

Florida Freight Advisory Committee Meeting

September 26, 2019



Call to Order

Roll Call

Roll Call

Organization	First Name	Last Name
City of Pensacola	Amy	Miller
Walmart	Robert	Midgett
Broward County	David	Anderton
Genesee Wyoming Railroad	Joe	Arbona
Space Florida	Mark	Bontrager
Florida TransAtlantic Holdings	John	Dohm
Interport Logistics, LLC	Gary	Goldfarb
Crowley Logistics	Stan	Parkes
Brevard County	Troy	Post
Broward County MPO	Greg	Stuart
US Sugar	Malcolm	Wade
Florida Trucking Association	Alix	Miller
Florida East Coast Railroad	Bob	Ledoux
Winter Haven Economic Development Council	Bruce	Lyon
Florida Atlantic University	Dan	Liu
University of North Florida	David	Swanson
Franklin Street	Larry	Kahn
Enterprise Florida	Mason	Henson
Florida Ports Council	Mike	Rubin
Atlantic Logistics Inc.	Robert	Hooper
University of South Florida	Seckin	Ozkul
Florida Fruit and Vegetable Association	Tori	Bradley

Approval of Meeting Minutes

Scenario Planning

A New Paradigm

Great Horse Manure Crisis of 1884

- 150k horses create 2k tons of manure a day
- Estimates held NYC would be inundated by 1930



Then, the car was invented

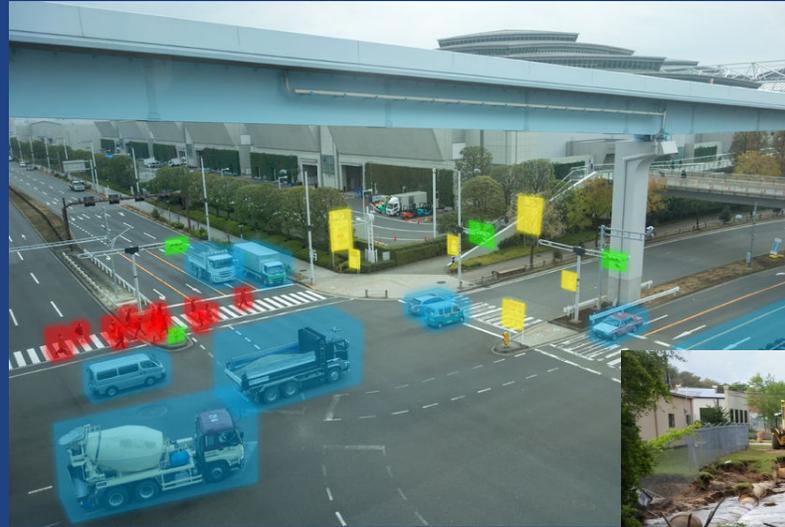
- By 1916 there were more cars than horses
- Which in the long term has led to a whole new set of problems

Freight Scenario Planning

Each scenario is focused on impacts to the movement of freight:

- 1) Technology (Futuristic)
- 2) Resiliency (Optimistic)
- 3) Economy (Opportunistic)

Identify infrastructure, operational, policy, and programming strategies



Scenario 1: Technology

2045 Scenario Defined:



1-hour deliveries



e-commerce



Automated deliveries



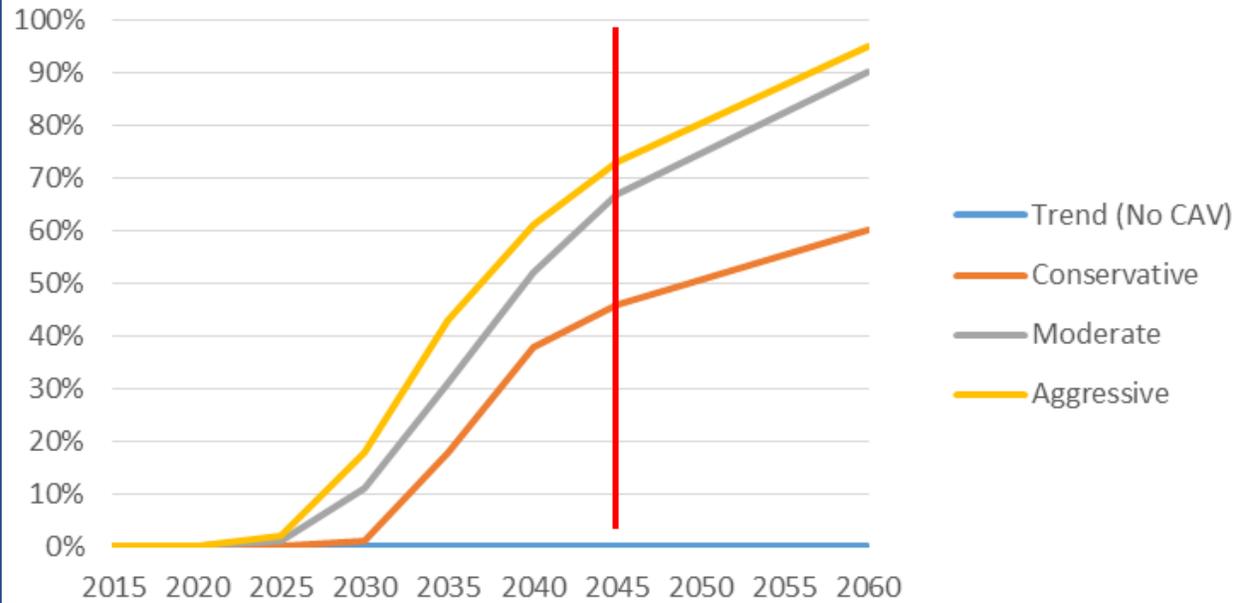
Connectivity



Scenario 1: Technology

Technology Adoption & Rising VMT

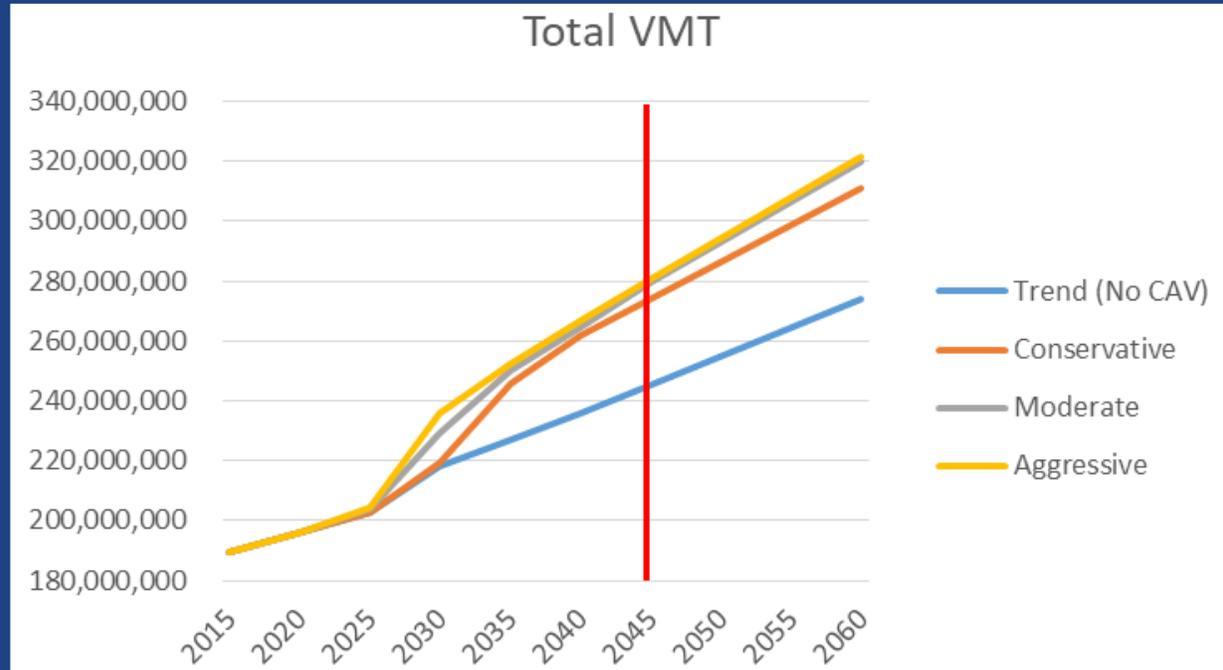
CAV Adoption (%VMT)



National CAV Adoption as Percent of Vehicle Miles Traveled (VMT)

SIS System-wide Total Vehicle Miles Traveled

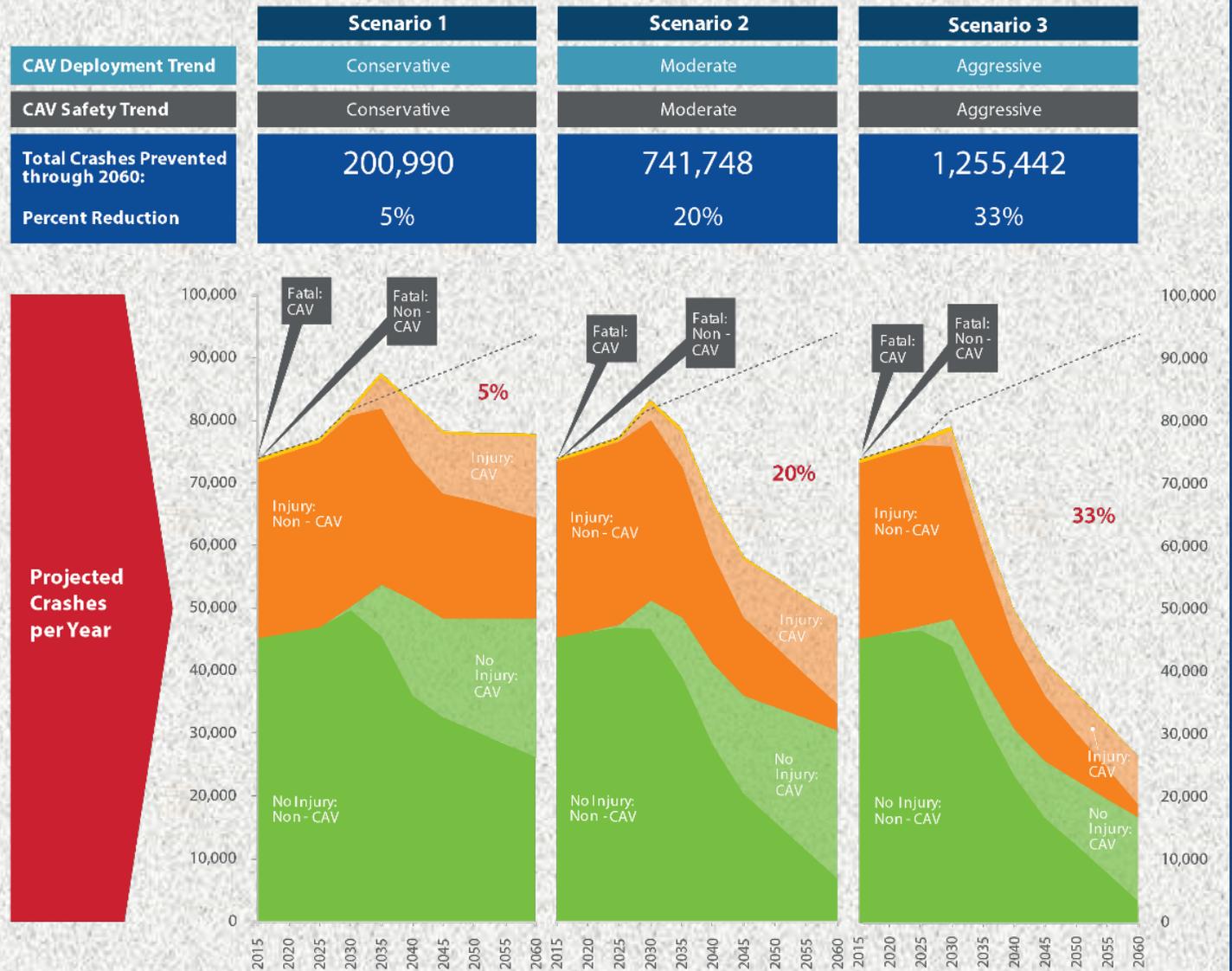
Total VMT



Scenario 1: Technology

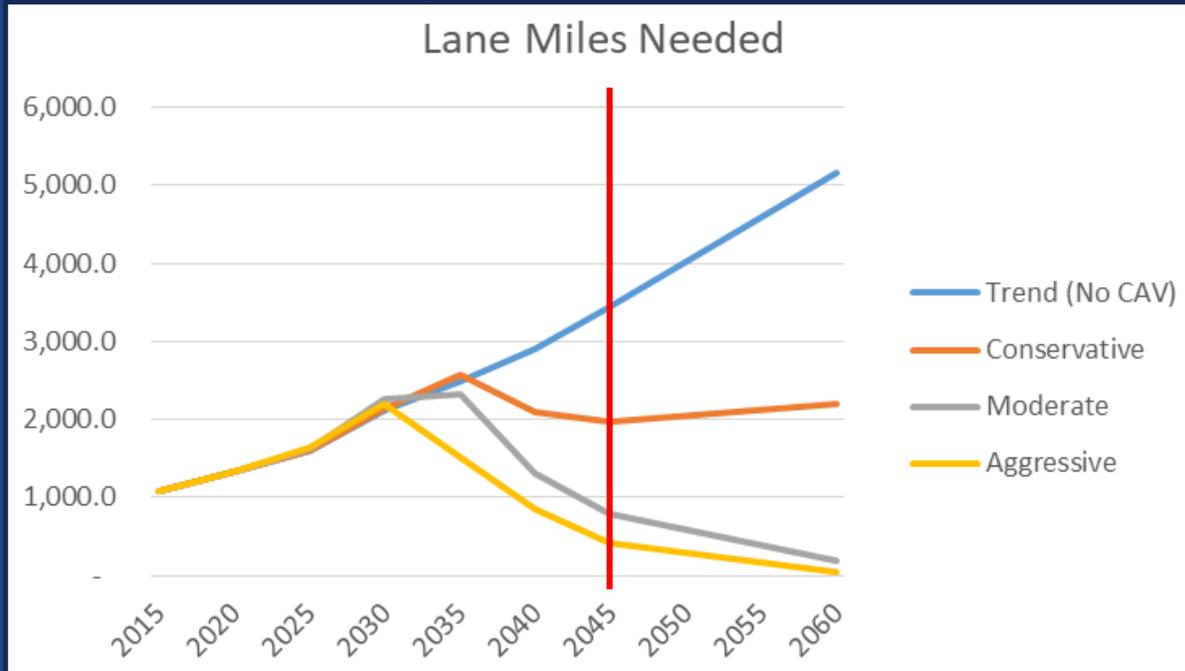
Safety Impacts

- 1) Reduced total crashes
- 2) Less severe crashes
- 3) Greater travel time reliability – cars & trucks

