







## NEW JERSEY STATE TRANSPORTATION INNOVATION COUNCIL

www.NJDOTtechtransfer.net/NJ-STIC

4th Quarter Meeting December 13, 2023 10:00am – 12:00pm









#### WELCOME

#### **Eric Powers**

Assistant Commissioner
NJDOT Statewide Planning, Safety & Capital Investment

Megan Fackler

Director
Division of Statewide Planning









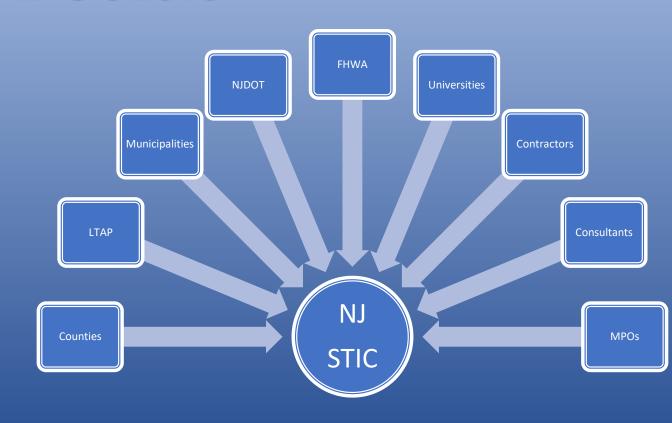
## WELCOME SPECIAL GUESTS

Expansion of Weather Savvy Roads Pilot

Thomas Murphy

Administrative Analyst 1
NJDOT Transportation Mobility

Truck Parking Information
System Pilot
Luis Rivera
Analyst Trainee
NJDOT Transportation Mobility











#### FHWA UPDATES



#### Christopher Paige

Innovation Coordinator & Community Planner FHWA, NJ Division Office

### CIA TEAM SAFETY

NJDOT – Dan LiSanti FHWA – Amy Kaminski

#### CIA TEAM

#### PLANNING & ENVIRONMENT

NJDOT – Sudhir Joshi FHWA – Sutapa Bandyopadhyay

## CIA TEAM INFRASTRUCTURE PRESERVATION

NJDOT – Shivani Patel FHWA – Nunzio Merla

## CIA TEAM MOBILITY & OPERATIONS

NJDOT – Vandana Mathur FHWA – Ek Phomsavath

#### CIA TEAM

**ORGANIZATIONAL** 

SUPPORT & IMPROVEMENT

NJDOT – Kristal Walker

FHWA – Christopher Paige

## CIA TEAM SAFETY

NJDOT – Dan LiSanti FHWA – Amy Kaminski

Task	Status		
Literature review of relationship between lighting and safety of vulnerable road users	Initial scan complete		
Literature review summarizing best practice in design guidance for pedestrian-scale lighting	Draft literature review complete		
Lighting guide highlighting best practices in the types of lighting, luminaire placement, and ways to reduce fatalities and serious injuries	In progress		



### LIFE-SAVING LIGHTING RESEARCH & GUIDE





### NIGHTTIME VISIBILITY FOR SAFETY

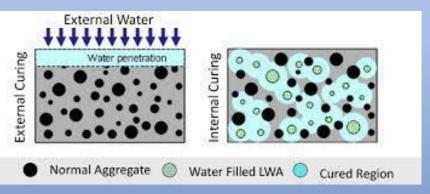
- Developing traffic signal pole and mast arm details for signalized intersection installations
- Includes backplates with retroreflective tape on signal indications

## CIATEAM INFRASTRUCTURE PRESERVATION

NJDOT – Shivani Patel

FHWA – Nunzio Merla





#### Purpose:

To implement the use of internally cured concrete to reduce shrinkage cracking and achieve long-term performance in concrete bridges, roads and repairs.

#### Status:

 Special provisions revised following a peer review.







