



# Florida Rail Safety Initiatives

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Assistant Secretary  
Strategic Development



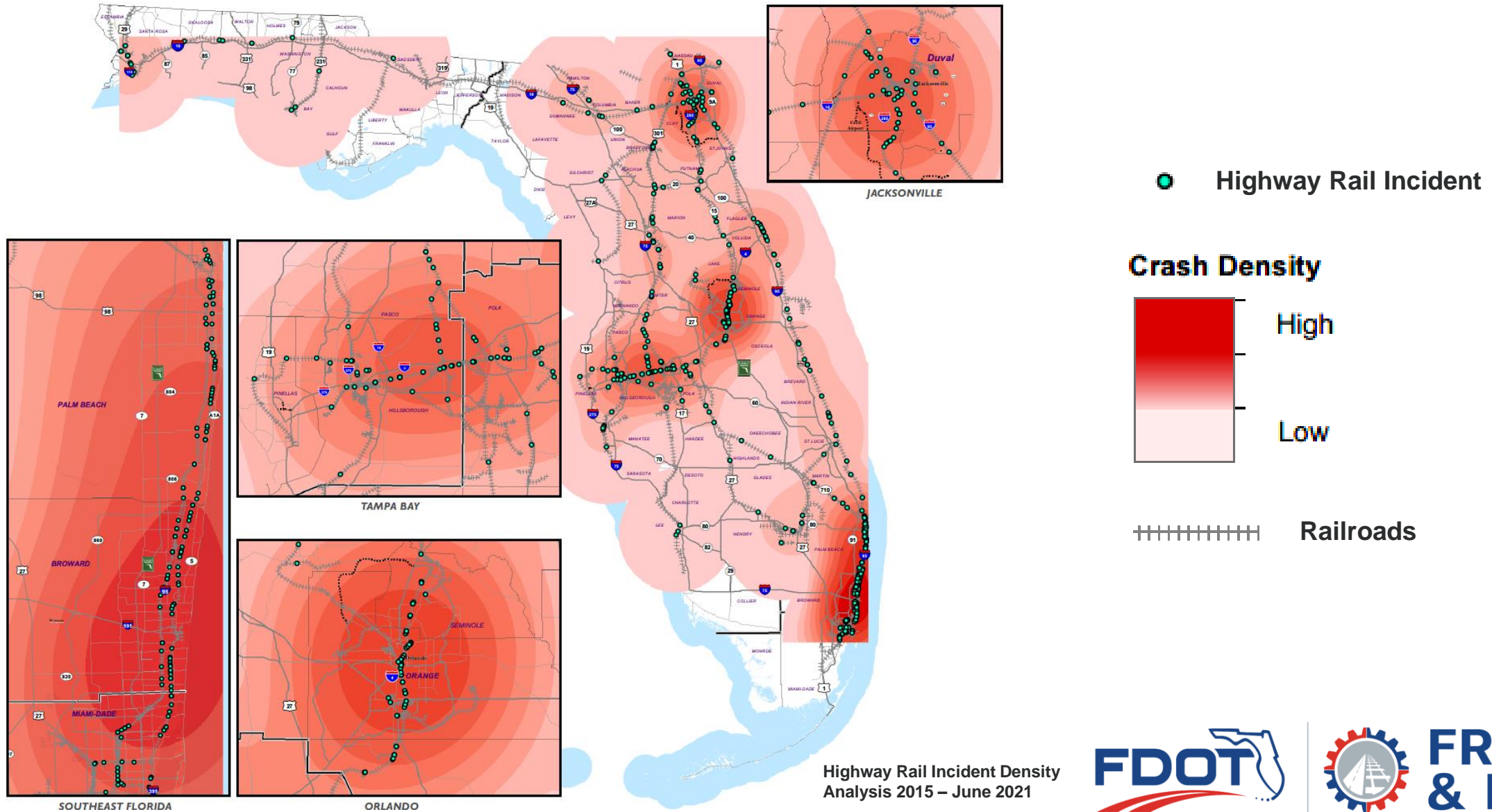
**FREIGHT  
& RAIL**

An aerial photograph of a freight train yard, showing numerous rows of colorful railcars (including blue, green, red, yellow, and white) parked on tracks. The image is partially obscured by a dark blue graphic overlay on the right side, which contains the title and list. A light gray curved shape separates the image from the text, and a red triangle is visible at the bottom right corner of the blue overlay.

