2023 FTA JOINT STATE SAFETY OVERSIGHT AND RAIL TRANSIT AGENCY WORKSHOP

NOVEMBER 14 – 16, 2023 | ST. LOUIS, MISSOURI

Session 5

Risk-Based Inspection Panel Discussion: State Safety Oversight Agency Insights

Facilitator: Cyrell McLemore, FTA

Risk-Based Inspections – Part 1

Steve Bethel and Brian Brinkley

Arizona Department of Transportation

Sharmila Samarasinghe and Davis Rajtik

Washington Metrorail Safety Commission

2023 FTA Joint State Safety Oversight and Rail Transit Agency Workshop

RISK BASED INSPECTIONS

Arizona DOTs approach to Staffing Qualifications and Inspections

Presented by

Brian Brinkley, State Safety Oversight Program Manager II, Arizona Department of Transportation
Steven Bethel, State Safety Oversight Program Manager I, Arizona Department of Transportation

November 14, 2023

OVERVIEW AND CONTEXT

Throughout this PowerPoint, we will discuss several sections as it pertains to the topic of ADOT's approach to Staffing and RBI inspections. Within these, it will be broken down into subsections covering the following:

- **Current ADOT Staffing Experience and Organizational Structure**
- **Rail Transit Systems Overseen by ADOT**
- **Training attended and provided by ADOT**
- **Guide path towards RBI submittal**
- **How Data will shape the current/future development of RBI at ADOT**

Current ADOT SSOA Staff Experience

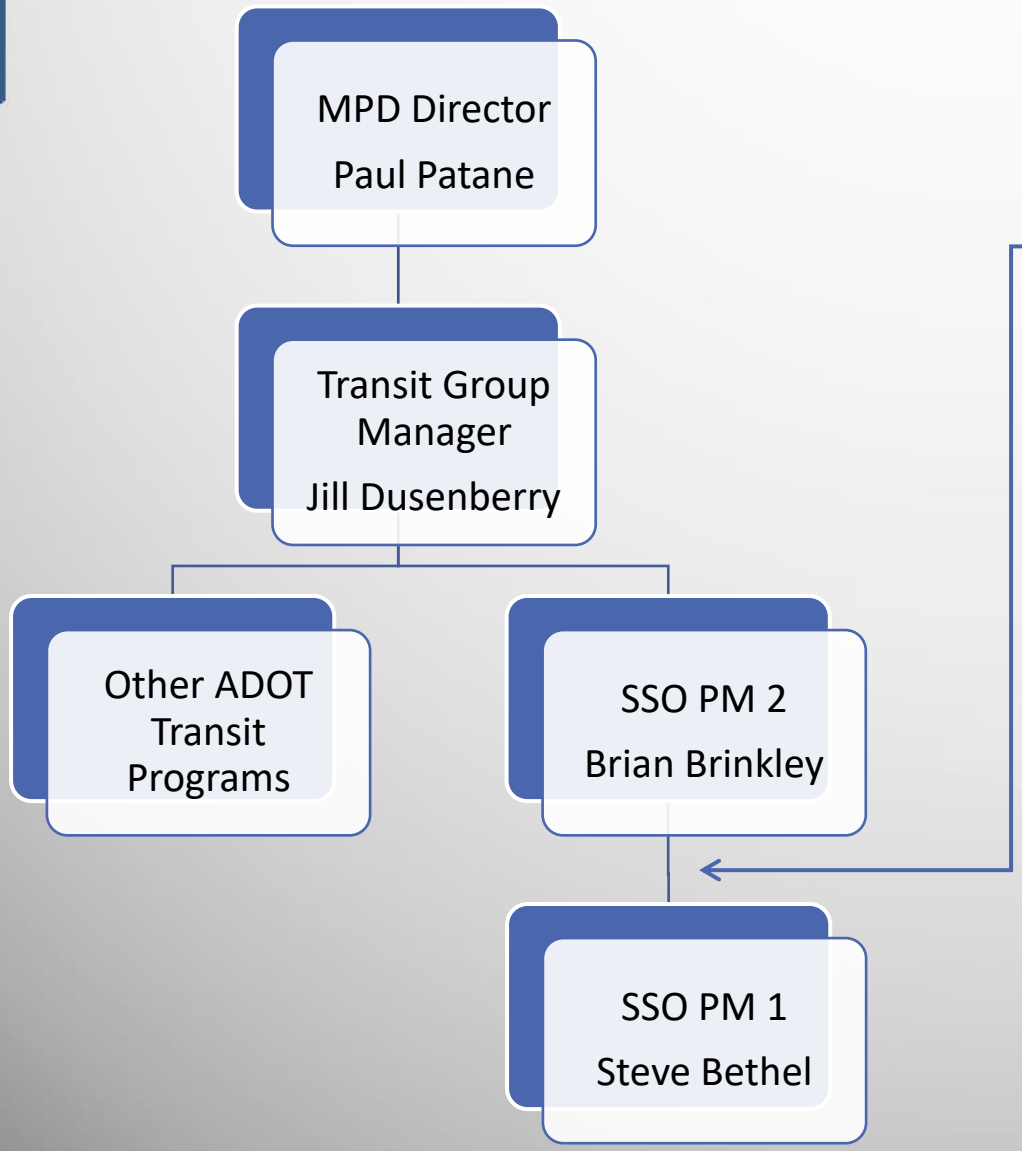
Brian Brinkley

2017 - Current	ADOT SSOA
2015 - 2017	Valley Metro - Lead Safety Specialist
2008 - 2015	Valley Metro - Lead Signal Technician/Trainer
2007 - 2008	BNSF Freight Rail - Signal Department

Steven Bethel

2022 - Current	ADOT SSOA
2017 - 2022	Valley Metro - Lead Safety Specialist
2012 - 2017	Sun Link Streetcar - Maintenance Supervisor
2008 - 2012	Valley Metro - Traction Power/Track Maintenance
2006 - 2008	Stacey and Witbeck - Track Foreman

ADOT SSOA Organizational Structure



DOVETAIL CONSULTING

Dovetail Consulting Supports ADOT In a wide range including, but not Limited to:

- Triennial Audits
- Annual Document Reviews
- Readiness Reviews for Capitol Projects
- Program Standard Support
- RBI Development
- CAP/Hazard Tracking

Rail Transit System's Overseen by ADOT

Valley Metro Light Rail (2008)

- 28 miles
- 38 stations
- 49 Kinkisharyo vehicles
- 10 Siemens Vehicles
- 15 Additional Siemens (2024)
- 3 Extensions underway

Valley Metro Tempe Streetcar (2022)

- 3 miles
- 14 stations
- 6 Brookville vehicles
- 1/3 of system Off-Wire
- Studies occurring to expand
- 2 Light rail Connection points

Tucson Sun Link Streetcar (2014)

- 3.9 miles
- 23 stations
- 8 United Streetcar vehicles
- Connects Five Unique Districts
- 100,000 people live and work within a half mile of the route

Training as required by ADOT

- Public Transportation Safety Certification Training Program (PTSCTP) Certificate

- Transit Safety and Security Program (TSSP) Certificate

Federal Transit Administration

Training Attended/Reviewed by ADOT Personnel

- RTA Track Access (every 2 years)
- RTA Signal, Communication, Traction Power and Track (as needed, or changes)
- LRV or Streetcar Manufacturing Training (as needed, or changes)
- Training provided by RTA for First Responders (Police/Fire/Etc.)
- Additional TSI Classes
  - Bus/Rail Investigation (initial-one time)
  - Audit (when changes occur)
  - Transit Industrial Safety/OSHA 30 (every 3-5 years)
  - CPTED, Transit System Safety and Security: Design Review (initial-one time)

Annual Training Provided by ADOT to RTA's

ADOT typically provides Training for RTA's annually on the Latest Program Standard. ADOT will look to host a RBI Specific Training once implemented

Program Standard Training Provided by ADOT (Cont.)

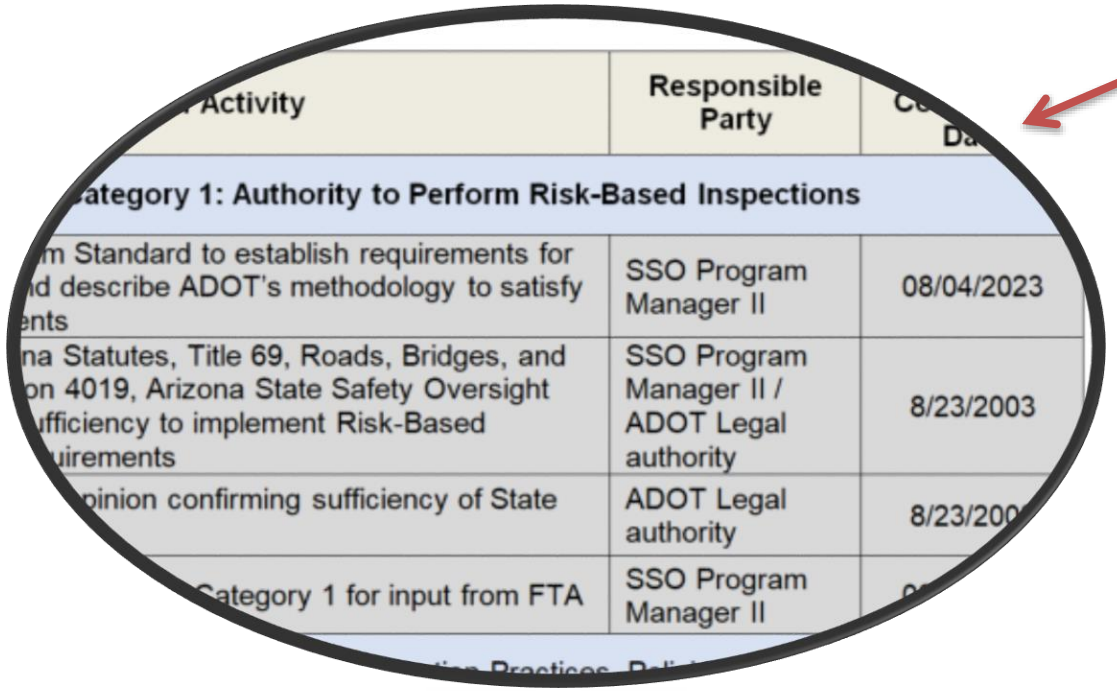
Certificates used to renew PTSCTP by RTA's

Typical Attendance (varies)

- Safety Management/Staff
- Security Management/Staff
- Leadership (COO, CSO, etc.)
- RTA Management
- Operations/Maintenance
- Internal Audit Department
- City Partners
- TSO Office
- Region 9
- PMOC's

Working towards RBI Completion

ADOT has developed a specific guide path to lead us through the process of completion.



Activity	Responsible Party	Co… Da…
ategory 1: Authority to Perform Risk-Based Inspections		
m Standard to establish requirements for d describe ADOT's methodology to satisfy nts	SSO Program Manager II	08/04/2023
na Statutes, Title 69, Roads, Bridges, and on 4019, Arizona State Safety Oversight fficiency to implement Risk-Based uirements	SSO Program Manager II / ADOT Legal authority	8/23/2003
pinion confirming sufficiency of State	ADOT Legal authority	8/23/200
Category 1 for input from FTA	SSO Program Manager II	

RBI Activity	Responsible Party	Expected Completion Date
Category 1: Authority to Perform Risk-Based Inspections		
Update Program Standard to establish requirements for Category 1 and describe ADOT's methodology to satisfy the requirements	SSO Program Manager II	08/04/2023
Review Arizona Statutes, Title 69, Roads, Bridges, and Ferries, Section 4019, Arizona State Safety Oversight Program for sufficiency to implement Risk-Based Inspections requirements	SSO Program Manager II / ADOT Legal authority	8/23/2003
Provide letter or opinion confirming sufficiency of State legislation	ADOT Legal authority	8/23/2003
Preliminary submission of Category 1 for input from FTA	SSO Program Manager II	08/30/2023
Category 2: Risk-Based Inspection Practices, Policies, Procedures		
Update Program Standard to establish requirements for Category 1 and describe ADOT's methodology to satisfy the requirements	SSO Program Manager II	08/04/2023
Valley Metro Coordination Work Session #1	SSO Program Manager II	07/11/2023
Sun Link Coordination Work Session #1	SSO Program Manager II	07/12/2023
Issue Follow up RFI to Valley Metro for current inspection practices, policies, and procedures	SSO Program Manager II	08/24/2023
Issue Follow up RFI to Valley Metro for current inspection practices, policies, and procedures	SSO Program Manager II	08/25/2023
Establish supporting document with specific Risk-Based Inspection Practices, Policies, Procedures	SSO Program Manager II	February 2024
Preliminary submission of Category 2 for input from FTA	SSO Program Manager II	TBD
Category 3: Data Sources and Collection		
Update Program Standard to establish requirements for Category 1 and describe ADOT's methodology to satisfy the requirements	SSO Program Manager II	08/04/2023
Valley Metro Coordination Work Session #2	SSO Program Manager II	September 2023
Sun Link Coordination Work Session #2	SSO Program Manager II	September 2023
Issue Follow up RFI to Valley Metro for current inspection practices, policies, and procedures	SSO Program Manager II	October 2023
Issue Follow up RFI to Valley Metro for current inspection practices, policies, and procedures	SSO Program Manager II	October 2023
Establish supporting document with specific list of data sources and process for data collection and analysis	SSO Program Manager II	December 2023
Preliminary submission of Category 3 for input from FTA	SSO Program Manager II	TBD
Category 4: Inspection Prioritization		
Update Program Standard to establish requirements for Category 1 and describe ADOT's methodology to satisfy the requirements	SSO Program Manager II	08/04/2023
Establish specific process for inspection prioritization based on data sources and analysis	SSO Program Manager II	January 2024
Preliminary submission of Category 4 for input from FTA	SSO Program Manager II	TBD
Category 5: Sufficiency of Risk-Based Inspection Program		
Update Program Standard to establish requirements for Category 1 and describe ADOT's methodology to satisfy the requirements	SSO Program Manager II	08/04/2023
Update workload assessment to estimate staffing impact of risk-based inspection program including estimating scope and number of inspections	SSO Program Manager II	September 2023
Establish specific process for ensuring ongoing sufficiency of RBI Program	SSO Program Manager II	October 2023
Preliminary submission of Category 4 for input from FTA	SSO Program Manager II	TBD
Category 6: SSO Staffing Qualifications and Training		
Update Program Standard to establish requirements for Category 1 and describe ADOT's methodology to satisfy the requirements	SSO Program Manager II	08/04/2023
Establish specific requirements for ADOT representatives conducting inspections including qualifications, training, and equipment required	SSO Program Manager II	November 2023
Preliminary submission of Category 6 for input from FTA	SSO Program Manager II	TBD
Other and Overall Submission		
Prepare Draft Program Standard to include Section 14: Risk-Based Inspections	SSO Program Manager II	04/14/2023
FTA/ADOT RBI One-on-one call #1 (Category 1)	FTA / ADOT	04/17/2023
FTA/ADOT RBI One-on-one call #2 (Category 6)	FTA / ADOT	05/15/2023
Provide comments on Program Standard for review by ADOT	Valley Metro Rail Chief Safety Officer	05/15/2023
Provide comments on Program Standard for review by ADOT	Sun Link Streetcar Chief Safety Officer	05/15/2023
FTA/ADOT RBI One-on-one call #3 (Categories 2, 3, and 6)	FTA / ADOT	06/21/2023
FTA/ADOT RBI One-on-one call #4 (Categories 4 and 5)	FTA / ADOT	07/17/2023
Issue updated Program Standard including Section 14: Risk-Based Inspections	SSO Program Manager II	08/04/2023

It's All about DATA!