#### Status:

 Continued communication with NYSDOT materials personnel





#### Status:

 Participated in kick-off meeting for internal curing research project



#### Status:

 Expanding the list of candidate bridges









#### Status:

Investigating a new mix design

	SAP /(g/m <sup>3</sup> )	W <sub>0</sub> /(kg/cm <sup>3</sup> )	W /(kg/m <sup>3</sup> )	Cement /(kg/m <sup>3</sup> )	S /(kg/m <sup>3</sup> )	G /(kg/m <sup>3</sup> )	Water-Reducing Agent
J0	0	0	165	470	668	1100	0.04%
G0 G1	904 904	0	165 196.7	470 470	668 668	1100 1100	$0.04\% \\ 0.04\%$
Y0 Y1	904 904	132.01 132.01	165 89.70	470 470	668 668	1100 1100	0.04% 0.04%
Y2	904	31.74	165	470	668	1100	0.04%

2.3. Experimental Design

2.3.1. Flow Test of Concrete



#### **Next Quarter:**

- Circulate draft special provisions
- Reach out to concrete suppliers
- Communicate with project designers





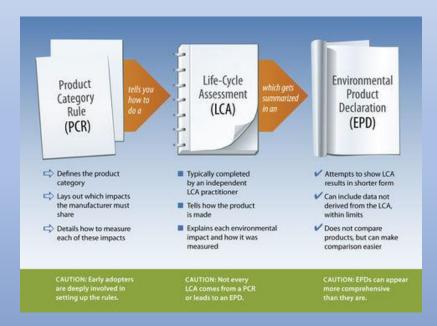


#### **UPDATE on EDC-6 UHPC Innovation**

- Bureau of Structural Engineering hosted HNTB training related to EDC-6 UHPC innovation
- Continuing the UHPC Overlay Performance Evaluation Program
- Non-destructive testing on:
- ►I-295 NB & US 130 NB over Mantua Creek
- ➤NJ 159 WB over Passaic River in Morris County

THE STATE OF NEW MERS

EDC-7
Environmental
Product
Declarations
(EPDs) for
Sustainable
Project Delivery





Summary of Environmental Product I	Declaration	Environmental Impacts	<b>(4)</b>			
Central Concrete		Impact name	Unit	Impact per m3	Impact per cyd	
Mix 340PG9Q1		Total primary energy consumption	MJ	2,491	1,906	
San Jose Service Area EF V2 Gen Use P4000 3" Line 50% SCM		Concrete water use (batch)	m3	6.66E-2	5.10E-2	
		Concrete water use (wash)	m3	8.56E-3	6.55E-3	
		Global warming potential	kg CO2-eq	271	207	
E SAME TO SAME		Ozone depletion	kg CFC-11-eq	5.40E-6	4.14E-6	
Performance Metrics		Acidification	kg SO2-eq	2.26	1.73	
28-day compressive strength	4,000 psi	Eutrophication	kg N-eq	1.31E-1	1.00E-1	
Slump 4.0 in		Plasochemical ozone creation	kg 03-eq	46.6	35.7	

#### **Purpose:**

To identify and understand the environmental impacts from resource use, energy, and emissions in construction and consider alternatives using third party verified reports.

## THE STATE OF NEW MERSE

EDC-7
Environmental
Product
Declarations
(EPDs) for
Sustainable
Project Delivery

#### **Status:**

 EPD SME Team meeting was held in October



## THE STATE OF NEW JERGS

EDC-7
Environmental
Product
Declarations
(EPDs) for
Sustainable
Project Delivery

#### **Status:**

 A work plan has been developed and finalized





EDC-7
Environmental
Product
Declarations
(EPDs) for
Sustainable
Project Delivery



#### **Next Quarter:**

- Continue working on phase 1 efforts
- Identify additional SMEs

## CIATEAM ORGANIZATIONAL SUPPORT & IMPROVEMENT

NJDOT – Kristal Walker

FHWA – Chris Paige

## Implementation Plans Development Stage Updates:

 Developed & submitted a proposal to apply for a NJ Build Fund Grant



Based on the submitted proposal, providing more specific details of the NJ Build Fund Grant is required. Currently, the requested details are still being drafted for submission.

