Trends in Heavy Truck Traffic Management Study

produced for the

Miami/Dade MPO

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Study Organization

- Motivation for Study
- Project Approach
- Case Study Selection Criteria
- Case Study Findings
- Miami-Dade Conditions and Needs
- Truck Management Program Recommendations

Motivation for Study

- Motivated by a political will to better manage safety issues associated with passenger/truck conflicts
- Objective is to develop recommendations for a heavy truck management program for the Miami/Dade County that
  - Facilitates the efficient and reliable movement of freight
  - While maximizing passenger safety and security

Project Approach

- Identify current practices by identifying cities for use as case studies
- Develop case studies and document findings
- Develop summary of existing Miami-Dade conditions and needs
- Compare the case study findings to the conditions in Miami-Dade to evaluate program options
- Develop recommendations for Miami-Dade County truck management program

City Selection Criteria

- Three sets of cities were identified to ensure global coverage (international, U.S., and Florida cities)
- Cities were identified as
  - *"Aspirational"* world-class cities
    - Leading world-class cities which Miami may wish to emulate in certain way
  - *"Comparable"* world-class cities
    - World class cities similar to Miami
  - *Domestic cities*
    - Nonworld-class U.S. cities identified as similar to Miami and/or representing best practices
  - *Florida cities*
    - Major Florida cities included to identify local/state truck management activities

Selected Cities

World Aspirational	World Comparable	Domestic	Florida
Chicago	Atlanta	Baltimore	Fort Lauderdale
Los Angeles	Boston	Phoenix	Jacksonville
New York	San Francisco	Portland	Orlando
Frankfurt	Miami	Seattle	Saint Petersburg
London	Vancouver		Tampa
Paris			West Palm Beach
Singapore			

Case Study Comparison Elements

- *Population*, including foreign-born percentage
- *Employment*, including manufacturing and services splits
- Types of *freight facilities* serving the city
- *Volume of freight* moving into and out of the state
- *Logistics ranking*, based on a variety of factors
- Review and evaluation of existing *truck management program elements*

Example City Comparison

Miami

- World comparable
- Population of 2.3 million
- Over 50 percent of population is foreign-born
- 5.6 percent manufacturing employment
- Served by deep water seaport, international airport, and bulk and intermodal rail
- Ranked 41st in 2003 for logistics friendly environment

Boston

- World comparable
- Population of 3.4 million
- 15 percent of population is foreign-born
- 8.5 percent manufacturing employment
- Served by deep water seaport, international airport, and bulk and intermodal rail
- Ranked 58th in 2003 for logistics friendly environment

Types of Truck Management Programs

- *Pro-freight collaborative* truck management practices
  - Actions intended to improve, advance, optimize, or even maximize the ability of trucks to move effectively in a region
- *Restrictive* truck management practices
  - Actions intended to preserve the non-freight community's travel patterns or routes at the expense of truck mobility

Characterization of Case Study Cities by Program Type

Restrictive	Neutral	Pro-Freight Collaborative
London, England	Atlanta, GA	Frankfurt, Germany
Paris, France	Phoenix, AZ	Baltimore, MD
Singapore, Singapore	Jacksonville, FL	Chicago, IL
Vancouver, BC, Canada	St. Petersburg, FL	Portland, OR
Boston, MA	Tampa, FL	Seattle, WA
San Francisco, CA	West Palm Beach, FL	Los Angeles, CA
	Miami-Dade, FL	New York, NY
		Fort Lauderdale, FL
		Orlando, FL

Common Themes and Program Elements

- Regulation
  - Used as a primary means of “managing” trucks
- Enforcement, penalties, and pricing
  - Refers primarily to conventional means of administration via fines and other penalties
- Incentives
  - Provide incentives to encourage self enforcement of regulations
- Neighborhood/local focus
  - Practices that can protect or reduce the impact of truck traffic on communities

Common Themes and Program Elements (continued)

- **Land use strategies**
  - Ensures a comprehensive look at goods movement as part of a larger system
- **Economic development**
  - Linkage between economic development organizations and transportation planning programs
- **Intermodal**
  - Finding ways to reduce use of trucks by diverting traffic onto alternative modes of freight transportation
- **Investment and funding; public-private participation**
  - Increasing awareness of the public benefits of goods movement, and willingness of industry to contribute funds

Common Themes and Program Elements (continued)

- **Information exchange**
  - The exchange of information on both sides has become an important tool for encouraging compliance among operators
- **Technology and innovation**
  - Advances in technology have promoted the development of sophisticated tools to improve commercial vehicle operations
- **Political will power**
  - The success of truck management programs and practices is driven by the local political will

