

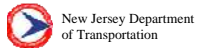


# WELCOME



## Study Team

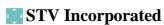
### Study Sponsors:



### Study Partners:



### Consultants:



## Today's Agenda

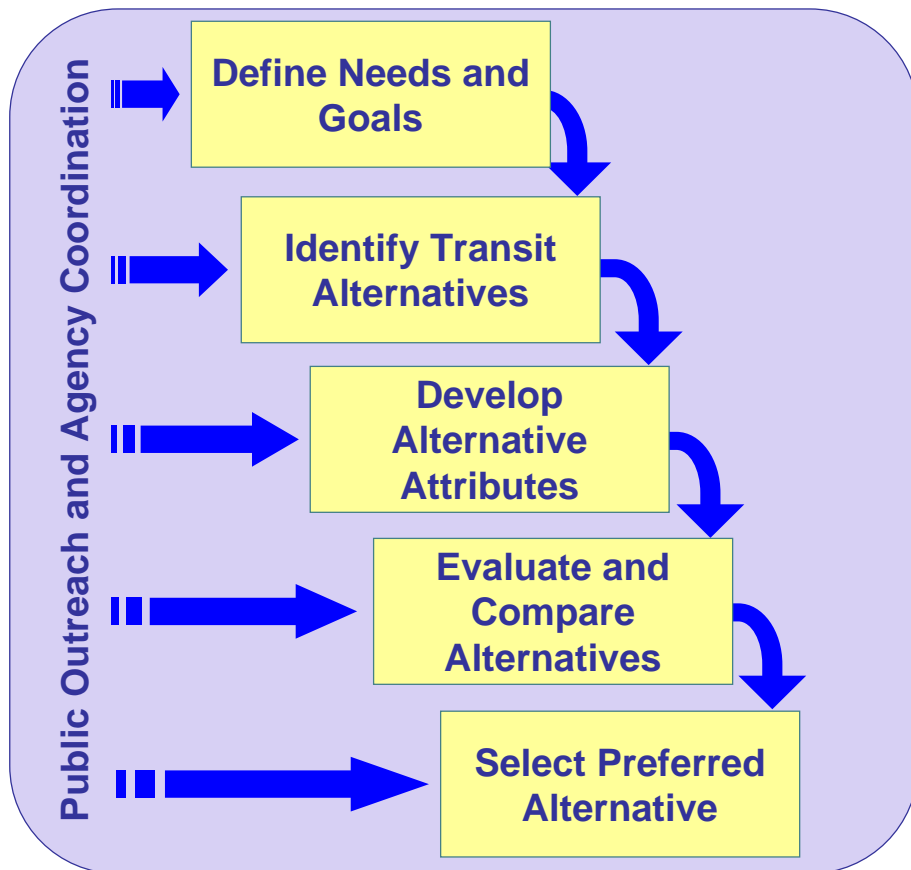
- Work Completed to Date
- What was Considered
- What are the Findings
- What is Recommended
- Transit Investment Vision for Southern New Jersey



