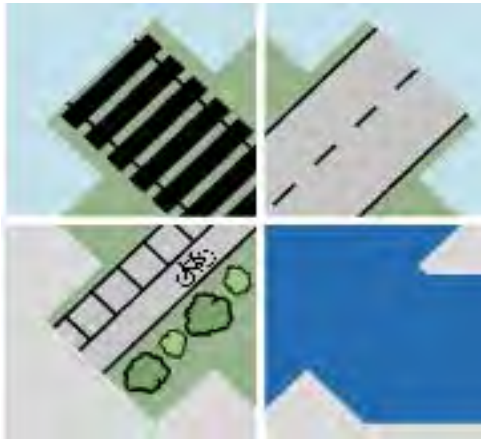
DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

CMP CONGESTION MANAGEMENT PROCESS

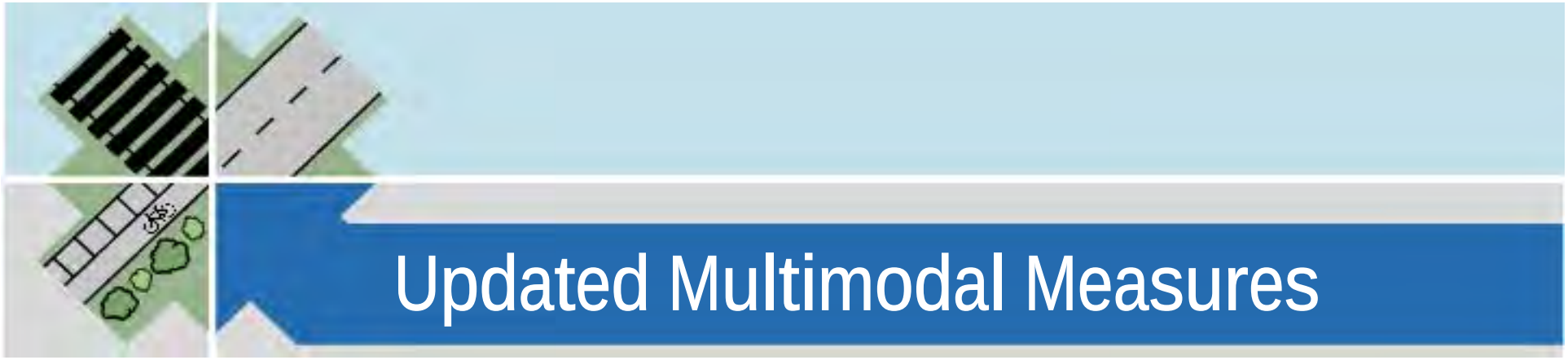
Midpoint Briefing on Update of the Congestion Management Process (CMP)

Regional Technical Committee
March 10, 2015



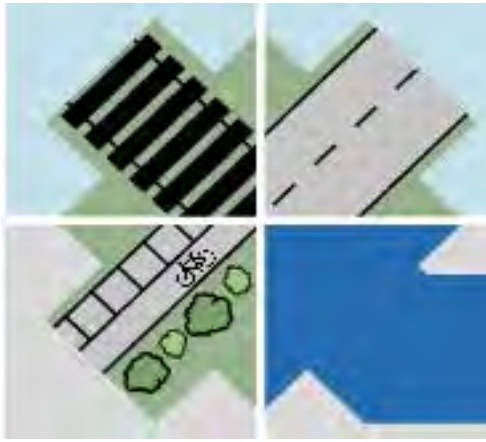
CMP Overview

- Strengthens the connection between the Plan & the TIP
- Performs analysis of the regional transportation network, identifies congested corridors & multimodal strategies
- Gain understanding of anticipated & experienced effectiveness of strategies
- Where SOV capacity is being considered, coordinates as required



Updated Multimodal Measures

CMP Objectives	Performance Measure (Short Version)
Minimize growth in recurring congestion	1. Travel Time Index (TTI) 2. High current peak-hour volume/capacity (V/C) ratios 3. High anticipated growth in V/C in the peak-period 2040
Provide transit where it is most needed; Improve the reliability of the transportation system	1. Transit score and rail stations. 2. Planning Time Index (PTI)
Maintain existing core transportation network	1. Enhanced National Highway System (NHS) and rail lines 2. Roads with substantial bus or trolley service
Improve safety & reduce non-recurring congestion	1. High crash rate.
Maintain transportation preparedness for major events	1. Density of people – evacuation concerns 2. Most heavily-used bridges and transit stations 3. Nuclear power plants 4. Military bases
1. Prioritize transportation investment in less-sensitive environmental areas 2. Invest to support Centers first	1. Low Green Infrastructure Screening Tool score 2. Centers, Infill and Redevelopment areas, Emerging Growth areas



Recurring Congestion

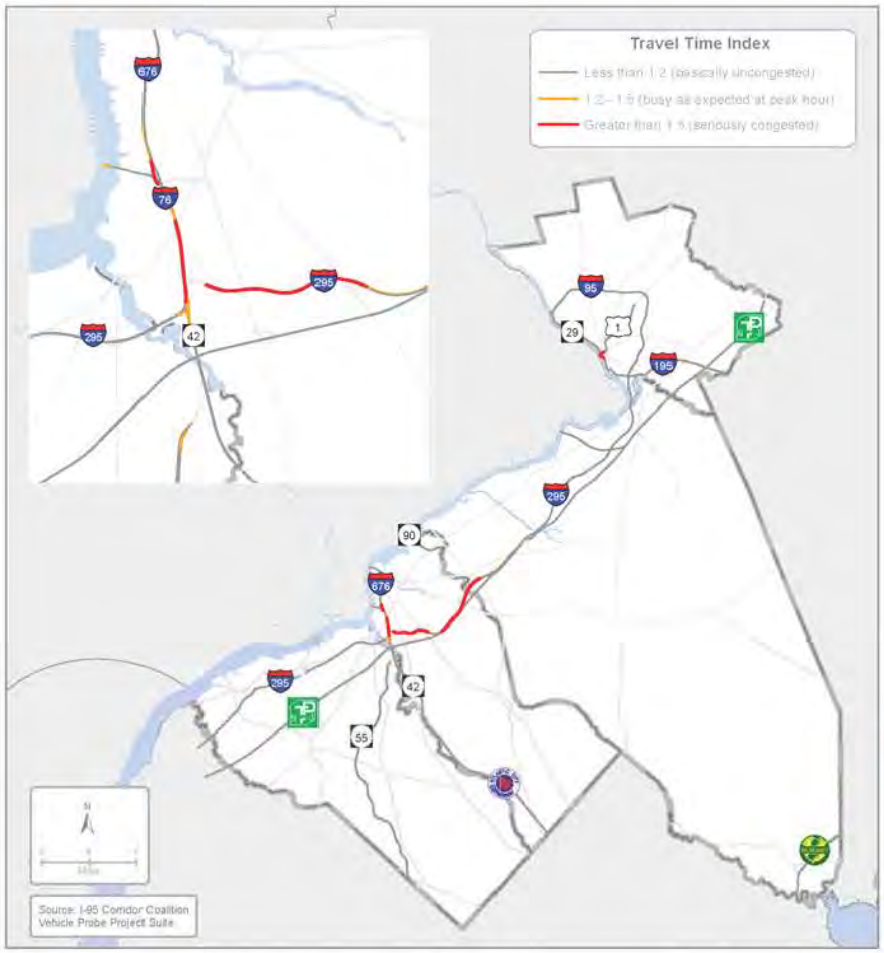
- Evaluated using archived operations data for all weekdays in a year
- Thresholds for Travel Time Index:
  - basically uncongested
  - busy as expected at peak hour
  - seriously congested
- More Pennsylvania coverage coming
- Arterial data confidence still being evaluated

CMP 2014: Travel Time Index (TTI) in New Jersey (5-6 PM, all weekdays in 2013)

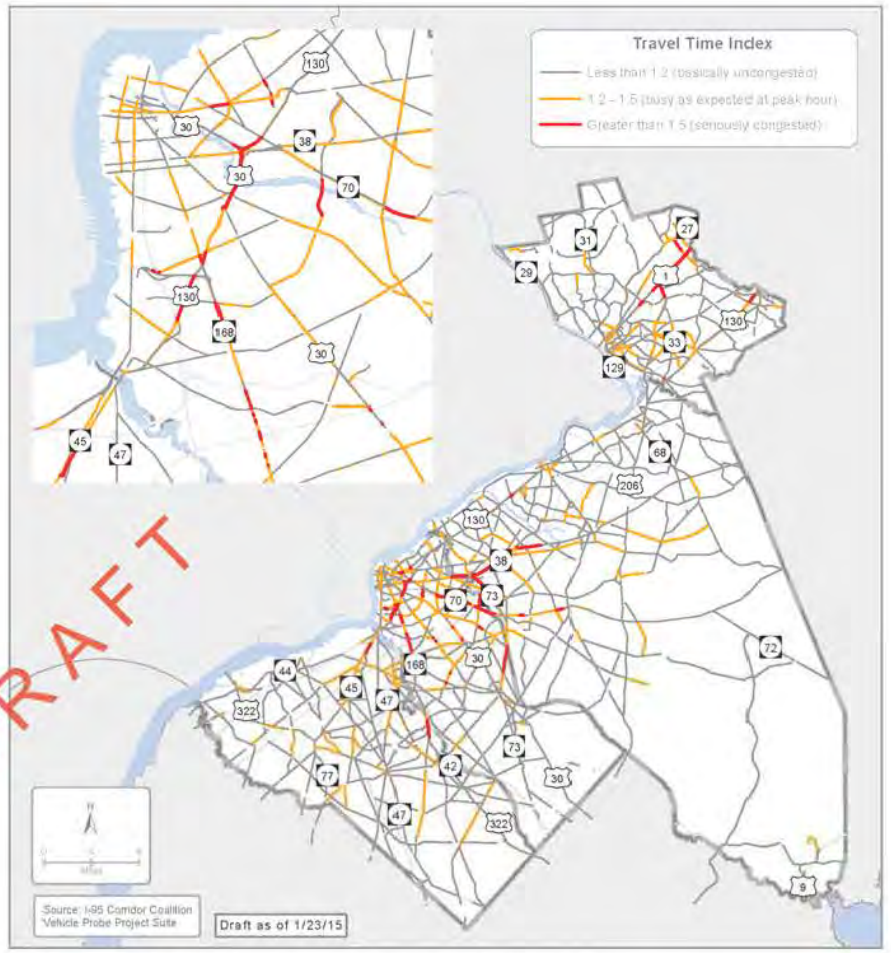
DRAFT

Goal: Reduce Congestion

TTI on Limited Access Roads



TTI on Arterial Roads



A TTI of 1.2 indicates that the travel time is, on average, 20% longer in the observed time period than under free-flow conditions. In other words, a TTI of 1.2 means that a 20-minute trip under free-flow conditions would take 24 minutes during the observed time period. It is normal and appropriate for TTI to increase somewhat at peak hours. Roads handle maximum throughput at approximately 70% - 85% of posted speed.

TTI = (Average Observed Travel Time) / (Free-Flow Travel Time*)

*Free-flow values in this equation were determined using the reference speeds received by the VPP from their data providers for each road segment. Reference speeds represent the 85th percentile observed speed for all time periods, with a maximum value of 85 mph.
For more information, see https://vpp.ritis.org/suite/faq/#/performance-measures.

Archived operations data on arterial roads poses challenges. Experts are exploring how to account for intersections, driveways, and other characteristics. Data quality decreases as volume decreases. DVRPC may focus on arterials with more than one lane per direction and/or AADT >= 15,000.

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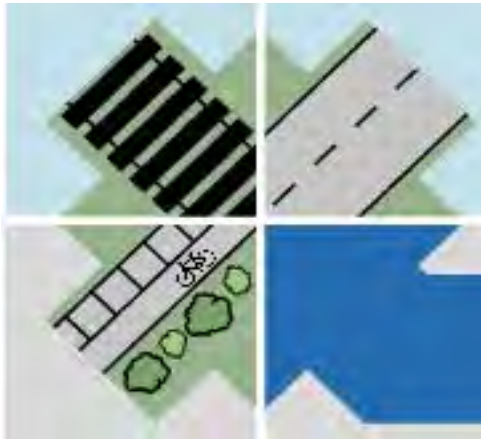


Reliability

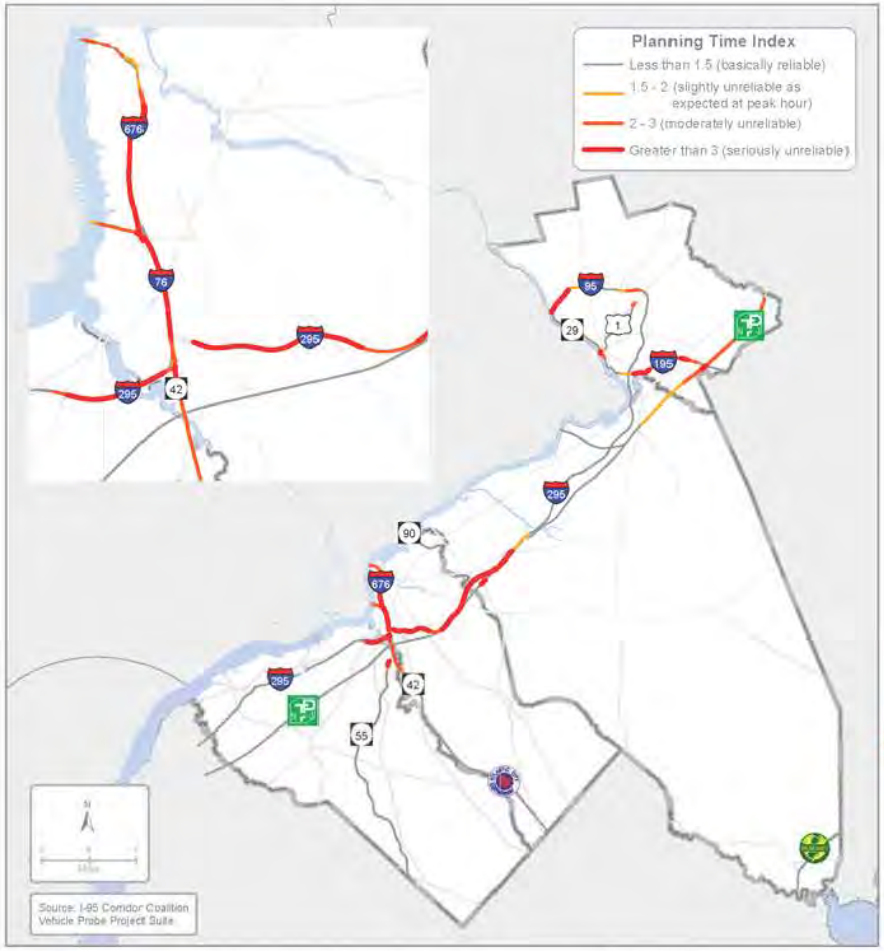
- Planning Time Index answers “How much time should I plan to arrive at my destination on time for 95% of my trips?”
- Incorporates everyday congestion plus impacts of crashes, weather, major events, etc.

CMP 2014: Planning Time Index (PTI) in New Jersey (5-6 PM, all weekdays in 2013)

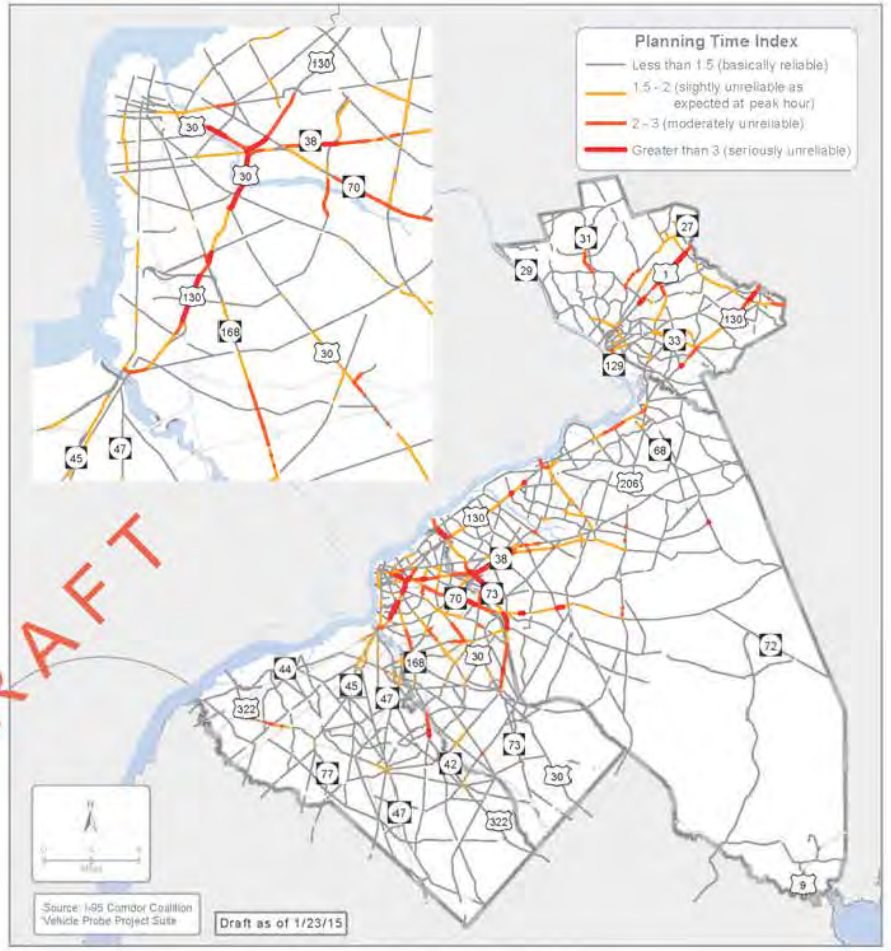
DRAFT

Goal:
Increase Accessibility & Mobility

PTI on Limited Access Roads



PTI on Arterial Roads



A PTI of 1.5 means that for a trip that takes 20 minutes under free-flow conditions, a traveler should budget a total of 30 minutes to ensure on-time arrival 95 percent of the time. It is normal and appropriate for PTI to increase somewhat at peak hours.