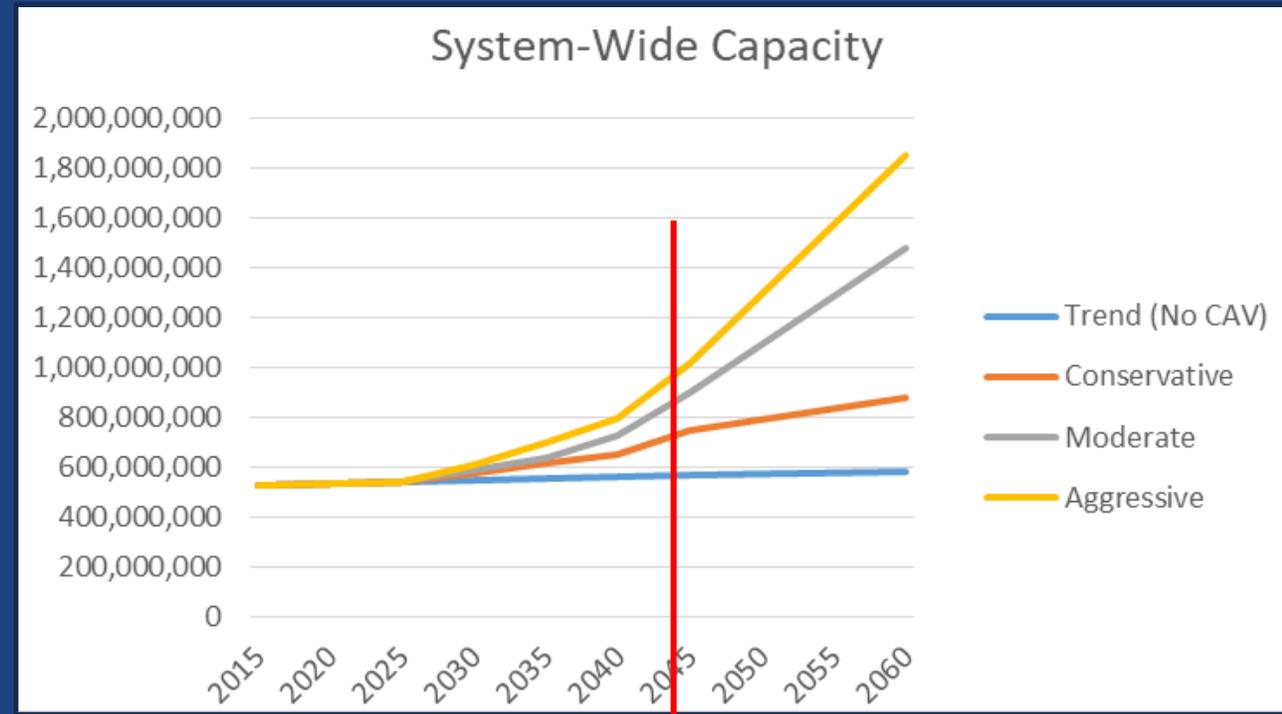


Scenario 1: Technology

Mobility impacts



SIS System-Wide Capacity

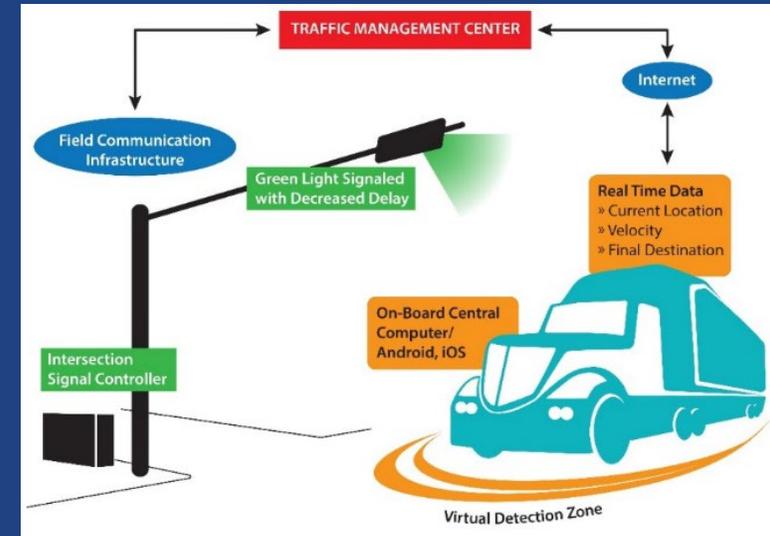


SIS System-wide Lane Miles Needed

Scenario 1: Technology

Implications for Freight

- 1) Plan for increased number of Distribution and Fulfillment Centers – roadway improvements, policies
- 2) Design considerations for machine-readable roadways
- 3) CV roadside units to exchange safety and mobility data, pertaining to freight
- 4) CV-enabled Freight Signal Priority
- 5) Involvement in Blockchain(s) for access to better data for planning purposes



Discussion



Scenario 2: Resiliency

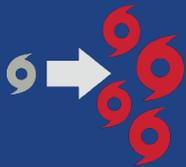
2045 Scenario Defined:



+4° (F)



+12" along coasts



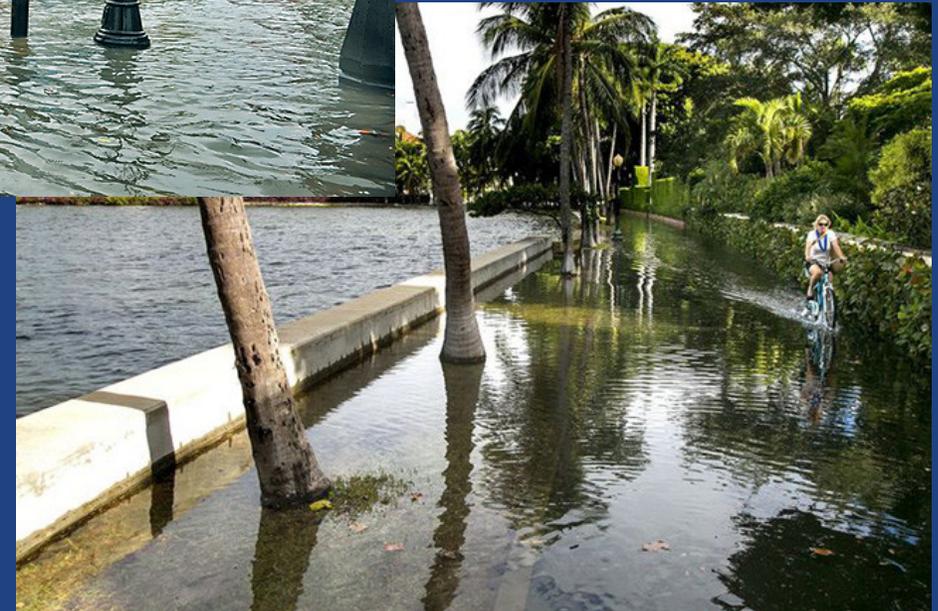
+Frequency/ strength



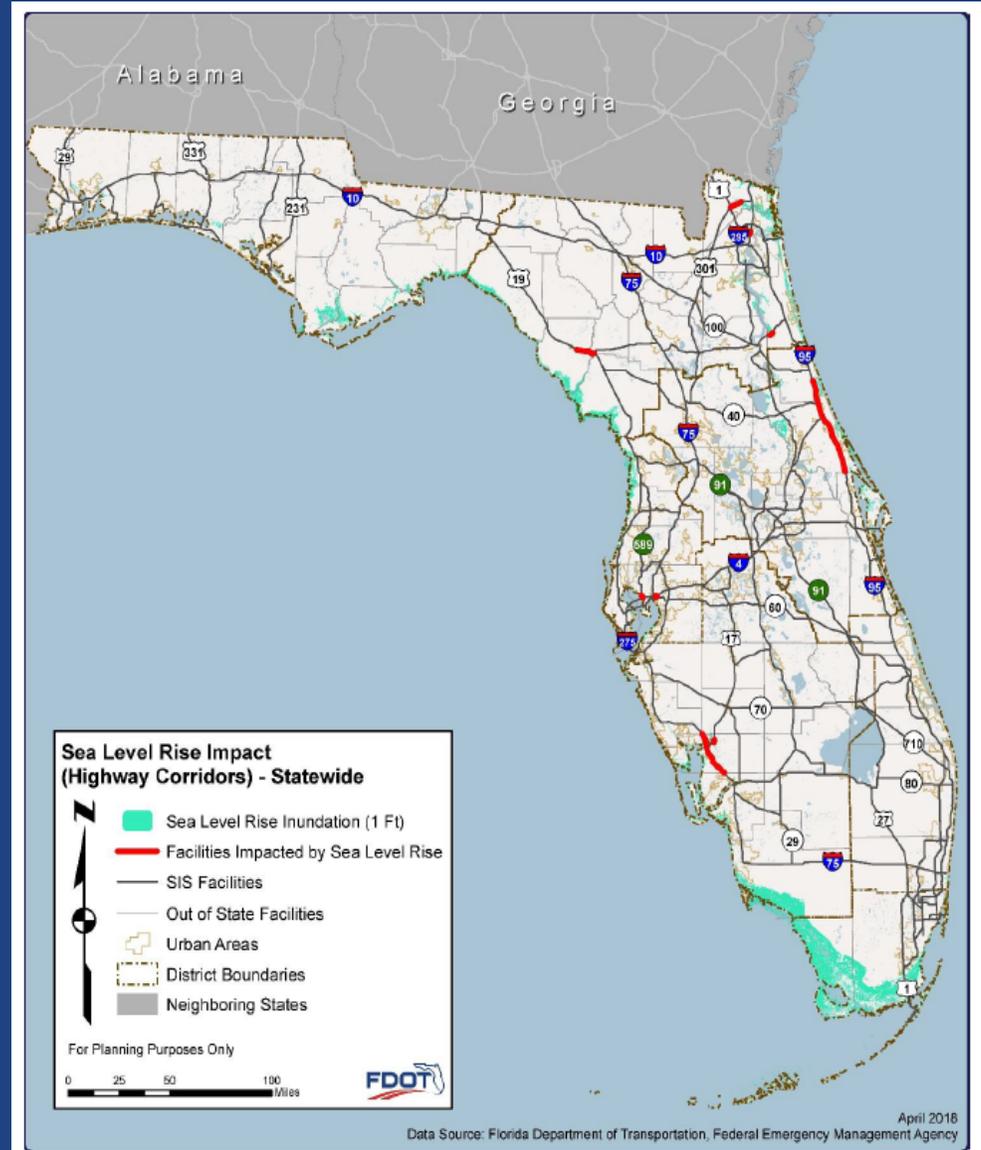
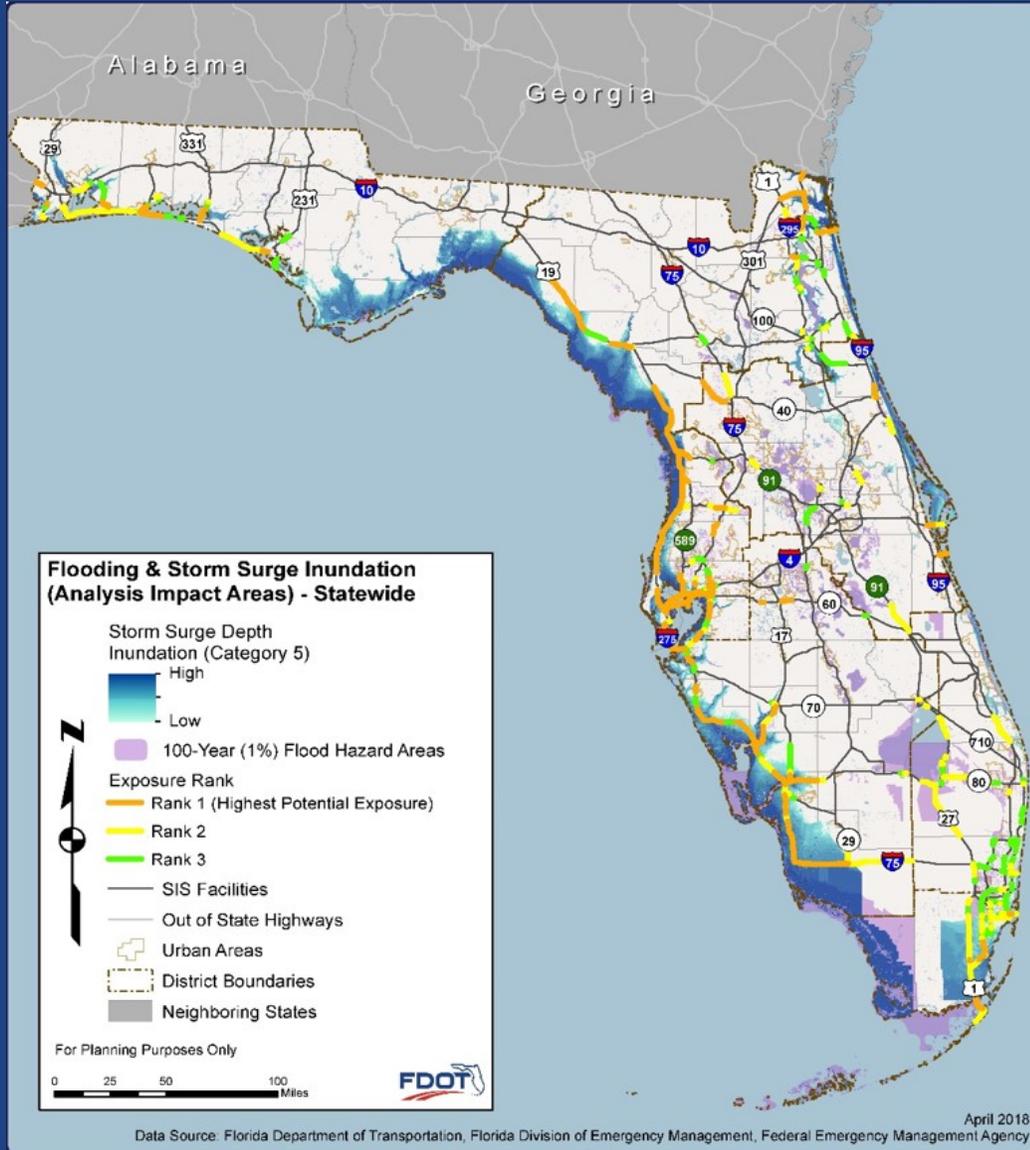
+Extreme events