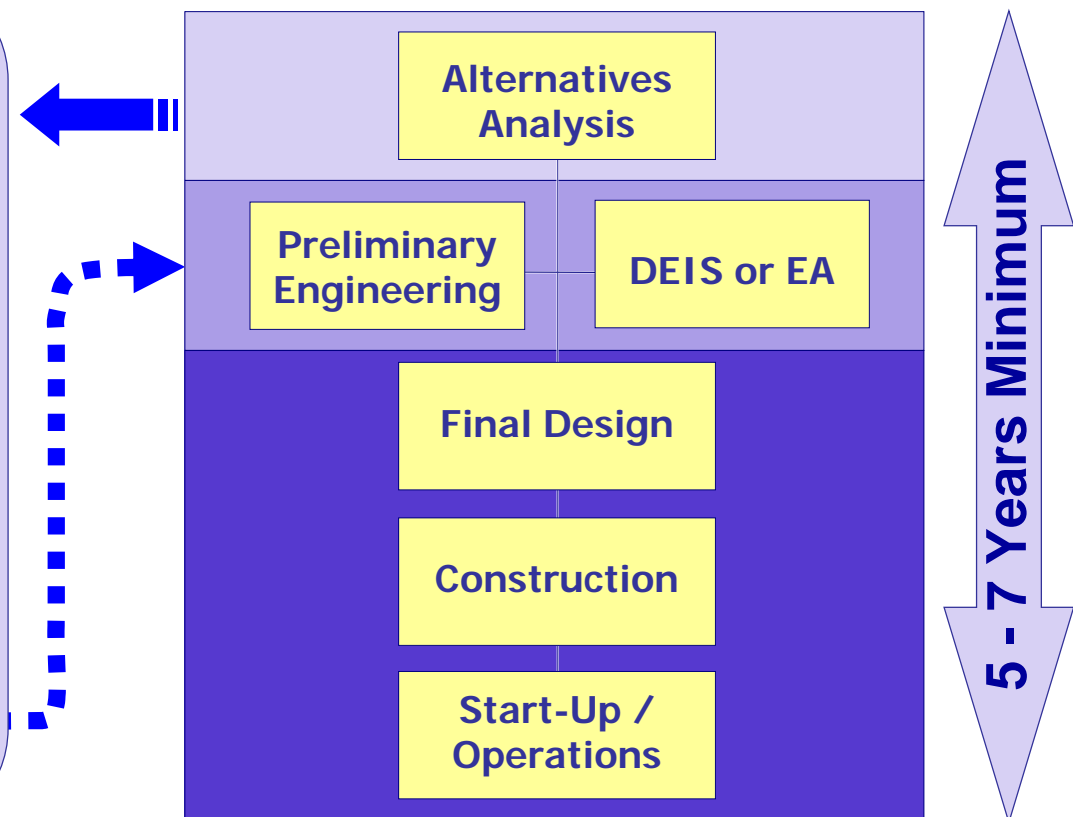
# Project Development Process



## ALTERNATIVES ANALYSIS



## MAJOR TRANSPORTATION INVESTMENT STUDY



# Public Outreach & Agency Coordination



**Round 1**

**Over 400 Attendees**

Deptford - November 27, 2007  
 Vineland - November 28, 2007  
 Glassboro - November 29, 2007  
 Gloucester City - December 4, 2007  
 Monroe - December 6, 2007

## Public Open Houses

Camden - June 10, 2009  
 Woodbury - June 11, 2009  
 Blackwood - June 17, 2009  
 Glassboro - June 18, 2009

**Round 2**

## Elected Official Briefings

Federal Representatives including US Senators Menendez and Lautenberg & US Representative Andrews  
 South Jersey Legislative Delegation Members  
 South Jersey Freeholder Delegation Members, including Camden,

Gloucester and Cumberland Counties  
 Numerous Mayors and Council Members  
 Philadelphia City Council Members

## Targeted Outreach & Agency Coordination

Technical Advisory Committee  
 Federal Transit Administration  
 Delaware Valley Regional Planning Commission  
 Philadelphia City Planning Commission  
 SEPTA  
 Women's Transportation Seminar  
 Southern NJ Development Council  
 Gloucester City Business

Association  
 NJ Alliance for Action  
 NJ DEP Clean Air Council  
 NJ Plan Smart  
 NJ Targeted Business Briefing (Camden, Gloucester, Cumberland)  
 SJTA Project Briefing  
 Transportation Summit Rowan University

Greater Philadelphia Chamber of Commerce  
 Camden County College  
 Cooper Hospital  
 East of Broad Improvement Association  
 PennPraxis  
 Bellmawr Water Redevelopment  
 Philadelphia Chapter Urban Land Institute Executive

Committee  
 Chamber of Commerce of Southern New Jersey  
 Philadelphia City Council  
 Delaware Valley Association of Rail Passengers  
 New Jersey Transaction APTA  
 Construction Management Association of America



**OVER 100 OUTREACH MEETINGS**

**OVER 550 PUBLIC COMMENTS**

# Project Goals



- Improve Transit Choices in the Southern New Jersey Study Area
- Reduce Congestion with Effective Transit Investments
- Maximize Existing Transportation Assets
- Develop Transit Network that Improves Links Between People and Activity Centers
- Support State and Local Planned Growth Initiatives through Competitive and Reliable Transit Service



# Transit Mode Characteristics



## Diesel Light Rail Transit (DLRT)

- Can operate in railroad right-of-way as well as on streets, or in medians
- Self-powered low-floor vehicle using clean-diesel technology
- Speeds up to 70 mph (30 mph average speed including station stops)
- Medium capacity (up to 300 passengers per 2-car train)
- Allows close station spacing every 1-2 miles
- Simple stations, can be integrated into surrounding streetscape
- Level boarding via low-level platform
- Frequent operation (every 7-15 minutes)

## PATCO (Heavy Rail)

- Fully grade separated exclusive guideway
- Electrically powered via third rail
- Speed up to 70 mph (35 mph average speed including station stops)
- High capacity Up to 800 passengers per train
- Station spacing every 1-5 miles
- Elaborate, multi-level stations with controlled access
- Level boarding via high-level platforms

## Bus Rapid Transit (BRT)

- Operates in exclusive, dedicated roadway lanes to by-pass congestion
- Modern low-floor buses with multiple doors
- Limited stop express bus service
- Frequent operation (every 7-15 minutes)
- Capacity of up to 100 passengers per bus
- Station spacing every 3-5 miles
- Easy boarding / alighting via multiple low-level entryways

## Commuter Rail

- Operates in exclusive railroad right-of-way
- Conventional railroad equipment with locomotive hauled coaches
- Designed to move people for longer distances with few stops
- Speeds up to 80 mph
- Service frequency every 30-60 minutes
- High capacity up to 800 passengers per train
- Station spacing every 5-10 miles
- High-level platforms



# Rail Alternatives



- **Alternative 1:**

PATCO from Philadelphia to Williamstown via Route 42 and Atlantic City Expressway

