



American Planning Association
Pennsylvania Chapter



PLANNING BETTER TRANSIT STOPS

The Public Transit / Land Use Connection

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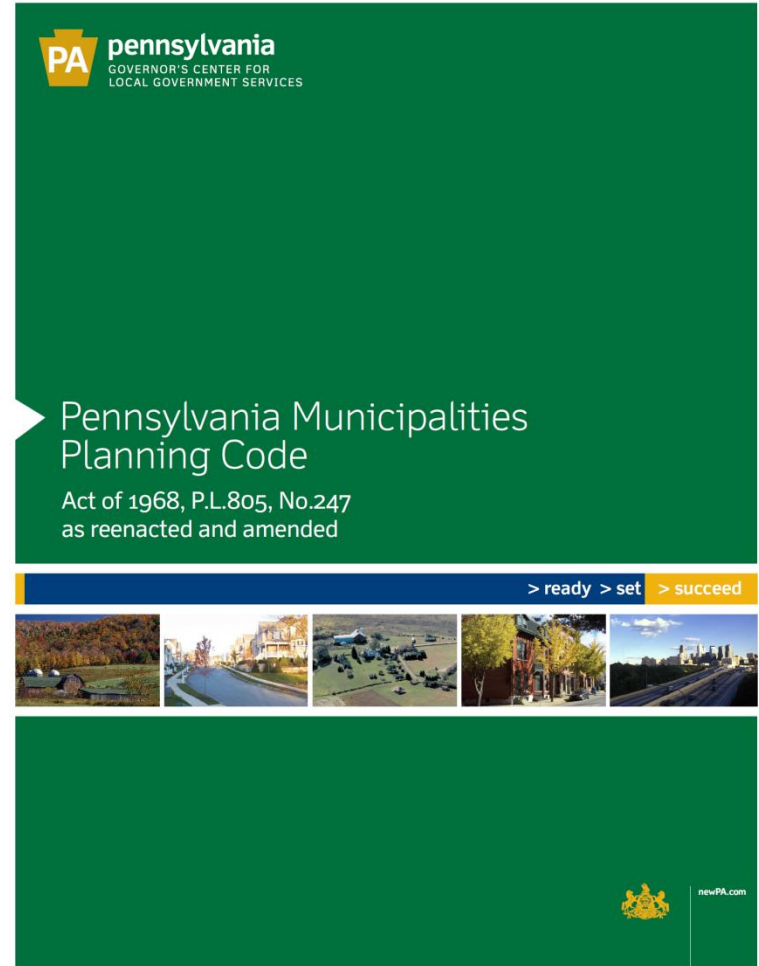
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A purpose of the
Municipalities Planning
Code is to “accomplish
coordinated development”

Addresses public health,
demographic needs

Reduces infrastructure
costs associated with
sprawl



Why design for transit?



SEPTA



- Safety (transit vehicles, pedestrians, other traffic)
- Guiding, protecting amenity and convenience of public facilities
- Conservation of energy through planning
- Promote small business development
- Promote revitalization of urban centers



The MPC and designing for transit

Comprehensive Plan

- One of the basic elements is to “plan for the movement of people and goods, which may include... public transit systems...”

Landscapes2



*Comprehensive Plan
The Lehigh Valley ... 2030*



Delaware County 2035

The Land | The People | The Places

BUCKS COUNTY COMPREHENSIVE PLAN 2011

How does the MPC propose to do it?

- Budgets
 - Capital
 - Operating
- Service Planning



Where does transit fit in?

TRANSIT SUPPORTIVE LAND USE: A Regional Partnership



LANta + Lehigh Valley Overview

- LANta Service

- Entirely wheeled system
 - LANta Bus & LANta Van

- Lehigh Valley

- 3 cities (Allentown, Bethlehem and Easton), 2 counties (Lehigh and Northampton), 62 municipalities, 17 school districts
- Region defined geographically by the Blue Mountain, southern ridges and linked by East-West oriented Route 22 and I-78





Lehigh Valley Planning Commission

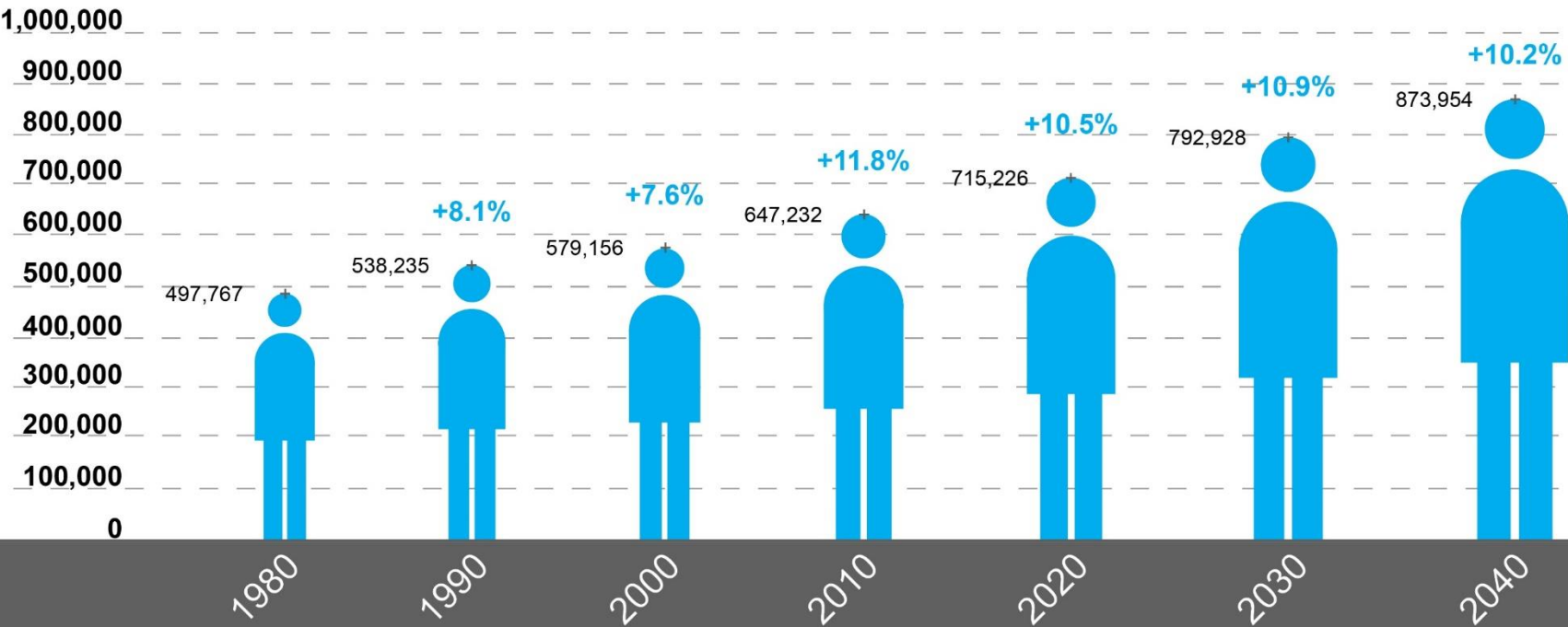
2 County Planning Agency +
Metropolitan Planning Agency

