

# MAKING CONNECTIONS

## Somerset County's Circulation Plan Update



Public Meeting #2 - March 30, 2011



# Study Overview

- **Community-based planning process**
- **Existing transportation system conditions**
- **Comprehensive outreach and coordination**
- **Goals and policies to guide decision making**
- **Summary of conditions, issues, concerns, needs**
- **Scenario planning to evaluate potential outcomes**
- **Comments and discussion**
- **Planning Board review and adoption**



# Existing Conditions

- **Review of related plans, studies, and policies**
- **Multi-modal evaluation of transportation system**
  - **Roadway**
  - **Bicycle and pedestrian**
  - **Public and private transit**
  - **Freight and goods movement**
  - **Safety**
- **Greenhouse gases and climate change impacts**
- **Mobility and Community Form guidance**



# Multi-Modal Transportation System Functional Classifications



**Table 2.13-1: Roadway Functions**

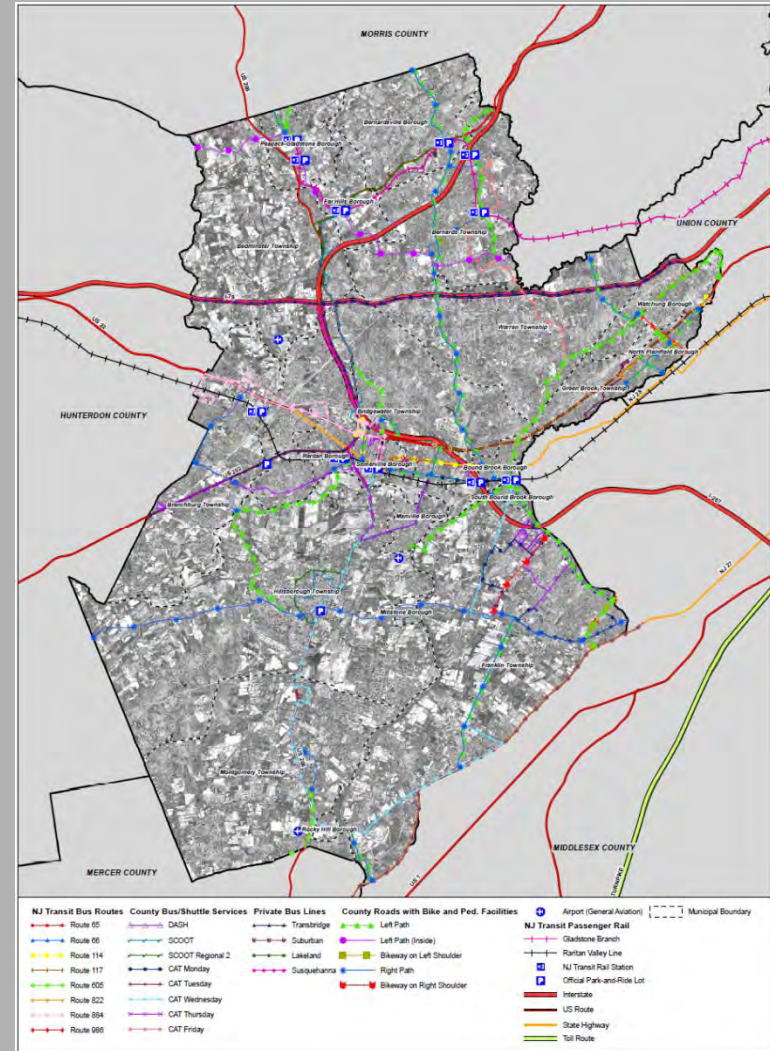
Class	Functions
<b>Major Arterial</b>	<ul style="list-style-type: none"> <li>Facilitate regional through movements</li> <li>Accommodate high traffic volumes</li> <li>Maximize mobility, minimize interference</li> </ul>
<b>Minor Arterial</b>	<ul style="list-style-type: none"> <li>Facilitate through movements</li> <li>Connect major arterial roadways with the collector system</li> <li>Link centers</li> </ul>
<b>Major Collector</b>	<ul style="list-style-type: none"> <li>Bidirectional connection between local streets to the arterial system</li> <li>Connect residential developments with adjacent land uses</li> </ul>
<b>Minor Collector</b>	<ul style="list-style-type: none"> <li>Bidirectional connection between local streets to the arterial system, albeit at lower volumes than major collectors</li> <li>Connect residential developments with adjacent land uses</li> <li>May include County roadways without collector function that provide access to adjacent land uses</li> </ul>

