Broward Quiet Zone Workshop

Wednesday, August 17, 2022

Broward MPO
Metropolitan Planning Organization

browardmpo.org

Broward FEC Quiet Zone Workshop Agenda

- Introductions
- Why are we here?
- Background
- Current state of the FEC Quiet Zone
- Overview of FEC corridor accidents
- Broward Action Plan
- Next Steps

Creating the Quiet Zone

In 2012…

- Broward Municipalities considered creating quiet zones
  - Hire design firm
  - Pay for easement from RR
  - Pay for RR engineer to review plans
  - Hire construction firm
  - Pay fees to RR for flagging, etc
- Individual cities approached MPO for assistance
- MPO decided to act as central clearing house
- MPO funded the incremental cost to achieve a Quiet Zone. Brightline designed and constructed

What is a Quiet Zone?

- Normally, locomotive engineers must begin to sound train horns at least 15 seconds, and no more than 20 seconds, in advance of all public grade crossings. A **Quiet Zone** is governed under the Train Horn Rule (49 CFR Part 222).
- Effectively the one safety feature (train horn) is supplemented by one or more other safety features.
- Safety is equivalent, or better, and **quality of life** near train tracks increases.

Elements of a Quiet Zone

- Supplemental Safety Measures (SSM)
  - Four Quadrant Gate System
  - Gates with Medians
  - Gates with Channelization
  - One Way Street with Gate(s)
  - Close (permanently) Railroad Crossing
  - Close (temporarily) Railroad Crossing
- Connectivity is not an element
  - Does not have to connect to local ROW
  - Easier to tie ped features to existing, safe crossing

SSM: 4 Quadrant Gates

SSM: Raised Medians

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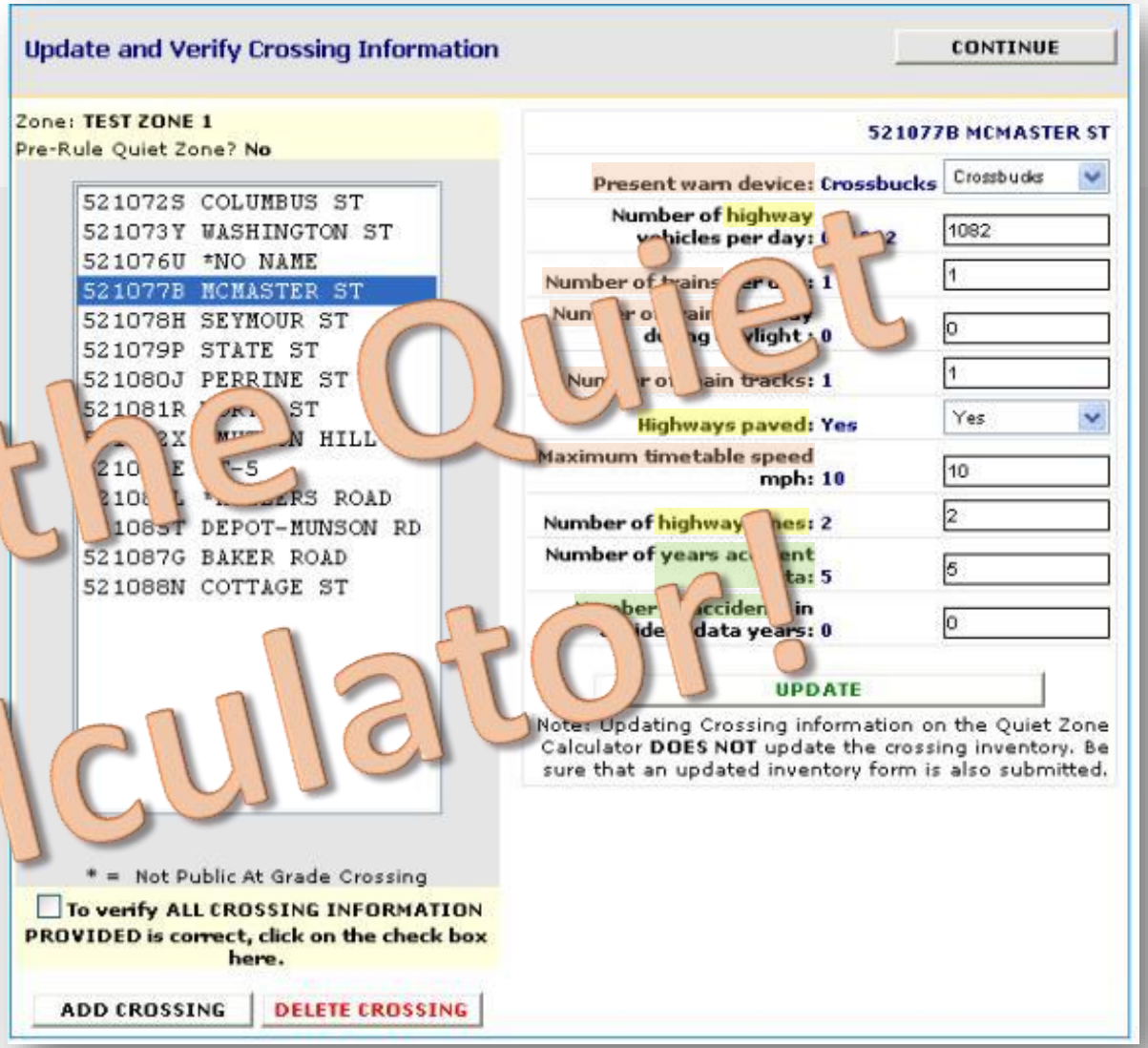
Move People | Create Jobs | Strengthen Communities