Image Source: Florida Trend



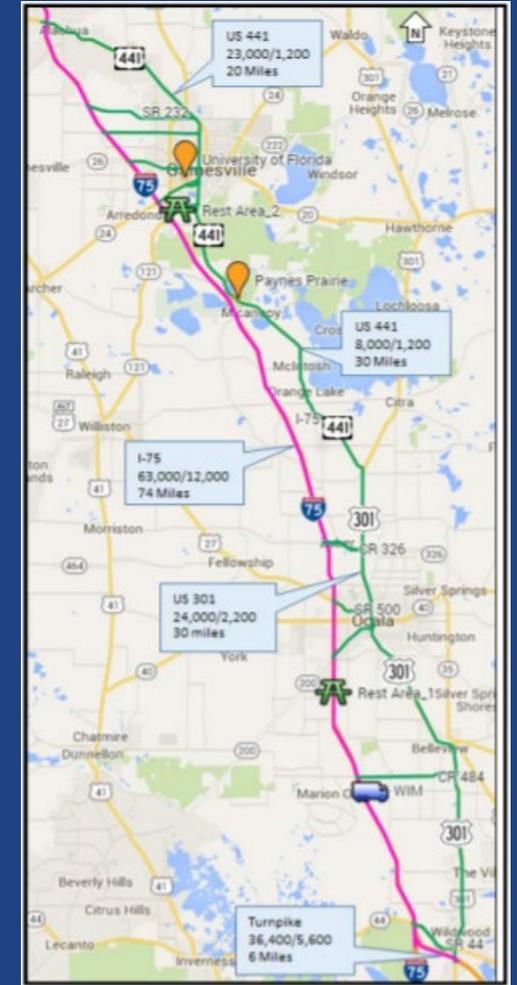
Scenario 2: Resiliency



Scenario 2: Resiliency

Implications for Freight

- 1) Increased use of parallel corridors
- 2) Supply chain resiliency
- 3) Emergency management preparedness & response
 - a) Bulk reserves of commodities
- 4) Seaport (and airport) strategies to mitigate rising water table (from SLR)



Discussion



Scenario 3: Economy

Background – Baseline Trend

- Florida’s economy *baseline* growth has decelerated relative to the historical trends
 - Demographics and other maturity

2045 Scenario Defined:

- Enhanced-performance Economy Scenario Includes:
 - Larger and more productive labor force/human capital
 - Greater technological progress/innovation
 - Increased physical capital stock
 - More growth-supportive institutional arrangements

	1990-2018 Annual Growth Rate	2018-2045 Annual Growth Rate
Real Gross State Product	3%	2.1% to 2.6%
Employment	2.1%	1.1% to 1.5%
Visitors (Tourism)	4.1%	3.4%
Population	1.8%	1%

* Source-dependent range

Scenario 3: Economy

Implications for Freight

1) Freight is positively correlated with economic growth

- Economic growth is a function of quantity and quality of the labor force and productivity
 - Labor force is a function of working age population, and participation rate
 - Productivity is largely driven by physical capital, human capital, technological progress, and entrepreneurship
- Influencing these driving factors will determine the future performance of the FL economy, and related freight needs



Scenario 3: Economy

Implications for Freight

2) The implementation of the investment strategies under this enhanced economic performance scenario is likely to yield:

- Higher freight movement across the transportation modes on SIS
 - Some it would be more external/international
- More collaborative environment, PPP
- Greater rates of return in the freight sector



Discussion



Project Prioritization Process

Guiding Principles

The prioritization process/methodology should be:

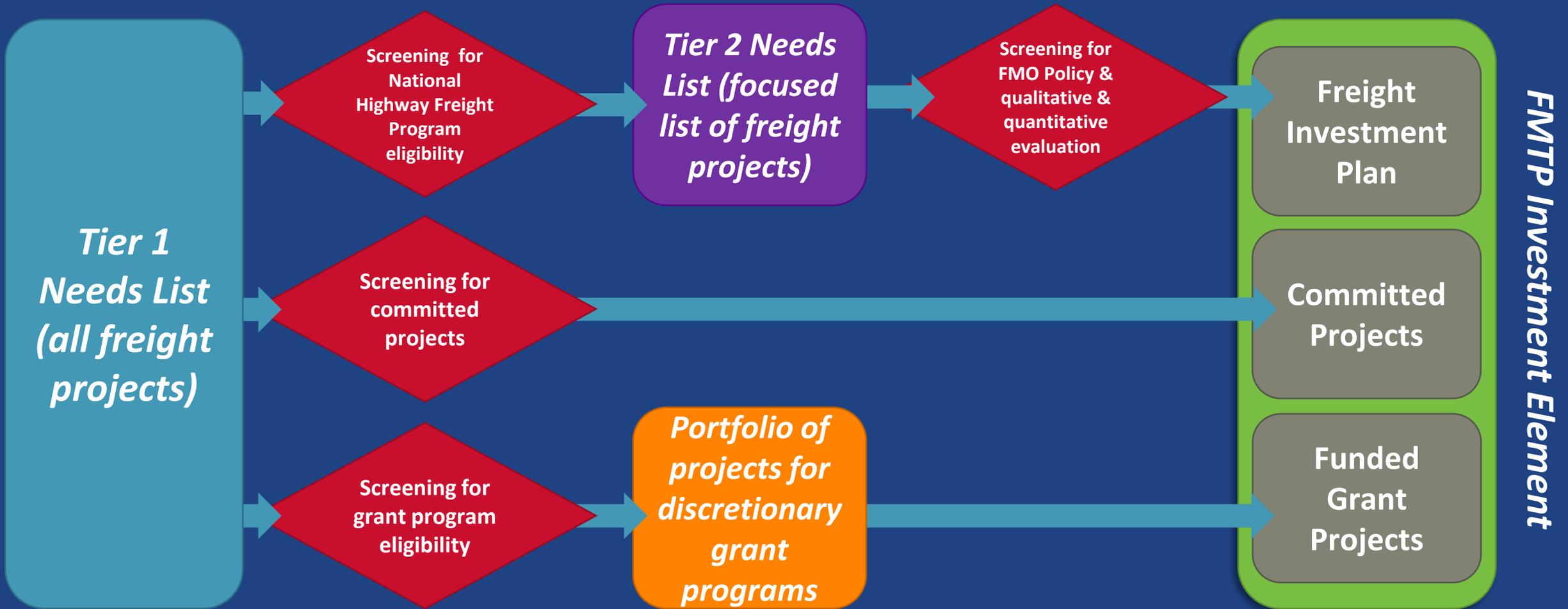
1. Implementable/ able to meet the needs of FDOT Central Office and Districts
2. Objective & quantitative (to the extent feasible)
3. Transparent, justifiable, defensible and repeatable
4. Incorporate private sector freight users input
5. Multimodal
6. Avoid duplication of efforts
7. Fit within existing Strategic Intermodal System (SIS) and modal processes
8. Flexible/adjusted when necessary to incorporate needs
9. Part of a continuous planning process/ living document
10. Tied to funding programs

Identifying Projects (Commitments and Needs)

- Strategic Intermodal System (SIS)
First 5 Year Work Program
- SIS Second 5 Year Plan
- SIS Cost Feasible Plan
- SIS Needs Plan
- Modal system plans/capital improvement plans and input from FDOT modal offices
- Previous Freight Mobility and Trade Plan (FMTP) projects list
- Projects submitted by FDOT Districts for the National Highway Freight Program (NHFP) and consideration for federal grant programs
- FDOT District freight plans (verified with freight coordinators)
- Metropolitan Planning Organization (MPO) plans and freight projects
- Partners (FLFAC, freight stakeholders)
- Everyone else (different offices, state agencies, etc.)

Focus on freight projects – projects that are not strictly for passengers

Prioritization Process



Quantitative Component

FTP Goal	FMTF Objective	Measures/Criteria	Score Range	Weight
Safety and Security	Leverage multisource data and technology to improve freight system safety and security	(Truck Injuries/Truck VMT)*1000	0-40	25%
		(Truck Fatalities/Truck VMT)*1000	0-40	
		Crime Index	0-20	
Agile, Resilient, Quality	Create a more resilient multimodal freight system.	Roadways within 100 year flood zones	0-20	15%
	Ensure the Florida freight system is in a State of Good Repair	Presence of structurally deficient bridges	0-20	
		Presence of poor pavement conditions segments	0-40	
Efficient & Reliable Mobility	Drive innovation to reduce congestion, bottlenecks and improve travel time reliability	Roadways with top bottlenecks	0-60	25%
		Truck AADT	0-40	
Transportation Choices	Improve last-mile connectivity for all freight modes	Vicinity to Hubs	0-60	20%
		Roadways within freight intensive areas (FAAs from SIS project)	0-40	
Economic Competitiveness	Capitalize on emerging freight trends to promote economic development	Labor Force Size (Ratio of Labor force by County Population relative to average state wide ratio)	0-20	10%
		County GRP (Compared to State Average)	0-20	
		Transportation and Warehousing Industry Share of Total Employment	0-40	
		Population Density (Compared to State Average)	0-20	
Environment & Conserve Energy	Promote and support the shift to alternatively fueled freight vehicles	On designated Alternative Fuels Corridors	0-40	5%
		Number of alternative fueling stations within 1 mile of roadway	0-60	

Qualitative Component

FTP Goal	FMTP Objective	Score	Weight	Qualitative Score
Safety and Security	Leverage multisource data and technology to improve freight system safety and security	0-100	25%	0-100
Agile, Resilient, Quality	Create a more resilient multimodal freight system.	0-100	15%	
	Ensure the Florida freight system is in a State of Good Repair	0-100		
Efficient & Reliable Mobility	Drive innovation to reduce congestion, bottlenecks and improve travel time reliability	0-100	25%	
Transportation Choices	Improve last-mile connectivity for all freight modes	0-100	20%	
Economic Competitiveness	Capitalize on emerging freight trends to promote economic development	0-100	10%	
Environment & Conserve Energy	Promote and support the shift to alternatively fueled freight vehicles	0-100	5%	

Objectives Ranking

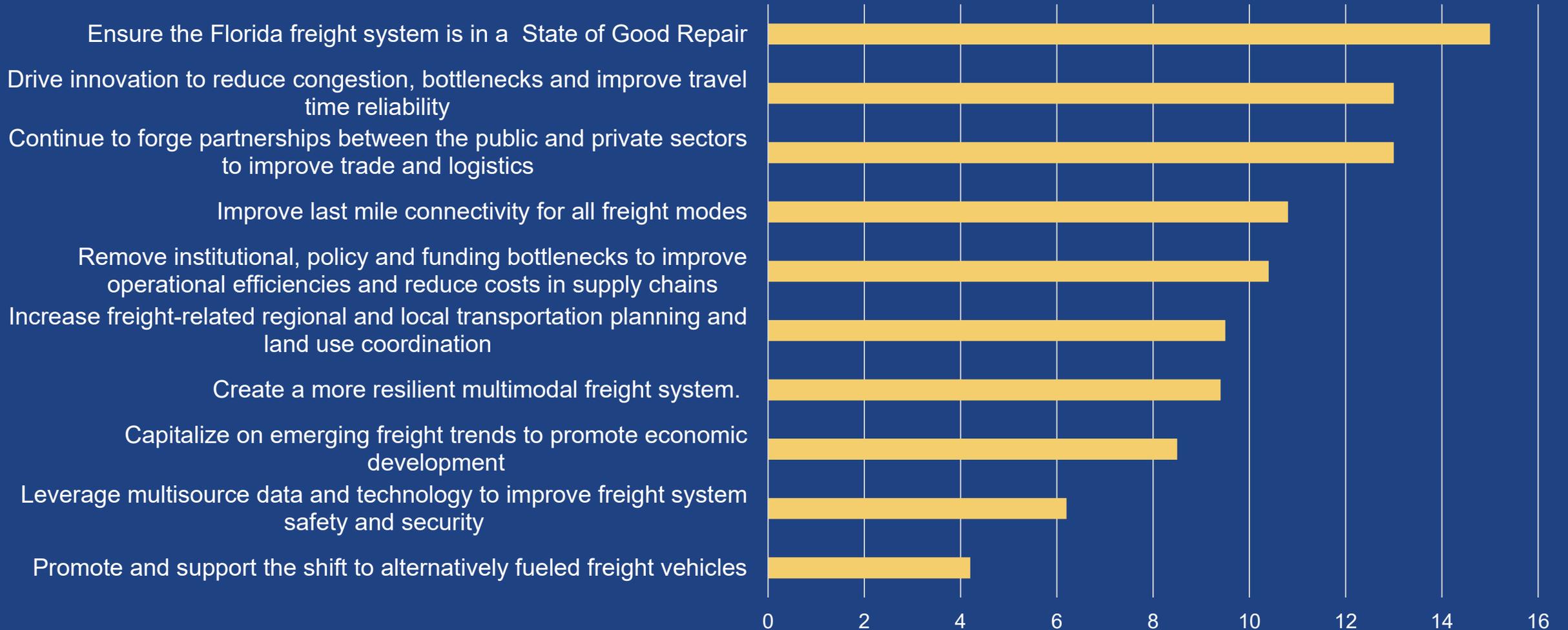


FMTP Objectives:

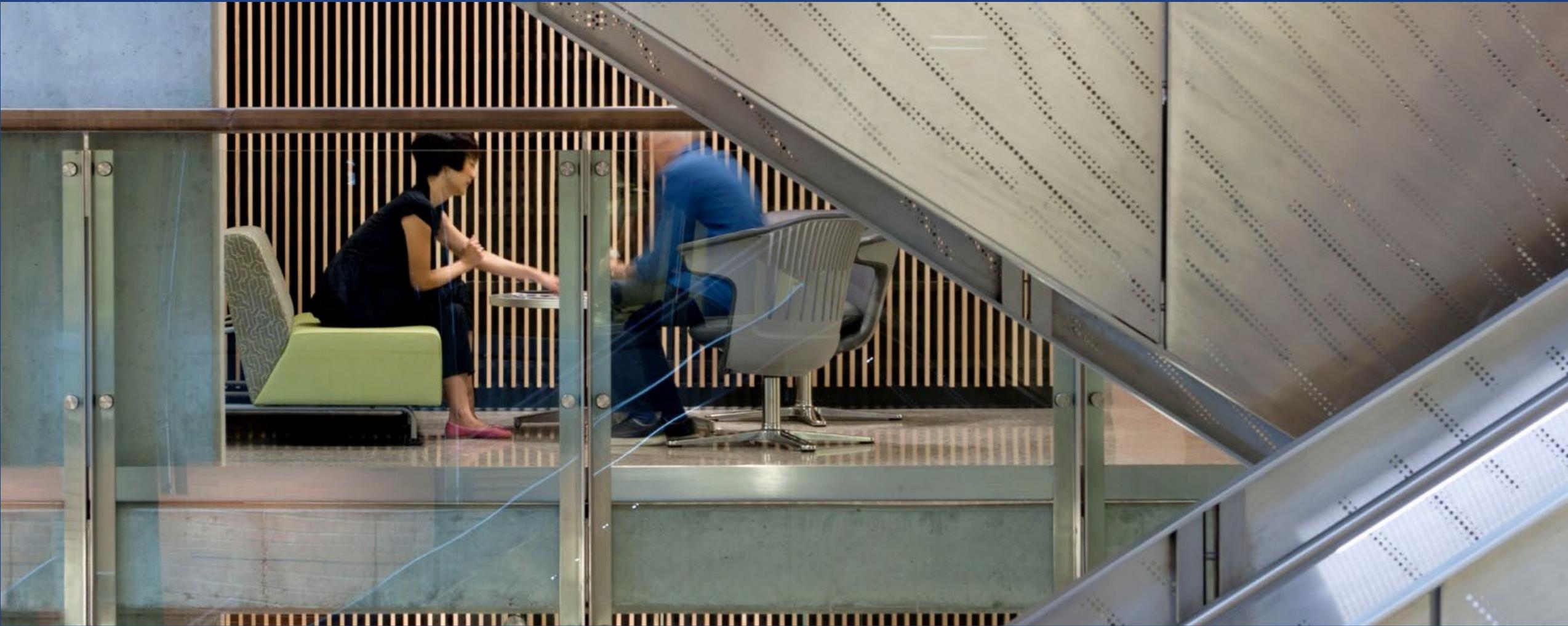
1. Leverage multisource data and technology to improve freight system **safety and security**
2. Create a more resilient multimodal freight system.
3. Ensure the Florida freight system is in a State of Good Repair
4. Drive innovation to reduce **congestion, bottlenecks** and improve travel time **reliability**
5. Remove **institutional, policy and funding bottlenecks** to improve operational efficiencies and reduce costs in supply chains
6. Improve **last mile connectivity** for all freight modes
7. Continue to forge **partnerships** between the **public and private sectors** to improve trade and logistics
8. Capitalize on **emerging freight trends** to promote economic development
9. Increase freight-related regional and local **transportation planning and land use coordination**
10. Promote and support the shift to **alternatively fueled** freight vehicles

Survey Results

Average \$\$\$ Given to Each Objective



Discussion



Proposed Prioritization Recommendation

- Draft Committee recommendation:

Revise FLFAC National Highway Freight Program recommendation from priority on particular project types to recommend the more comprehensive FMTP update freight project prioritization process as outlined by FDOT.