Asset Group #1: Vehicles
Asset Group #2: At-Grade Fixed Guideway Stations
Asset Group #3: Combined Administration and Maintenance Facility
Asset Group #4: Traction Power Substations
Asset Group #5: Signal Systems
Asset Group #6: Switches
Asset Group #7: Interlocking's
Asset Group #8: Overhead Catenary
Asset Group #9: Track
Asset Group #10: Bridge / Aerial Structures
Asset Group #11: Other

In each Asset Group ADOT is evaluating Data sources such as (but not limited to):

- Events
- Daily logs
- SCADA Logs
- Inspection Logs
- SOP's
- Schedules
- Checklists
- Inspection Frequency
- Manuals
- Other etc.

Future RBI Considerations

As the RBI Process is implemented, ADOT will use the DATA to look at how it could affect Future Considerations such as:

- ❑ Evaluate/Explore the need for Additional Staff or Contract Support
- ❑ The frequency on which Inspections are scheduled
- ❑ The need to add additional areas of inspection
- ❑ Changes to the Program Standard
- ❑ The need for Additional training
- ❑ Changes from a RTA to warrant change
- ❑ Any other areas that can be improved

Contact Information

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JOINT SSO AND RTA WORKSHOP 2023

presented by the Washington Metrorail Safety Commission

PRESENTATION OVERVIEW

Part 1

WMATA (RTA)

WMSC (SSO)

RBI IN CONTEXT

Part 2

DATA SOURCES

DATA COLLECTION

Part 3

INSPECTION PRIORITIZATION

WHERE ARE WE?

Part 1

WMATA (RTA)

WMSC (SSO)

RBI IN CONTEXT

Part 2

DATA SOURCES

DATA COLLECTION

Part 3

INSPECTION PRIORITIZATION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY (WMATA)

- 1967 Created by Interstate Compact
- 1976 Began rail service
- 12,000 employees
- Operations in D.C., MD, VA
- 98 stations
- 128 miles of track
- 10 rail yards
- 1,290 railcars
- 40.7 million rail trips (FY 2022)
- Regional bus service (MetroBus)
- Paratransit service

WASHINGTON METRORAIL SAFETY COMMISSION (WMSC)

- 2017 Created by Interstate Compact
- 2019 Certified by the Federal Transit Administration
- 25 full-time employees (plus contractor augmentation)

- Powers (examples):
  - May restrict, suspend, or prohibit rail service on all or part of the WMATA Rail System (Compact Section 3(a))
  - Direct prioritized spending on safety critical items (Compact Section 31(c)(2)
  - Remove a specific vehicle, infrastructure element, or hazard (Compact Section 31(c)(4))
  - Direct the suspension or disqualification of an individual from performing in a safety sensitive position (Compact Section 31(d))
  - Enter the rail system and adjacent properties

RBI IN CONTEXT

DATA **SOURCES**

RTA data.
SSO data.
Resource limitations.

DATA **COLLECTION**

Quantity versus quality.
Gathering frequency.
Resource limitations.

INSPECTION
PRIORITIZATION

Assess the risk.
Schedule activities.
Resource limitations.

TOOLKIT CATEGORIES

CATEGORY 1: AUTHORITY TO PERFORM RBI

CATEGORY 2: RBI POLICIES AND PROCEDURES

CATEGORY 3: DATA SOURCES AND COLLECTION

CATEGORY 4: INSPECTION PRIORITIZATION

CATEGORY 5: COMMENSURATE WITH NUMBER, SIZE, AND COMPLEXITY

CATEGORY 6: SSO STAFFING, QUALIFICATIONS, AND TRAINING

Federal Transit Administration

Federal Transit Administration

Risk-Based Inspection Program Toolkit

49 U.S.C. § 5329(k)

WHERE ARE WE?

Part 1

WMATA (RTA)

WMSC (SSO)

RBI IN CONTEXT

Part 2

DATA SOURCES

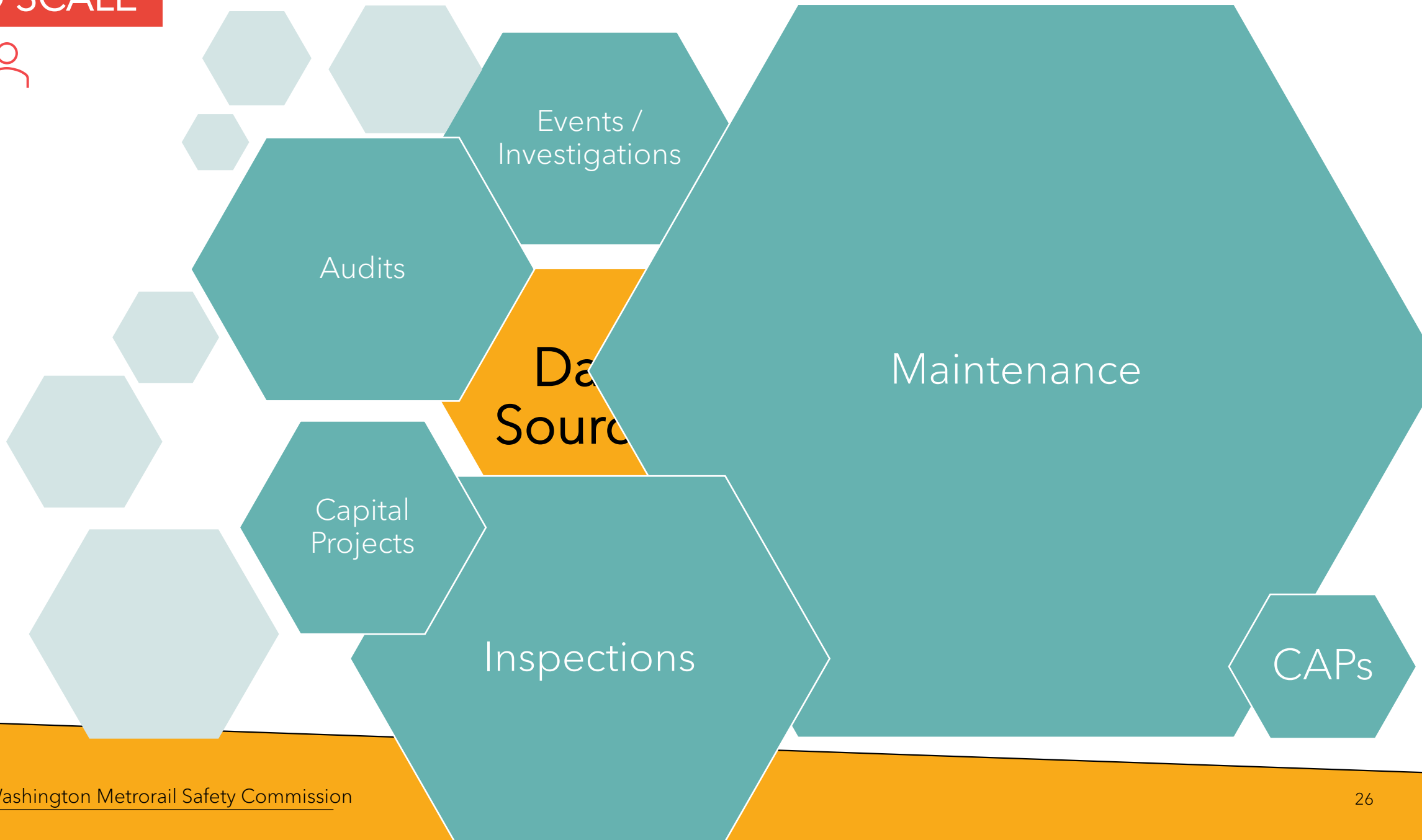
DATA COLLECTION

Part 3

INSPECTION PRIORITIZATION


Events / Investigations
Audits
Maintenance
Data Sources
Capital Projects
CAPs
Inspections

TO SCALE


Events / Investigations
Audits
Da
Sourc
Maintenance
Capital Projects
Inspections
CAPs

DATA COLLECTION

Disparate collection and systems.

SSO-ASSISTED DATA

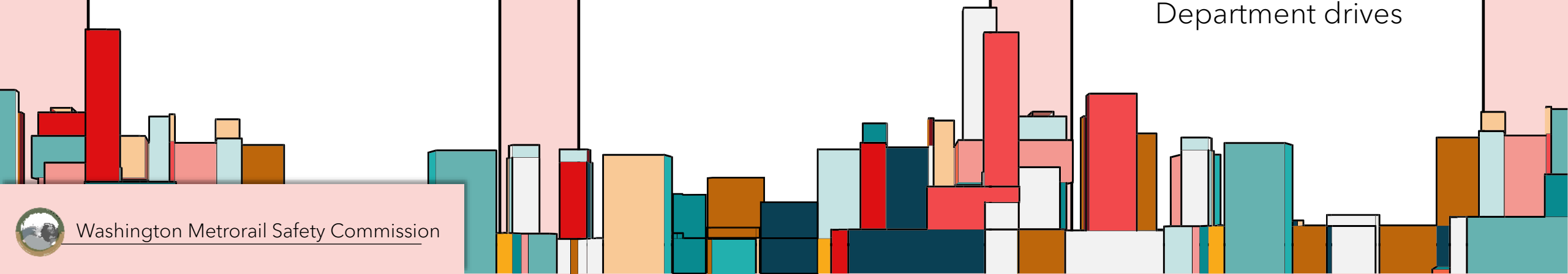
Audits
SSO-issued CAPs
Safety Event Investigations
SSO-conducted Inspections

RTA DATA

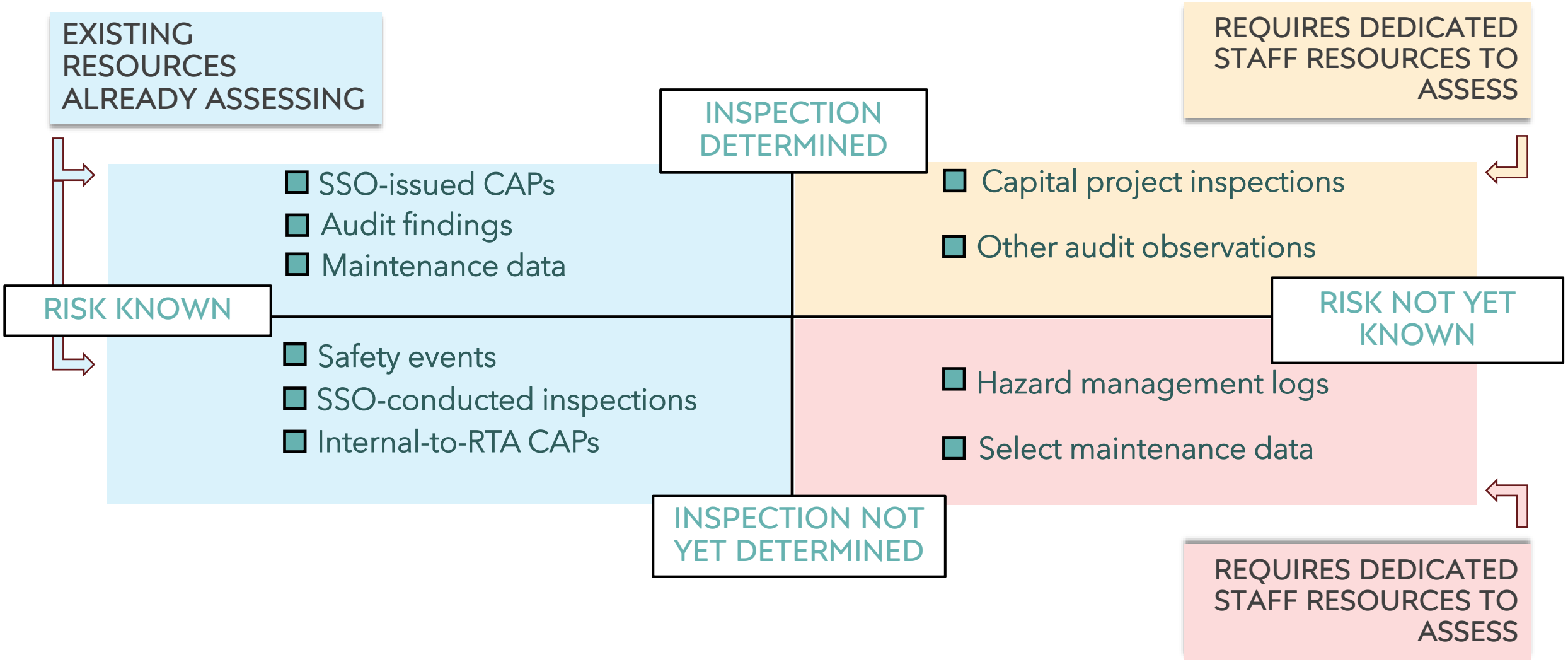
Hazard Logs
Maintenance Data
Internal-to-RTA CAPs
Capital Projects