- **Alternative 2:**

PATCO from Philadelphia to Glassboro via Route 55

- **Alternative 2A:**

PATCO from Philadelphia to Glassboro via Route 55 and the Conrail Right-of-Way

- **Alternative 3:**

PATCO from Philadelphia to Glassboro via the Conrail Right-of-Way

- **Alternative 4:**

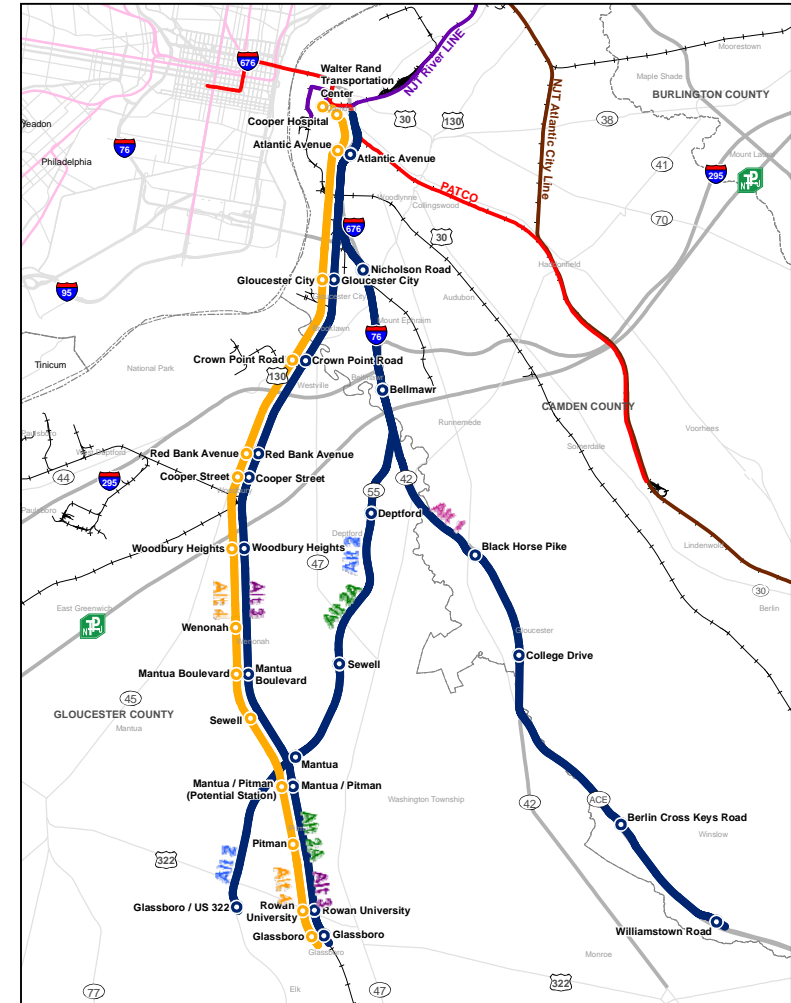
Light Rail Transit from Camden to Glassboro via the Conrail Right-of-Way



Light Rail



PATCO



# Results of Alternatives



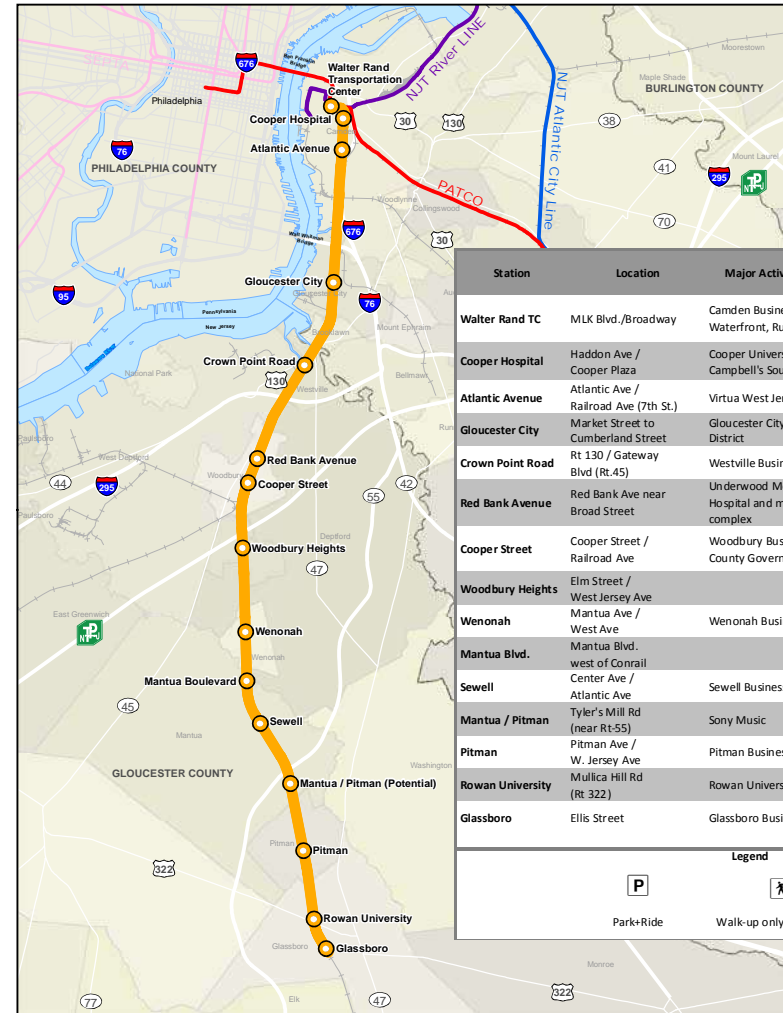
Alternative Mode Service From Service To Via	Alt 1 PATCO Philadelphia Williamstown NJ42 & ACE	Alt 2 PATCO Philadelphia Glassboro NJ-42, NJ-55	Alt 2A PATCO Philadelphia Glassboro NJ55 & Conrail	Alt 3 PATCO Philadelphia Glassboro Conrail	Alt 4 DLRT Camden Glassboro Conrail
<b>Project Route Length</b>					
New	18.7 mi	17.0 mi	17.3 mi	17.1 mi	17.4 mi
Total	22.5 mi	20.8 mi	21.0 mi	20.8 mi	17.4 mi
<b>Project Stations</b>					
Existing NJ	2	2	2	2	1
Existing PA	4	4	4	4	0
<b>New</b>	<b>7</b>	<b>7</b>	<b>8</b>	<b>10</b>	<b>13</b>
Total	13	13	14	16	14
<b>2030 Daily Ridership</b>	<b>23,800</b>	<b>23,000</b>	<b>22,700</b>	<b>23,700</b>	<b>18,600</b>
New Transit Trips	7,000	8,100	7,700	10,200	10,900
From PATCO	9,900	6,900	6,900	4,700	700
From NJ Bus	6,900	8,000	8,100	8,800	7,000
<b>Capital Cost Estimate</b>					
Present Value	\$ 2.4 B	\$ 2.1 B	\$ 2.5 B	\$ 3.0 B	\$ 1.3 B
Year of Expenditure	\$ 3.0 B	\$ 2.6 B	\$ 3.1 B	\$ 3.8 B	\$ 1.6 B
<b>Operating Cost Estimate</b>					
Incremental Annual O&M	\$ 44 M	\$ 41 M	\$ 43 M	\$ 44 M	\$ 29 M
<b>Travel Time</b>					
To Walter Rand TC	From Williamstown	From Glassboro	From Glassboro	From Glassboro	From Glassboro
Total Run Time	29 min	27 min	29 min	30 min	37 min