Source: NJDOT



# Multi-Modal Transportation System Transit - Rail

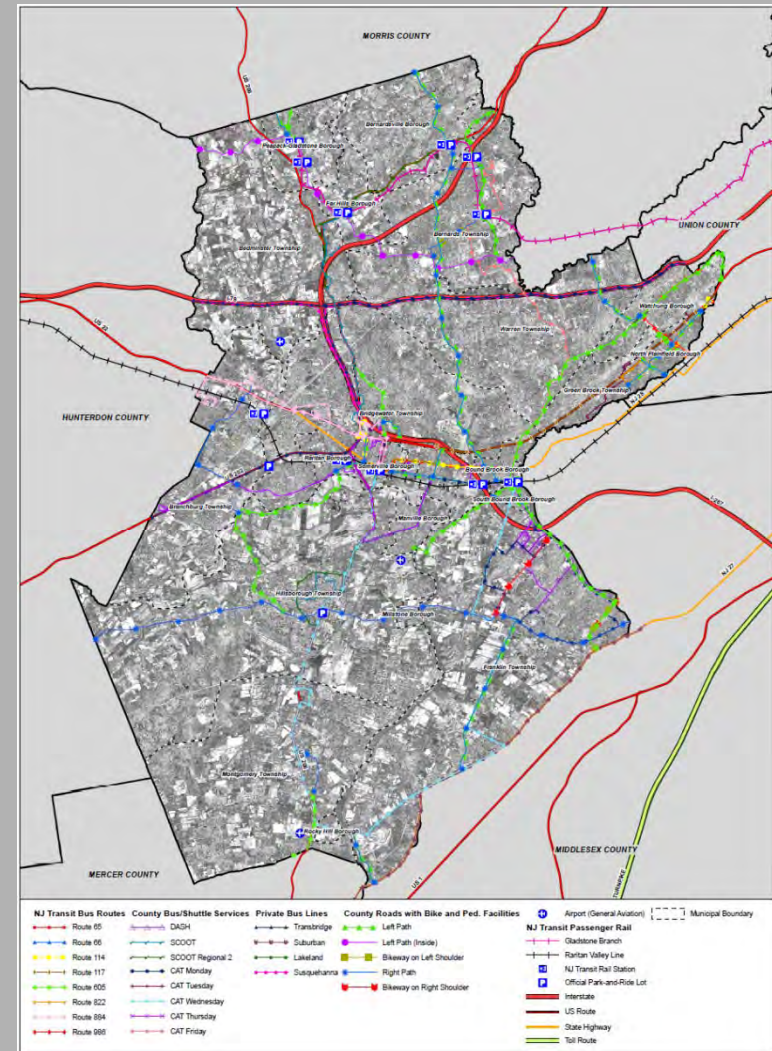
- **New Jersey Transit Passenger Rail**
  - Gladstone Branch (Morris and Essex Line) – Six stations within County
  - Raritan Valley Line – Five stations within County
- **Commuter Rail Service**
- **Limited Intra-County traffic**