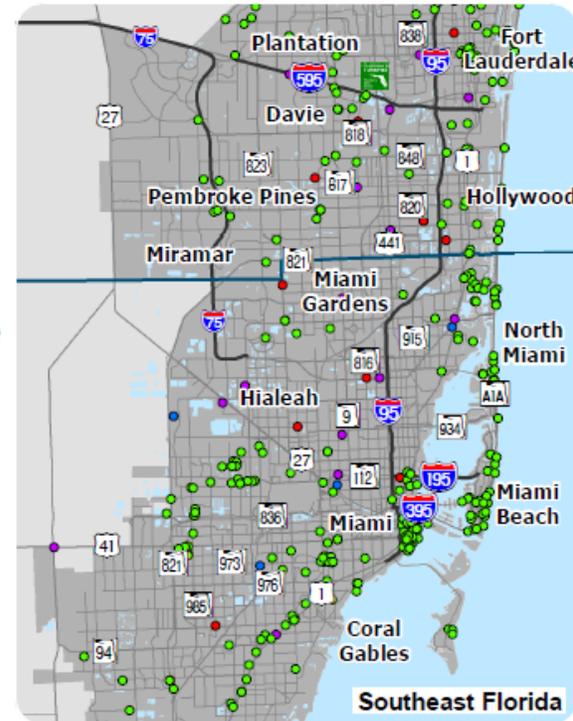
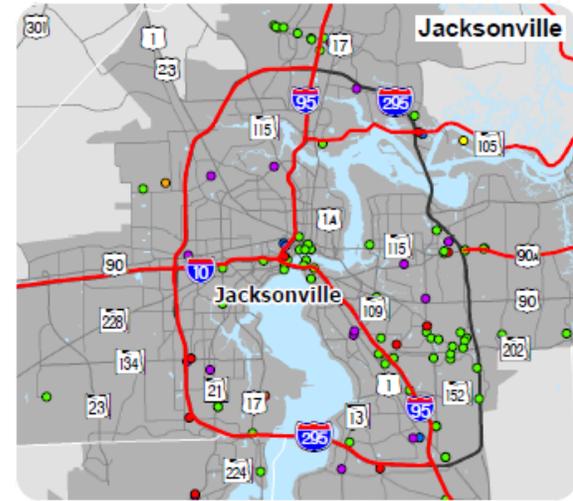
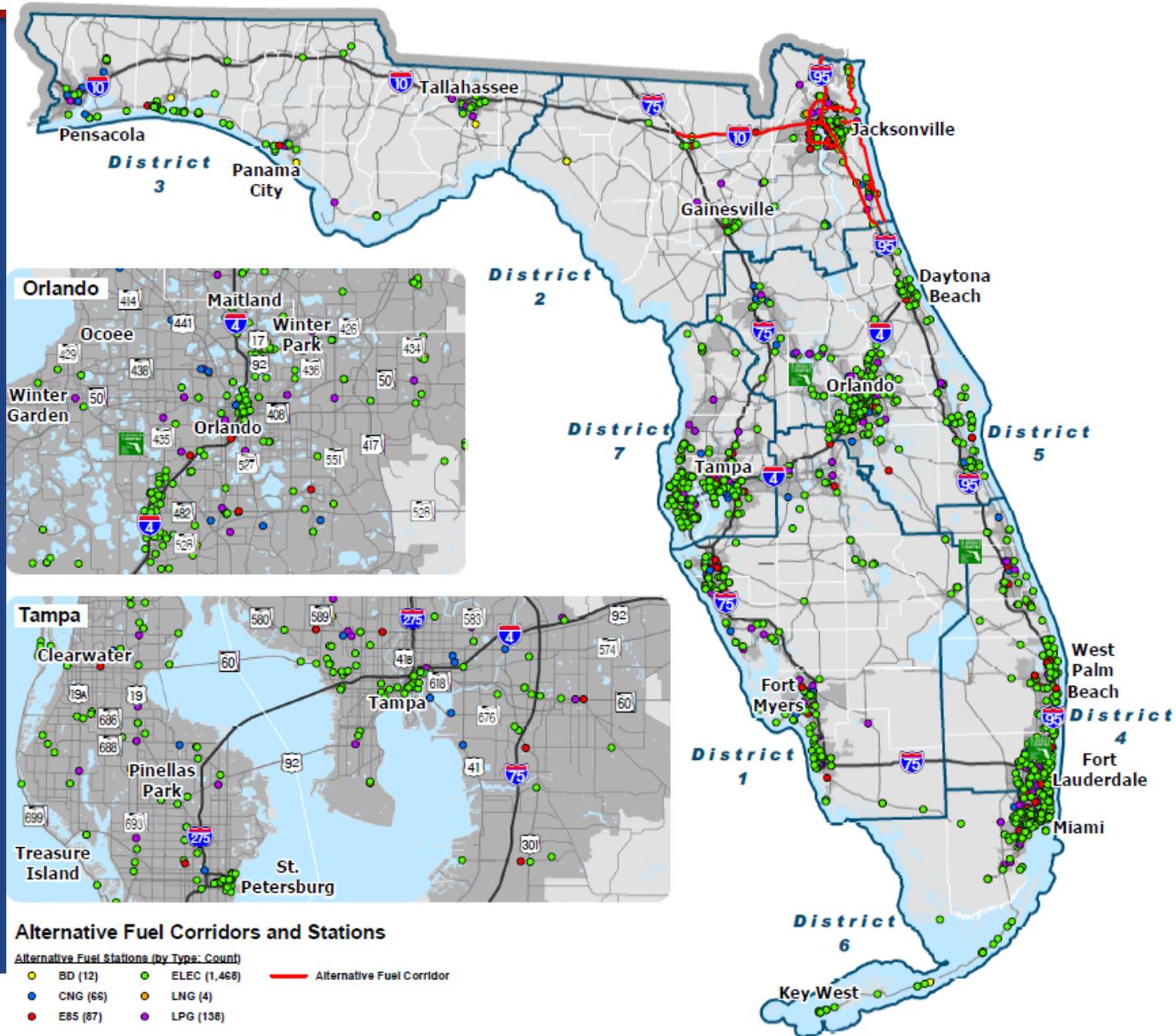
The FMTP update project prioritization process focuses on freight projects that:

- are eligible for the National Highway Freight Program,
- address identified freight issues/needs, and
- meet policy goals, including weighting input by FLFAC.

Freight Systems and Assets

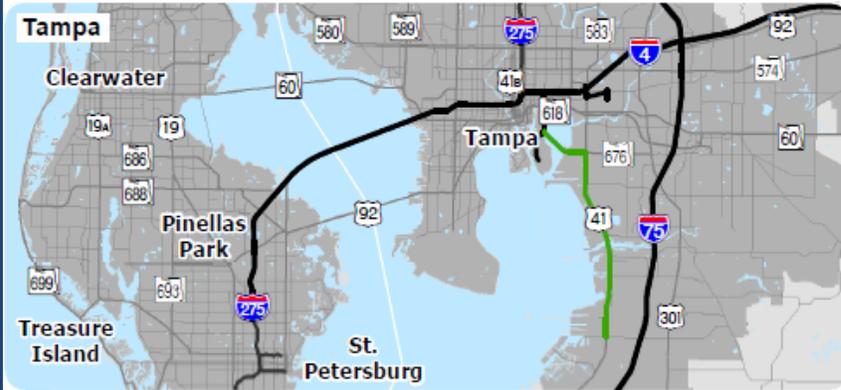
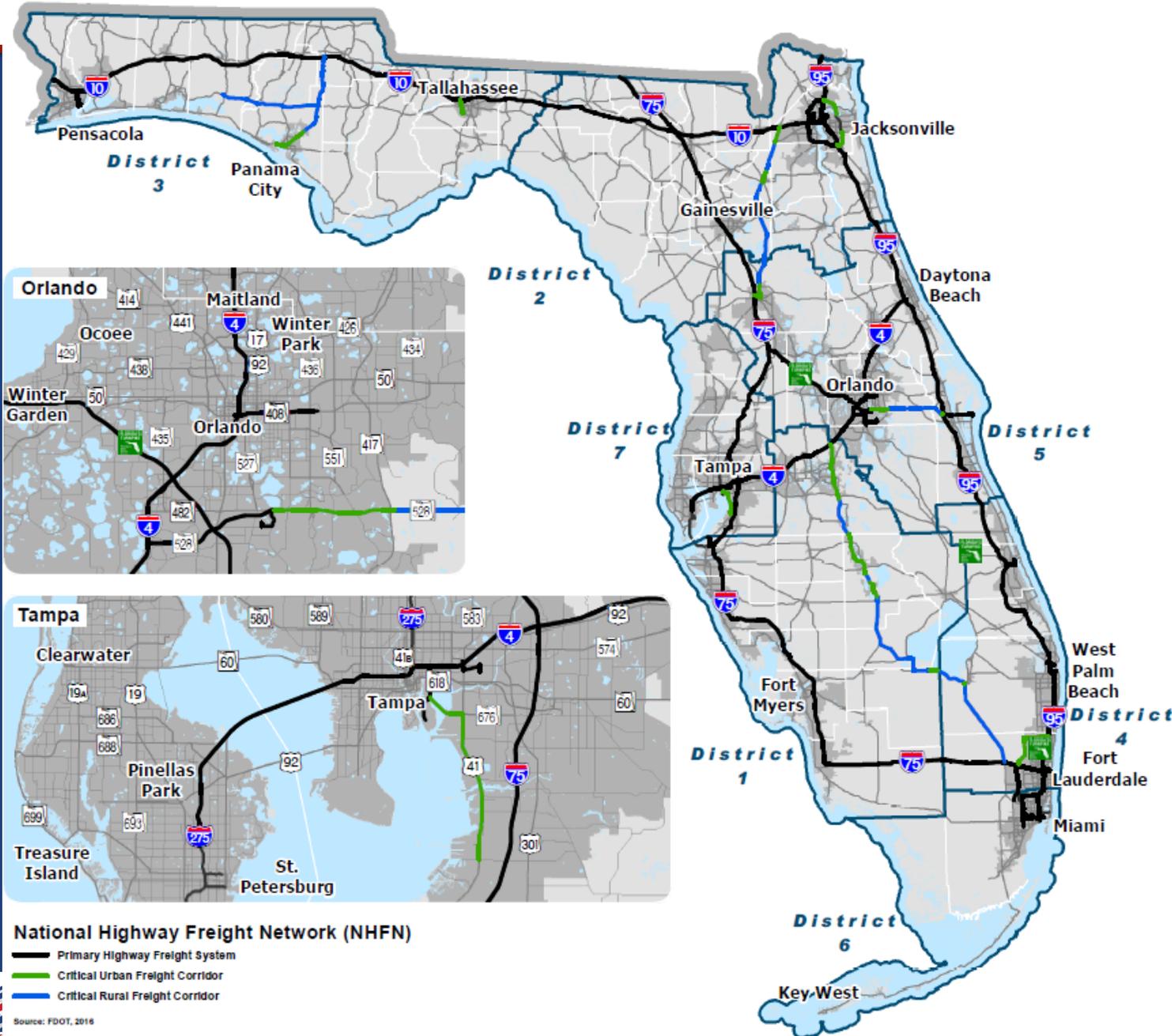
Assets

Alternative Fuel Corridors & Stations



Assets

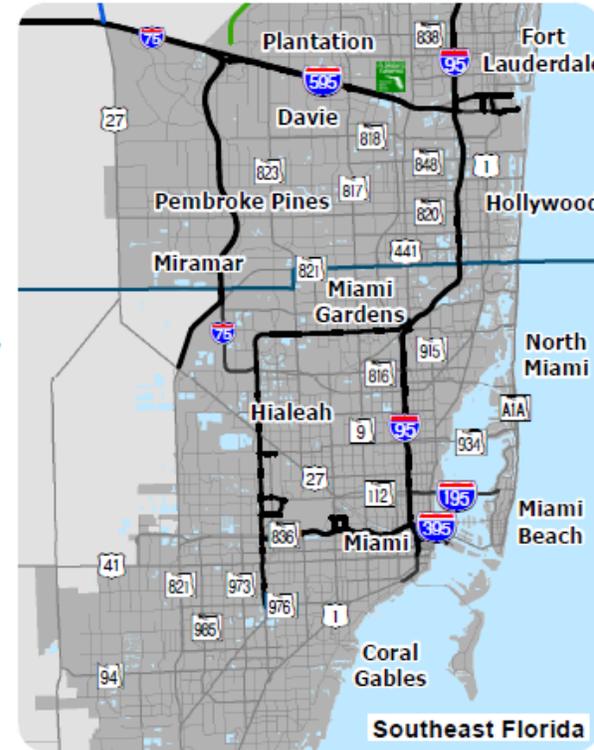
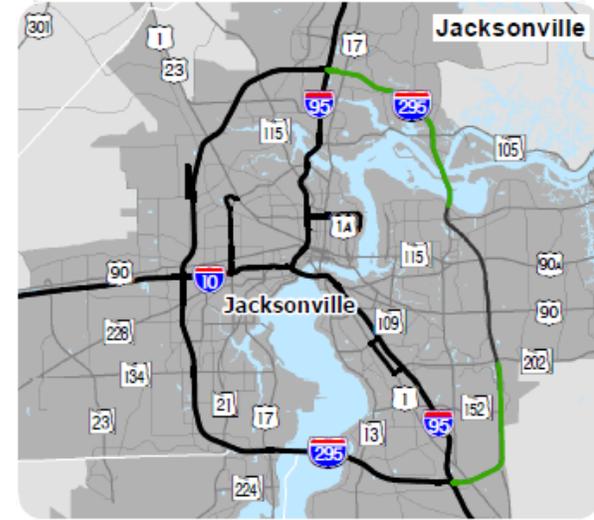
NHFN



