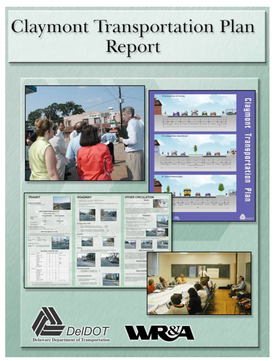
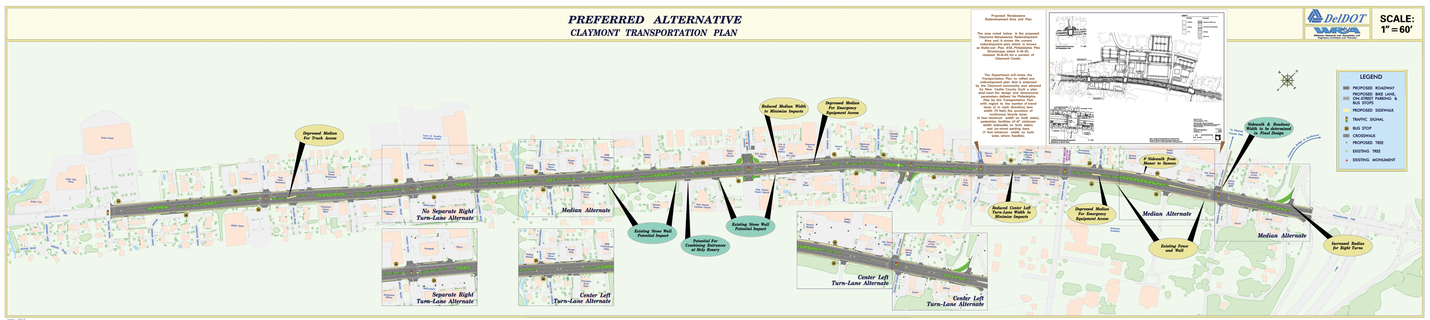
Project Background

Public Workshop 10.28.09

2003 Claymont Transportation Plan



- Recommended returning Philadelphia Pike to its commercial "Main Street" function
- Recommended landscaping, access management controls, improved intersection controls and pedestrian improvements



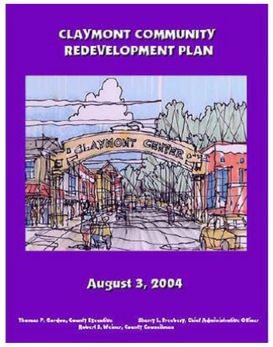
Preferred Alternative

- Up to 86 ft wide typical section:
  - *Four 11 ft travel lanes (2 in each direction) with median left turn lane*
  - *Raised landscaped center median with depressions for truck and emergency access at key locations*
  - *Continuous bicycle lanes (5 ft minimum, both sides)*
  - *Continuous sidewalks (4-6 ft width, both sides)*
  - *On-street parking (7 ft minimum width on both sides where feasible)*

Concerns

- Raised median and potential access impacts to businesses
- Construction past the curb line:
  - *Utility relocation*
  - *Potential full-depth road reconstruction*
- Right-of-Way acquisition
  - *Impacts to businesses and community*
  - *Increases time and cost*

2004 Claymont Redevelopment Plan

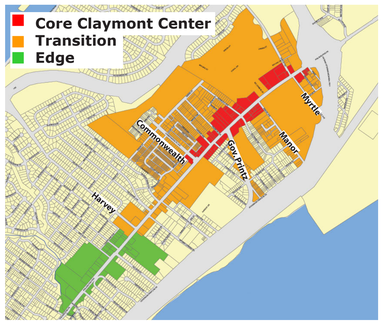


- Created a comprehensive vision for the community
- Completed a plan to create a Hometown Overlay District (as set out in the 2002 New Castle County Comprehensive Plan Update)
- Identified three separate areas– core center, transition and edge
- Redevelopment of the Brookview neighborhood was an early outcome of the plan

Vision

- A pedestrian-oriented place is envisioned where people can live, work, shop, learn, recreate, and worship in a small town environment
- A compact, mixed-use, walkable town center is viewed as a critical component to the enhanced connection and enjoyment of civic assets such as the post office, schools, churches, library, community center, and train station
- Any improvements should also complement further transportation goals, including:
  - *Create a multi-modal Philadelphia Pike that accommodates vehicles, bicycles, and pedestrians*
  - *Complement future plans for mixed-use, pedestrian-friendly development at key intersections including Manor Drive, Commonwealth Boulevard, and Harvey Road*
  - *Improve safety along Philadelphia Pike for all transportation modes*

Hometown Overlay District



2004 Manual of Design Guidelines

- Developed in response to the Redevelopment Plan vision
- Defined elements such as lighting, landscaping, pedestrian and bicycle facilities, parking and transit stops

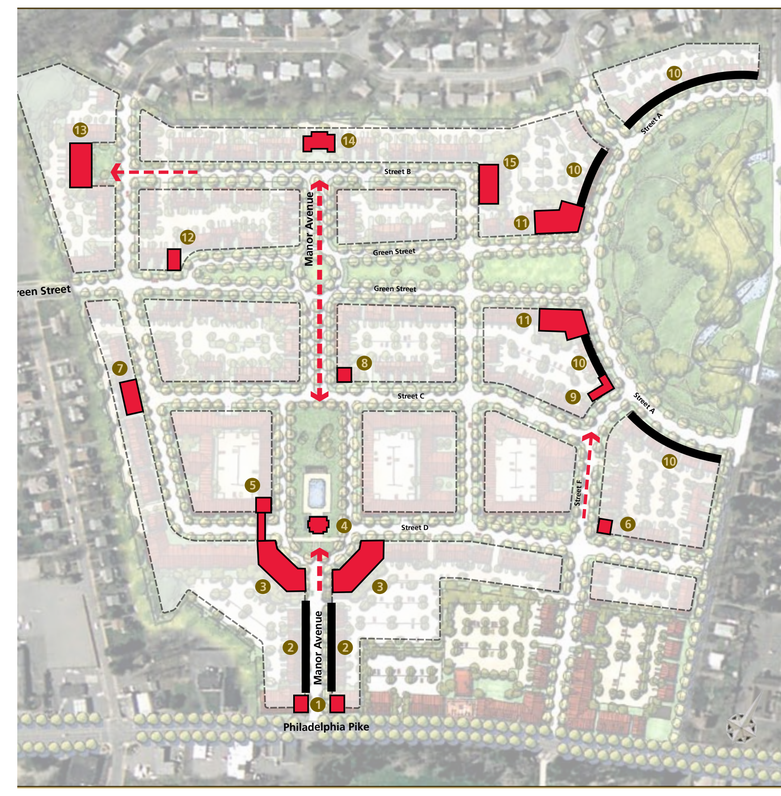
2009 Governor's Complete Street Initiative (Executive Order 6)