# Recommended Alternative



## Alternative 4 – Light Rail between Camden and Glassboro

- Lowest Capital Cost (\$1.3B)
- Lowest Operating Cost (\$29M)
- Highest New Transit Trip Potential (10,900 daily)
- Maximizes Use of Existing Conrail Infrastructure
- Links Communities, Universities, Activity Centers and Cities
- Supports Intra-NJ Trips
- Encourages Economic Redevelopment and TOD within Surrounding Communities
- Creates Footprint Consistent with Surrounding Area
- Supported by Local and State Elected Officials and Office of Smart Growth
- Received the Most Public Comment Support



Station	Location	Major Activity Center	Time to Walter Rand TC	Station Access
Walter Rand TC	MLK Blvd./Broadway	Camden Business District, Waterfront, Rutgers		
Cooper Hospital	Haddon Ave / Cooper Plaza	Cooper University Hospital, Campbell's Soup	2 min	
Atlantic Avenue	Atlantic Ave / Railroad Ave (7th St.)	Virtua West Jersey Hospital	5 min	
Gloucester City	Market Street to Cumberland Street	Gloucester City Business District	9 min	
Crown Point Road	Rt 130 / Gateway Blvd (Rt.45)	Westville Business District	13 min	
Red Bank Avenue	Red Bank Ave near Broad Street	Underwood Memorial Hospital and medical complex	16 min	
Cooper Street	Cooper Street / Railroad Ave	Woodbury Business District, County Government	18 min	
Woodbury Heights	Elm Street / West Jersey Ave		21 min	
Wenonah	Mantua Ave / West Ave	Wenonah Business District	24 min	
Mantua Blvd.	Mantua Blvd. west of Conrail Center Ave / Atlantic Ave	Sewell Business District	26 min	
Sewell	Tyler's Mill Rd (near Rt-55)	Sony Music	28 min	
Mantua / Pitman	Pitman Ave / W. Jersey Ave	Pitman Business District	30 min	
Pitman	Mullica Hill Rd (Rt 322)	Rowan University	32 min	
Rowan University	Ellis Street	Rowan University	35 min	
Glassboro		Glassboro Business District	37 min	

**Legend**

- Park+Ride
- Walk-up only, no parking
- NJT Bus
- PATCO



# Transit and Economic Development



## Transit-Oriented Development (TOD) can:

- Promote attractive, safe, walkable mixed-use neighborhoods
- Increase value and income for property owners
- Expand markets and increase revenues for businesses
- Enhance tax revenues for local governments from rising land values