National Highway Freight Network (NHFN)

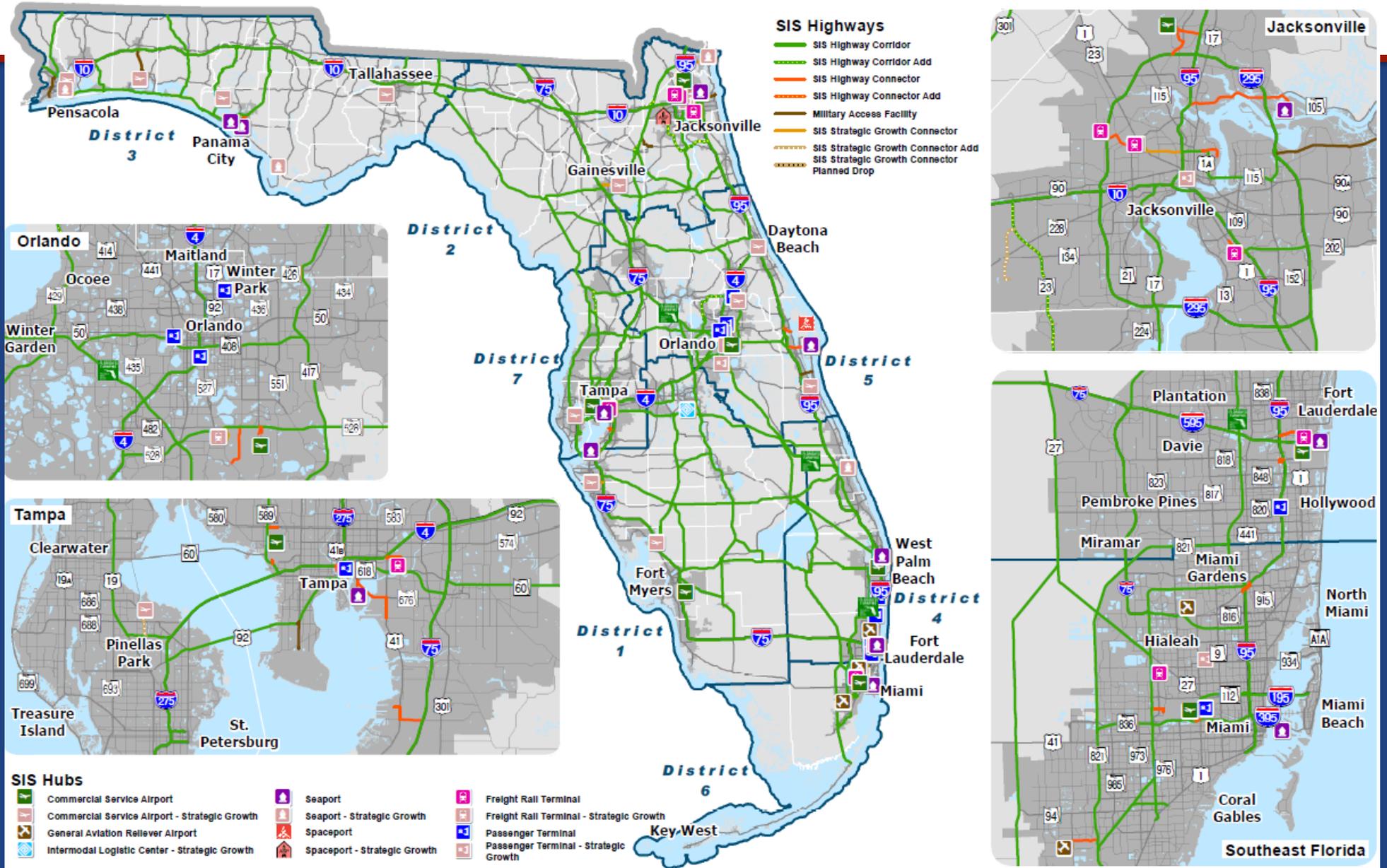
- Primary Highway Freight System
- Critical Urban Freight Corridor
- Critical Rural Freight Corridor

Source: FDOT, 2016



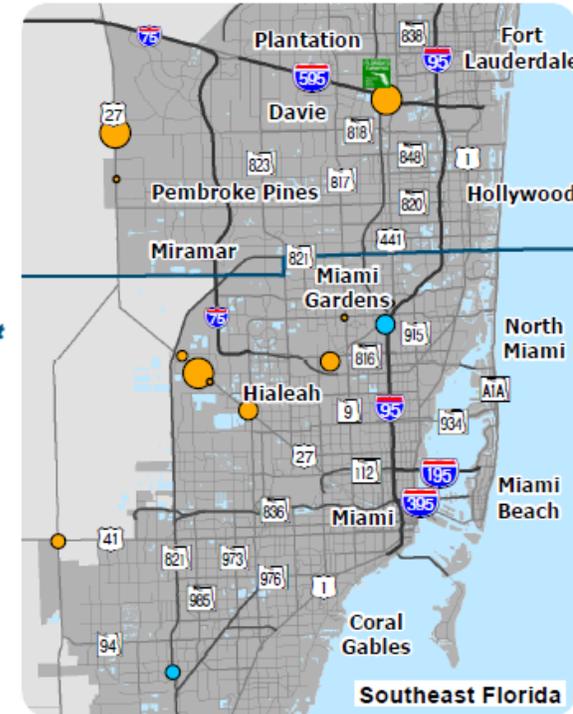
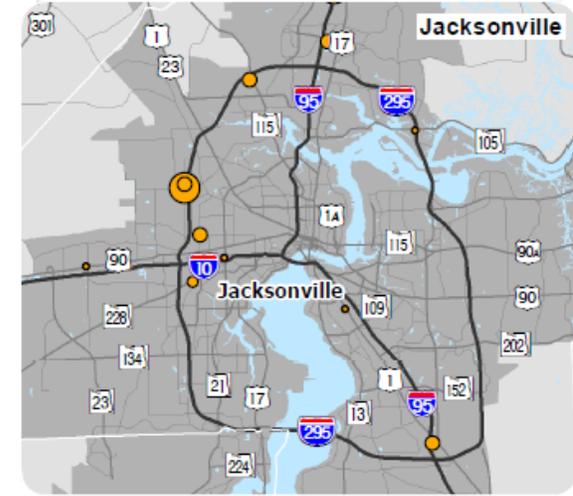
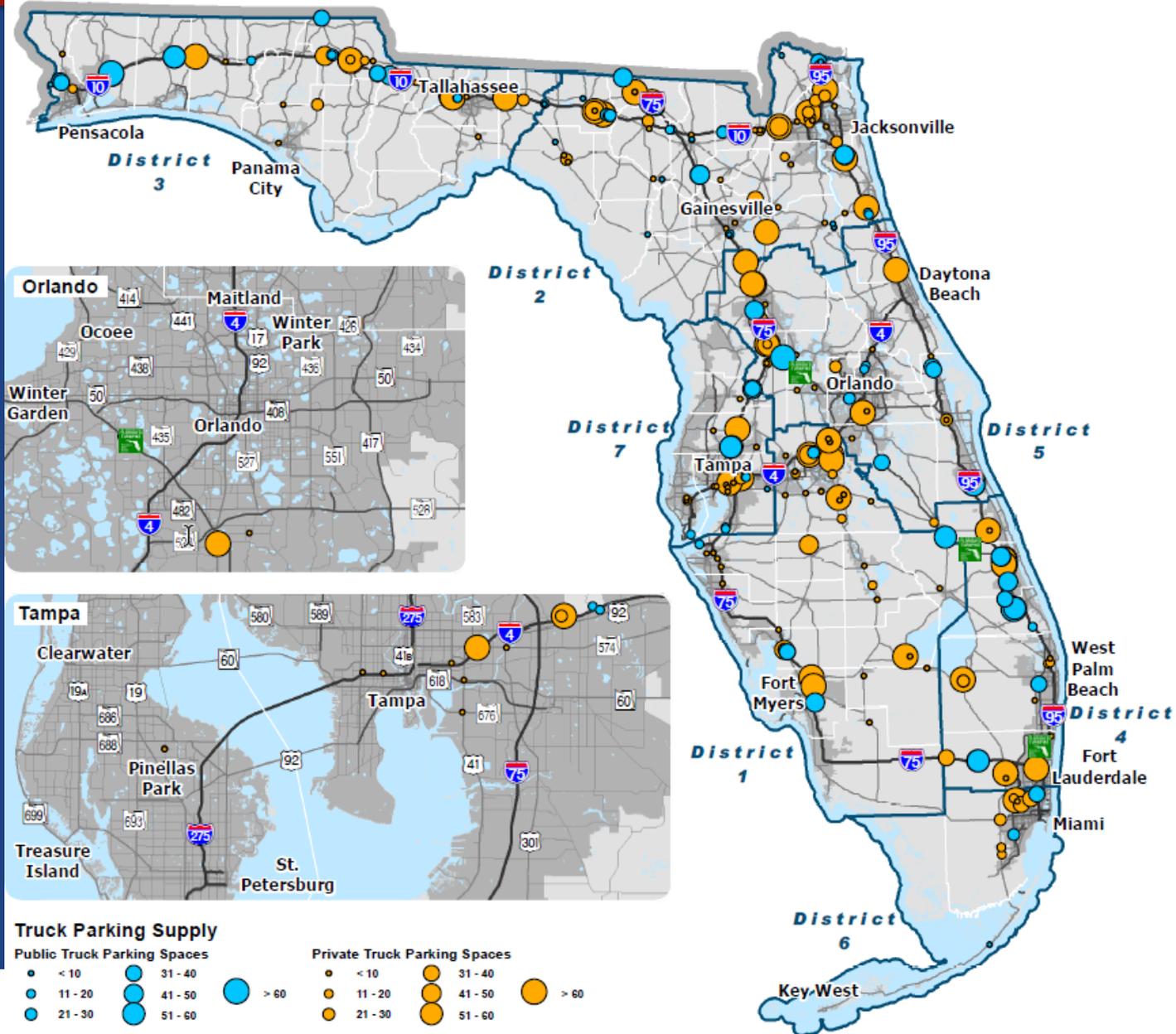
Assets

SIS Network



Assets

Truck Parking Supply



Dashboard



Bridge Conditions



Freight Intensive Areas



Freight Systems and Assets



Pavement Conditions



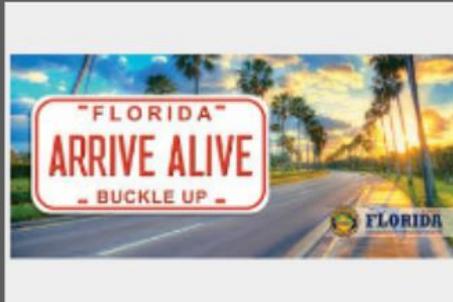
Port Import/Export
Commodities Dashboard