RTA SYSTEMS

Maximo
Windchill
Documentum
AssetWise
Intranet
Department drives



DATA MANAGEMENT



KNOWN RISKS

EXISTING RESOURCES ALREADY ASSESSING

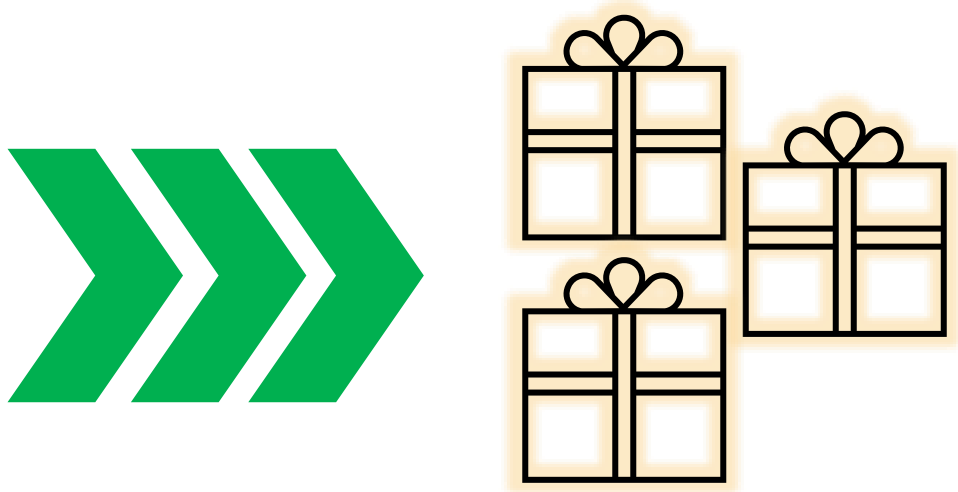
INSPEC
DETERN

- SSO-issued CAPs
- Audit findings
- Maintenance data

RISK KNOWN

- Safety events
- SSO-conducted inspections
- Internal-to-RTA CAPs

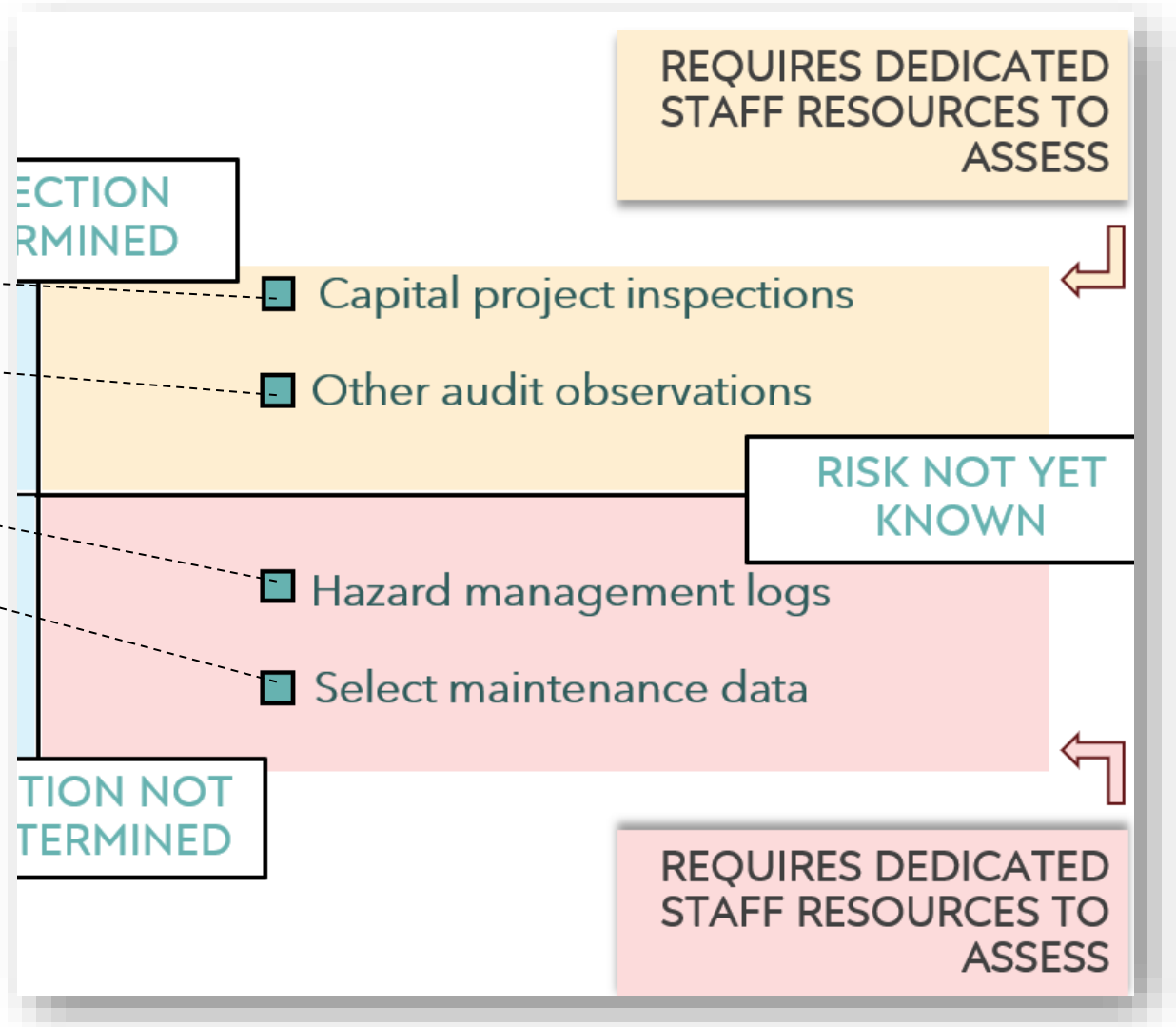
INSPECTI
YET DETE



Sending gifts to your RBI

UNKNOWN RISKS

active, centralized management



WHERE ARE WE?

Part 1

WMATA (RTA)

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RBI IN CONTEXT

Part 2

DATA SOURCES

DATA COLLECTION

Part 3

INSPECTION PRIORITIZATION

INSPECTION PRIORITIZATION

Step 1

Hazard Rating

For determining **whether to even consider** for inspection.

\+

Step 2

Rate of Reoccurrence

For determining **when** that inspection could be scheduled.

\+

Step 3

Perishability

For determining **how and how soon** you would want to conduct that inspection.

INSPECTION PRIORITIZATION

Step 1

Hazard Rating

For determining **whether to even consider** for inspection.

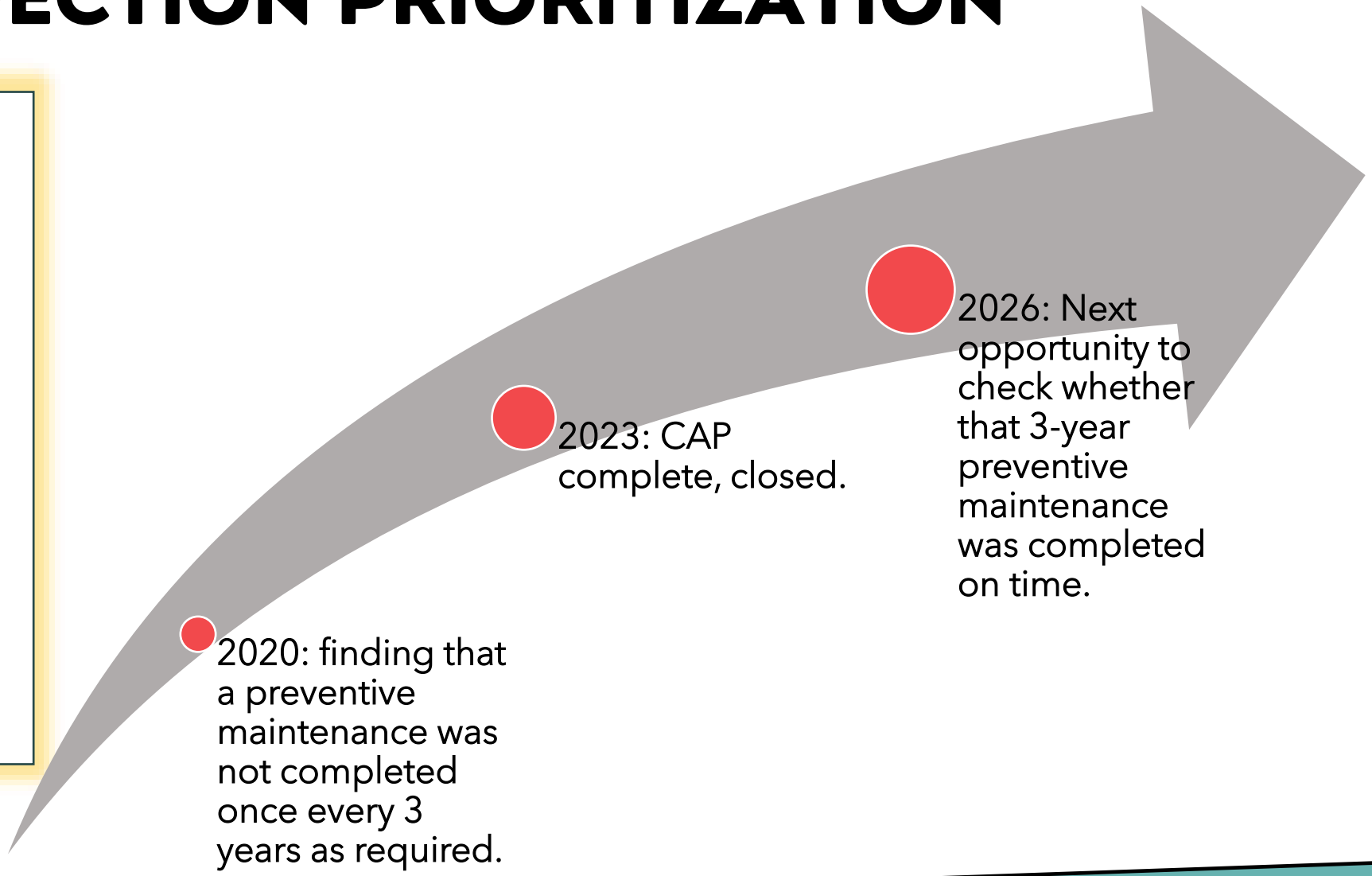
Risk Probability	Risk Severity			
	Catastrophic 1	Critical 2	Marginal 3	Negligible 4
Frequent – A	1A	2A	3A	4A
Probable – B	1B	2B	3B	4B
Occasional – C	1C	2C	3C	4C
Remote – D	1D	2D	3D	4D
Improbable – E	1E	2E	3E	4E

INSPECTION PRIORITIZATION

Step 2

Rate of Reoccurrence

For determining **when** that inspection could be scheduled.



INSPECTION PRIORITIZATION

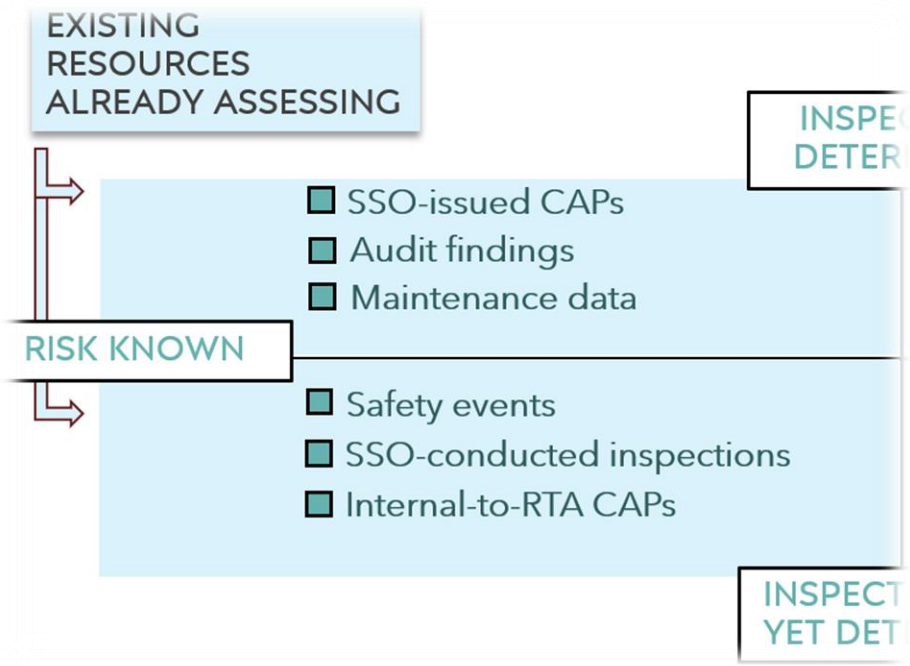
Step 3

Perishability

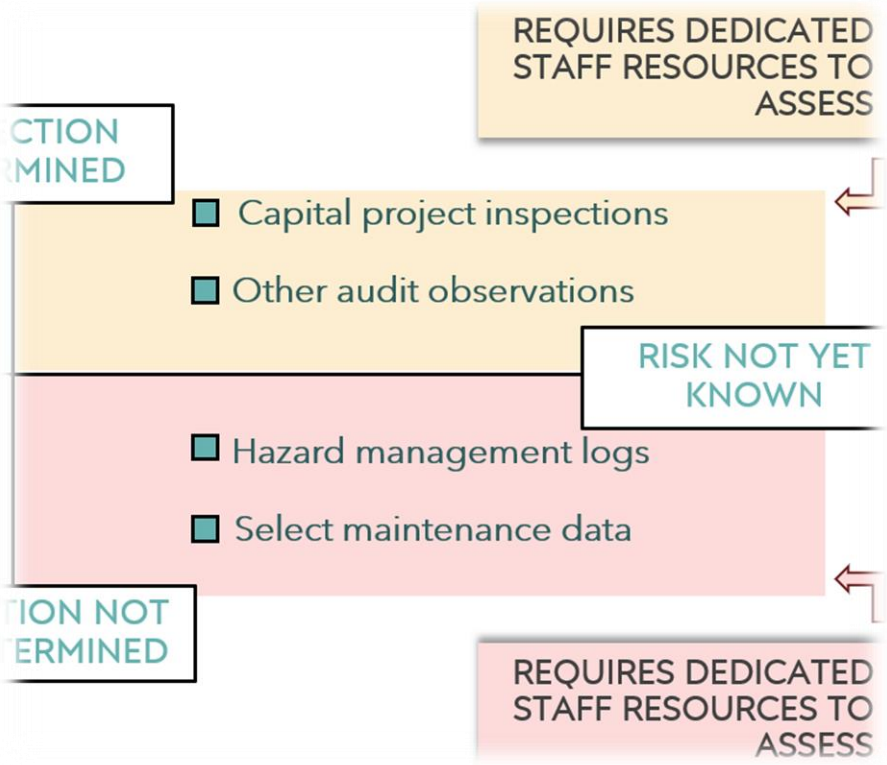
For determining **how and how soon** you would want to conduct that inspection.