SSM: Channelization

Broward Metropolitan Planning Organization
Move People | Create Jobs | Strengthen Communities

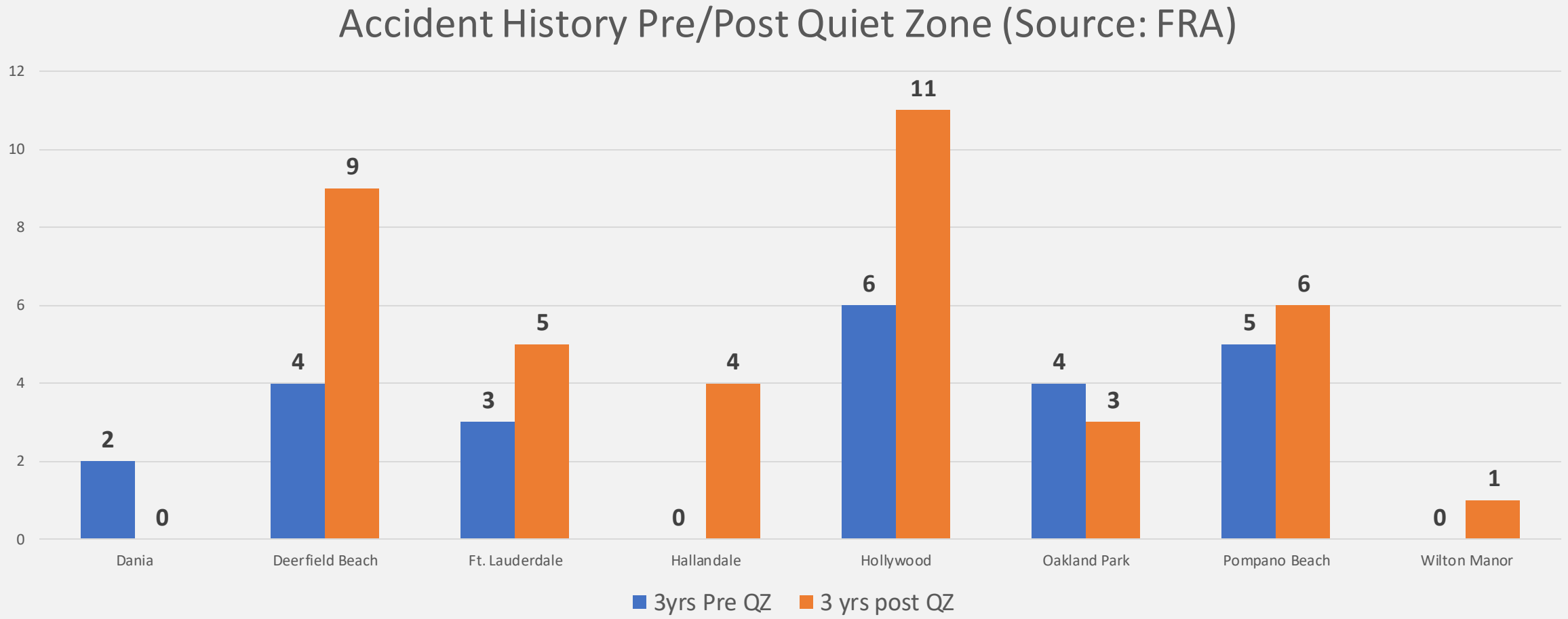
Designing the Quiet Zone

- **Use the FRA Quiet Zone Calculator**
- **Targeted High Risk Intersections**
  - Risk index greater than 100,000.
  - Applied medians where the geometry allowed.
  - Applied 4 quadrant gates.
- **Pedestrian connectivity was not a factor.**
- **Recalculated multiple times.**



We broke the Quiet Zone Calculator!