## Implementation Plans Development Stage Updates:

Working with the Office of Federal Contractor Compliance Programs (OFCCP)



- Collaboration with OFCCP has continued.
- Based on recommendations from the OFCCP, a few Contractor Compliance unit staff members have participated in various webinars aimed at Strategic Workforce Development in the Highway Construction Industry.

## CIATEAM PLANNING & ENVIRONMENT

NJDOT – Sudhir Joshi FHWA – Sutapa

Bandyopadhyay



### CORE INNOVATION AREA UPDATE PLANNING & ENVIRONMENT

**December 13, 2023** 



Simon Nwachukwu - NJDOT





#### **Background**

As of October 1, 2023, the Federal Highway Administration (FHWA) published the list of State Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs) who are required to establish targets and report progress for the performance measures related to the Congestion Mitigation and Air Quality Improvement (CMAQ) Program.

on-road mobile source emissions: the total emissions reduction measure.

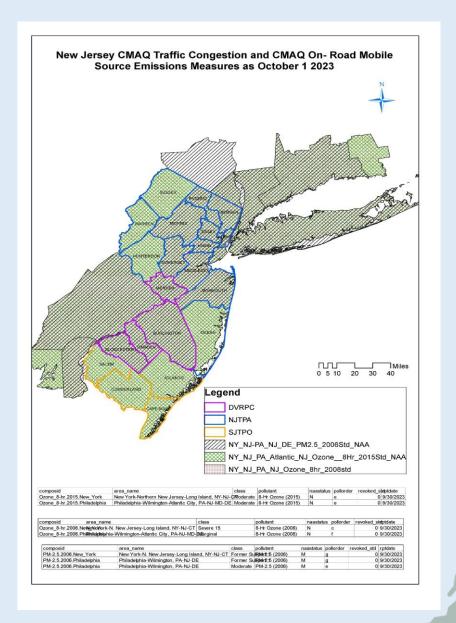






Table 1. State DOTs Required to Establish Targets and Report Performance for the CMAQ Emissions Measure (with Applicable NAAQS and Precursor Pollutants)

State Name	State DOT		National Ambient Air Quality Standards (NAAQS)							cursors
		24-hour PM10	PM2.5 (1997)	PM2.5 (2006)	PM2.5 (2012)	Ozone (2008)	Ozone (2015)	со	voc	NOx
New Jersey	New Jersey Department of Transportation			YES		YES	YES		YES	YES

#### CMAQ on-road Mobility source Emissions Measure:

State DOTs – 38 State DOTs would be required to establish targets and report for the on-road source emissions measure. (A decrease from 39) For the on-road mobile source emissions measure, state DOTs must set targets for each applicable criteria pollutant and precursor. The applicable precursor pollutants, volatile organic compounds (VOC) and nitrogen oxides (NOx), are provided in Table 1 as well.





#### Table 2. State DOTs Required to Establish Targets and Report Progress for the Traffic Congestion Measures (with Applicable Urbanized Areas):

State DOT	Urbanized area with a population > 200K (at least partially within the State boundary)	Does the Urbanized Area contain <u>both</u> NHS mileage and any part of Designated Nonattainment or Maintenance Area(s)?						
New Jersey Department of Transportation (NJDOT)	Philadelphia, PANJDEMD	Yes – Required to establish urbanized area targets for the traffic congestion measures.						
	New YorkNewark, NYNJCT	Yes – Required to establish urbanized area targets for the traffic congestion measure						
NJDOT	Atlantic City, NJ	Yes – Required to establish urbanized area targets for the traffic congestion measures.						
	Trenton, NJ	Yes – Required to establish urbanized area targets for the traffic congestion measures.						
	AllentownBethlehemEaston, PANJ	Yes – Required to establish urbanized area targets for the traffic congestion measures.						