- Immediacy (ongoing event)
- Evidence necessary for proper assessment
- Different evidence, different value
- Finite opportunity to verify
- Availability of resources

SCHEDULE



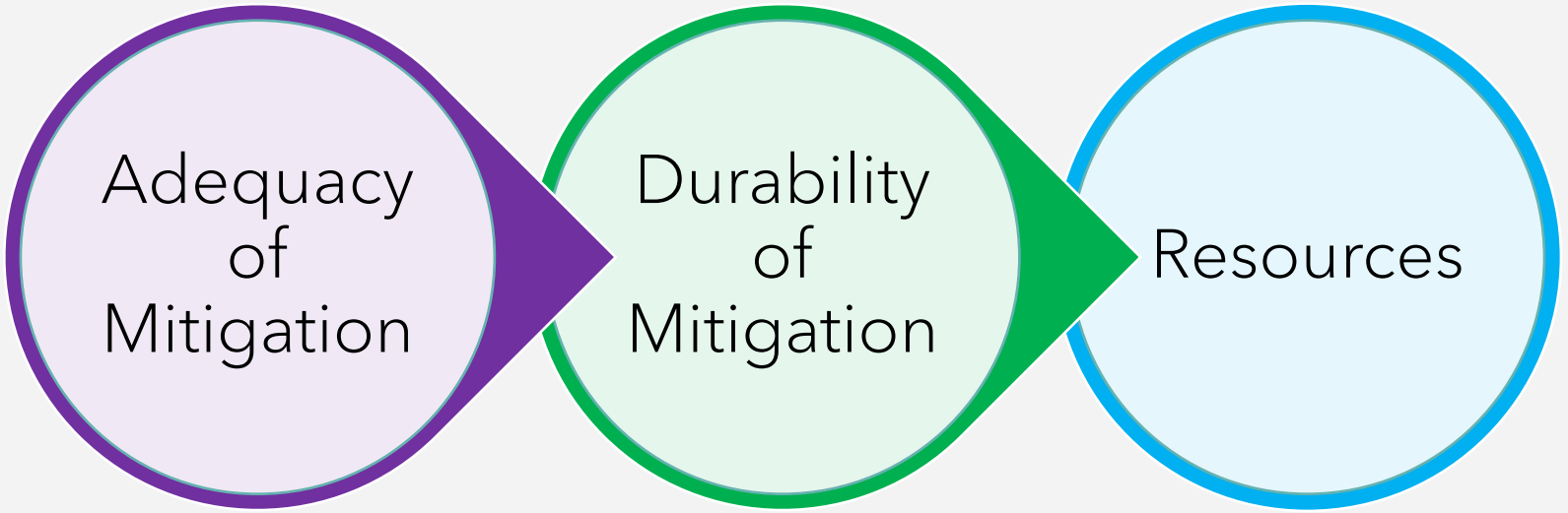
Schedule inspections for those known risks, then flex as other risks become known

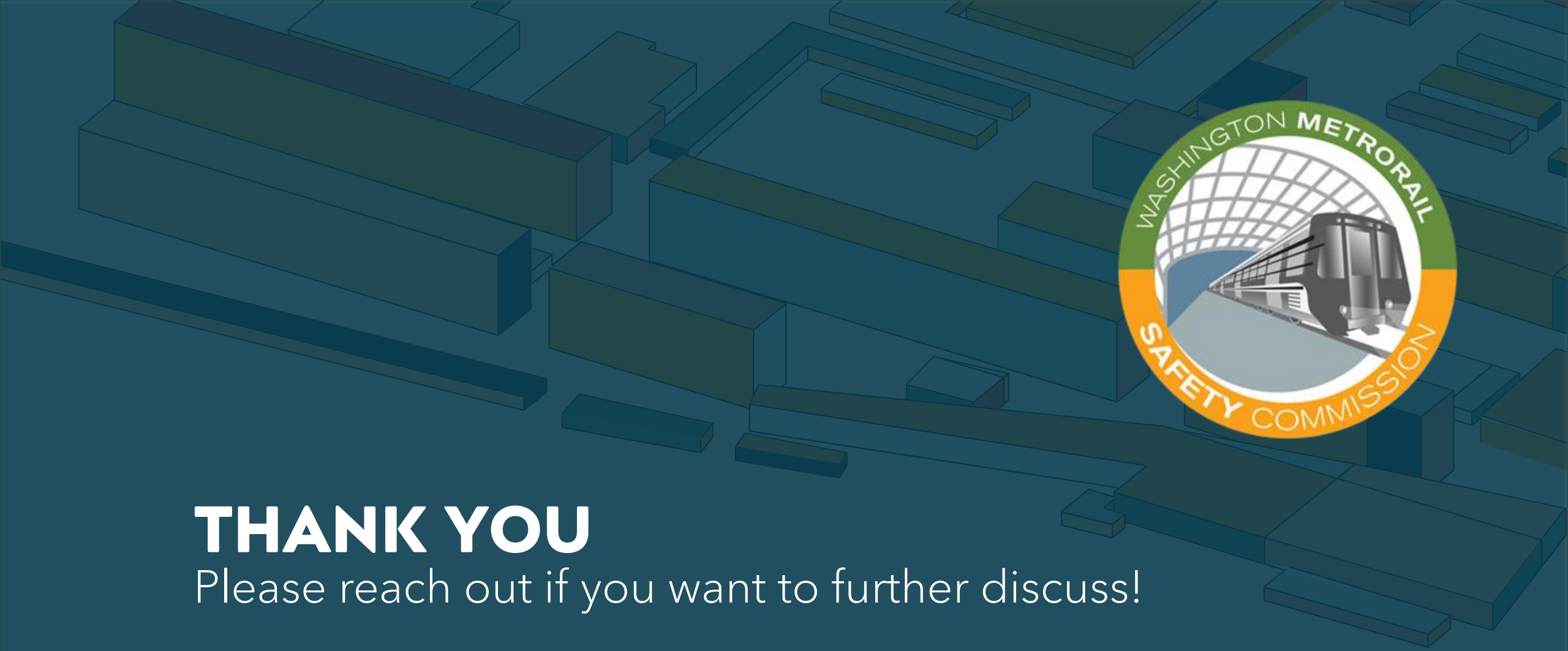


- Ready-made for RBI.
- Can plan resources far in advance.
- Analogous to preventive maintenance.

- RBI need to be determined.
- Requires some advance planning.
- Analogous to corrective maintenance.

DE-PRIORITIZING





THANK YOU

Please reach out if you want to further discuss!

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Questions?

BREAK

Workshop will reconvene at 10:30 AM *(Central Time)*

2023 FTA JOINT STATE SAFETY OVERSIGHT AND RAIL TRANSIT AGENCY WORKSHOP

NOVEMBER 14 – 16, 2023 | ST. LOUIS, MISSOURI

Session 6

Risk-Based Inspection Panel Discussion: State Safety Oversight Agency Insights

Facilitator: Cyrell McLemore, FTA

Risk-Based Inspections – Part 2

Mike Pineau

Massachusetts Department of Public Utilities

Daren Gilbert

California Public Utilities Commission

Andrew Ennis

Virginia Department of Rail and Public Transportation

Commonwealth of Massachusetts
Department of Public Utilities
Rail Transit Safety Division

Risk-Based Inspection Program Overview
2023 FTA SSOA/RTA Workshop
November 14, 2023

Risk-Based Inspection (RBI) Agenda

- About the MBTA and DPU
- RBI Program Development
- RBI Dashboard Overview
- RBI Pilot Activity
- Discussion / Q&A

Photos courtesy of MBTA

Massachusetts Bay Transportation Authority (MBTA) operates both light and heavy rail service within the Greater Boston Area in Massachusetts.

About the MBTA and DPU

The Massachusetts Bay Transportation Authority (also known as MBTA or “the T”) operates the oldest transit subway system in the country, with history dating back over 130 years.

The Massachusetts Department of Public Utilities (DPU) is one of the oldest public utilities commissions in the United States, with history dating back to the mid 1800s as the Massachusetts Board of Railroad Commissioners.

DPU’s Rail Transit Safety Division (RTSD) oversees the light and heavy rail equipment safety and operations of the MBTA as the designated SSOA for Massachusetts.

The first subway tunnel in America – under Tremont Street in Boston – opened in 1897 and is still in use today along with the first two stations, Boylston Street and Park Street.

Photos courtesy of MBTA

Park Street Station in 1897 (above) and today (below).

About the MBTA and DPU

Fast Facts: MBTA and DPU

Heavy Rail
3 Lines: Orange (1901), Blue (1904), Red (1912)
80.9 million rides in 2022

Light Rail
2 Lines: Green (1897), Mattapan Trolley (1929)
30.7 million rides in 2022

Facilities
130 Rail Stations
13 Rail Yards
Infrastructure
~137 miles of track

DPU RTSD
Team of 18: Director 2 Assistant Directors Compliance Engineering Data Analytics Legal Contractor Support

Nearly **3 quarters** of Massachusetts residents live in an area served by the MBTA.

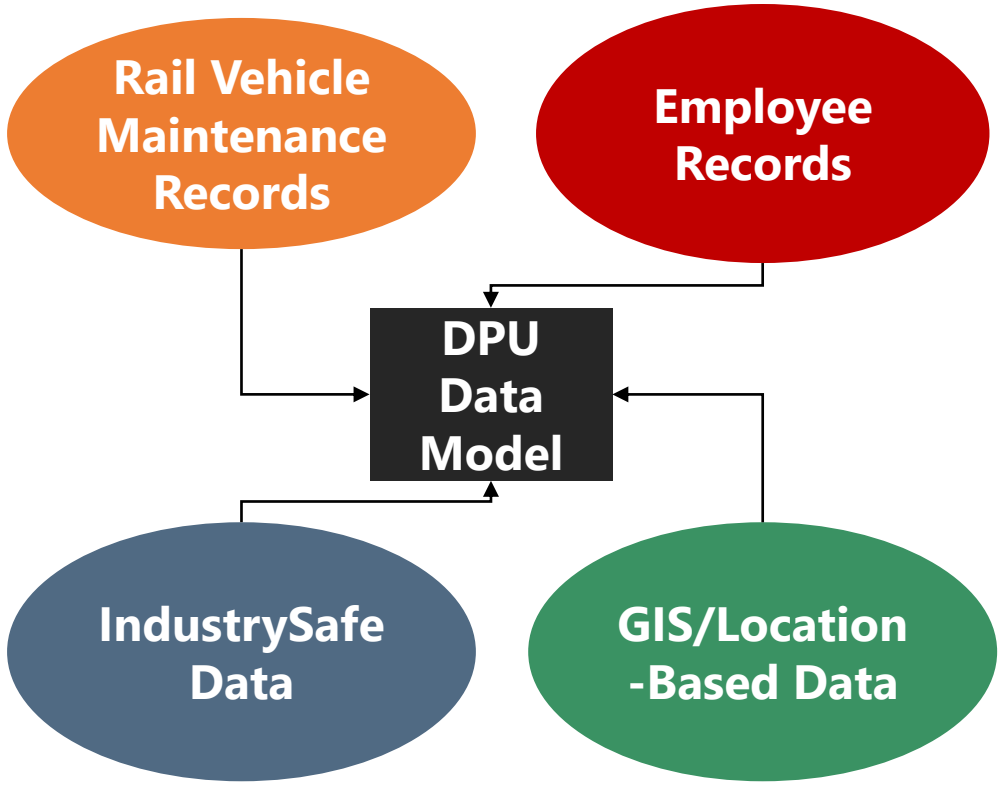
RBI Program Development

The RTSD's approach to RBI program development is grounded in safety data. The RTSD is taking a data-driven approach to understanding areas of RTA risk.

MBTA's IndustrySafe system – which contains digital records of rail safety incidents and hazards – serves as our foundational data set.

RTSD has developed an interactive RBI Dashboard which connects to IndustrySafe data so RTSD's RBI Team can "dive in" to explore trends.

The RBI Dashboard also allows RTSD to connect related data sets to power "breakout" dashboards that allow for granular visualization of more niche items like maintenance data and GIS/location-based data, as needed for risk analysis.



The DPU RBI Dashboard connects to a variety of data sources, allowing for a broad measure of risk.

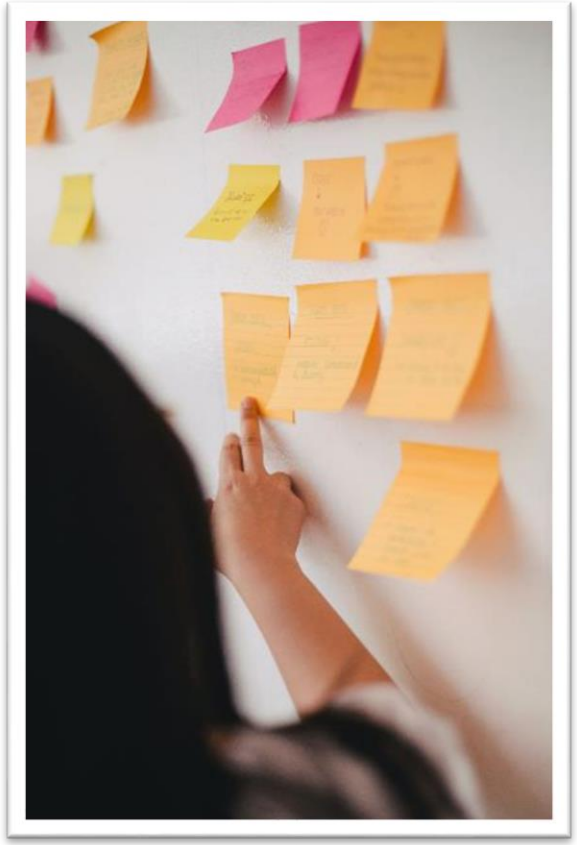
RBI Program Development

RTSD is taking an Agile Methodology approach to RBI – breaking activities into phases, emphasizing collaboration between team members across multiple disciplines, and fostering an environment of continuous improvement to respond to changing conditions.

The RBI Team – comprised of compliance officers and a data analyst – uses data insights gleaned from our RBI Dashboard to "nominate" potential activities to management.

The nomination process involves the RBI Team members meeting to collaboratively interact with our RBI Dashboard to rank incidents and hazards by type, frequency, and severity over a set period of time.

The RBI Team then uses a bubble sort/triage technique to determine which incidents and hazard types warrant an RBI activity nomination for the next RBI quarter.



The RBI Team's nomination process is grounded in looking for risk factors that could endanger the health, safety, and wellbeing of passengers and employees of the T, along with protecting vital equipment and facilities from damage.

RBI Program Development

Following the nomination process, RTSD management selects activities based on the nominations and assigns engineering and compliance staff to each activity.

The RBI Team collaborates with assigned staff to develop a R.I.D.E. Plan for each activity and submits them to management for approval.

R.I.D.E. was developed with the RBI program in mind, as a way of using Agile Methodology to handle risk-based inspections, with a phased, collaborative approach to each step.

Once management approves a R.I.D.E. Plan, it can begin. Once a R.I.D.E. plan is completed, any findings (including CAPs) are incorporated into future RBI data analysis.

The R.I.D.E. Approach

R – Research

This is the opening phase of the process. In this phase, staff is assigned to investigate the risk, its current status, and any associated incidents and hazards.

I – Inspect

This is the primary phase of the process. In this phase, the RBI Team and assigned staff conduct inspections to determine the status of the risk and its associated incidents and hazards.

D – Determine

This is the wrap up phase of the process. In this phase, the RBI Team and assigned staff bring together information and make determinations about the risk.

E – Enforce

This is the reporting phase of the process. The RBI Team and assigned staff create a brief report summarizing their findings for the RBI activity and any enforcement measures to be taken.