Current State of the FEC Quiet Zone

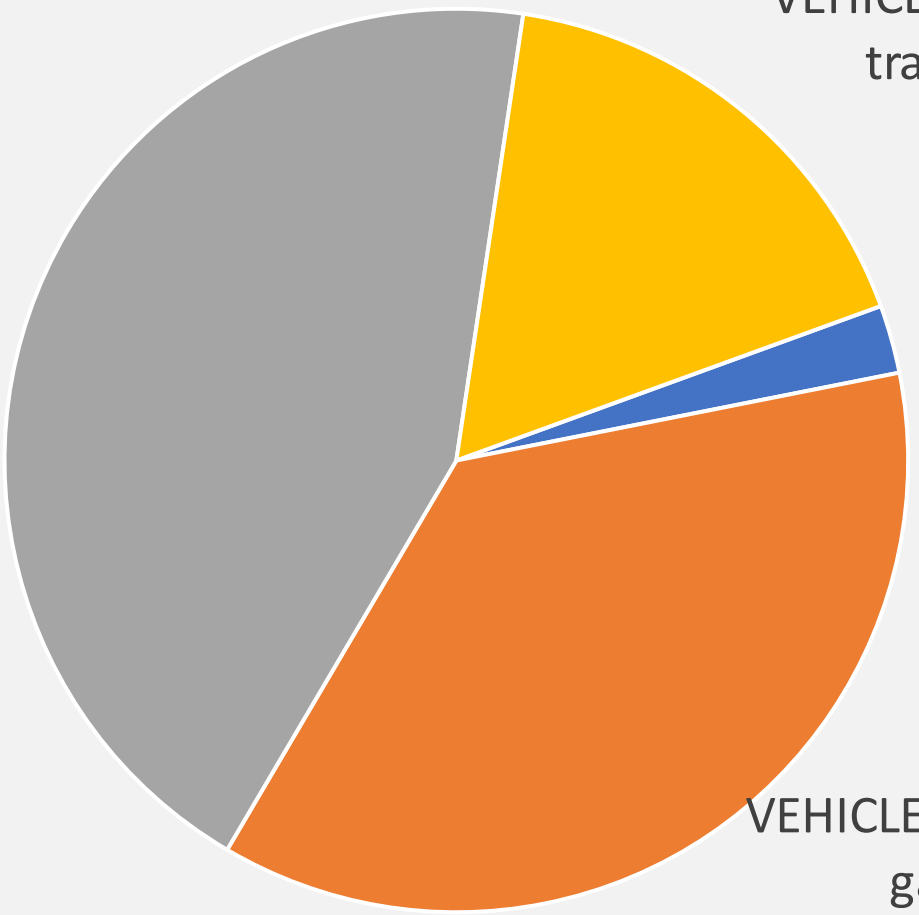


Most Dangerous X'ings (FRA) – 300% increase

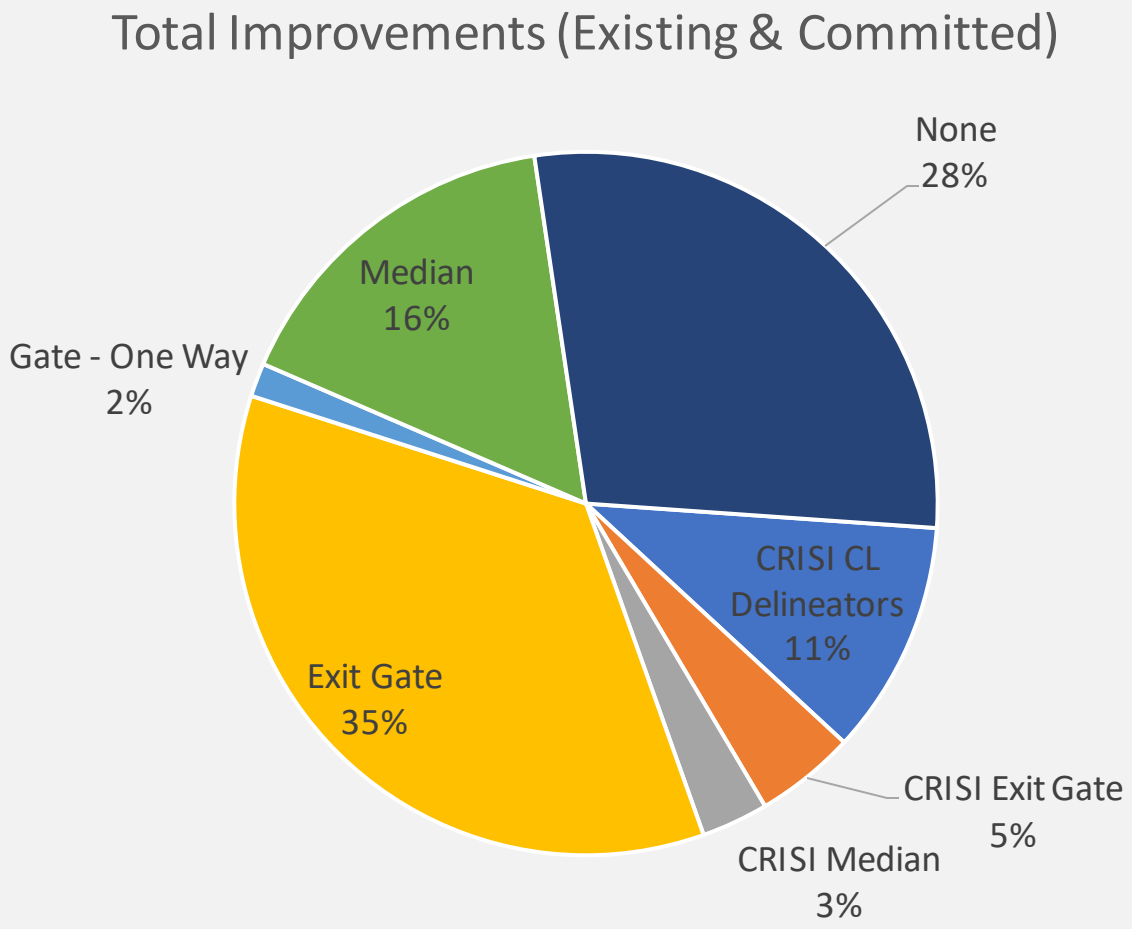
Crossing #	Street	City
272513Y	SE 4th St	Deerfield Beach
272515M	SW 15th St	Deerfield Beach
272518H	SE 33rd St	~~Deerfield Beach~~ Pompano Beach
272542J	NE 34th Ct	Oakland Park
272584V	Johnson St	Hollywood
272587R	Harrison St	Hollywood
272593U	SE 3rd St	Hallandale Beach

Current State of the FEC Quiet Zone

Broward Accidents (FEC Since Brightline)