Share Board +
LVTS/MPO
Membership +
MOU for Planning

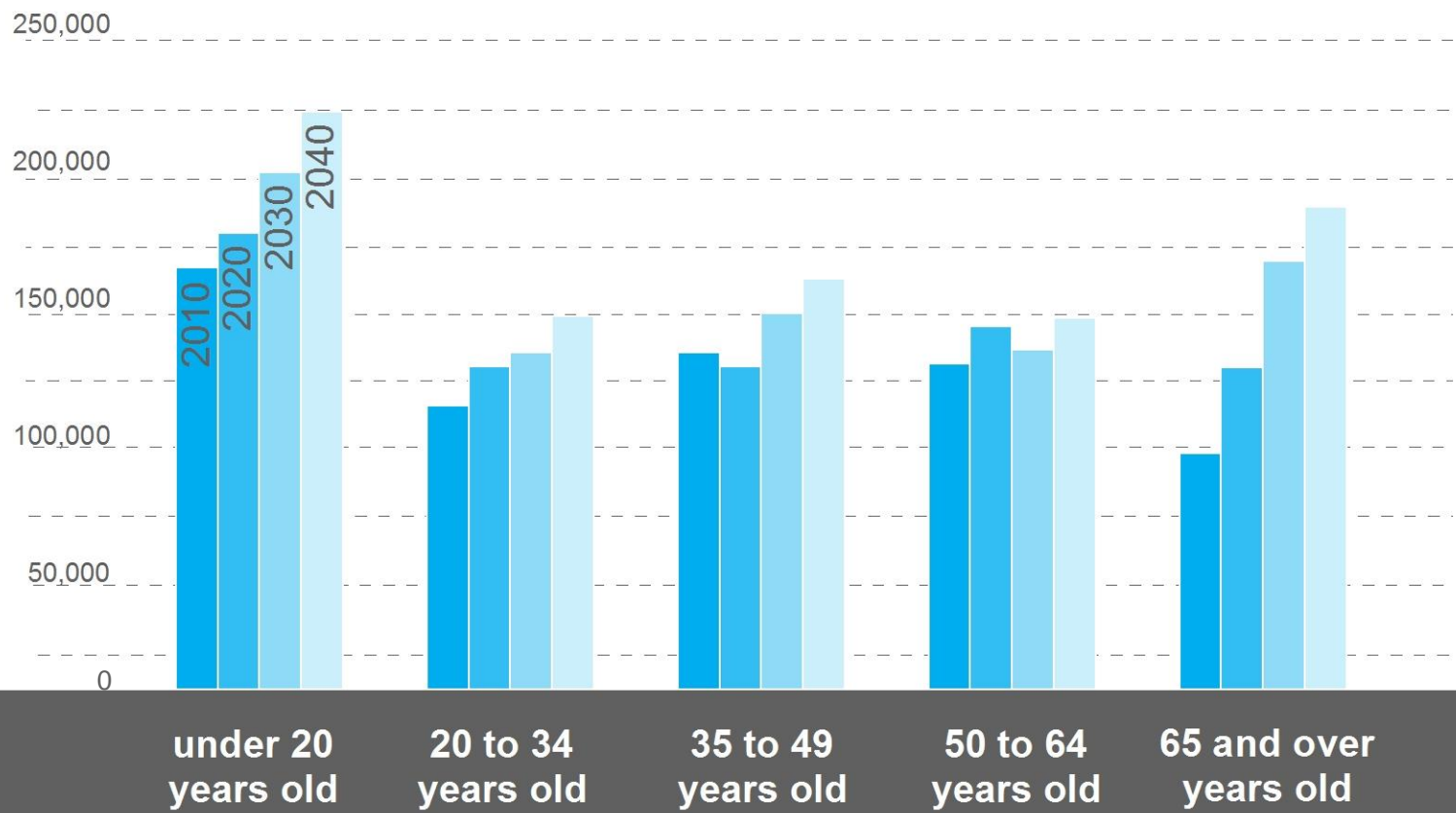
Public Transit Authority



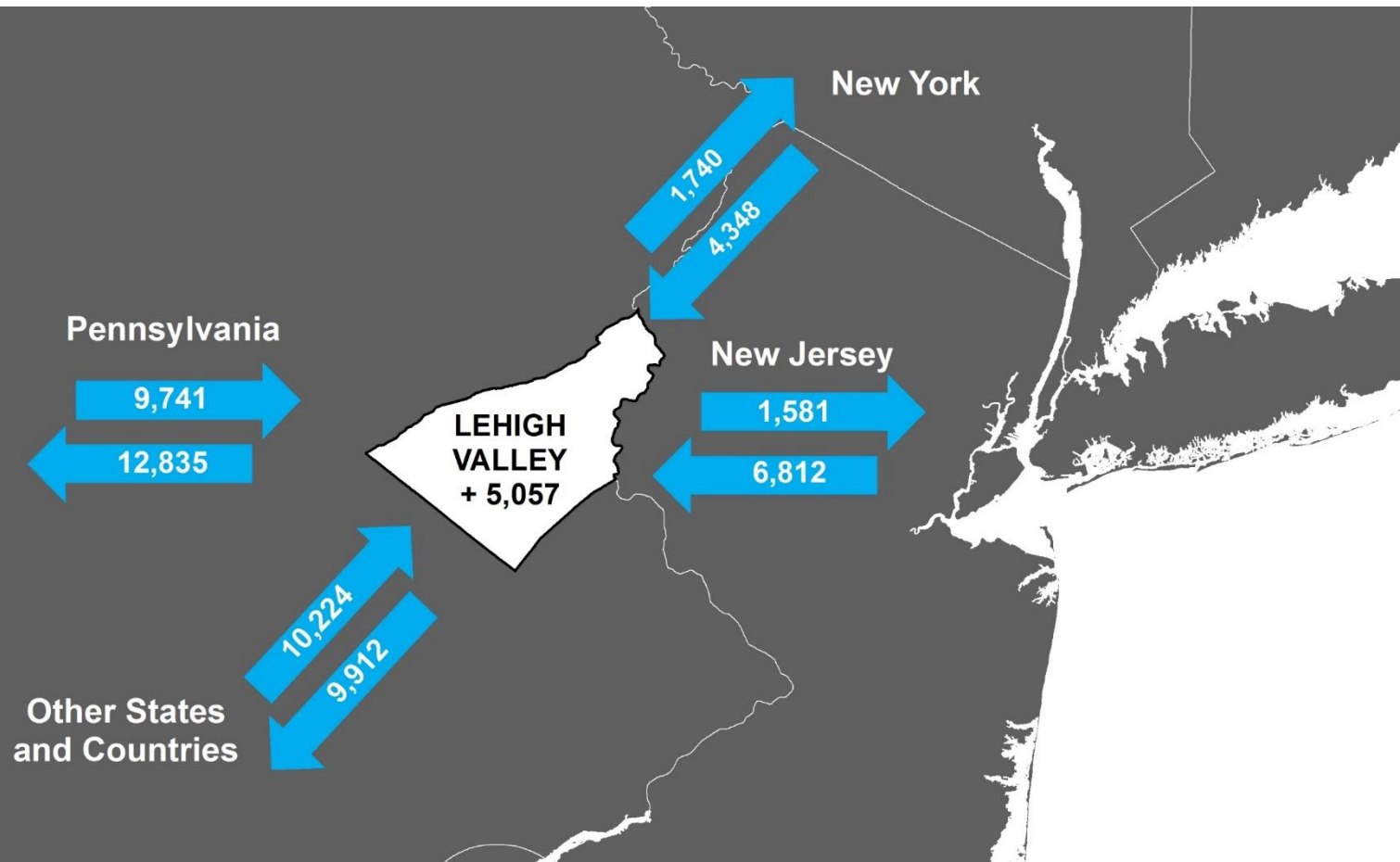
Population Growth



Population by Age

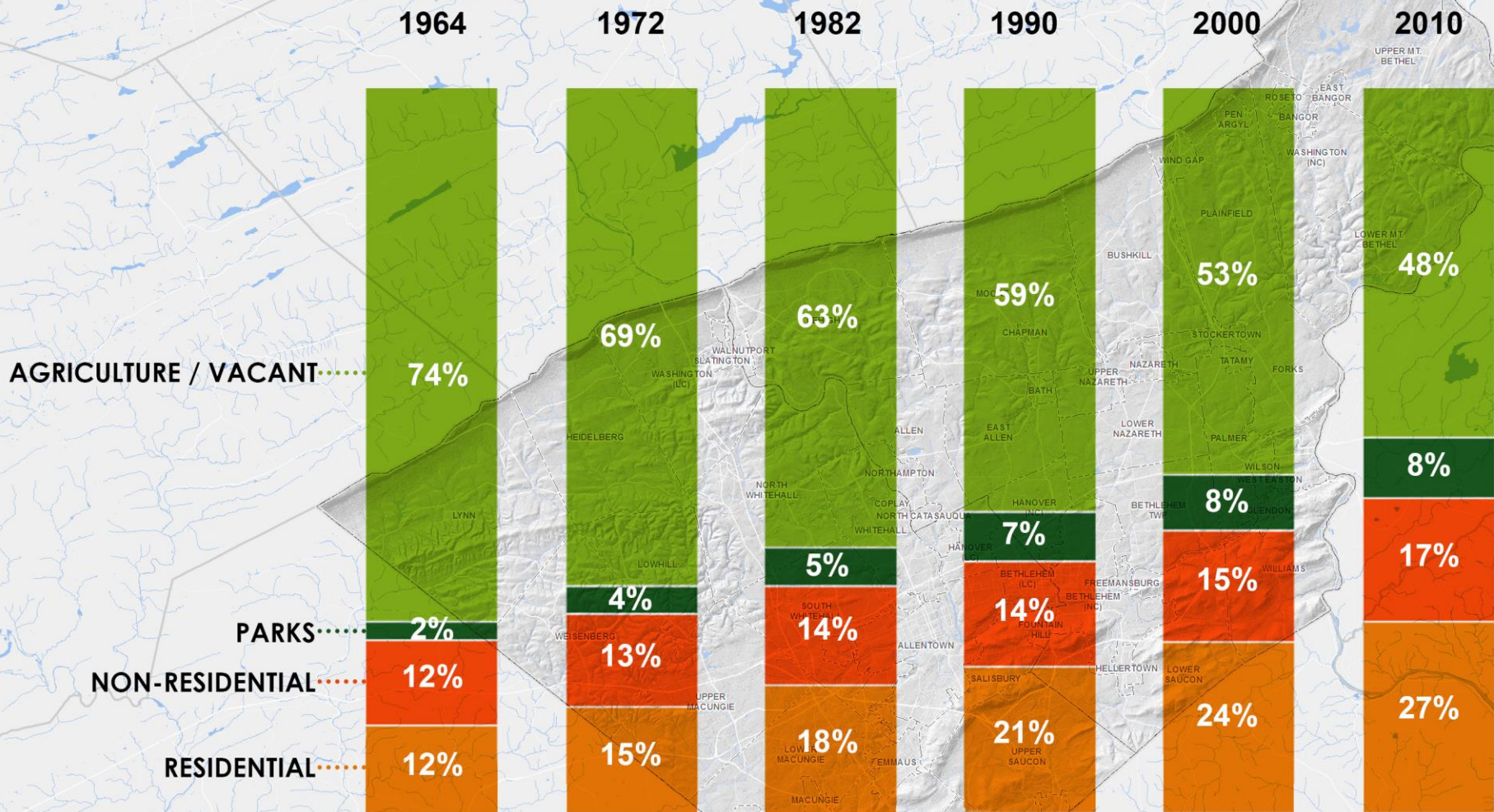


Population Migration (2006 – 2010)



Job Flows





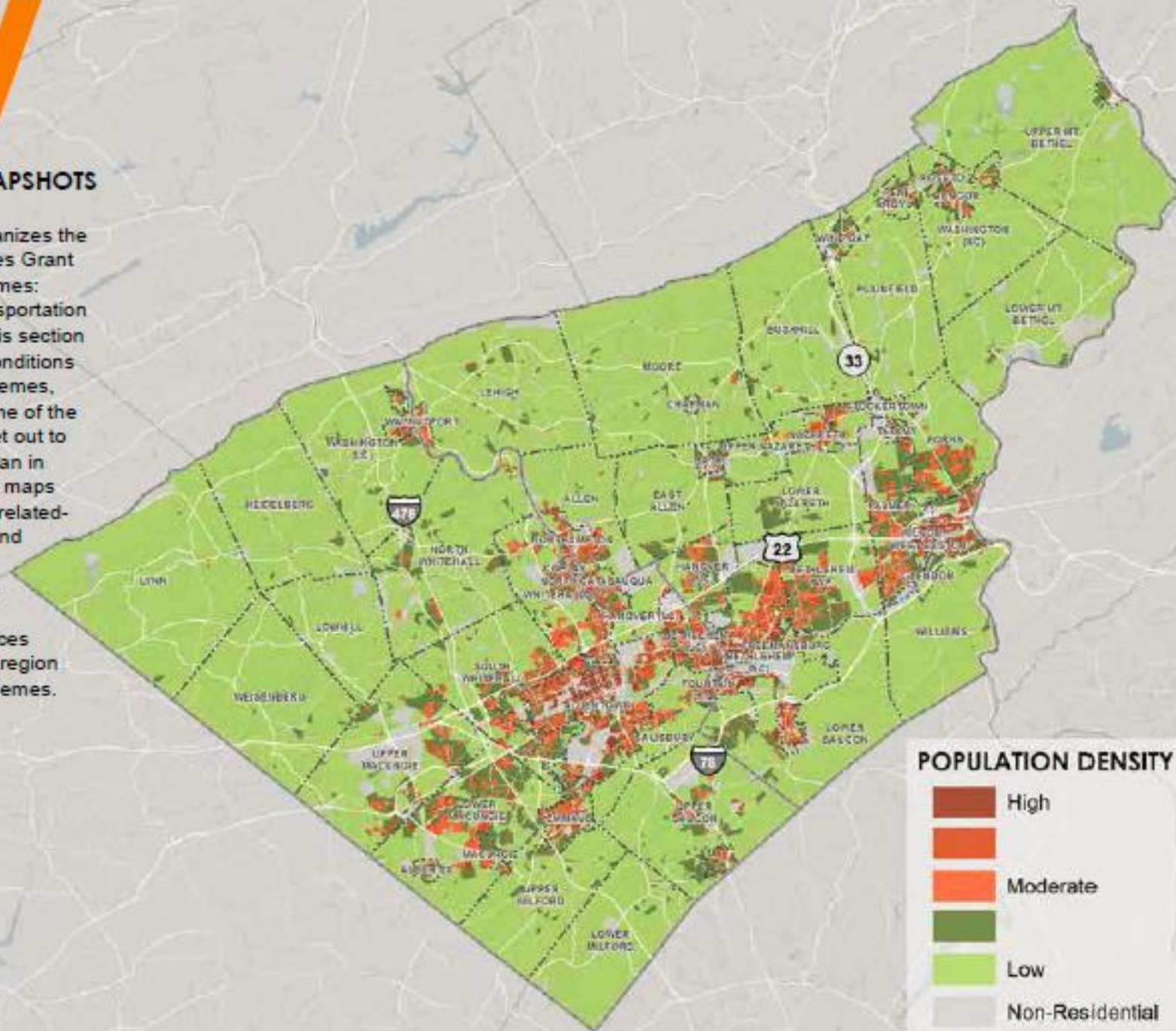
LAND USE IN THE LEHIGH VALLEY

THE AMOUNT OF AGRICULTURAL/VACANT LAND HAS DECREASED SINCE 1964 FROM URBANIZATION, PARTICULARLY THROUGH RESIDENTIAL DEVELOPMENT.



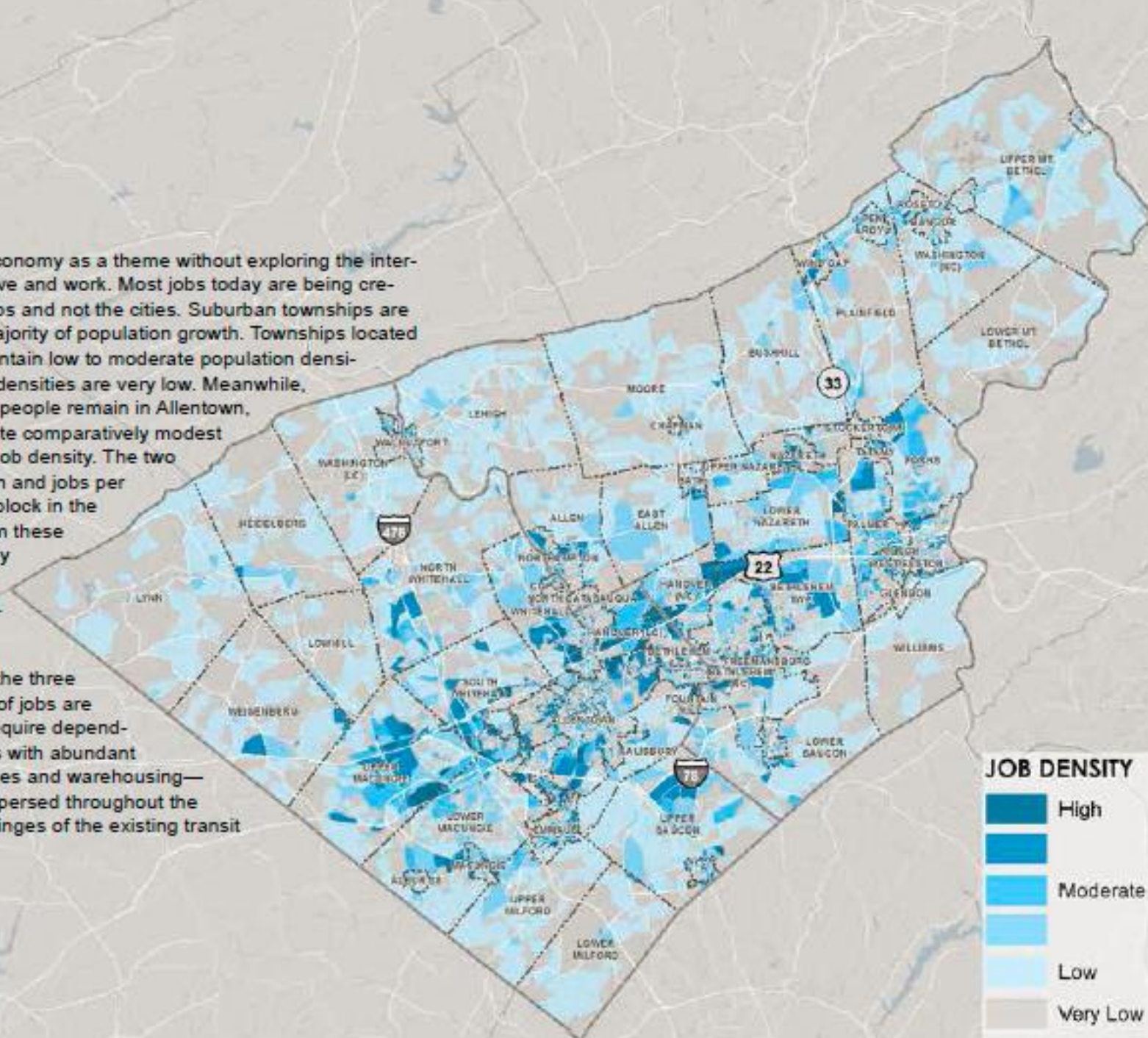
CURRENT TRENDS + SNAPSHOTS

This summary document organizes the HUD Sustainable Communities Grant reports around four basic themes: Economy, Environment, Transportation and Livable Communities. This section looks at current trends and conditions as they relate to those four themes, identifying and illustrating some of the issues that the Consortium set out to explore when this project began in 2011. Concerns raised by the maps in this section reveal the interrelatedness across all four themes and serve as key findings in several of the reports. The LVPC has integrated existing data from a variety of reliable sources to provide an overview of the region through the lens of the four themes.