# Defining the Challenge

- Analysis of Hotspots
- Identifying Partners

# Analysis of Hotspots



# Identification of Partners

Local Governments



Mental Health



Law Enforcement



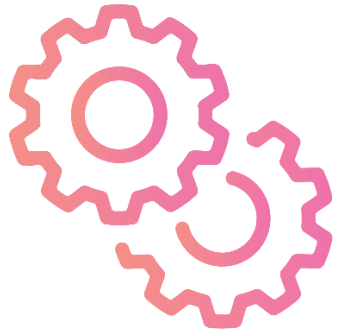
Federal Government



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# Implementation

## FOUR Es OF SAFETY



**ENGINEERING**



**ENFORCEMENT**



**EDUCATION**



**EMERGENCY RESPONSE**





# Engineering Solutions

- Section 130 crossing improvements
- Grade Crossing Closure Program
- Dynamic envelope installation
- Preemption signal inventory
- Higher Speed Grade Crossing Design Manual
- 2021 RAISE Grant with Indian River County and Brightline
- Collaborating SRRT anti-trespassing recommendations



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# Educational Efforts

- Operation STRIDE
- Operation Lifesaver
- Media campaigns
- CFRC Task Force
- Partnering with mental health experts
- Safety messages on DMS
- Suicide prevention signage
- FLHSMV driver test collaboration



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# Enforcement

- Rail Safety Week partnerships with local law enforcement at crossings
- Worked to expand Florida Operation Lifesaver Board of Directors to include law enforcement and Brightline



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# Way Forward

- **Defining roles and responsibilities**
- **Building a cohesive vision together**
- **FDOT and partners, building on current efforts, has developed matrix of safety strategies**

## Safety Strategies



Pedestrian Trespassing



Vehicular Trespassing



Traffic Queuing Over Grade Crossings

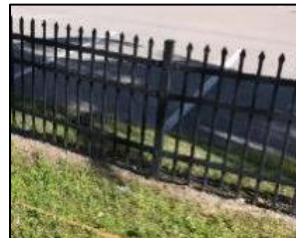


Motorist and Pedestrian Behaviors



# Mitigation of Pedestrian Trespassing

	OBJECTIVES	MITIGATION STRATEGIES
	Improving pedestrian walkability	<ul style="list-style-type: none"> <li>• New pedestrian crossing</li> <li>• Sidewalk connection</li> <li>• Pedestrian gates</li> <li>• Barrier to keep pedestrians on the sidewalk</li> </ul>
	Preventing illicit activities through better boundaries	<ul style="list-style-type: none"> <li>• FDOT Type B fencing</li> <li>• Hardened fencing</li> <li>• Vegetative barrier</li> </ul>
	Artificial Intelligence monitoring technologies	<ul style="list-style-type: none"> <li>• CCTV</li> <li>• AI for detecting trespassers</li> <li>• Speakers and lights</li> <li>• Transmission of alerts</li> </ul>
	Enhancing lighting for pedestrian visibility	<ul style="list-style-type: none"> <li>• LED streetlight in each grade crossing quadrant</li> </ul>





