

### **Houston Safe Railroad Corridors**

2025

Jack C. Hanagriff, Managing Consultant Houston Smart City Program Office of Innovation & Performance

## Texas Leads the Nation in Grade Crossing Collisions

Texas Top 5 – Most Likely for a Crash

Ranking	Location	City
1	CR 1250	Midland
2	South Cravens Road	Missouri City
3.	Scott Street	Houston
4	CR 1160	Midland
5.	Wright Avenue	Jersey Village

Houston Top 5 – Most Likely for a Crash

Ranking	Location
1	Scott Street
2	Hillcroft Avenue
3.	Sheldon Road
4	Market Street
5.	Sherwin Street



\*Federal Railroad Crash Prediction Data Base

#### **Houston Leads the Nation in Stopped Train Events**



- Texas leads the nation in stopped train events and Houston represents the biggest share of complaints in Texas (over 70%)
  - Houston has more than 3X more complaints than the next highest State (Illinois)
  - Nearly 8X the next highest city (Wichita, KA)
- HFD averages over 100 blocked crossing reports a month in 2025

Blocked Crossings Reported by HFD Jan-Jun 2025

<b>Event Type</b>	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
Stopped Train	66	54	73	86	62	54
Slow Train	35	30	54	51	47	36
Other	0	2	0	5	4	4
<b>Total Events</b>	101	86	127	142	113	94

Source: HFD Calls for Service

#### FRA Blocked Crossings by City & State Month of July 2025

City/State	Events
TX	748
Houston	530
Other TX Cities	218
IL	160
KS	141
IA	132
ОН	102
IN	76
VA	59
OK	59
OR	57
AZ	57
MI	55

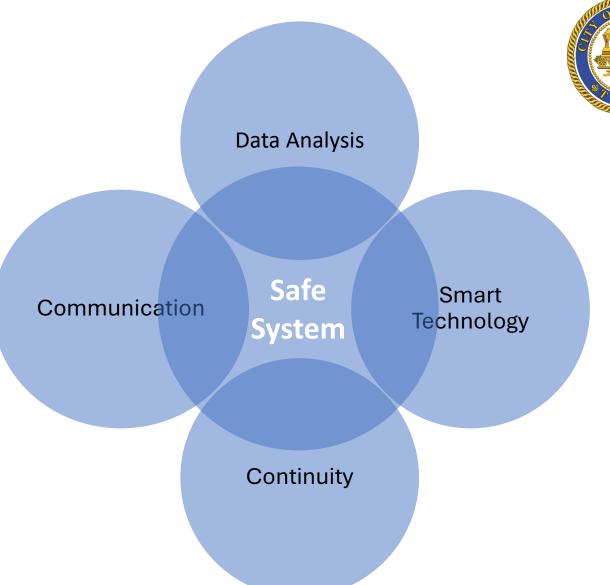
City	events
Houston	530
Wichita	69
Ottumwa	44
Norfolk	39
Pendleton	35
Salt lake city	31
Chicago	21
Fort worth	19
Savannah	18
Ferndale	18

Source: FRA Blocked Crossing Data



### Public Safety Strategy

Use a safe system methodology to conduct discovery and data collection on needs, events, concerns related to unsafe behavior and mobility impacts along Houston Freight Rail Corridors



