Linking Land Use and Transportation
NJ’s Experience

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NYMTC - PFAC

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Amongst the 85 Urban Areas studied, **Northern NJ ranks 7th amongst the Very Large Urban Areas in 2002, in terms of Annual Hours of Delay per Traveler**...
Where We Are

*Obesity Rates in the US, 1989 (left) and 2001 (right)*

The Centers for Disease Control and Prevention (CDC) has labeled America’s lack of physical activity as *epidemic.*
Why It’s Happening

What we thought would happen...

20-Year Forecast

Traffic

Capacity

Years

Widen
Why It’s Happening

What’s really happening...

Traffic

Years

Widen

Widen

Congestion

Capacity
Why It’s Happening
FY2007 Project Pool

PROGRAM CATEGORIES

- Local Aid, 9%
- Quality of Life, 2%
- Roadway Preservation, 20%
- Capital Program Support, 2%
- Capital Program Delivery, 8%
- Safety, 4%
- Bridge and Roadway Preservation, 5%
- Intermodal Programs, 4%
- Congestion Relief, 18%
NJDOT’s New Approach to Congestion Relief
NJ FIT: Future in Transportation

www.state.nj.us/transportation/works/njfit/

Creating healthier communities through a more integrated transportation system

• Mix Land Uses
• Create More Connections
• Design Roads in Context
• Calm Traffic
• Improve Communication

• Give Travelers Options
• Sense of Place
• Environmental Resources
• Build For Transit
• Promote System Efficiency
Partner with Communities on Land Use Planning

Right-Size State Highway Investments

Enhance Network Connectivity

Leverage Private Sector Investment

Design Context Sensitive Streets
Smart Transportation Principles

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Demonstration Plan: Borough/Township

Key Elements
1- Infill in Existing Downtown
2- Enhanced Village
3- Neighborhood Infill

Strategies
4- Greenway and Parks
5- Agriculture/Viewshed Preservation
6- New Corridors
Development Principles

Rural Development

Site Design & Parking

Street Connectivity

Mixed-Use

Parks & Open Space
Development Guidelines

- Downtown
- Commercial Center
- Village Center
- Neighborhood Center
- Rural Neighborhood
Design Guidelines for Future Development

2.1 DOWNTOWN DEVELOPMENT GUIDELINES

Downtown areas are focal points for the larger region. They are characterized by a higher intensity and mixture of land uses than surrounding areas. Mixed-use blocks oriented around a Main Street define the center of the downtown. The Main Street must be two-speed and pedestrian-friendly, creating a walkable environment between small shops, stores, and offices. Higher-density residential areas are encouraged within close walking distance to the Main Street.

EXAMPLE FEATURES
1. Main Street
2. Mixed-use buildings along Main Street
3. Ground-floor retail
4. High-density residential blocks

2.2 SITE DESIGN

Identifying Land Use Zones
- Commercial
- Residential
- Institutional
- Open Space

The site design promotes pedestrian accessibility and connectivity within the downtown area. Pedestrian pathways are essential for the downtown to function as a cohesive and accessible community.

2.3 PARKS & OPEN SPACE

Integration of Open Spaces

Due to its development history, downtown has limited open space. A balance between pedestrian-friendly open spaces and community events is important to the role of downtown as a vibrant and active community center.

3.1 BUILDINGS & FRONTAGE TYPES

4. SHOP FRONT

A shop front is intended to promote social activity. The front facing facade should be at least 60% glass to allow the edge of the site to be visible from across the street. Glass walls can enhance the street presence. Stool seating or tables outside the entrance and a small awning or canopy may be used to provide shade and shelter.

5. PORCH FRONT

A porch front is designed to promote social interaction between pedestrians and residents of individual houses. Porches can be a way to encourage the privacy of those who live there. It is typically found in American communities built between 1880 and 1940.

6. RESIDENTIAL YARD

A residential yard is a subspace containing a house. The yard should be designed to provide a sense of enclosure and privacy. It is typically found in residential areas built between 1880 and 1940.