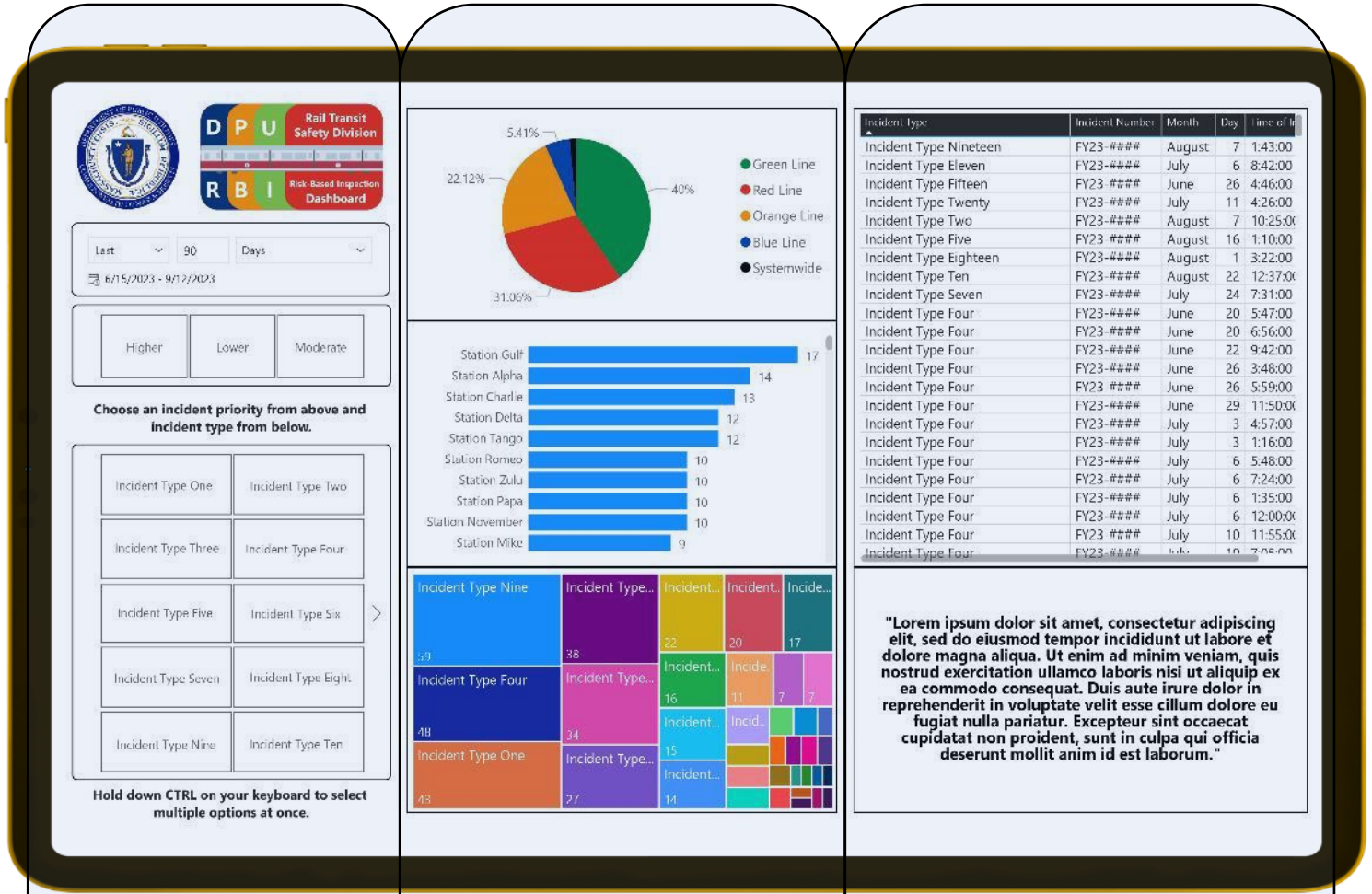
The 4 phases of an RTSD RBI activity:
Research, Inspect, Determine, and Enforce

RBI Dashboard Development

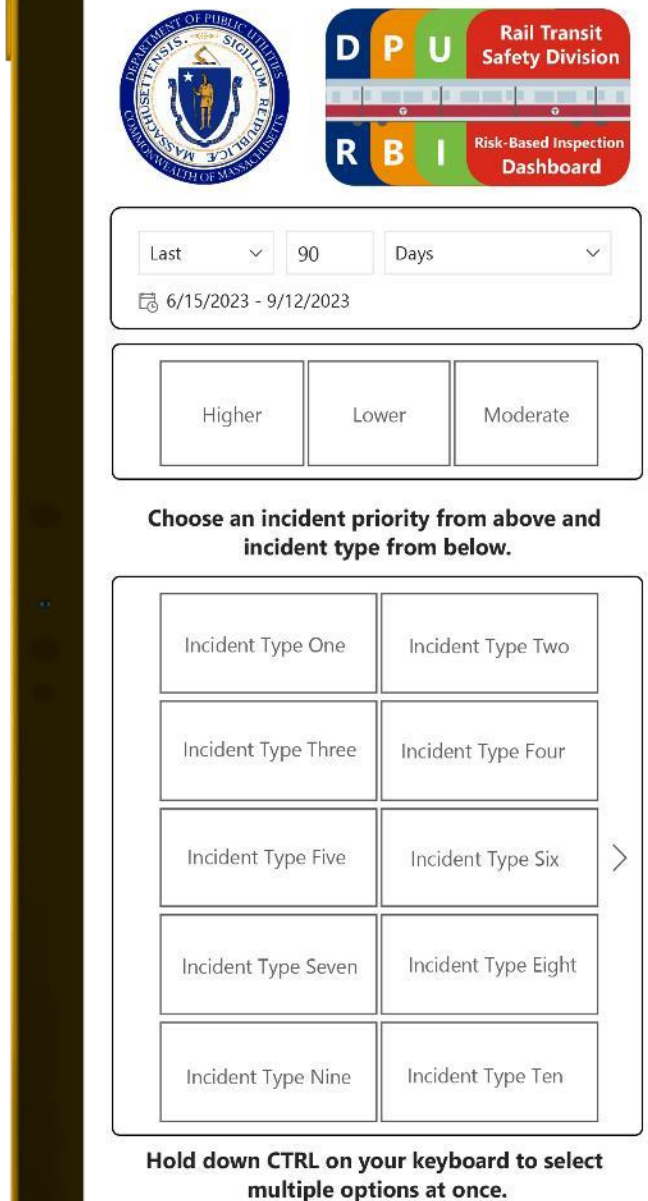
RTSD's data dashboard works across tablets and laptops. Pictured at right on the tablet is our RBI Dashboard's Incidents tab, which visualizes MBTA incident data.

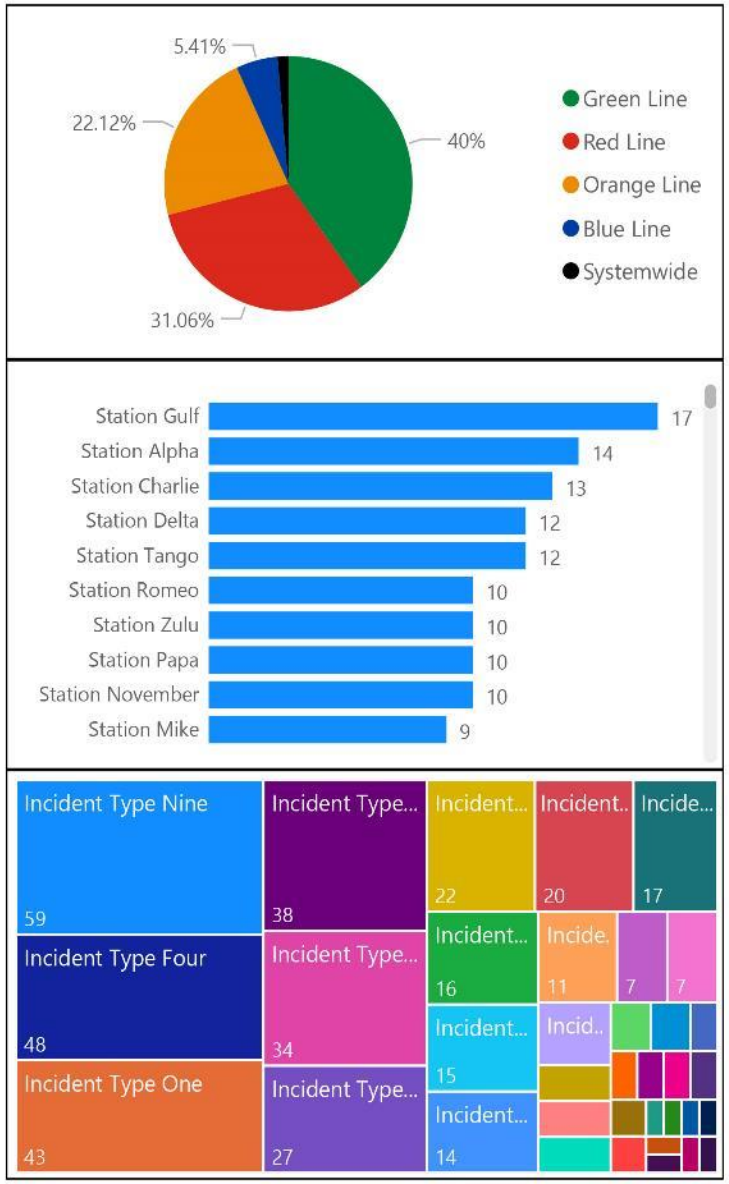
Section One includes timeline, priority, and type slicers that can be selected to adjust the visuals in Section Two and filter the underlying incident reports in Section Three, allowing RTSD to examine trends.

Users can also customize Section Two to see the visual summaries most meaningful to them. Users can tap or click on incident reports in Section Three to see details of each incident.



Section One | Section Two | Section Three





Incident Type	Incident Number	Month	Day	Time of I
Incident Type Nineteen	FY23-####	August	7	1:43:00
Incident Type Eleven	FY23-####	July	6	8:42:00
Incident Type Fifteen	FY23-####	June	26	4:46:00
Incident Type Twenty	FY23-####	July	11	4:26:00
Incident Type Two	FY23-####	August	7	10:25:0(
Incident Type Five	FY23-####	August	16	1:10:00
Incident Type Eighteen	FY23-####	August	1	3:22:00
Incident Type Ten	FY23-####	August	22	12:37:0(
Incident Type Seven	FY23-####	July	24	7:31:00
Incident Type Four	FY23-####	June	20	5:47:00
Incident Type Four	FY23-####	June	20	6:56:00
Incident Type Four	FY23-####	June	22	9:42:00
Incident Type Four	FY23-####	June	26	3:48:00
Incident Type Four	FY23-####	June	26	5:59:00
Incident Type Four	FY23-####	June	29	11:50:0(
Incident Type Four	FY23-####	July	3	4:57:00
Incident Type Four	FY23-####	July	3	1:16:00
Incident Type Four	FY23-####	July	6	5:48:00
Incident Type Four	FY23-####	July	6	7:24:00
Incident Type Four	FY23-####	July	6	1:35:00
Incident Type Four	FY23-####	July	6	12:00:0(
Incident Type Four	FY23-####	July	10	11:55:0(
Incident Type Four	FY23-####	July	10	7:05:00

"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum."

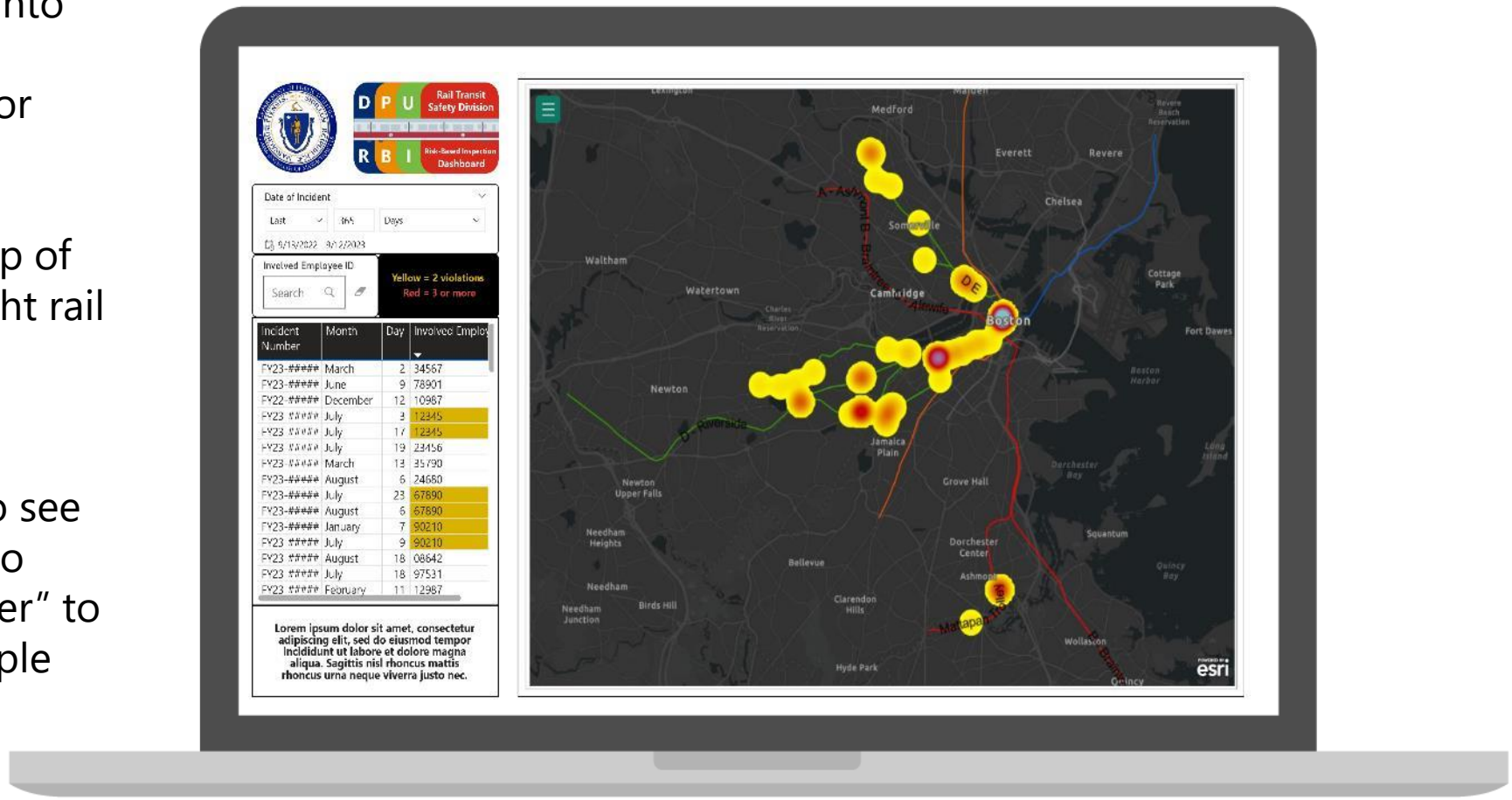
RBI Dashboard Development

The RTSD RBI Team can also dive into deeper analysis using the RBI Dashboard with specialized tabs for location-based data.