#### Table 3. Applicable MPOs for the On-Road Mobile Source Emissions Measure and the CMAQ Performance Plan

				National Ambient Air Quality Standards (NAAQS)				Precursors				
MPOs subject to On-Road Mobile Source Emissions Measure	Do the MPA; urbanized area with population > 1m; and any one of the designated nonattainment or maintenance Area(s)  Overlap?	Name of urbanized area with population > 1m overlapping with MPA	Name of additional urbanized area with population > 1m overlapping with MPA	24-hour PM10	PM2.5 (1997)	PM2.5 (2006)	PM2.5 (2012)	Ozone (2008)	Ozone (2015)	со	VOC	NOx
Delaware Valley Regional Planning Commission	Yes - CMAQ Performance Plan Required	Philadelphia, PA- NJ-DE-MD	New York- Newark, NY-NJ-CT			YES	YES	YES	YES		YES	YES
North Jersey Transportation Planning Authority	Yes - CMAQ Performance Plan Required	Philadelphia, PA NJ- -DEMD	New York Newark, NYNJ CT			YES		YES	YES		YES	YES
South Jersey Transportation Planning Organization	Yes - CMAQ Performance Plan Required	Philadelphia, PA- NJ- DE-MD						YES	YES		YES	YES
Wilmington Area Planning Council	Yes - CMAQ Performance Plan Required	Philadelphia, PA- NJ- DE-MD				YES		YES	YES		YES	YES



#### Discussions On National Performance Management Measure (GHG)



#### Assessing Performance of the National Highway System, Greenhouse Gas Emissions Measure

- DOTs and MPOs to establish declining Carbon Dioxide (CO2) targets and report on progress toward the achievement of these those targets.
- State DOTs and MPOs have flexibility to set targets that appropriate for their community and that work for their respective climate change and other policy priorities.
- Establish declining targets for reducing CO2 emissions generated by on-road mobile sources relative to a reference year defined as calendar year 2022, and report on their progress.
- The GHG measure established in this rule is the same as the measure proposed in the NPRM, which is the percent change in on-road tailpipe CO2 emissions on the NHS relative to the reference year
- State DOTs will establish 2- and 4-year statewide emissions reduction targets, and MPOs will
  establish 4-year emissions reduction targets for their metropolitan planning areas.
- In addition, the rule will require certain MPOs serving UZAs with populations of 50,000 or more to establish additional joint targets.
- Supports the U.S. target of reducing GHG emissions 50-52 percent below 2005 levels in 2030 on course to reaching net-zero emissions economywide no later than 2050

#### D

#### Discussions On National Performance Management Measure (GHG)



#### Reports, Due Dates and Current Status

- State DOTs will report their 2 and 4-year targets to FHWA in the State Initial GHG Report by no later than February 1, 2024
- The 2024 Mid Performance Period Progress Report, due October 1, 2024. 23 CFR 490.107(b)(2)(i).
- Biennial reporting related to the GHG measure will begin with the 2026 Full Performance Period Progress Report and the 2026 Baseline and Performance Period Report.
- We are currently communicating with NJDOT divisions internally on GHG Measure, and starting next month, we will also be coordinating with MPOs and other stakeholders.





#### Thank you for your Participation.

## CIATEAM MOBILITY & OPERATIONS

NJDOT – Vandana Mathur

> FHWA – Ek Phomsavath

### Next-Generation TIM (NextGen TIM): Technology for Savings Lives

- Using technology for more effective traffic incident management
- Inform the motorists of traffic incidents, prevent secondary crashes, and keep the emergency responder safe.









#### **Drivewyze Alerts**

- "No Trucks in Left Lane" alerts to avoid traffic congestion, increase traffic flow, and increase safety
- Notifications are sent approximately every 15 miles on a 3-lane roadway
  - Following is the text that goes out:
    - Title: LEFT LANE RESTRICTED
    - Message: No Trucks Left Lane



## **Drivewyze Alerts**

- Alerts are sent in real-time. Sending notifications since August 17, 2023.
- To date, 1,816,327 total alerts have been sent, and 500,538 to the commercial vehicle trucks.