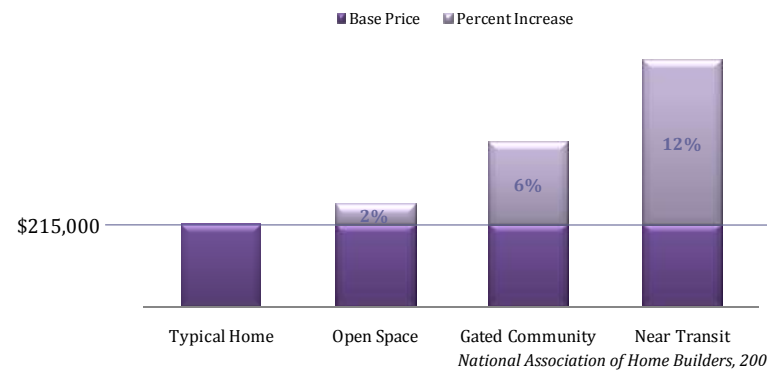
## The Hudson-Bergen Light Rail System has had a positive effect on communities along its corridor:

- Pedestrian-friendly, mixed-use developments with convenient access to public transportation replaced underutilized land
- Broad-based development – housing, office, hotels, retail and recreational facilities
- Property values and ratables have grown exponentially



Proximity to amenities can positively affect a home's value, as shown in this example of a typical home when different locational characteristics are introduced.

## Value of Typical Home



# Rail Transit Network Regional Disparity

## Southeastern Pennsylvania

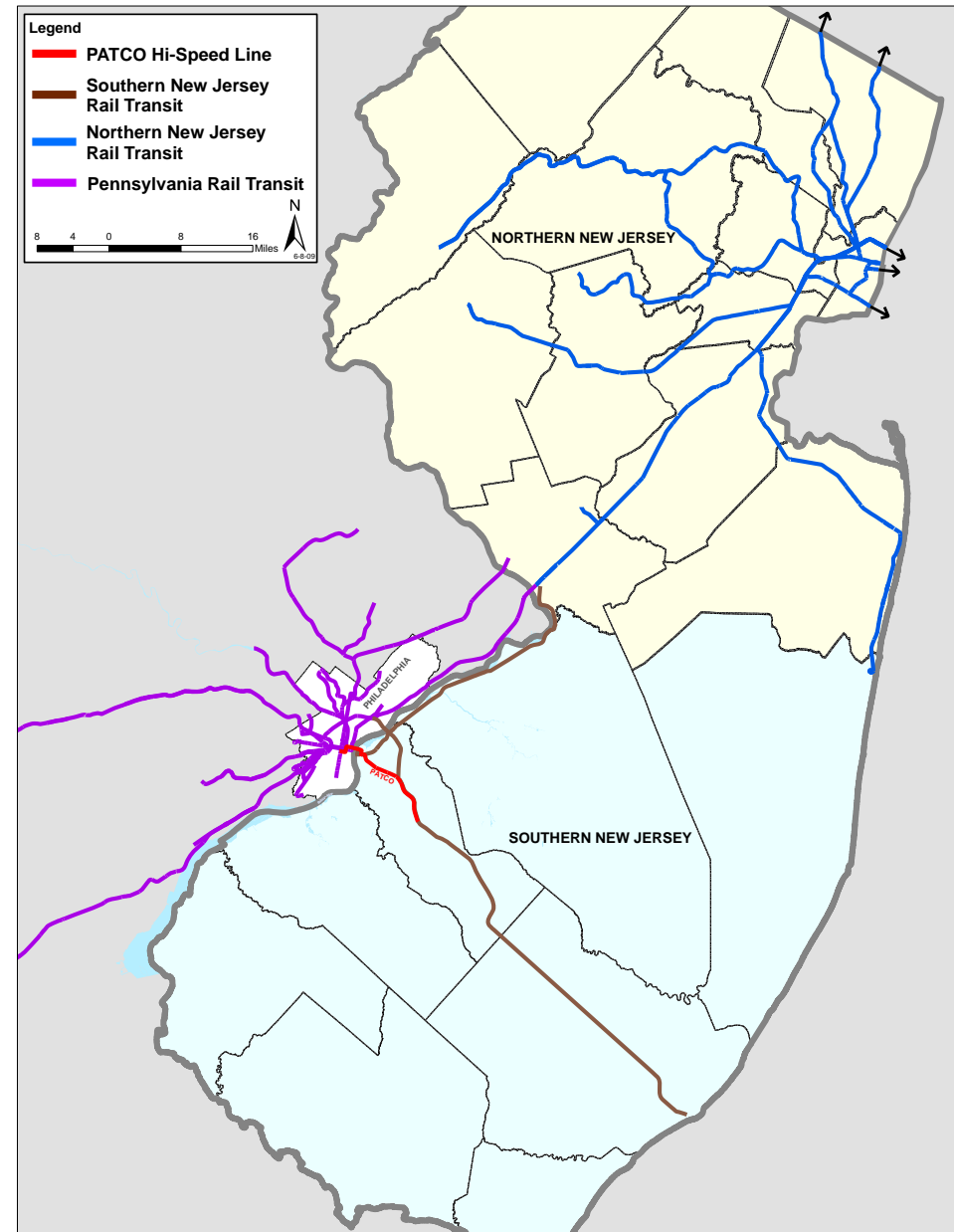
Comprehensive Network Encompassing  
Over **300** Miles of Rail