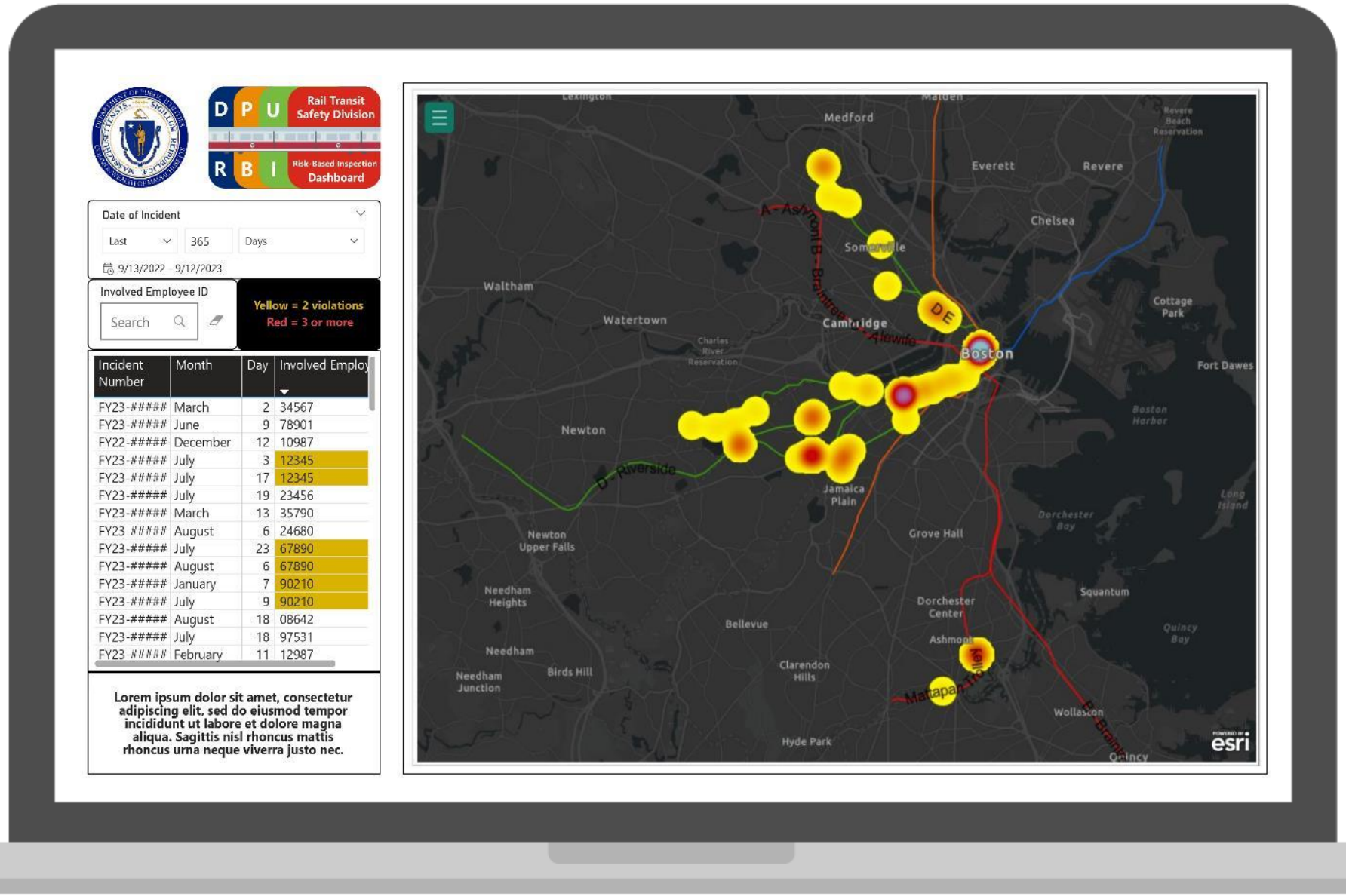
At right on the laptop is a heatmap of speed violations on the MBTA's light rail systems, the Green Line and the Mattapan Trolley.

This map visualization allows us to see trends in speed violations. We also have a color-coded "repeater meter" to show MBTA employees with multiple speeding violations.

We can also see details of each speeding violation.



RTSD's dashboard with a heatmap of violations.


DPU
Rail Transit Safety Division
RBI
Risk-Based Inspection Dashboard
Date of Incident
Last
365
Days
9/13/2022
9/12/2023
Involved Employee ID
Search
Yellow = 2 violations
Red = 3 or more
Incident Number
Month
Day
Involved Employ
FY23-#####
March
2
34567
FY23-#####
June
9
78901
FY22-#####
December
12
10987
FY23-#####
July
3
12345
FY23-#####
July
17
12345
FY23-#####
July
19
23456
FY23-#####
March
13
35790
FY23-#####
August
6
24680
FY23-#####
July
23
67890
FY23-#####
August
6
67890
FY23-#####
January
7
90210
FY23-#####
July
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August
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Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Sagittis nisl rhoncus mattis rhoncus urna neque viverra justo nec.
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Everett
Revere
Chelsea
Somerville
Waltham
Watertown
Cambridge
Boston
Cottage Park
Fort Dawes
Newton
Jamaica Plain
Grove Hall
Newton Upper Falls
Needham Heights
Bellevue
Dorchester Center
Squantum
Needham
Needham Junction
Birds Hill
Clarendon Hills
Hyde Park
Wollaston
Quincy
esri

Fast Facts: Data Dashboarding

Cost	Security	Training	Scalability
Look for solutions that offer the right tools for the right price.	Look for solutions that integrate well with your IT security.	Look for solutions that offer you low- or no-cost training.	Look for solutions that can grow with your SSO program.

No matter the size of your SSO program, data-driven decision making is **vital**.

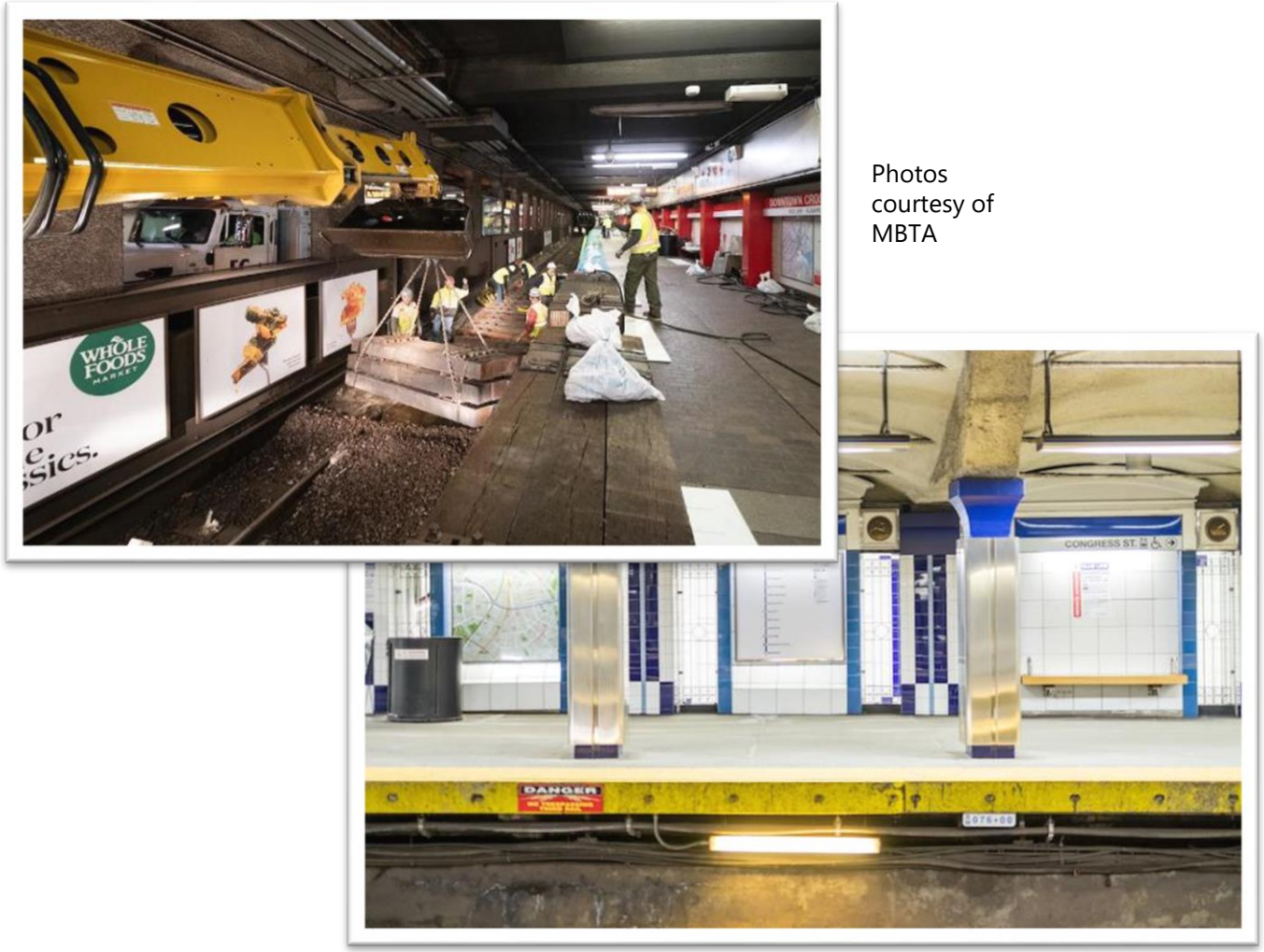
RBI Pilot Activity

A pilot RBI activity is underway at a selected station on the MBTA's Red Line.

This station was selected because of its high number of reports of unauthorized individuals entering the "pit," the area beyond the yellow tactile line at the station platform level.

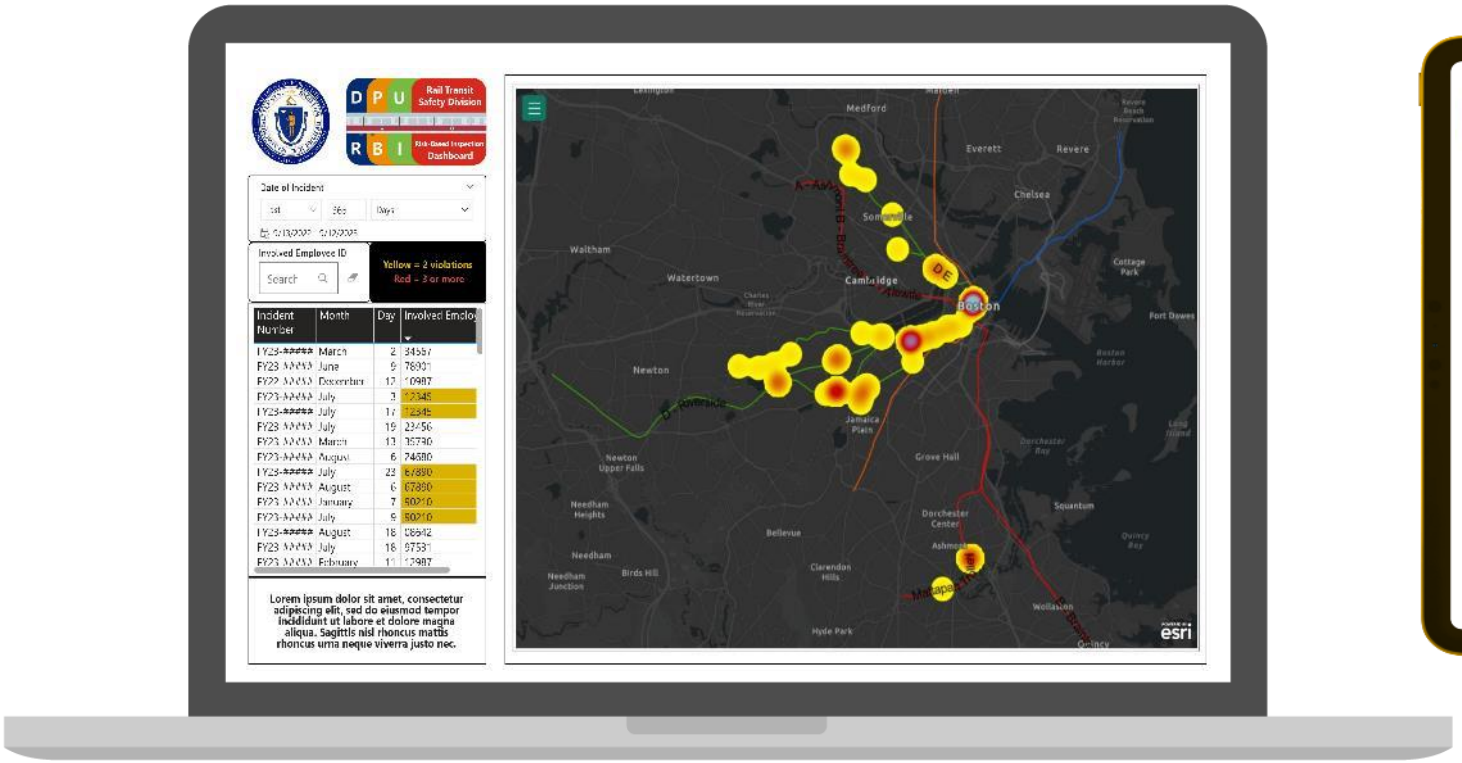
As part of our analysis, the RBI Team confirmed this trend is true even when considering passenger volume at the station and looking at hazards reported related to the pit at this station.

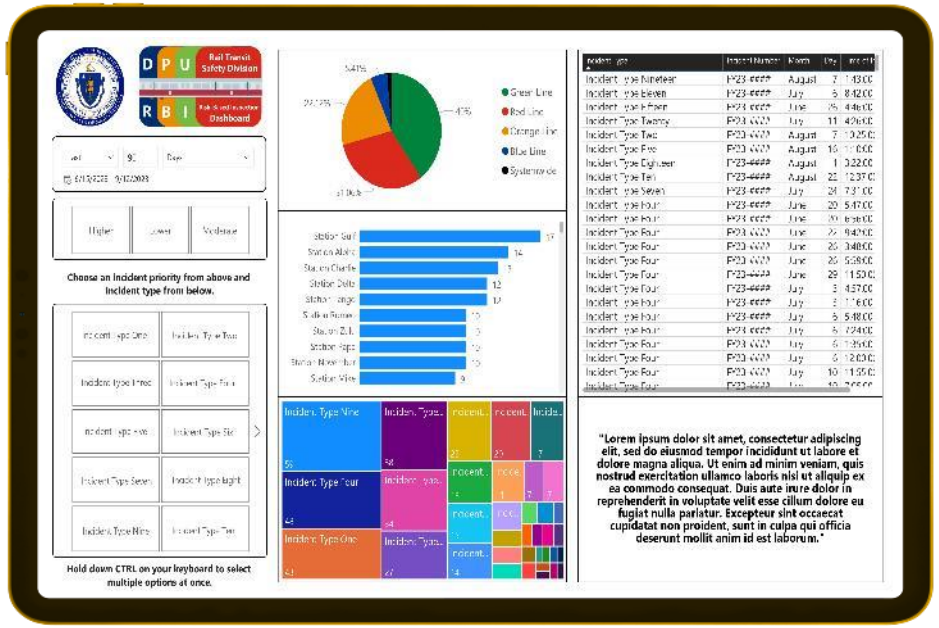
The goal of the pilot is to test R.I.D.E. and look for areas of improvement before a wider rollout, while simultaneously providing tangible value to address the identified hazard. A report will be issued to MBTA with our findings.