## Assessment Stage:

- Provide the truck drivers with real-time slowdown/congestion alerts.
- "No Trucks in Left Lane" alerts to avoid traffic congestion.



## **Drivewyze Alerts**

	·		
21911	NJ DOT Truck Left Lane Restrictions Turnpike Carneys Point Township NB	16,387	6,733
21912	NJ DOT Truck Left Lane Restrictions Parkway Middle Township NB	675	294
21913	NJ DOT Truck Left Lane Restrictions Parkway Port Republic NB	736	410
21914	NJ DOT Truck Left Lane Restrictions Parkway Stafford Township NB	770	444
21915	NJ DOT Truck Left Lane Restrictions Parkway Lacey Township NB	905	485
21916	NJ DOT Truck Left Lane Restrictions Parkway Lakewood NB	2,857	1,169
21917	NJ DOT Truck Left Lane Restrictions Parkway Middletown Township NB	48	34
21918	NJ DOT Truck Left Lane Restrictions Parkway Sayreville NB	124	68
21919	NJ DOT Truck Left Lane Restrictions Parkway Cranford NB	115	69
• 21920	NJ DOT Truck Left Lane Restrictions Parkway Clifton NB	38	37
21921	NJ DOT Truck Left Lane Restrictions Parkway Paterson SB	150	91
21922	NJ DOT Truck Left Lane Restrictions Parkway Clifton SB	48	47
21923	NJ DOT Truck Left Lane Restrictions Parkway Clark SB	109	65
21924	NJ DOT Truck Left Lane Restrictions Parkway Sayreville SB	52	29
21925	NJ DOT Truck Left Lane Restrictions Parkway Middletown Township SB	52	32
21926	NJ DOT Truck Left Lane Restrictions Parkway Lakewood SB	1,370	626
21927	NJ DOT Truck Left Lane Restrictions Parkway Lacey Township SB	731	423
21928	NJ DOT Truck Left Lane Restrictions Parkway Stafford Township SB	651	385
21929	NJ DOT Truck Left Lane Restrictions Parkway Middle Township SB	773	327
21930	NJ DOT Truck Left Lane Restrictions AC Expressway Atlantic City WB	320	174
21931	NJ DOT Truck Left Lane Restrictions AC Expressway Hamilton WB	2,753	1,067
21932	NJ DOT Truck Left Lane Restrictions AC Expressway Hammonton EB	2,673	1,048
21933	NJ DOT Truck Left Lane Restrictions AC Expressway Hamilton EB	2,662	1,030
21934	NJ DOT Truck Left Lane Restrictions I-280 Roseland EB	6,605	2,732
21935	NJ DOT Truck Left Lane Restrictions I-280 Kearny WB	7,820	3,820
21936	NJ DOT Truck Left Lane Restrictions I-287 Edison NB	26,087	7,603
21937	NJ DOT Truck Left Lane Restrictions I-287 Bridgewater NB	29,313	9,310
21938	NJ DOT Truck Left Lane Restrictions I-287 Harding Township NB	38,385	12,053
21939	NJ DOT Truck Left Lane Restrictions I-287 Montville NB	37,673	12,113
21940	NJ DOT Truck Left Lane Restrictions I-287 Mahwah SB	51,480	13,328
21941	NJ DOT Truck Left Lane Restrictions I-287 Riverdale SB	32,672	11,069
21942	NJ DOT Truck Left Lane Restrictions I-287 Hanover SB	34,100	11,185
21943	NJ DOT Truck Left Lane Restrictions I-287 Bedminster SB	37,776	12,214
21944	NJ DOT Truck Left Lane Restrictions I-287 Piscataway SB	28,724	8,991
	Total	1,816,327	500,538