# Multi-Modal Transportation System

## Transit - Bus

- **Public**
  - **New Jersey Transit Bus Service – Six Routes**
    - **Regional service to NYC, Newark, Plainfield, Lawrence Twp., and Clinton**
- **Private Operators**
  - **Lakeland Bus Lines – Bedminster, NJ to NYC**
  - **Trans-Bridge Lines – Bethlehem, PA to NYC**
  - **Suburban Transit – Princeton, NJ to NYC**
  - **Susquehanna Trailways – Two Routes**
    - **Sunbury, PA to NYC and Lock Haven, PA to NYC**





# Multi-Modal Transportation System Transit - Park and Ride

- **Thirteen (13) Total Lots**
  - 11 associated with NJ Transit Railway Stations
  - 2 recognized by NJDOT (Bus)
- **Promotes use of public transportation**
- **Reduces number of single-occupancy vehicles**



# Multi-Modal Transportation System

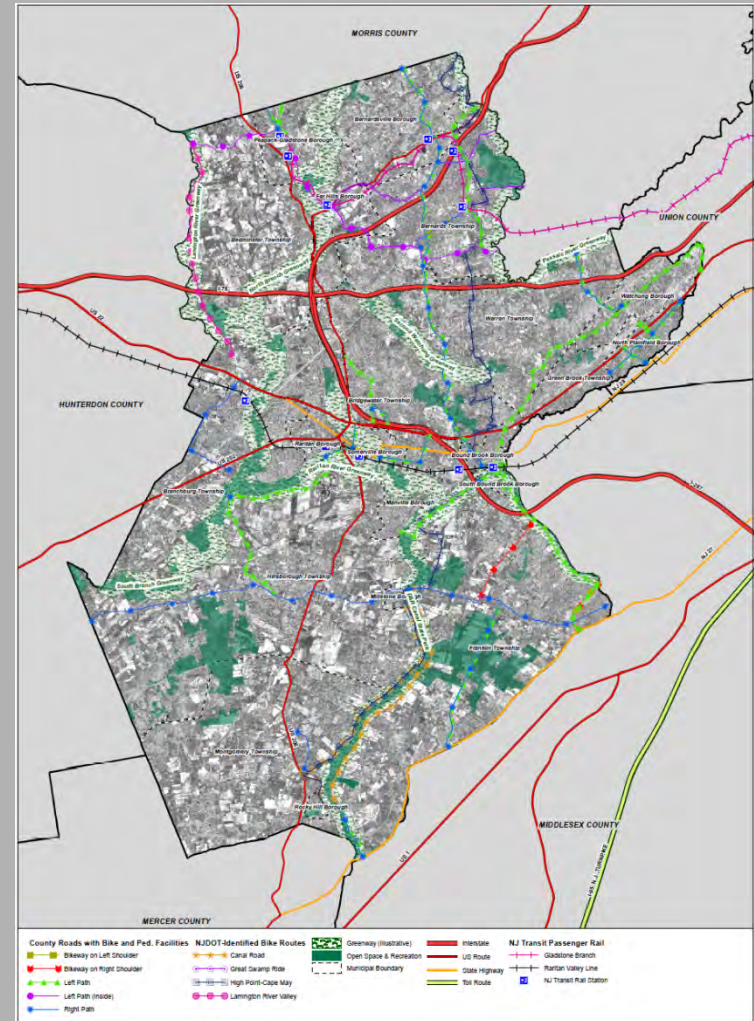
## Airports

- **Three General Aviation Facilities**
  - **Somerset Airport (Bedminster Township)**
  - **Central Jersey Regional Airport (Hillsborough Township)**
  - **Princeton Airport (Montgomery Township)**
- **Serve corporate and recreational users**
- **Provide access to pilot training facilities**
- **Serve as reliever airports**