Seaport Berth Utilization
at Tampa Bay Harbor
Dashboard



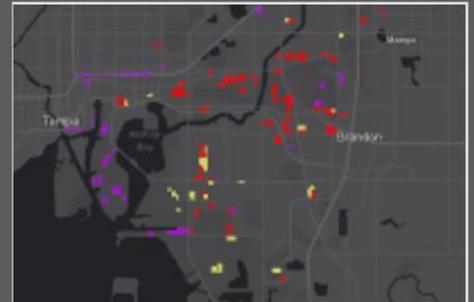
Truck Bottlenecks



Truck Crash Dashboard



Truck Empty Back Haul



Truck Parking Land
Suitability

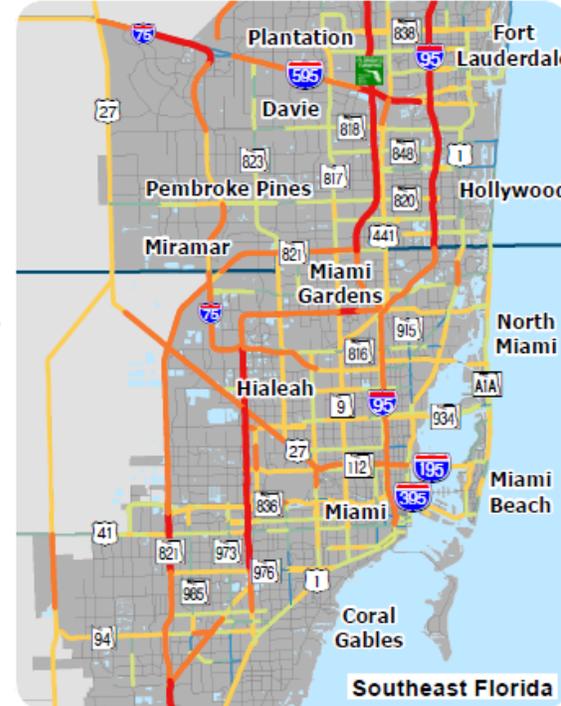
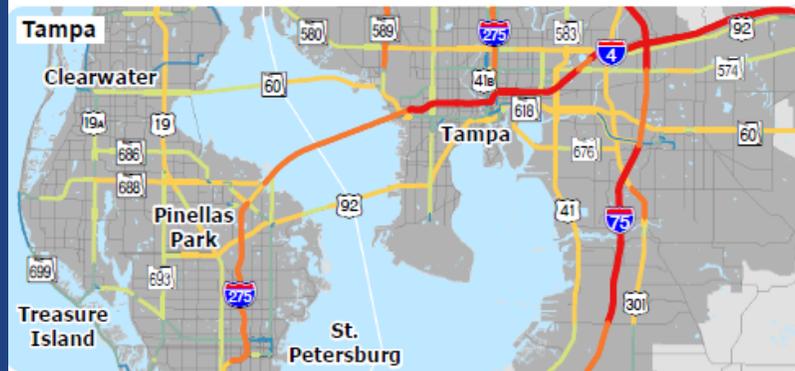
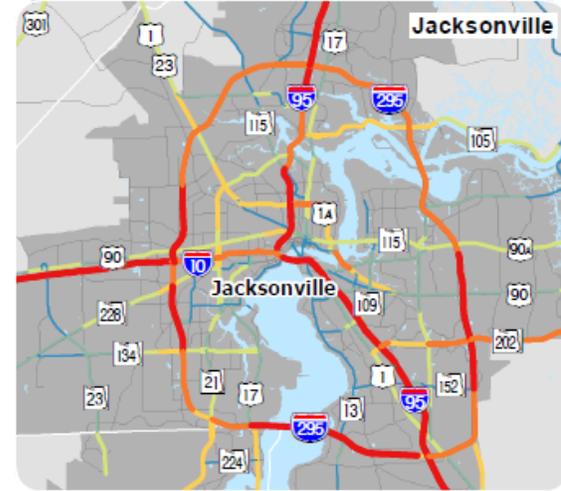
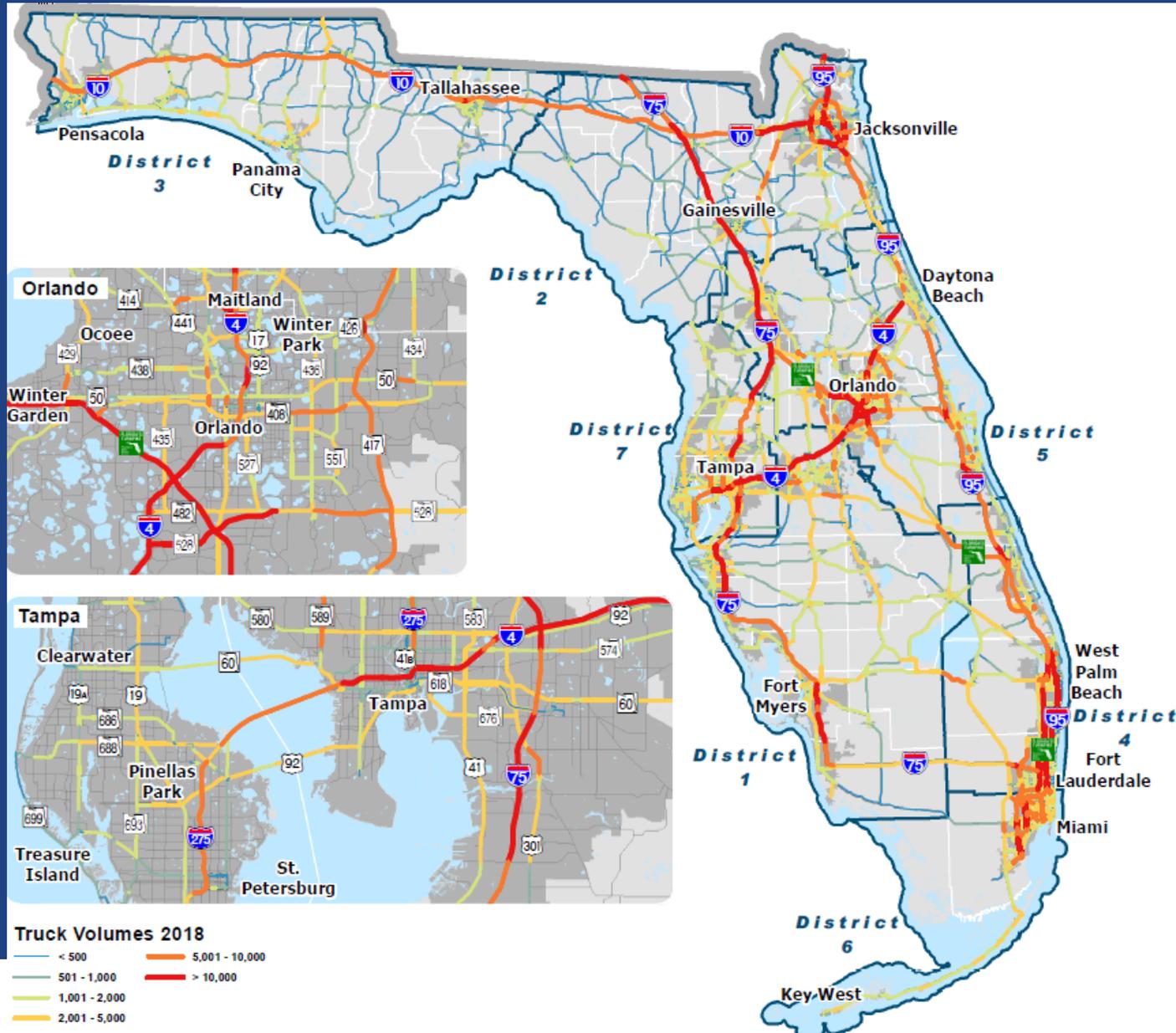


Performance-Based Needs

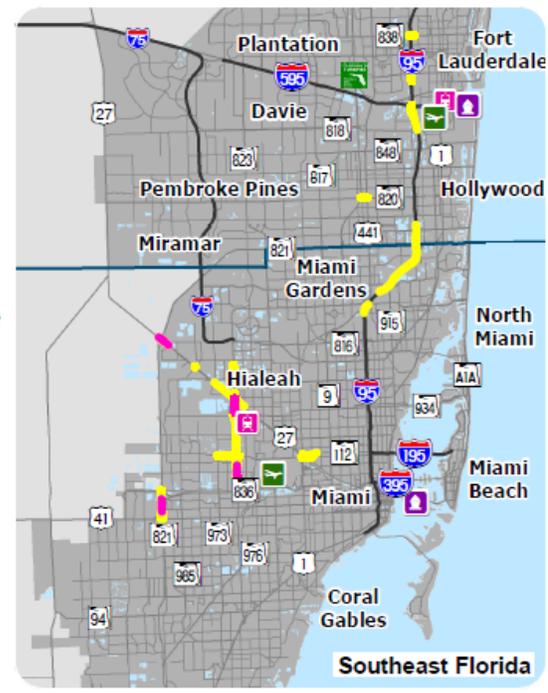
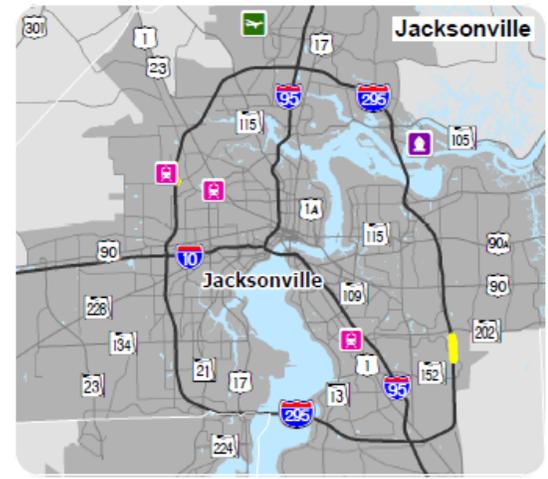
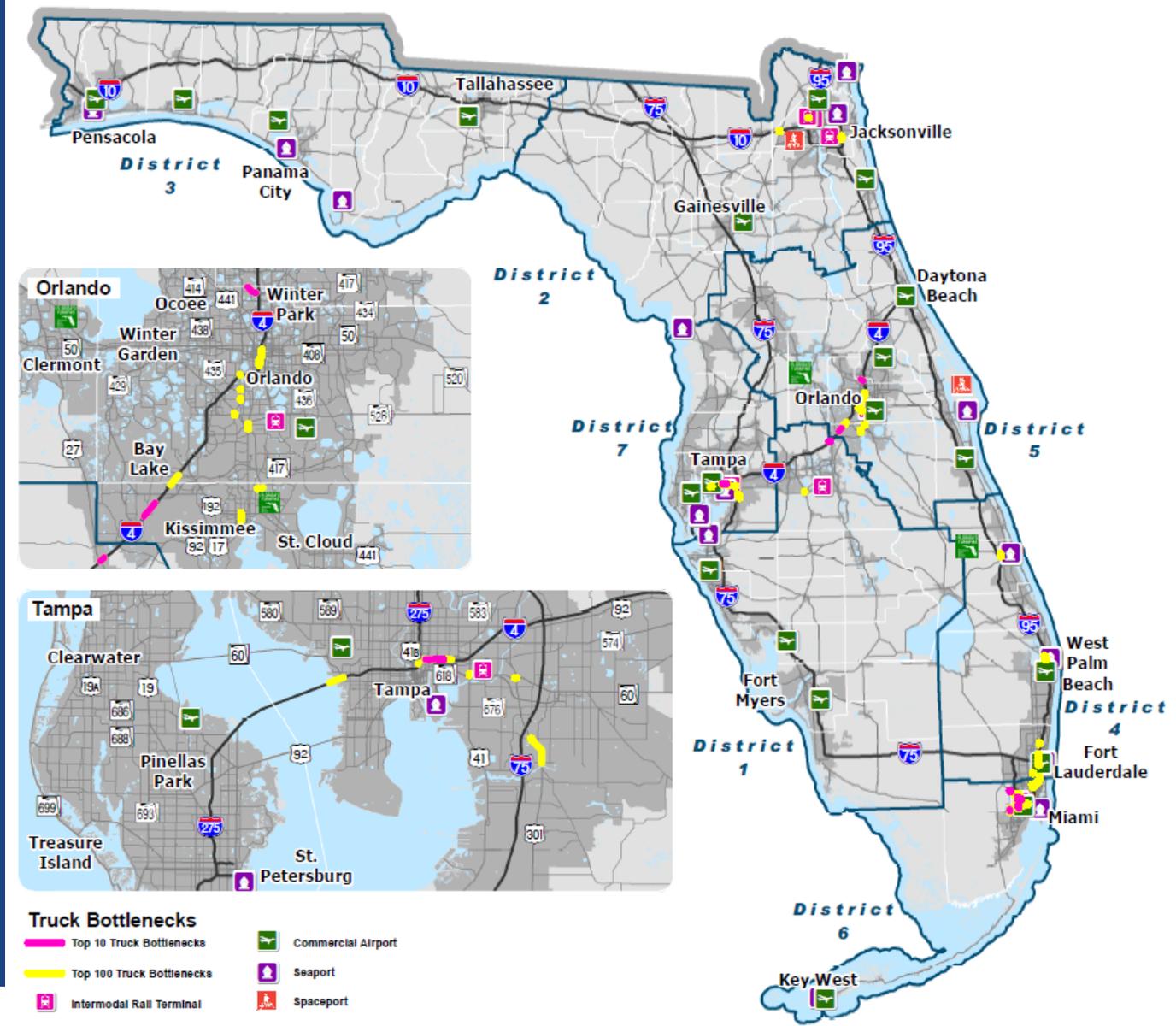
Top Issues by Analysis

Modes	Biggest Issues by Analysis
Highway/Truck	<ul style="list-style-type: none">• Major truck bottlenecks• Unauthorized Truck Parking• High Truck Parking Utilization in areas of concern• Truck Empty Back Haul• Truck travel time reliability• Increasing truck crashes• High growth rate of truck miles traveled and truck ton miles traveled
Seaport and Waterways	
Aviation and Spaceports	<ul style="list-style-type: none">• Accommodating tremendous growth in people and cargo at Tampa, Orlando and Miami airports
Rail	<ul style="list-style-type: none">• Number of rail crashes increasing over the years
Other	