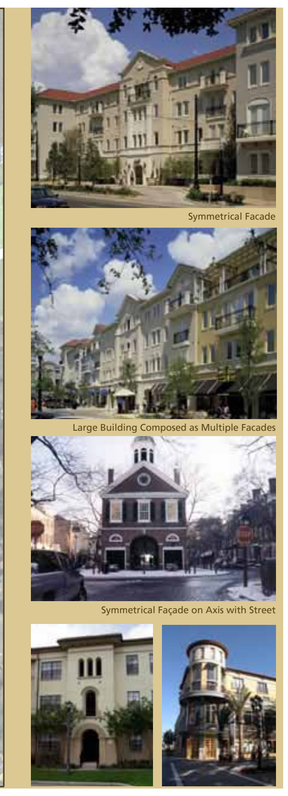
- A "Complete Street" is a roadway that is built to accommodate all travelers, particularly public transit users, bicyclists, pedestrians (including all ages and disabilities), and motorists
- Creating Complete Streets means planning, designing, constructing, maintaining and operating streets and related components for motorized and non-motorized modes as appropriate for the area
- The concept of Complete Streets is consistent with the work in Claymont to date

Darley Green

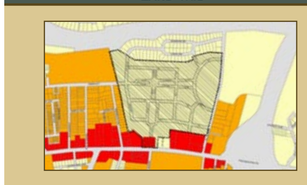
The Commonwealth Group | Setting Properties
Torti Gallas and Partners

Public Workshop 10.28.09



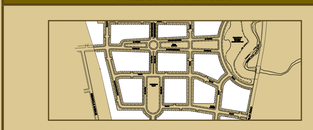

Symmetrical Facade
Large Building Composed as Multiple Facades
Symmetrical Façade on Axis with Street

SECTION 1
Land Use



The Land Use section places Brookview within the context of the Claymont Hometown Overlay District and establishes the zones within Brookview. It also introduces the Regulating Plan, which establishes the basic framework of the neighborhood. Land Use and Density Ranges are established for each block of the neighborhood.

SECTION 2
Urban Standards



Two Dimensional Elements:
This section establishes the two-dimensional requirements and illustrates some of the requirements included in the Regulating Plan, such as the parameters for building locations and frontage occupancy, parking configurations and requirements, and block dimensional standards.

Three Dimensional Elements:
This section also establishes standards for the three dimensional elements of the neighborhood. Standards include building heights, architectural urban design features, private frontage types, and materials.

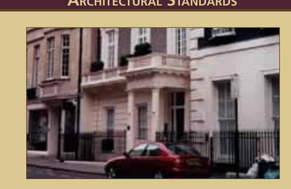
SECTION 3
Thoroughfare Standards

These standards establish the dimensional requirements of cartways, tree planting strips, sidewalks, and curb return radii, as well as standards for elements within the right-of-way such as the placement of street trees and lights.

SECTION 4
Open Space & Landscape

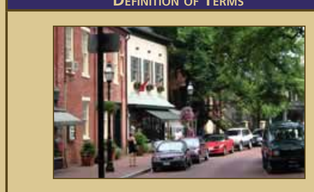
This section identifies each open space and open space type and then specifically characterizes each open space. This characterization establishes the design intent for each space and is the basis for further design development. General landscape standards for furnishings and materials are also included.

SECTION 5
Architectural Standards



These standards apply to all buildings. The section is divided into "Mixed-Use and Live-Work architectural standards" and "General Architectural Standards". The scope of the standards includes general composition, such as building organization and orientation, façade composition, and entries.

Appendix
Definition of Terms



This section defines the terms used throughout the Brookview Design Guidelines.

Brookview: Hometown Overlay Zones

Brookview Zones

Core: Claymont Center Zone-Philadelphia Pike

A portion of the Brookview site has frontage along Philadelphia Pike. As such, the property adjacent to Philadelphia Pike will be incorporated into the Claymont Center Zone. The standards established in the Claymont Community Redevelopment Plan: Manual of Design Guidelines, Claymont Center (Section 2.2) shall apply. However, the following modifications shall apply.

1. The minimum building height permitted will be three stories, and the maximum building height permitted is four stories. Additional building height requirements and garage height requirements are found in Section II
2. The maximum structured parking heights five stories (six levels) when wrapped by 4-story building with pitched roofs and four stories (five levels) for building with flat roofs and a 4-foot minimum parapet height.
3. There is to be no maximum FAR.
4. The Build-to-Line shall be as noted in the corresponding diagram included in this document.
5. Parking shall follow the location and design parameters established in this document.
6. There shall be no maximum building footprint.

Transition Zone

The remainder of the Brookview site will fall into the Transition Zone. The standards established in the Claymont Community Redevelopment Plan: Manual of Design Guidelines, Transition (Section 2.3) shall apply. However, the following modifications shall apply:

1. There is to be no maximum FAR.
2. The maximum building height shall be 4 stories. Additional building height requirements and garage height requirements are found in Section II.
3. The maximum structured parking heights five stories (six levels) when wrapped by 4-story building with pitched roofs and four stories (five levels) for building with flat roofs and a 4-foot minimum parapet height.
4. The maximum building footprint shall be 43,000 S.F. excluding structured parking. There is no maximum footprint for structured parking.

Land Use

Land Use

Land Use is generally flexible within the neighborhood as long as the buildings and parking meet the requirements of the Regulating Plan and follow the Design Guidelines. The exceptions to this are noted in the adjacent diagram where certain uses are very specifically required in specific geographic locations.

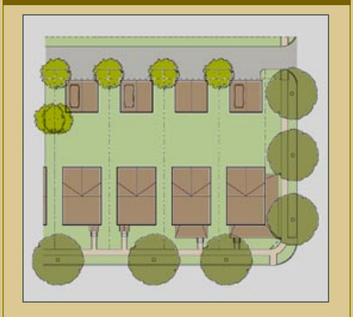
Retail Mixed-Use buildings are required along Philadelphia Pike in order to create the Retail Main Street specified in the Claymont Community Redevelopment Plan.

Live-Work units along Manor Avenue are required as a transition from Philadelphia Pike and as a screen for the parking behind the main street retail.