# Multi-Modal Transportation System Bikeways and Greenways

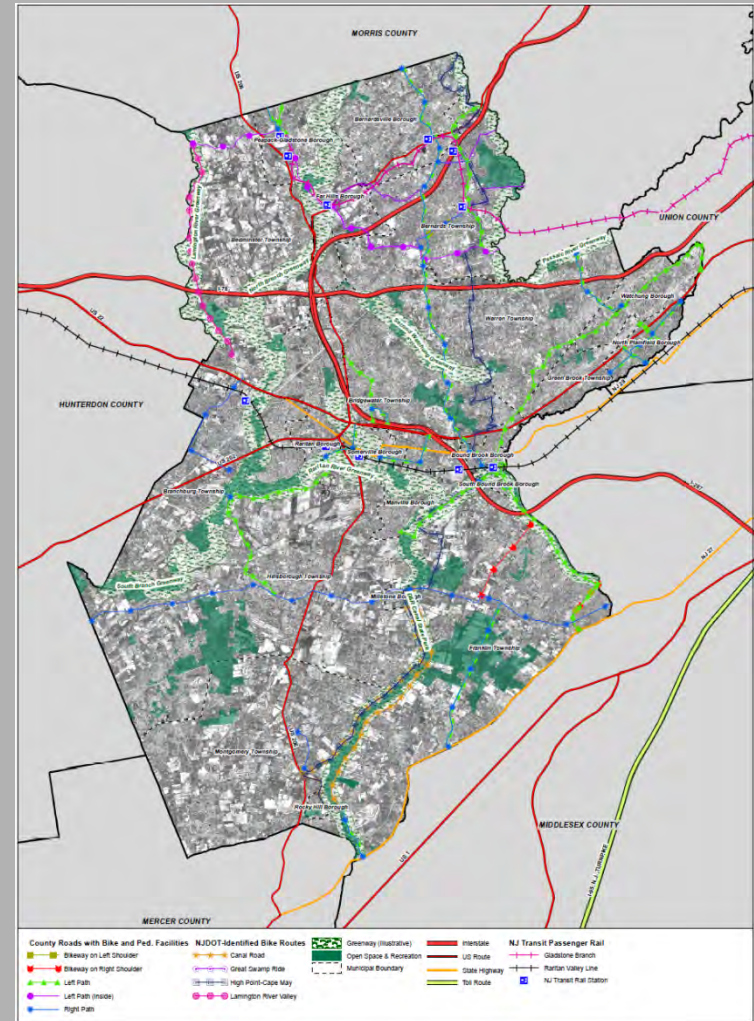
- **Bikeways (Outlined by NJDOT)**
  - High Point to Cape May Bicycle Route
  - Lamington River Valley
  - Canal Road
  - Great Swamp
- **County maintains ten miles of bikeways on roads**