Feature Presentation

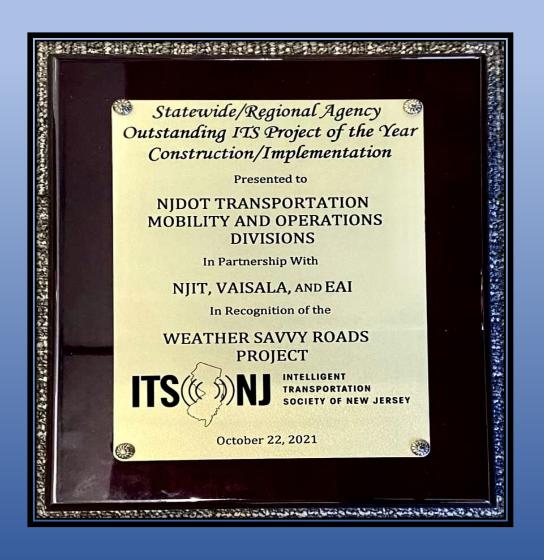
# Weather Savvy & Truck Parking Pilots

Thomas Murphy
and
Luis Rivera
STATEWIDE TRAFFIC OPERATIONS



## NJDOT Weather Savvy Pilot

## Weather Savvy Roads – Pilot Project



#### **Outstanding Project Award**

Weather Savvy Roads (WSR) won Intelligent Transportation Society of New Jersey (ITSNJ) 2021 Outstanding Project Award



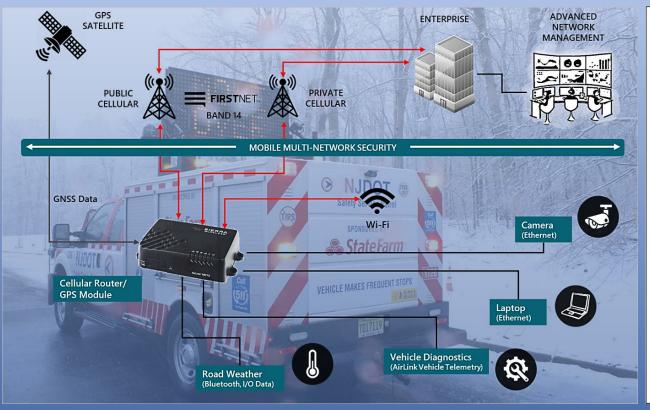
## Weather Savvy Roads – Pilot Project

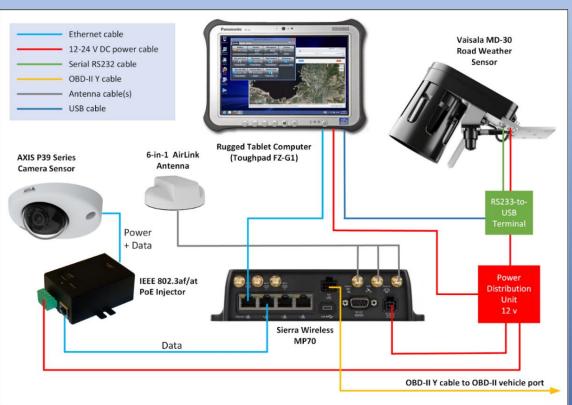
- Objective: Deploy IoT and CV technology to assist in road weather management:
  - Collect road weather and condition data in real time.
  - Provide data visualization to operators, for situational awareness and decision support.
  - Assist in analysis and planning of road weather management.
- Sponsored by the USDOT Accelerated Innovation Deployment (AID) Program, as implementation of EDC 4 "Weather Savvy Roads Integrating Mobile Observations (IMO)" innovation.