PTI = (95th Percentile Travel Time) / (Free-Flow Travel Time*)

*Free-flow values in this equation were determined using the reference speeds received by the VPP from their data providers for each road segment. Reference speeds represent the 85th percentile observed speed for all time periods, with a maximum value of 65 mph.
For more information, see https://vpp.ritis.org/suite/faq/#/performance-measures

Archived operations data on arterial roads poses challenges. Experts are exploring how to account for intersections, driveways, and other characteristics. Data quality decreases as volume decreases. DVRPC may focus on arterials with more than one lane per direction and/or AADT >= 15,000

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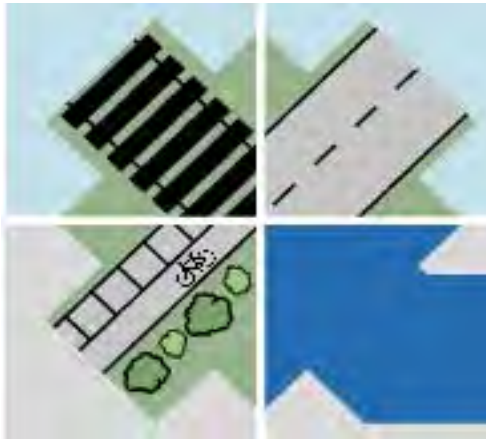
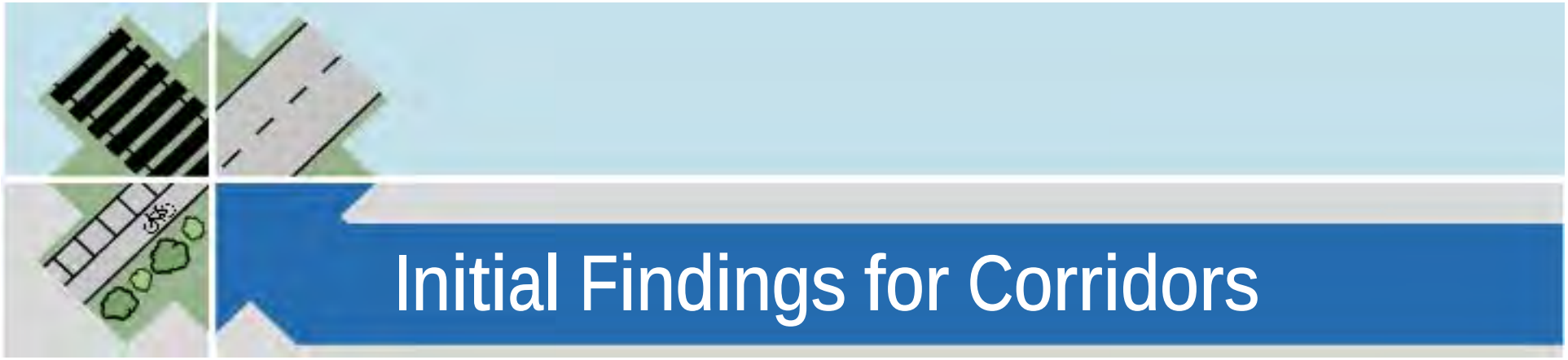


Uses of Analysis

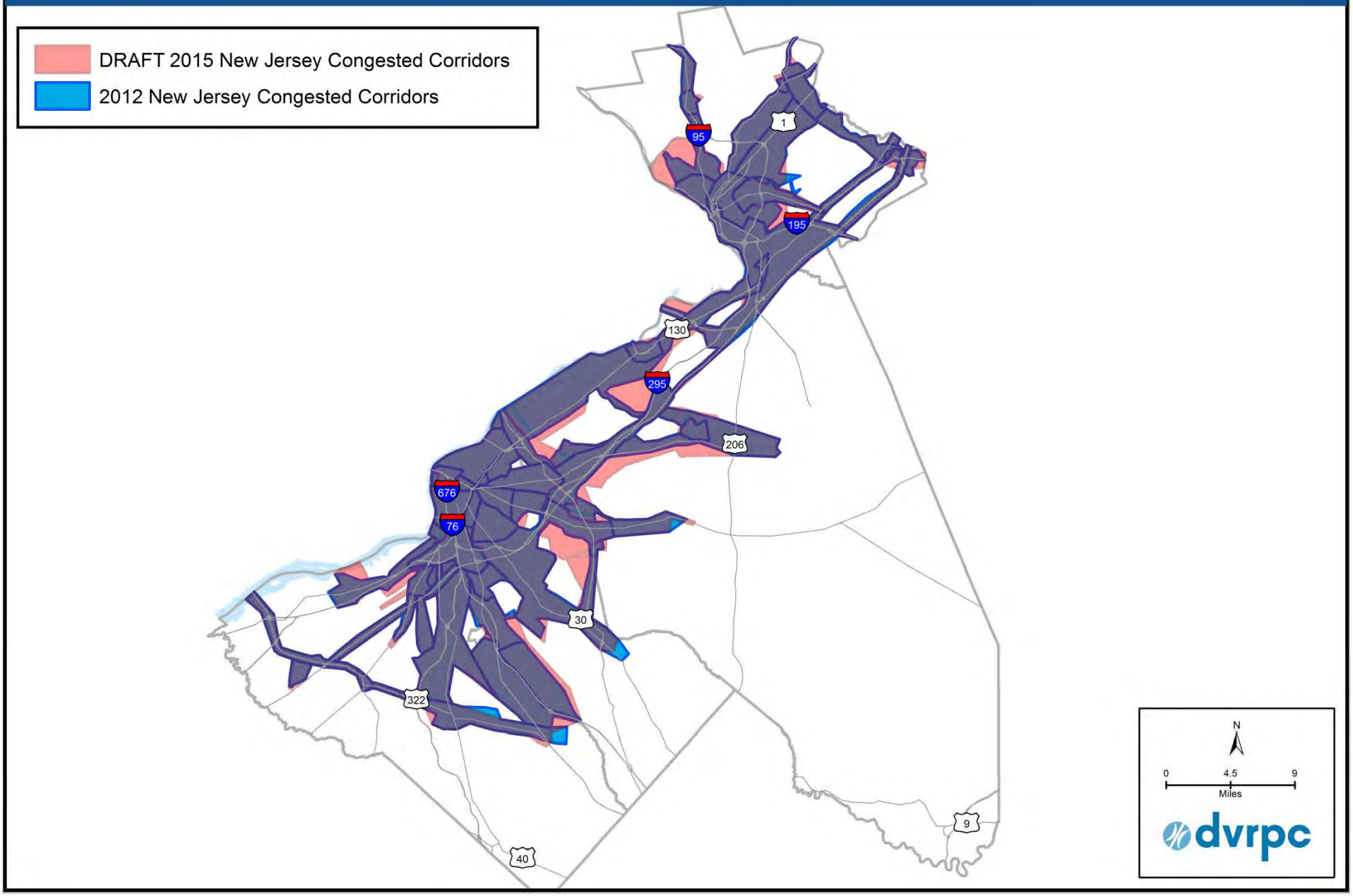
- Refine congested corridors
- Refresh divisions into subcorridors
- Update unique set of strategies by subcorridor
- Prepare brief descriptions of subcorridors
- Provide information for use by partners



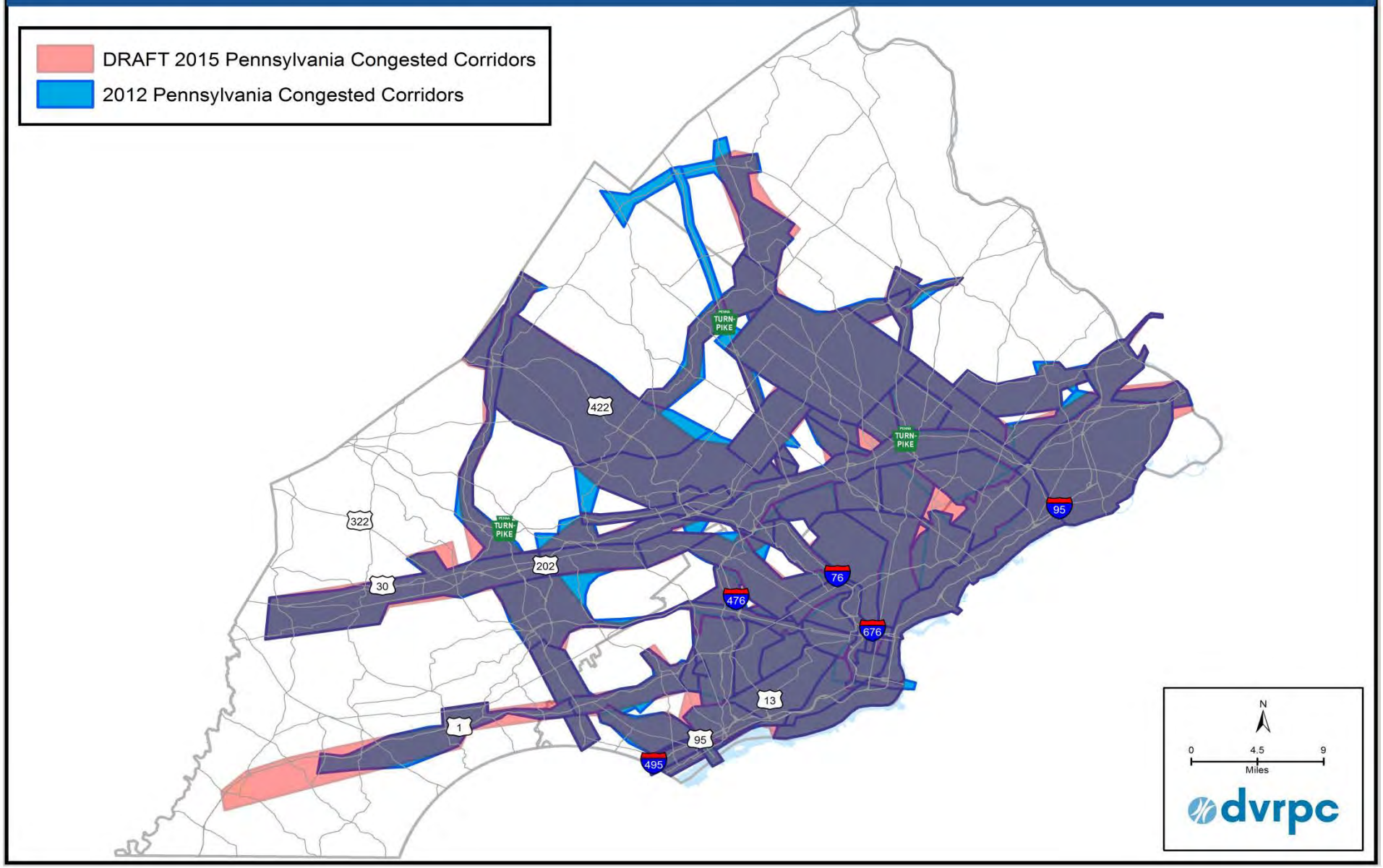
Initial Findings for Corridors

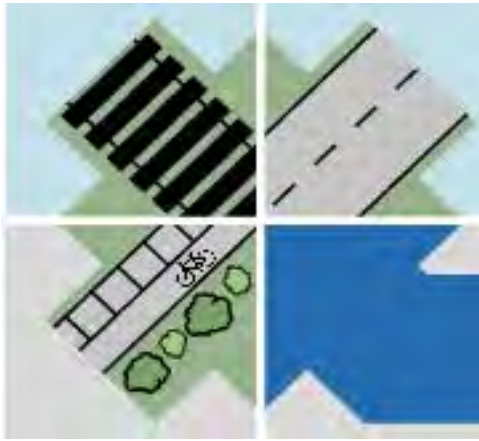
- Analysis suggests minimal changes
- Next maps show draft 2015 corridors on top of 2012 corridors

Preliminary DRAFT 2015 New Jersey CMP Corridors



Preliminary DRAFT 2015 Pennsylvania CMP Corridors





Next Steps

- CMP Advisory Committee meetings
- Present results to RTC and then to Board for adoption
  - How much detail do you want?
  - Would you help keep your Board member informed or let us know what to provide?

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

CONGESTION MANAGEMENT PROCESS

For more information, see
www.dvrpc.org/CongestionManagement or contact us

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MOBILITY ALTERNATIVES PROGRAM

FY 2016 MOBILITY ALTERNATIVES PROGRAM

Presented To:
The DVRPC RTC
March 10, 2015

PENNDOT

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

FY 2016 Grant Request

MAP is a marketing, education and outreach program to promote TDM to employers and commuters in southeastern Pennsylvania

Program Inception in 1995

Contractors use Common Marketing Materials

Share-A-Ride Matching

Air Quality Partnership Outreach

Emergency Ride Home Program

FY 2016 Grant Request

Contractors Include

- Bucks County TMA
- TMA of Chester County
- Delaware County TMA
- Greater Valley Forge TMA
- Partnership TMA
- Clean Air Council
- SEPTA
- DVRPC

FY 2016 Grant Request

Work Program Elements for TMAs and Clean Air Council are focused on reducing SOVs to workplaces.

SEPTA provides marketing support to TMAs and also works directly with regional employers

DVRPC creates and supplies marketing materials, provides SAR and ERH technical support, and administers the program

FY 2016 Grant Request

Selected Targeted Areas

- Bucks County TMA: US 1 Corridor
- TMA of Chester County: 4 Major Employers
- Delaware County TMA: Lawrence Park/Rt 320
- Greater Valley Forge TMA: King of Prussia
- Partnership TMA: Lansdale Borough
- Clean Air Council: Airport and Navy Yard

FY 2016 Grant Request

- PennDOT requests DVRPC's programmatic oversight while retaining contractual oversight.

- New in FY 15 Electronic Reporting
  - All Contractors will report the same data
  - TMA and MAP data reported at the same time
  - DVRPC staff will aggregate all data and forward to PennDOT's consultant to determine AQ benefit.

FY 2016 Grant Request

Total Available Funding: $816,000 CMAQ

- Each TMA may apply for up to $67,450 (x5= $337,250)
- Clean Air Council as City of Philadelphia Legacy is eligible to apply for $77,750
- SEPTA : $150,000
- DVRPC: $251,000

<u>20% contractor match required</u>

FY 2016 Grant Request

Action Requested

That the RTC recommend that the DVRPC Board approve the FY16 Mobility Alternatives Program for a program total of $816,000 ($652,800 CMAQ/$163,200 contractor match) and forward this approval to PennDOT.

New Jersey Transportation Alternative and Safe Routes to School Projects

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

March 2015

2014 TRANSPORTATION ALTERNATIVES PROGRAM

Counties	Project Name	Awarded Amount
Burlington County	Delaware River Heritage Trail, Route 130 Bypass, Fieldsboro to Florence connector trail	$750,000.00
Camden County	Benjamin Franklin Bridge South Walkway Bicycle and Pedestrian Ramp Project	$800,000.00
Camden County	Pennsauken-Merchantville Multi-Use Trail	$755,000.00
Gloucester County	Multi-Modal Transportation Improvements to Mantua Avenue, from Monroe Avenue to Marion Avenue	$900,000.00
Mercer County	Peddie Lake Dam Pedestrian Bridge	$331,000.00
		$3,536,000.00

2014 SAFE ROUTES TO SCHOOL PROGRAM

Counties	Project Name	Awarded Amount
Burlington County	Pedestrian Infrastructure Upgrades (Access & Safety). Campus - Schools 1,2,3	$92,000
Camden County	Morgan Village Safe Routes to School Project	$317,200
Camden County	Collingswood Safe Routes to School and Traffic Calming	$241,000
Mercer County	Pedestrian Upgrades to Two Harrison Street Traffic Signals	$300,000
Mercer County	Improvements to Stockton Street and Joseph Street	$275,000
		$1,225,200

Board Approved Action

The Board approved the list of Transportation Alternative projects and the list of Safe Routes to School projects identified for our allocation of funds for both programs. These projects are to be amended into the FY 2014 TIP for NJ (TIP Action NJ14-76) in the amount of $3,536,000 for TAP and $1,225,200 for SRTS and be drawn from their respective Statewide line items (DB# X107 for TAP) and (DB# 99358 for SRTS) at the appropriate time for obligation.

dvrpc

REGIONAL TRANSIT PLANNING PROGRAM

FY2015 update & FY2016 preview

G. Krykewycz, PP, AICP
B. R. Mastaglio, RLA

RTC/RTAC

March 10, 2015

FY2015 Transit Planning Summary

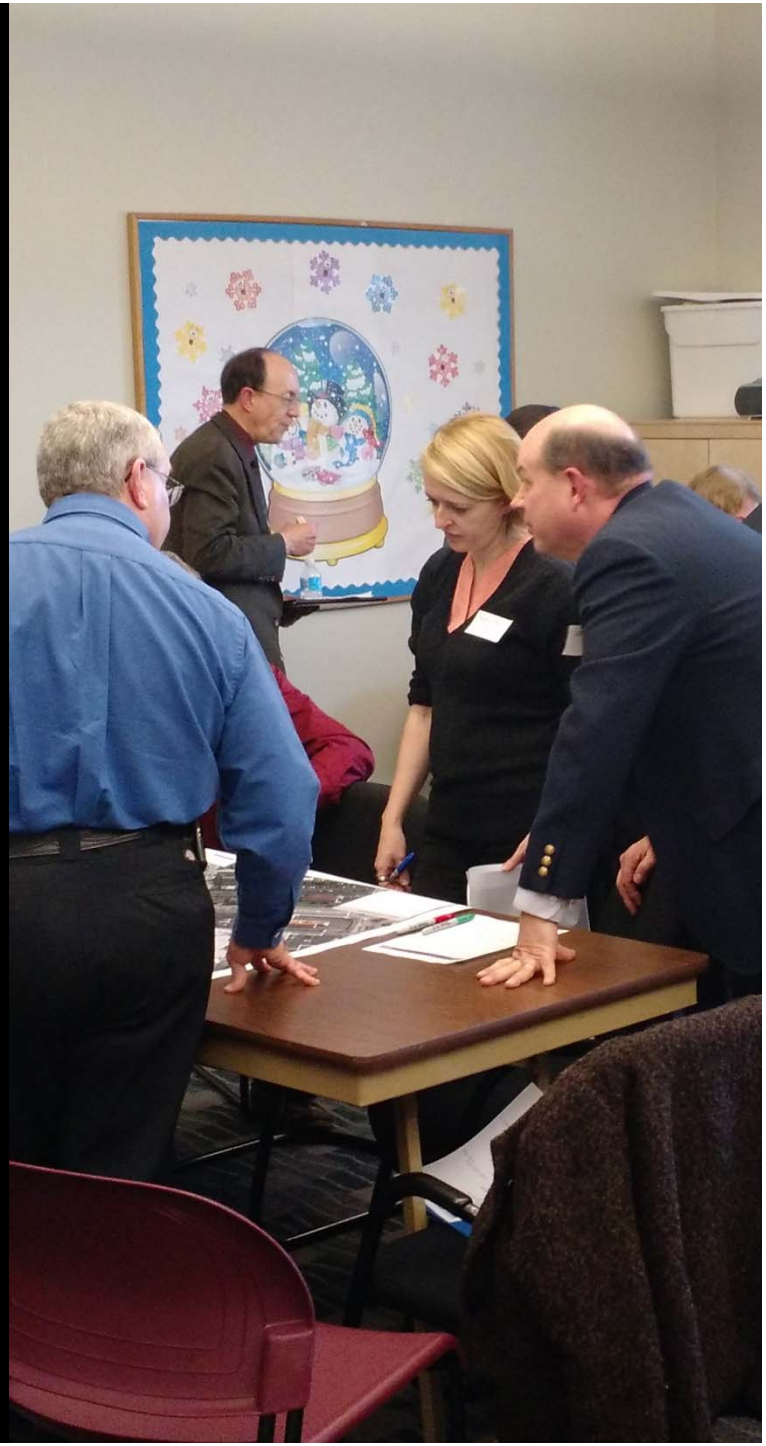
- Total DVRPC (in-house) transit planning budget of $1,100,000 for FY2015
  - $700,000 RTPP
  - $75,000 BPPP
  - $145,000 NJTSP
  - $180,000 PATSP and Southeastern PA TP&TA
- Funds a total of 12 DVRPC transit planning projects across multiple staff units
  - 5 projects funded through the RTPP
  - 1 project funded through the BPPP
  - 6 projects funded through NJTSP, PATSP, S.E. PA TP&TA

Better Bus Planning for W. Chester Pike

Development of a locally-preferred service concept for enhanced SEPTA bus service.

Project outline:

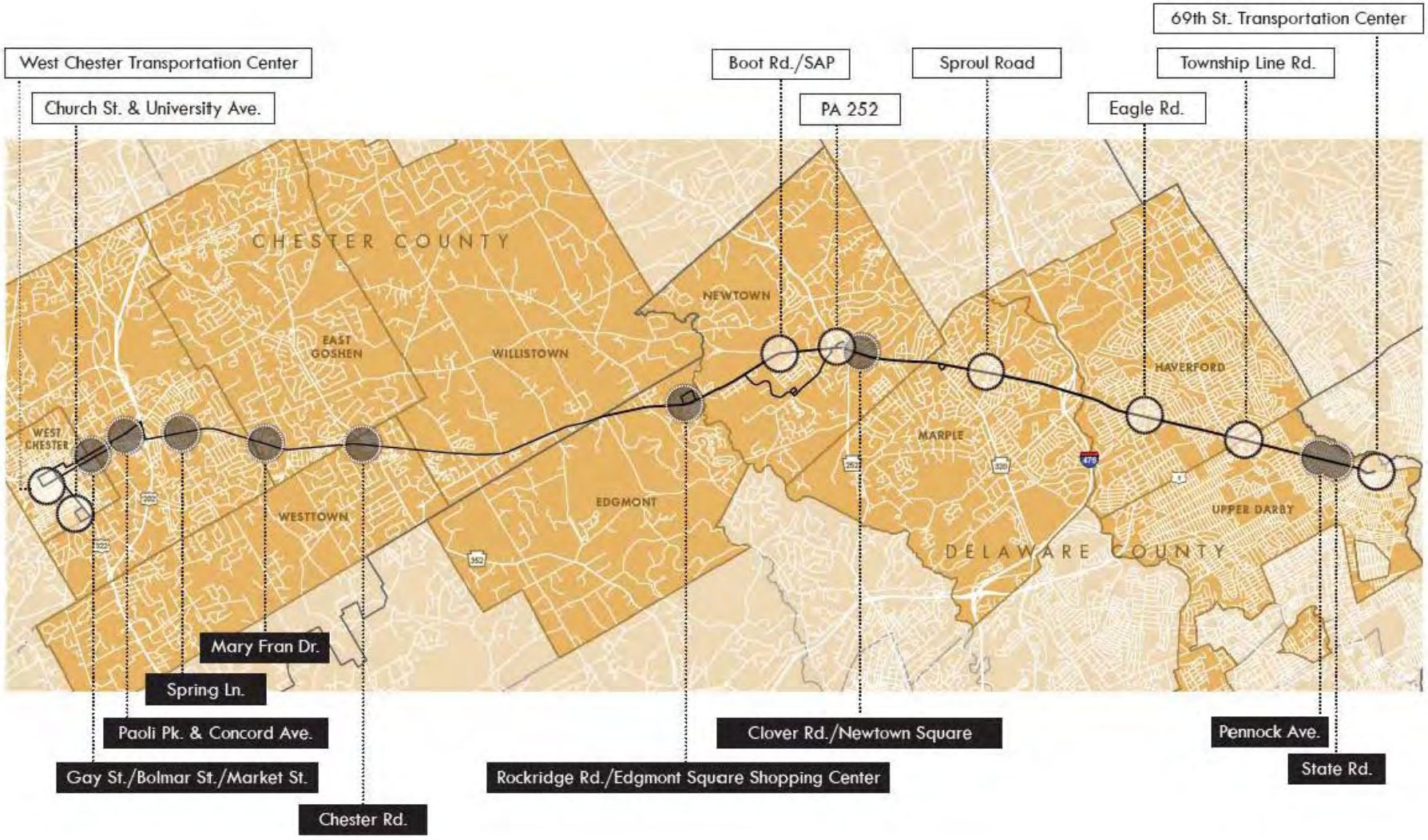
1. Inventoried existing conditions: prior studies, current bus service, pending developments
2. Stakeholder workshop (February 4th)
3. Concept development and cost estimates (ongoing)
4. Next steps: evaluate and screen limited stop options with SEPTA staff