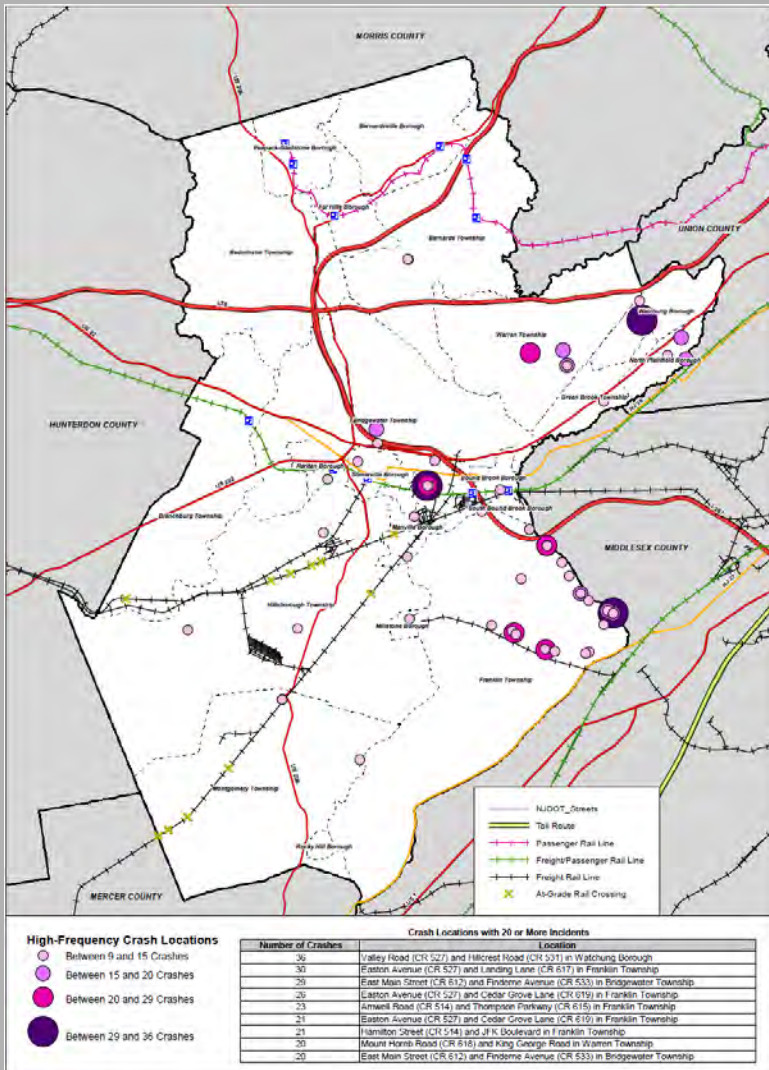
# Multi-Modal Transportation System Bikeways and Greenways

- **Greenways**

- South Branch Greenway
- North Branch Greenway
- Second Watchung Greenway
- Raritan River Greenway
- Passaic River Greenway
- Lamington River Greenway
- Delaware and Raritan (D&R) Canal State Park
- Peters Brook Greenway



# Multi-Modal Transportation System Crash Data



**Table 2.12-1: Key Crash Locations**

Number of Crashes	Location
47	Easton Avenue (CR 527) and Cedar Grove Lane (CR 619) in Franklin Township
36	Valley Road (CR 527) and Hillcrest Road (CR 531) in Watchung Borough*
30	Easton Avenue (CR 527) and Landing Lane (CR 617) in Franklin Township
29	East Main Street (CR 612) and Finderne Avenue (CR 533) in Bridgewater Township
23	Amwell Road (CR 514) and Thompson Parkway (CR 615) in Franklin Township*
21	Hamilton Street (CR 514) and JFK Boulevard in Franklin Township*
20	Mount Horeb Road (CR 618) and King George Road in Warren Township*
20	East Main Street (CR 612) and Finderne Avenue (CR 533) in Bridgewater Township

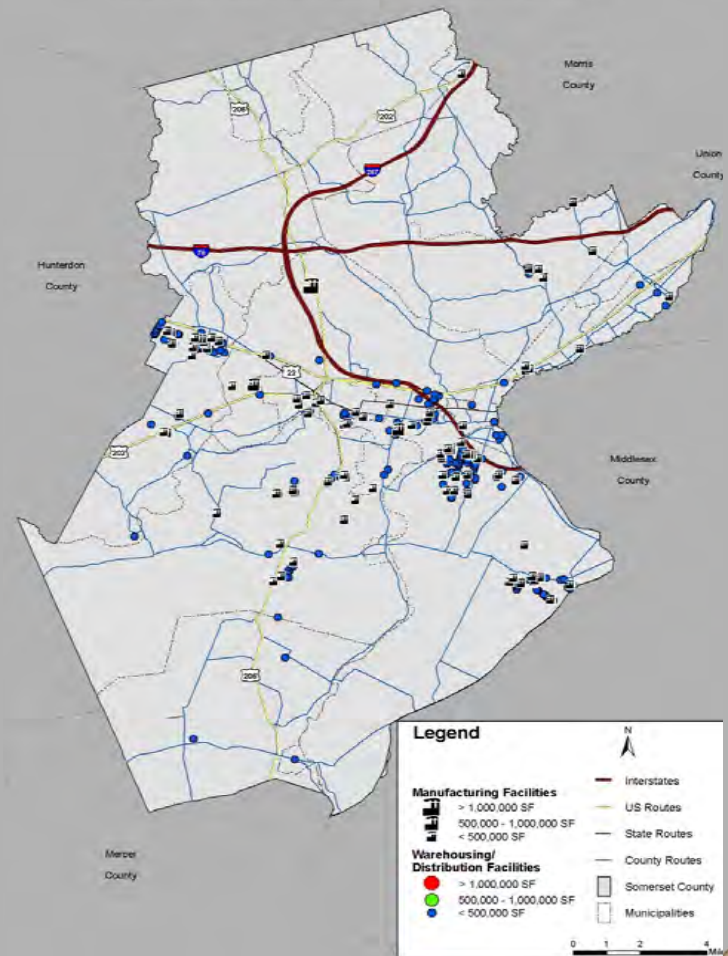
Note: \* Denotes recently completed projects or projects under design.

