Background

Why a Motor Carrier System Plan
The Florida Department of Transportation (FDOT) is updating all of its modal plans (Rail System Plan, Aviation System Plan, as well as the Seaport and Waterways System Plan) for consistency with the recently completed Freight Mobility and Trade Plan (FMTP) and updated Florida Transportation Plan (FTP).

During the development of the Freight Mobility and Trade Plan (FMTP), several issues and opportunities were identified related to trucking and motor carrier. For the first time, the Rail and Motor Carrier Operations Office is developing a Motor Carrier System Plan to complete the set of modal plans. By creating a Motor Carrier System Plan, FDOT hopes to coordinate our efforts across a wide variety of offices and agencies that impact motor carrier.

Florida is a major gateway for merchandise trade between North America, Latin America, the Caribbean, and other world regions. In 2014, a total of $153.2 billion in merchandise trade entered or exited the United States through Florida’s Customs Districts. This is the 3rd highest level ever recorded in Florida.

The technology of transportation is changing rapidly, including both vehicles and the way we move goods. Florida’s industry mix and land use patterns are adapting to meet future needs, and the speed of change will only increase. The world is changing, and FDOT must adapt to address today’s issues. That includes planning to move both people and freight.

FDOT’s historical approach to Motor Carrier has been in terms of asset protection (compliance and size and weight issues) and safety. Going forward, we plan to also focus on the facilitation of truck movement and addressing key motor carrier policy issues.

Figure 1: The Evolution of Transportation

<table>
<thead>
<tr>
<th>From...</th>
<th>To...</th>
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<tr>
<td>Moving vehicles</td>
<td>Moving people and freight</td>
</tr>
<tr>
<td>Individual modes and facilities</td>
<td>Complete end-to-end trip</td>
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<td>Individual jurisdictions</td>
<td>Economic regions and trade corridors</td>
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<tr>
<td>Physical capacity</td>
<td>Operational performance, flexibility, and reliability</td>
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<tr>
<td>Travel time and vehicle operating costs</td>
<td>Business logistics and economic competitiveness</td>
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<tr>
<td>Reacting to economic growth and community and environmental impacts</td>
<td>Proactive planning for economic, community and environmental goals</td>
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Stakeholder Engagement

Stakeholder engagement is critical to the success of the Motor Carrier System Plan, and includes Working Group meetings, online surveys and Business Forums held at key milestones.

The internal Working Group will act as an informal steering committee to advise the project team, and includes staff from various FDOT offices, as well as partner agencies that impact trucking. Responsibilities include:

- Provide expertise in motor carrier concerns that impact their office
- Review draft materials before they are presented to stakeholders

External Business Forums allow industry stakeholders and local partners to provide additional expertise and input. Responsibilities include:

- Provide comments on trucking and motor carrier concerns that impact you, your company, your region, etc.
- Review draft materials before they are incorporated into the final Motor Carrier System Plan

Figure 2: Schedule of Outreach
Business Forum 2

The second Business Forum to engage external stakeholders was held on April 7, 2016 at Polk State College Advanced Technology Center in Bartow. Meeting objectives included:

- Providing information on the process for developing a Florida Motor Carrier System Plan and consistency with other planning documents
- Discussing preliminary feedback from the Critical Issues Survey
- Reviewing the motor carrier issues identified and lessons learned from Business Forum 1
- Summarizing the literature review on nationwide motor carrier system planning
- Soliciting freight stakeholder input on motor carrier issues, as well as draft Goals, Objectives, and Strategies
- Providing information on next steps

As mentioned previously, FDOT’s historical approach to Motor Carrier has been in terms of asset protection (compliance and size and weight issues) and safety. The purpose is to continue these aspects, and to take that next step to focus on the facilitation of truck movement and identifying key motor carrier policy issues.

Motor carrier issues reviewed included the following:

- Hours of Service
- Compliance, Safety, Accountability (CSA)
- Driver Shortage
- Driver Retention
- Truck Parking
- ELD Mandate
- Driver Health/Wellness
- Economy
- Infrastructure/ Congestion/ Funding
- Driver Distraction
- Empty Backhaul
- Alternative Fuels
- Regulatory Consistency/ Harmonization with Neighboring States
- Truck Size and Weight
- Technology Implementation
- Last Mile Connectivity
- Data
Comments
Participants provided comments on the draft Goals, Objectives, and Strategies during the facilitated discussion portion of the meeting.