7. RURAL RESIDENTIAL

A rural residential area is applicable to rural residential areas. To maintain rural character, homes and buildings are typically spread out from each other. In smaller rural areas, the placement of residences should be considered to provide adequate space to maintain the rural environment.
Design Guidelines:
Design Elements and Standards

- Streets
- Building Frontages
- Parking
- Lighting
- Parks
Design Elements and Standards – Streets and Building Fronts

Commercial Street

Shop Front

Neighborhood Street

Porch Front
Design Elements and Standards – Parking and Signage

Safe for Pedestrians

Visible to Pedestrians
Route 29 Trenton
Established Urban Community
Route 29 Trenton
Established Urban Community
Route 29 Trenton
Established Urban Community
Route 29 Trenton
Established Urban Community
Route 29 Trenton
Established Urban Community

A View from the Justice Center
Route 29 Trenton
Established Urban Community

A View from the Justice Center Scheme A – Phase 1
Route 29 Trenton
Established Urban Community

A View from the Justice Center Scheme A – Phase 1

300 space parking structure 2 levels
Block structure remains unchanged
Route 29 Trenton
Established Urban Community

A View from the Justice Center Scheme A – Phase 2
Route 29 Trenton
Established Urban Community

A View from the Justice Center Scheme A – Phase 2

Garage is expanded to 900 spaces:
- 300 for Justice Center
- 600 for Private Development

New building - 2 stories
office & 4 stories residential

Project works with recommended Route 29 Boulevard street network

Garage is wrapped with 4 story residential liner building
Route 29 Trenton
Urban Boulevard Alternative

State Capital
War Memorial
Rt. 29 Urban Boulevard

Approximately 18 AC of Developable Land
(floodplain impact to be determined)
Route 322 Corridor Land Use and Transportation Study
Gloucester County

- One of the fastest growing regions in NJ
- Working with municipalities to proactively develop in a more sustainable pattern
Towns have agreed to concentrate development in centers in order to preserve land, increase walkability, and make transit service more viable.
Route 322
Developer Design Charrettes

Retail Development
Logan Township

Residential & Retail Development
Woolwich Township
Route 33 Hamilton
Suburban Community
Grayfield Redevelopment
Route 33 Hamilton

Suburban Community

Grayfield Redevelopment
Route 1 Regional Growth Strategy
Proposed Centers and Nodes by Sub-Area
Route 1 Regional Growth Strategy
Proposed Centers and Nodes by Sub-Area

Route 1 Regional Growth Strategy
Proposed Centers and Nodes, New Brunswick Sub-area

Route 1 Regional Growth Strategy
Proposed Centers and Nodes, Turnpike Sub-area
Mobility & Community Form
A Guide to Linking the Circulation and Land Use Elements of the Municipal Master Plan

- Circulation
- Parking
- Transit Stops
- Natural Environment
- Neighborhoods
- Public Places
- Shopping Streets
Planning jointly for mobility and community form shifts the emphasis of the Circulation Element from the movement of vehicles, people and goods to a broader concern with the quality of people's experience in a community.
Mobility & Community Form

- Rural
- Low Density
- Town
- Dense Suburb
- City

Center

Corridor

Waterfront
Smart Transportation

**Principles**

- Partner with Communities on Land Use Planning
- Right-Size State Highway Investments
- Enhance Network Connectivity
- Leverage Private Sector Investment
- Design Context Sensitive Streets
Route 31 Bypass
Flemington

- 4-lane grade separated freeway in blue
- $125-150 million
Integrated Transportation and Land Use “Framework Plan”

- At-grade “South Branch Parkway”
- Network connections provide parallel routes to 202 and 31
- Work with property owners to manage access and support approved development plans
- Create a connected open space system as part of the South Branch River
Route 31 Bypass
Flemington

- Parkway alternative
- Revised project costs, including local grid, is $90 million
Route 31 Bypass
Parkway Typical Section
Route 31 Bypass
Flemington