COMBINED WORKSHOP RESULTS
STOP PRIORITIZATION

Essential Stops *(Upper Labels)*

High Priority Stops *(Lower Labels)*



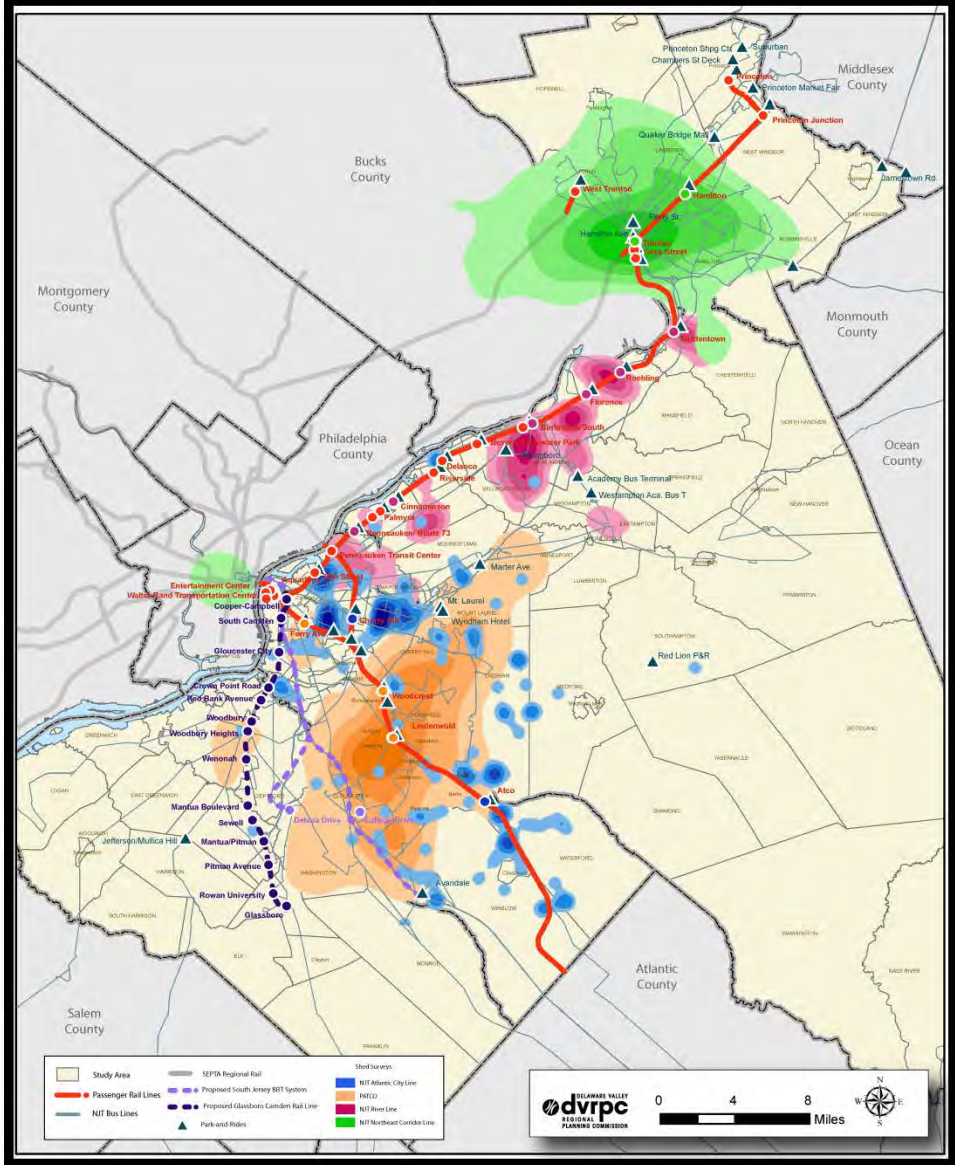
Needs & Opportunities for New South Jersey PNR Capacity

Screening analysis to identify opportunities for new PNR capacity in NJT's service area based on current and future demand.

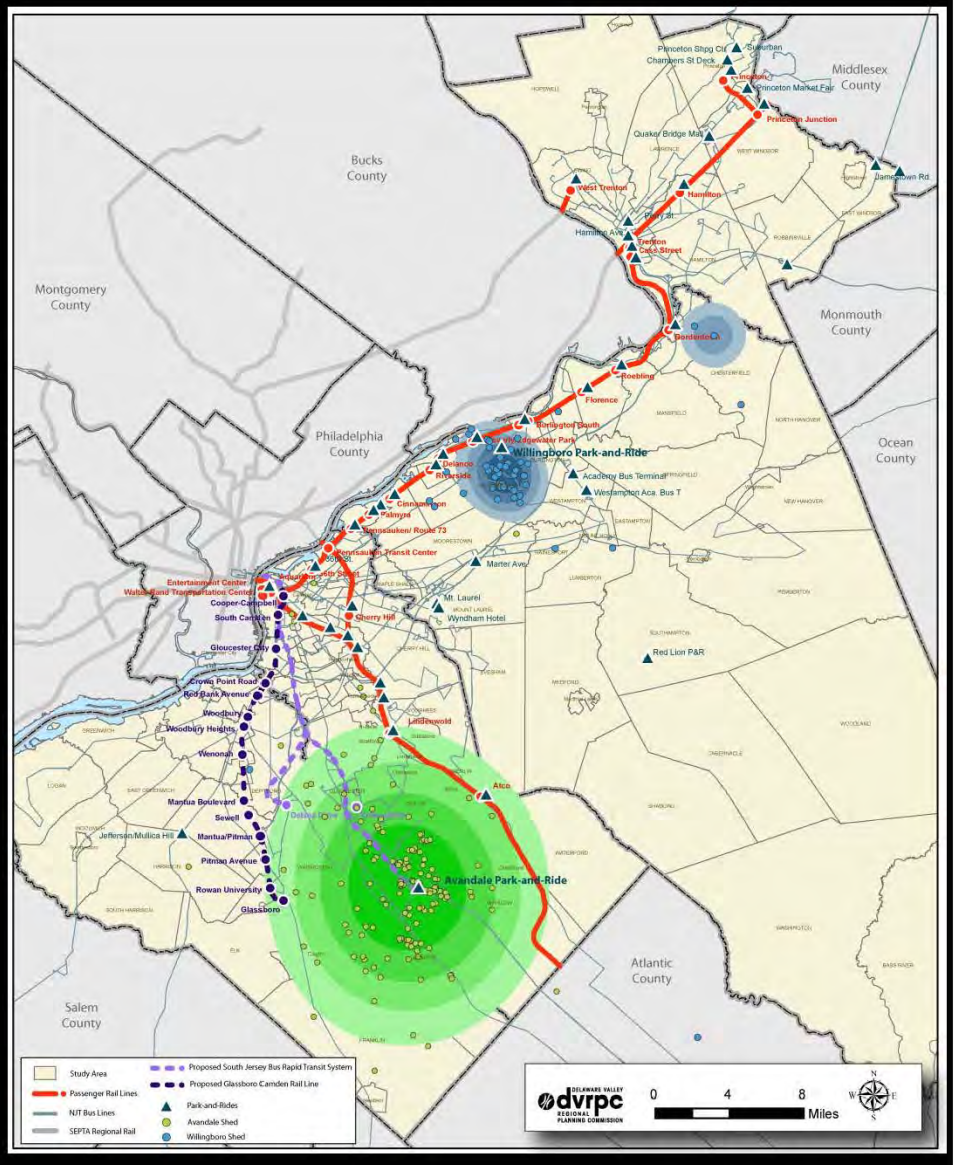
Project outline:

1. Presented existing conditions to steering committee *(October 2014)*
2. Created a GIS tool that will pull from existing datasets to reveal the highest potential parcels for PNR in S. Jersey
3. Discussed tool development with steering committee *(March 9, 2015)*
4. Next steps: Choose sites for aerial and site specific evaluation

South Jersey Passenger Rail Park-and-Ride Shed inventory



Avandale and Willingboro NJ Transit Bus Park-and-Ride Shed inventory

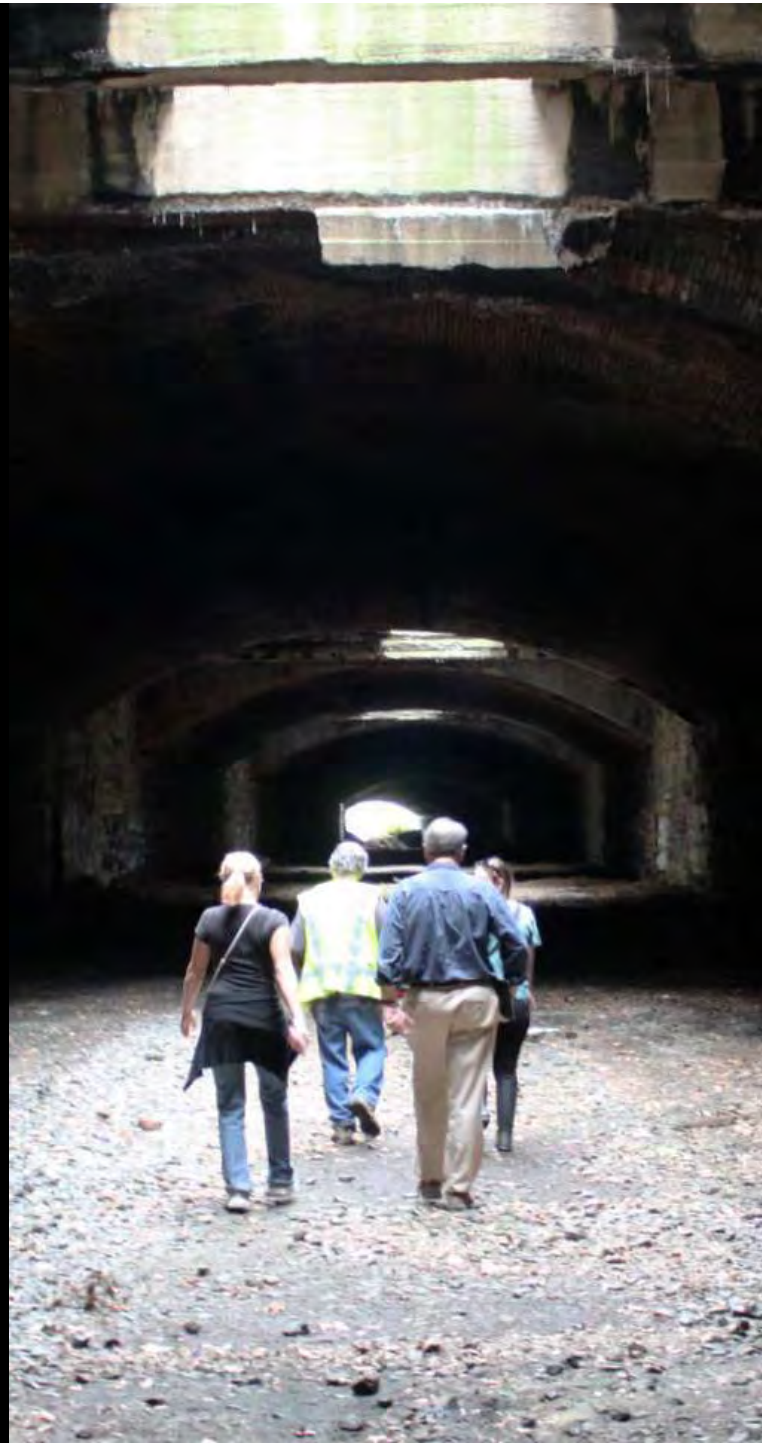


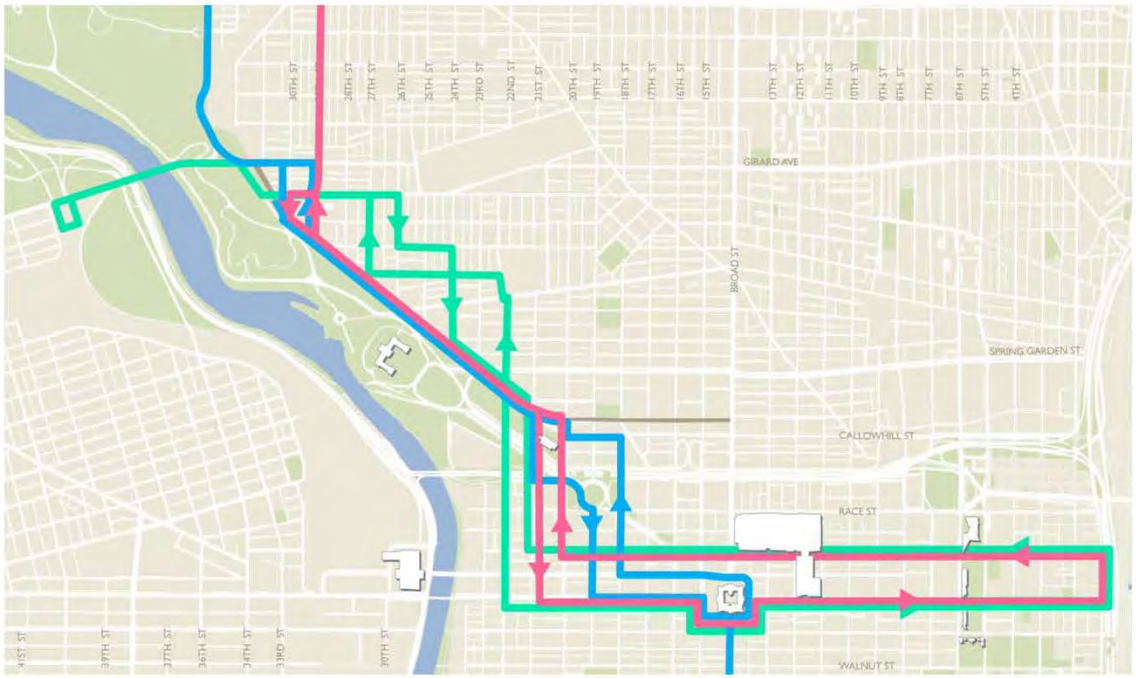
City Branch Transit Feasibility

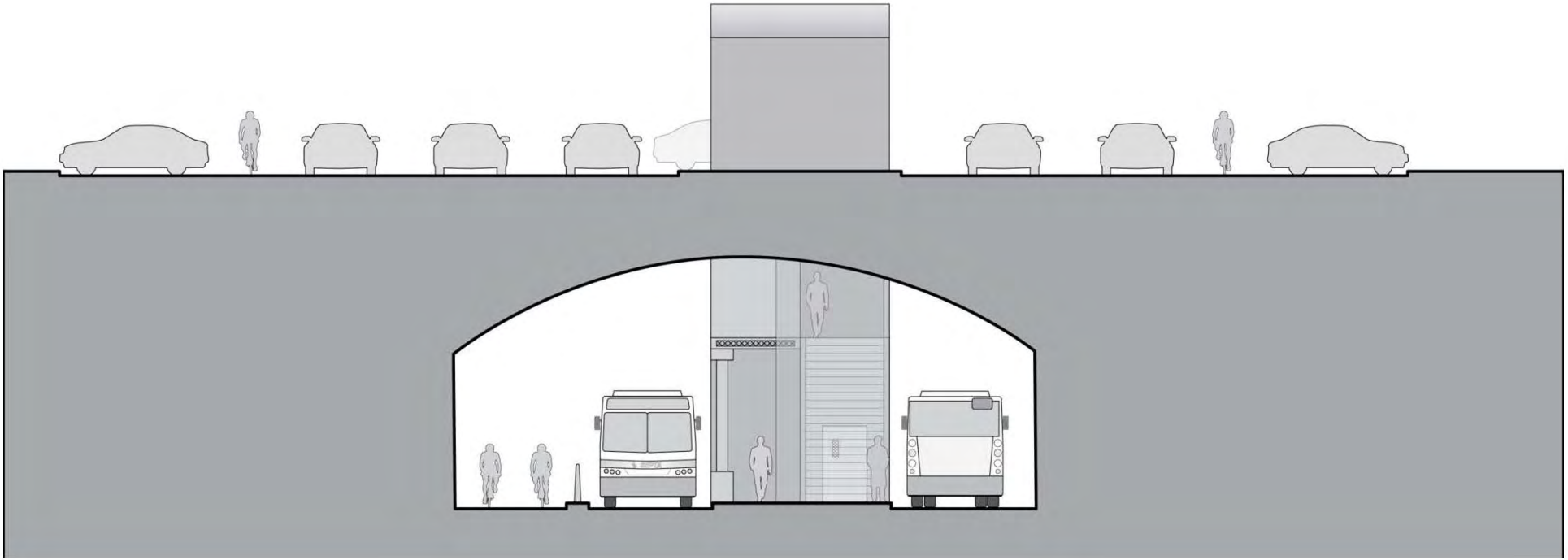
Evaluate transit usefulness of below-grade SEPTA-owned ROW west of Broad Street.

Project outline:

1. Inventoried existing conditions: prior studies, current bus service, pending development
2. Series of stakeholder interviews to explore opportunities
3. Evaluated re-routing and/or additional limited stop routes that could make use of CB with SEPTA staff
4. Preparing Draft Report (Anticipated Spring 2015)




GIRARD AVE
BROAD ST
SPRING GARDEN ST
CALLOWHILL ST
RACE ST
WALNUT ST



Modern Trolley Stop Design Guidelines & Operations Analysis

Assist SEPTA, City of Philadelphia, and DelCo in evaluating operations scenarios and thinking through new cross sections for modern, accessible trolleys.

Project outline:

1. Developed estimates of running time that could be saved through full modernization (low-friction fare payment; low-floor multidoor boarding)

2. Developing estimates of wheelchair boarding rates to be accounted for in operations analysis (service enhancements will save time; wheelchair boardings will take some)

Modern Trolley Stop Design Guidelines & Operations Analysis

Assist SEPTA, City of Philadelphia, and DelCo in evaluating operations scenarios and thinking through new cross sections for modern, accessible trolleys.

Project outline (continued):

4. Prepared Potential Transit Curb Extension Cost Estimate
5. Conducted a Peer Analysis of new and legacy trolley (streetcar) systems
6. Mapped City Trolley System's Streetscape Context
7. Preparing for Stakeholder Workshops for the design project

Modern Trolley Stop Design Guidelines

STREET ALIGNMENT EXISTING CONDITIONS

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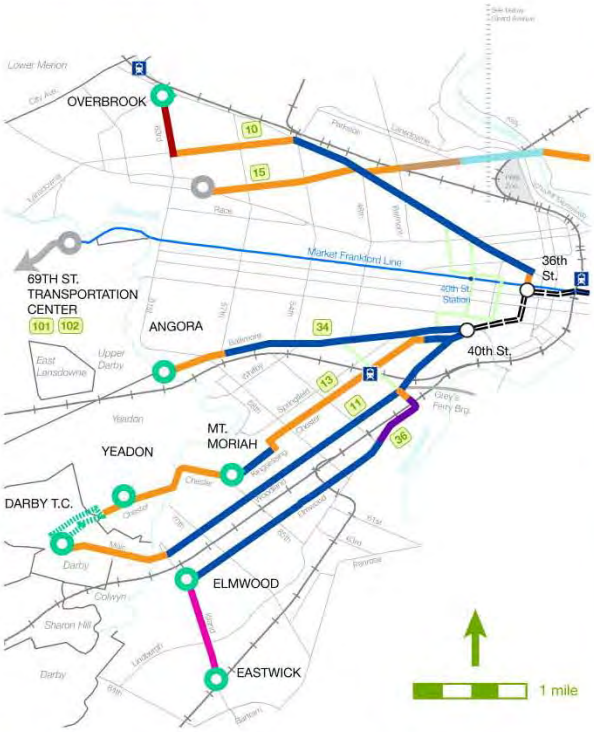
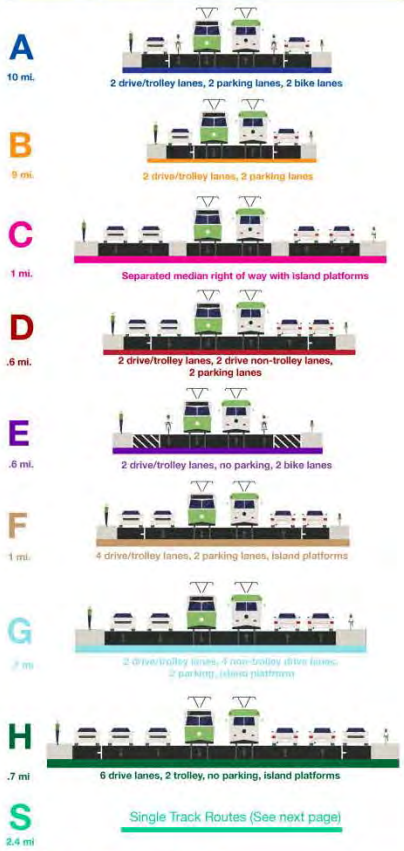
West Philadelphia



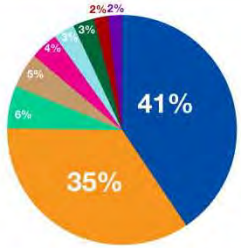
Girard Avenue east of Schuylkill River River

- Trolley route
- Non-revenue/diversion route
- Trolley tunnel to City Hall loop
- Single track
- Route terminus
- Tunnel portal
- Regional rail lines
- Regional rail station
- Municipal boundaries

Surface Route Street Types Excluding Termini



Surface Route Totals*



*This calculation does not include 101 and 102, trolley tunnel, or non-revenue diversion routes. Trolley termini loops are also not included in the percentage calculation except Darby Transportation Center.

