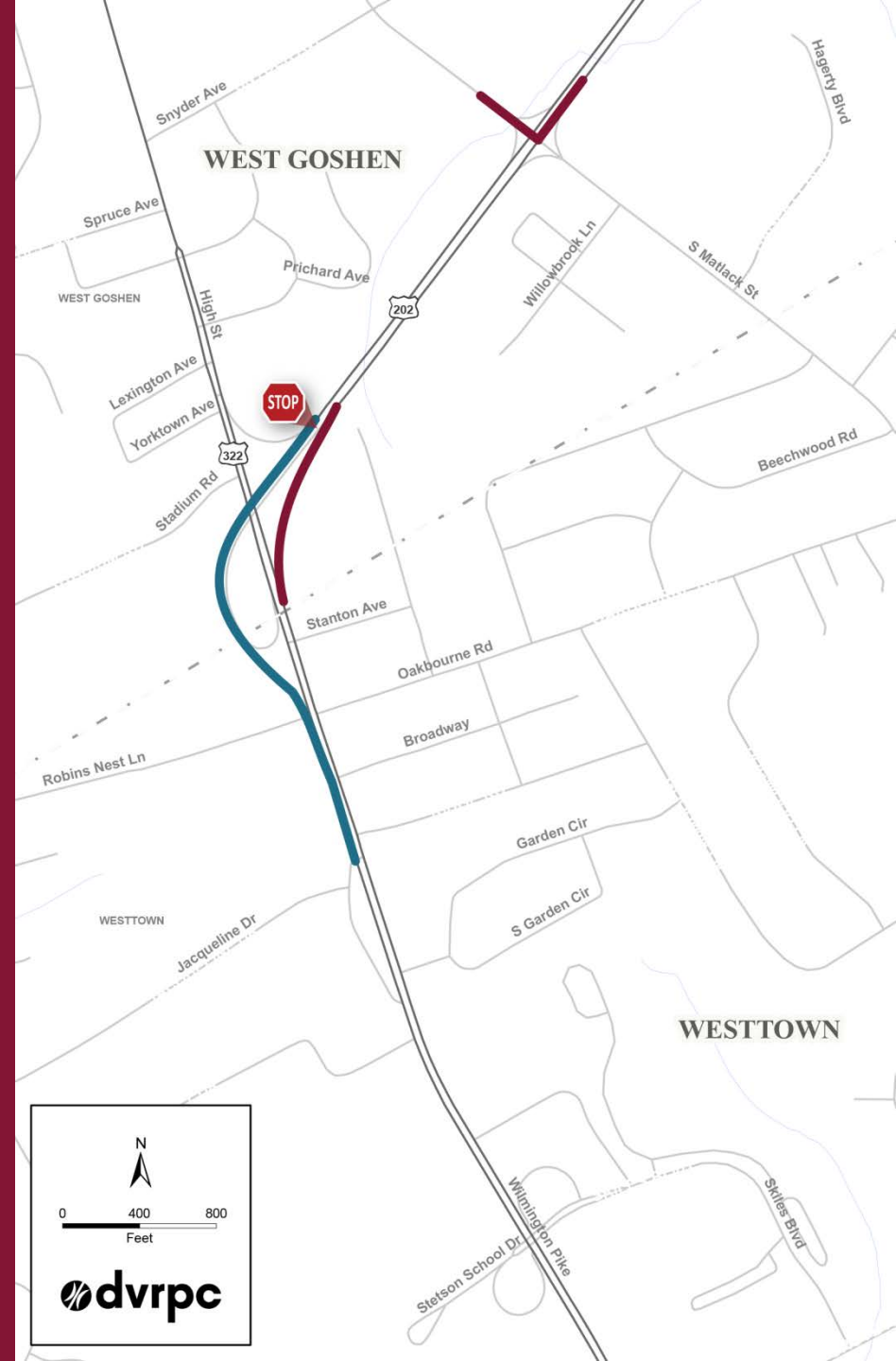
Scenario 1

Pro

- Design most similar to existing conditions (maintain lane control)

Cons

- SB High Street traffic has less time to make a SB right-turn at Old Wilmington Pike
- Requires median reconstruction