Safety and Security
- Cyber Security: with the rise of online commercial vehicles we need to approach the issues of these vehicles getting targeted by cyber-attacks.
- Shoulder Widths: Trucks and other vehicles do not have a lot of space when pulling over for repairs or checks. There needs to be a more consistent shoulder widths.
- Safety discussion across different branches of Florida Government and private industry is very siloed.
  - There needs to be a better way to communicate safety issues between stakeholders
  - Towing is a major issue on the highway. Not enough collaboration DHSMV, FHP, Turnpike and FDOT.
- Signalized areas have a much higher accident rate, this needs to be addressed
  - Signalized safety is a game of balance. Safety, economics, local and state issues must all be taken into account
  - I.e.: Flyovers are safer, but aren’t always feasible
- Why are we creating so many interchanges? Increased interchanges means less efficiency
  - Interstate traffic is being used to much by intra-city traffic
  - The interstate system is not intended to be used by local traffic
  - No more expansions of interstate interchanges. Creates economic development but may not advance mobility.
  - Flyover at SR 60 and US 27 has been awful for decades – how will flyovers impact business development.
  - No more expanding of interchanges – not good for trucks and general traffic to keep building interchanges for economic development.
  - Flyovers costs anywhere from $12 million to $100 million
  - FDOT has very liberal right-of way law which increases ROW costs.
- We need to do a study to figure out what is causing the most accidents
- Oversize load permitting is somewhat lax
  - How can we standardize this better
- Human trafficking
  - Using technology like infrared sensors to make detection cheap and quick
  - Ed Lee mentioned that the issue was identified at the working group meeting by FHP. FHP is represented on the Motor Carrier Systems Plan Working Group.
- Dynamic Message Sign (DMS) signage should be used to provide trucking information
- DMS- signs are good opportunities for safety of trucks. Stay safe around trucks, keep trucks safe. Coordinated messaging. 77% of truck accident are “car related”. Focus education on cars.
- Use variable messaging signs to promote motor safety around trucks – especially in high truck corridors. Need to coordinate with other offices to promote truck safety especially those that control the message on the signs.

- Need to increase safety and security for drivers by reducing the physical interactions with people and trucks at rest stops.
  - Main risks to drivers and their loads are pedestrians walking around the truck area at public rest stops.

**Agile, Resilient, Quality**
- Longer lasting roads
  - The DOT needs to do a better job of understanding why there is so much wear and maintenance costs of the road system
  - Pavement management people. Part of Strategic Highway Research Program (SHRP) efforts, looking at other material- aggregate interlocks, made progress in area. White topping on US 1 is 2-3 inches of concrete on asphalt. Intersection Aprons.
  - Places where you can use concrete pavement efficiently for less repair over time with little maintenance.
  - Preservation though better operation of ITS-Need to check ITS system

- Parking as a major state-wide problem
  - Without enough truck parking, trucks stop in awkward areas such as off-ramps
  - This increases wear on these areas not intended for such weights and decreases safety

- We must be at the cutting edge of technology if we would like to remain a tourist hotspot
  - The wealthier European nations that come here would like to see new tech (glow in the dark road paint, solar powered signaling, bike lanes)
  - All currently prohibitively expensive, need to watch prices
  - Maybe deploy in test locations to reduce need for lighting and lower electrical costs.

**Efficient & Reliable Mobility**
- Toll rate on Turnpike study
  - Florida Trucking is ready to move ahead on a turnpike partnership
  - Talking with FDOT Secretary Boxold about a pilot project for reduced toll rates on the FL turnpike for trucks on non-peak hours. Get on to more efficient toll facilities.
  - Operating margin for many truck companies is so small that toll rate keep them off. Pilot- pulls off other congested highways.

- ‘Pony Express’ rather than doing full haul loads, split longer trips up between carriers to reduce empty backhaul issue
Consider in highly populated areas with a lot of interchanges the possibility of making the far left lane the truck lane so that it does not interfere with merging local traffic.

- Reduces conflicts and improve the time and reliability.
- Conduct study to examine removing the requirement for truck to be in right lanes on the interstate in urban areas.
- This will reduce potential conflicts between long distance trucks and local auto movements. It will also reduce overall time by reducing weaving between auto and trucks.

Crowd-sourced road monitoring

- With apps like Waze and Google used in monitoring traffic, adjustments can be made on the fly to routing

Tolling

- It is not being used well to drive the flow of trucking
- Turnpike costs- lost economic development. Because-losing jobs- because. 1 company 200K in tolls to go 40 miles back and forth.
- The margins for trucks are so low already, that tolling is out of the question.
- All companies are avoiding turnpike unless they HAVE to use it
- Why aren’t there any studies or initiatives at the turnpike to reduce tolls on trucks at night or other TDM strategies

The possibility of dedicated truck lanes must be discussed

Complete Streets- roads to develop for peds/bikes, needs to be some other facility to move trucks to that are controlled by the FDOT. Work to protect. Trucks can move on many roads. Identify parallel corridors.

- Highways that are heavy truck routes- through urbanized areas, access could be limited. E.g. frontage roads for commercial development. Adds more flow. Utilize frontage roads. Provide flexibility in addressing contexts in different places.

**Economic Competitiveness**

- Support vocational schools in the state; so when companies come to the state they see availability of qualified work force
- Determine the economic impact with the I-4 Ultimate Project.
  - There does not seem to be anything to accommodate growth.
  - Asking all traffic to use I-4 as the only east-west corridor constricts potential growth in the area
  - Need to build an east-west corridor across state south of Orlando for anticipated growth in the area.