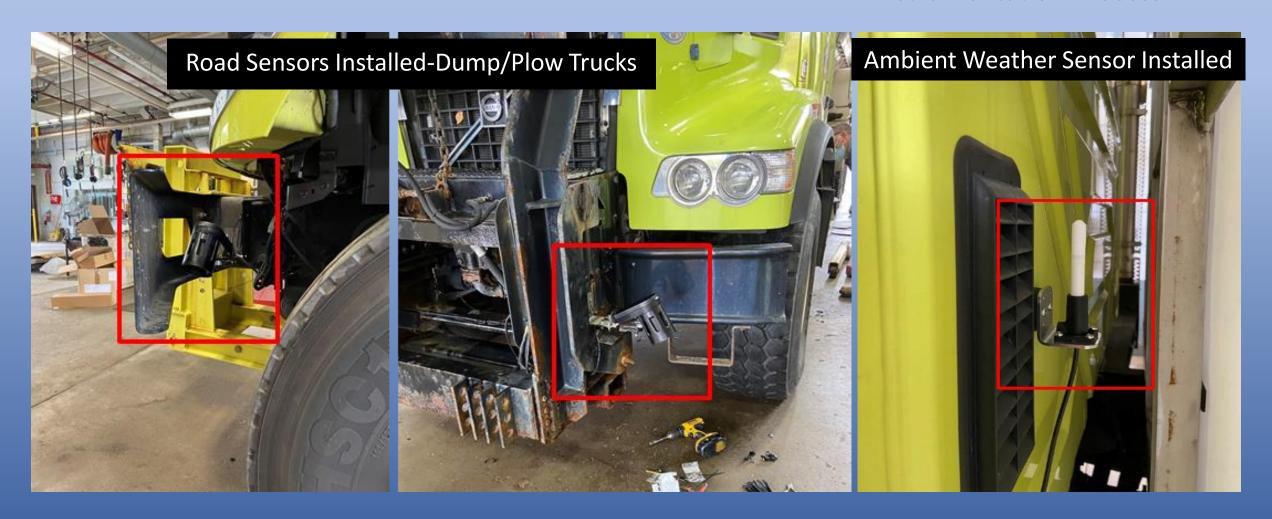
## Concept





#### Weather Savvy Roads – Pilot Project

**Instrumentation Process** 



#### Weather Savvy Roads – Pilot Project

**Instrumentation Process** 



Cab Setup – IMRT Truck

## Vehicle Instrumentation Status



#### Total Instrumented vehicles in operation- 24

**Operations Plow Trucks-7** 

**Operations Supervisor Pickups-9** 

SSP Trucks-6

IMRT- 2

Operations			Mobility		
North	Central	South	North	South	
4 Pickups 3 Plows	3 Pickups 2 Plows	2 Pickups 2 Plows	3 SSP 1 IMRT	3 SSP 1 IMRT	

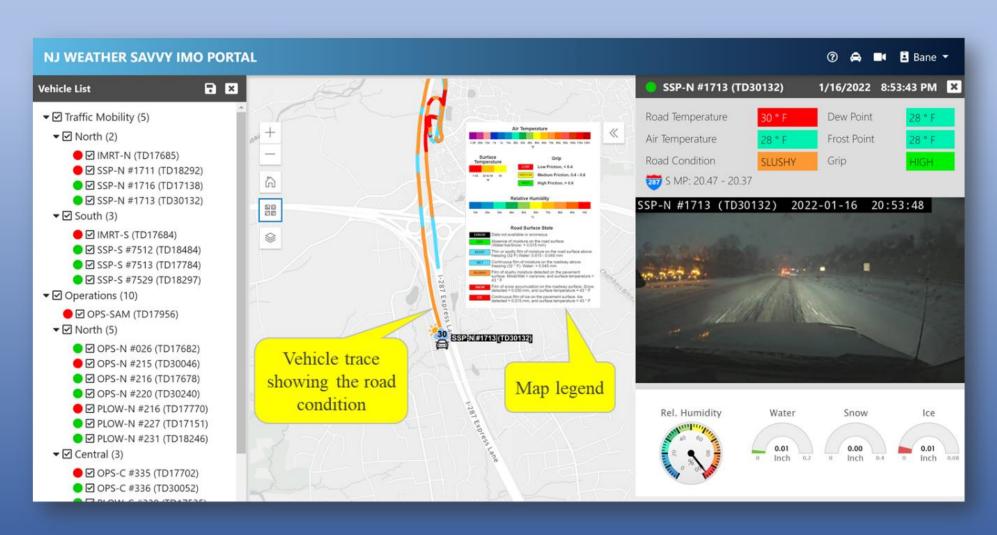
#### Strategic Implementation of Vehicles