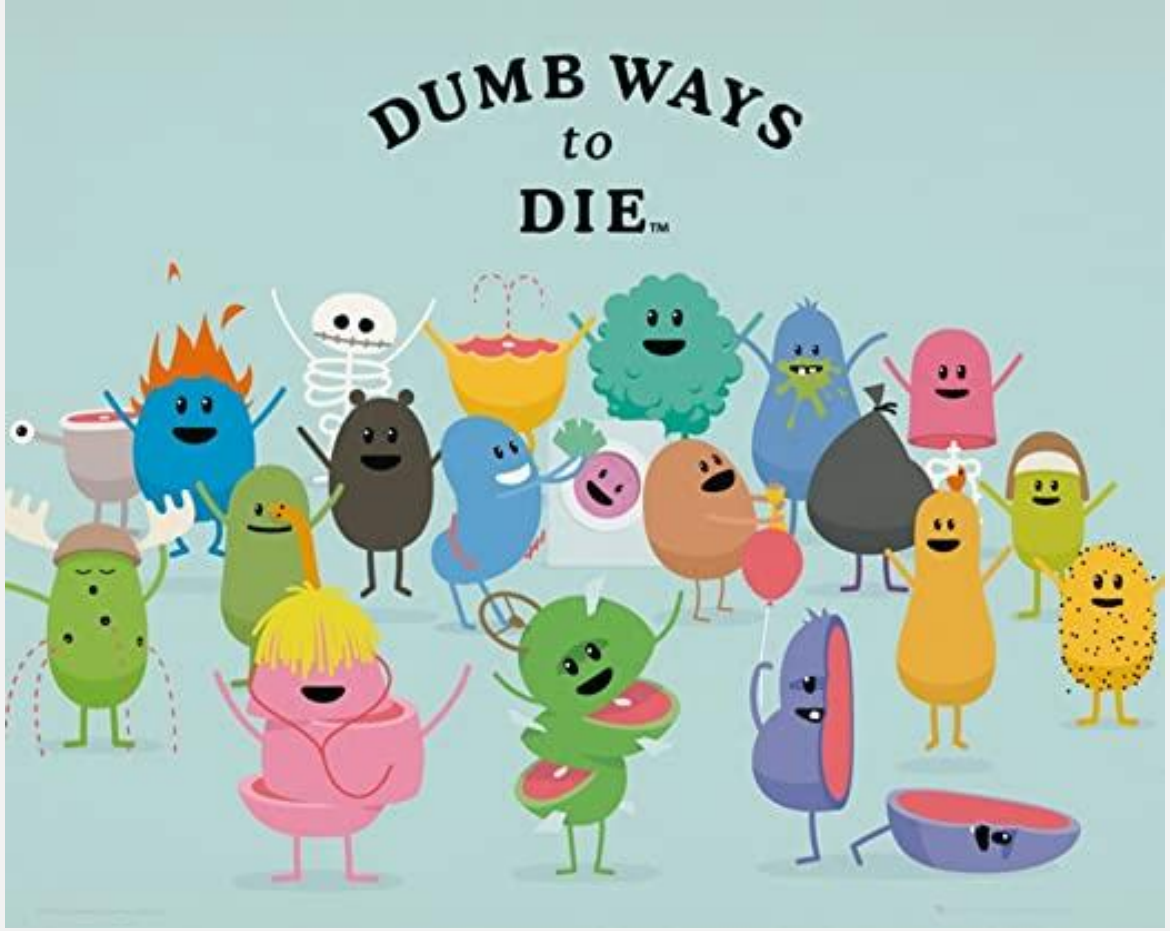
Current State of the FEC Quiet Zone



What does this mean?

- Federal Railroad Administration (FRA) has seen an increase in accidents across the nation.
- FRA is taking actions to reinstitute the train horn in Broward.
- Broward needs to provide FRA with an action plan to keep the quiet zone.

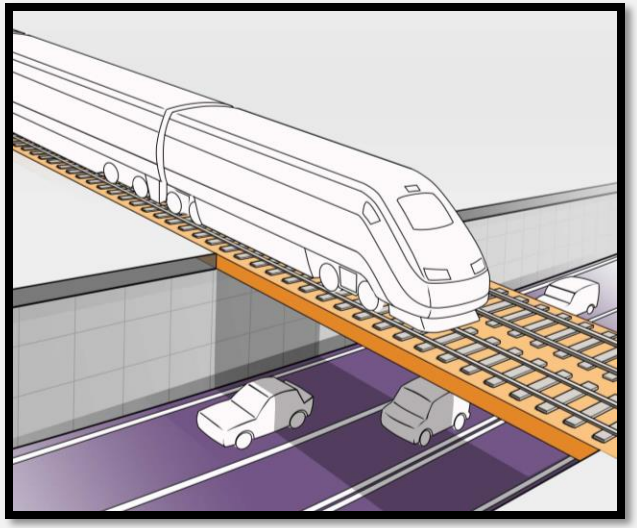
Action Plan – Part 1: Outreach & Education



