URBAN FREIGHT

Getting kicked to the curb?
How will we live?

THE STREET OF THE FUTURE IS A LIVABLE STREET
by CARLY CLARK and AARON NAPARSTEK
BEFORE ► AFTER ▶ NOW WHAT ?
Does understanding freight transportation matter?

- Will imports/exports go up or down in 10 years?
- Where will people live in twenty years?
- Where there be more truck traffic?
- What if the State attracts more logistics, manufacturing, energy jobs?
- Truck parking, operation issues?
- What is my neighbor doing?
It Does...

Daily –
48.3 million tons
$46 billion

Annually –
57 tons per person

Annually –
9% of economy spent on logistics,
Case Study: Retail

- The Home Depot’s “4 corners” import strategy
  - Port of Savannah is one of the corners... 15-20% of imports

- Rapid Deployment and Stocking Centers supply retail stores
  - Alabama: 28
  - Florida: 153
  - Georgia: 90
  - North Carolina: 40
  - South Carolina: 25
  - Tennessee: 39

- Bulk Distribution Center
  - Lumber & building materials for retail stores
Local Deliveries and Warehousing

• Ecommerce
  • Black Monday
• Omnichannel
  • Integration store and ecommerce supply chains
• Local deliveries
  • Amazon, Wal-Mart, Ebay
Buyer Expectations – Within A Lifetime…

Wow!! The Little Orphan Annie Decoder Ring Finally Arrived!!

Wow!! What a bargain, and I will get it tomorrow!
Planning for Freight, State Agency

More modal balance
Largest trading partners are neighbors
Need to move along corridors

All Modes
All cargos
Discretionary routing

Within State

To-From State

Through Freight

Mostly Trucks
Tend to be heavier products
Rural-urban flows
Urban-urban flows
Who benefits from freight transportation improvements?

• Carriers
• Ports and terminals
• Governments and other local industries
• Shippers
• Economic Development Agencies

Who does not benefit?
• Societal costs
• Neighbors

“One day, this will all be your fault.”
Urban Freight Faces Unique Challenges - Definition
Urban Freight Faces Unique Challenges - Ownership

• NHS Connectors
  • Poor physical condition
  • Poor geometrics
  • “Orphan status”
  • Inadequate coordination of investment strategies

• Functional Class

• Signage
Urban Freight Faces Unique Challenges – Land Use

- Gentrification
- Rent seeking behaviors
- City expansion (taxes)
- Beggar thy neighbor
- Freight generators
Urban Freight Faces Unique Challenges - Operations

- Parking
- Night Delivery
- Intermodal Terminals
- Shipper expectations
- Dimensions
- Routing
- Automation
- Fleeting
- Congestion costs
We All Want Transportation Options that are…

- Efficient
- Cost effective
- Environmentally Sound
- Reliable
- Safe
- Good Neighbors

*But how do we prioritize the investment (new projects, etc.) or operational (improving what we got) decisions?*
Strategies Recommended By LATTs

- Utilization of Existing Infrastructure
- Add Physical Infrastructure
- Increase Operating Throughput
- Corridor Approach for Investing
- Develop Agile Freight Operations
- Improve Clearance at Gateways
- Attention to Connectors

- Encourage Technology
- Integration of Information
- ITS Applications
- Increase Public Awareness
- Improve Institutional Relationships
- Improve Freight Profile
- Partnerships
## Getting the Goods without the Bads: Freight Transportation Demand Management Strategies to Reduce Urban Impacts

CFIRE 07-02
September 2013

### Table 12: Freight TDM Strategy Impacts and Implementation Difficulty

<table>
<thead>
<tr>
<th>TDM Strategy</th>
<th>External Costs</th>
<th>Private Costs</th>
<th>Difficulty to Implement</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Congestion</td>
<td>Health</td>
<td>Safety</td>
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<tr>
<td>Anti-idling Policies</td>
<td>0</td>
<td>+</td>
<td>0</td>
</tr>
<tr>
<td>Designation of Truck Routes</td>
<td>+</td>
<td>+</td>
<td>+</td>
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<tr>
<td>Modal Shift</td>
<td>~</td>
<td>~</td>
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<tr>
<td>Off-Peak Pickup and Delivery</td>
<td>+</td>
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<td>+</td>
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<tr>
<td>Restrictions on Nighttime Delivery</td>
<td>-</td>
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<tr>
<td>ITS Solutions</td>
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<tr>
<td>Land Use Strategies</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Parking Policies</td>
<td>+</td>
<td>+</td>
<td>+</td>
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<tr>
<td>Planning Information Strategies</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Beneficial Impact</th>
<th>+</th>
<th>Detrimental Impact</th>
<th>No Impact</th>
<th>Dependent upon other variables</th>
</tr>
</thead>
</table>
Where is the national priority?