High Density four(4)-story buildings with structured parking are not permitted adjacent to the Ashbourne Hills neighborhood in order to provide a transition to the single-family homes outside of the Hometown Overlay District. Two story building shall be used as a transition to Ashbourne Hills along Topaz Drive and Naaman's Drive- See Building Heights

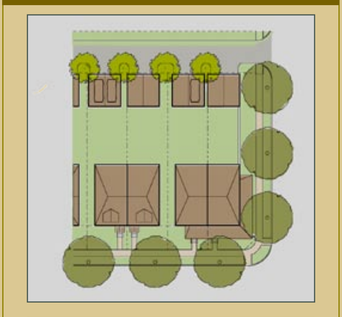
- Retail Mixed-Use Required
  Structured Parking Permitted
- Live-Work Required
  Structured Parking Permitted
- Residential Permitted
  Residential Mixed-Use Permitted
  Live-Work Permitted
  Structured Parking Permitted
- Residential Permitted
  Residential Mixed-Use or Live-Work Permitted Only at the Corners of Street C & Manor Avenue for a Maximum Distance of 60 Feet Along Either Street
  Structured Parking Permitted
- Residential Permitted
  Structured Parking Permitted
- Residential Permitted
  Structured Parking Prohibited
- Civic Open Space Required
  Created Wetlands Required as Storm Water Treatment in Crescent Green

Single Family (Detached Garage)



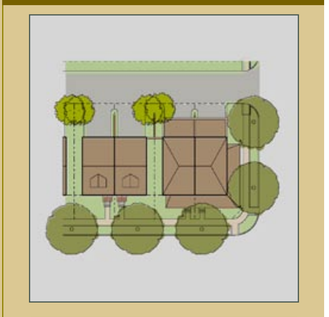
- Principal entry shall face the street
- Parking shall be accessed from an alley or from the rear of the building-Garages shall not face the street
- Primary façade(s) shall face the street

Duplex (Detached Garage)



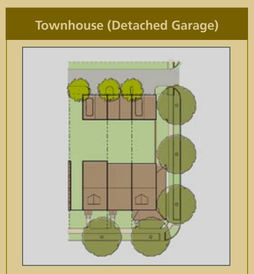
- Units shall be designed to appear as one large house.
- Duplex units shall be configured as side-by-side units or as one over another.
- Principal entries shall face the street
- Parking shall be accessed from an alley or from the rear of the building-Garages shall not face the street
- Primary Facade(s) shall face the street

Duplex (Integral Garage)



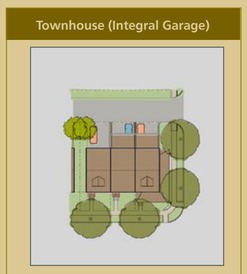
- Units shall be designed to appear as one large house.
- Duplex units shall be configured as side-by-side units or as one over another.
- Principal entries shall face the street-Garages shall not face the street
- Parking shall be accessed from an alley or from the rear of the building
- Primary Facade(s) shall face the street

Townhouse (Detached Garage)



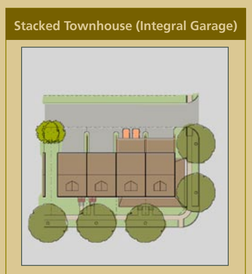
- Town Houses shall be configured as side-by-side units
- Principal entry shall face the street
- Garages shall be accessed from the rear of the structure via an alley or similar service lane
- Primary Facade(s) shall face the street
- House entry shall be located on the first floor
- Maximum number of town houses in a string is 8
- Minimum width of town houses shall be 18'

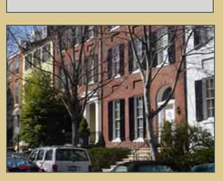
Townhouse (Integral Garage)



- Town Houses shall be configured as side-by-side units
- Principal entry shall face the street
- Garages shall be accessed from the rear of the structure via an alley or similar service lane
- Primary Facade(s) shall face the street
- House entry shall be located on the first floor
- Maximum number of town houses in a string is 8
- Minimum width of town houses shall be 18'

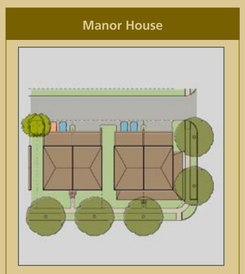
Stacked Townhouse (Integral Garage)



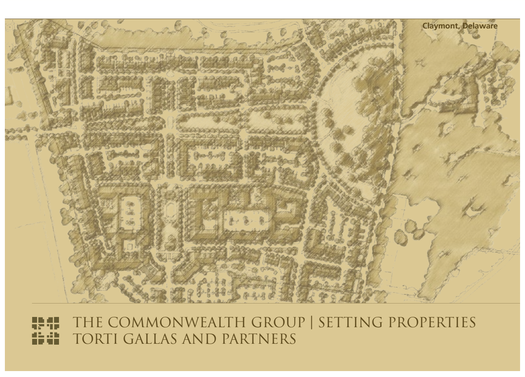


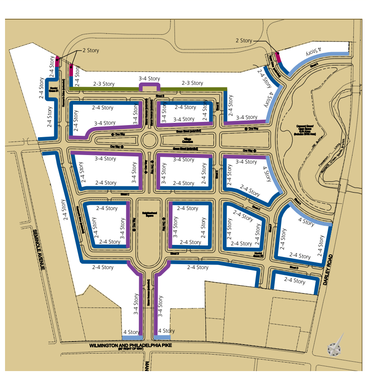
- Two units shall be configured to look like one townhouse
- Principal entry shall face the street
- One stoop shall access two units-One door shall face street
- Garages shall be accessed from the rear of the structure via an alley or similar service lane
- Primary Facade(s) shall face the street
- House entry shall be located on the first floor
- Maximum number of stacked town houses in a string is 8 (16 dwelling units)