- Educational campaign on the dangers of going around warning devices
- Multimedia
- Driver and pedestrian education is key
- Based on proven practices

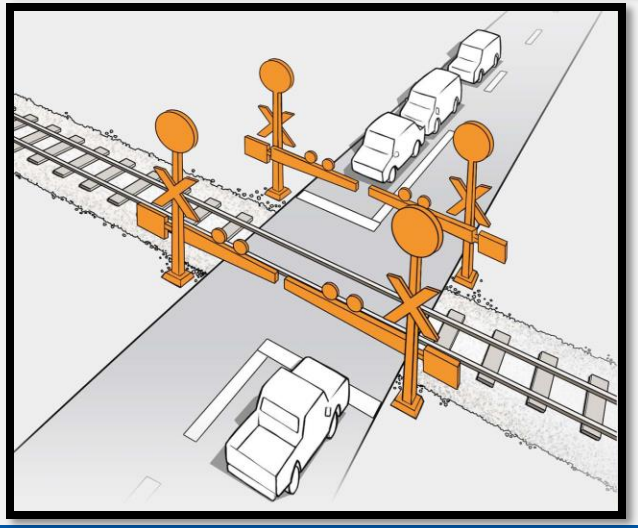
Action Plan – Part 2: Capital Improvements

Raised Medians
(At least 12”)



Grade
Separation

4 Quadrant Gates



Closed Crossing

Action Plan – Part 2: Capital Improvements

Raised Medians

- Relatively cheap
- Can be installed quickly
- Must be tall enough to deter driving over them
- Proximity to perpendicular roads may conflict with N/S access

4 Quadrant Gates

- Highest standard of safety
- Can be expensive to install
- Recurring maintenance cost

Grade Separation

- Divides vehicular traffic from train traffic
- May not be practical at every location
- Most expensive
- Longest lead time

Closing Crossings

- No crossing is the safest crossing
- Federal incentives
- Reduces network access
- Politically challenging

