Module 6 will review the status of emerging initiatives to design transportation facilities that build better communities. These will include the status of the “context sensitive solutions” initiative of FHWA and AASHTO, particularly focused on the progress that many states are making in bringing this approach to their project development process with specific examples from Pennsylvania and New Jersey.
WHAT'S NEXT?

Module 6
Transportation investments are powerful and far-reaching
Transportation improvements allow economic growth.
Frequently, transportation has detracted from quality of life

Destroys resources during construction
Changes the character of rural areas

Transportation has detracted from quality of life

Smart Growth and Smart Transportation
Transportation has detracted from quality of life

Splits communities

Downtown Orlando

Smart Growth and Smart Transportation
Transportation has detracted from quality of life

Harms the environment

Impervious surfaces and water quality

Smart Growth and Smart Transportation
“Land Use …. Is not our business”
FY2003-2009 CONSTRUCTION FUNDING NEEDS

$1,279M PROJECTED REVENUE

CD/FA/PD/DES/ROW/ERC

FIRST YEAR CONSTRUCTION

MULTIPLE YEAR CONSTRUCTION
FY2005 - FY2009 Project Pool

PROJECTED SHORTFALLS

FY05: -$809
FY06: -$1,259
FY07: -$1,498
FY08: -$1,333
FY09: -$408
Does not include $8 billion In Study and Development
FY2005 - FY2009 Project Pool

PROJECTED SHORTFALLS

Study and Development

Represents only a % of needs
Goal: Affordable

- Capital Cost
- Community Satisfaction

- Conventional Widenings
- Network Additions
How Can Land Use Measures Break the Cycle?

Goal: Sustainable

- Implement Access Management
- Control Location of Development
- Manage the Demand for Vehicle Trips through Planning

MORE SITE SPECIFIC

LESS SITE SPECIFIC
Transportation must now take responsibility, and help create livable places

“Use your powers for good!”

Smart Growth and Smart Transportation
One movement centered on quality of life:

Smart Growth

Smart Growth and Smart Transportation
Smart Growth Principles

**What**
- Strengthen and direct development towards existing communities
- Foster distinctive, attractive places with a strong sense of place
- Provide a variety of transportation choices
- Create walkable neighborhoods
- Preserve open space, farmland, natural beauty and critical environmental areas

**How**
- Encourage community and stakeholder collaboration
- Make development decisions predictable, fair and cost effective
Evolution of Integrated Land Use and Transportation Plans
Corridor Design Manual

Corridor Types

<table>
<thead>
<tr>
<th>Land Use Context</th>
<th>Arterials</th>
<th>Collectors</th>
<th>Main Streets</th>
<th>Neighborhood Streets</th>
<th>Farm-to-Market Roads</th>
<th>Bicycle and Pedestrian Trail</th>
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</thead>
<tbody>
<tr>
<td>Urban Activity Center</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td></td>
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<tr>
<td>Industrial</td>
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<tr>
<td>Village Center</td>
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<td></td>
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</tr>
<tr>
<td>Neighborhood</td>
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<td>●</td>
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</tr>
<tr>
<td>Neighborhood Center</td>
<td>●</td>
<td>●</td>
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<td>●</td>
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</tr>
<tr>
<td>Rural Cluster</td>
<td>●</td>
<td>●</td>
<td>●</td>
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<td>●</td>
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</tr>
<tr>
<td>Rural Agricultural</td>
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</tbody>
</table>
Corridor Design Guidelines - Corridor Types

- Arterials
- Main Streets
- Neighborhood Streets
- Collectors
- Bicycle and Pedestrian Trails
- Farm to Market Roads
- Collectors
Corridor Design Guidelines – Land Use Context