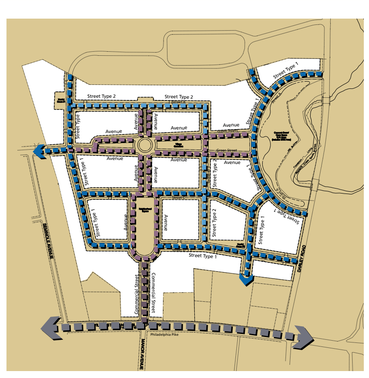
Manor House

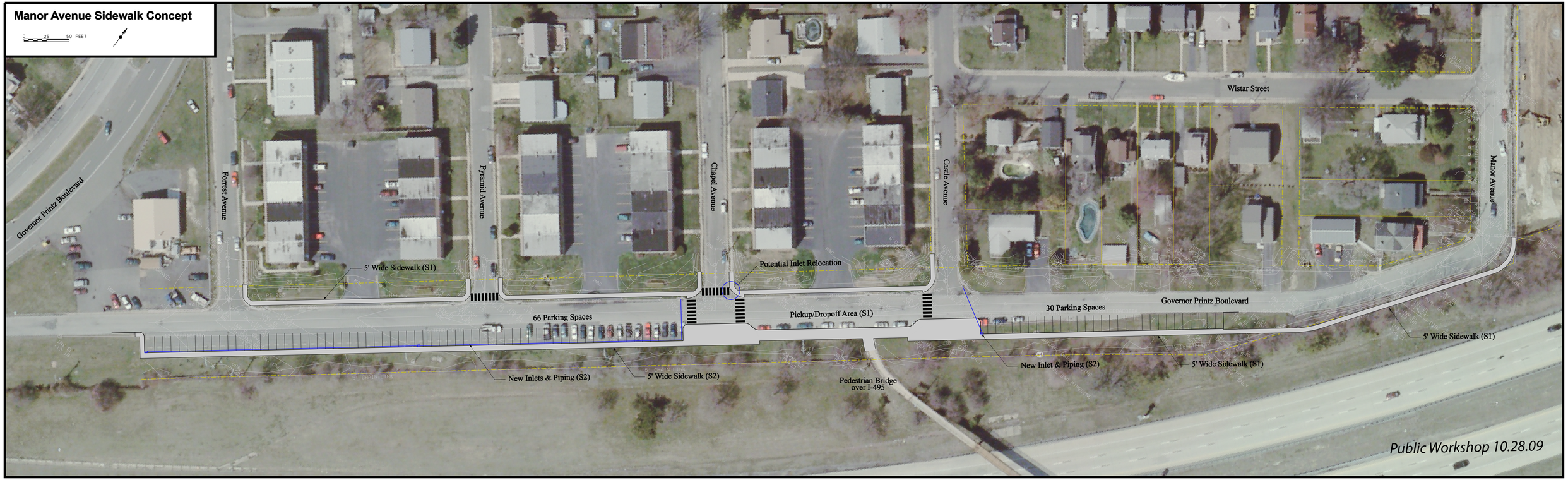


- Four units shall be configured to look like one large townhouse
- One central internal stoop shall house the four unit entries, but only two entry doors may face the street
- Principal entry shall face the street
- Garages shall be accessed from the rear of the structure via an alley or similar service lane
- Primary Facade(s) shall face the street
- House entry shall be located on the first floor
- Maximum number of manor houses in a string is 3 (12 dwelling units)
- Manor houses may occur as independent/detached buildings








Manor Avenue Sidewalk Concept
0 25 50 FEET
Governor Printz Boulevard
Forrest Avenue
Pyramid Avenue
Chapel Avenue
Castle Avenue
Manor Avenue
Wistar Street
5' Wide Sidewalk (S1)
Potential Inlet Relocation
66 Parking Spaces
Pickup/Dropoff Area (S1)
30 Parking Spaces
Governor Printz Boulevard
New Inlets & Piping (S2)
5' Wide Sidewalk (S2)
Pedestrian Bridge over I-495
New Inlet & Piping (S2)
5' Wide Sidewalk (S1)
5' Wide Sidewalk (S1)
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Myrtle Avenue Sidewalk Concept #1

0 25 50 FEET

Darley Road

Philadelphia Pike

Myrtle Road

Westbound

Eastbound

Astor Place

Utility Pole Conflicts

S1

5' Wide Sidewalk & Curb

Drainage Improvements (approx 1050')

Relocate Fence (approx. 630')

Install Raised Crosswalk
(Position To Be Determined)

5' Wide Sidewalk & Curb

B1

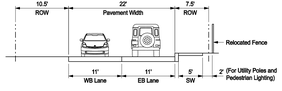
Remove Guiderail
(approx. 120')

Marino Avenue

Potential Relocation
(Anytown Station)

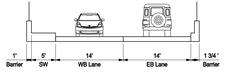
ARCHMERE

MYRTLE AVENUE (S1)

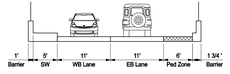


SIDEWALK CONCEPT

MYRTLE AVENUE BRIDGE (B1)



EXISTING SECTION



POTENTIAL SECTION

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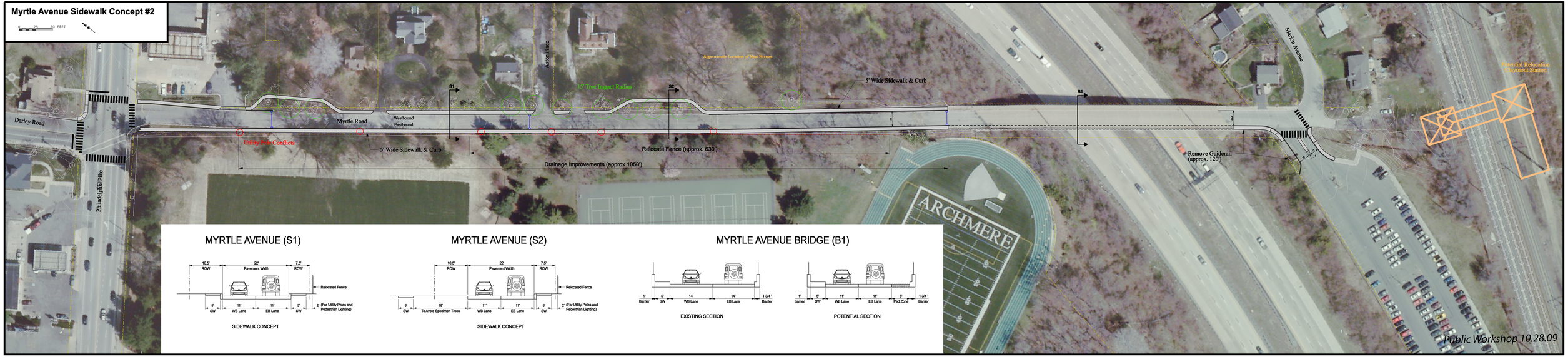
Myrtle Avenue Sidewalk Concept #2

0 25 50 FEET



MYRTLE AVENUE (S1)

SIDEWALK CONCEPT

MYRTLE AVENUE (S2)

SIDEWALK CONCEPT

MYRTLE AVENUE BRIDGE (B1)