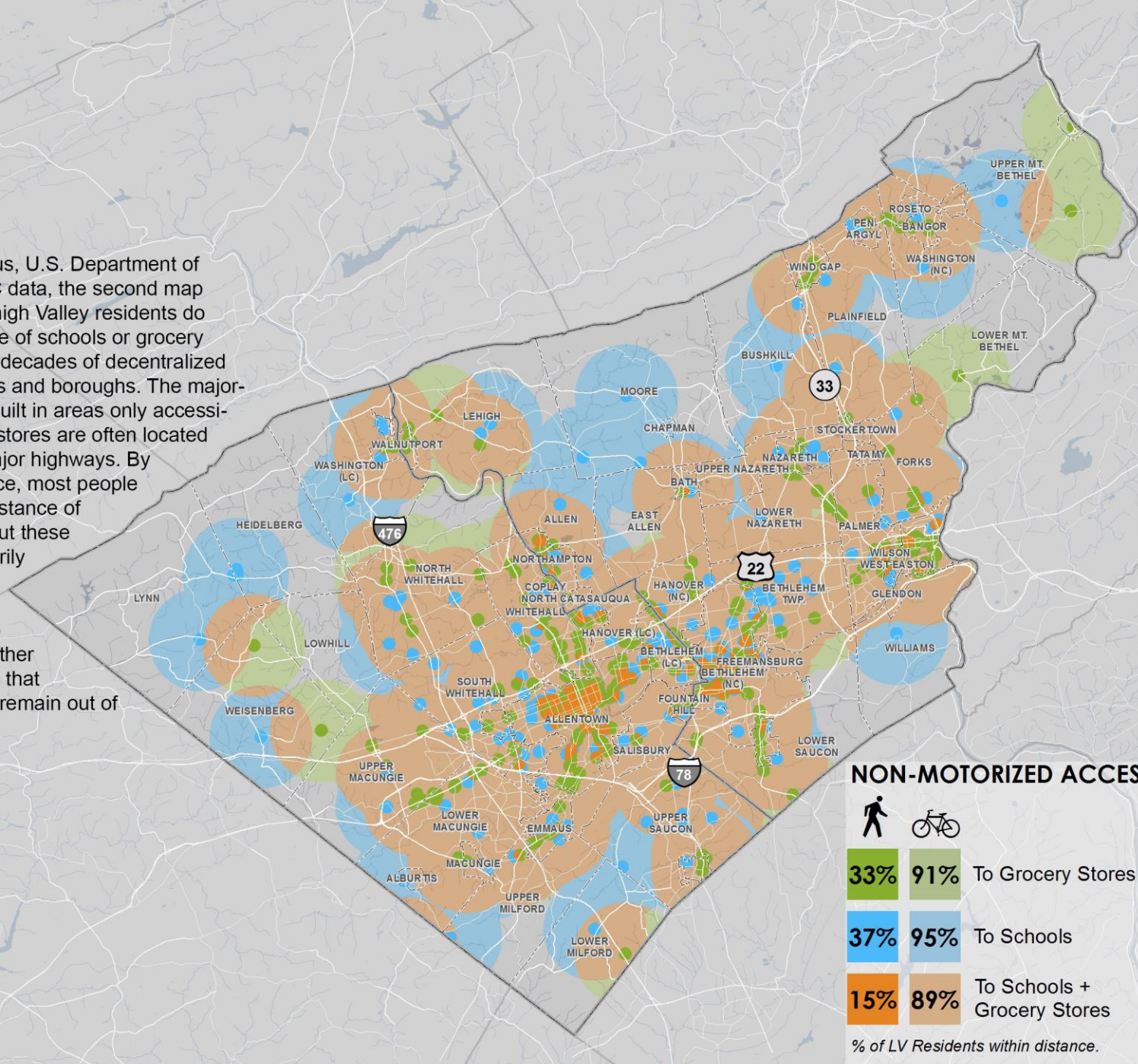


ECONOMY

It is impossible to consider Economy as a theme without exploring the interplay between where people live and work. Most jobs today are being created in the suburban townships and not the cities. Suburban townships are also the source of the vast majority of population growth. Townships located within the urbanized areas contain low to moderate population densities, while the rural township densities are very low. Meanwhile, the highest concentrations of people remain in Allentown, Bethlehem and Easton, despite comparatively modest growth—or even decline—in job density. The two maps, which depict population and jobs per square mile for each census block in the Lehigh Valley, not only confirm these observations but elicit an array of other concerns relating to households' access to capital. For example, the high costs of housing and transportation especially affect residents of the three cities, given that the majority of jobs are outside the three cities and require dependable transportation. Industries with abundant jobs—entry-level retail, services and warehousing—are not place-oriented but dispersed throughout the region, usually on the outer fringes of the existing transit system.

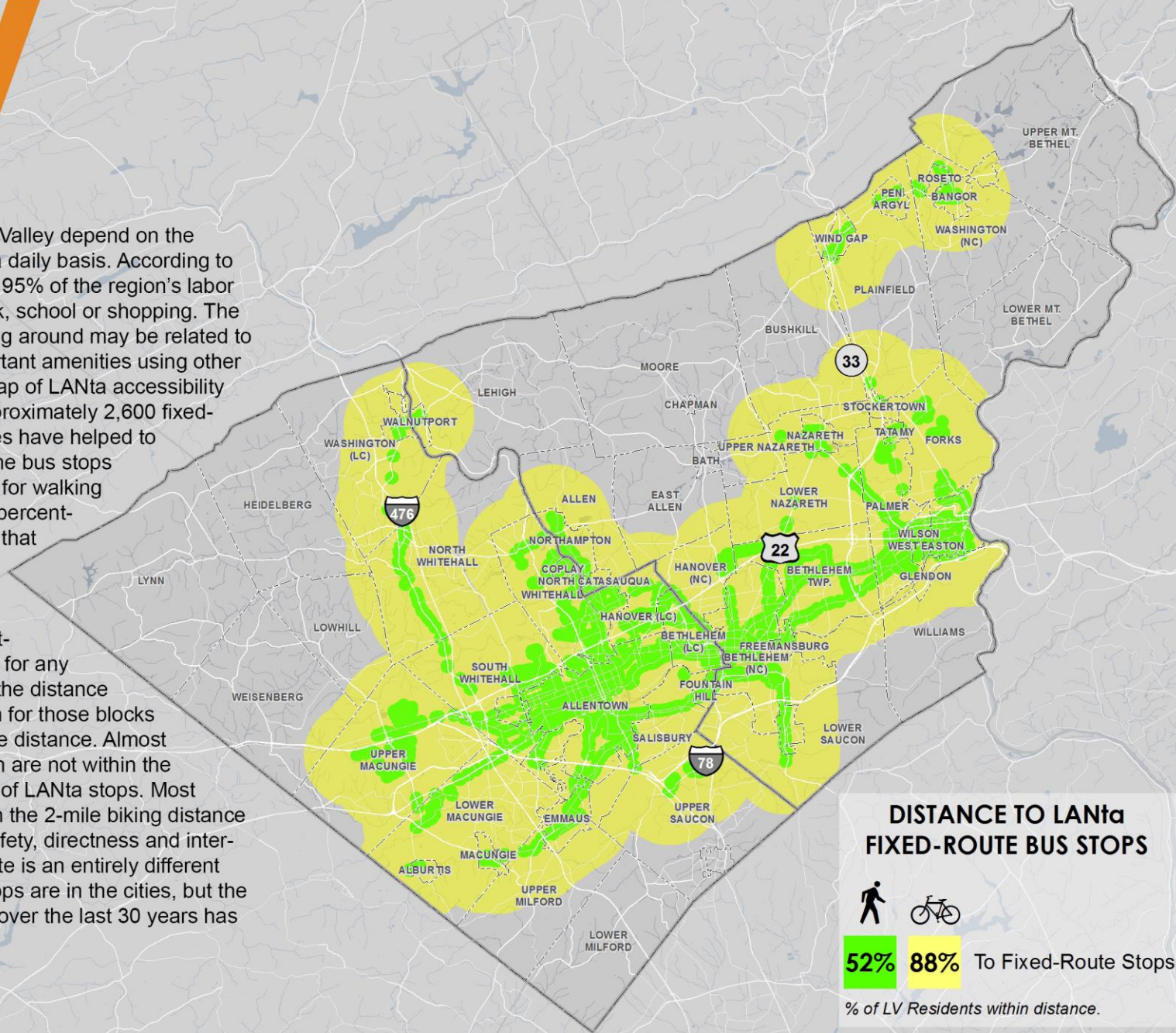


Using a combination of Census, U.S. Department of Agriculture (USDA) and LVPC data, the second map shows that the majority of Lehigh Valley residents do not live within walking distance of schools or grocery stores—potential evidence of decades of decentralized development outside the cities and boroughs. The majority of new schools today are built in areas only accessible by a school bus. Grocery stores are often located in shopping malls or along major highways. By using the 2-mile biking distance, most people in the region are within that distance of schools and grocery stores, but these high numbers do not necessarily coincide with a large population safely being able to use the bicycle routes. Those who lack the ability or income to either drive or ride bicycles may find that essential goods and services remain out of reach.

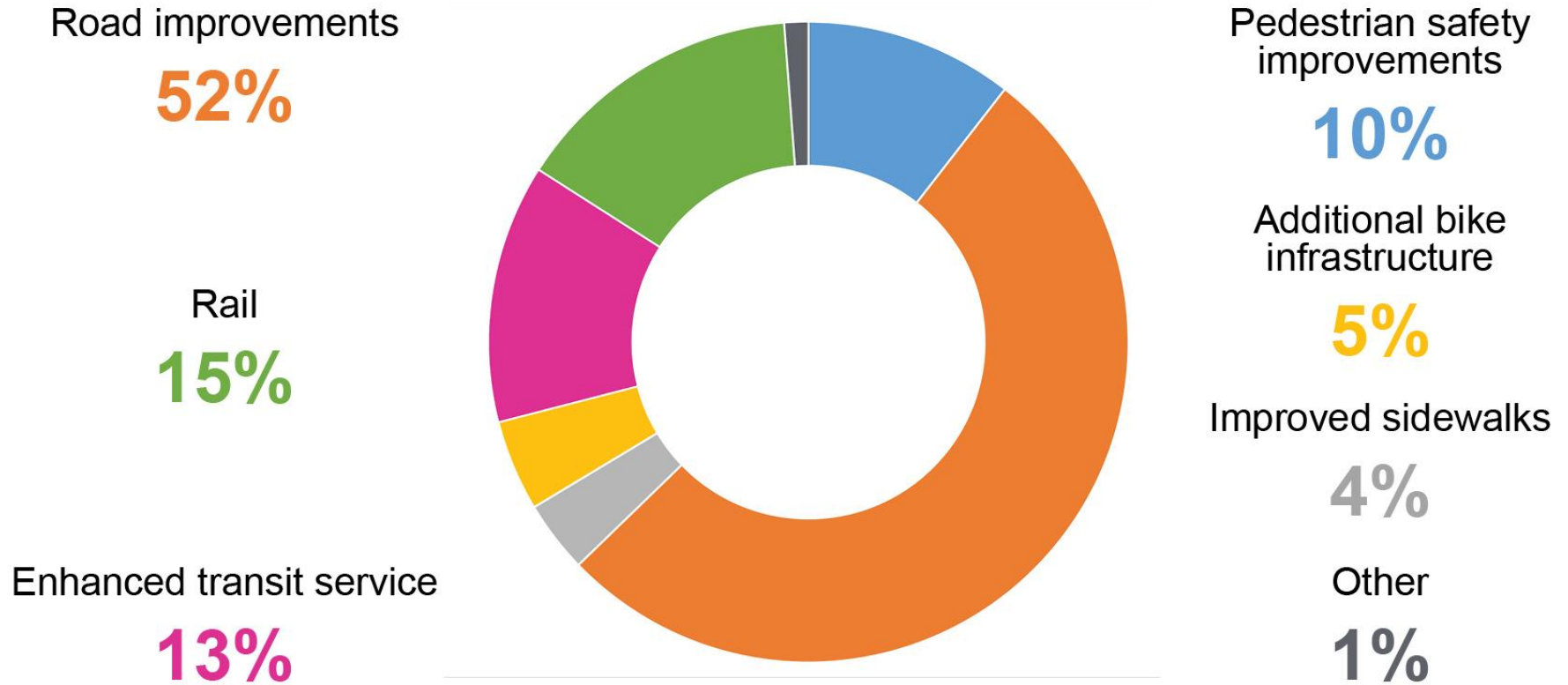


TRANSPORTATION

Many residents of the Lehigh Valley depend on the automobile to get around on a daily basis. According to U.S. Census statistics, nearly 95% of the region's labor force uses a car to get to work, school or shopping. The dependence on cars for getting around may be related to a lack of accessibility to important amenities using other transportation options. The map of LANta accessibility reveals the full network of approximately 2,600 fixed-route bus stops; GIS resources have helped to generate areas surrounding the bus stops within a quarter-mile distance for walking and two miles for biking. The percentage of the Valley's population that lives within these distances of non-motorized access is based on population counts within census blocks. The metrics include the full population for any blocks that fall entirely within the distance and a proportioned population for those blocks that only fall partially within the distance. Almost half of the people in the region are not within the quarter-mile walking distance of LANta stops. Most people in the region are within the 2-mile biking distance of LANta stops, though the safety, directness and inter-connectivity of the bicycle route is an entirely different consideration. Most transit stops are in the cities, but the majority of population growth over the last 30 years has taken place in the townships.