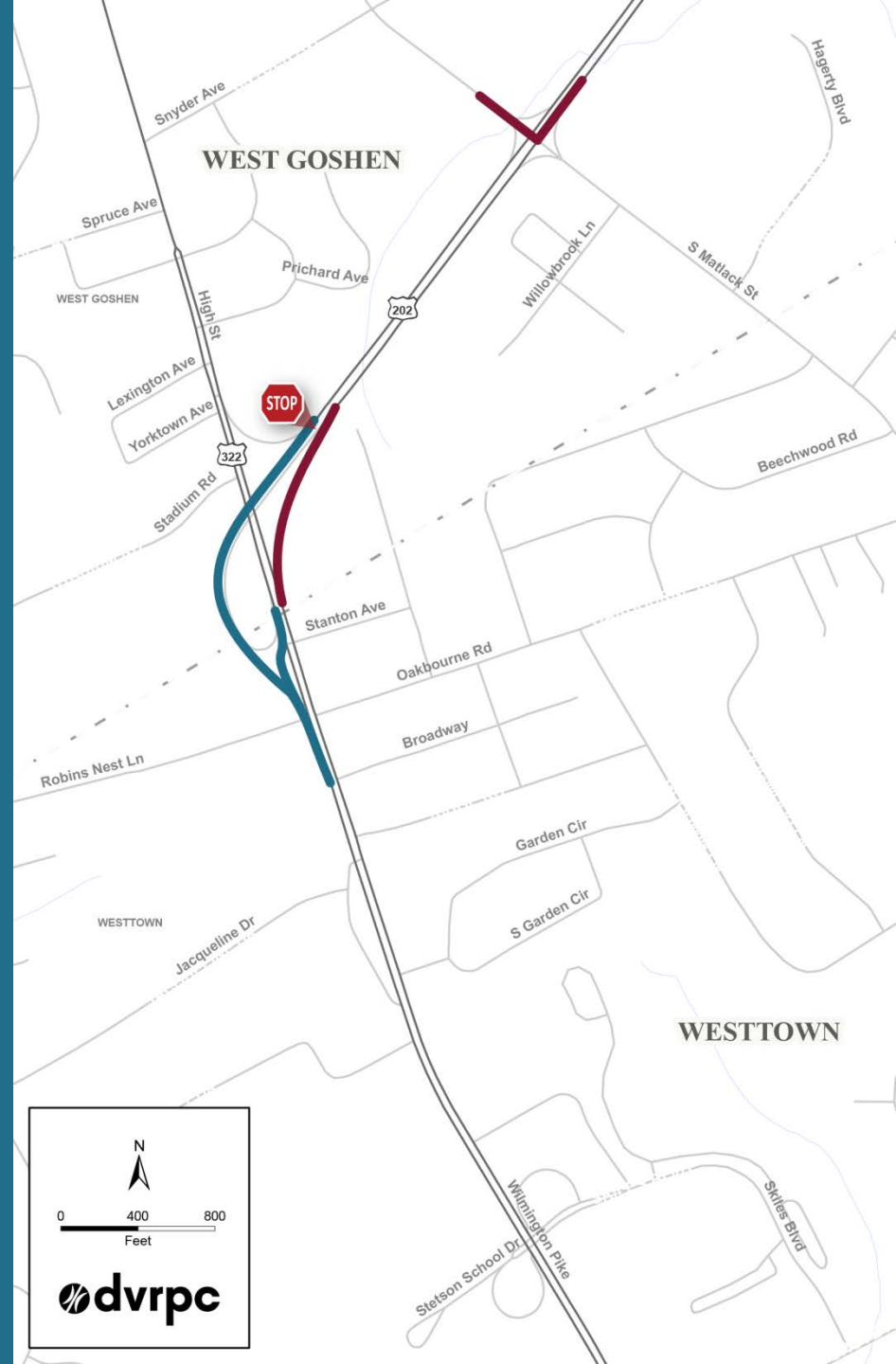
Scenario 2

Pros

- Clearer transition from High Street to SB US 202
- High Street traffic has more time to make SB right-turn at Old Wilmington Pike