Florida needs to develop more of the ‘Right’ roads, not just more roads (example: Central Polk Parkway

Florida needs to diversify its corridors

- Discussions on adding resiliency to the system – wildfire on I-4 shut down the area and had dramatic impacts to the economy
- There is an office under Emergency Management- Governor’s office- Section handling financial impact state of Florida. Financial impact assessment. Governor interested in. e.g. Clear channels, open up highways, etc.
- Earlier linkage with tourism and safety.
- Supporting vocational and technical schools in state- workforce development.

- Easy to key on this- increase tourism- population increase. Huge in central part of state. More compression over next 15 years.
- No meaningful acknowledgement of risk of economic competitiveness due to lack of infrastructure. Comes down to economic competitiveness and resiliency.
- Great problem to have. Must find ways to accommodate. All stop coming at the same time if infrastructure fails.
- Tie infrastructure to economic competitiveness.


**Increase Transportation Choices**

- Seamless connectivity
  - Clarify what is “seamless” connectivity? Few trips in supply chain are single mode. Handoffs from mode to mode. Make short time turnarounds, etc.
  - Last mile and intermodal connections at this point are expensive
  - ILCs help in some form, but are not widespread
  - Community needs to be educated on the importance of the logistics

- Education of the import/export industry. Options in transporting goods. Cargo arriving in Florida. Supply chain structure developed over the years. Educate involved in import and export to help with the flow of goods over multiple modes.

- Transportation Demand Management (TDM)
  - Bottlenecks need to be addressed in methods that are not more roads, but the right roads

- Rail and Truck connectivity needs to be improved

- Technology
  - As with all the other areas, keep new technology in mind
  - Freight world- new use of blimp technology. Don’t need a landing strip. Think about other technologies for moving freight. Lockheed martin building 12 to move.
  - FDOT is thinking of this. I4- center corridor with transit options. Look forward on these issues.
- Blimp technology to move tourist along I-4 corridor – Tampa and Orlando
- European tourist may be more open to journey
- Off grade transit – Monorail
- Marine options – water taxies
- SunRail – 40 million a mile because of right-of-way
- Hyper Loop
- Technologies that are now science fiction may be possible in the 20 year horizon of plan

- Marine Highways
  - If truck traffic can be moved onto barges, congestion can be reduced especially on East coast
  - Marine highway- USDOT- looking at these options for truck traffic (off I95). Inter-coastal waterways. What kind of public private partnerships might be possible

- Pipeline usage needs to be focused on
  - Department to look at additional use of pipeline- short distances in ports? Move some product to outside cities closer to the interstate.

- Uber-style typed of delivery does not work with the trucking industry
  - Ride sharing companies- how that might change land use and last mile issue. Helping to take more vehicles off the road and less congested infrastructure. Should be no reason this is not scalable in other direction. Big transportation company
  - Uber model for trucking not working out. SF companies not working out. In industry-insurance issue, who covers. The less than truckload (LTL) market is saturated. On demand idea trucking- lots of hurdles in terms of trust and relationship. May not work for long haul.
  - Shippers do not trust drivers that are not vetted

**Environment and Energy Conservation**

- California and Texas already have an ethanol requirement for their trucks, Florida needs to follow suit
  - Has Florida been actively pursuing this?
  - Has the DOT been pushing on the legislature for a change
  - If it can be done in California then it can be done in Florida because it is flatter.
  - Ed Lee discussed HB 529, the legislative process and impacts to the development of the FMTP. Stressed the importance of legislative focus to address the issue.
  - Is there a role beyond investigating- encourage and recommend, advocate. Some changes may be purely legislative.

- Can pipeline be tapped for appropriately placed Compressed Natural Gas (CNG) and Liquefied Natural Gas (LNG) stations
  - A network needs to be established, as there is not one now
  - Natural gas lines along most of interstate routes. $50K to retrofit truck; and no stations is an additional disincentive
  - Finding investment is difficult due to the cheap prices of petrol
- Early adopters are ones with local fleets—refuel at hub location. What are opportunities for making this greater than a local capacity issue?

- Ports are already CNG-LNG
  - Giving drayage teams further working radius can make local fleets CNG-LNG based without the need for infrastructure redevelopment
  - Ports also focusing on LNG and CNG because newer and larger ships will use natural gas.
  - Need to review tax code. SB 90 makes small adjustment to Natural Gas rebates.
  - Opportunity to examine what other countries are doing to reduce pollution.
  - FDOT needs to develop policy that incentives or mandates use of external power units for all new truck parking areas especially if subsidized by FDOT.

- Examples of other countries using energy conservation strategies
  - How did they move from concept into policy

Quality Places and Regional Priorities
- Make sure trucks role is being considered in Complete Streets.
- “Regional priorities” vs. local communities? Add local to priorities.
- Address last mile impact on environmental justice and underserved populations.