Status of Other FY2015 Work

- Bike-Bus Access Improvements for Mercer County
  - Collaboration with Greater Mercer TMA to evaluate bike-to-bus tripmaking and potential along select corridors. Windshield survey(s) pending this spring.

- Trail Access to Wawa Station
  - Concept/feasibility study for connecting the new Wawa Station with the Chester Creek and/or Octorara trails.
  - Conducted stakeholder interviews and gathered field data; developing a draft concept plan that considers physical feasibility, ownership/legal feasibility, safety, and opportunities for shared use.

- Ridership Study of a Bethlehem Branch Regional Rail Extension
  - Preparing forecasts for Bethlehem Branch alternatives. Proposed stations at Lansdale, Hatfield, Souderton, Telford, Pennridge Park & Ride, Sellersville, Perkasie. Bucks TMA developing Quakertown-Pennridge feeder shuttle.

Status of Other FY2015 Work

- South Jersey Transit Signal Priority (TSP) Study
  - Conducting TSP Favorability Score analysis (with new data) for Burlington, Camden, and Gloucester Counties.

- Alternatives Development for Roosevelt Boulevard Transit Enhancements
  - Focused on short-term strategies (Better Bus/enhanced bus) with some concept development of a later-phase busway. Draft-final report complete, with costs and ridership forecasts.

- License Plate Surveys for 3 Regional Rail Stations
  - Completed processing for several SEPTA-collected plate surveys. Will conduct 3 additional plate surveys this spring.

Summary of FY2016 Project Allocations To Date

Regional Transit Planning Program (16-41-040)

• Modern Trolley Stop Design Guidelines: Routes 101/102 focus	SEPTA, Delaware County
• Radnor Station Connectivity Study	Delaware County, SEPTA, Montgomery & Chester counties
• Darby TOD/TRID Study Support	Delaware County, SEPTA
• Regional CHSTP Plan Update	DVRPC Region

Southeastern PA Transit Planning & Technical Assistance Program (16-63-008)

• Ridership Study for Thorndale-Atglen Regional Rail Extension	Chester County, SEPTA

Note: Projects are listed here under one program or funding source, but many are funded with multiple- See FY2016 UPWP for details.

Summary of FY2016 Project Allocations To Date

PA and NJ Transit Support Programs

• Light Rail on Delaware Avenue: A Renewed Look	SEPTA, City of Philadelphia
• Concept Development for Southern Chester County—New Castle County transit service	Chester County
• NJ Transit Bus Surveys and PATCO Title VI Passenger Surveys	NJ Transit, PATCO, New Jersey Counties

PennDOT Supplemental Land Use Planning Funds (Proposed)

• Ivy Ridge Intermodal Study	City of Philadelphia, SEPTA
• Zoo Regional Rail Station Analysis & Forecasts	SEPTA, Philadelphia Zoo, City of Philadelphia
• Darby TOD/TRID Study (Primary study funding)	Delaware County, SEPTA

Note: Projects are listed here under one program or funding source, but many are funded with multiple- See FY2016 UPWP for details.

FY2016 RTAC Capacity Update

- More Fall Work Program transit project commitments than last year (10 versus 6)
- The upside: we are glad to see so much interest in transit studies (thank you, Act 89!), and that RTAC members had such an active project pipeline this year
- The downside: we do not have remaining capacity for the usual spring call for projects
- Instead:
  - Summer RTC/RTAC project/program update
  - Project sponsors will be given a chance to update their thinking on program tasks before work gets underway, in case priorities have changed

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REGIONAL TRANSIT PLANNING PROGRAM

FY2015 update & FY2016 preview

G. Krykewycz, PP, AICP
B. R. Mastaglio, RLA

RTC/RTAC

March 10, 2015

March 2015

★TIP A-C-T-I-O-N-S

Transportation Improvement Program

New Jersey (FY2014-2017)
Pennsylvania (FY2015-2018)

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REGIONAL PLANNING COMMISSION
1965-2015

Add Propose New Project - PA

a. Municipal Bridge Retro-Reimbursement Program, Various Counties

- Approve Forsythia Crossing Bridge in Middletown Township, Bucks County and the recommended funding as part of the DVRPC Municipal Bridge Retro-Reimbursement Program and modify the TIP for PA by adding the project to the TIP for retro-reimbursement; (Funds will be drawn down for reimbursement at the appropriate time) and increasing the Later Fiscal Years funding in FY21 by $404,431 State 183/$78,827 Local.

- Originally eliminated from December 2014 Proposed Candidates
  - *Deemed ineligible due to an error in application*
- Upon correction the bridge is deemed eligible

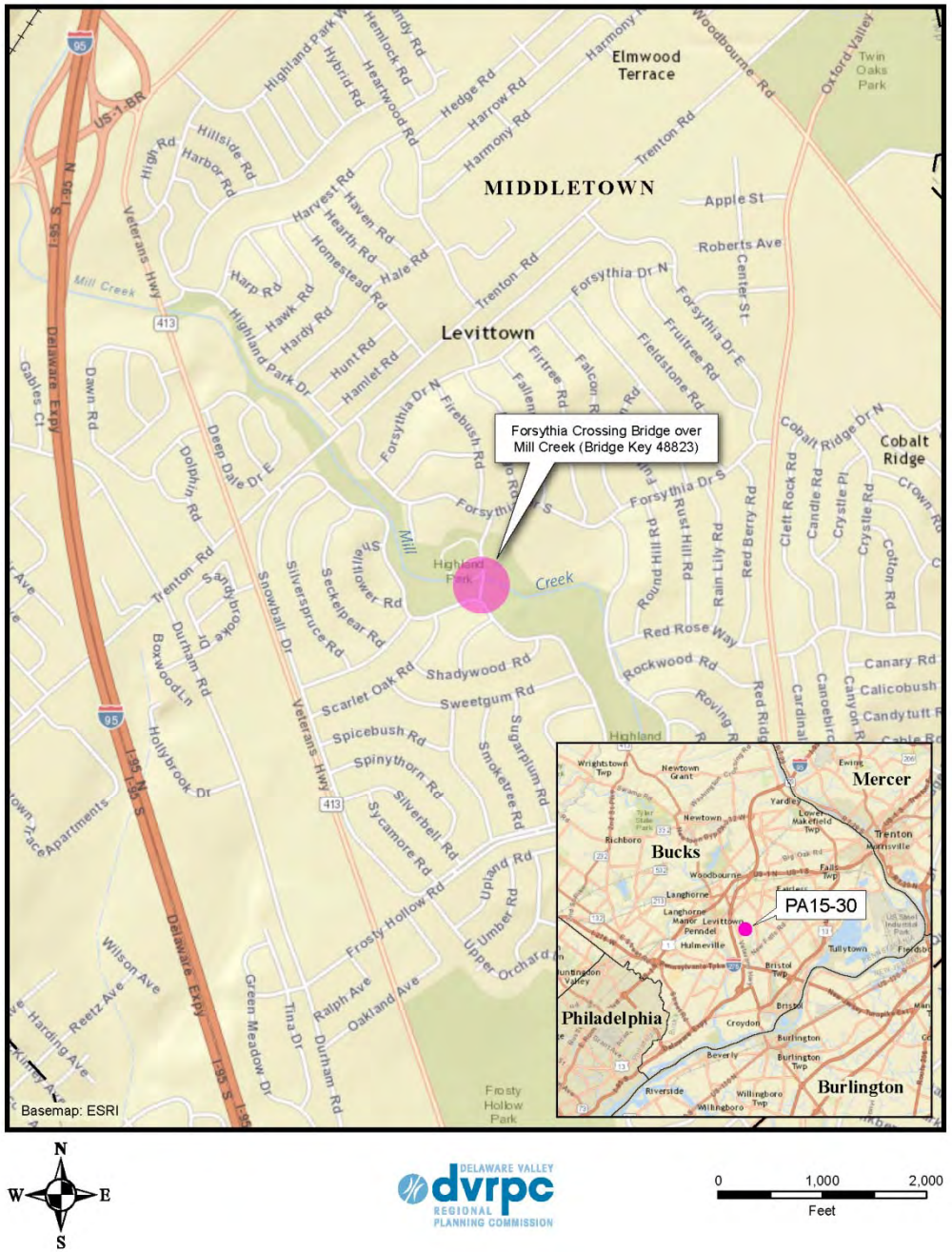
Funds will not be reimbursed until:

- Project is 100% completed,
- Funds available in Line Item
- All invoices have been submitted to appropriate agency
- Appendix B (Additional Project Information) has been submitted to DVRPC

Differs from traditional design-construction process

- Follow state liquid-fuel procedure instead of federal procedures and PennDOT project development and review process.
- PennDOT will still perform structural adequacy review of structure

PA15-30: Municipal Bridge Retro-Reimbursement Program



TIP A-C-T-I-O-N | PROPOSED-PA

a. Municipal Bridge Retro-Reimbursement Program, Various Counties

- Approve Forsythia Crossing Bridge in Middletown Township, Bucks County and the recommended funding as part of the DVRPC Municipal Bridge Retro-Reimbursement Program and modify the TIP for PA by adding the bridge project to the TIP for retro-reimbursement; (Funds will be drawn down for reimbursement at the appropriate time) and increasing the Later Fiscal Years funding in FY21 by $404,431 State 183/$78,827 Local.

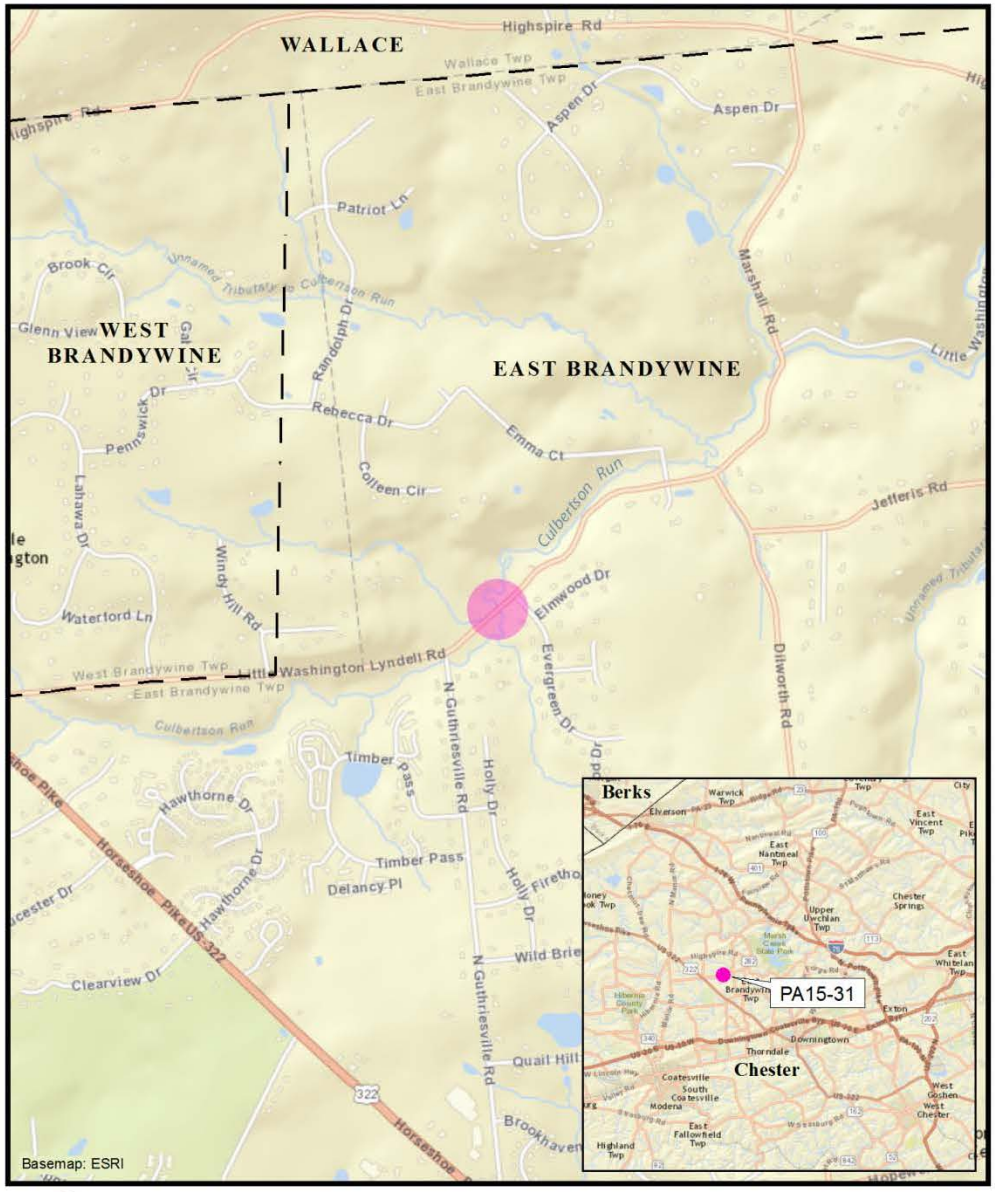
Federalize Project - PA

b. Little Washington Road Bridge over Culbertson Run, Chester County

- Modify the TIP for PA by federalizing (add federal funds) the project, by replacing $2,040,000 State 581 funds with federal STU funds for the construction phase in FY16.

- FHWA is lead agency for environmental review.

PA15-31: Little Washington Road Bridge over Culbertson Run
Federalize Project



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DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

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TIP A-C-T-I-O-N | PROPOSED-PA

b. Little Washington Road Bridge over Culbertson Run, Chester County

- Modify the TIP for PA by federalizing (add federal funds) the project, by replacing $2,040,000 State 581 funds with federal STU funds for the construction phase in FY16.

Cost Increase - PA

c. Regional Rail Signal Modernization Program, SEPTA

- Amend the TIP for PA by increasing the FY15 CAP phase by $9,783,000 ($1,086,000 Section 5337/$2,526,000 Section 5309-S/$3,232,000 Section 5307-S/$2,844,000 State 1514/$95,000 Local), for two different projects: the Cynwyd Line Signals, Special Work, and Right of Way project and the Positive Train Control project (PTC).

- Cynwyd Line Signals, Special Work, and Right of Way
  - *$8.425 million increase*
  - *Increase due to refined cost estimates that were developed as project advanced*
  - *Provide new access route on existing railroad ROW*
  - *Joint effort by SEPTA and Amtrak to construct new access route*

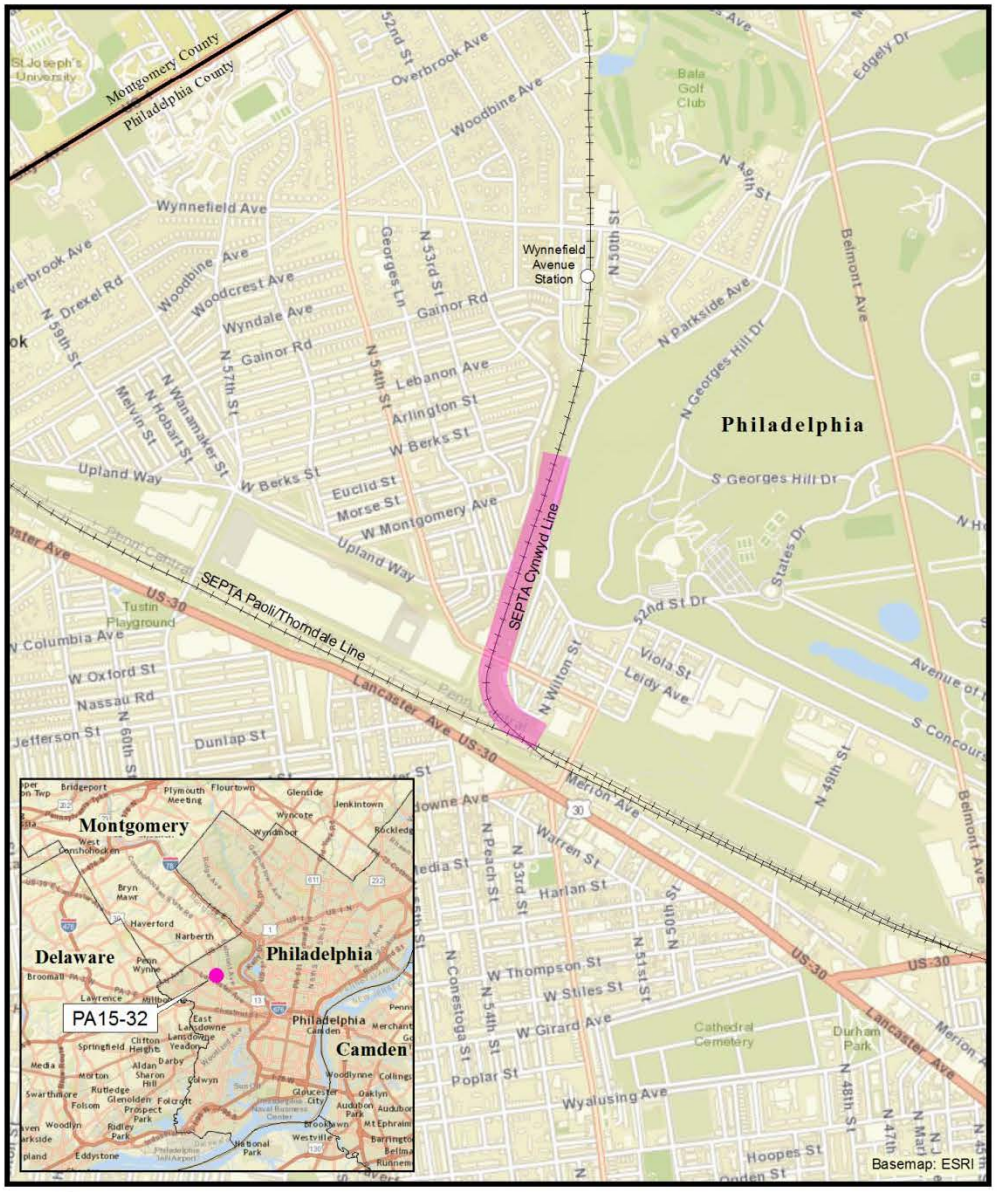
- Positive Train Control Project
  - *$1.358 million increase*
  - *Increase reflects budget revision.*

Cost Increase- PA

c. Regional Rail Signal Modernization Program, SEPTA (con't.)

- PennDOT's BPT Will Program Funds in Harrisburg TIP
  - *The program benefits Keystone Corridor Line, thus making it eligible for Keystone Corridor funds*
  - *Funding associated with a UZA is non-transferable to another UZA*
  - *$1,279,000 in Harrisburg TIP*

PA15-32: Regional Rail Signal Modernization Program, Cynwyd Access Project



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Funding Decrease - PA

d. Exton Station, SEPTA

- Amend the TIP for PA by decreasing funding for Phase I of the Exton Station Project in the DVRPC regional TIP, in the amount of $11,071,000 (FY15: $2,311,000 State 1514/$78,000 Local, FY16 $4,036,000 State 1514/$113,000 Local, FY17: $4,367,000 State 1514/$146,000 Local). Funding for the project will still be reflected in the STIP and other regional TIPs, and the project will advance to construction in FY15.