Urban Activity Center

Village Center

Neighborhood Center

Neighborhood

Rural Cluster

Rural Agricultural

Industrial
Corridor Specific Guidelines

CORRIDOR TYPE: ARTERIAL

Land Use Classification: Urban Activity Center

<table>
<thead>
<tr>
<th>Required</th>
<th>Optional</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Curb and gutter</td>
<td>• On-street parking</td>
</tr>
<tr>
<td>• Street and pedestrian scale</td>
<td>• Planting strip</td>
</tr>
<tr>
<td>lighting</td>
<td>• Mild block pedestrian</td>
</tr>
<tr>
<td>• Shade trees</td>
<td>crossing</td>
</tr>
<tr>
<td>• Sidewalks</td>
<td>• Raised median</td>
</tr>
<tr>
<td>• Transit stops with benches</td>
<td>• Continuous left turn lane</td>
</tr>
<tr>
<td>(if service is provided)</td>
<td>• Bus Shelters</td>
</tr>
<tr>
<td>• Pedestrian activated</td>
<td></td>
</tr>
<tr>
<td>crossing at signalized</td>
<td></td>
</tr>
<tr>
<td>intersections</td>
<td></td>
</tr>
<tr>
<td>• Bicycle lane or wide</td>
<td></td>
</tr>
<tr>
<td>outside travel lane</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Design Element</th>
<th>Minimum Width (feet)</th>
<th>Maximum Width (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle lanes</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>(when bicycle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lane is present)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outside vehicle lane</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(no bicycle lane present)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raised median</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>- infrequent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>driveways and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>intersections</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- short blocks,</td>
<td>12</td>
<td>30</td>
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<tr>
<td>left turn lanes</td>
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</tr>
<tr>
<td>Continuous left</td>
<td>11</td>
<td>14</td>
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<tr>
<td>turn lanes</td>
<td></td>
<td></td>
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<tr>
<td>Bicycle lane</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Parking lane</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>- with bicycle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lane</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- no bicycle</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>lane</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planting strip</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Sidewalk</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>- on curb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- off curb</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>ROW width</td>
<td>40</td>
<td>130</td>
</tr>
</tbody>
</table>

Design Speed: 35 mph - 45 mph

Note: Where ROW permits, it is always preferred to provide a bicycle lane.
CORRIDOR TYPE: **ARTERIAL**

**LAND USE CLASSIFICATION:**
**RURAL AGRICULTURAL**

<table>
<thead>
<tr>
<th>Design Element</th>
<th>Minimum Width (feet)</th>
<th>Maximum Width (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td>Optional</td>
<td></td>
</tr>
<tr>
<td>• Grass median</td>
<td>• Striped bicycle lane</td>
<td></td>
</tr>
<tr>
<td>• Paved shoulder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Vehicle lanes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>speed &lt; 45 mph</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>speed &gt; 45 mph</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>• Median</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>•ROW width</td>
<td>100</td>
<td>140</td>
</tr>
</tbody>
</table>

**DESIGN SPEED:** 45-60 mph

Distance is equal to or greater than required clear zone.
**Corridor Specific Guidelines**

**Corridor Type:** Main Street

**Land Use Context:** Urban Activity Center/Village Center/Rural Cluster

**Required:**
- On-street parking
- Bulb-outs with landscaping
- Gutters
- Shade trees
- Pedestrian scale lighting
- Shelter at bus stop (if served by transit)
- Pedestrian crosswalk treatment

**Design Element**

<table>
<thead>
<tr>
<th>Design Element</th>
<th>Minimum Width (feet)</th>
<th>Maximum Width (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle lane width</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Bicycle lane</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Parallel parking - with bike lane</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>- without bike lane</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Angled parking - length</td>
<td>19</td>
<td>20</td>
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<tr>
<td>- width</td>
<td>9</td>
<td>11</td>
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<tr>
<td>Sidewalk</td>
<td>8</td>
<td>15</td>
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<tr>
<td>ROW width</td>
<td>56</td>
<td>82</td>
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</table>

**Parking Options**

**Parallel Parking**

- Side 5' 7'
- Side 6' 7'/8' Travel Lane

**Sidewalk Options**

**Stroll**

All areas for 2-way pedestrian travel and amenities such as benches and trees require.

**Design Speed:** 25-30 mph

**Front End Angled Parking**

**Rear End Angled Parking**

**Note:** Width of parking lane may be measured from face of curb and may include all or portion of the gutter.

**Plaza**

Provides space for outdoor dining or café.

**Design Speed:** 25-30 mph
Corridor Specific Guidelines

Corridor Type: Neighborhood Street

Land Use Context: Neighborhood/Neighborhood Center

Required
- Curb and gutter
- On-street parking
- Pedestrian scale lighting
- Planting strip
- Shade trees
- Sidewalks

Optional
- Brick pavement
- Neckdowns at intersections
- Bulbouts

Design Element | Minimum Width (feet) | Maximum Width (feet)
--- | --- | ---
- Curbway (includes gutter) | 16 | 26
- Planting strip | 4 | 8
- Sidewalk | 6 | 8
- ROW Width | 36 | 58

Note: In neighborhood centers with big activity uses such as schools, parks, and churches, sidewalks are required.
### Corridor Types

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</tr>
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<td>●</td>
<td>●</td>
<td>●</td>
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<td>●</td>
</tr>
</tbody>
</table>
Master Planning Process

Step 1: Define Study

Step 2: Define Context

Step 3: Visioning

Step 4: Design

Step 5: Implementation
How Wal-Mart Became Small-Mart

Pushed by smaller rivals, Wal-Mart created Neighborhood Markets to offer more convenient shopping to those too rushed or too weary to roam the much larger Wal-Mart stores.