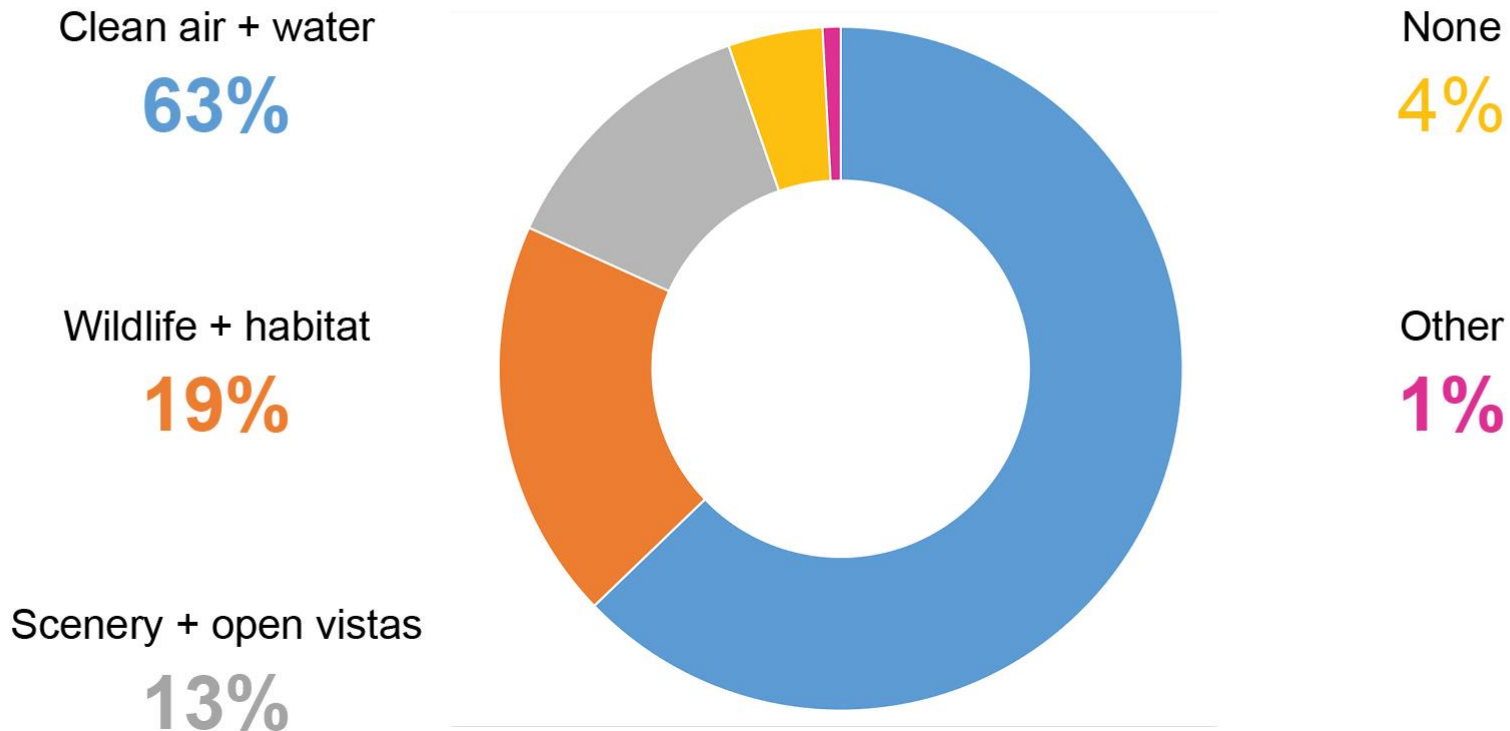
1LV Sustainable Communities Survey



TRANSPORTATION - Which of the following changes to the transportation system should be the top priority in the Lehigh Valley?

1LV Sustainable Communities Survey

ENVIRONMENT - Which of the following natural resources should the region promote as a top priority?





1. Provide more transportation choices. Develop safe, reliable and economical transportation choices to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions and promote public health.



2. Promote equitable, affordable housing. Expand location and energy-efficient housing choices for people of all ages, incomes, races and ethnicities to increase mobility and lower the combined cost of housing and transportation.



3. Enhance economic competitiveness. Improve economic competitiveness through reliable and timely access to employment centers, educational opportunities, services and other basic needs by workers, as well as expanded business access to markets.



4. Support existing communities. Target federal funding toward existing communities—through strategies like transit-oriented, mixed-use development and land recycling—to increase community revitalization and the efficiency of public works investments and safeguard rural landscapes.



5. Coordinate and leverage federal policies and investment. Align federal policies and funding to remove barriers to collaboration, leverage funding, and increase the accountability and effectiveness of all levels of government to plan for future growth, including making smart energy choices such as locally generated renewable energy.



6. Value communities and neighborhoods. Enhance the unique characteristics of all communities by investing in healthy, safe and walkable neighborhoods—rural, urban or suburban.

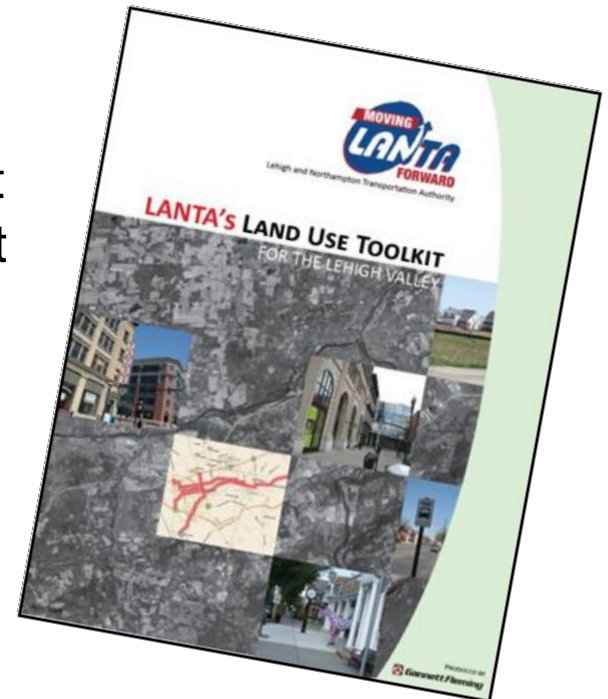
LANta Overview – Strategic Plan

- LANTA's 12 Year Strategic Plan *Moving LANTA Forward* calls for:
 - An ambitious expansion and restructure of fixed route system to meet growing population and demand
 - Commitment from municipal/county governments to promote transit through land use planning decisions
- Supported by:
 - LVPC's Comprehensive Plan for the Lehigh Valley
 - LVTS's Long-Range Transportation Plan
 - 1LV Sustainable Communities Plan



Land Use Outreach Initiative

- LANTA Hired a Director of Planning
- Entered into MOU with LVPC to conduct joint land use outreach program
- Initiated series of Transit Supportive Land Use practices presentations to municipal planning commissions
- Updated Land Use Toolkit to the Transit Supportive Land Use for the Lehigh Valley as part of Sustainable Communities Program with
- LVPC/LVTS targeting infrastructure investment within urban growth boundary to support transit



Key Planning Issues

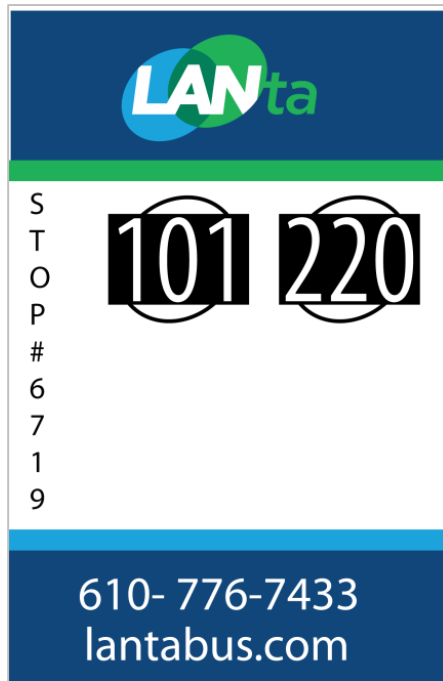
- Describe shared goals between planning documents and *Moving LANTA Forward*
 - Use specific quotes from municipality's planning documents
- Stress that we have an opportunity to work together to realize shared goals
- Key factors for transit
 - Service
 - Sidewalks
 - Site Planning
 - Centers

Whitehall Township Goal Statement:

Encourage land use patterns which support transit use.

Service

- Support the provision of service
- Traffic/parking enforcement
- Allow for signage and shelters



Whitehall Township Goal Statement:

Encourage LANTA service and ridership throughout Whitehall Township

Sidewalks

- A comprehensive and safe pedestrian network is essential to transit
- All transit riders start their trip as pedestrians or bicyclists
- Walking/biking for transportation purpose; not just recreation



Lower Macungie Township Goal Statement:

Provide sidewalks on both sides of the street in all developments.

Site Planning

- Unimodal site planning adversely affects transit provision
 - Every minute counts
 - Inconvenient for through passengers
- Ideal for transit:
 - Ability to serve location from street
 - When not possible, minimize internal circulation



• Site Planning

• Site Planning Review

- LVPC/LANTA review may or may not come early in the land development process



South Whitehall Township Goal Statement:

Consider mass transit in site planning for more efficient access to this mode of transportation.

Site Planning

Outbound	25	28	31
Inbound	25	28	31
Recovery	10	4	0
Total	60	60	62

Frequency	30	30	?
Buses	2	2	?



Centers

- Increasing density
- Incorporating mixed uses
- Creating centers of activity



South Whitehall Township Goal Statement:
*Incorporate appropriate criteria for infill
development in and around existing villages.*

Key Discussion Points

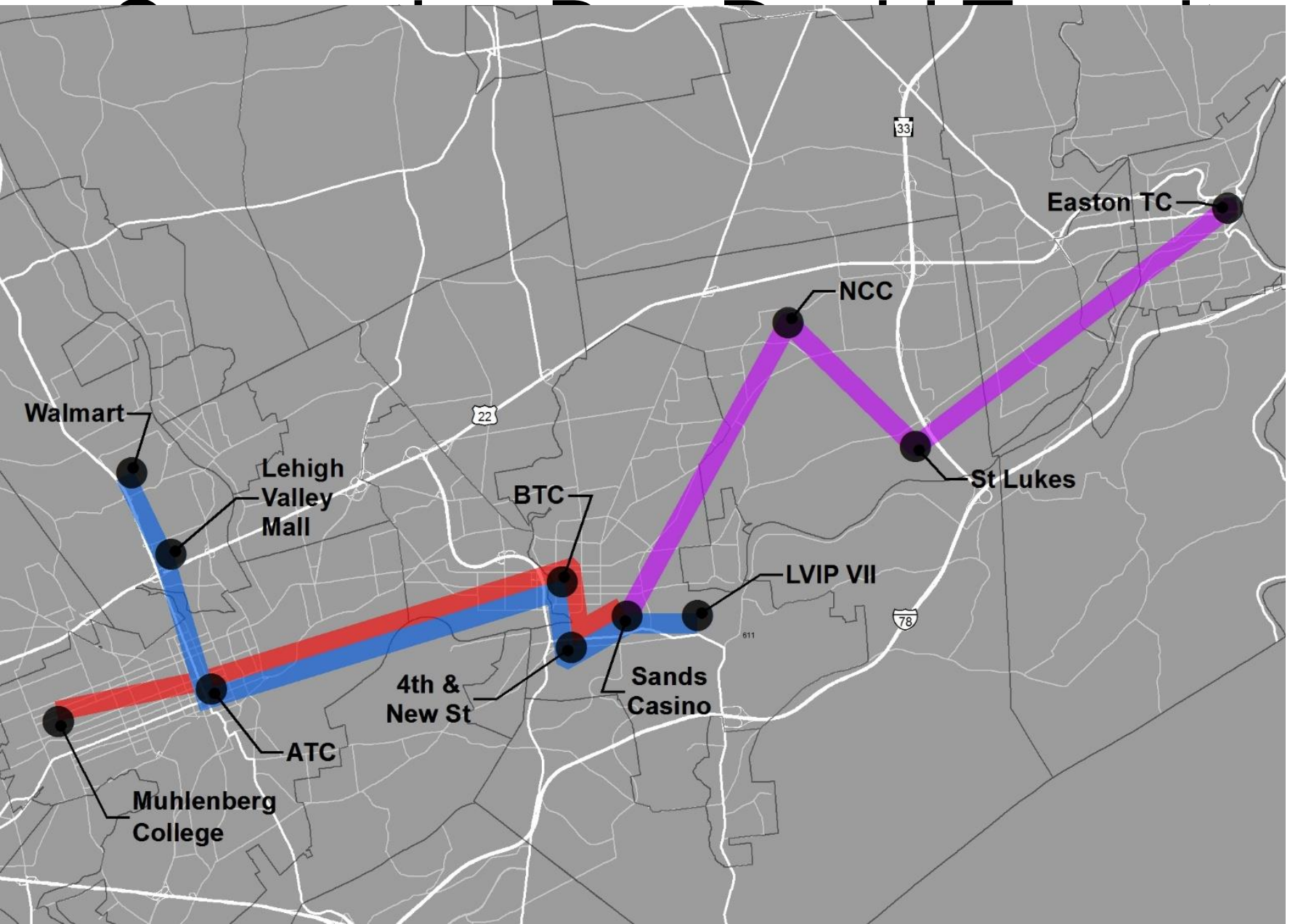
- Municipalities play key role in regional transit vision
- Does not require “radical change”
 - Requires subtle change to assumption that everyone will drive everywhere
- View walking/biking as transportation mode, not just recreation
- Regardless of transit, this represents planning that realizes YOUR goals
- We want to work with you/We are 1LV













Municipal Cooperation



Municipal Cooperation Growing

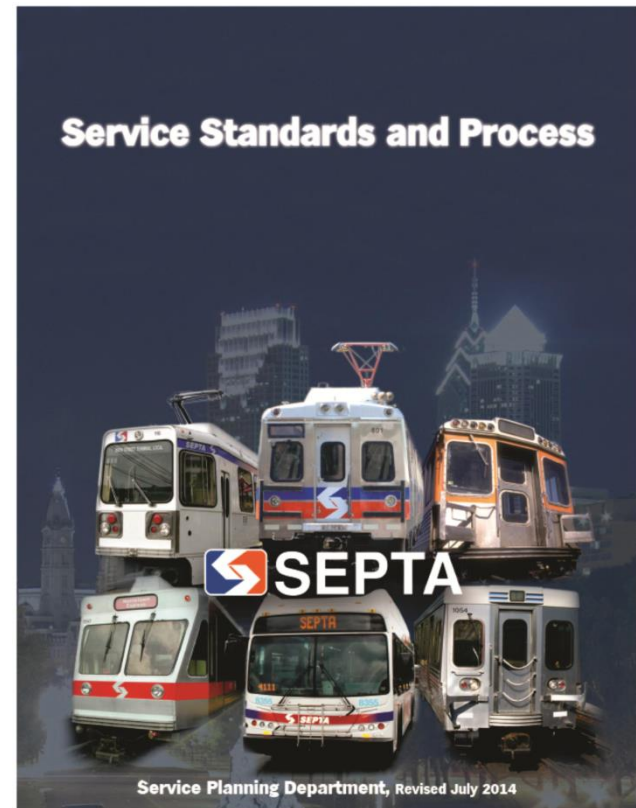


- Strategic Business Plan
- Sustainability Plan
- Service Planning
 - Service Standards and Process
 - Annual Service Plan
 - Bus Stop Design Guidelines



Where does SEPTA fit in?