EXISTING SECTION

POTENTIAL SECTION

Philadelphia Pike - Phase 1

Manor Avenue Extended
Refined Plan

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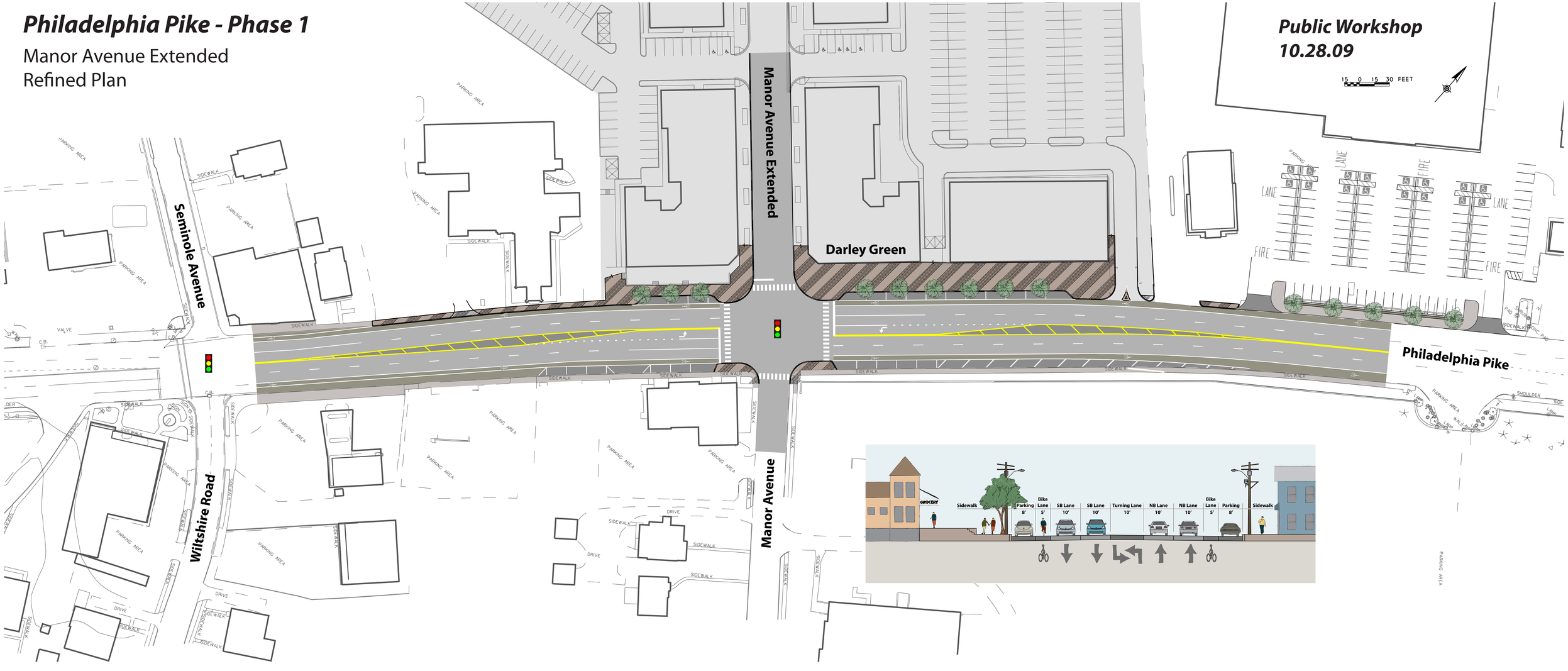
10.28.09

15 0 15 30 FEET



Philadelphia Pike - Phase 1

Commonwealth Intersection

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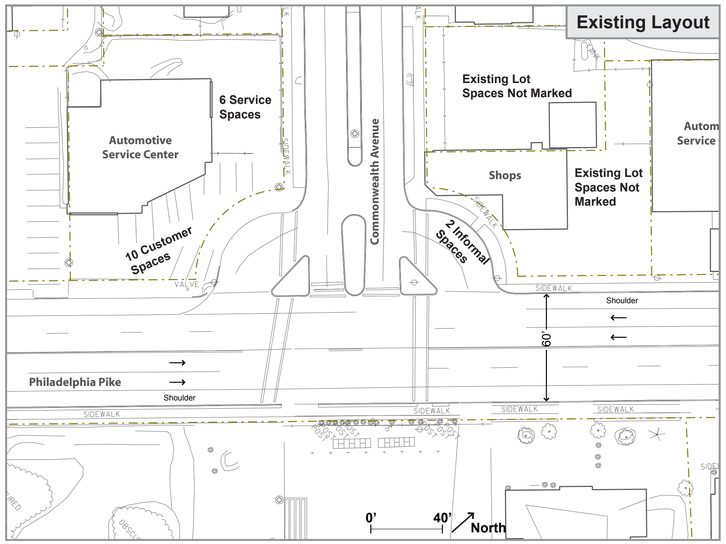
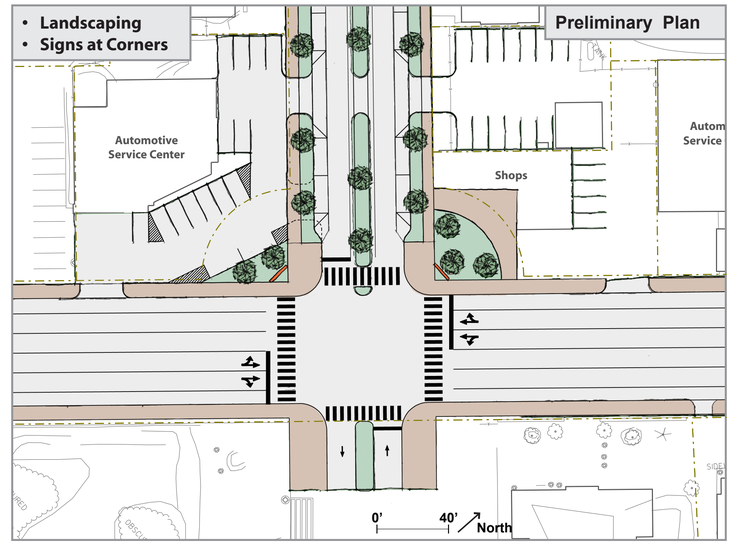
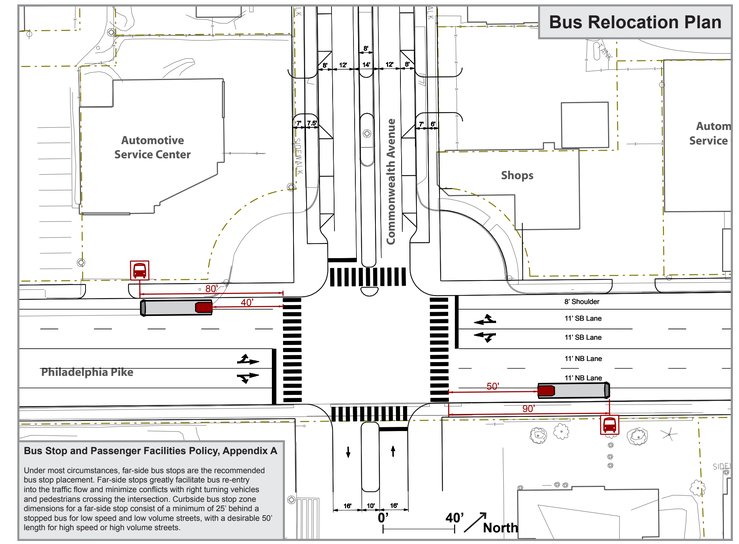
10.28.09







The following considerations shaped development of the initial Commonwealth Avenue intersection concepts:

- Address/incorporate Claymont Overlay District design guidelines
- Address adjacent property owners' needs for access and parking
- Create gateway for Overlook Colony community
- Accommodate pedestrians
- Accomodate transit
- Examine opportunities to normalize geometry
- Revise the Holy Rosary Church access to line up intersection
- Develop affordable options

Table 1: ATR Traffic Volumes on Philadelphia Pike just south of Commonwealth Avenue

Vehicle Type	ADT		AM Peak Hour		PM Peak Hour	
	Volume	Percentage	Volume	Percentage	Volume	Percentage
Passenger Cars	15683	93.0%	1094	91.5%	1351	93.8%
Buses	156	0.9%	15	1.3%	6	0.4%
HD Trucks	207	1.2%	22	1.8%	21	1.5%
Total Trucks	1028	6.1%	86	7.2%	84	5.8%
Total	16867	100.0%	1195	100.0%	1441	100.0%