Source: New Jersey Department of Transportation

# Freight Context

## Warehousing/Distribution and Manufacturing Facilities Somerset County, New Jersey

- **Access to major east-west and north-south roadways via I-78, I-287, and NJ Routes 22, 206, and 202**
- **Access to two national railroads – CSX and Norfolk Southern – with industrial sites located both within and immediately outside of the Conrail Shared Asset Area**
- **A diverse industrial and distribution business base, including steel, paper, pharmaceutical and medical manufacturing, plastics, building materials, and retail distribution**
- **About 40 million sf of industrial properties**



# Issues and Considerations

- **Not located immediately on the New Jersey Turnpike, the supply chain spine of the State**
- **Several key routes are highly congested, particularly I-287.**
- **No warehouses larger than 500,000 sf exist in the County. Many buildings are older and smaller**
- **Industrial sites compete with locations in Middlesex, Union and Mercer Counties in New Jersey and locations along I-78 in Eastern PA**
- **Limited large green field parcels for new development; must focus on reuse of existing and/or brownfield properties**
- **Must balance industrial and freight related development with other land uses within the County**



# Moving Forward

- **Somerset County has a diverse array of industries and freight-related operations including:**
  - **Medical and pharmaceutical companies, such as Centocor Ortho Biotech, Oticon, and Roche**
  - **Transload operations, such as Dameo in Bridgewater**
  - **Regional sort and distribution operations, such as UPS and Baker and Taylor, both located in Bridgewater**
  - **Quarries, including Stavola (which supplies NJ Transit) and Trap Rock Industries**
  - **Centrally located within New Jersey, making the County suitable for regional distribution activities**
- **New concepts, such as compact freight villages, can be considered to advance economic development objectives**



# Outreach and Coordination

- **Community-based planning process**
- **Comprehensive effort to gather feedback and guidance**
  - **Steering Committee** – guide study and review findings
  - **Focus Groups** – represent broad spectrum of interests
  - **Planning Board Chairmen** – represent local government
  - **On-line Survey** – prioritize goals and policies
  - **Public Meetings** – inform public and gather comments
  - **Somerset County Planning Board** – review and adopt Plan



# Focus Groups

- **Five sessions were held – April thru August, 2010**
  - **Freight and goods movement**
  - **Public transit**
  - **Mobility and safety**
  - **Economic issues**
  - **Critical infrastructure and climate change**
- **Variety of interests represented**
  - **Public sector**
  - **Private sector and business**
  - **Advocacy groups and stakeholders**