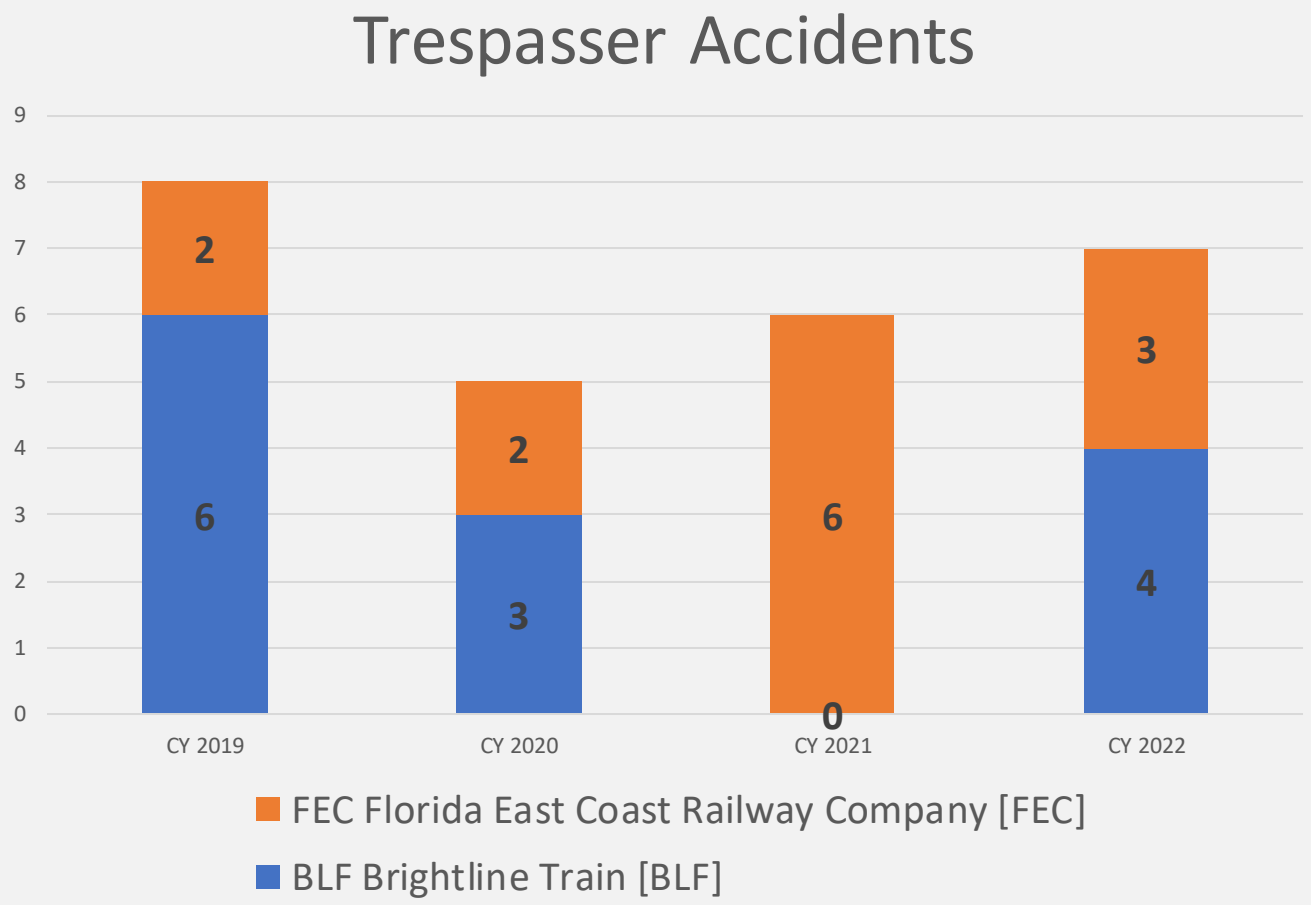
Action Plan – Part 2: Capital Improvements

Trespassers

- Crossing between grade crossings
- Illegal!

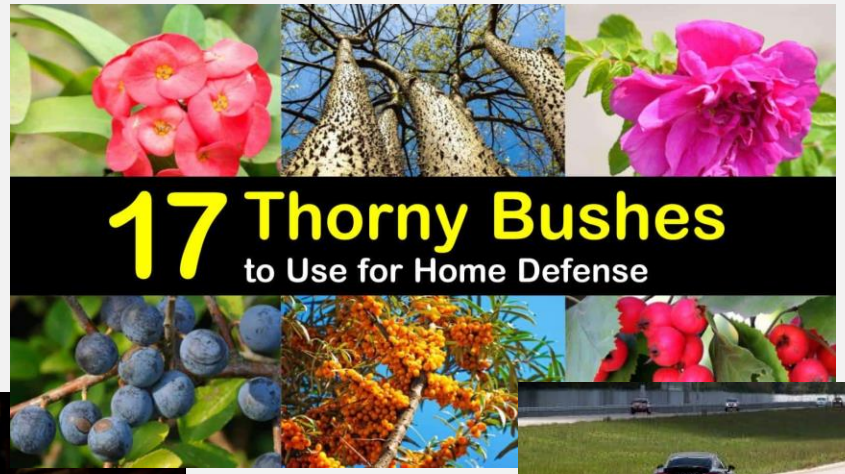
Countermeasures

- Enforcement
- Physical barriers – see next slide
- Reduce demand
  - Explore reasons for trespassing
  - Proximity of RR to bus stops
  - Origins and destinations



Action Plan – Part 2: Capital Improvements

Fencing & Landscaping…



Next Steps

After the meeting you will receive:

- This presentation
- All the rail corridor data we have
  - Crossing numbers, locations, crash history, existing equipment, committed upgrades, suggested improvements
- Form to fill out with preferred crossing improvements