- Public rules to make decisions in our 5-county service area
- Best uses of limited resources
- Fair and objective comparison of service requests



Context: Service Standards and Process

- Service coverage
- Stop spacing
- Route economic performance
- Transfers
- Service frequency & span
- On-time performance

TRANSIT VEHICLE LOADING STANDARDS				
MODE	SEATS	OFF-PEAK HOURS	MAXIMUM LOADING STANDARD [PEAK HOURS]	PERCENTAGE OF MAXIMUM CAPACITY TO SEATS ON VEHICLE
BUS				
27' Cut-Away (93" wide)	26	26	34	131%
30' ADB Standard (96" wide)	26	26	40	154%
40' ADB Standard (102" wide) (NABI *)	44	44	70	159%
40' ADB Low Floor (102" wide) (New Flyer)	39	39	66	169%
40' ADB Low-Floor (102" wide) (NovaBus)	40	40	68	170%
60' ADB Articulated (102" wide) (Neoplan *)	65	65	99	152%
62' ADB Low-Floor Articulated (102" wide) NovaBus	62	62	108	174%
TROLLEY				
LRV (Single or Double Ended)	51	51	85	167%
PCC II	46	46	70	152%
HIGH SPEED				
Broad Street Line (B-IV)	64	64	135	211%
Market-Frankford Line (M-IV)	50	50	105	210%
Norristown High Speed Line (N-V)	60	60	100	167%
TRACKLESS TROLLEY				
New Flyer	39	39	64	164%

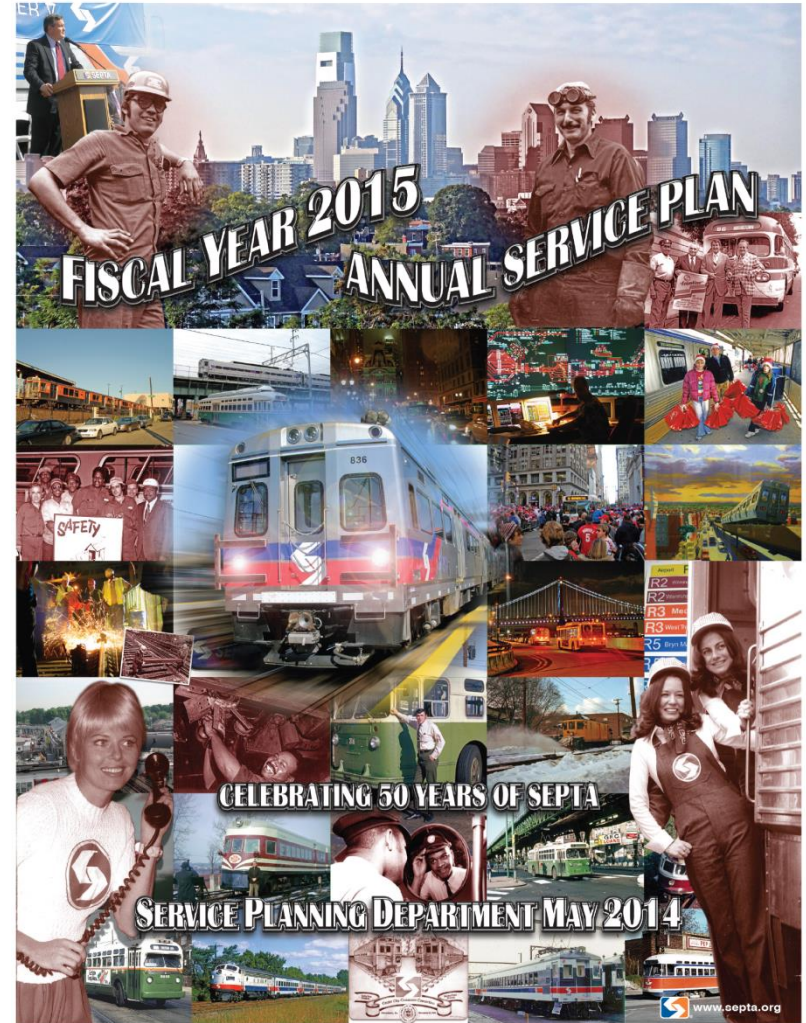
NOTE: Maximum loading standard is based on manufacturer's specifications and PennDOT transit guidelines (five square feet per passenger for 15-minute travel period). On limited-access highway (expressway operation), Pennsylvania motor code limits passenger capacity to 125% of the seats on a vehicle. (Pennsylvania Motor Vehicle Code, Title 75, Chapter 49, Subchapter C, Section 4948; http://www.dmv.state.pa.us/pdotforms/vehicle_code/chapter49.pdf)

* -- This fleet is expected to be fully retired during CY 2015.

Context: Service Standards and Process

Fiscal analysis (FTA)

- Cost: Hours, Miles & Peak vehicles
- Projected revenue
- Cost recovery – Operating ratio



Context: Annual Service Plan

Community Benefit Analysis changes

- Number of passengers
- Transfers
- Travel time
- Walking distance

Proposed Route 201

Service	Benefit Points	Existing		Proposed	
		Psgrs	Points	Psgrs	Points
<u>Weekday</u>					
Ridership	1.0	215	215	225	225
Owl Ridership	1.25	0	0	0	0
Eliminated Transfer	0.6	0	0	0	0
Additional Transfer	-0.6	0	0	0	0
Improved Travel Time	0.4	0	0	0	0
Added Travel Time	-0.4	0	0	0	0
Decreased Walking Distance	0.4	0	0	0	0
Increased Walking Distance	-0.4	0	0	0	0
Total			215		225
<u>Saturday</u>					
Ridership	1.0	0	0	0	0
Owl Ridership	1.25	0	0	0	0
Eliminated Transfer	0.6	0	0	0	0
Additional Transfer	-0.6	0	0	0	0
Improved Travel Time	0.4	0	0	0	0
Added Travel Time	-0.4	0	0	0	0
Decreased Walking Distance	0.4	0	0	0	0
Increased Walking Distance	-0.4	0	0	0	0
Total			0		0
<u>Sunday</u>					
Ridership	1.0	0	0	0	0
Owl Ridership	1.25	0	0	0	0
Eliminated Transfer	0.6	0	0	0	0
Additional Transfer	-0.6	0	0	0	0
Improved Travel Time	0.4	0	0	0	0
Added Travel Time	-0.4	0	0	0	0
Decreased Walking Distance	0.4	0	0	0	0
Increased Walking Distance	-0.4	0	0	0	0
Total			0		0
<u>ANNUALIZED</u>			54,825		57,375
<u>FBS Calculation</u>					
Annual Benefit Points			54,825		57,375
Annual Expenses			\$342,546		\$329,414
FBS			0.16		0.17

Context: Annual Service Plan

All transit agencies in Pennsylvania are working with & around:

- Existing land uses
- Existing design

Opportunities to improve conditions for transit include:

- Corridor-wide improvements
- Site-specific plans
- Retrofitting existing uses

LANTA's approach is similar

- Route classification system that connects routes with targeted areas served
 - Ties in population, employment density
 - Creates an activity density index
- Explains the impact on vehicle cycle time when new routings/destinations are added

Unique elements of the LANta approach

- Awareness about relationship between street design, transit operations/performance
- Consideration of transit needs, amenities by:
 - Municipalities – zoning, SALDO
 - Developers – preparing initial site plans
- Improve safety for SEPTA passengers, vehicles
- Encourage investment that can bring new users to the system



Why Bus Stop Design Guidelines?

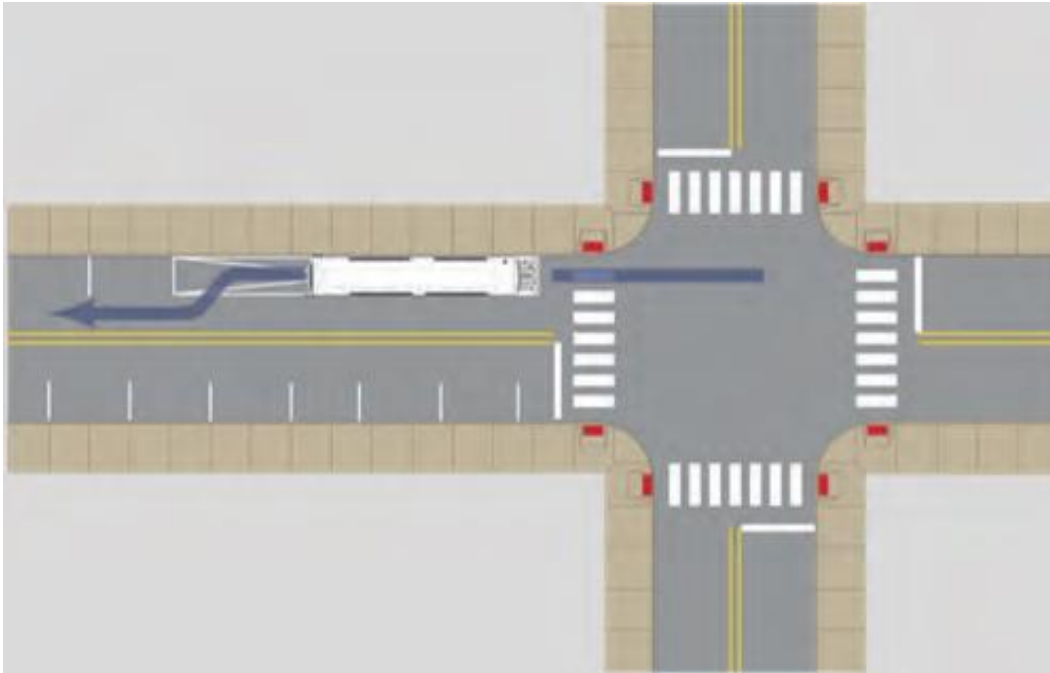
- Bus Stop location
- In-Street Design
- Curbside Design
- Passenger Amenities

SEPTA Bus Stop *Design Guidelines*

October 2012



Bus Stop Design Guidelines: Structure



Advantages:

- Fewer right turn, sight line conflicts
- Pedestrians cross behind bus

Disadvantages:

- Double stopping with red signal on approach
- More risk for rear end collisions

Bus Stop Location: Far-side



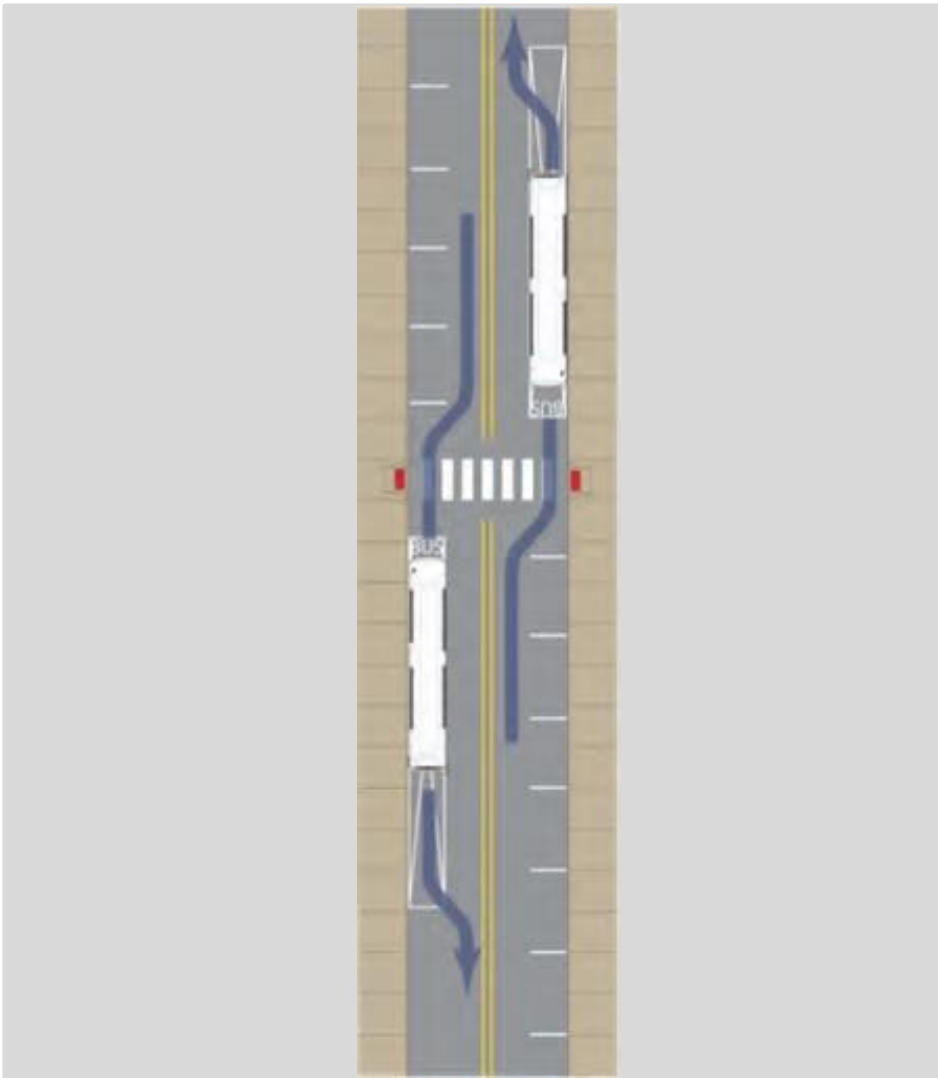
Advantages:

- Minimal traffic interference in peak
- Passengers board near crosswalk

Disadvantages:

- Conflicts with right turning vehicles
- Obscured sight lines for intersection

Bus Stop Location: Near-side



Advantages:

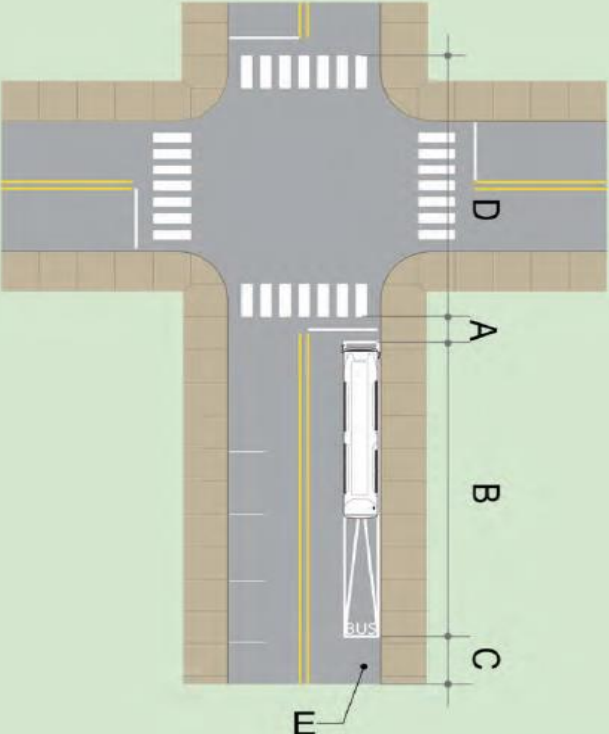
- Minimal sight line obstructions
- Removes intersection conflicts

Disadvantages:

- Pedestrian crossing if no crosswalk is provided
- Reduces space available for on-street parking

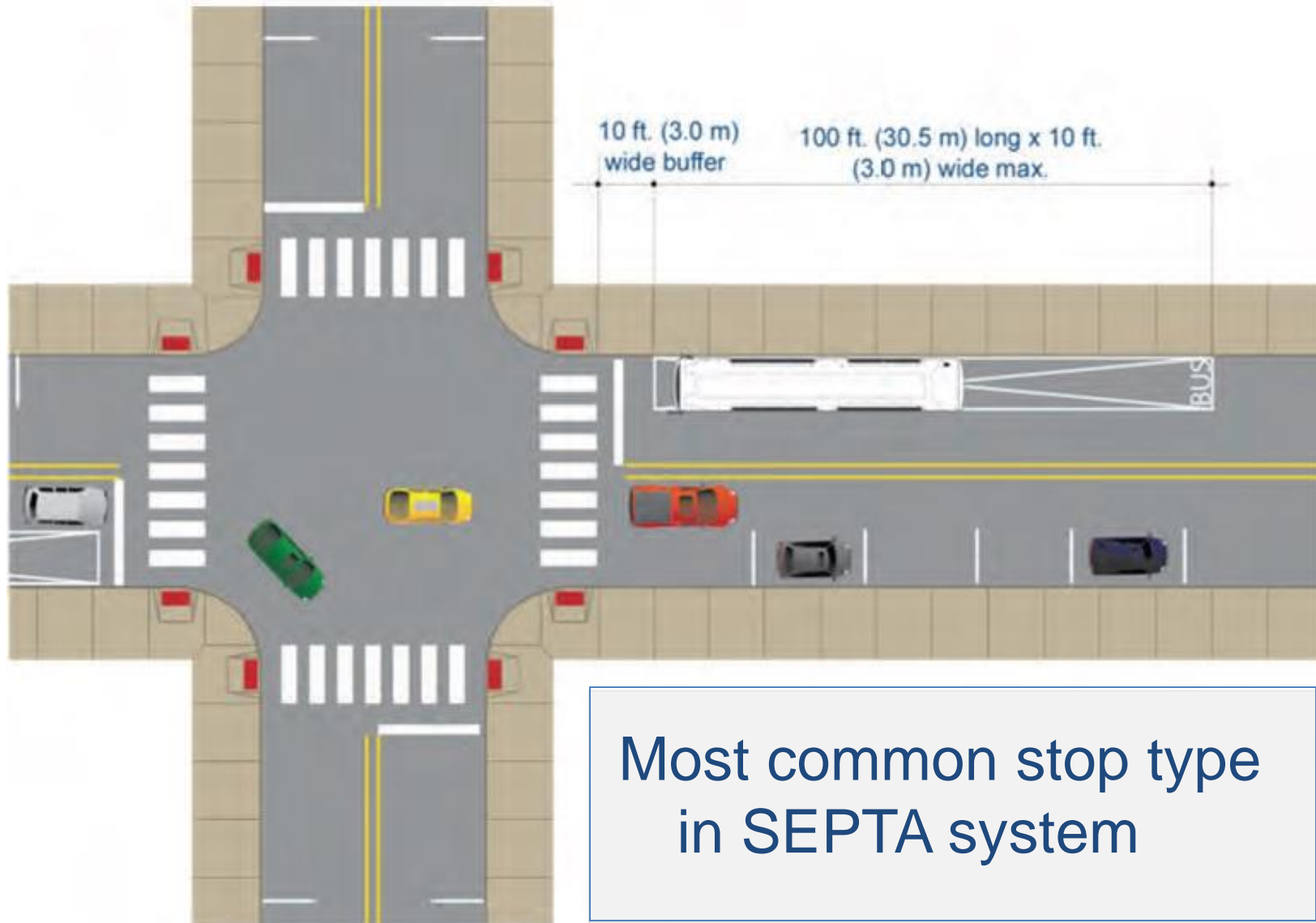
Bus Stop Location: Midblock

Table 3: Dimensional specifications for in-street (but outside travel lane) stop types

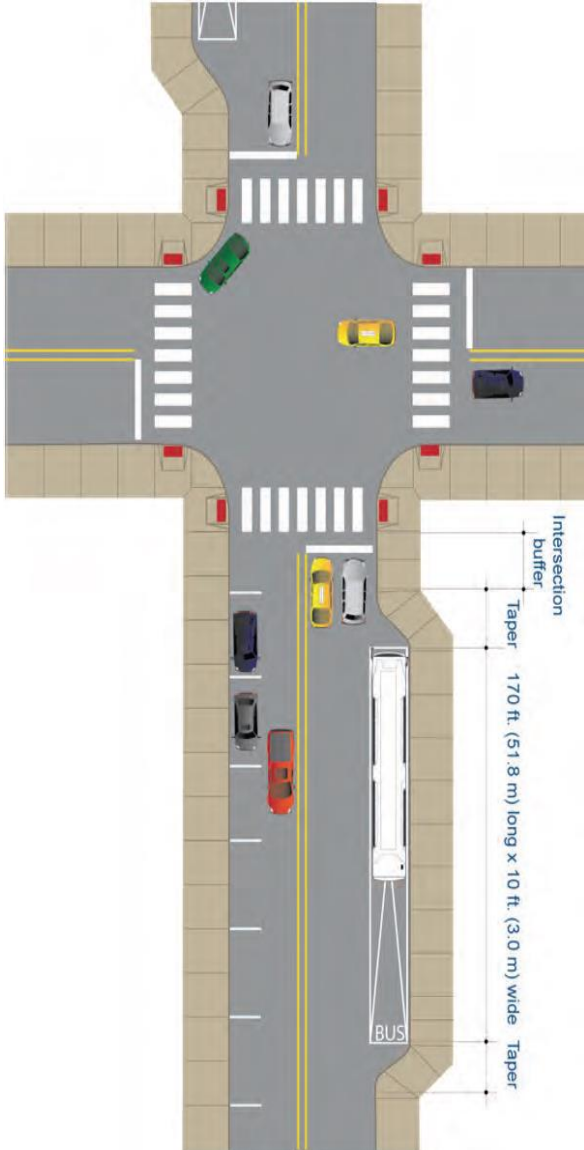
Stop Configuration	Roadway Characteristic	Minimum Safety Buffer	Primary Bus Zone Length	Additional Deceleration Space	Additional Acceleration Space	Equiv. Parking Spaces
Curbside/shoulder stop (near side)		A	B	C	D	E
 <p>Source: DVRPC 2012</p>	Urban street with on-street parking: typical posted speeds 25-30 mph; Bus enters stop area at 10 mph	10 ft. (3.0m) safety buffer behind crosswalk	100 ft. (30.5m) l x 10 ft. (3.0m) w in parking lane; add 20 ft. (6.1m) for articulated bus*	No additional space required	N/A: Uses intersection to accelerate	Up to 5 spaces needed to create bus zone
	Minor road with no on-street parking: typical posted speeds 25-35 mph; Bus enters stop area at 15 mph	10 ft. (3.0m) safety buffer behind crosswalk	100 ft. (30.5m) l x 10 ft. (3.0m) w in shoulder; add 20 ft. (6.1m) for articulated bus*	50 ft. (15.2 m) transition	N/A: Uses intersection to accelerate	None; road shoulder is used
	Major road with no on-street parking: typical posted speeds 35-45 mph; Bus enters stop area at 20 mph	10 ft. (3.0m) safety buffer behind crosswalk	100 ft. (30.5m) l x 11 ft. (3.4 m) w in shoulder; add 20 ft. (6.1m) for articulated bus*	100 ft. (30.5 m) transition	N/A: Uses intersection to accelerate	None; road shoulder is used

*The standard bus zone length in the City of Philadelphia has been 60 feet for standard buses and 90 feet for articulated buses. This practice will remain in place for city stops, with new bus zones meeting the standards in this table wherever possible.

Dimensional Specifications



In-Street Design: Curbside



In-Street Design: Bus Bay Stop

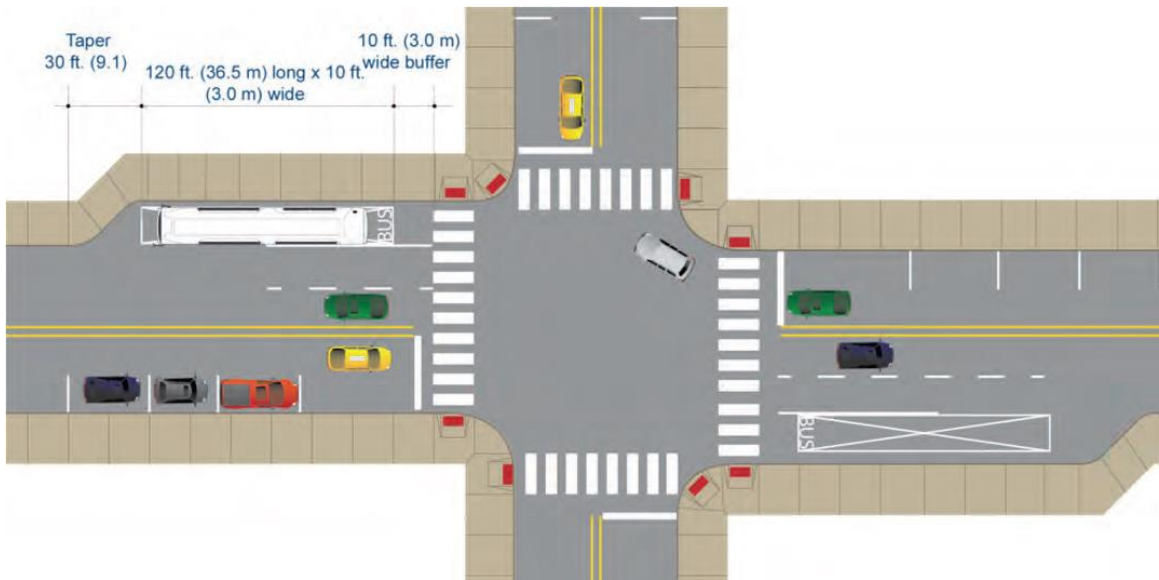


Used with:

- Near side stop with parking lanes
- Multiple travel lanes



In-Street Design: Curb Extension



Various
in-street &
off-street
applications

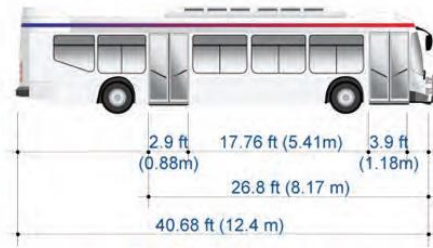


Open Bus Bay

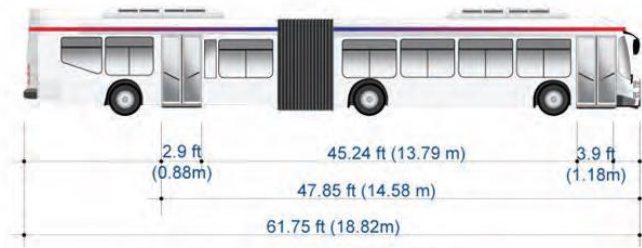


Loading area horizontal & vertical clearances

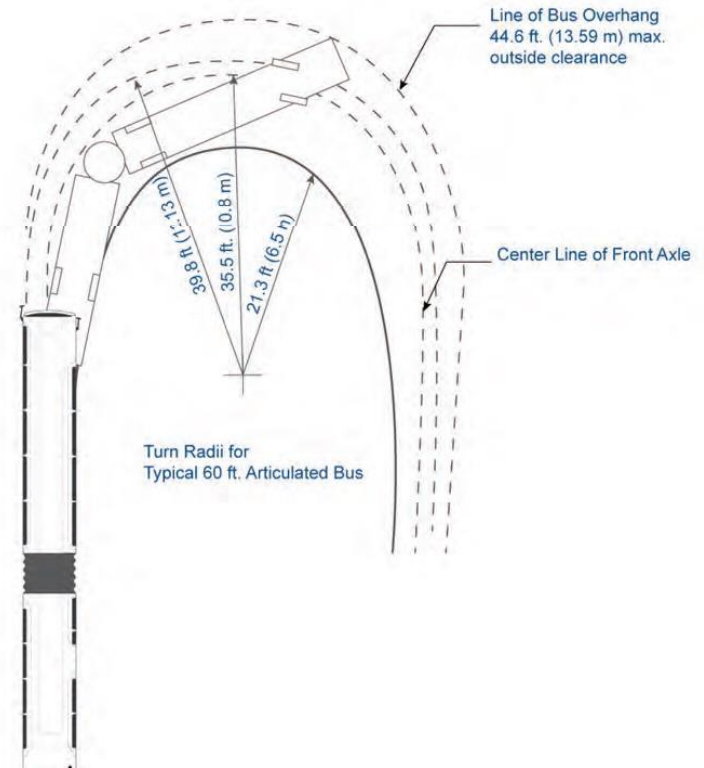
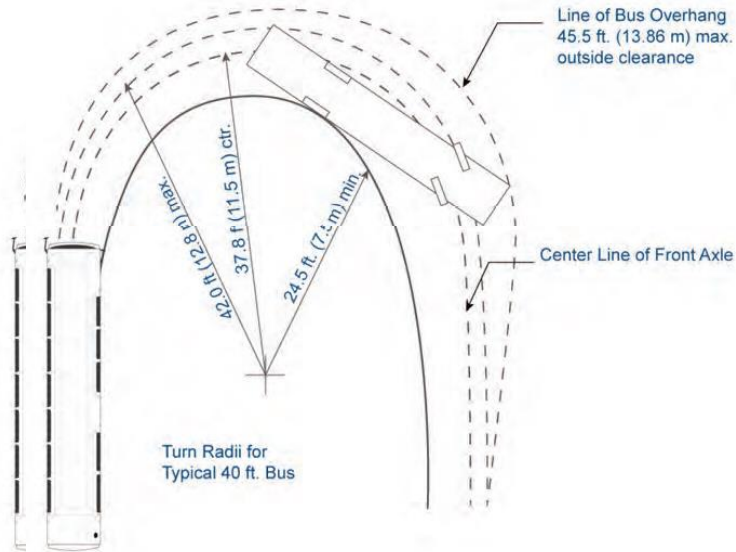
In-Street Design: Engineering Considerations



SEPTA Typical 40 ft. Bus



SEPTA Typical 60 ft. Articulated Bus



In-Street Design: Bus Turning Radii



Addressing heavier than normal loads
(about 21.5 tons for 40' bus)

In-Street Design: Roadway Paving

Scaled to reflect ridership levels & passenger movement



Clear zone for boarding/ alighting - ADA

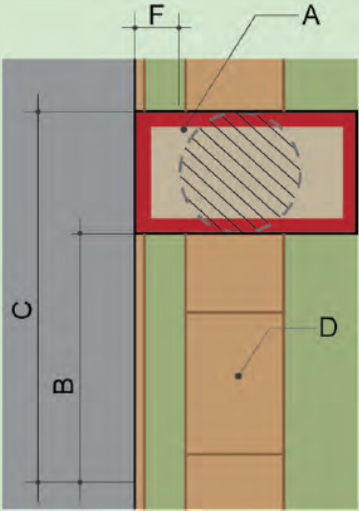
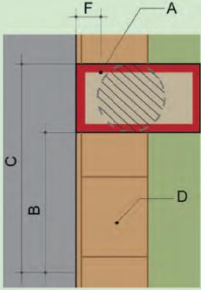
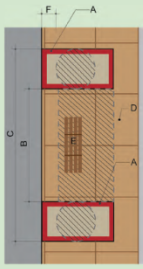


Separate pedestrian path and waiting area where possible



Curbside Design: Loading/Waiting Area

Table 4: Dimensional specifications for curbside passenger facilities

TYPE 1: Minimum stop with recessed pedestrian path		Element	Details
	A	Loading pad	5 ft. (1.5m) long x 8 ft. (2.4m) deep; pad must be firm, stable, and slip resistant, and connected to the pedestrian path. Provides a 5 ft. (1.5m) diameter clear turning radius for wheelchair users. Sign should be located adjacent to the loading pad to clearly indicate bus stop.
	B	Waiting area	7 ft. (2.1m) long x 4 ft. (1.2m) deep; waiting area can be accommodated in the pedestrian path if pedestrian volumes are low. Provides enough area for 4 passengers at 7 SF (0.65m ²) per person, 28 SF (2.6 m ²) total.
	C	Stop area	A 12 ft. (3.7m) area along the curbline should be kept free from obstructions. The length should provide free access to the vehicle's front doors.
	D	Pedestrian path	Minimum 4 ft. (1.2m) deep pedestrian path, or wider, as called for by local sidewalk standards, along a sidewalk or similar with a firm, stable, and slip resistant surface connected to the
TYPE 2: Minimum stop with curbside pedestrian path		Element	Details
	A	Loading pad	5 ft. (1.5m) long x 8 ft. (2.4m) deep; pad must be firm, stable, and slip resistant, and connected to the pedestrian path. Provide a 5 ft. (1.5m) diameter clear turning radius for wheelchair users. Sign should be located adjacent to the loading pad to clearly indicate bus stop.
	B	Waiting area	7 ft. (2.1m) long x 4 ft. (1.2m) deep; waiting area can be in the pedestrian path if pedestrian volumes are low. Provides enough area for 4 passengers at 7 SF (0.65m ²) per person, 28 SF (2.6 m ²) total.
	C	Stop area	A 12 ft. (3.7m) area along the curbline should be kept free from obstructions. The length should provide free access to the vehicle's front doors.
	D	Pedestrian path	Minimum 4 ft. (1.2m) deep pedestrian path, or wider, as called for by local sidewalk standards, along a sidewalk or similar with a firm, stable, and slip resistant surface connected to the wider path is desirable to provide space for passing.
	E	Furniture	N/A
	F	Clear area	2 ft. (0.6 m) from the curb edge, 9 ft. (2.7 m) minimum height.
TYPE 4: Urban stop with seating		Element	Details
	A	Loading pad	5 ft. (1.5m) long x 8 ft. (2.4m) deep; pad must be firm, stable, and slip resistant, and connected to the pedestrian path. Provides a 5 ft. (1.5m) diameter clear turning radius for wheelchair users. Where possible, loading pads should be provided for both front and rear doors (as pictured here). Sign should be located adjacent to the front loading pad to clearly indicate bus stop.
	B	Waiting area	16 ft. (4.9m) long x 6 ft. (1.8m) deep between bus doors; waiting area can be accommodated in the pedestrian path if pedestrian volumes are low. After subtracting the bench dimension, waiting area provides enough space (66 SF, 6.0 m ²) for 12 standing passengers at 7 SF (0.65 m ²) per person, plus seating space for 3.
	C	Stop area	26 ft. (7.9m) long area should be kept free from obstructions along the curb edge. The length should provide free access to vehicle's front and rear doors.
	D	Pedestrian path	Minimum 4 ft. (1.2m) deep pedestrian path, or wider, as called for by local sidewalk standards, along a sidewalk or walkway. Should be a firm, stable, and slip resistant surface connected to the loading pad. Wider path is desirable to provide space for passing.
	E	Furniture	6.5 ft. (2m) long bench, 3 seats with hand rails for seniors and those with disabilities. Made of a durable material, with or without a back. Keep at least 3 ft. (0.9m) clear around all furniture, which should be located close to the street or adjacent to buildings rather than in the middle of the primary pedestrian path.
	F	Clear area	2 ft. (0.6 m) from the curb edge, 9 ft. (2.7 m) minimum height.

Source: DVRPC 2012

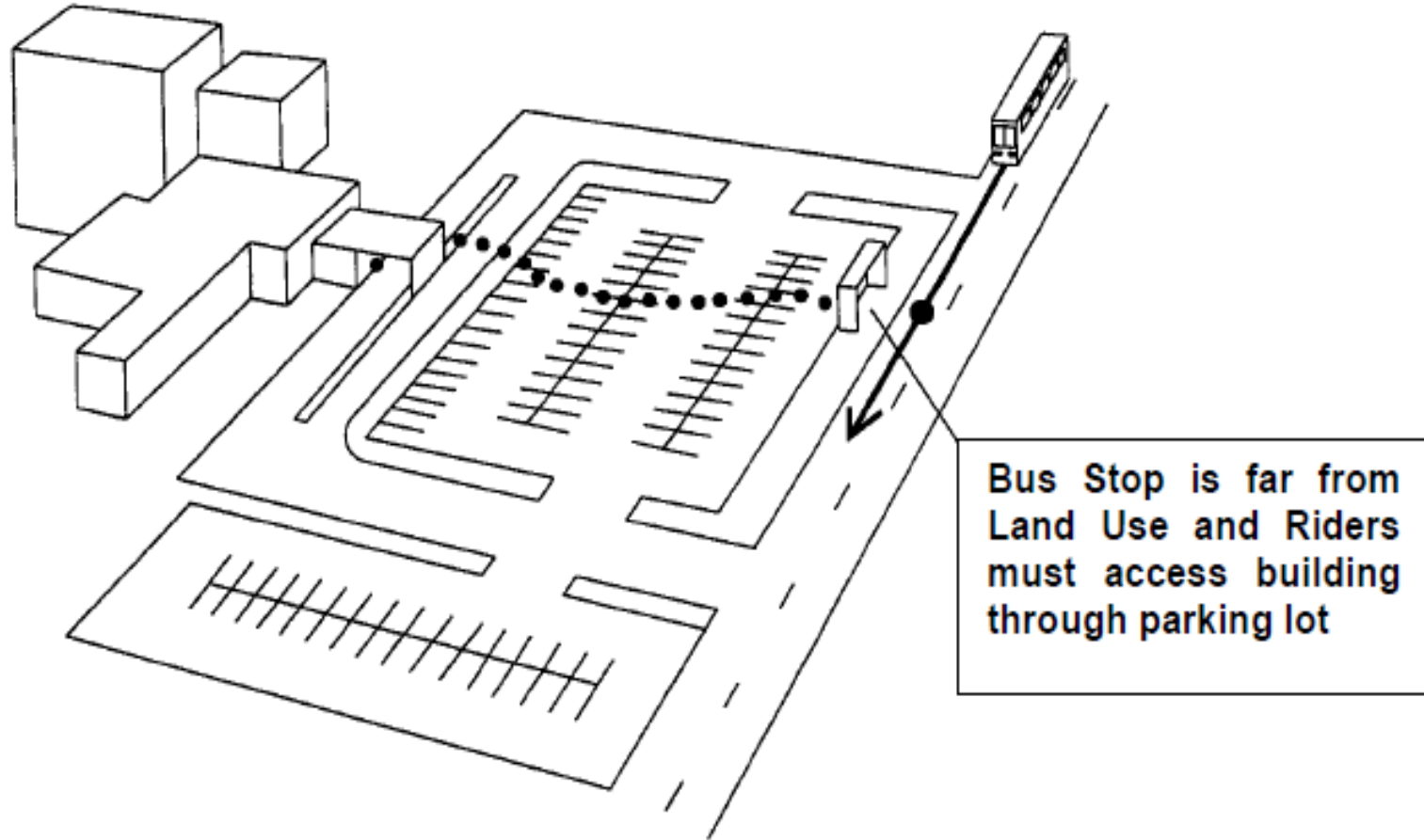
Source: DVRPC 2012

Source: DVRPC 2012

NOTE:
This example assumes a 12 ft. (3.6m) sidewalk.