Source: Wal-Mart

<table>
<thead>
<tr>
<th>AVERAGE SQUARE FEET</th>
<th>40,000</th>
<th>200,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVERAGE NUMBER OF ITEMS</td>
<td>24,000</td>
<td>100,000</td>
</tr>
<tr>
<td>NUMBER OF STORES 8 states</td>
<td>46 in</td>
<td>1,244 in</td>
</tr>
<tr>
<td>STORIES OPENING THIS YEAR</td>
<td>20-25</td>
<td>200-210</td>
</tr>
</tbody>
</table>

By CONSTANCE L. HAYS

After carpeting the country with stores measuring 150,000 square feet or more, retailers are discovering that people do not always have the time or the inclination to get all the way through them.

Yes, the abundance of a 200,000-square-foot Wal-Mart Supercenter is impressive: the equivalent of four football fields of stuff. And sure, it’s handy to be able to buy just about everything at a single 175,000-square-foot SuperTarget. But at the same time, time-pressed shoppers, particularly millions of aging baby boomers, are sometimes finding these stores to be too large, too inconvenient and too tiring to get all the way through.

And the big-box retailers have noticed. Wal-Mart Stores has been aggressively opening scaled-down versions of its Supercenters — less than one-quarter their size — called Neighborhood Markets. So far the company has built 46 smaller stores scattered through Oklahoma, Arkansas, Texas, Mississippi and Tennessee; a handful opened in Florida, Alabama and Utah in the past week.

Retail analysts have taken to calling them Small-Marts.

In Brooklyn, Home Depot has opened a shrunken version of its usual model. Other retailers, including Toys “R” Us and Staples are retrofitting stores to make them smaller, cozier and more intimate, qualities the big-box format was supposed to displace.

“Customers are demanding respect for their time,” said David M. Szymanski, director of the Center for Retailing Studies at Texas A&M University. “One way to respond to that is to offer formats that cater to that.”

Leisa Still suffers at times from big-store fatigue. Ms. Still,
Face 3 - Parking Lot
Initial Approach to CSD

Capital Cost

Community Acceptance

Conventional 4/6 Lane

Preferred Alternative

Additions

Sidewalks, Bike Lanes, Landscaping, Access Control
Goal: Affordable

Capital Cost vs. Community Satisfaction

- Conventional Widenings
- Network Additions
WHAT IS IDEAL

STATE
Transportation Needs
Economic Development
Resource and Asset Management

REGIONAL
Transportation Needs
Economic Development
Resource and Asset Management

COMMUNITY
Transportation Needs
Land Use and Development
Economic Development
Neighborhood Stability
Social Equity
Livability/Walkability

Greater Flexibility in managing resources and defining needs

PROJECT DEFINITION

An understanding of what each needs and the impacts of one on the other; local plans that define responsible land use

Land use and land development codes that support a regional vision; regional priorities that acknowledge local needs
State Initiatives

Statewide Coordination, Communication, and Education
- Joint planning commissions
- Interagency land use team
- State planning board
- Forum on transportation investments

Support / Fund Regional Vision Plans, Local Initiatives
- Regional Blueprint Planning Program
- Cool Cities
- Walkability audits

Direct Where State Funds are Spent
- Policy to direct State facilities into urban areas
- Safe routes to school
- “Cool Cities”

Direct What State Funds are Spent on
- “Fix-it-first”
- “Right-sizing”; “Giving Communities What They Want”
- Practice Context Sensitive Design
- Update design manual, staff training
- Invest in local road network, connectivity
- Accept we can’t/shouldn’t always build our way out of congestion
Regional Initiatives

**Financial Incentives**
- Matching grant programs for smart growth projects: public and private investments

**Education**
- Forums, symposium, workshops
- Toolbox
- Communicate options: transportation, land use, form, design
- Credible, understandable analysis

**Provide Forum for Regional Communication**
- Stakeholder working group
- Convene leaders to discuss land use / transportation
- Build relationships
- Land use decision-makers on transportation planning boards

**Create / Sustain A Shared Regional Vision**
- Very long range, 40-50 years
- Process: Inclusive, broad based, high-level community ownership, elected leaders, options reflect community values
- Prioritized project based on vision
- Design projects based on vision
Project Implementation

Tailor Process For Each Unique Community/Corridor
- Inclusive
- Stakeholder interviews, listen
- Time/$ to fully understand community before starting design
- Community design workshops –hands-on, visual
- “Giving Communities What They Want”; early victories

Communities Create and Codify Land Use Design Plan
- State provide funding, staffing, expertise
- Develop community alternatives not just project alternatives
- Communicate – visual tools
- Create land use design plan to guide public and private investment
- Condition State investment on community implementing the design plan (true partnership)