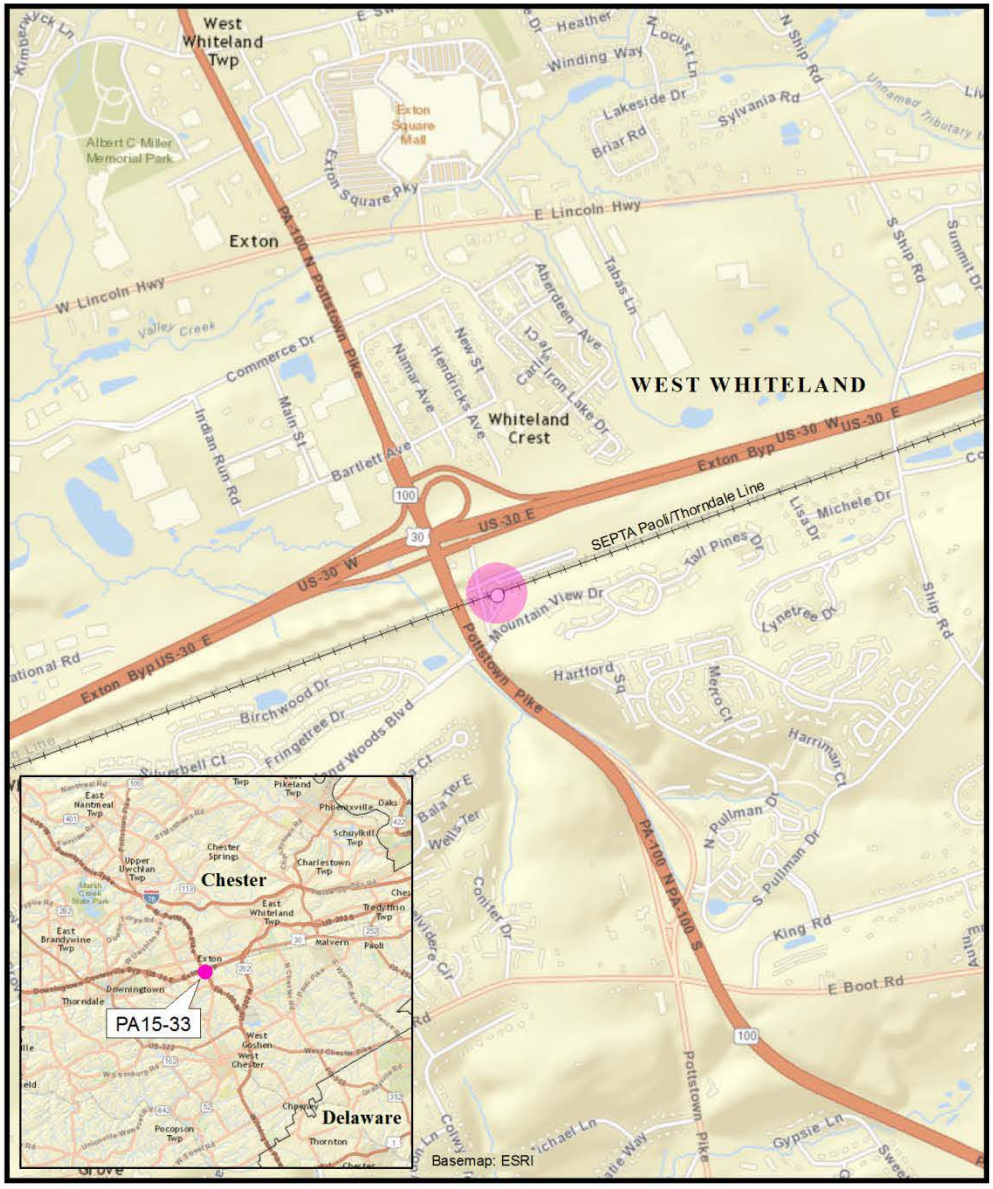
- Reduce regional funds and reprogram amount in Harrisburg and Lancaster TIPs. Some funds are already in grant – total $17.7 million
  - *The program benefits Keystone Corridor Line, thus making it eligible for Keystone Corridor funds*
  - *Funding associated with a UZA is non-transferable to another UZA*
  - *$2.5 million in Harrisburg TIP*
  - *$8 million in Lancaster TIP*
  - *$1.42 million already in a grant*

Funding Decrease - PA

d. Exton Station, SEPTA (con't)

- Phase I
  - *Construction of high-level platforms with canopies and wind screens*
  - *Station building*
  - *New lighting, signage, security features, and passenger amenities*
  - *Total cost still $17.7 million*
- Phase II
  - *Construction of fully accessible, multi-level, parking garage with pathways to the station platforms and bus circulation loops with shelters*
  - *Total cost of Phase II, still $39.5 million*
  - *Programmed in FY 2018-2022*

PA15-33: Exton Station, SEPTA – Funding Decrease



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Note: Administrative Action

Ardmore Transportation Center, SEPTA

- Administrative Action
  - *$2,788,600 Section 5307 programmed in Lancaster TIP by BPT*
  - *$697,000 ($675,000 State 1514/$22,000 Local) programmed in DVRPC TIP*

TIP A-C-T-I-O-N | PROPOSED-PA

c. Regional Rail Signal Modernization Program, SEPTA

Amend the TIP for PA by increasing the FY15 CAP phase by $9,783,000 ($1,086,000 Section 5337/$2,526,000 Section 5309-S/$3,232,000 Section 5307-S/$2,844,000 State 1514/$95,000 Local) for two different projects: the Cynwyd Line Signals, Special Work, and Right of Way project and the Positive Train Control project (PTC).

d. Exton Station, SEPTA

Amend the TIP for PA by decreasing funding for Phase I in the DVRPC regional TIP in the amount of $11,071,000 (FY15: $2,311,000 State 1514/$78,000 Local, FY16 $4,036,000 State 1514/$113,000 Local, FY17: $4,367,000 State 1514/$146,000 Local). Funding for the project will still be reflected in the STIP and other regional TIPs, and the project will advance to construction in FY15.

Add Proposed New Project - PA

e. Highway Safety Improvement Program (HSIP) Set-a-Side Projects, Various Counties

- Amend the TIP for PA by adding eleven (11) new HSIP funded projects in the amount of $19,573,000 for Preliminary Engineering and Construction in FY15 and FY16. These are additional funds to the region and were selected via the Statewide HSIP solicitation.

- Goals
  - *Implement systematic, low-cost safety improvements identified in the Intersection Safety Implementation Plan (ISIP) and the Roadway Departure Safety Implementation Plan (RDIP),*
  - *Provide additional funding necessary to advance larger projects at Statewide High Crash Locations.*
  - *$35 million statewide set-a-side during FY2015 TIP update*

Add Proposed New Project - PA

e. Highway Safety Improvement Program (HSIP) Set-a-Side Projects, Various Counties (con't)

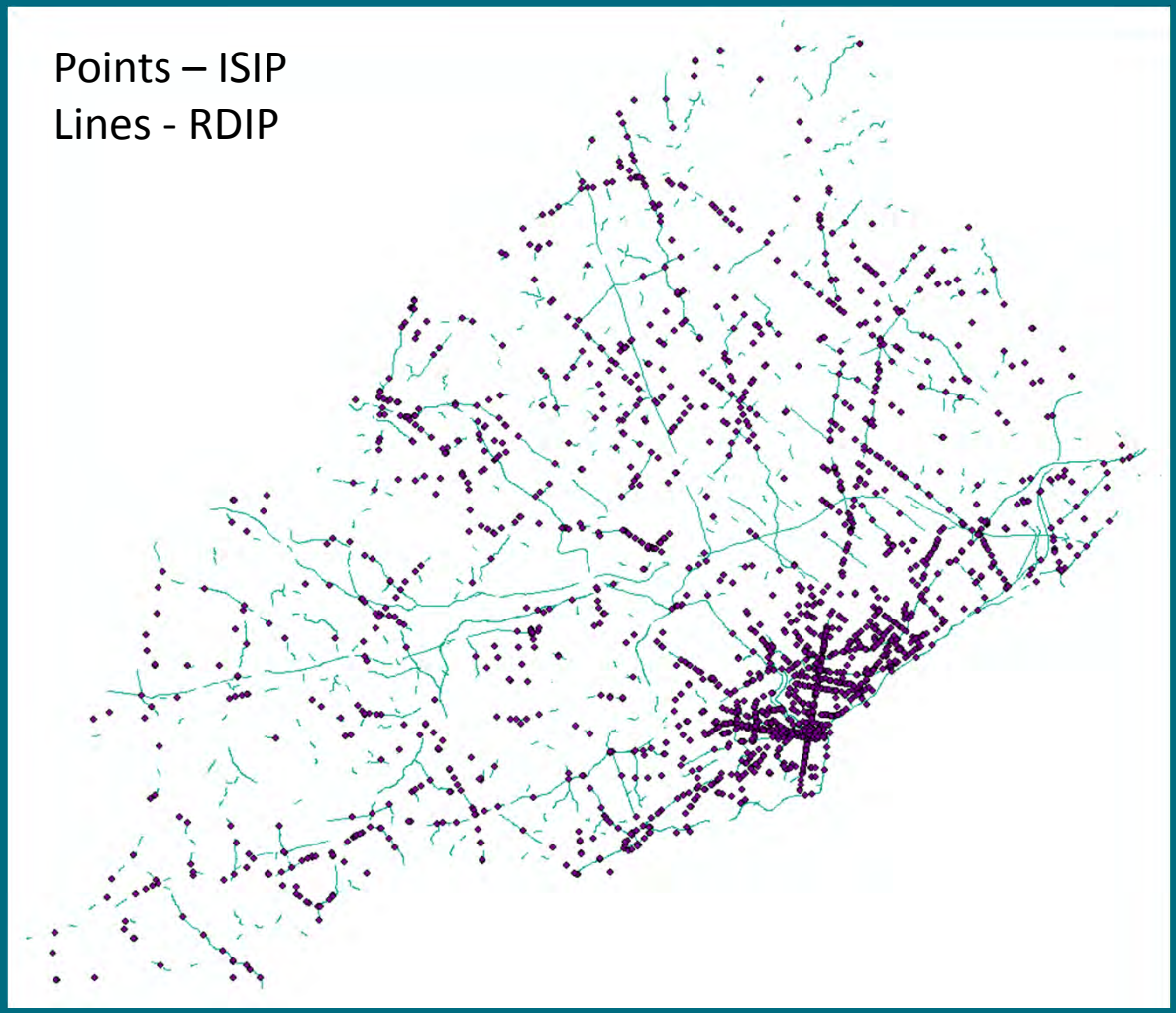
- Solicitation
  - *FY2015 – FY2016*
  - *$121 million in candidate projects were submitted*
  - *Only $70.9 million in projects recommended for approval statewide.*
  - *100% federal*

- Review
  - *By Central Office Bureau of Maintenance and Operation (BOMO) and the Center for Program Development and Management (CPDM) for overall HSIP funding eligibility, and for consistency with the intent of the HSIP Set-a-Side program.*

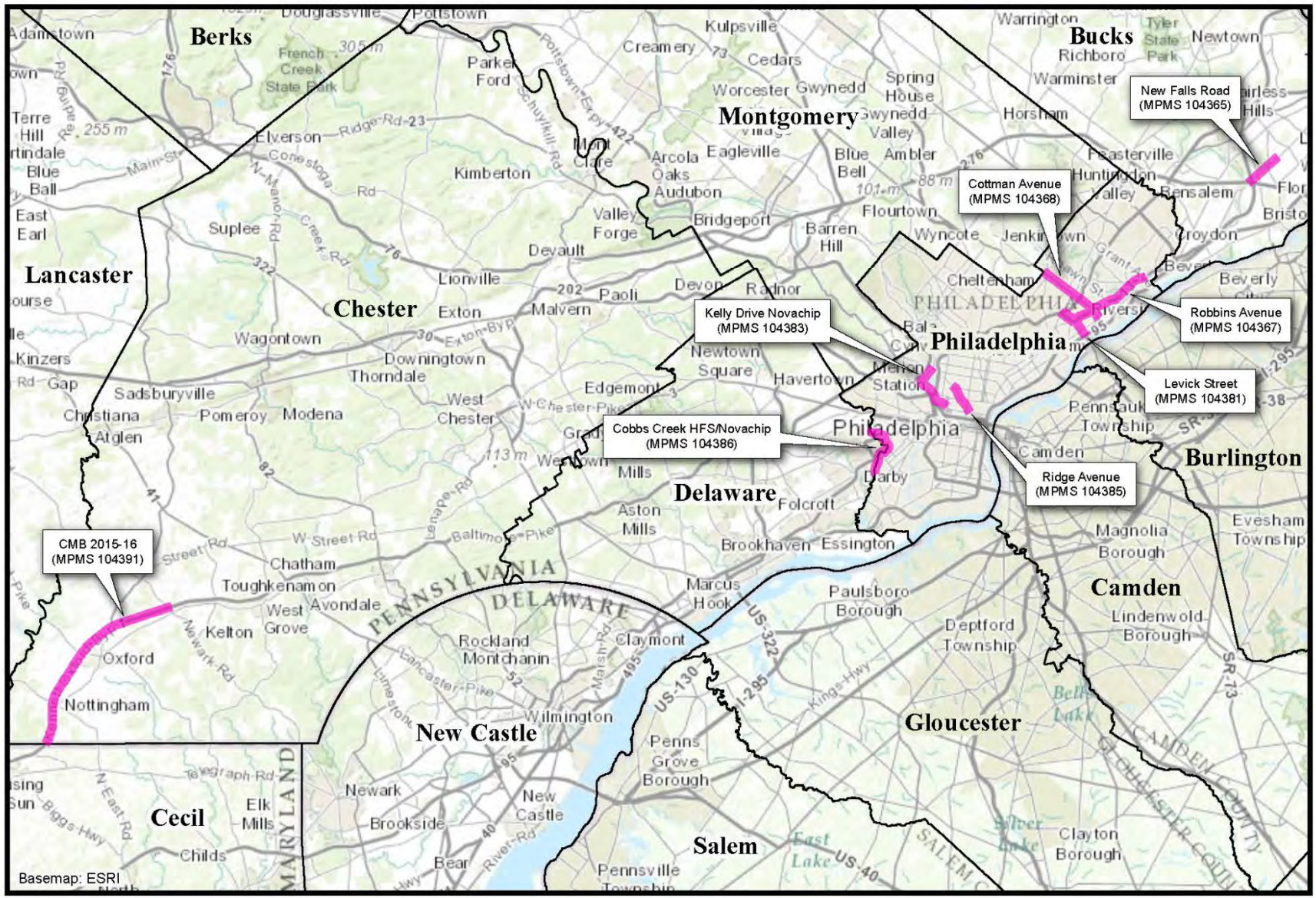
List of HSIP Set-a-Side Projects

County	Project	Cost
District-wide	Intersection Safety Implementation Plan (ISIP)	$4,500,000
	Roadway Departure Implementation Plan (RDIP)	$4,500,000
	High Friction Surface (HFS)	$2,240,000
Bucks	New Falls Road	$1,800,000
Chester	Cable Median Barrier 2015-2016 (US 1)	$1,250,000
Philadelphia	Robbins Avenue ISIP	$500,000
	Cottman Avenue ISIP	$800,000
	Levick Street ISIP	$983,000
	Kelly Drive Novachip	$1,000,000
	Ridge Avenue ISIP	$1,200,000
	Cobbs Creek HFS	$800,000
TOTAL		**$19,573,000**

Potential ISIP & RDIP Locations



PA15-34: PennDOT District 6-0 HSIP Set-a-Side Projects



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TIP A-C-T-I-O-N | PROPOSED-PA

e. Highway Safety Improvement Program (HSIP) Set-a-Side Projects, Various Counties

Amend TIP for PA by adding eleven (11) new HSIP funded projects to the TIP in the amount of $19,573,000 for Preliminary Engineering and Construction in FY15 and FY16. These are additional funds to the region and were selected via the Statewide HSIP solicitation.

District-wide ISIP MPMS #104363	District-wide RDIP MPMS #104364
District-wide HFS MPMS #104366	New Falls Road MPMS# 104365
CMB 2015-2016 MPMS #104391	Robbins Ave ISIP MPMS #104367
Cottman Ave ISIP MPMS #104368	Levick Street ISIP MPMS #104381
Kelly Dr Novachip MPMS #104383	Ridge Ave ISIP MPMS #104385
Cobbs Creek HFS MPMS #104386	

Add Proposed New Project - NJ

f. Local CMAQ Initiatives, Various Counties

- Amend the TIP for NJ by adding the project NJ DEP Clean Diesel Initiative project, to the TIP in the Local CMAQ Initiatives Line Item, in the amount of $290,000 CMAQ in FY15.
- Goals
  - *Retrofit transportation construction equipment with Diesel Particulate Filters*
- Top Priority Location
  - *I-295/42/I-76 Direct Connection project in Camden County*
  - *Already evaluated for participation*
  - *Estimated 13 pieces of the Direct Connect equipment will be in use in New Jersey for 10 years and likely longer*
  - *Funding*
  - *$290,000 CMAQ available in Line Item for Direct Connect equipment and retrofits*
  - *$250,000 CMAQ from NJ DOT may be made available for NJ Turnpike construction equipment in Mercer County once firm FY15 schedule of obligation is identified (Administrative Action).*

Add Proposed New Project - NJ

f. Local CMAQ Initiatives, Various Counties (con't)

- NJ DEP
  - *Diesel construction vehicles and equipment represent one of the largest sources of diesel exhaust*
  - *Non-road diesel vehicles contribute more than twice as much diesel particulate matter to the air than do on-road diesel vehicles, with diesel exhaust the #1 air toxic in New Jersey.*
  - *Pollutants can affect people using equipment, and others who live and work in the area.*
  - *Non-road diesel vehicles do not come with emission control technologies already installed to reduce harmful.*
  - *Installation of Diesel Particulate Filters (DPF's) on non-road construction equipment reduces particulate matter by a minimum of 85%.*
  - *Reducing particulate matter results in cleaner air, decreased incidence of asthma, and heart and lung disease, especially for children and elderly populations that are most sensitive to air pollution.*

★TIP A-C-T-I-O-N | PROPOSED-NJ

f. Local CMAQ Initiatives, Various Counties

Amend the TIP for NJ by adding the project NJ DEP Clean Diesel Initiative, to the TIP in the Line Item: Local CMAQ Initiatives, in the amount of $290,000 CMAQ in FY15.

Note: Administrative Action of increasing the Line Item by $250,000 CMAQ, may be made once a firm FY15 schedule of obligation is identified for the NJ Turnpike construction equipment in Mercer County.

Add Propose New Project - NJ

g. Princeton-Hightstown Road Improvements, CR 571, Mercer County

- Modify the TIP for NJ by delaying the $800,000 STATE-DVRPC funded DES phase from FY14 to FY15, and by delaying beginning of CON from FY15 to FY18 and increasing the CON cost by $100,000 from an overall $9,900,000 from FY15 ($3,300,000 STP-STU), FY17 ($3,300,000 STATE-DVRPC), and FY19 ($3,300,000 STP-STU) to an overall CON amount of $10,000,000 in FY18 ($1,300,000 STP-STU), FY19 ($4,600,000 STP-STU), and FY20 ($4,100,000 STP-STU).
- DES is ready to advance this FY and must be reprogrammed
- Limits: Clarksville Rd (CR 638) to Wallace-Cranbury Rd (CR 615)
- Improvements Include:
  - *Pedestrian, bicycle, and site access*
  - *Sidewalks, protected turn lanes, not additional through lanes*
  - *Lowering speed limit to 20 mph will be considered*
- Expensive Project

TIP A-C-T-I-O-N | PROPOSED-NJ

e. Princeton-Hightstown Road Improvements, CR 571, Mercer County

Modify the TIP for NJ by delaying the $800,000 STATE-DVRPC funded DES phase from FY14 to FY15, and by delaying beginning of CON from FY15 to FY18 and increasing the CON cost by $100,000 from an overall $9,900,000 from FY15 ($3,300,000 STP-STU), FY17 ($3,300,000 STATE-DVRPC), and FY19 ($3,300,000 STP-STU) to an overall CON amount of $10,000,000 in FY18 ($1,300,000 STP-STU), FY19 ($4,600,000 STP-STU), and FY20 ($4,100,000 STP-STU).

THANK YOU

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FY 2016 Pennsylvania Transportation Management Association Assistance Grant Program

Presentation to the DVRPC RTC

March 10, 2015

PENNDOT

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FY 2016 Pennsylvania TMA Assistance Grant Program

Program initiated in 1995

$192,000 CMAQ available per qualified TMA

20% Cash Match Required

Application Requirements: Each TMA must

- have proper organizational structure,
- demonstrate adequate non-grant funding to meet match requirement,
- demonstrate involvement of both public and private sector entities,
- have performance measures and goals for FY 2016
- meet work scope requirements as determined by the DVRPC TMA Policy Committee.

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Application Process

Annual TMA Process Timeline

October: DVRPC TMA Policy Committee meets with PennDOT to determine each year's application requirements.

November: PennDOT sends applications to TMAs.

January: TMAs submit draft scopes.

February: Policy Committee, PennDOT and Staff review scopes; Presentation to RTC; Comment period.

March: Comments incorporated, full applications submitted, approval by RTC and Board; PennDOT begins contract prep.