## Communication & Collaboration

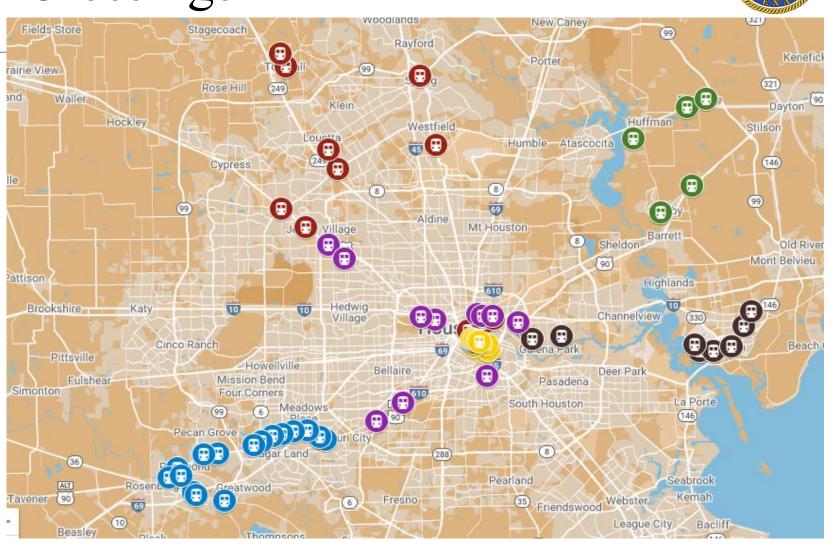
- Rail Corridor Collaborative Houston Emergency Services, HPW, and the four local railroads
- Rail Safety Focus Group Senator Alvarado Initiative
- Rail Safety Task Force East Houston Communities
- Houston Area Railroad Transformation under the GCRD

Short Term	Mid Term	Long Term
Crossing Prioritization List	Monitoring/Alerting Technology	Infrastructure Improvements
School Proximity List	Pedestrian Access	Legislation
Railroad Operating Practices	Funding	
Communication		
Signage (Wayfinding)		
Public Awareness Campaign		
Crossing Guards		



## Regional Critical Crossings

- Delay First Responders
- Delay Vehicle, Pedestrian, & Bicycle
- Affect Essential Services
  - ✓ 107 –Crossings Regionally
  - ✓ 69 Crossings in Houston
  - ✓ Focus on Houston top 35

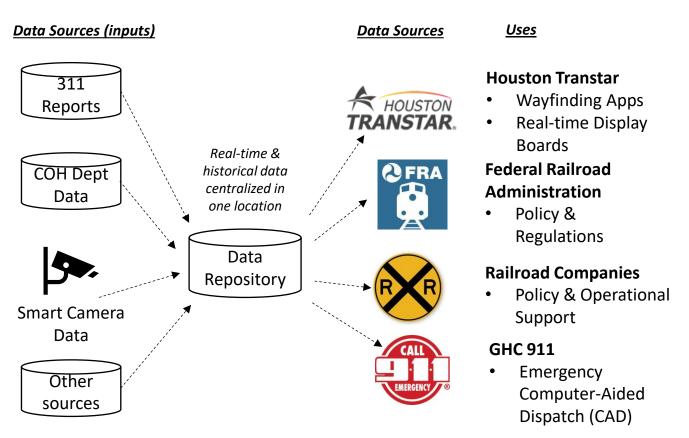




#### Create a Method to Centralize Blocked Crossing Data

*Improved data collection enables better outcomes* 

#### **Data Flow (Future-State):**





If you encounter a blocked train crossing:

- Call 311 the City will document the crossing violation and provide a link to FRA's web portal
- Go online and report the issue via the FRA Blocked Crossing Portal www.fra.dot.gov/blockedcrossings

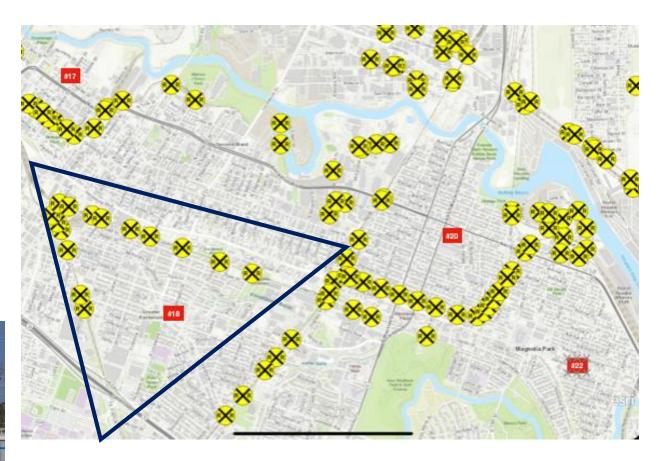
# Test Technology to Collect "good data"



- Deploy Crossing Sensors and Cameras
- Give Access to HFD
- Connect to Transtar for Public Consumption
  - ✓ East End Train Triangle
  - ✓ Fifth Ward Railroad Rectangle
  - ✓ South Park Junction