Photos courtesy of MBTA

The pit is inherently dangerous to passengers and T workers, with risks including injuries from falling or jumping into the pit itself, the individual's body striking the running rail or the electrified third rail, or a rail transit vehicle coming into contact with an individual that is unable to exit the pit area in time.





DPU can be found online at www.mass.gov/DPU
To reach the RTSD by email, send a message to DPU.Rail@mass.gov

Thank you!

CPUC Rail Safety Division
Rail Transit Safety Branch
CPUC Inspector-RTA Relationship

FTA SSOA-RTA Workshop
St. Louis, MO
November 14-16, 2023
Daren Gilbert, Program Manager

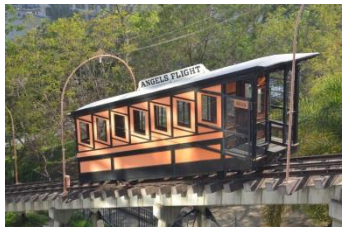
California Public
Utilities Commission

RTAs Subject to FTA Regulations

- Bay Area Rapid Transit District (BART) – includes Oakland Airport Connector APM
- Los Angeles County Metropolitan Transportation Authority (LACMTA or Metro)
- North [San Diego] County Transit District (NCTD or Sprinter)
- Orange County Transportation Authority (OCTA or OC Streetcar) (currently under construction)
- San Francisco Municipal Transportation Agency (SFMTA or Muni) – includes Muni Cable Cars
- Sacramento Regional Transit District (SRTD)
- San Diego Metropolitan Transit System/San Diego Trolley, Inc. (MTS or SDTI)
- Santa Clara Valley Transportation Authority (VTA)

Rail Transit Safety Branch – Small Agencies – Not Subject to FTA Regulations

SF Airport "People *Mover*"



Angels Flight Railway
Los Angeles

Getty Center Museum Train
Los Angeles

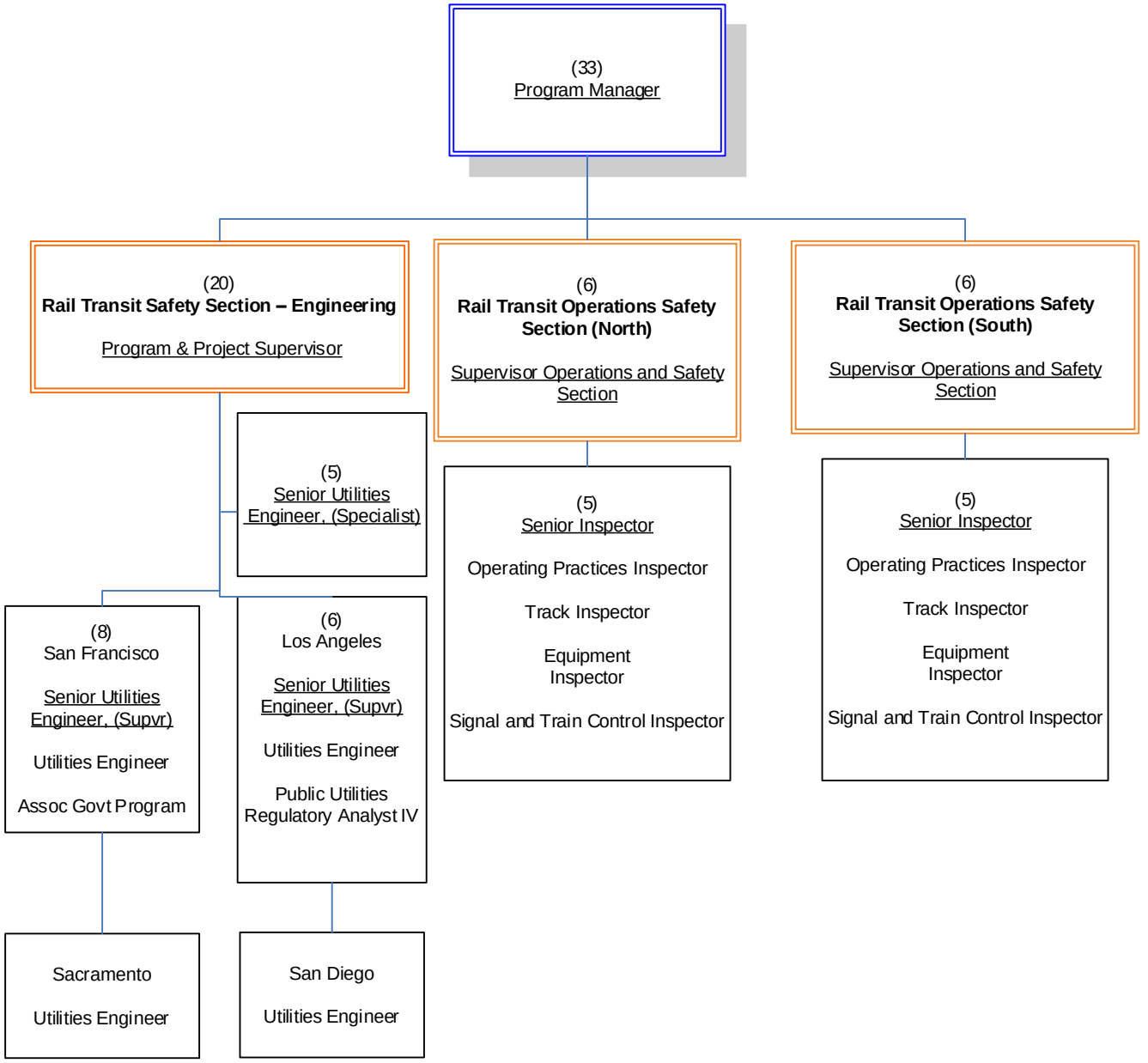
Grove Farmers Market Trolley
Los Angeles

Americana at Brand
Trolley
Glendale

Sacramento Airport "People Mover"

Los Angeles World Airports
Automated People Mover (currently under construction)

Rail Transit Safety Branch



CPUC Rail Transit Inspections Background and History

- Initial concept for RTSB Inspectors was developed in 2007 and pursued in 2008. RTAs were informed of this and kept in the loop as the initiative progressed.
- Follows FRA model to deploy field inspectors to verify compliance with applicable state statutes and Federal and state regulations (General Orders).
- CPUC developed Budget Change Proposal (BCP) that was approved by CPUC and submitted to the Governor's Department of Finance to seek approval for additional funding for the positions and inspector equipment.
- The BCP was approved by the Governor's office and then by the legislature, effective July 1, 2009.
- The CPUC's first rail transit inspectors began in 2009, with the primary 4 disciplines: Operating Practices, Signal and Train Control, Track, and Mechanical Equipment (vehicles).

CPUC Inspectors

- CPUC hired individuals with heavy rail experience – former UPRR and BNSF employees, as well as a Signal Inspector with broad experience as a contractor on freight and transit systems.
- These were all very experienced candidates, which contributed to our success.
- Badges and ID cards were acquired and issued, as well as testing equipment and vehicles.
- Inspectors were directed to develop inspection forms and processes outlining how inspections would be conducted and issued.

CPUC Inspections

- Just after bringing the inspectors on-board, Branch Management and Inspectors held meet and greets with each RTA to:
  - Make introductions,
  - Discuss initial forms and documents CPUC inspectors would use,
  - Review initial inspector procedures for conducting various inspection types,
  - Request RTAs make their employees aware of CPUC and our statutory authority and jurisdiction to conduct inspections, and
  - Discuss RTA requests or concerns.
- Inspection forms, documents and processes have continued to evolve over the years

Inspection Statistics

	Agency	Total Inspections January 1, 2021 to December 31, 2021	Total Inspections January 1, 2022 to December 31, 2022
FTA FUNDED	Sacramento Regional Transit District	49	99
	Bay Area Rapid Transit (BART)	63	84
	San Francisco Municipal Transportation Agency	50	65
	Santa Clara Valley Transportation Authority	35	90
	Los Angeles Metropolitan Transportation Authority	69	138
	North [San Diego] County Transit District (Sprinter)	18	34
	San Diego Trolley, Inc.	43	54
	OCTA	1	4
	FTA Funded Sub Total	328	568
NON-FTA FUNDED	Angels Flight Railway Company	7	18
	Sacramento International Airport APM	7	10
	Getty Center Museum APM	2	10
	San Francisco International Airport (AirTrain) APM	3	4
	Americana at Brand/The Grove Trolley	15	23
	Non-FTA Funded Sub Total	34	65
	Grand Total	362	633

CPUC Inspections

- The entire process was new to RTAs and their employees.
- At the beginning, there were often issues with gaining access and cooperation by the RTA employees, as the inspection program was rolled out.
- Most had never seen a CPUC employee in the past, and some were now interacting directly with CPUC inspectors as part of the inspections.

CPUC Inspections

- Inspectors are also sometimes responding to accidents and conducting or participating in investigations for CPUC to assure RTA accident investigation reports were including all causal and contributory factors.

- CPUC inspectors are involved in Triennial Safety Reviews and safety oversight of Capital Projects.

- CPUC now has a Citation Program. All citations issued so far have resulted from inspection activities. All resulted in fines to the RTA.

CPUC Inspections

- Early initial findings often identified cases where RTA employees had experienced "practical drift" and were not following the RTA procedure, or the procedure was inadequate or non-existent.

- This resulted initially in some resentment by employees for inspection findings indicating employees were deviating from approved procedures and by managers and executives for findings of inadequate procedures.

- The first few years of the program were frequently contentious and were difficult for the CPUC inspectors and management, as well as the RTA employees.

Improving the relationships

- We have had our inspectors participate in RTA training for new employees to introduce CPUC inspectors and discuss our role and our inspection practices for RTA personnel, covering:
    - Our role in assuring the safety of passengers, employees and the public
    - Encountering the inspectors during the course of their workday;
    - the types and scope of routine inspections;
    - the CPUC General Orders and enforcement of the RTA's own rules;

- Routine quarterly/monthly meetings with RTA safety departments to review open inspections, reconcile CAPs, discuss timelines for proposed responses, and discuss questions/concerns of the RTA with any particular inspection, the report, or any impediments to the RTA's CAP.

Improving the relationships - ROAR

- CPUC meets with RTA safety departments collectively twice per year through the Rail Operations and Regulatory (ROAR) Committee of the California Transit Association.
- Semi-annual meeting in Spring/Fall.
- RTA's meet privately, then CPUC joins for the final day of their meeting;
- These meetings keep important items moving forward, and generally are collaborative in discussing approaches to the agenda items.
- Numerous items are on the agenda. Past agenda examples have included:
    - CPUC and RTA staffing updates,
    - FTA rulemakings,
    - FTA Safety Advisories and Requests for information,
    - FTA Audit and audit CAPs,
    - CPUC event reporting,
    - CPUC rulemaking updates,
- These meetings are important in building strong RTA relationships.

Current Status of RTA/CPUC Inspector Relationship

- After 14 years, the RTAs and CPUC staff have developed a mutual understanding and the relationship between inspectors and RTAs is mostly going smoothly.
- CPUC Inspection teams and RTA managers and supervisors have become used to seeing and interacting with each other and relationships are generally cordial and professional.
- The primary ongoing concern relates to very large agencies with large employee numbers, where employees may seldom encounter an inspector.
- Specifically, our Operations inspectors who interact with vehicle operators (including riding in the Cab)and station agents, have not always been provided access as required.

Lessons Learned: Inspection Program Needs

- Agency IDs and Credentials;
- Clarification of enforcement scope: State rules, Federal rules, Industry Standards (e.g. AREMA, NFPA, FRA track standards);
- Develop clear inspection documentation and tracking protocols;
- Safety policy on conducting inspections (weather, personal safety, etc.);
- Proper PPE and other equipment (tools, test gear, Agency branded jackets, coats, shirts, etc., stand-alone camera, vehicles, etc.);
- Work with RTAs to assure they are taking steps to assure their employees understand the authority and role of agency inspectors;
- Develop a policy and clear guidance when access is denied.