# Mitigation of Vehicular Trespassing

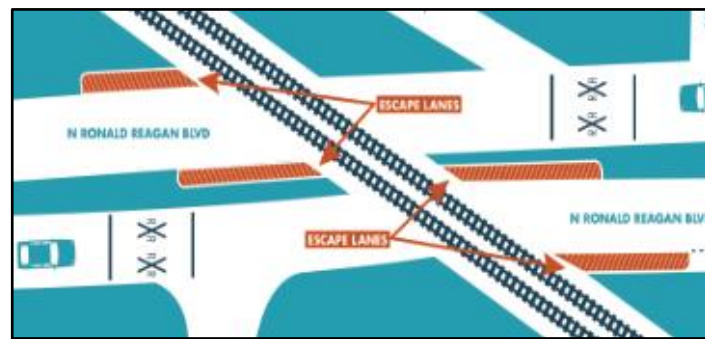
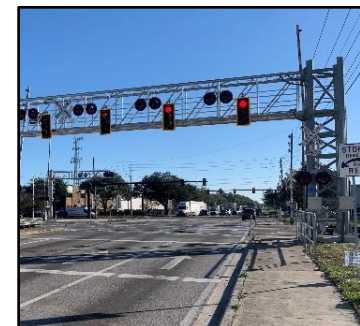
	OBJECTIVES	MITIGATION STRATEGIES
	Implement a passive warning system	<ul style="list-style-type: none"> <li>• Continuous pavement markings across the grade crossing</li> <li>• RPMs</li> <li>• Delineators</li> </ul>
	Thwart access to the railroad	<ul style="list-style-type: none"> <li>• Guardrail</li> <li>• Nine button sign</li> </ul>
	Artificial Intelligence monitoring technologies	<ul style="list-style-type: none"> <li>• CCTV</li> <li>• AI for detecting trespassers</li> <li>• Speakers and lights</li> <li>• Transmission of alerts</li> </ul>
	HSR Grade Crossing Design Standards	<ul style="list-style-type: none"> <li>• FDOT At-Grade Railroad Crossings and Corridors for (80-110 mph) Design Criteria and Standards Manual addressing the planning, design, construction, maintenance and operational characteristics associated with highway–rail grade crossings located in Florida</li> </ul>






# Traffic Queued Over Grade Crossings

	OBJECTIVES	MITIGATION STRATEGIES
	Move queued vehicles through downstream traffic signals	<ul style="list-style-type: none"> <li>• Continue to conduct preemption studies, install preemption per Florida Administrative Code 14-57.013(5)</li> </ul>
	Hold traffic upstream of a grade crossing	<ul style="list-style-type: none"> <li>• Pre-signals</li> <li>• Queue cutter signals</li> </ul>
	Warn motorists to not block grade crossings	<ul style="list-style-type: none"> <li>• Sensor-activated LED R8-08 "Do Not Stop On Tracks" signage</li> </ul>
	Allow motorists to escape if stopped by queuing	<ul style="list-style-type: none"> <li>• Escape lanes</li> </ul>
	Restrict downstream vehicle movements on minor roadways with short clear storage distance	<ul style="list-style-type: none"> <li>• No trucks designation</li> <li>• Permit only right turns at downstream intersection</li> <li>• Merge/acceleration lane</li> <li>• Provide stop signs for all intersection approaches except from the grade crossing</li> </ul>





# Motorist and Pedestrian Behavior

	OBJECTIVES	MITIGATION STRATEGIES
	Bolster public outreach and education programs	<ul style="list-style-type: none"> <li>• Grade crossing safety outreach</li> <li>• Trespass prevention outreach</li> <li>• Suicide prevention training</li> </ul>

**BE  
RAIL  
SMART** 



An aerial photograph of a large freight yard filled with numerous colorful train cars, including boxcars and tank cars, arranged in neat rows. The colors range from bright red and yellow to various shades of blue and green. The yard is set against a dark background, possibly a night or dusk setting. The image is partially obscured by a blue and red graphic overlay on the right side.

# Closing

- What are the next steps?
- How do we effectively implement with a diverse group?
- Any other challenges?
- Who else should be included in the effort?



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