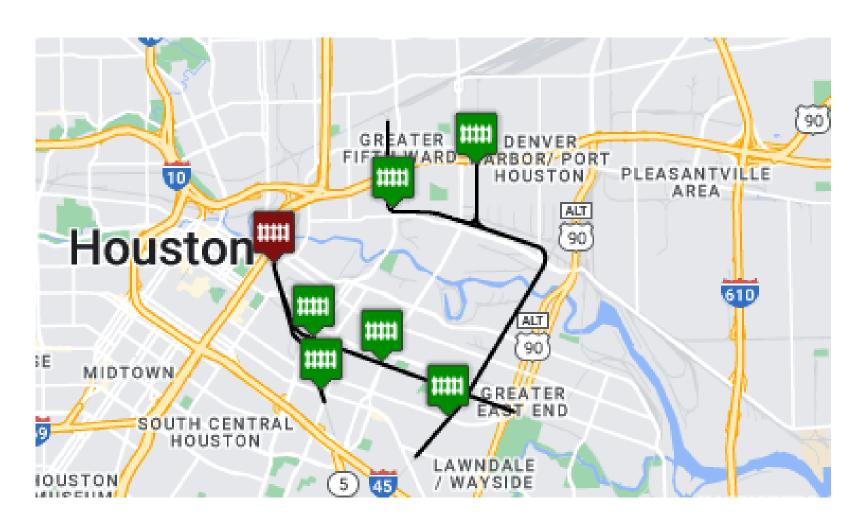




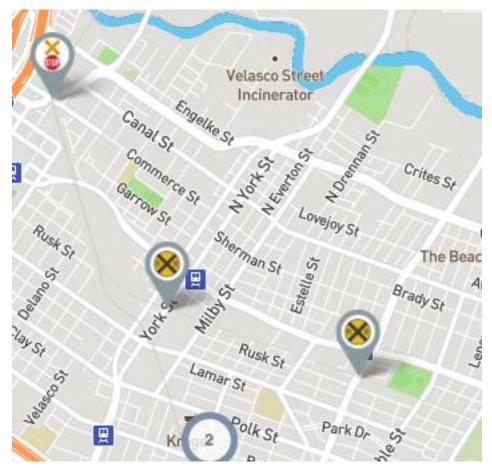


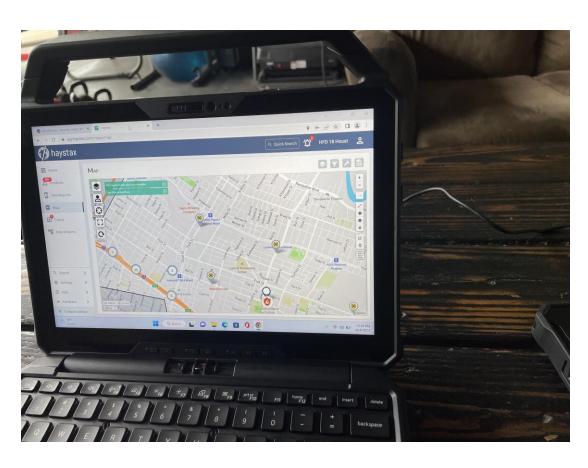


# **Crossing Sensor Detects**



# Map it and Display to HFD Vehicles





\*open API to share data to mapping services or messaging boards

## Fire Station Sees All





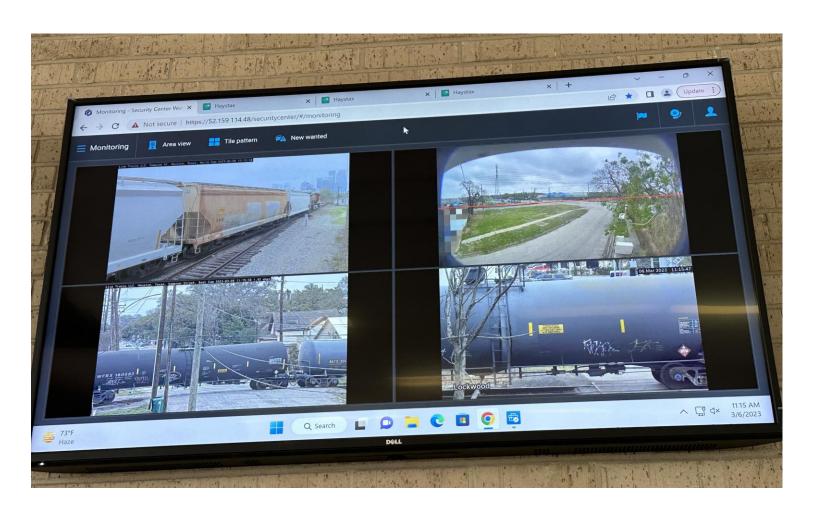




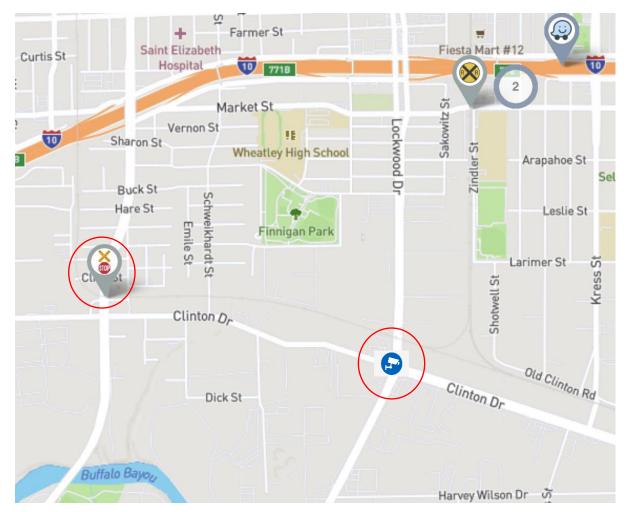








## Deliverables

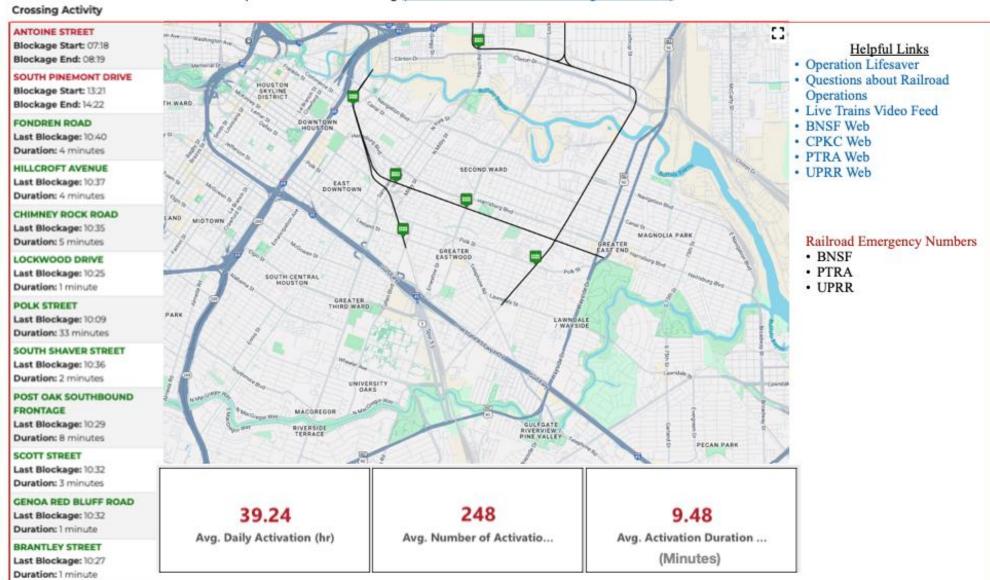




\*Detection coupled with visual validation

#### **Houston Train Watch**

Report a Blocked Crossing (Link To FRA Blocked Crossing Dashboard)



# **Expand the Program**

### City of Houston Safe Streets Post Crash Care Demonstration

- \$3.4 Million in Grant Funds over a Four-Year Period
- Support Public Safety Efforts & Post Crash Care
- Improve Emergency Routing
- Reduce response time
- Assist motorist mobility and reduce unsafe behaviors
- Reduce crashes by identifying traffic anomalies