Daren Gilbert

California Public Utilities Commission

Daren.gilbert@cpuc.ca.gov

DRPT State Safety Oversight (SSO)

Risk-Based Inspections

Workshop Process Overview

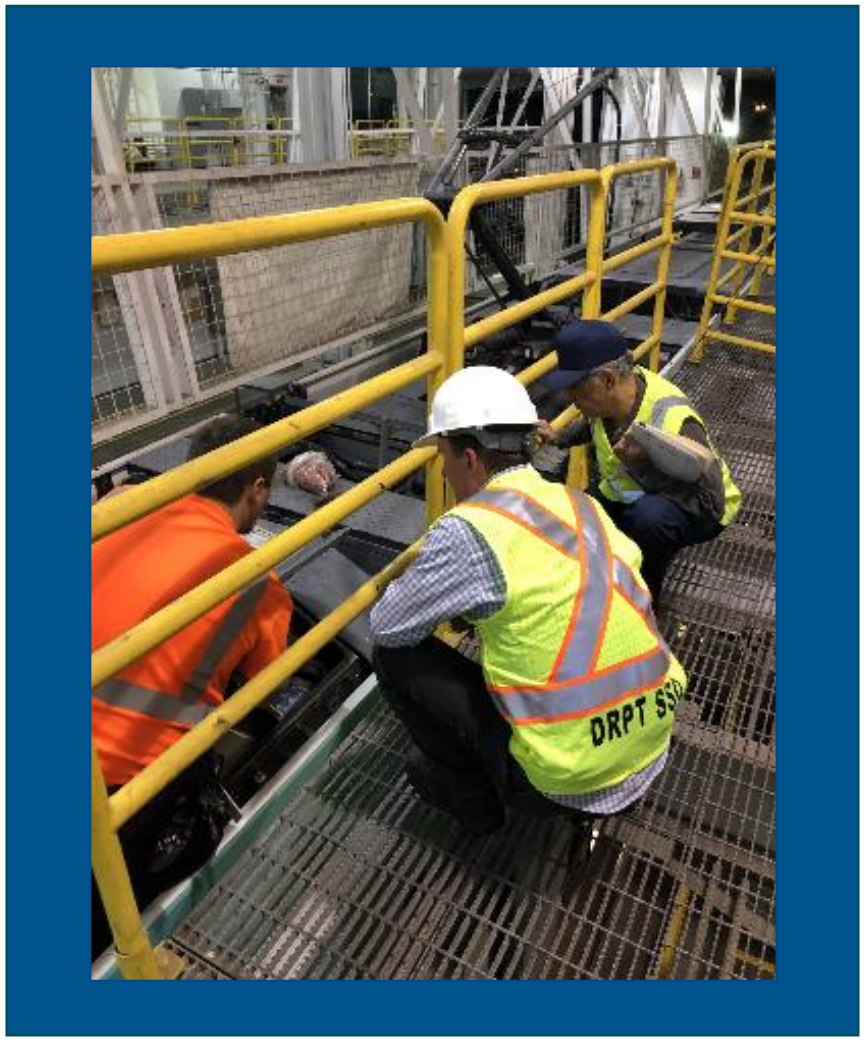
November 2023

Andrew Ennis
State Safety Oversight Program Manager

DRPT
VIRGINIA DEPARTMENT OF RAIL AND PUBLIC TRANSPORTATION

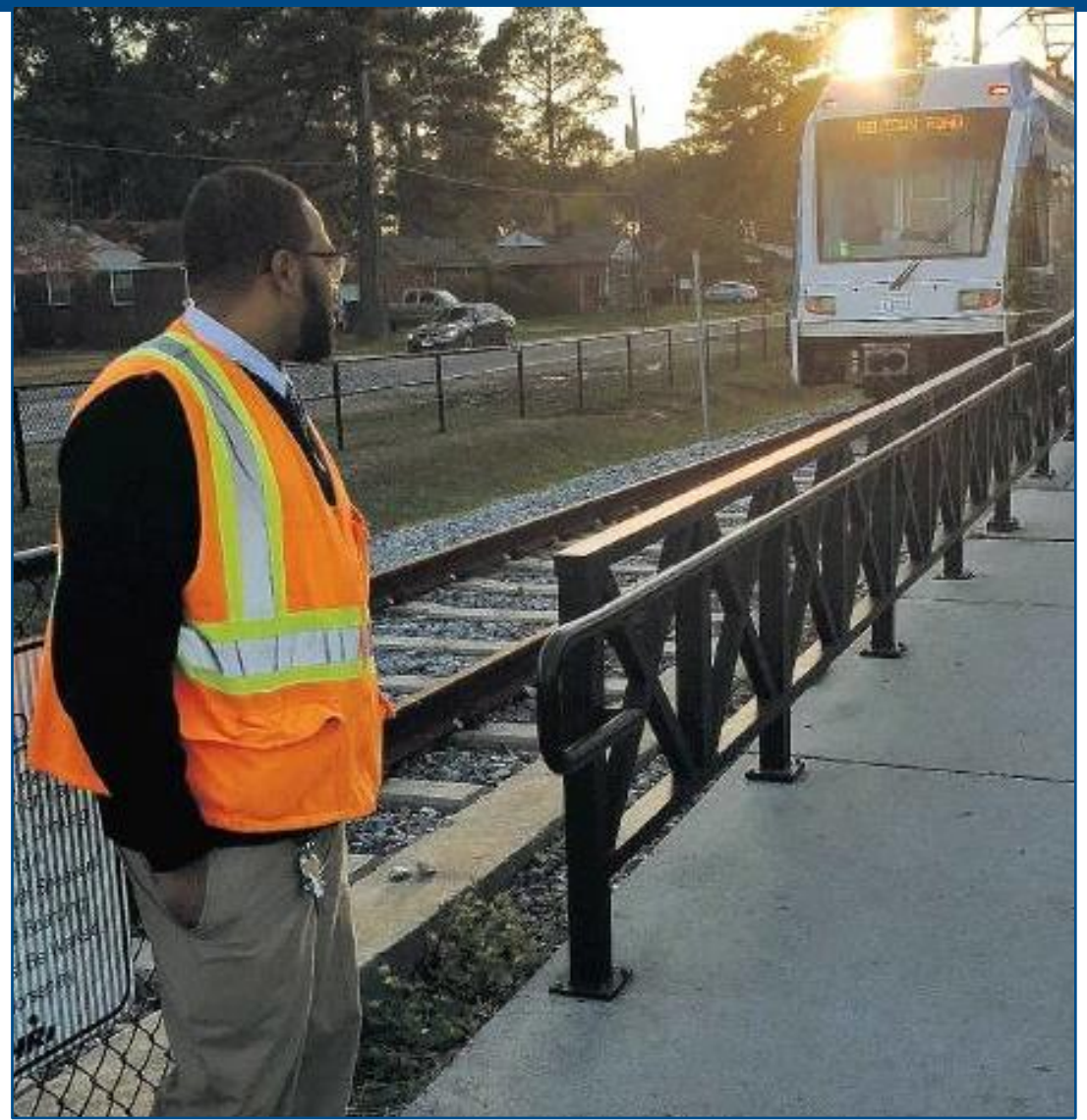
HAMPTON ROADS TRANSIT

DRPT State Safety Oversight Program Overview



- One small Rail Transit Agency: **HRT Tide Light Rail**
- One operations and maintenance facility
- Relatively small frontline and management staff
- **7.3-**mile alignment includes:
  - CBD street running and center running
  - Ballasted at-grade track with gated crossings
  - Elevated structure

Pre-RBI Inspection Program



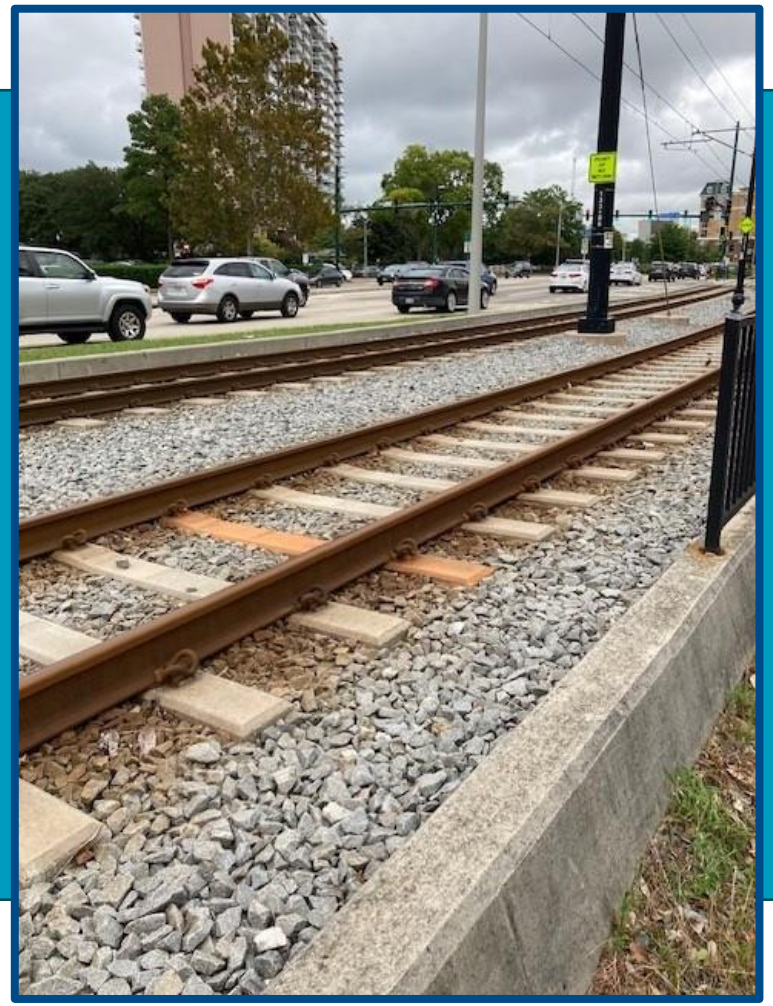
- Began in 2019
- **5-6** on-site inspections per year
- Operations, maintenance, safety, and other safety-critical functions
- Direct observation on-site
- Records reviews

RBI Program Development

Source: https://www.pilotonline.com/resizer/yiWS31w7cGPK8bhnQM1Idk6_v5k=/800x552/top/cloudfront-us-east-1.images.arcpublishing.com/tronc/Y6WGFHBFOREAZMMARY6W3RNCLA.JPG

- Starting from a good baseline inspection program
- RBI necessitates significant enhancements to achieve program compliance
- Updates to DRPT program documentation
- Updates to RTA plans, policies and procedures.

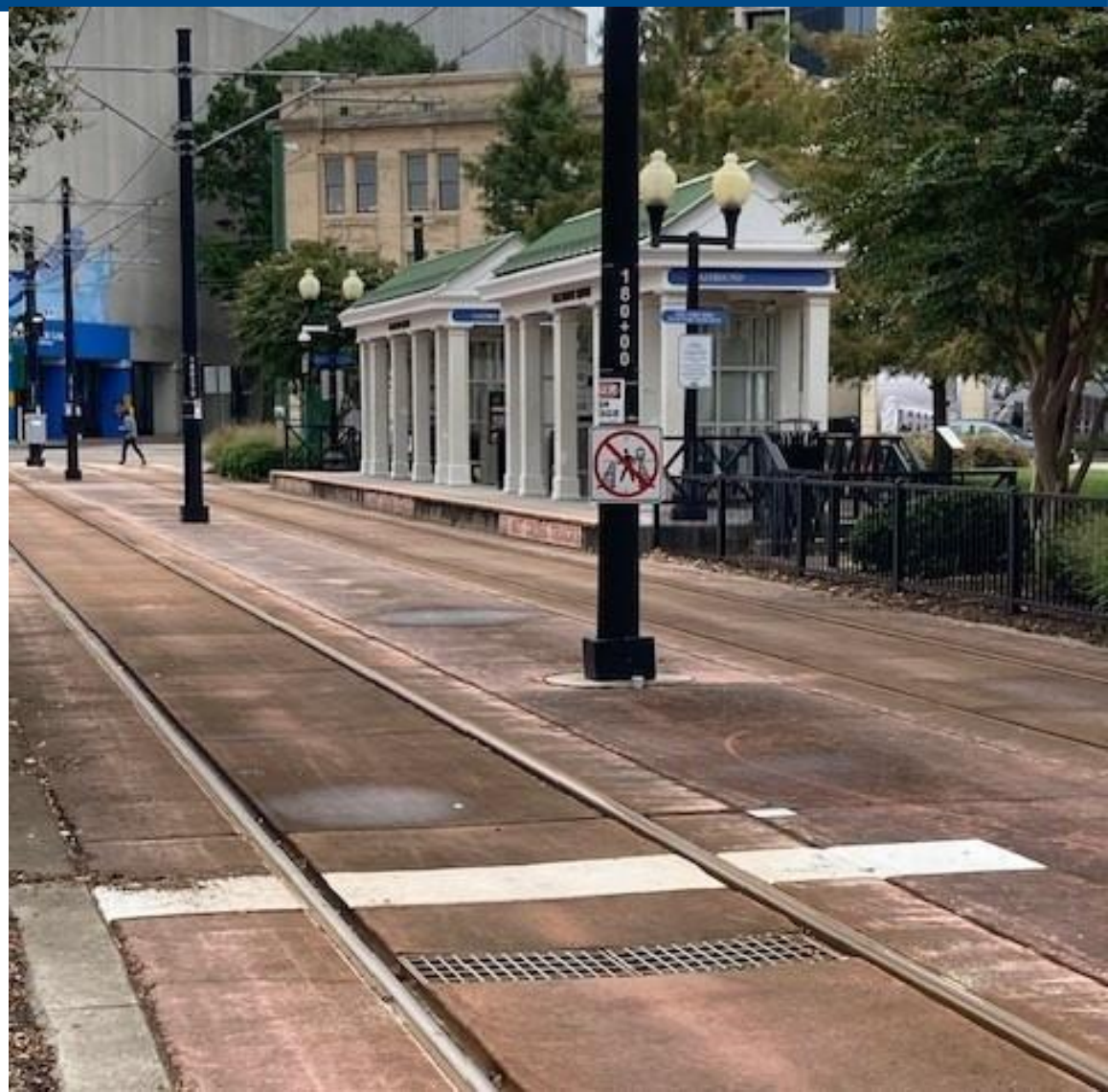
RBI Program Development (Continued)



- Special attention to unannounced inspections
- Major focus on ensuring unfettered, immediate access
- All agency property, facilities, systems, vehicles, right-of-way
- Documents and records

Unannounced Inspections

- DRPT already performed unannounced inspections
- Nonetheless, SSOA and RTA policies and procedures must be explicit in providing access
- HRT has pre-existing Track Access permitting process
- Potential roadblock to unannounced inspections?



Workshop

- DRPT called a Workshop with HRT senior leadership
- Safety, Operations, and all affected Maintenance departments
- In person, face-to-face
- Dedicated half-day to detailed discussion

Workshop (Continued)

- Walked through Special Directive
- Explained existing inspection program and gap analysis relative to RBI requirements
- Went over Program Standard and RBI procedure changes in detail
- Discussed required updates to the PTASP
- But – beyond the PTASP…

Beyond Updating the PTASP

- **Key point:** HRT Track Access program a “sticking point”
- As written, would preclude unannounced inspections
- Affected Operations, Maintenance processes and procedures
- **Key point:** DRPT cannot temper unannounced inspection requirements to accommodate existing HRT policy
- RTA staff needed to understand this and acquiesce

Workshop Results

Source:
https://www.pilotonline.com/resizer/yiWS31w7cGPK8bhnQM1Idk6_v5k=/800x552/top/cloudfront-us-east-1.images.arcpublishing.com/tronc/Y6WGFHBFOREAZMMARY6W3RNCLA.JPG

- Following:
  - Vigorous, real-time discussion
  - Give-and-take
  - Questions and answers
  - Addressing the needs of disparate departments
  - Assurances about safety
- **Result: Agreement on specific action items and next steps**
  - Track access policy/procedure updates
  - Unfettered, immediate SSOA access at any time
- Avoid enforcement actions
- Helps maintain positive and candid professional relationships between SSOA and RTA staff

Conclusion

- Make sure the RTA is looking beyond just the PTASP
- A face-to-face workshop is a great tool to work through the implications of RBI for covered RTAs

Source: https://www.pilotonline.com/news/transportation/article_c0e01118-12ea-50d4-9ea1-0848694c5d0f.html

Contact

Andrew Ennis
State Safety Oversight Program Manager
Department of Rail and Public Transportation
andrew.ennis@drpt.virginia.gov
804.786.3434

Questions?

U.S. Department of Transportation
Federal Transit Administration

2023 FTA Joint State Safety Oversight and Rail Transit Agency Workshop

LUNCH

Workshop will reconvene at 1:00 PM *(Central Time)*

November 14 - 16, 2023

St. Louis, MO