Use Context Sensitive Design
- Design facilities to reflect community land use design plan
- Allow context to determine facility design
- Update state design manual; institutionalize process

Invest In Network Connectivity
- Leverage private investment in site roadways to create network
- Build network that reflects community land use design plan
- Fund local road network
Back to Prosperity

A Competitive Agenda for Renewing Pennsylvania

The Brookings Institution Center on Urban and Metropolitan Policy
Voters: No tax for roads

WHAT'S NEXT
Tax's defeat means leaders must seek new traffic fixes

YES 46%  NO 54%

Backers blame loss on I-4 toll lanes, rail

By SCOTT POWERS
SENTINEL STAFF WRITER

The spectacular implosion of the Mobility 20/20 transportation plan Tuesday will force Orange County and Orlando leaders to find a new way out of the region's gridlock.

But Tuesday night, the political patrons of the half-cent sales tax acknowledged they have no road map.

"There is no Plan B," said Orlando Mayor Buddy Dyer after results showed the tax had failed by a vote of 54 percent to 46 percent.

That means the county, its cities and the Florida Department of Transportation are stuck with Plan A: a less ambitious slate of improvements in place before the Mobility 20/20 ideas were pitched.

But that plan includes no significant improvements to Interstate 4 for more than a decade, no money for rail transit and virtually no hope of winning any big federal grants.

"Maybe tomorrow when people are sitting in traffic, they'll say, 'Damn, maybe I should have voted for it,'" said Dick Barcheski at the Mobility 20/20 headquarters, where the crowd had dwindled to just about a dozen people by 9 p.m.

"The voters of Orange County have spoken," Orange County Chairman Rich Crorey said.

Neither he nor Dyer would entertain suggestions that they would bring another transportation package before Concord. Orlando Mayor Buddy Dyer (left) and Orange County Chairman Rich Crorey admit defeat at Mobility 20/20 headquarters Tuesday. Even strong city-county cooperation could not sell voters on a road tax to build roads. Dyer said there is not a Plan B for congestion.

By MARK SCHUSTER
SENTINEL STAFF WRITER

Voters forced a stunning defeat to Orange County's political, business and community leaders Tuesday, handingly rejecting a transportation bill that as the region's last, be hope to come to grips with I-4 congested roads.

Proponents blamed the loss on Florida's traditional resistance to higher taxes, a poor economy, mistrust of government and public disaste toll lanes and a rail system.

The Mobility 20/20 plan--a comprehensive list of 14 road, rail, sidewalk and bike path projects--went down 53,310-45,236, a margin of 7,974 votes, 54 to 46 percent.

More than 22 percent of Orange County's registered voters went to the polls, a significant number for a ballot with only a single question.

The loss came after pro-tax supporters lined up unprofits behind support among the area's elite and rallied their paws with a record $1.5 million in campaign cash. The defeated critics of the plan--an left supporters struggling to understand what went wrong--

"What this was really about was the government's trying to tell voters what to do. But the government offers the opportunity for citizens to make the ultimate decision. They decided, I respect that," said Orange County Chairman Rich Crorey, the plan's chief architect and biggest booster.
“Trying to cure traffic congestion with more capacity is like trying to cure obesity by loosening your belt”

-Glen Heimstra, Futurist
Land Use/Transportation

Anticipate
Manage Intensity
Influence Form
- Land Use
- LDR’s

Travel
- Forecast
- Feedback
- Inform, Not Dictate
- Network
- Community Centered

generates

demands

Road Capacity
- Accommodate
- Network
- Community Centered
Land Use/Transportation

Road Design
- Lead Land Use
- Condition Protects
- Manage Supply

Travel
influences

Land Use
Conventional Approach

More Pavement

More Roads

System Management

More Efficiency

More Lanes

More Cars

ITS

More Roads

More Cars

More Efficiency

More Lanes
Lateral Approach

Improve Quality of Travel
User View and Comfort
Context-Sensitive Design
Traffic Calming
Personal Security

Move Less People, Fewer Miles

Land Use
Road Network
Pricing
Telecommuting/E-Commerce

Lane Limits
Change Standards

Conventional Approach
More Lanes
More Roads
System Management
ITS

More Pavement
More Cars
Move People, Not Cars
More Efficiency
Transportation has detracted from quality of life

Smart Growth and Smart Transportation
Questions to Ask Yourself…

What is the problem we are trying to solve?

Do I have enough information to understand what the problem is and the potential range of solutions? What is the vision of the area?

What is the role of the road today and in the future? Who are the users?
Questions to Ask Yourself…

What is the context of the road today? What will the context be in the future?

Is it a transportation problem or a land use? Who can help?
Questions to Ask Yourself…

What are the potential transportation and land use solutions?

How can I get out in front of future problems?