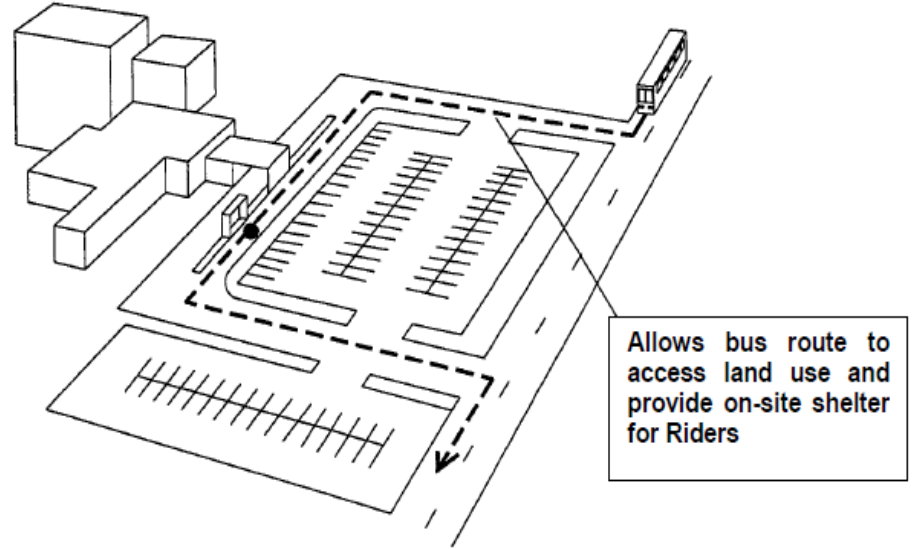
Curbside Design: Dimensional Information

Thoroughfare Access Only

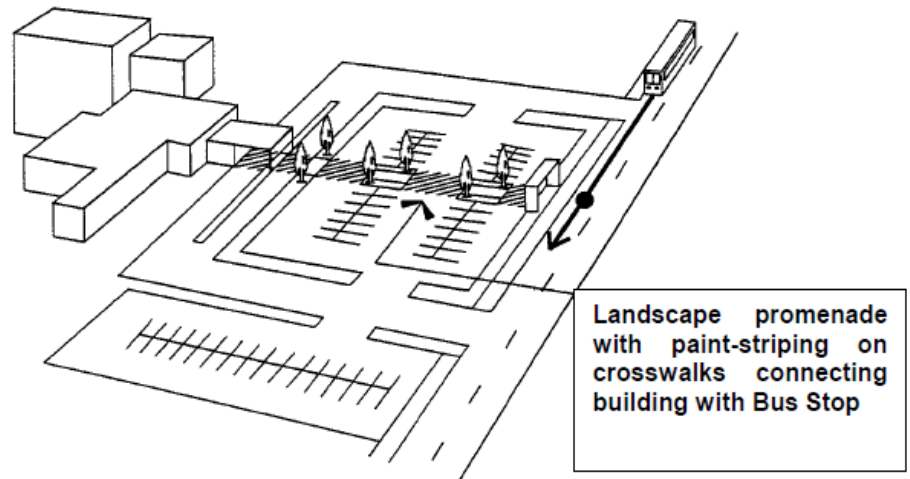


**Site Development Design –
Cooperation and Conflicts**

Routing Through Development Site



Pedestrian Promenade



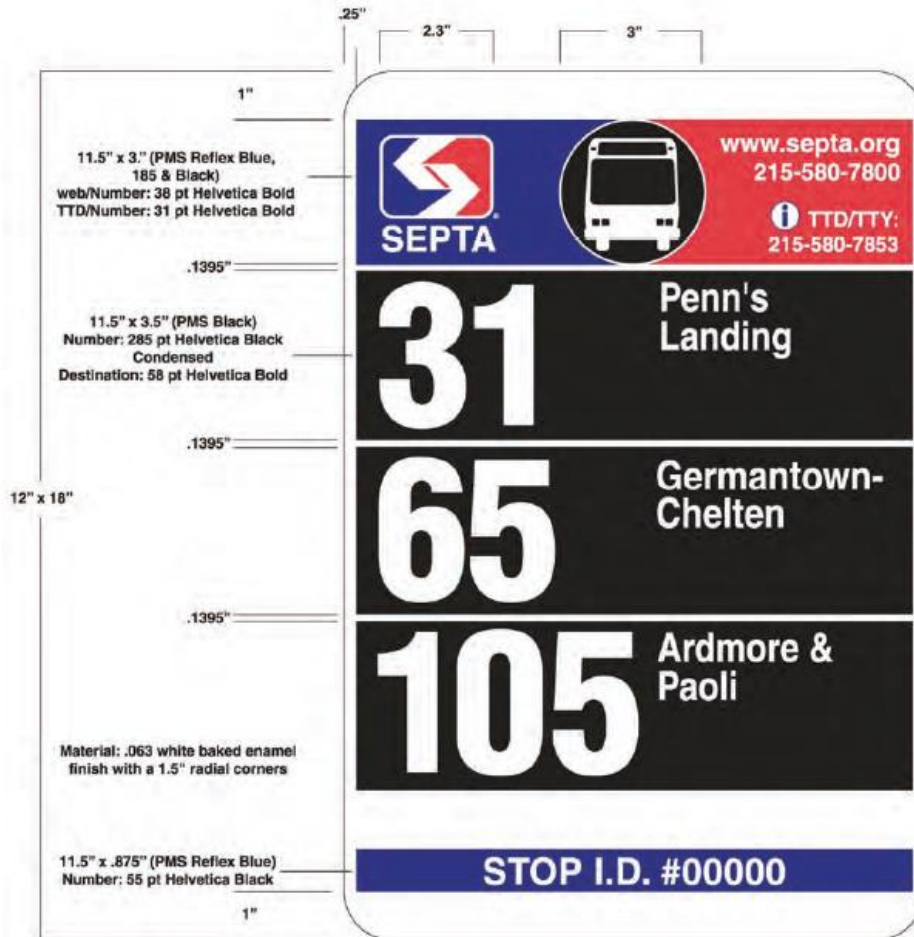
Site Development Design Options



Can include:

- Transit shelters
- Stop area seating
- Bicycle racks/storage

Passenger Amenities: Bus Stop Comforts



Includes:

- SEPTA contact information
- Stop ID information connected to SEPTA real-time bus information

Not a regulatory sign

Bus Stop Signage



R7-107

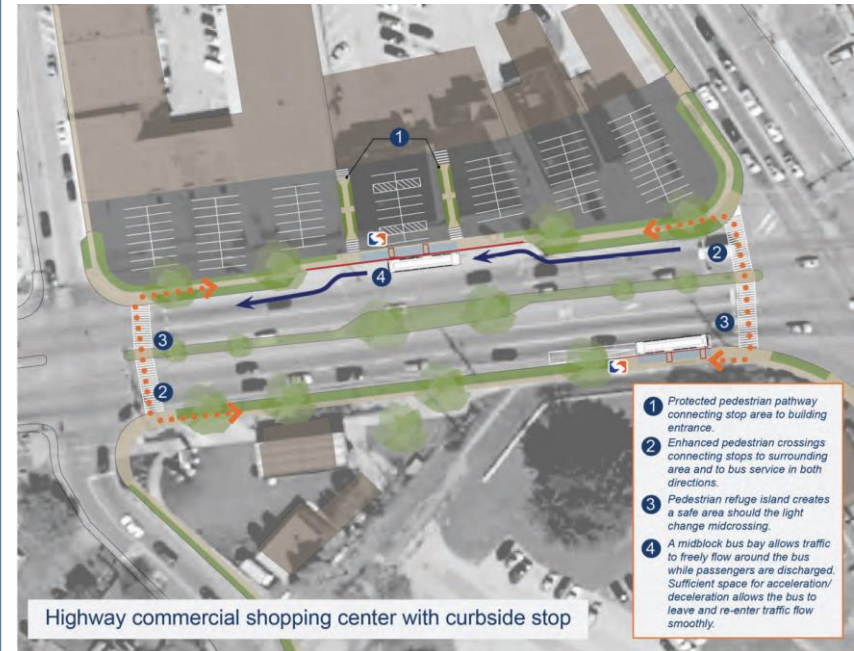


R7-107a

The (Federal) Manual on Uniform Traffic Control Devices (MUTCD) uses these regulatory sign conventions

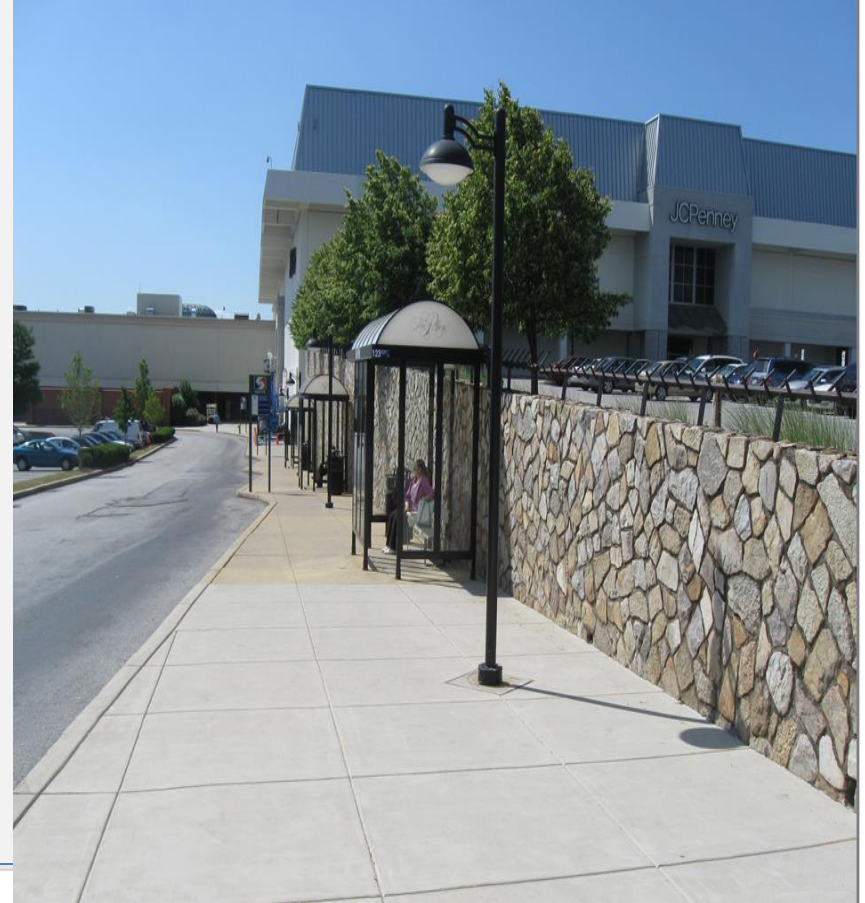
Bus Stop Signage

- Highway commercial shopping center with curbside stop
- Shopping mall transit hub
- Urban neighborhood stop – curb extension
- Urban stop – coordination between routes



Case Studies in Guidelines Document

- Posted on DVRPC, SEPTA websites
- Copies sent to municipalities
- Presentations to traffic engineers, planners
- Referenced at various meetings, project discussions
- Planning staff reviews



Bus Stop Design Guidelines' use so far

Transit Stops and Centers - Windows Internet Explorer

http://www.chescopagreen.org/ToolsLandscape/Suburban/TransitCenters.cfm

File Edit View Favorites Tools Help

Home » Tools » By Landscape » Suburban » Transit Stops and Centers

Transit Stops and Centers

Applicability to Landscapes2

- Most Applicable
- Somewhat Applicable
- Least Applicable

Urban Suburban Rural Agricultural Natural

Description

The quality of a public transit ride is defined by all aspects of a rider's experience, from the time of departure to arrival at the destination. Beyond a rider's experience in the transit vehicle, there are two additional significant components to a "full" transit ride: the connection between a transit stop and one's origin/destination; and the experience waiting for the arrival of the transit vehicle. In this context, the provision of amenities such as a bus shelter and sidewalk connections have influential roles regarding the quality of public transit in Chester County.

"A high-quality transit stop is one that is well connected to the neighborhood or community it serves, accommodates the needs of all transit passengers safely and comfortably, and permits efficient and cost-effective transit operations."

—SEPTA Bus Stop Design Guidelines

Transit stops are located along the bus routes in the urban and suburban municipalities served by public transit. The primary service provider in Chester County is SEPTA, although additional bus routes are provided by the Transportation Management Association of Chester County (TMACC) including the Coatesville Link, Route A, and SCCOOT (a partnership with the Southern Chester County Organization on Transportation); and the Pottstown Area Rapid Transit (PART) which provides bus service to the Coventry Mall and North Coventry Township.

Transit centers are hubs served by multiple transit routes and provide multimodal options and transfer opportunities for transit users. Transit centers within Chester County include the West Chester and Exton Transportation Centers. The Paoli Intermodal Transportation Center is in the process of being designed to provide multi-modal options for transit users, including maintaining existing coordinated bus route connections and providing for new coordinated shuttle service opportunities.

Transit agencies are not responsible for the design or maintenance of transit stops in Chester County. Therefore, the provision of high-quality transit stops requires a partnership between transit agencies, Transportation Management Associations, municipalities, PennDOT, and property owners.

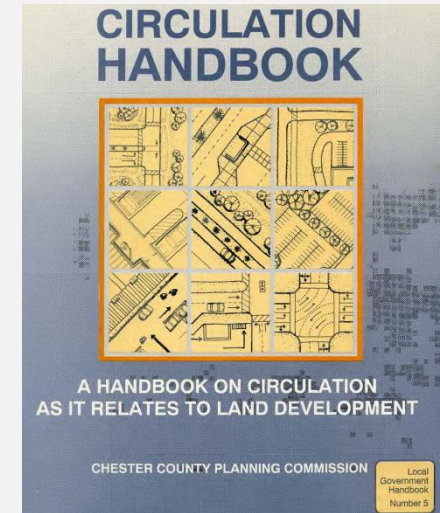
Who Could Benefit From This Tool

Landscapes2 Relevance

Transit stops and centers provide critical infrastructure for the use of mass transit within the County's Urban and Suburban Landscapes. Landscapes2 policies encourage the expanded use of mass transit to provide an affordable, reliable, and accessible public transportation network to offer mobility, encourage favorable land use patterns, sustain the environment, and alleviate congestion within designated growth areas. Landscapes2 specifically recommends improving and enhancing existing public transportation service speed, frequency, and amenities. as

Bus Stop Design Guidelines' use so far

- DVRPC including transit service in:
 - Corridor studies
 - Access management promotion
- Counties/municipalities identifying developments of significant impact for reviews
 - Chester County Circulation Handbook update



Recent developments

- PennDOT engaging SEPTA in:
 - Transportation Impact Studies
 - Highway Occupancy Permit (HOP) reviews
- Cooperation from major developers




Recent developments



Transit agencies strive to improve conditions for transit whenever possible

- Understanding site constraints
- Status quo is not usually context sensitive design
- Safety of buses and passengers is key factor

Overarching Issues for Reviews



Lead time is needed for reviews (HOP, site plans, etc.)

- Field investigation may be required
- At SEPTA, review letters must be signed off by senior Operations staff

Overarching Issues for Reviews



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LVPC planning documents are found at
www.lvpc.org



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LANTA planning documents are found at
www.lantabus.com. Click on "About Us," then
"Planning and Studies"



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SEPTA planning documents are found at
www.septa.org, Click on "Media," then "Reports"