Philadelphia Pike - Phase 2

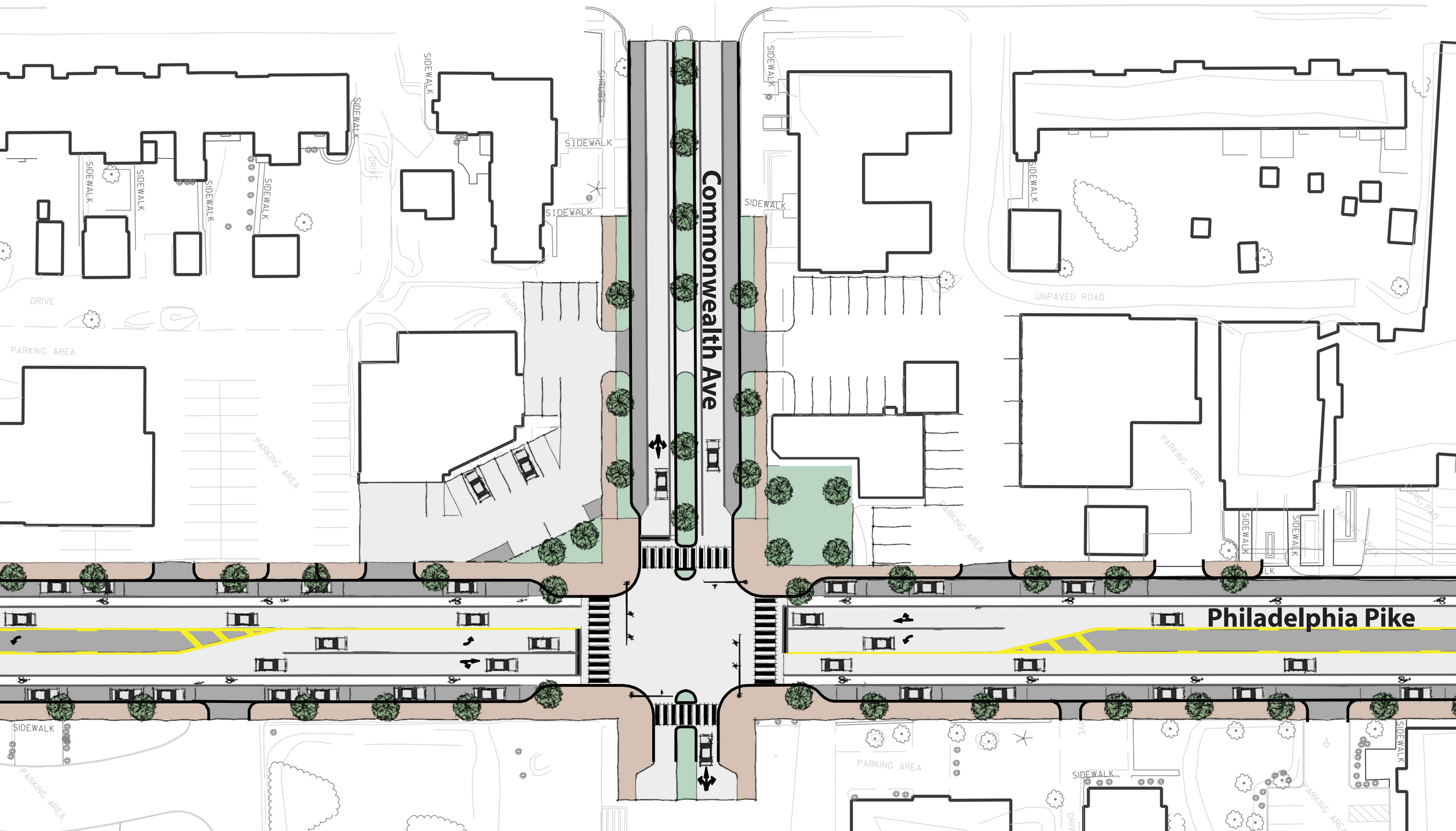
Commonwealth Intersection
Refined Plan

Public Workshop
10.28.09

Philadelphia Pike - Phase 2

Commonwealth Intersection
Refined Plan

Public Workshop
10.28.09

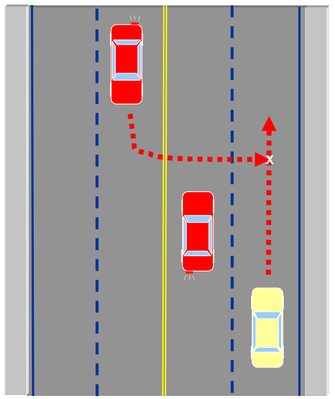


Roadway Safety

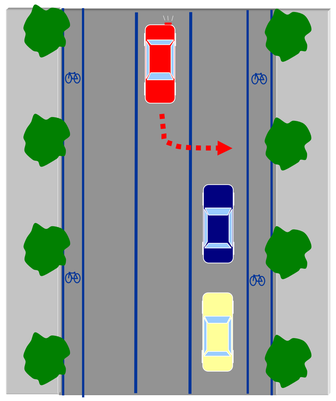
Angle/Head-on Collisions (45% of Crashes)

- Separating opposing traffic reduces head-on probability
- Vehicles turning on/off side streets only cross 1 traffic lane
- Speed reduction increases gaps in traffic

Four-Lane Section



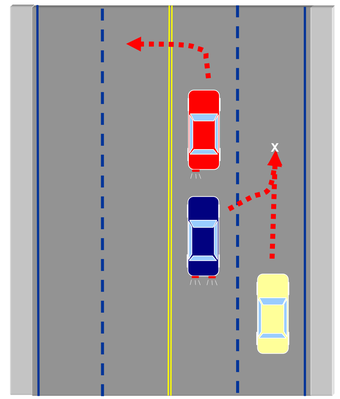
Three-Lane Section



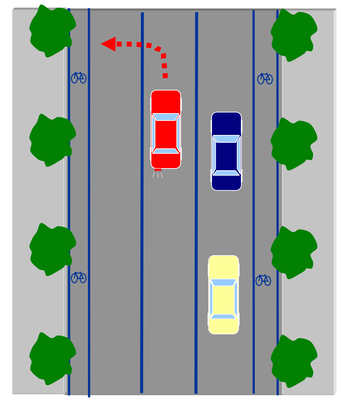
Sideswipe Collisions (7% of Crashes)

- Only 1 lane of traffic reduces or eliminates weaving or sideswipe possibilities