## Northern New Jersey

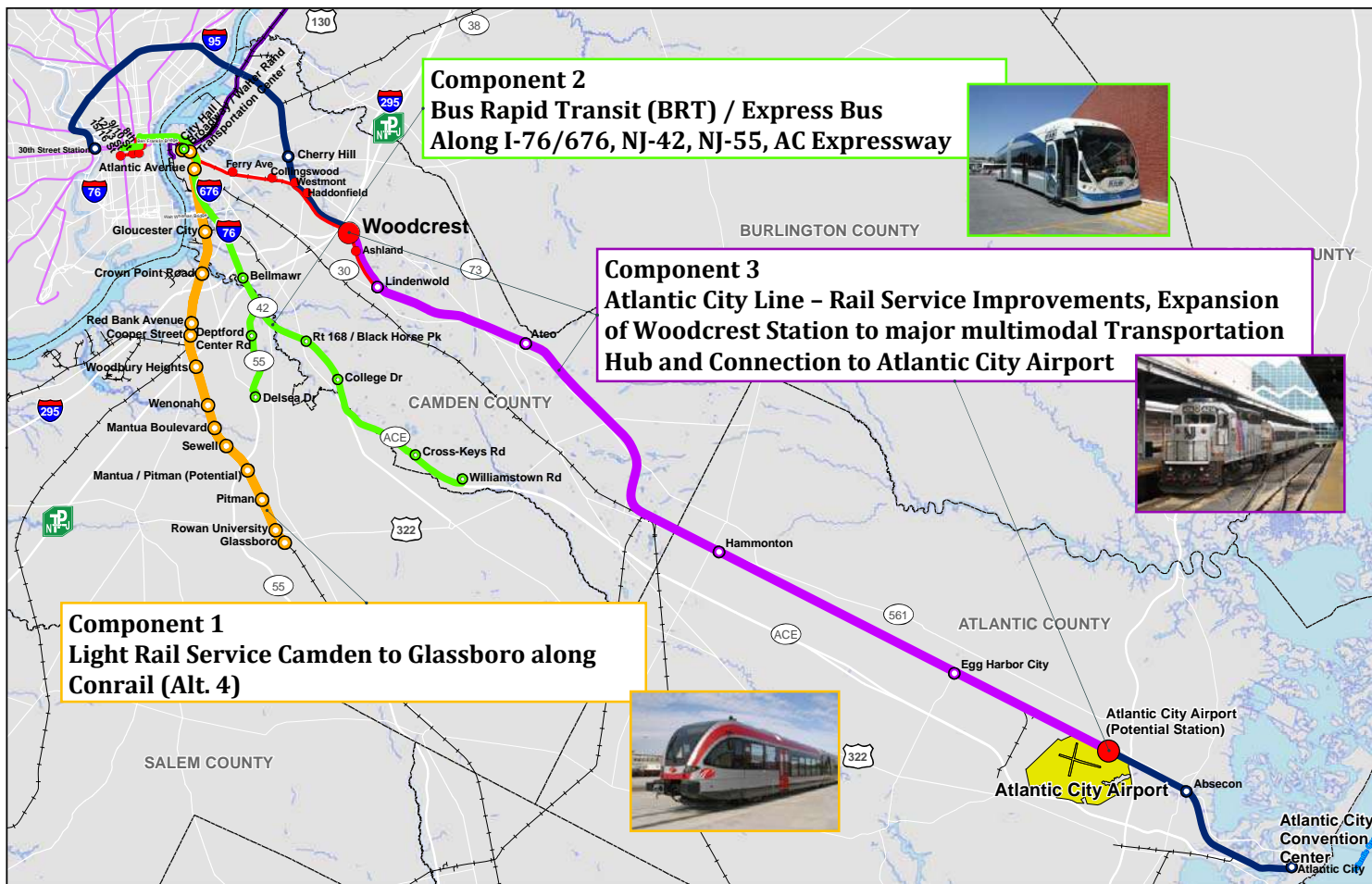
Comprehensive Network Encompassing  
Over **600** Miles of Rail