Interstate highways will be numbered for public convenience. All State roads will be safeguarded by uniform direction and danger signs. Cooperation between States and the Federal government has made possible this National transportation system.

HITTING ON ALL FORTY-EIGHT
# The Transportation Planning Process

<table>
<thead>
<tr>
<th></th>
<th>Who Develops?</th>
<th>Who Approves?</th>
<th>Time Horizon</th>
<th>Content</th>
<th>Update Requirements</th>
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</thead>
<tbody>
<tr>
<td><strong>UPWP</strong></td>
<td>MPO</td>
<td>MPO</td>
<td>1 or 2 Years</td>
<td>Planning Studies and Tasks</td>
<td>Annually</td>
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<tr>
<td><strong>MTP</strong></td>
<td>MPO</td>
<td>MPO</td>
<td>20 Years</td>
<td>Future Goals, Strategies, and Projects</td>
<td>Every 5 Years</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4 years for nonattainment and maintenance areas</td>
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<tr>
<td><strong>TIP</strong></td>
<td>MPO</td>
<td>MPO/Governor</td>
<td>4 Years</td>
<td>Transportation Investments</td>
<td>Every 4 Years</td>
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<tr>
<td><strong>LRSTP</strong></td>
<td>State DOT</td>
<td>State DOT</td>
<td>20 Years</td>
<td>Future Goals, Strategies, and Projects</td>
<td>Not Specified</td>
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<tr>
<td><strong>STIP</strong></td>
<td>State DOT</td>
<td>US DOT</td>
<td>4 Years</td>
<td>Transportation Investments</td>
<td>Every 4 Years</td>
</tr>
</tbody>
</table>
MAP-21 Freight Planning Provisions

- National Freight Policy
- Establishment of a National Freight Network
- Critical Rural Freight Corridors
- National Freight Strategic Plan
- Cost Sharing Formulas
- Freight Transportation Conditions and Performance
- Freight State Plans
- Freight Advisory Groups
Note: Highway & Rail is additional highway mileage with daily truck payload equivalents based on annual average daily truck traffic plus average daily intermodal service on parallel railroads. Average daily intermodal service is the annual tonnage moved by container-on-flatcar and trailer-on-flatcar service divided by 365 days per year and 16 tons per average truck payload.

Figure 5.1 Interchange Capacity Bottlenecks on Freeways Used as Urban Truck Corridors (FHWA)
Interstate Routes
Average Speed
4-6 PM Weekdays
2012
Interstate and Major Routes
Average Speed
4-6 PM
Weekdays
2012
All Other Routes
Average Speed
4-6 PM Weekdays
2012
What Does PRIIA focus on…

- Authorizes Amtrak
  - Funding for State of Good Repair
  - Funding for debt service
- Three main areas:
  - Intercity passenger rail
  - State sponsored corridors
  - High Speed Rail
- State Rail Plan
Challenges to improving urban freight

• **Hard Assets - Physical**
  - Cost increases
  - ROW issues
  - Existing Capital Stock
  - Increased maintenance needs
  - Realigning roadways

• **Soft Assets - Operations**
  - Private, quasi public sector leadership
  - Integrate with other programs
  - Information Sharing

• **Tell me why…**
  - Funding needs for capacity and operations
  - Role of public and private sector actions not clearly identified
  - Expectations for promised projects remain
The discussion is important

• Connecting with global markets
• Regional transportation needs
• Economic Development (land use/access)
• Corridors – Federal, State, regional
• 3I’s – Infrastructure, Information, Institutions
• Market Based Solutions can work

But who is talking and who is listening?
1925
A View of the Future in 1950s
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