Case Study Findings

- Political will is probably the most significant factor
- There are no examples of an ideal comprehensive truck management program
- Truck management is but one of many elements of freight program
- Success of a truck management program is often dependent on external factors
- A truck management program should have multiple elements and tools

Case Study Findings (continued)

- A successful program is dependent on consideration of all stakeholder needs
- Coordination among planning and operational staff is critical
- Outreach to the industry and the public is critical to develop program support
- Technology and innovation are becoming more prevalent in truck management solutions
- Security is an increasingly important consideration

Existing Miami-Dade Truck Management Techniques

- No formal integrated truck management program exists
  - Limited program to manage loading/unloading zones in Miami
  - Sporadic use of “no through trucks” and “no trucks” signs based on neighborhood complaints and physical roadway constraints
  - Agency staff review development plans for transportation impacts
  - FDOT manages a permitting program for oversize/overweight vehicles/loads
- Existing techniques are employed in a reactive manner
- County and State staff aspire to be a neutral body working to achieve technically driven solutions

Miami-Dade Conditions and Needs

- Congestion throughout the Region limits the reliability and mobility of the regional system
- Continued growth in population and traffic will continue to challenge the already congested infrastructure
- Access to the Port of Miami is restricted and improvement options are burdened by technical and political challenges
- Lack of a formalized truck management program has resulted in a reactive environment
- There has been a lack of education and outreach activities related to truck traffic

Miami-Dade Conditions and Needs (continued)

- Political opposition to truck traffic has resulted in an environment that could promote restrictive behavior
- No champion or advocate has emerged in the operational environment to promote a proactive truck management program
- Existing legislation/regulations do not support an efficient, cost-effective truck management program

Recommendations
-Institutional/Organizational Setup

- Identify program leadership
  - Establish Technical Advisory Committee (TAC)
  - Populate and convene the recently established Freight Transportation Advisory Committee (FTAC)
- Develop program strategy
- Define implementation activities and operations
- Establish ongoing program monitoring activities

Recommendations
-Truck Management Program Goals

- Adopt the LRTP goals as the high-level guiding principles
- Develop specific truck management program goals
- Solicit input and approval of the goals from the FTAC, implementing agencies, and affected highway users
- Monitor goals over time and modify as necessary

Recommendations
-Critical Elements of a Truck Management Program

- **Planning**
  - Defines the parameters and technical direction that drive the program development
- **Funding**
  - Considers the financial feasibility of defined program activities
- **Outreach**
  - Builds relationships with impacted stakeholders, providing user input, education, and acceptance
- **Enforcement**
  - Provides commitment to ensure conformity with program requirements

Recommendations
-Potential Truck Management Techniques

- **Program development**
  - Designate one person to act as the truck program facilitator
- **Regulation**
  - Investigate the opportunity and support for streamlined regulations supporting truck operations and route delineation
- **Enforcement, penalties, and pricing**
  - Define a realistic enforcement program to support the selected management techniques
- **Incentives**
  - Explore the potential impact that incentives could have on compliance with new program elements

Recommendations
-Potential Truck Management Techniques (continued)

- **Neighborhood/local focus**
  - Develop a protocol for involving local stakeholders in outreach efforts
- **Land use strategies**
  - Promote the inclusion of truck access/truck traffic into land use planning decisions
- **Intermodal**
  - Integrate intermodal connectivity needs into truck management program to ensure preservation and enhancement of key intermodal routes and hub connectors
- **Investment and funding and public-private participation**
  - Explore opportunities available for funding truck management program activities

Recommendations
-Potential Truck Management Techniques (continued)

- **Information exchange**
  - Develop an outreach plan as part of the truck management program
- **Technology and innovation**
  - Explore the use of technology and innovation as part of the truck management program
- **Political will power**
  - Work with political leaders to develop support for an integrated, balanced truck management program

Recommendations
-Implementation/Next Steps

1. Establish a program development/management committee
2. Identify and work with the operations agencies responsible for implementing and enforcing the program
3. Define and adopt specific program goals, objectives, and strategies to guide development
4. Identify, define, and develop a specific set of truck management techniques for inclusion in the program
5. Define a schedule and timeframe (short- and medium-term) for development and implementation of each element

Recommendations
-Implementation/Next Steps (continued)

6. Develop educational/outreach material and conduct outreach to promote the program
7. Finalize the truck management program and begin implementation
8. Integrate program into overall regional transportation programs, as appropriate
9. Support overall integration of truck management techniques into the planning process
10. Build political support with elected officials on an ongoing basis throughout the entire process