## Southern New Jersey

Limited Network of Less Than **100** Miles  
of Rail



# Transit Investment Vision for Southern New Jersey



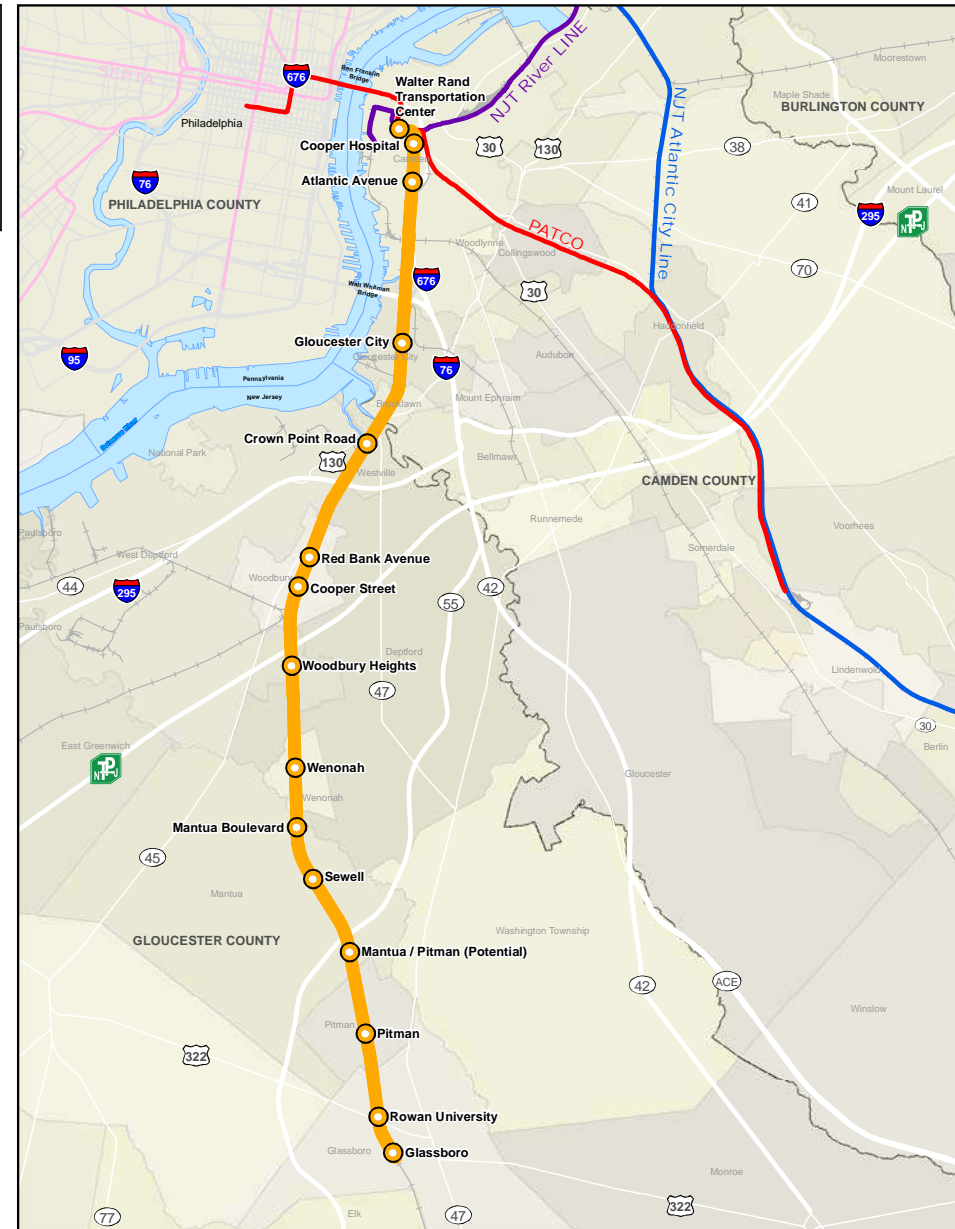
# Southern NJ Transit Investment Vision

## Light Rail

### Component 1 - DLRT between Camden and Glassboro

- Travels through existing municipalities originally built around passenger rail service
- Supports intra-NJ trips
- Encourages economic redevelopment within surrounding communities
- Links communities, universities, activity centers and cities
- Creates footprint consistent with surrounding area

Planning / Engineering	3 – 4 Years
Construction	2 – 4 Years
Start of Operations	5 – 8 Years



# Southern NJ Transit Investment Vision

## Bus Rapid Transit

### Component 2 – BRT between Philadelphia / Camden and Williamstown / Deptford

- Provides frequent limited stop express bus service
- Helps relieve traffic congestion along the Route 42 and Route 55 Corridors
- Operates in dedicated bus lanes to avoid congestion delays
- Provides competitive alternative to driving
- Increases mobility within surrounding areas
- Encourages potential for TOD around station areas

Planning / Engineering	2 – 4 Years
Construction	2 – 3 Years
Start of Operations	4 – 7 Years