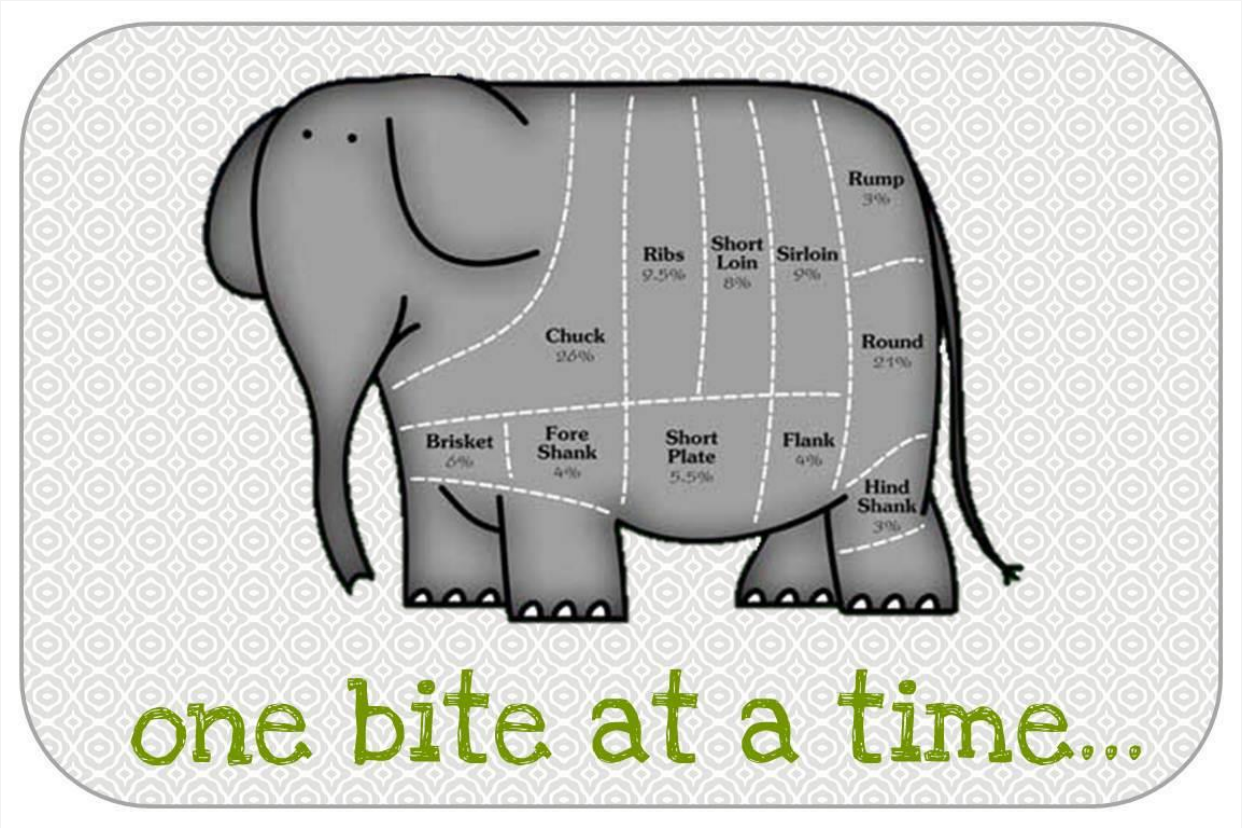
Next Steps

Determine a solution set for your city

- Must be actionable
- Vet with municipal admin/elected officials

Resources

- Broward MPO
- Brightline
- FRA



Finalize Package

September 7, 2022

- One-on-one virtual meetings to review form

Then…

- Compile package of improvements
- Send to FRA

Execute Action Plan

Railroad Crossing Elimination Grant

- To fund highway-rail grade crossing improvement projects that focus on improving the safety and mobility of people and goods
- **$573 million available**, minimum award amount of $1 million, 80/20 match
- Eligible applicants: MPOs and other public/government entities
- Eligible uses: Grade separation or closure
  - Improvement or installation of protective devices, signals, signs, or other measures to improve safety are eligible uses, provided that such activities are related to a separation, or relocation project.
- Maximum 25-page project narrative
- **Deadline October 4th, 2022**

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THANK YOU