Four-Lane Section



Three-Lane Section

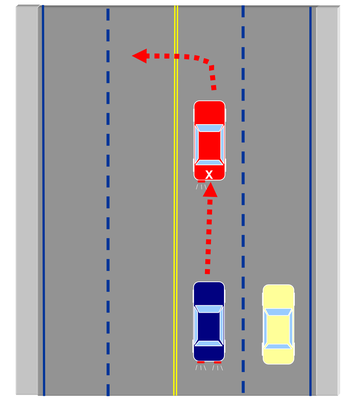


Source: Creating Healthy Communities, www.walkable.org/resources

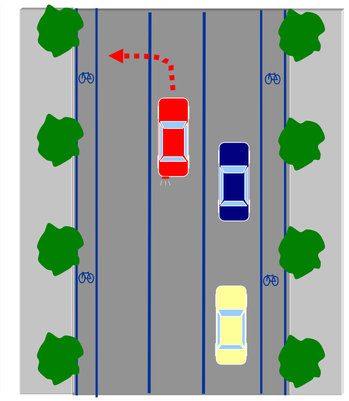
Rear-End Collisions with Left-Turning Vehicles (18% of Crashes)

- Dedicated left-turn or Two-Way-Left-Turn-Lane reduces or eliminates these crashes
- Lower speeds reduce braking distance

Four-Lane Section



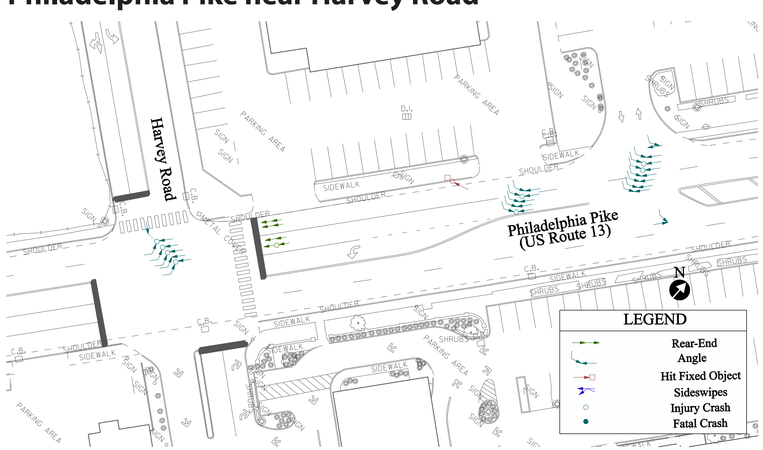
Three-Lane Section



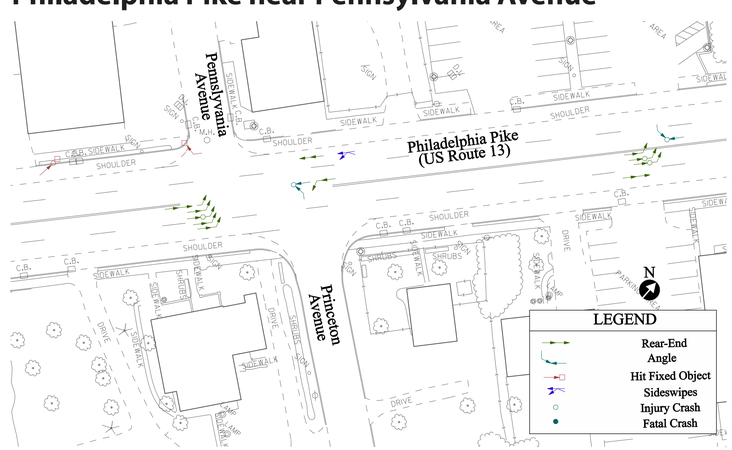
Recent Crash History

- Crash data obtained from DelDOT / Delaware State Police
- Crash period spans from October 2005 to September 2008

Philadelphia Pike near Harvey Road



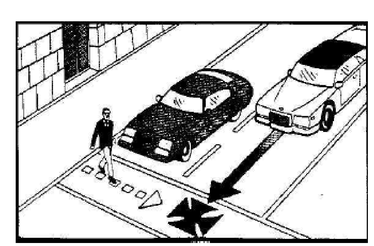
Philadelphia Pike near Pennsylvania Avenue



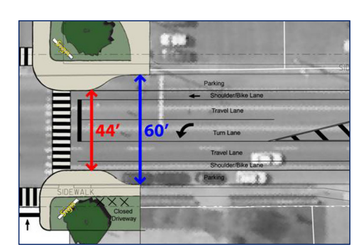
Pedestrian and Bicycle Safety

- Bike/pedestrian crashes along Philadelphia Pike:
  - *2 total crashes, including1 pedestrian fatality and 1 bicycle injury*
- Refined Section provides:
  - *Simplified crossing and reduced crossing distance*
  - *Reduced exposure to multiple threat crashes*
  - *Separate lane for bicyclists*

Double Threat



Reduced Crossing Distance



Roadway Performance

Public Workshop 10.28.09

Existing Traffic Characteristics

Traffic Volumes - Average Daily Traffic (ADT)

- *Existing (2008) ADT: 16,900*
- *Estimated Future (2033) ADT: 21,200*

Speed Limit

- *Posted Speed 35-40 mph*
- *Refined section encourages a consistent speed; helps reduce speeding and excessive speeding (more than 10 mph over)*

Traffic Analysis Summary

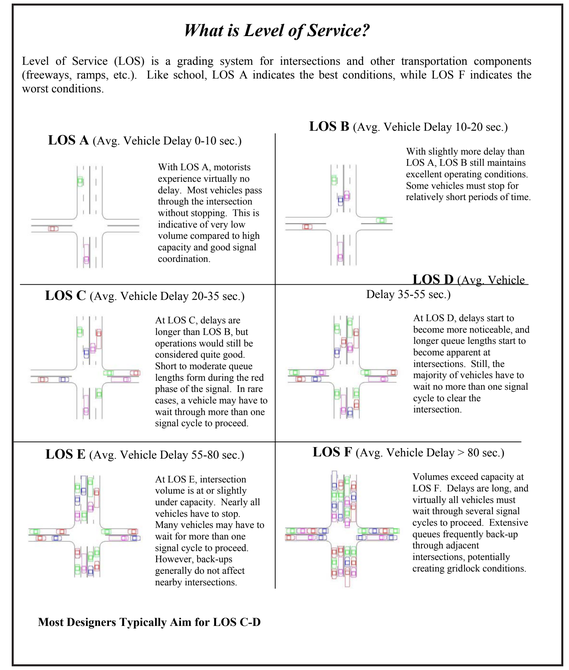
Level of Service (LOS), Volume to Capacity Ratios (V/C), and Queue Lengths were examined at the following high-volume, critical intersections:

- *Harvey Road*
- *Commonwealth Avenue*
- *Governor Printz Boulevard*

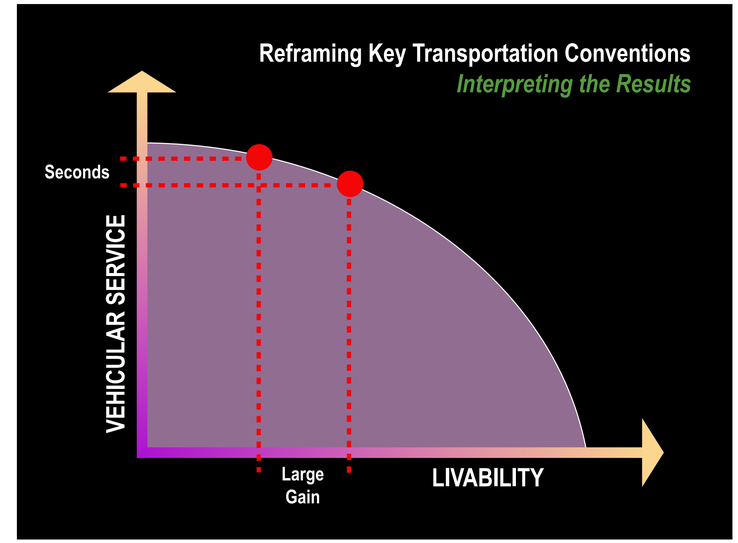
Preliminary Queue and Gap Assessment

- *95th percentile queues in 2008 rarely extend through adjacent minor side streets*
- *95th percentile queues in 2033 projected to possibly extend through some intersections; points to need for access management and land use coordination*
- *Off-peak volumes are much less than peak volumes; potential impacts on driveways/side streets are small*
- *Signal spacing will create gaps for vehicles entering the Pike from driveways and side streets*

Level of Service Explanation



Livability Considerations



****** Large gains in livability can be achieved through small reductions in vehicular service***

Volume to Capacity Ratio (V/C)

	2008 No Build		2008 Proposed		2033 Proposed	
	Max V/C (Lane Group)		Max V/C (Lane Group)		Max V/C (Lane Group)	
	AM	PM	AM	PM	AM	PM
Harvey	0.82 (SBTR)	0.83 (NBL)	0.81 (SBTR)	0.82 (SBTR)	1.12 (EBL)	1.09 (EBL)
Commonwealth	0.67 (EBTR)	0.69 (EBT)	0.76 (SBTR)	0.94 (SBTR)	0.96 (SBTR)	1.23 (SBTR)
Gov. Printz	0.56 (NBTL)	0.57 (NBT)	0.68 (SBT)	0.76 (SBT)	0.87 (SBT)	0.98 (SBT)

Notes:
The "Existing "column shows the existing condition (including Darley Green development)
The "Proposed" column shows the Existing Condition with the proposed improvements
The "2033"column shows the proposed improvements in the future with an estimated growth factor
Results are preliminary and based on the methodologies of the 2000 Highway Capacity Manual.
The V/C ratio indicates the amount of congestion for each lane group. A V/C ≥ 1 indicates approach is above capacity.
The V/C ratios in the table represent the maximum V/C ratio for each intersection.

Level of Service (LOS) and Delay

	2008 No Build		2008 Proposed		2033 Proposed	
	LOS (Seconds Delay)		LOS (Seconds Delay)		LOS (Seconds Delay)	
	AM	PM	AM	PM	AM	PM
Harvey	C (26)	C (25)	C (26)	C (32)	E (58)	E (56)
Commonwealth	B (15)	B (10)	C (20)	C (21)	C (27)	D (41)
Gov. Printz	C (21)	C (22)	C (20)	C (24)	C (26)	F (88)

Notes:
The "Existing "column shows the existing condition (including Darley Green development)
The "Proposed" column shows the Existing Condition with the proposed improvements
The "2033"column shows the proposed improvements in the future with an estimated growth factor
Results are preliminary and based on a Simulation Model (SimTraffic) of the corridor.

Average Queue Lengths

	2008 No Build		2008 Proposed		2033 Proposed	
	Northbound (Southbound)		Northbound (Southbound)		Northbound (Southbound)	
	AM	PM	AM	PM	AM	PM
Harvey	100′ (190′)	120′ (200′)	185′ (170′)	250′ (200′)	330′ (260′)	490′ (270′)
Commonwealth	120′ (100′)	80′ (80′)	210′ (220′)	230′ (260′)	270′ (300′)	360′ (420′)
Gov. Printz	200′ (120′)	210′ (180′)	150′ (200′)	170′ (260′)	260′ (300′)	260′ (700′)

Notes:
The "Existing "column shows the existing condition (including Darley Green development)
The "Proposed" column shows the Existing Condition with the proposed improvements
The "2033"column shows the proposed improvements in the future with an estimated growth factor
Results are preliminary and based on a Simulation Model (SimTraffic) of the corridor.

Benefits of Long Term Improvements

- Safer cross section
- Reduced ROW needs:
  - *No ROW needs from Harvey to Gov. Printz*
  - *Minimal impacts from Gov. Printz to Myrtle*
- More room for:
  - *Pedestrians*
  - *Bicycles*
  - *Buses*
  - *Parking*
  - *Landscaping*
- Better access for businesses
- Consistent with objectives of the Vision and Complete Streets policy
- More affordable

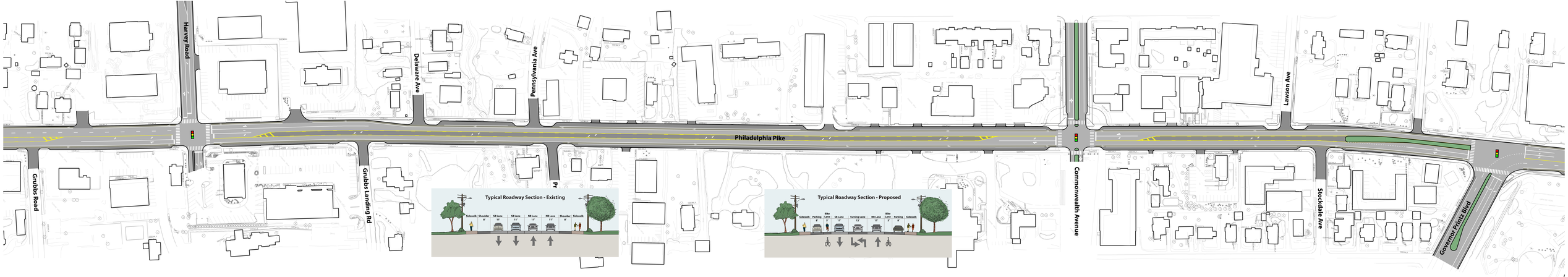
Next Steps

- Finalize Plans for Short term Projects
- Continue Public Involvement
- Complete Refined Claymont Transportation Plan
- Propose Implementation Strategy

Philadelphia Pike - Phase 2

Harvey Road to Governor Printz
Refined Plan

Public Workshop
10.28.09



Philadelphia Pike - Phase 2

Governor Printz to I-495
Refined Plan

Public Workshop
10.28.09