Truck AADT



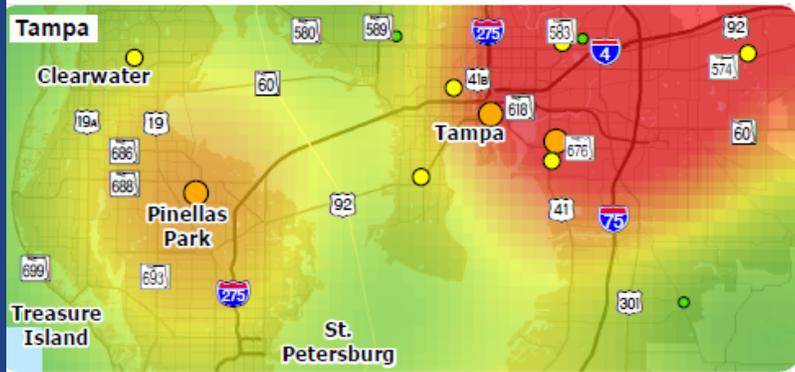
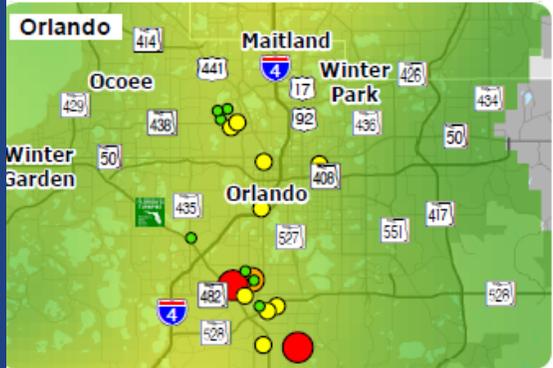
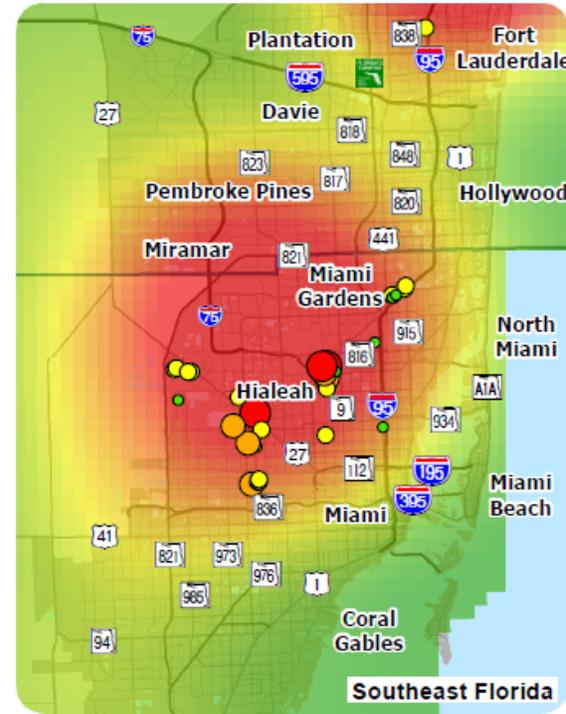
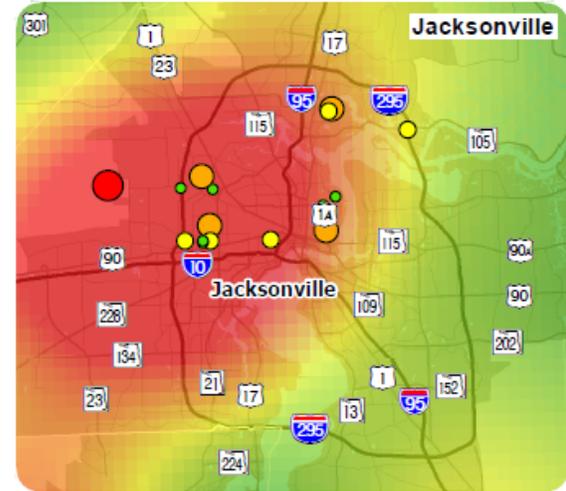
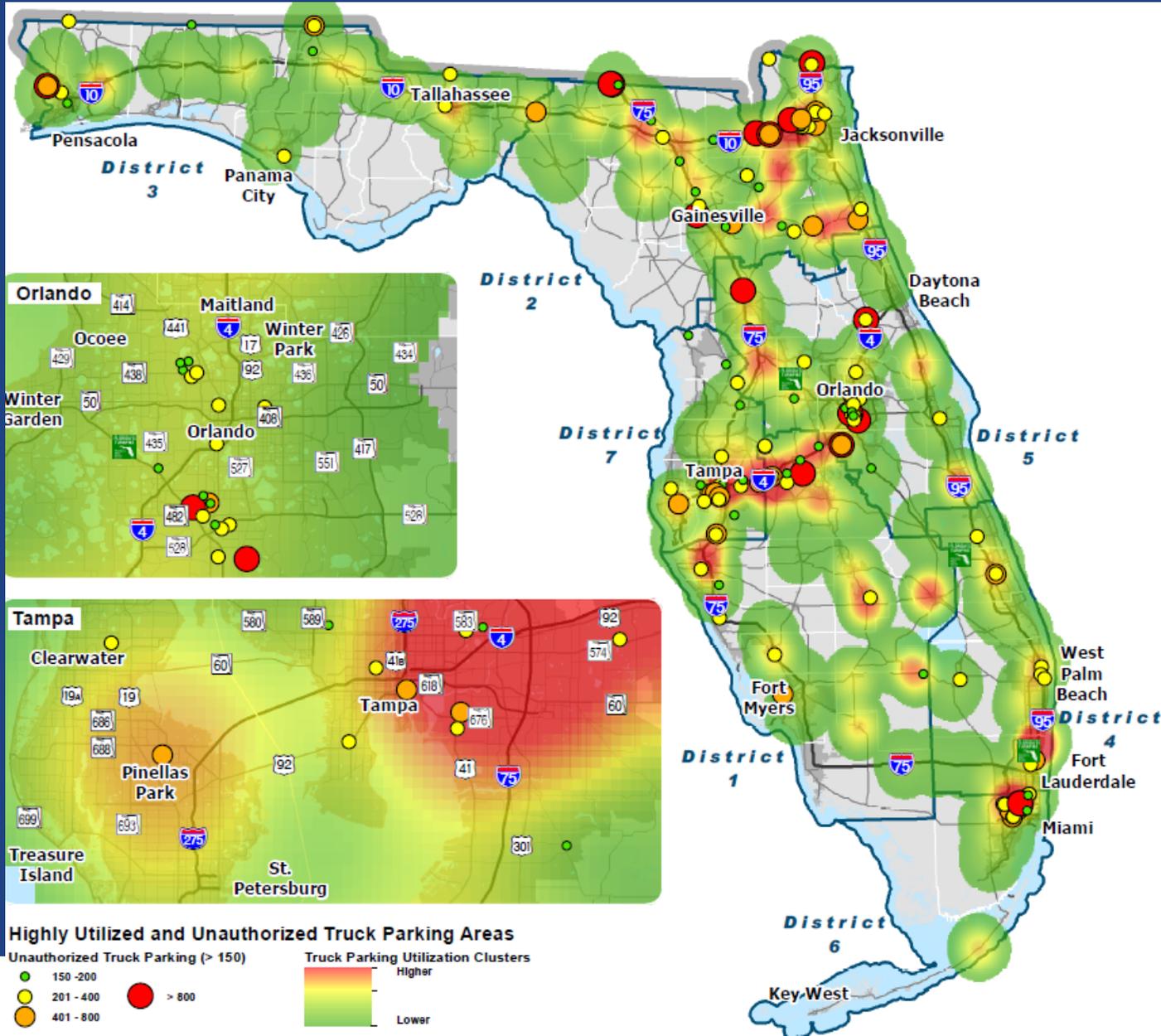
Congestion/Bottlenecks



Top Bottlenecks

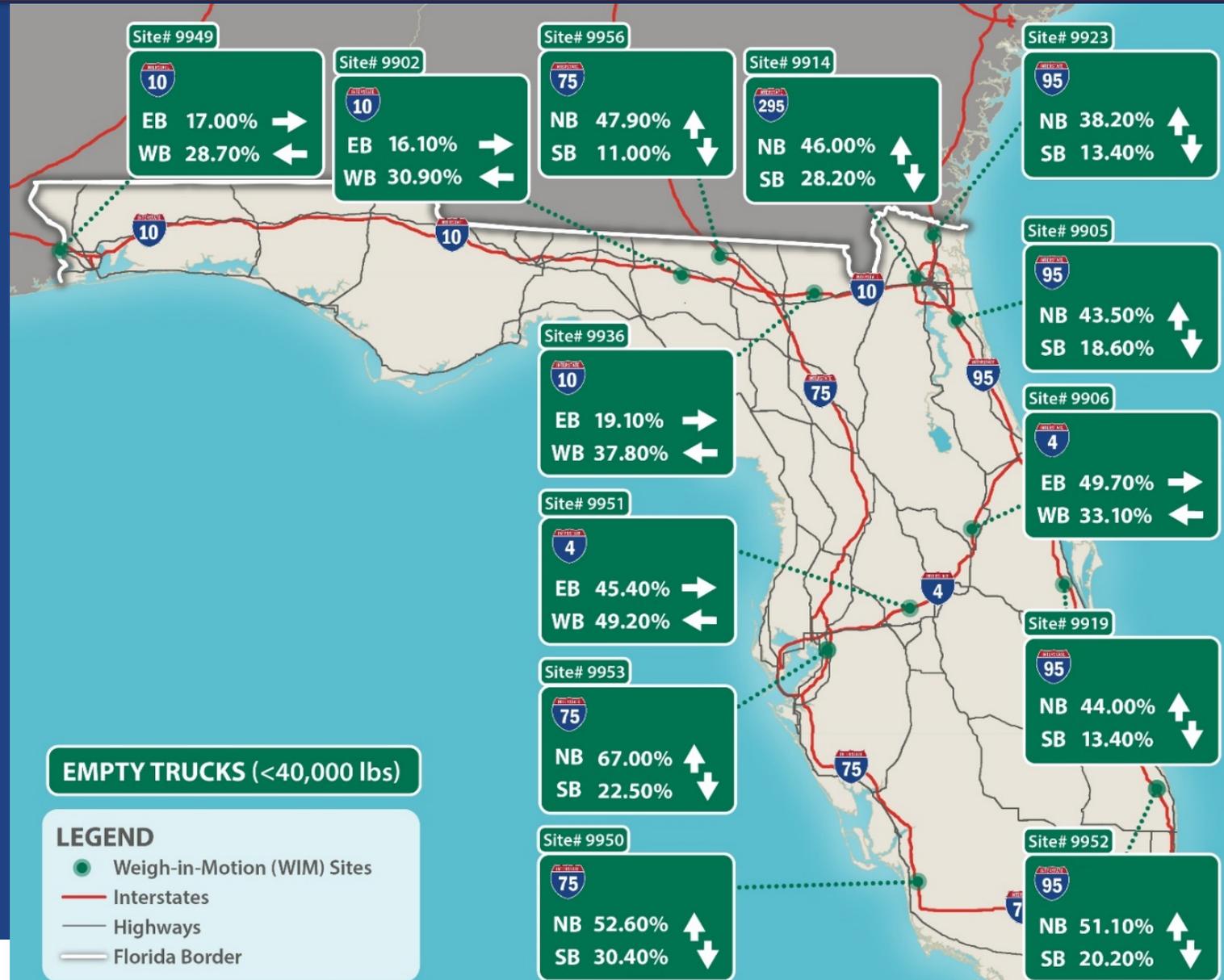
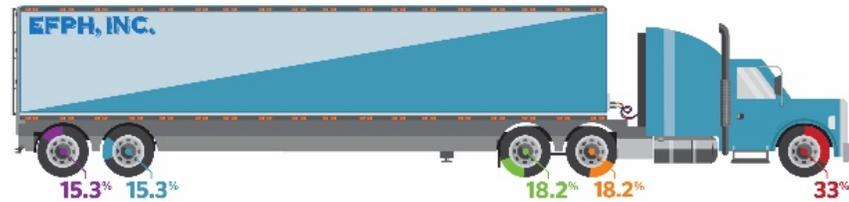
Rank	Recurring Congestion		Non-Recurring Congestion	
	Road	County	Road	County
1	FL-414 eastbound approaching I-4	Orange	FL-414 eastbound approaching I-4	Orange
2	I-4 westbound close to I-275	Hillsborough	I-4 westbound close to I-275	Hillsborough
3	I-4 westbound close to I-275	Hillsborough	I-4 eastbound close to US 27	Polk
4	Palmetto Expressway Northbound close to Viaduct	Miami-Dade	US-27 Northbound close to FL Turnpike	Miami-Dade
5	I-4 Westbound	Osceola	US-27 Northbound close to SR 934	Miami-Dade
6	Florida Turnpike Southbound close to Dolphin Expressway	Miami-Dade	Palmetto Expressway Northbound close to Miami Airport approaching Dolphin Expressway	Miami-Dade
7	Palmetto Expressway Northbound close to Okeechobee Road	Miami-Dade	US-27 Northbound close to SR 934	Miami-Dade
8	Palmetto Expressway Northbound close to Okeechobee Road	Miami-Dade	US-27 Northbound close to FL Turnpike	Miami-Dade
9	Palmetto Expressway Northbound close to Okeechobee Road	Miami-Dade	Palmetto Expressway Northbound close to Viaduct	Miami-Dade
10	US-27 Northbound close to FL Turnpike	Miami-Dade	Palmetto Expressway Southbound close to Okeechobee Road	Miami-Dade

Truck Parking

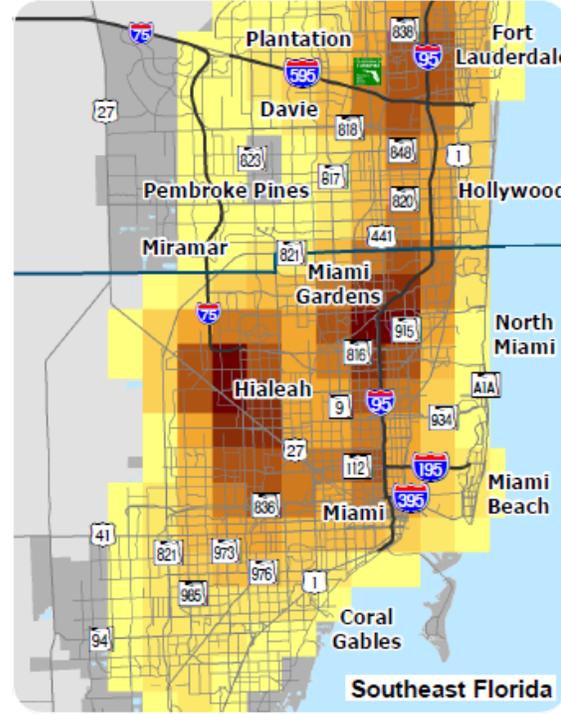
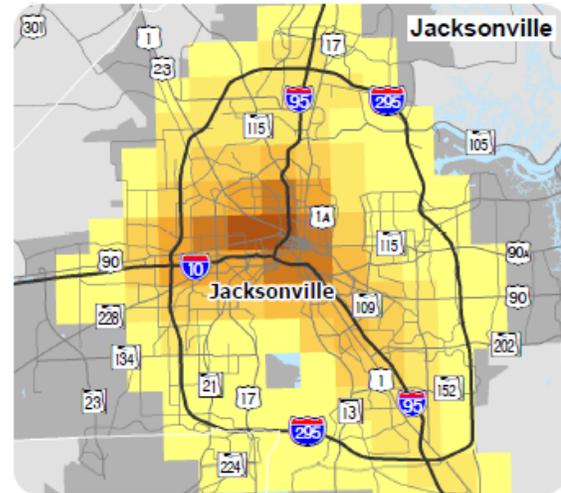
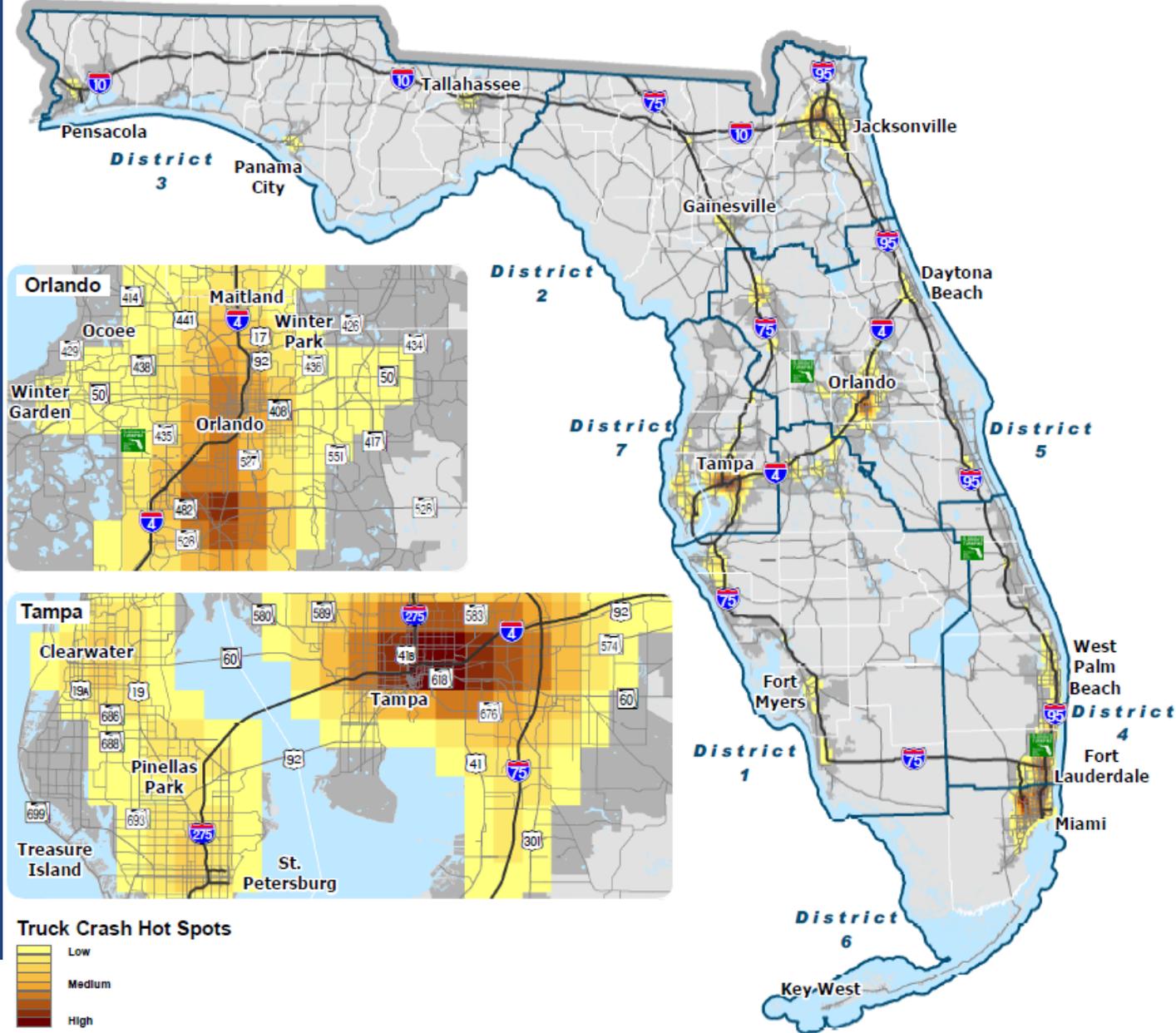