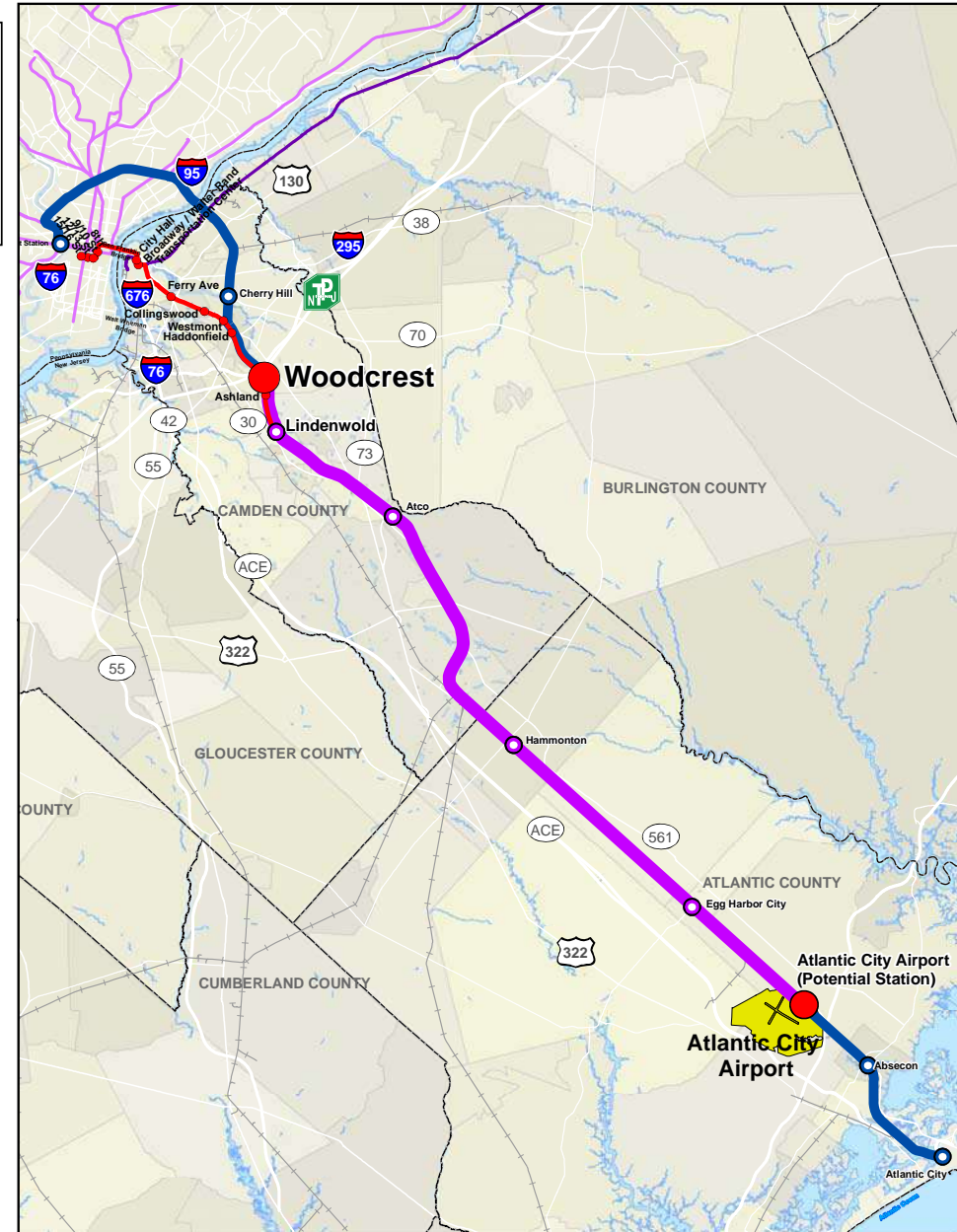


# Southern NJ Transit Investment Vision

## Atlantic City Rail Line

### Component 3 – AC Line Improvements from Woodcrest Station to AC Airport

- Increases service frequency and capacity through double tracking of line
- Establishes Woodcrest Station as a multi-modal transit hub with direct access from I-295
- Provides connection to AC Airport
- Encourages potential for TOD around station areas



Planning / Engineering	2 – 4 Years*
Construction	2 – 4 Years*
Start of Operations	4 – 8 Years*

\* Dependent on components: addition of stations could be implemented more quickly, while major track and infrastructure improvements will take longer

# Alternative Results with BRT



Alternative Mode Service From Service To Via	Alt 1	Alt 2	Alt 2A	Alt 3	Alt 4	Alt 4 + BRT Combo		
	PATCO Philadelphia Williamstown NJ42 & ACE	PATCO Philadelphia Glassboro NJ-42, NJ-55	PATCO Philadelphia Glassboro NJ55 & Conrail	PATCO Philadelphia Glassboro Conrail	DLRT Camden Glassboro Conrail	DLR Camden Glassboro Conrail	BRT Philadelphia Williamstown NJ42 & ACE	
<b>Project Route Length</b>								
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Total	22.5 mi	20.8 mi	21.0 mi	20.8 mi	17.4 mi	17.4 mi	26.5 mi	
<b>Project Stations</b>								
Existing NJ	2	2	2	2	1	1	1	
Existing PA	4	4	4	4	0	0	0	
<b>New</b>	<b>7</b>	<b>7</b>	<b>8</b>	<b>10</b>	<b>13</b>	<b>13</b>	<b>7</b>	
Total	13	13	14	16	14	14	8	
<b>2030 Daily Ridership</b>	<b>23,800</b>	<b>23,000</b>	<b>22,700</b>	<b>23,700</b>	<b>18,600</b>	<b>14,900</b>	<b>9,100</b>	
New Transit Trips	7,000	8,100	7,700	10,200	10,900	13,000		
From PATCO	9,900	6,900	6,900	4,700	700	5,200		
From NJ Bus	6,900	8,000	8,100	8,800	7,000	5,800		
<b>Capital Cost Estimate</b>								
Present Value	\$ 2.4 B	\$ 2.1 B	\$ 2.5 B	\$ 3.0 B	\$ 1.3 B	\$ 1.3 B	\$ 0.2 B	
Year of Expenditure	\$ 3.0 B	\$ 2.6 B	\$ 3.1 B	\$ 3.8 B	\$ 1.6 B	\$ 1.6 B	\$ 0.3 B	
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<b>Travel Time</b>								
To Walter Rand TC	From Williamstown	From Glassboro	From Glassboro	From Glassboro	From Glassboro	<b>Glassboro</b>	<b>From Williamstown</b>	<b>Deptford</b>
Total Run Time	29 min	27 min	29 min	30 min	37 min	37 min	25 min	16 min