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FY 2016 Applicants

The following TMAs have submitted Applications:

- Bucks County TMA: $ 192,000
- TMA of Chester County: $ 192,000
- Delaware County TMA: $ 192,000
- Greater Valley Forge TMA: $ 192,000
- Partnership TMA: $ 192,000
- Central Phila TMA/ MOTU*: $ 192,000
- Program Total $1,152,000

($921,600 CMAQ; $230,400 TMA Match)

- **Central Philadelphia TMA partners with City of Philadelphia Mayor's Office of Transportation and Utilities.*

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FY 2016 Program Elements :

As selected by DVRPC TMA Policy Committee:

- Be a Travel Demand Management information resource for municipalities, institutions, and the general public
- Promote increased transit use through a variety of means for Access to Jobs and other initiatives
- Act as coalition builders and advocates for regional transportation programs and capital projects
- Act as Liaison between PennDOT and Business Community for Construction Project Mitigation

All work scopes are tailored to each TMAs' constituency needs

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FY 2016 TMA Performance Reports

- Beginning in FY 16, TMAs will have goals for their performance report elements
- Data reported will be consistent across all TMAs allowing aggregation into one annual report
- PennDOT's consultant will use data to determine the annual AQ program benefit

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Application Review Process

- All TMAs meet match Requirements (20% = $38,400 each)
- Work Programs are approved by County Planning Commission staff, TMA Policy Committee, PennDOT Central and District 6, and DVRPC Staff.
- All comments received have been addressed.
- Goals for all measures under discussion and will be added to scopes after contracts.
- Work Programs are available in e-format to any interested DVRPC Board member.

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Action Requested

- That the RTC recommend that DVRPC Board approve the FY 2016 TMA Assistance Grant applications for a total of $1,152,000 ($921,600 CMAQ, $230,400 TMA match) and forward this approval to PennDOT.

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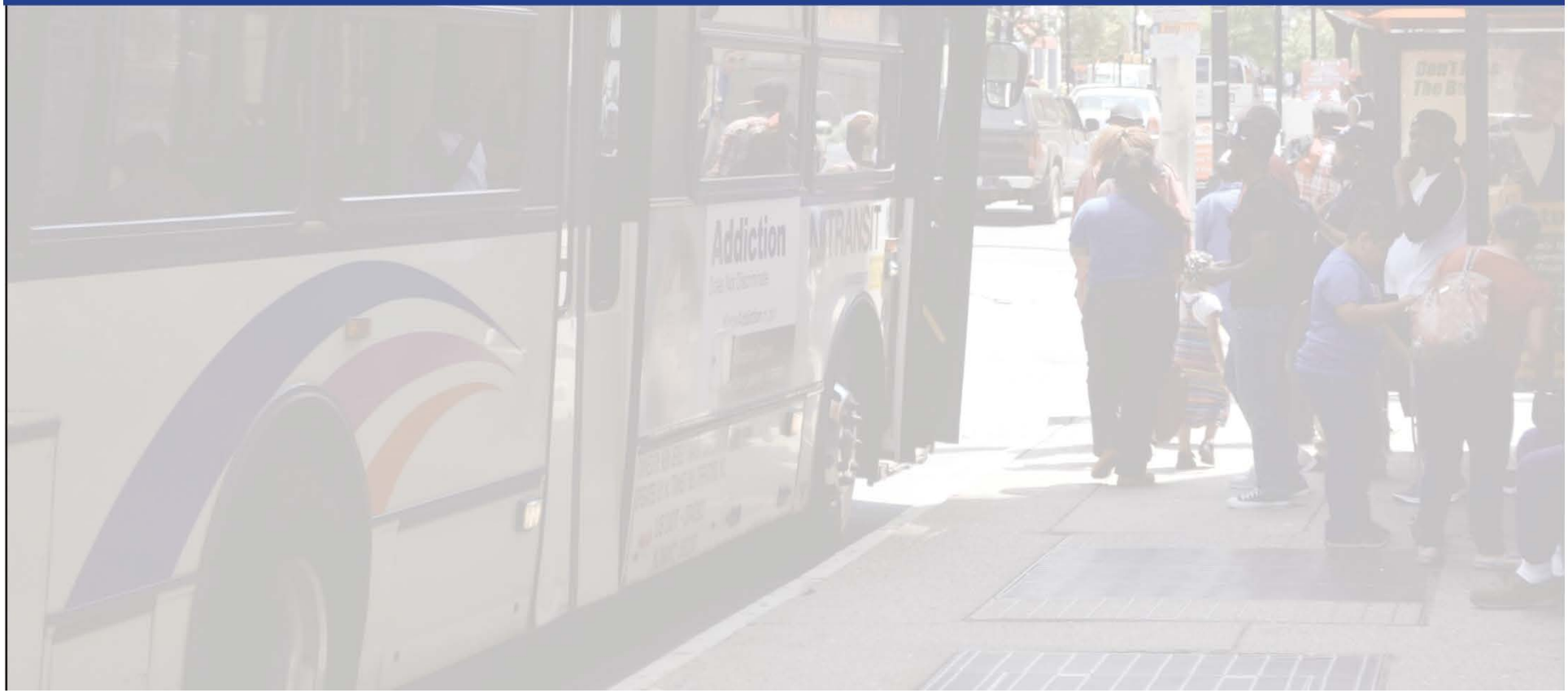
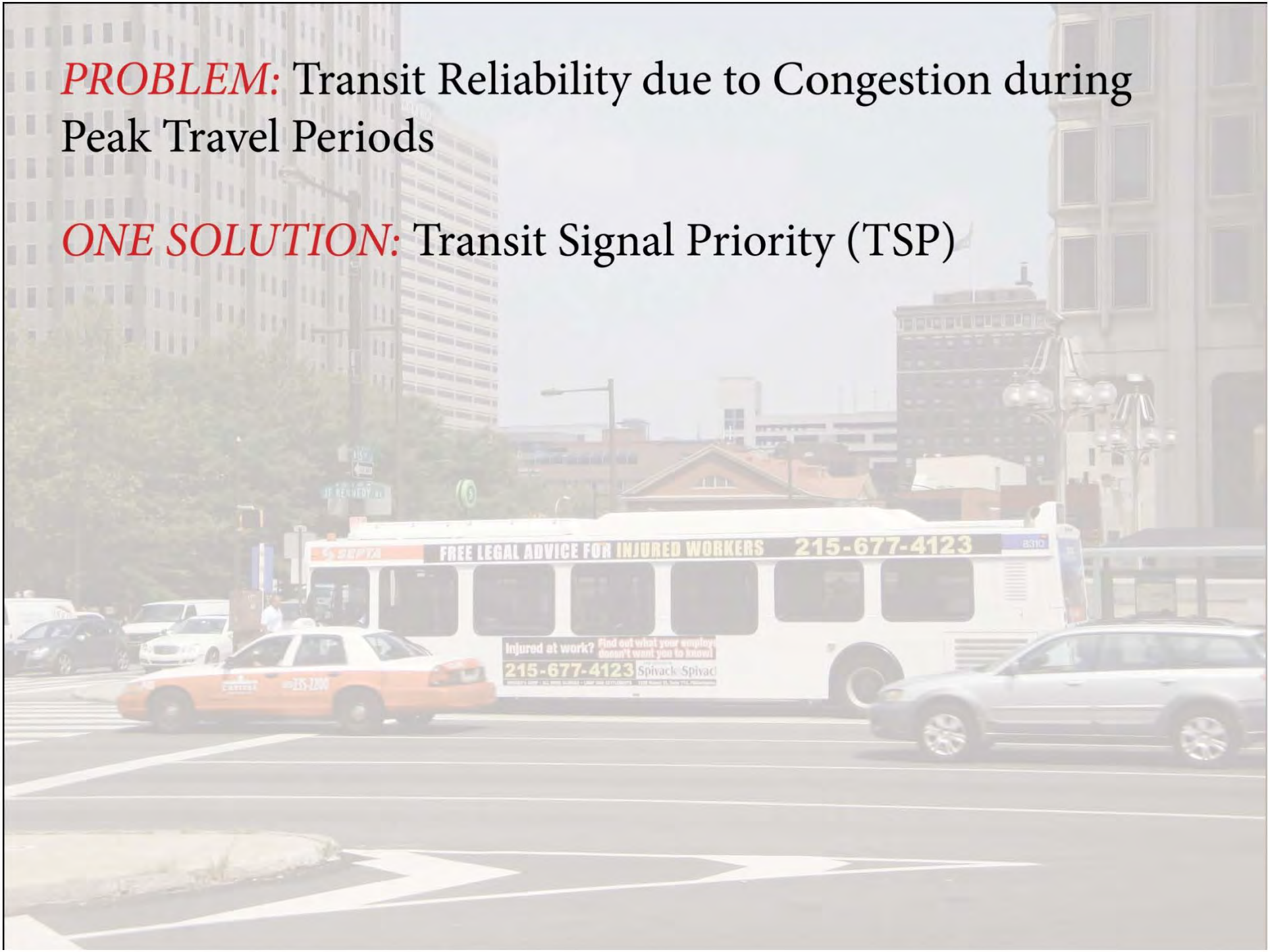
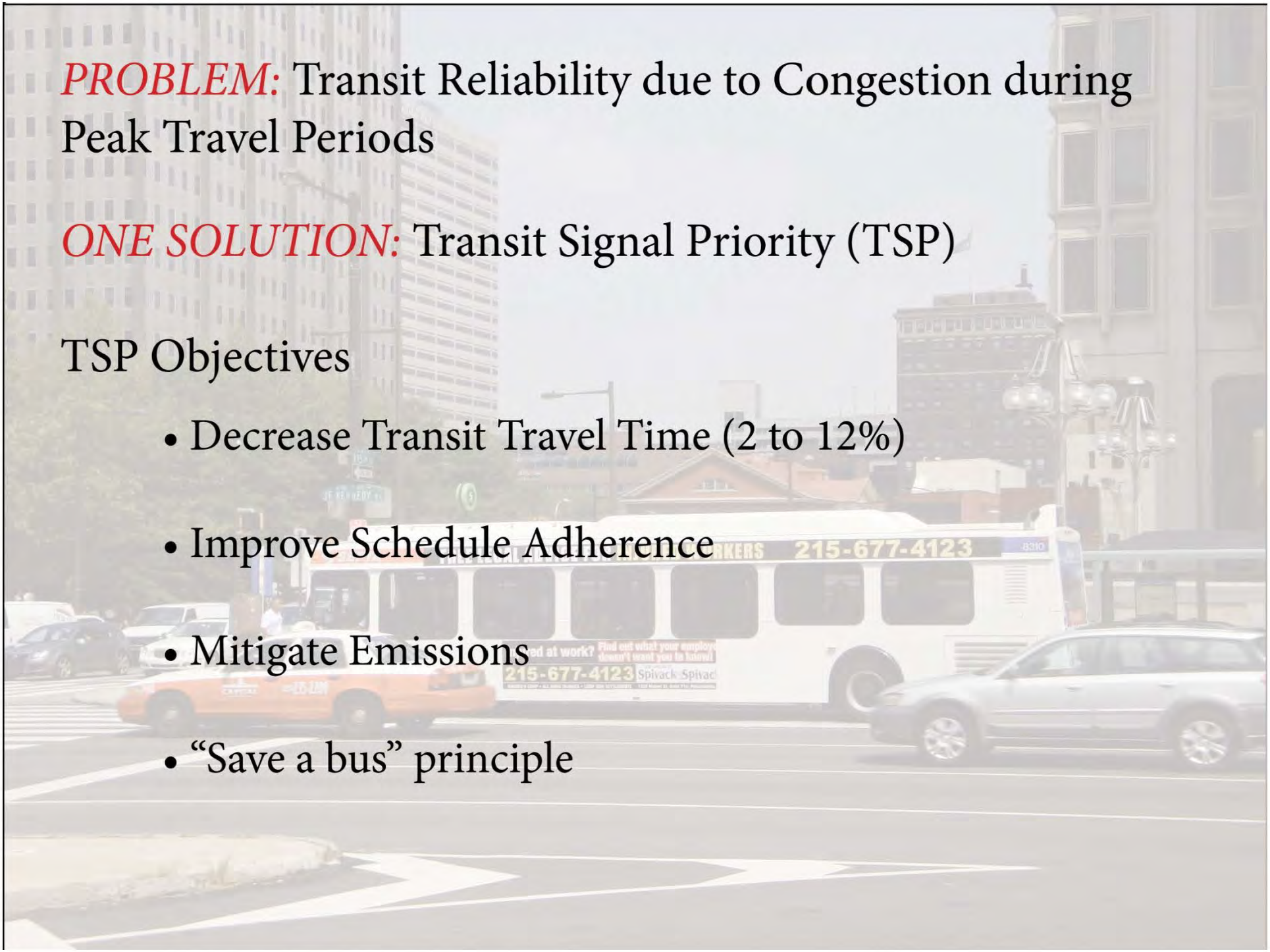
TSP Favorability Score
RTC Presentation
March 10, 2015



PROBLEM: Transit Reliability due to Congestion during Peak Travel Periods

ONE SOLUTION: Transit Signal Priority (TSP)



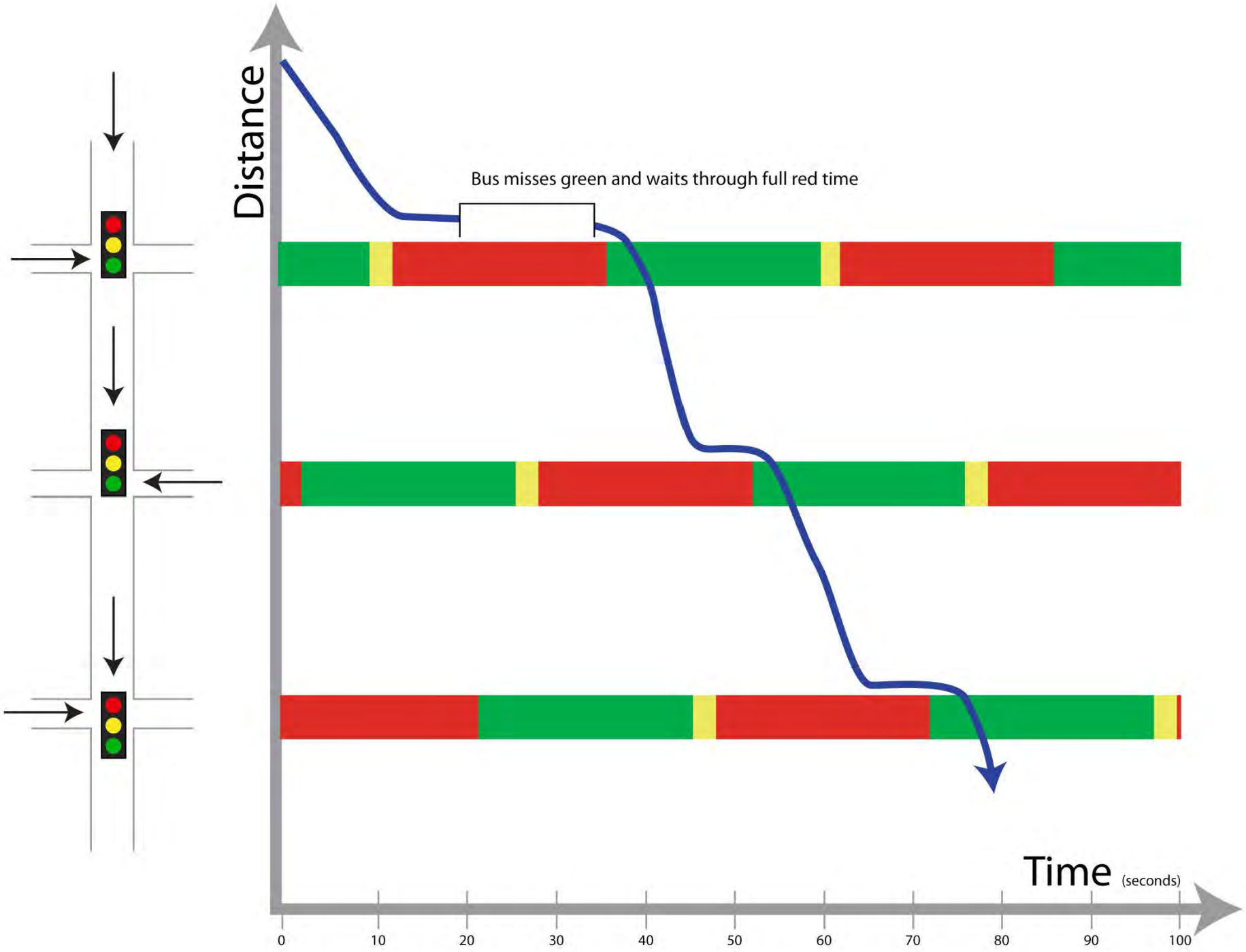


PROBLEM: Transit Reliability due to Congestion during Peak Travel Periods

ONE SOLUTION: Transit Signal Priority (TSP)

TSP Objectives

- Decrease Transit Travel Time (2 to 12%)
- Improve Schedule Adherence
- Mitigate Emissions
- "Save a bus" principle


Distance
Bus misses green and waits through full red time
Time (seconds)
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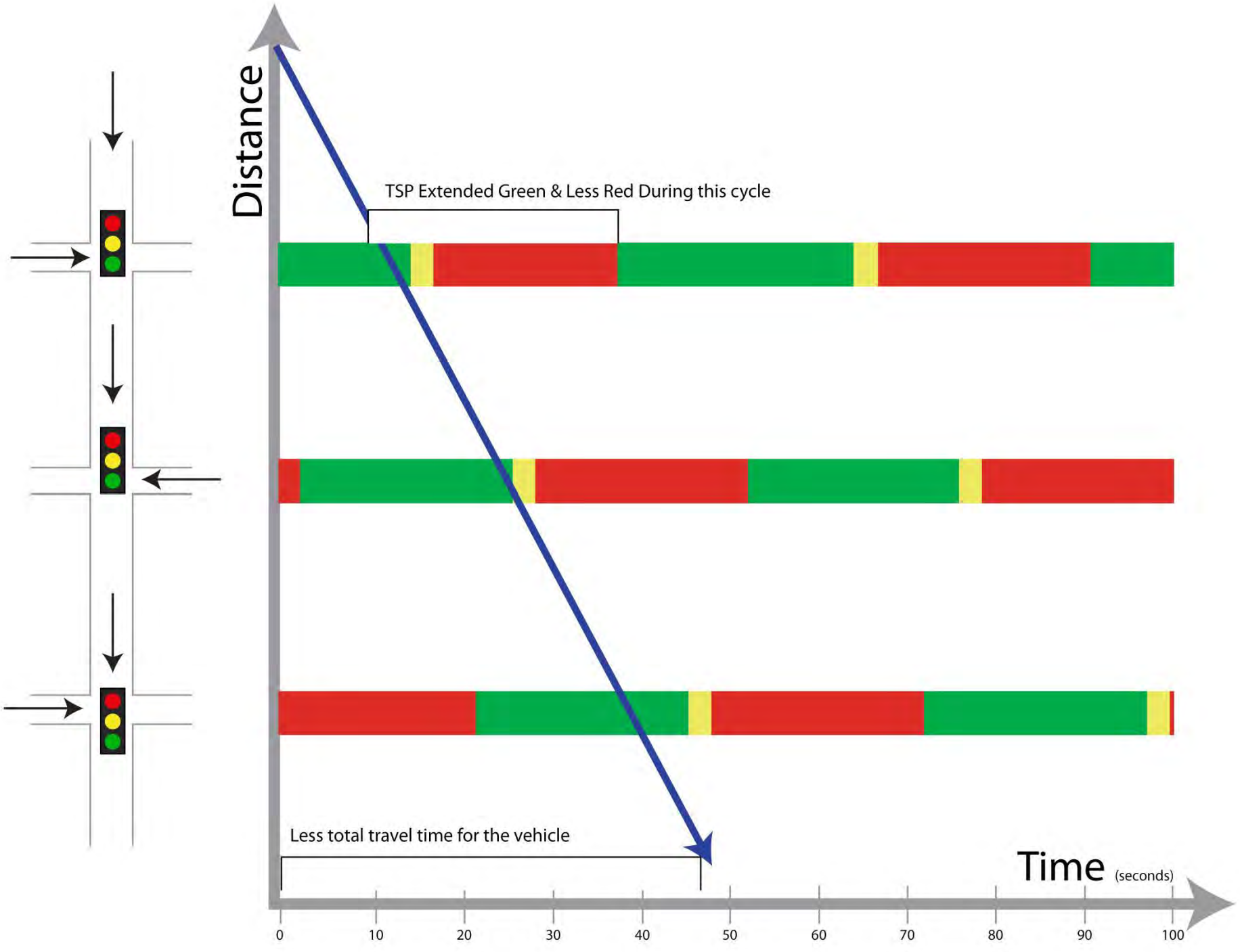
10
20
30
40
50
60
70
80
90
100


Distance
TSP Extended Green & Less Red During this cycle
Less total travel time for the vehicle
Time (seconds)
0
10
20
30
40
50
60
70
80
90
100

TODAY'S FOCUS

- Regional TSP Projects
- TSP Favorability Score Process and Results
- Next Steps for TSP throughout the Region

TSP Installed on SEPTA Routes 10, 15, 52 now Inactive

SEPTA Media-Sharon Hill Trolley Active only on exclusive at-grade trolley right-of-way

TSP Installation in Progress for SEPTA Routes: 6, 11, 52, 58, 60, 66

Why is this Important?