Con

- Requires median reconstruction



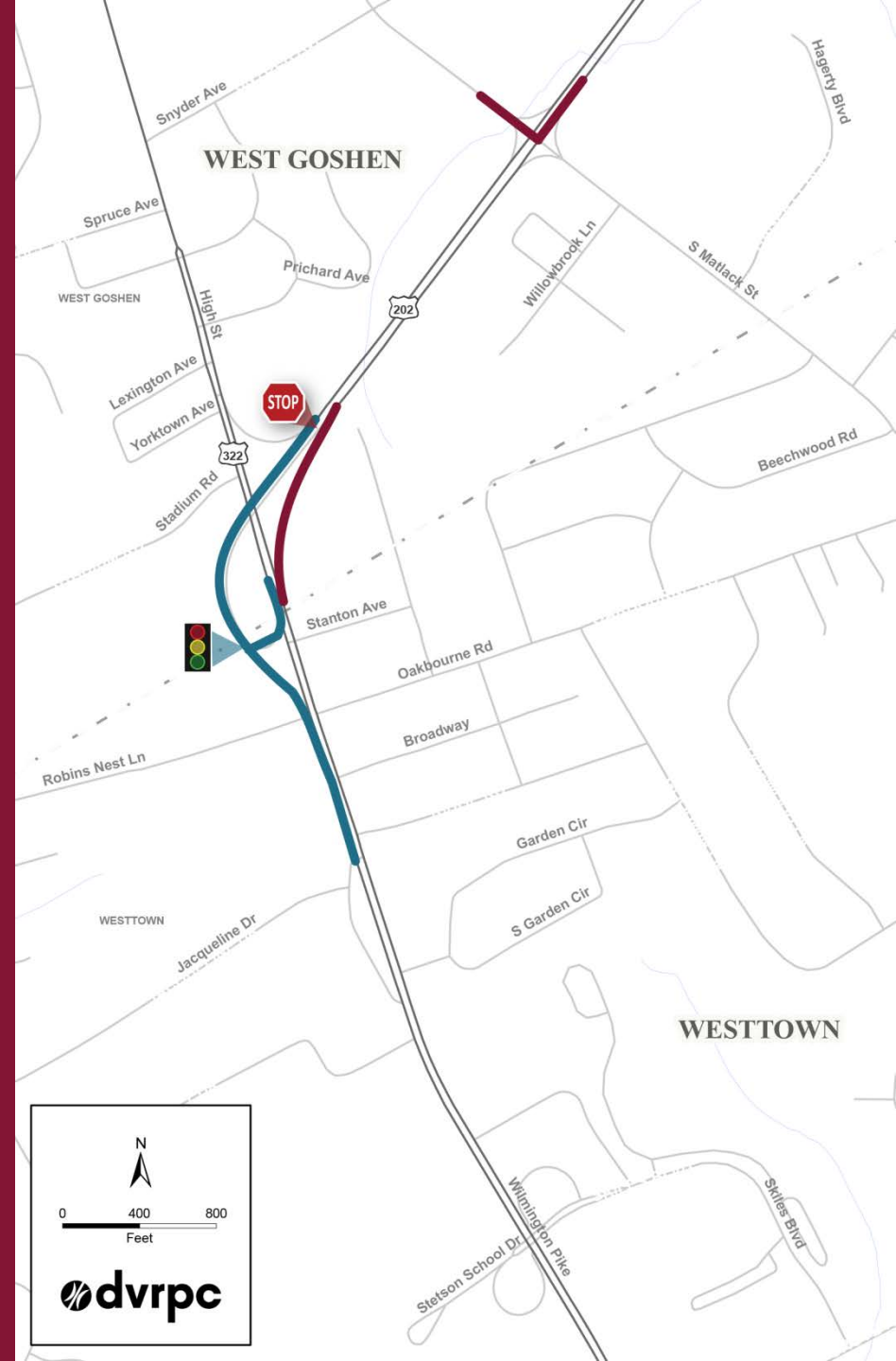
Scenario 3

Pro

- Safer way for SB High Street traffic to merge with SB US 202 traffic

Con

- Higher SB travel time than other two scenarios



LOS (95%)

	AM No Build	PM No Build	Scenario 1 (AM/PM)	Scenario 2 (AM/PM)	Scenario 3 (AM/PM)
US 202 and Matlack	F	E	D	D	D
High and Parkway	B	B	B	B	B
US 202 and Skiles	C	B	B	B	B

Travel Time (95%)

	Scenario 1		Scenario 2		Scenario 3	
	AM	PM	AM	PM	AM	PM
NB US 202 (1.4 mi)	4 min	3 min	4 min	3 min	4 min	3 min
SB US 202 (1.5 mi)	2 min	3 min	2 min	3 min	3 min	3 min
EBL Matlack (0.3 mi)	2 min	2 min	2 min	2 min	2 min	2 min

Next Steps

- Final steering committee meeting (Summer 2019)
- Publish report (Summer 2019)

Questions

CONTACT:

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