Truck Empty Backhaul

EMPTY: <40K
GVW: 34,160

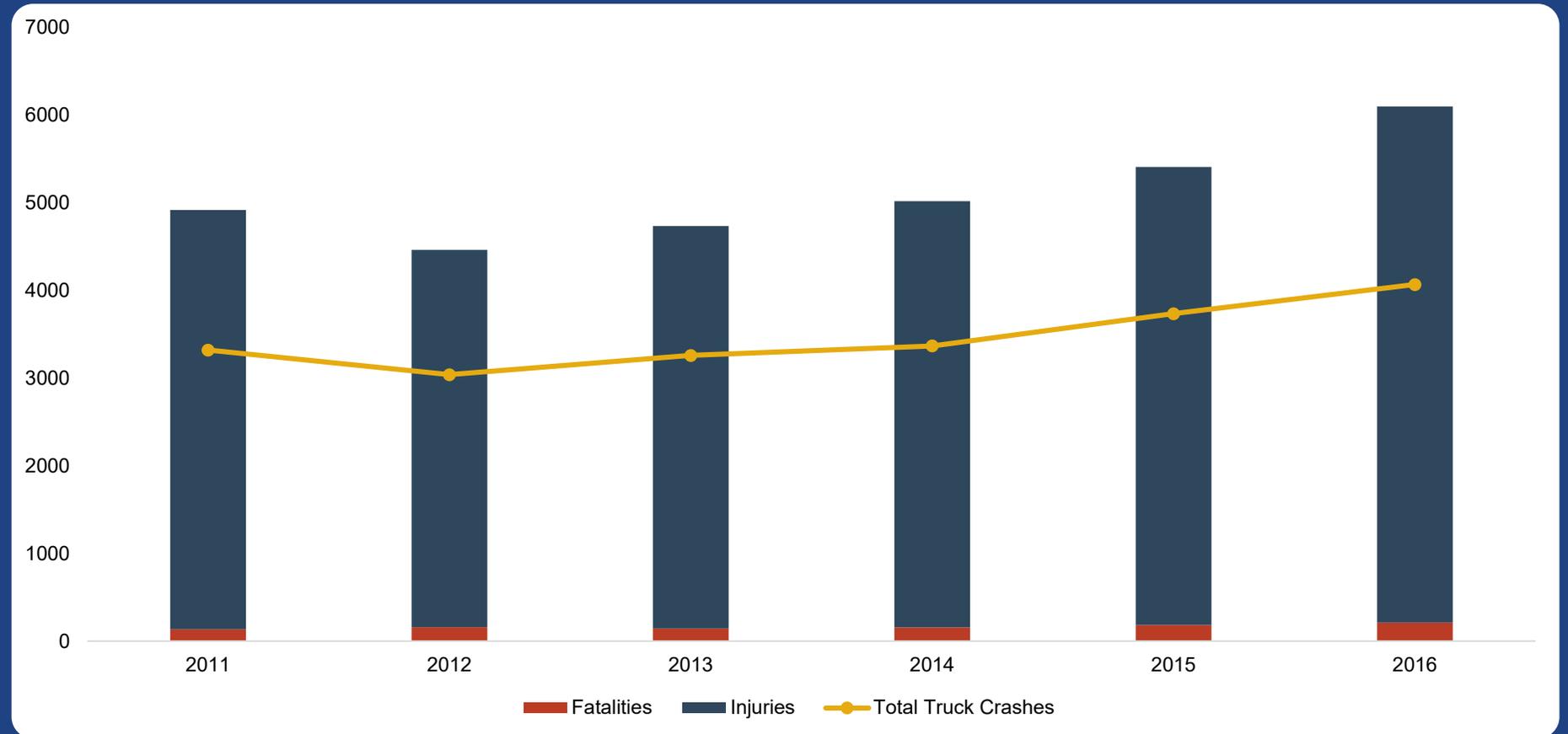


Truck Crash Hot Spots



Truck Safety

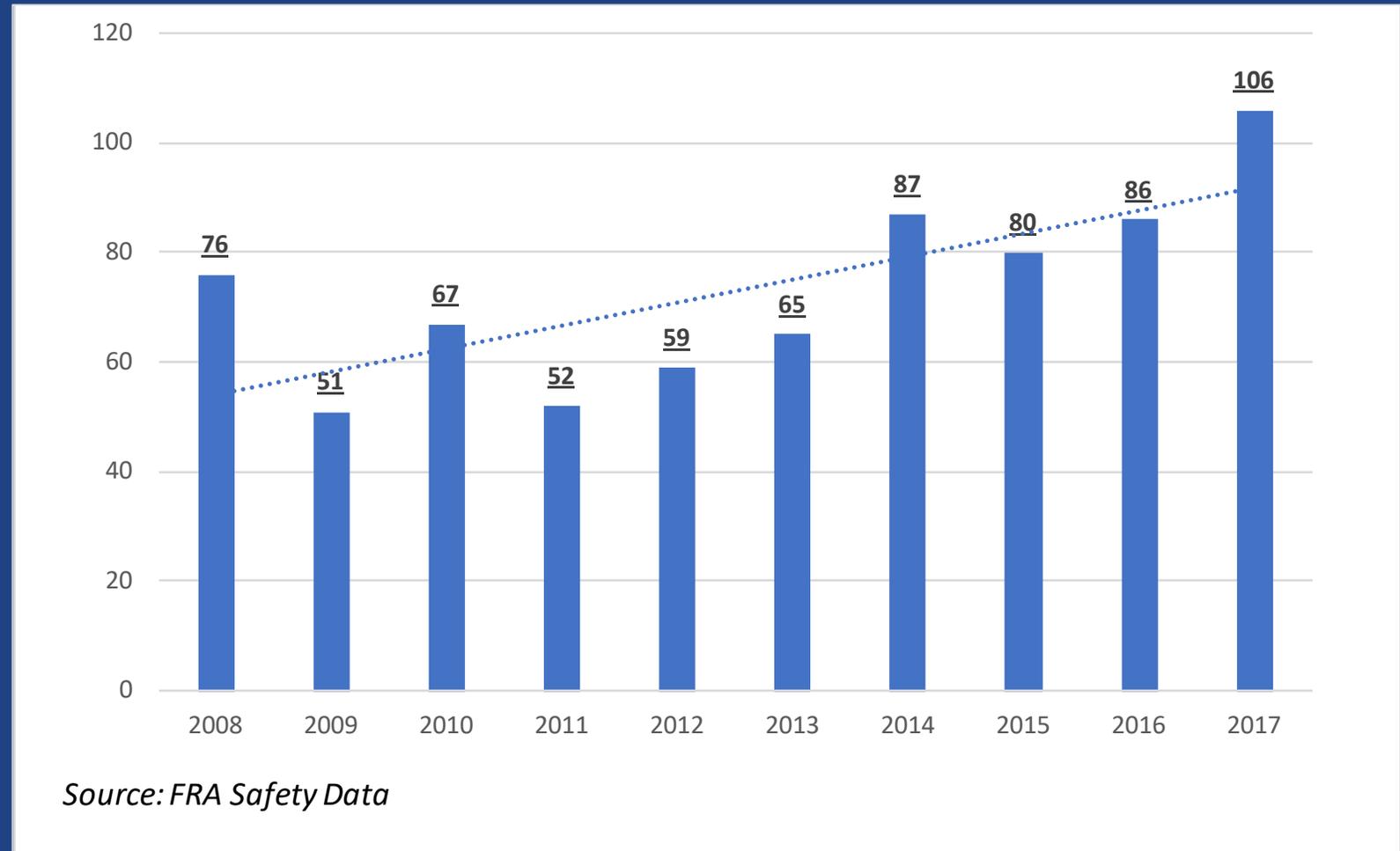
From 2012 to 2016 approximately 20,794 trucking accidents have occurred on Florida's roadways resulting in 995 fatalities. Since 2012, there has been a steady increase in the amount of traffic accidents involving a truck on Florida's roadways



Safety/Security

Highway- Railroad Grade Crossing Incidents

Florida has experienced an upward trend of highway-railroad incidents totaling 729 occurrences from 2008 to 2017.



Top Issues by Feedback

Modes	Top Issues
Highway/ Truck	<ul style="list-style-type: none"> • Congestion/bottlenecks • Truck Parking • Regulations • Labor Force
Seaport and Waterways	<ul style="list-style-type: none"> • Maintaining facilities • Port hours are in conflict with consumer demand, furthering congestion
Aviation and Spaceports	
Rail	
Other	<ul style="list-style-type: none"> • Land Use • Funding

Districts	Top Issues
6+	Regulations
	Truck Parking
	Land Use
	Congestion/Bottlenecks
	Efficiency/Reliability
	Labor Force
	Funding
	Communication/Collaboration
	Marketing/Perception
	Data Utilization
4&5	Public Private Partnerships
	Safety/ Security
2&3	Rail-Grade Crossing
	Tech Upgrades
2&3	Economic Competiveness
	Rural/Urban Divide
	Fuel Utilization
	Project Prioritization
	Inland Ports/ILCs
	Connectivity
	Resiliency
	Infrastructure Investment
	Long-Term Planning

Issues & Needs

Modes	Biggest Issues by Analysis	Biggest Issues from Feedback	Needs
Highway/Truck	<ul style="list-style-type: none"> Major truck bottlenecks Unauthorized Truck Parking High Truck Parking Utilization in areas of concern Truck Empty Back Haul Truck travel time reliability Increasing truck crashes High growth rate of truck miles traveled and truck ton miles traveled 	<ul style="list-style-type: none"> Congestion/bottlenecks Truck Parking Regulations Labor Force 	Improved incident management; separation of trucks and other traffic via limited access freight corridors/bypasses/truck only lanes or dynamic tolling, including for tolling facilities that might practice “reverse dynamic tolling,” to incentivize use the lanes for a longer distance. Adjust weight requirements; Adjust Hours of Service; Maintenance Requirements; Zoning Updates; Land costs; Licensing Requirements; Impact Feeds (ticketing); Staging areas near distribution centers to be built into upcoming projects; Education and outreach to change the negative perception of trucking
Seaport and Waterways		<ul style="list-style-type: none"> Maintaining facilities Port hours are in conflict with consumer demand, furthering congestion 	Increased inland distribution options
Aviation and Spaceports	<ul style="list-style-type: none"> Accommodating tremendous growth in people and cargo at Tampa, Orlando and Miami airports 		Roadway improvements around the airports
Rail	<ul style="list-style-type: none"> Number of rail crashes increasing over the years 		Rail Grade Separations
Other		<ul style="list-style-type: none"> Land Use Funding 	Local changes must be communicated upward regarding land use and zoning to help everyone plan and mitigate community impacts;

Discussion



Plan Overview

Plan Components

-8 Technical Memorandums

- Policies & Strategies
- Systems & Assets
- Conditions & Performance
- Trends
 - Scenario Planning
- Needs & Issues
 - SWOT Analysis
- Prioritization & Selection
- Investment & Improvement
 - Funding
- Implementation

Unique Components

- What has been updated from the previous FMTP?
 - Prioritization methodology
 - In-depth, actionable recommendations
 - Scenario planning
 - Visual plan - easily digestible
 - Living processes

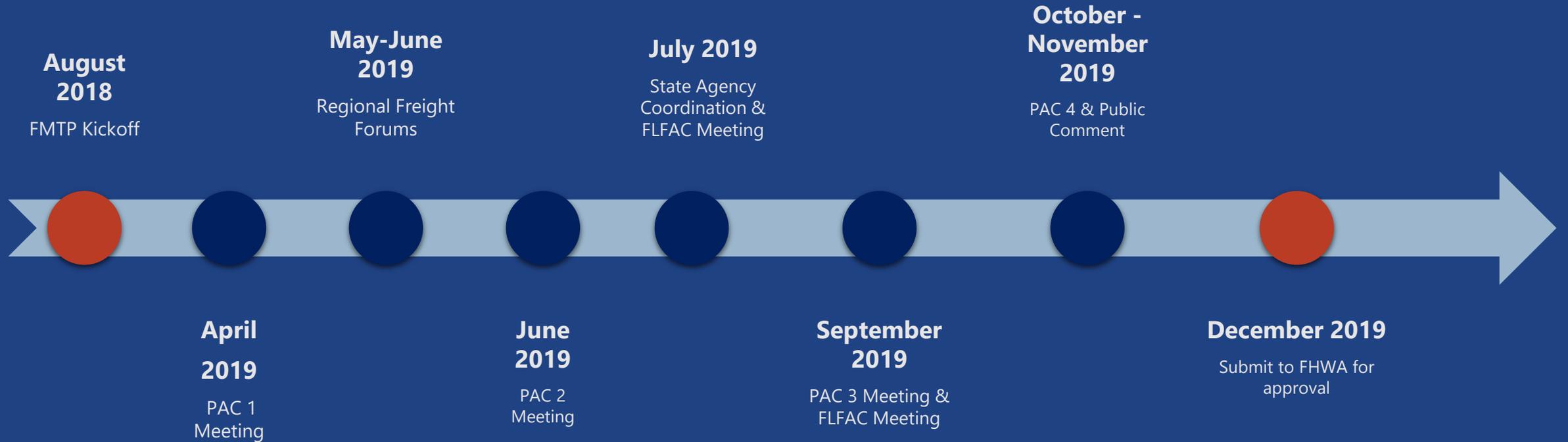
Measuring Progress

- How we will measure progress?
 - Living prioritization method
 - Live dashboard
 - Continuous planning matrices for funding & projects

Public Comments

Member Comments

Next Steps





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