- Philly and Mercer counties interest in implementation

- Indicator Tool help to rank routes and corridors which may be most effective for TSP deployment

- Low-cost implementation

- Location and context is key for potential time savings

Transit Signal Priority Favorability Score:
Development and Application in Philadelphia and Mercer County

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PLANNING COMMISSION

April 2014

TSP Favorability Score: PHILLY AND MERCER

1. Data Gathering, Scoring, & Weighting

Criteria were factors deemed locally significant for TSP deployment

TSP Favorability Score: PHILLY AND MERCER

1. Data Gathering, Scoring, & Weighting

Criteria were factors deemed locally significant for TSP deployment

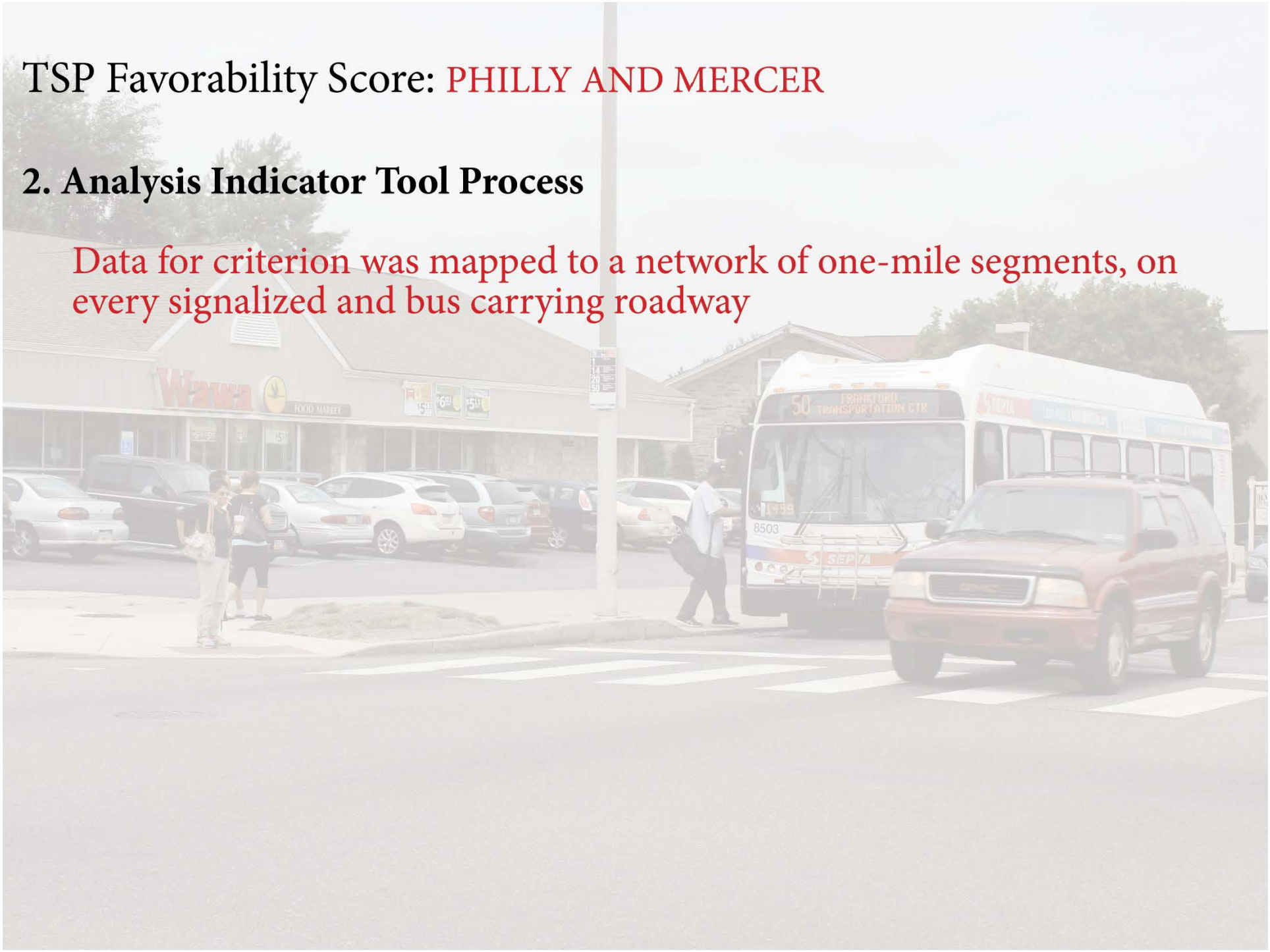
2. Analysis Indicator Tool

Inputs used in GIS to create a composite TSP Favorability Score for each segment in each network

TSP Favorability Score: PHILLY AND MERCER

2. Analysis Indicator Tool Process

Data for criterion was mapped to a network of one-mile segments, on every signalized and bus carrying roadway

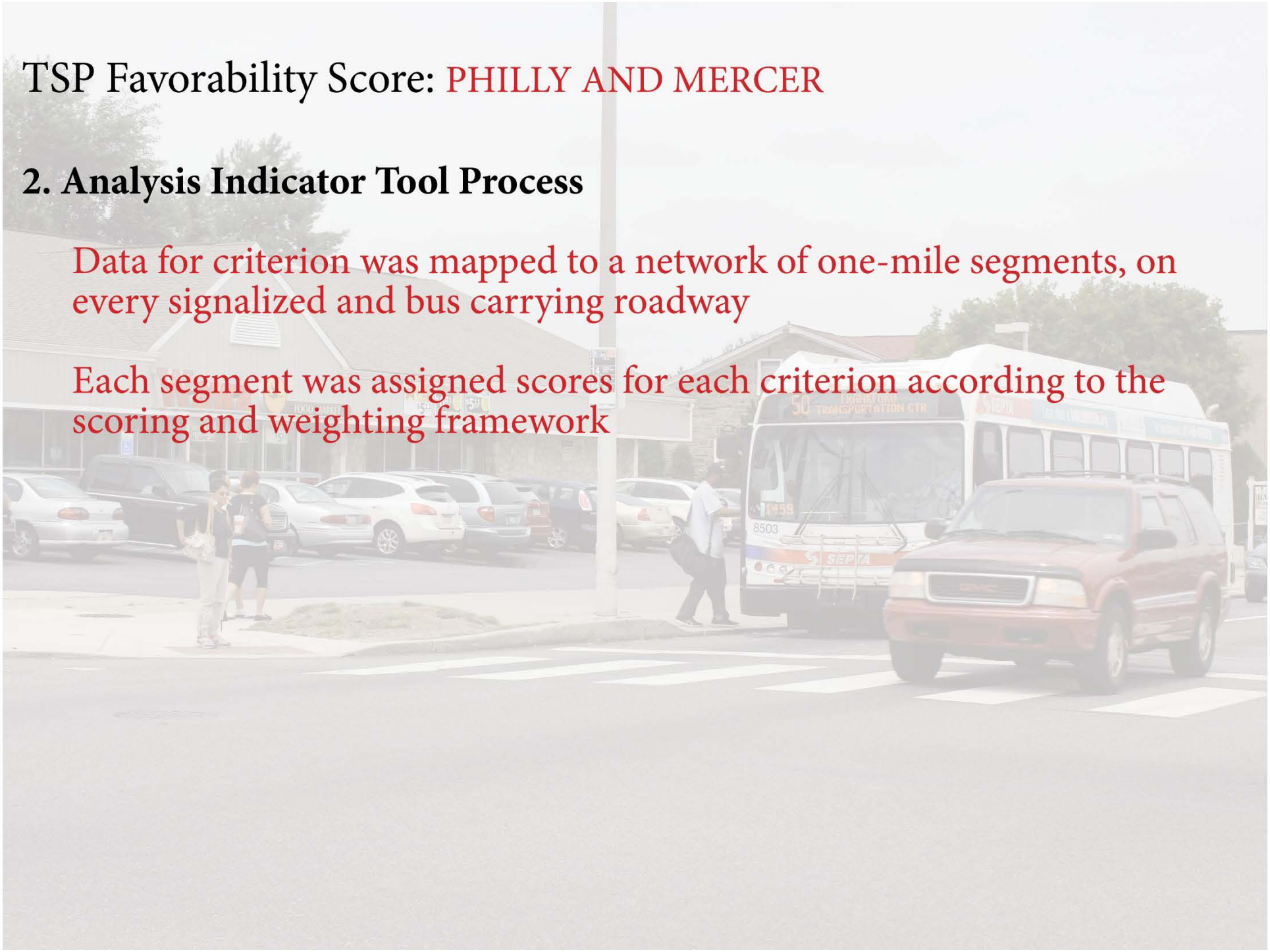


TSP Favorability Score: PHILLY AND MERCER

2. Analysis Indicator Tool Process

Data for criterion was mapped to a network of one-mile segments, on every signalized and bus carrying roadway

Each segment was assigned scores for each criterion according to the scoring and weighting framework



TSP Favorability Score: PHILLY AND MERCER

2. Analysis Indicator Tool Process

Data for criterion was mapped to a network of one-mile segments, on every signalized and bus carrying roadway

Each segment was assigned scores for each criterion according to the scoring and weighting framework

These criteria-level scores were then added to create the composite TSP Favorability Score for each segment.

TSP Favorability Score: PHILLY AND MERCER

2. Analysis Indicator Tool Process

Data for criterion was mapped to a network of one-mile segments, on every signalized and bus carrying roadway

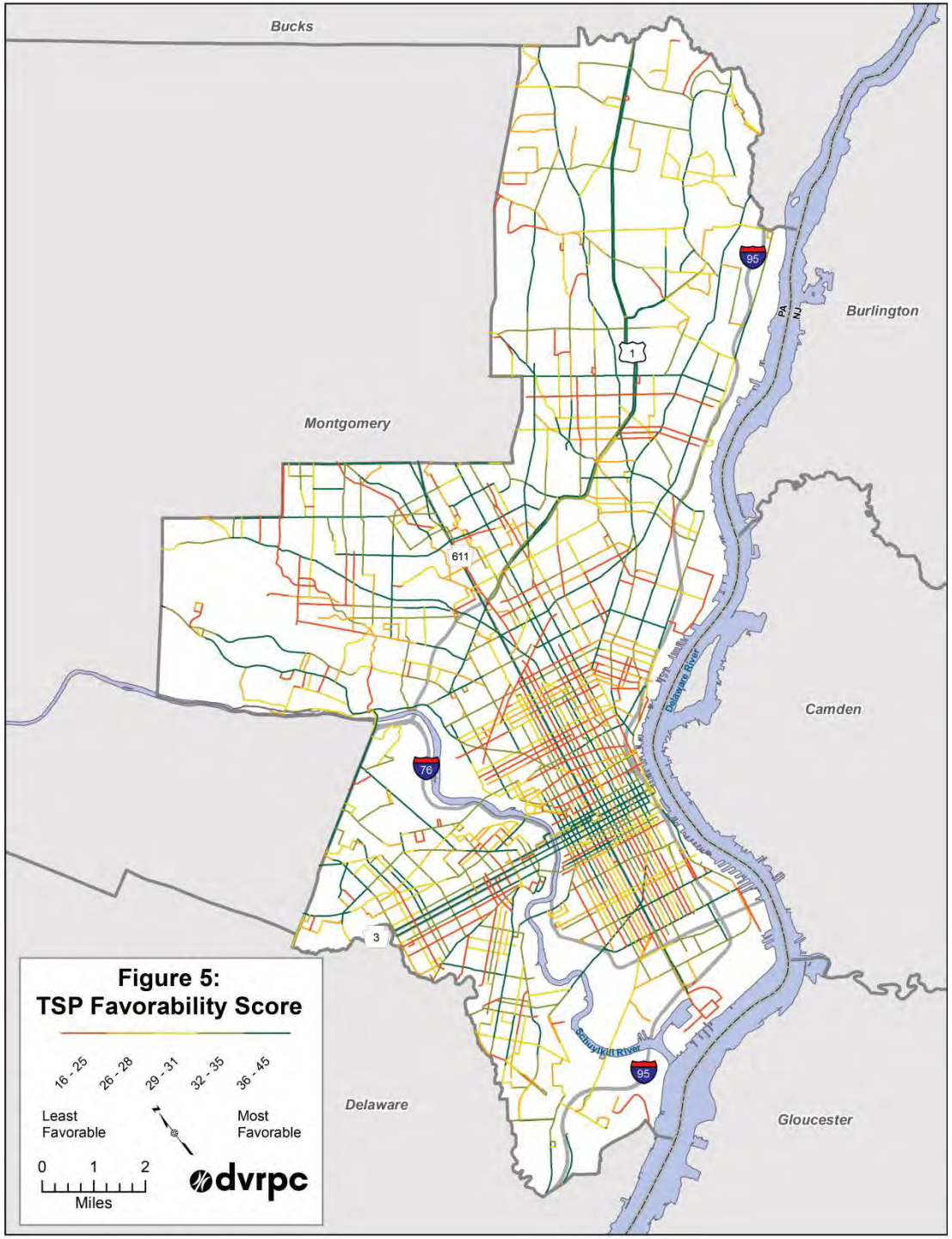
Each segment was assigned scores for each criterion according to the scoring and weighting framework

These criteria-level scores were then added to create the composite TSP Favorability Score for each segment.

The highest possible TSP Favorability Score that a segment could achieve was 50.

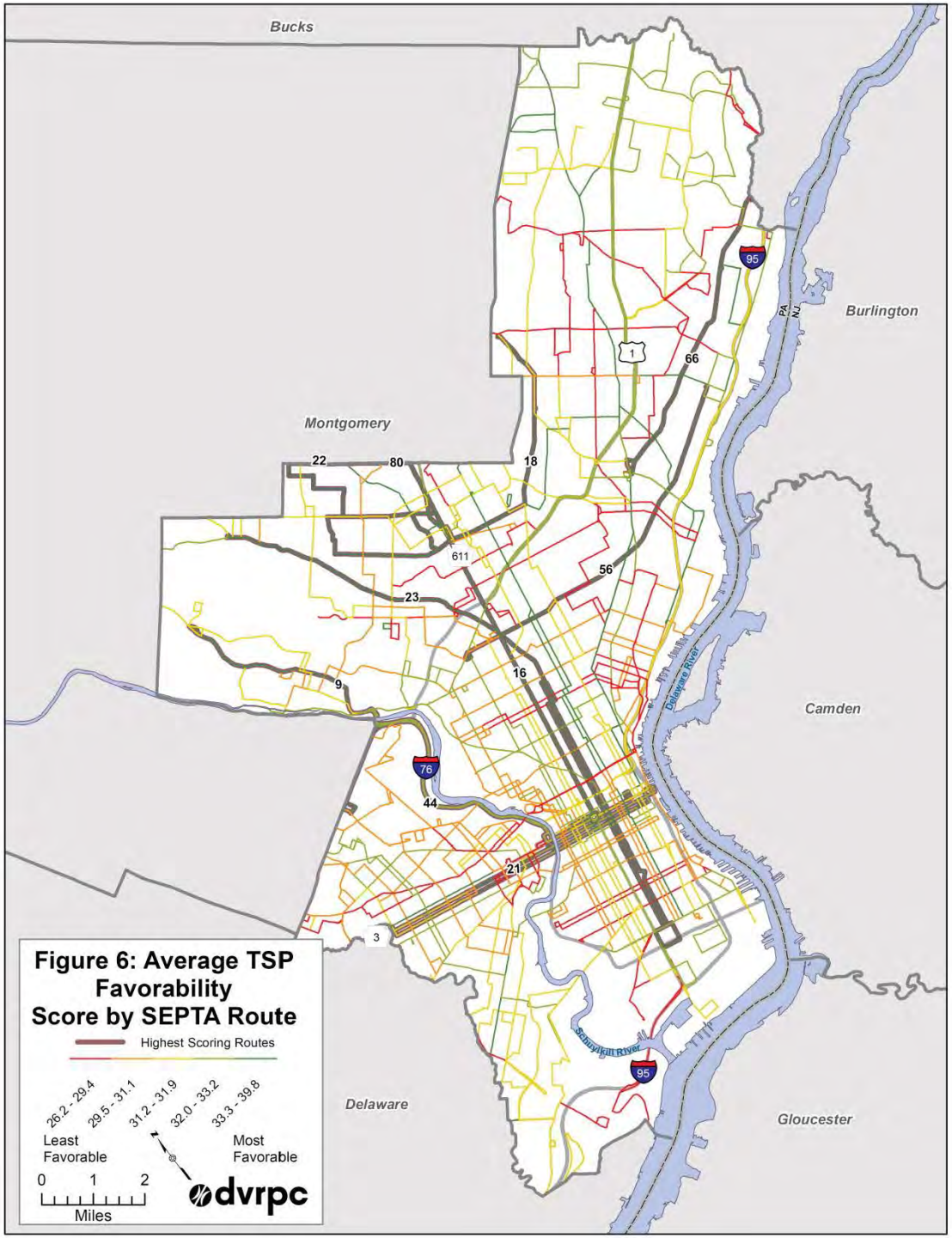
3. Evaluation & Results

- Philly segment map
- Green high scoring segments
- Scores range from 15.6 - 44.6, mean of 29.5
- TSP does not need to be implemented for the entire corridor
- Arterials common in the highest-rated are: Bustleton, Cheltenham, Frankford, and Market



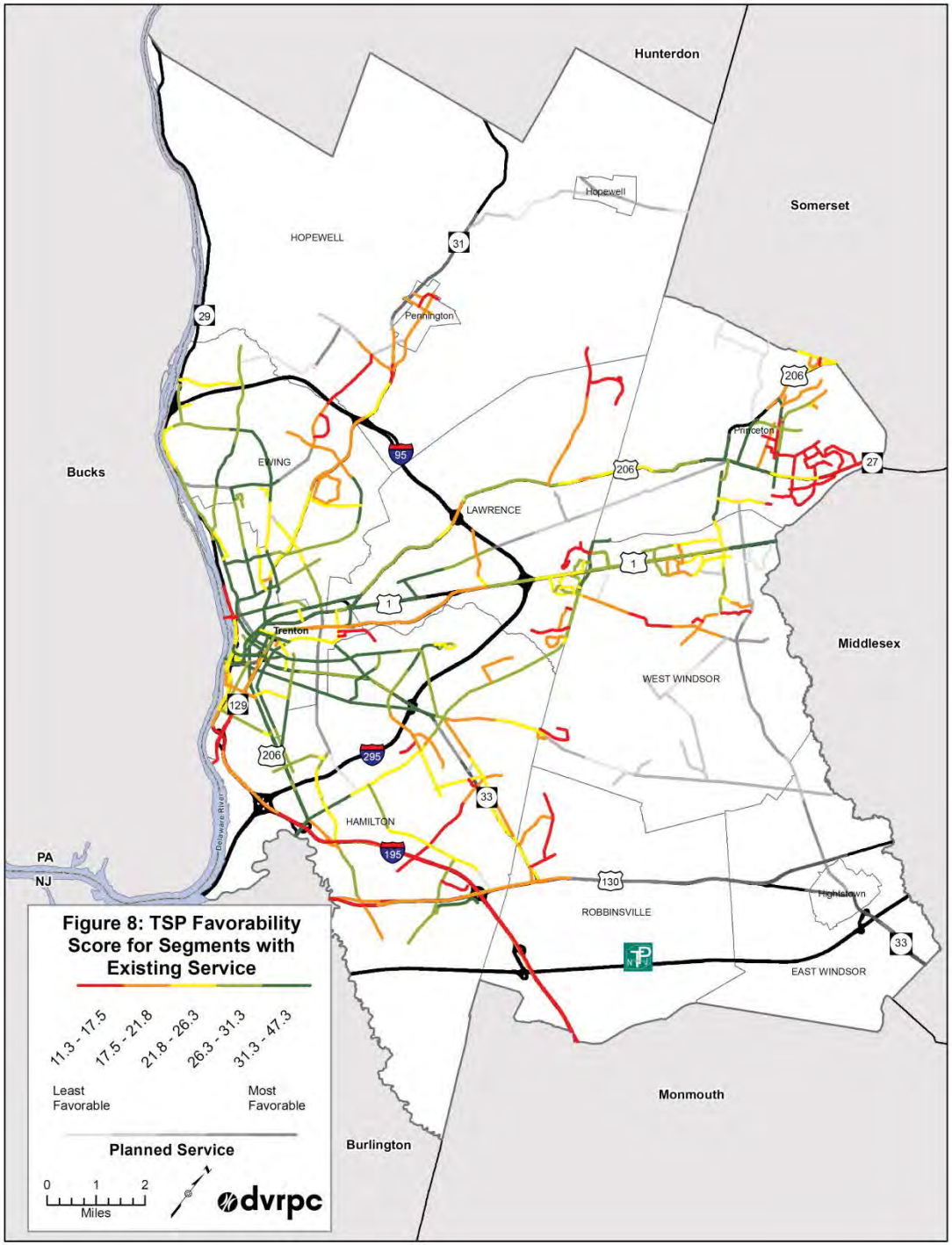
3. Evaluation & Results

- Philly SEPTA bus route map
- Green high scoring routes
- Scores range from 26.1 - 39.8, mean of 31.353
- Route 66 ranked highest