# Focus Group Comments

- **Expand bus service to include north/south routes**
- **Transit needs are underserved in central and southern part of the County**
- **Commission a study into parking at rail stations. Current ownership of lots is not uniform, and access, policies and fees vary**
- **Take advantage of redevelopment to support transit through higher densities**
- **Explore incentives for public/private partnerships with large business in the County**
- **Implement traffic calming as appropriate**
- **Encourage transit village and appropriate densities as part of bypass development**
- **Increase network connectivity in key areas along arterials**
- **Consolidate driveways and parking on major arterials**
- **Conduct safety audits at high accident locations**
- **Expand and connect Greenway corridors**
- **Provide access to employment for economically disadvantaged and disabled individuals**
- **Consider transportation needs of youth, seniors, and other users with no access to cars**



# Goals and Policies

- **Started with 2003 Circulation Element**
- **Updated based on:**
  - **Steering committee input**
  - **Comments from focus groups**
  - **Survey results**
  - **Comments from public meeting**
  - **Reflect current state of practice**



# Goals and Policies

- **Maintain and Modernize the County Transportation System**
- **Reduce Traffic Congestion**
- **Reduce Green House Gas Emissions Contributing to Climate Change**
- **Protect and Enhance the Natural and Built Environment**
- **Support Economic Activity in Town Centers and Business Corridors**
- **Improve Mobility and Connections between Travel Modes**
- **Integrate Transportation, Land Use, and Site Design**
- **Maintain a High Level of Safety and Security**
- **Monitor the Performance of the Transportation System**



# Key Themes

- Create a robust **multi-modal** transportation network
- **Maintain and improve** existing highway system
- **Traffic safety** is a major consideration
- **Increase** mass transit usage
- Plan elements should promote **sustainability**



# Diverse Needs, Concerns, Issues

- **Multi-modal network**
  - Improve bus and transit service, add station parking
  - Add sidewalks, bicycle accommodations, greenways
  - Trucks and freight industry are critical to local and regional economy
  - Improve roadway network connectivity
- **Maintain and improve**
  - Explore public/private partnerships to fund needed improvements and expansion
  - Expand critical roadways including U.S. 206
- **Safety**
  - Improve safety and livability of roads and communities
  - Roadway safety is a priority
- **Sustainability**
  - Redevelop urban centers with transit supportive density
  - Connect people with opportunities through transportation



# Scenario Planning

- **Developed a series of alternative scenarios**
  - Reflect potential desired outcomes and visions
  - Based on infrastructure, demographic, land use elements
  - Facilitate compare and contrast using performance measures
- **Tool: North Jersey Regional Travel Model (NJRTME)**
  - Multi-modal with enhanced Transit component
  - Based on approved demographic projections
  - Testing of projects, policies, environmental and land use issues
- **Many variations tested**
  - How does each scenario meet Plan goals and policies?



# Scenario Planning

- 1. Somerset County Baseline**
- 2. Highway Rich**
- 3. Transit Rich**
- 4. Blend Scenario**



# Projects by Scenario

Project	Scenarios			
	Baseline	Highway Rich	Transit Rich	Blend Scenario
<b>Highway</b>				
Brown Ave - relocation		X		X
West County Dr	X	X	X	X
Orchard Rd - Connection to River Rd		X		X
CR 518 - Intersection	X	X	X	X
NJ 22 Widening	X	X	X	X
Chimney Rock Rd Interchange	X	X	X	X
I-287 at Easton Ave Interchange	X	X	X	X
U.S. 206 - Bypass and 15 N Widening	X	X	X	X
Amwell Rd Signal Improvements	X	X	X	X
Easton Ave Jersey Barrier		X		X
New crossing over Raritan River		X		
Weston Canal Rd Signal	X	X	X	X
US 202 at 1st Ave - widening	X	X	X	X
Diamond Hill Rd Interchange	X	X	X	X
Diamond Hill Rd - widening		X		
<b>Transit</b>				
West Trenton		X	X	X
Hudson River Tunnel	X	X	X	X
Regional Service Enhancement			X	X
Flemington			X	
<b>Travel Demand Management</b>				
TDM Strategies (moderate)		X	X	X
Improved Network Coverage			X	X
Improved Bus Service			X	X
Improved Rail Service			X	X
Parking Fee Increase			X	X
Increase Percent Walk to Transit			X	X
<b>Capacity and Highway Maintenance</b>				
Five % Reduction in Capacity due to Funding Shortfall	All Roadways but County Routes	N/A	N/A	N/A
<b>Demographic Data Projections</b>				
Municipal Demographics	Plan	Plan	Plan	Plan