Phasing: Route 31

- Lane continuity
- East Main St. intersection
- Main Street Circle
Route 31 Bypass
Flemington

Phasing: South Branch Parkway
Route 31 Bypass
Flemington

Phasing: Development Streets

• Fairgrounds
• Route 202 Commercial
• Other Future Development
Route 31 Bypass
Flemington

Phasing: “Circle to Square”

• Route 12 & Church St. Realignment
• Circle to Square
• Additional parallel route to parkway
Route 31 Bypass
Flemington

Phasing: Other Secondary Connections
Guidebook for Context Sensitive Solutions in NJ and PA
• Assigns design guidance based on **Transportation and Land Use Contexts**

• **Collaborative Effort between NJDOT, PennDOT and DVRPC**

• **Prescribes Community Involvement & Contribution**
Smart Transportation

Partner with Communities on Land Use Planning

Right-Size State Highway Investments

Enhance Network Connectivity

Leverage Private Sector Investment

Design Context Sensitive Streets
Better planning and design will get people out of cars!

A grid-like street network creates more direct routes & makes it easier to walk.

Illustration: Frank, L.D. “Health & Community Design”

Greenwald, M.J. *Transportation Research Record* 2001

Slide courtesy of Kate Kraft, RWJF
Street Connectivity

• Advantages of connectivity
  – Provides more direct routes
  – Helps disperse traffic
  – Preserves highway capacity
  – Improves bike/ped mobility
  – Improves emergency response times

• Resources available for addressing connectivity in local Master Plans

• Importance of planning for a network of interconnected streets
NJ Route 9
Ocean County
Route 9 Network Connections
Transportation Network Plan
Route 322, Woolwich Township

Future Mixed-Use Town Center

Woolwich Adult, LLC Development (Residential & Retail)
Transportation Network Plan
Route 322 Corridor
Route 33 Hamilton
Suburban Community
Network Enhancements

Connect missing network
Smart Transportation

Partner with Communities on Land Use Planning

Right-Size State Highway Investments

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Leverage Private Sector Investment

Design Context Sensitive Streets
Route 31 Bypass
Flemington

- Parkway alternative
- Revised project costs, including local grid, is $90 million
- $20 million will be provided by private developers
- Local grid partially created by reshaping internal developer roads
Route 322 Corridor
Cost Sharing - Woolwich
Route 322 Corridor Cost
Cost Sharing - Richwood
New Jersey Department of Transportation

Transit Village Initiative
Partnered with Township, NJ Transit and Boiling Springs Bank. BSB built a mixed-use bank/office/residential/commuter parking structure adjacent to the Circle.
Smart Transportation

**Principles**

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- Enhance Network Connectivity
- Leverage Private Sector Investment
- Design Context Sensitive Streets
Route 29 Trenton
Existing Urban Freeway
Route 29 Trenton
Urban Boulevard Alternative
NJ Route 9
NJ Route 9
NJ Route 9
NJ Route 9
NJ Route 9
Rural Cross Section - Existing
Rural Cross Section - Proposed
Suburban Cross Section - Existing
Suburban Cross Section - Proposed
Urban Cross Section - Existing

3'-10' Varies
10'-12'
10'-12'
3'-10' Varies
Urban Cross Section - Proposed
Urban Cross Section - Proposed
Route 9 Visioning
Urban/Village Cross Section
Guidebook for Context Sensitive Solutions in NJ and PA
Better planning and design will reduce VMT!

Reid Ewing, Generalizing from Sacramento: What Is Really Possible, a presentation made at the August 2005 Conference "Towards a Policy Agenda for Climate Change"
Better planning and design will reduce VMT!

Potential Travel Reductions with Managed Growth: A Sacramento Case Study
Gordon Garry, Sacramento Area Council of Governments, a presentation made at the August 2005 Conference "Towards a Policy Agenda for Climate Change"
www.state.nj.us/transportation/community