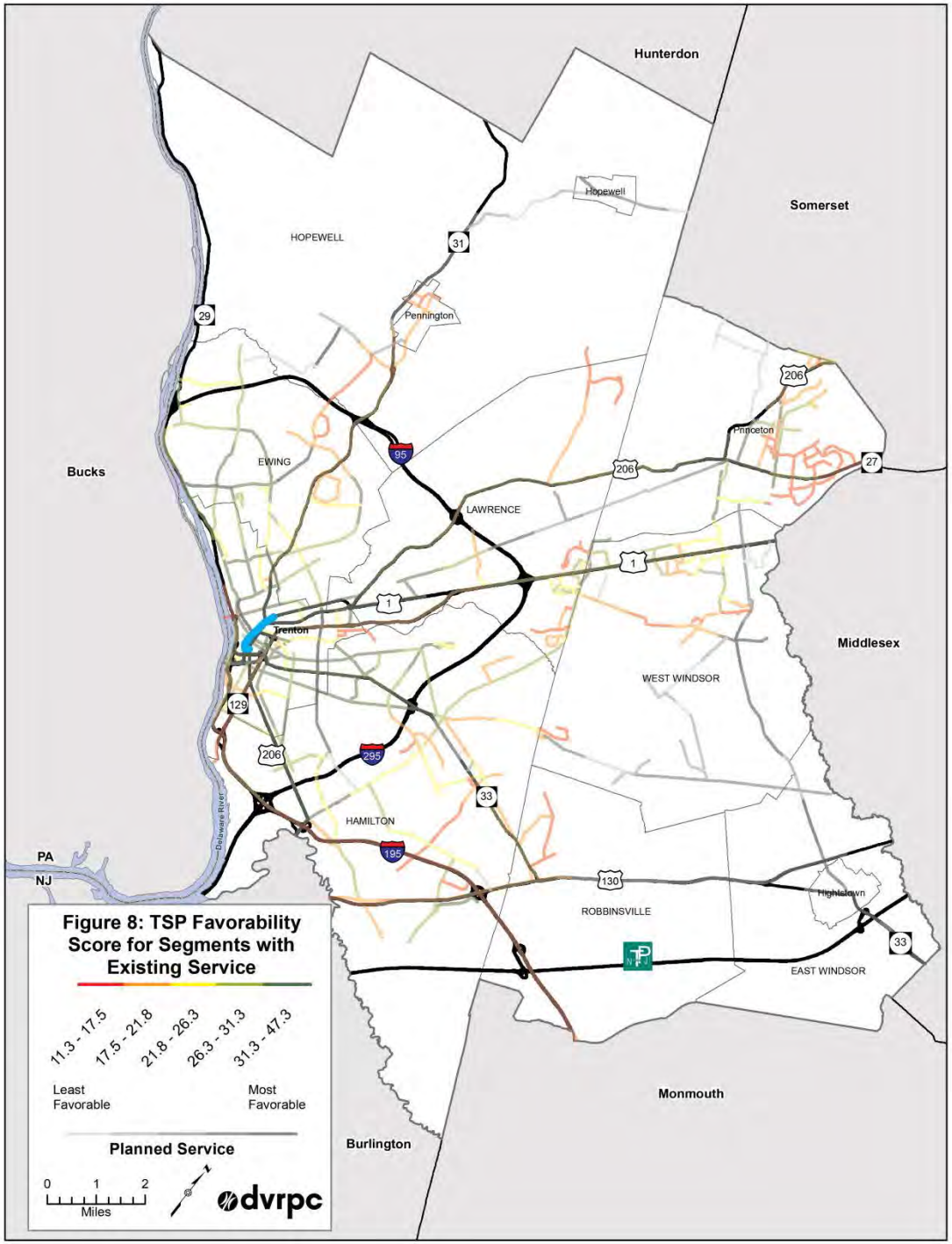
3. Evaluation & Results

- Mercer existing bus routes
- Green high scoring segments
- Scores range from 11.25 - 47.25, mean of 24.62



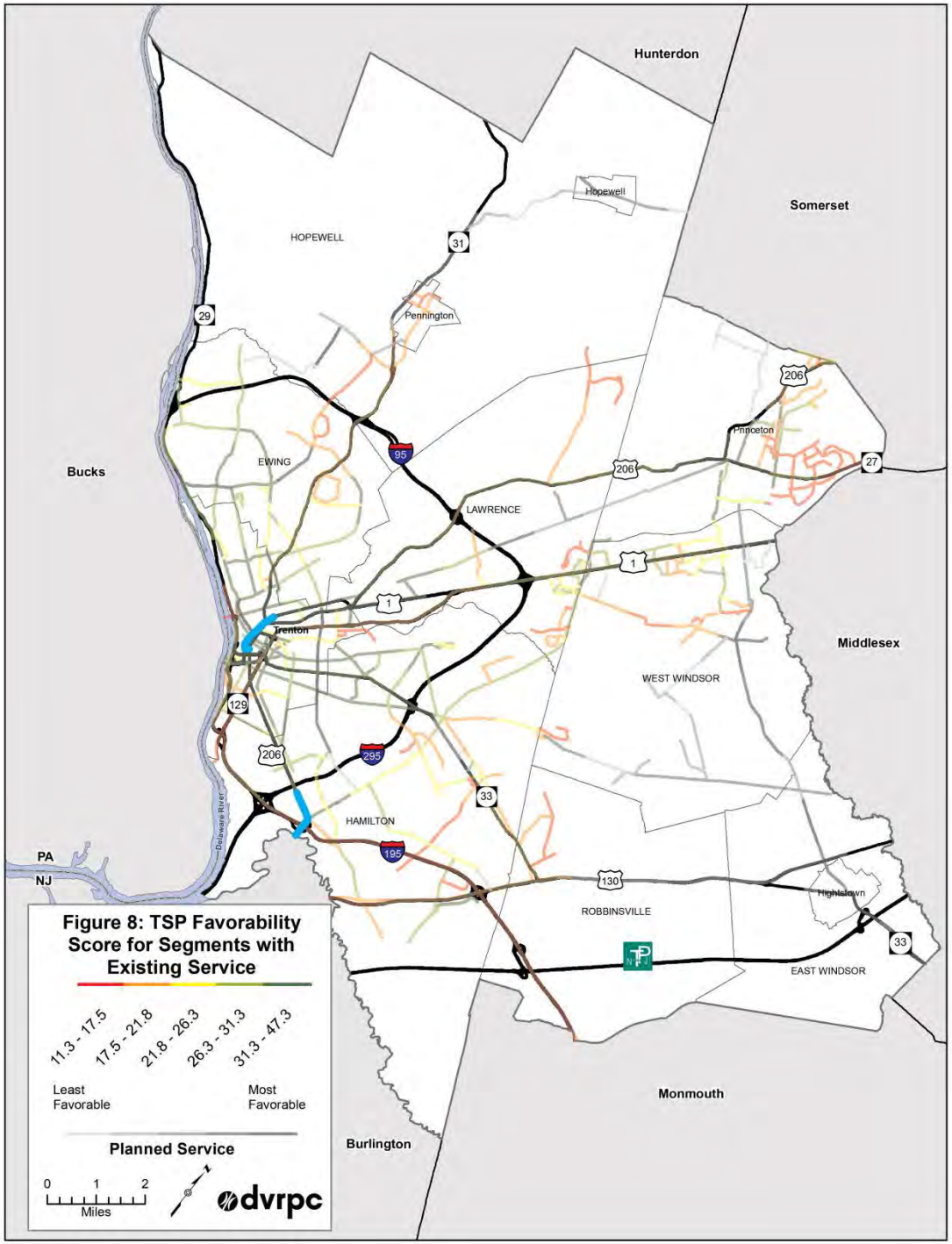
3. Evaluation & Results

- Mercer existing bus routes
- Green high scoring segments
- Scores range from 11.25 - 47.25, mean of 24.62
- Trenton Segment Score: 44.25
  - High Transit VehicleVolumes
  - High Transit Passenger Volumes
  - High Signal Density



3. Evaluation & Results

- Mercer existing bus routes
- Green high scoring segments
- Scores range from 11.25 - 47.25, mean of 24.62
- Hamilton Segment Score: 38.5
  - High AADTs
  - Middle range V/C ratio
  - Same High Functional Road Class

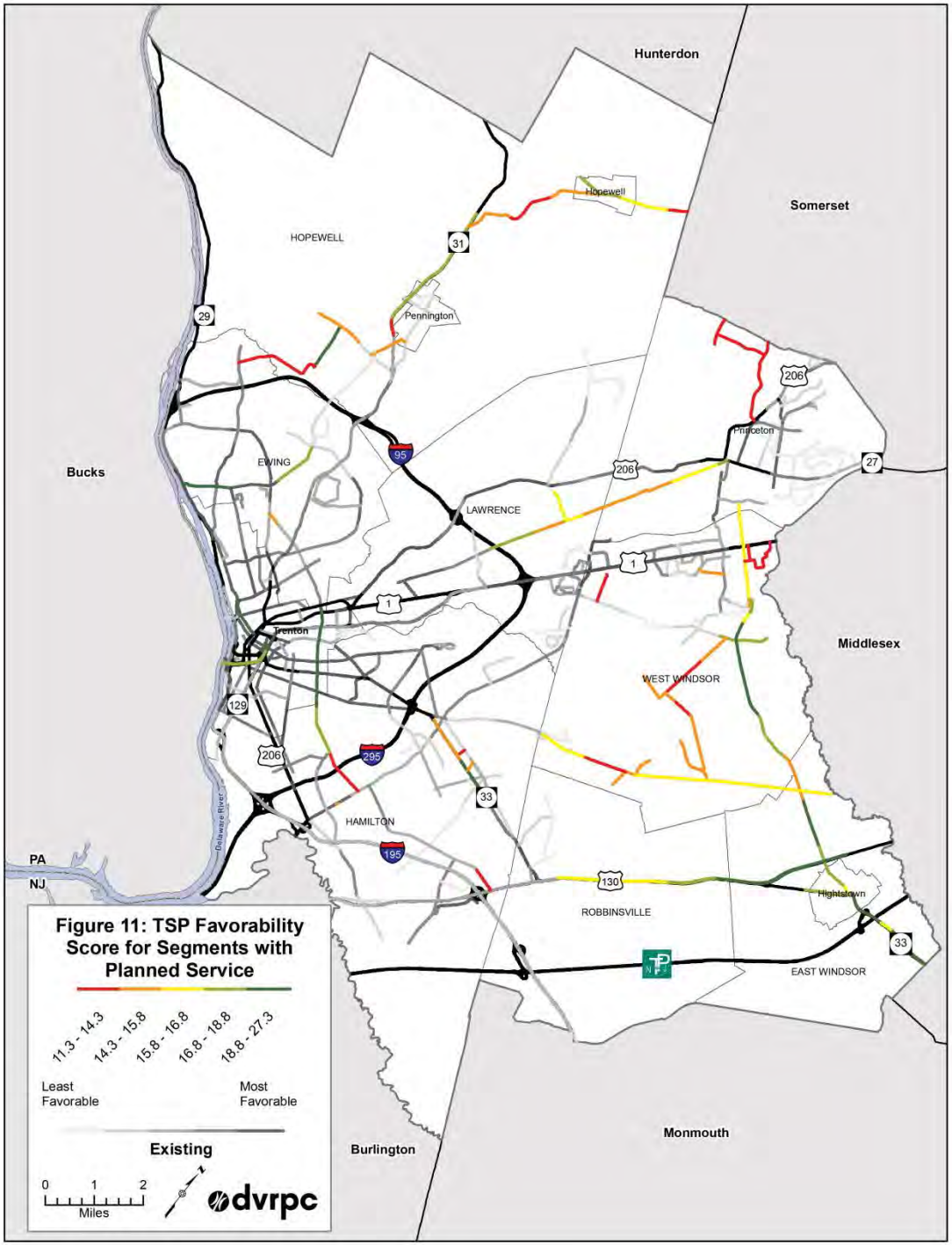


3. Evaluation & Results

- Mercer planned bus routes from *Mercer County Future Bus Plan*

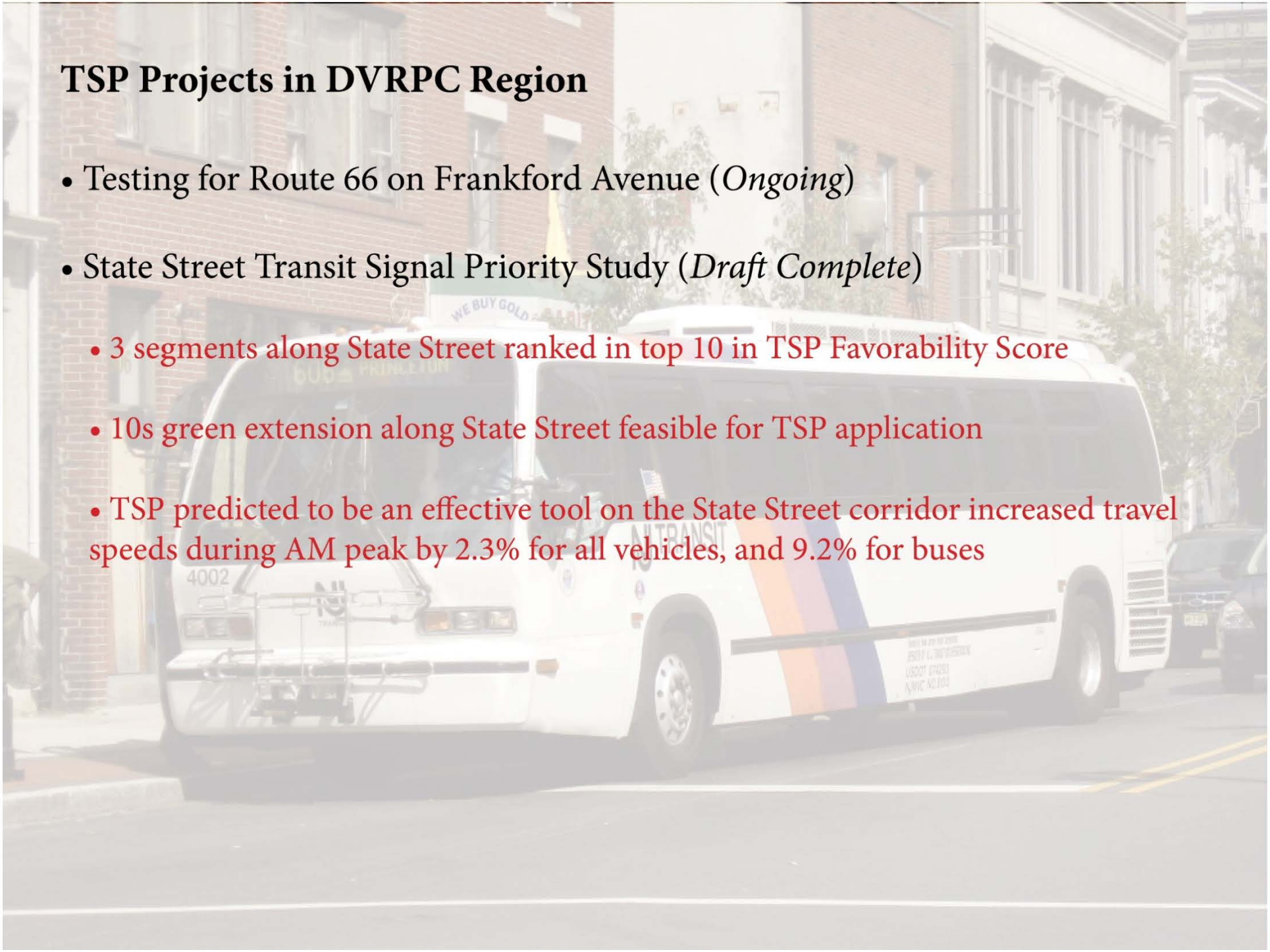
- Green high scoring segments

- Route 571 high ranked planned route, validating this is a good candidate prior to impelementation



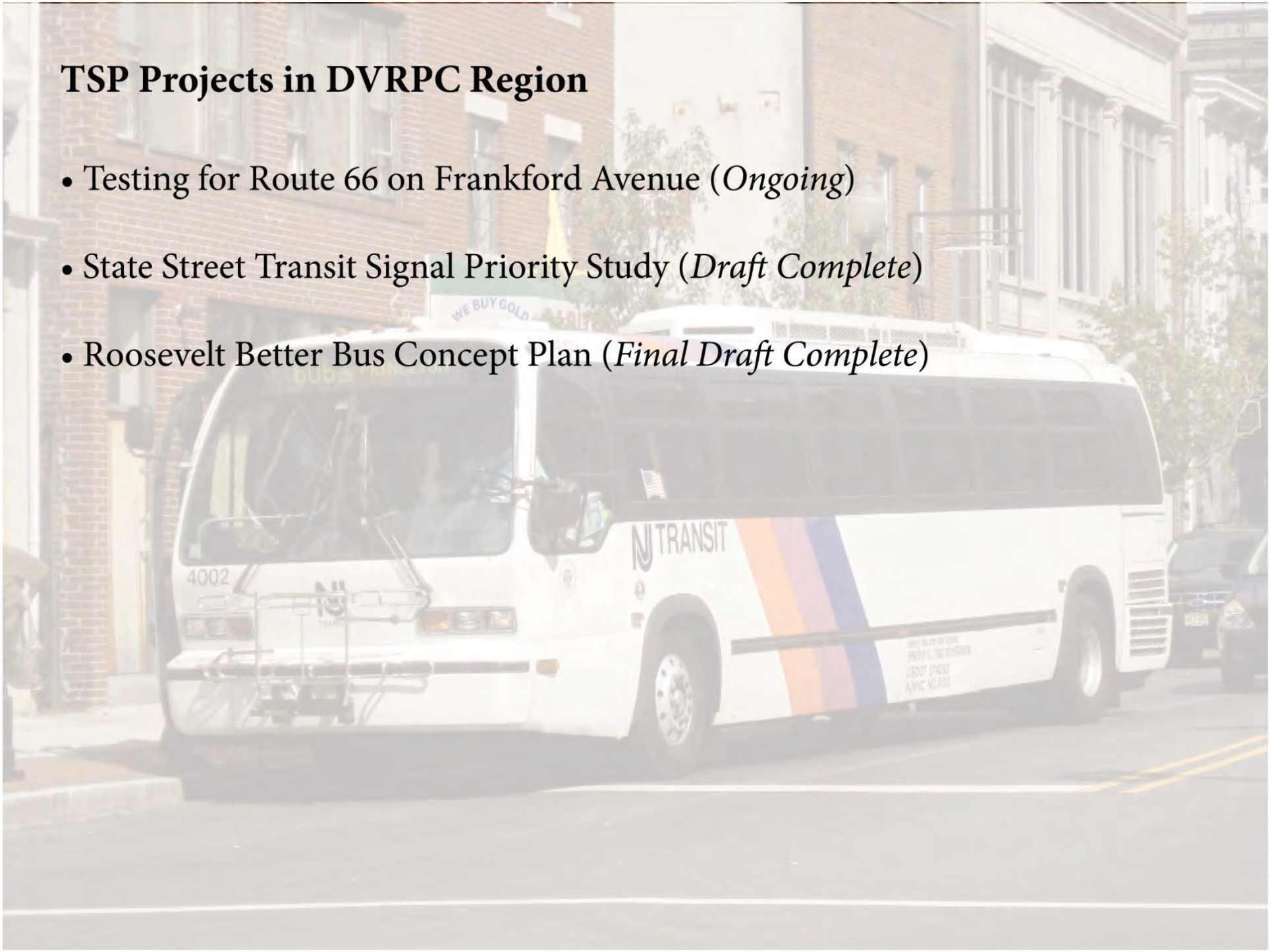
TSP Projects in DVRPC Region

- Testing for Route 66 on Frankford Avenue (*Ongoing*)
- State Street Transit Signal Priority Study (*Draft Complete*)
  - 3 segments along State Street ranked in top 10 in TSP Favorability Score
  - 10s green extension along State Street feasible for TSP application
  - TSP predicted to be an effective tool on the State Street corridor increased travel speeds during AM peak by 2.3% for all vehicles, and 9.2% for buses



TSP Projects in DVRPC Region

- Testing for Route 66 on Frankford Avenue (*Ongoing*)
- State Street Transit Signal Priority Study (*Draft Complete*)
- Roosevelt Better Bus Concept Plan (*Final Draft Complete*)



TSP Projects in DVRPC Region

- Testing for Route 66 on Frankford Avenue (*Ongoing*)
- State Street Transit Signal Priority Study (*Draft Complete*)
- Roosevelt Better Bus Concept Plan (*Final Draft Complete*)
- Evaluating Opportunities for TSP in South Jersey study (*FY 2015*)