# Somerset County Baseline

- **Follows current trend line of growth and development patterns for Somerset and region**
- **Only approved NJTPA TIP and Plan projects**
- **Adopts NJTPA assumption for road maintenance**
  - Capacity reduction due to funding shortfall
- **Represents the *Baseline* for comparison**
  - What would happen if no new plans, policies, vision were introduced?



# Highway Rich

- **Primarily highway-based improvements**
  - **Capacity, intersections, interchanges**
  - **Traffic operations**
  - **Raritan River crossing**
  - **Adds total of 6 projects vs. Baseline**
  - **Regional rail expansion - West Trenton only**
- **Includes TDM/TSM elements**
  - **Low-cost operational improvements**
  - **Policies that shift travel demand (i.e. work at home)**
  - **Highway and transit ITS improvements**



# Transit Rich

- **Prioritizes transit-based improvements**
  - **Regional rail expansion - West Trenton and Flemington**
  - **Local and regional rail and bus enhancements**
  - **Same highway projects as Baseline**
- **Includes TDM/TSM elements**
  - **TDM/TSM the same for each alternative scenario**



# Blend Scenario

- **Prioritizes multi-modal improvements**
  - **Regional rail expansion - West Trenton only**
  - **Local and regional rail and bus enhancements**
  - **Subset of projects from Highway Rich**
  - **Evaluate benefits of new Raritan River crossing**
- **Includes TDM/TSM elements**
  - **TDM/TSM the same for each alternative scenario**



# Performance Measures

Comparison of Performance Measures between Existing Conditions and Future Scenarios

	2009 Existing	2030 Somerset Plan Baseline	2030 Highway Rich	2030 Transit Rich	2030 Blend Scenario
Total Person Trips (all modes, thousands)	1,087.4	1,283.0	1,252.4	1,252.4	1,252.4
Transit Person Trips (thousands)	17.8	27.0	27.3	28.5	28.2
Vehicle Miles of Travel (VMT, millions)	10.338	11.698	11.630	11.601	11.620
Vehicle Hours of Travel (VHT, millions)	0.317	0.408	0.386	0.385	0.385
Average Speed (mph)	32.59	28.67	30.11	30.13	30.17
% VMT at Congested Conditions	18.1%	22.5%	20.6%	20.5%	20.6%



# Scenario Summary

- **Demographic shifts support transit, help mitigate congestion**
- **All scenarios result in degraded mobility from current conditions**
  - **Travel under congested conditions projected to increase by 25%**
  - **Increasing congestion impacts County and local street systems**
- **Conditions can be mitigated in Build scenarios but not resolved**
  - **Highway Rich – Mitigates congestion compared to Baseline**
  - **Transit Rich – Further mitigates congestion**
    - **Attracts auto trips to transit through new and improved services**
  - **Blend – Best overall in terms of performance measures**
    - **Benefits core towns by shifting travel to interstates which are better able to accommodate additional trips**
    - **Mitigates congestion impacts to County and local street systems**



# Summary

- **Making Connections Plan**
  - Update of the Somerset County Circulation Element
- **A community-based planning process**
- **Safely connecting people with opportunity through transportation**



# What's Next?

- **Draft Making Connections Plan**
  - **Review by Somerset County and Steering Committee- early Spring**
  - **Draft Plan to County Planning Board- Spring**
  - **Distribution of Draft Plan- Spring**
  - **Planning Board Hearing to adopt Final Plan- early Summer**