Cover yards assigned to "incline packages"

Cover North/Central/South Operations regions

Cover SSP North/South routes

## Weather Savvy Roads – Pilot Project Web Interface (GUI)



#### Weather Savvy Roads – Pilot Project

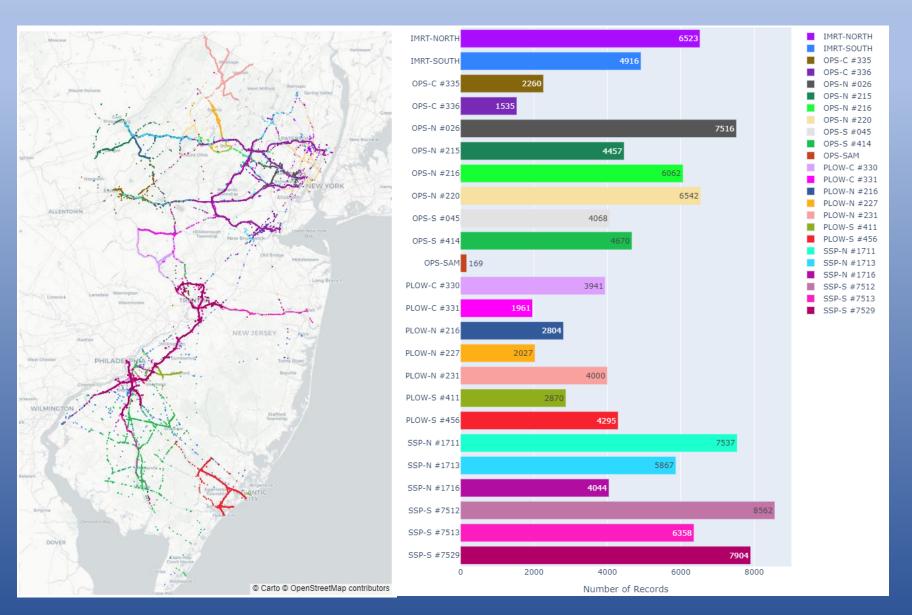
GUI: December 16-17, 2020, Winter Storm



Virtual Video Wall

%

## Weather Savvy Roads – Pilot Project



## Expansion of Weather-Savvy

20 more vehicles (SSP, IMRT, OPS)

Mobility				
North South				
2- 1 SSP & 1 IMRT	2- SSP			

<b>Operations</b>				
North	Central	South		
4 Plows	4 Plows	6 Plows		
2 Pickups	0 Pickups	0 Pickups		

- 44 total vehicles
- Increased focus on Plows- during a weather event these trucks stay on the road
- Increased coverage = increased precision/accuracy of our statewide road surface conditions & increased real-time situational awareness

## Weather Savvy Roads and Transportation Equity

- Sustainability and Environmental Justice
  - Weather savvy roads can help optimize the road treatment to minimize environmental impacts.
  - Crops and underground water are affected







## Project Outcomes

- "I wish I had these sensors on all my vehicles!"
- A great effect of simultaneous visual awareness (video feed) and road weather information (data visualization).
- Helped the operations manager determine the actions (e.g., end or suspend spreading and/or plowing operation).
- Potential to augment the RWIS network with a greater coverage of road weather information.
- Environmental preservation aspect: Potential to assist in optimizing the amount of salt and brine used through integration with the spreading controller.

NJDOT Pilot Tests of Truck Parking Information System (TPIS)



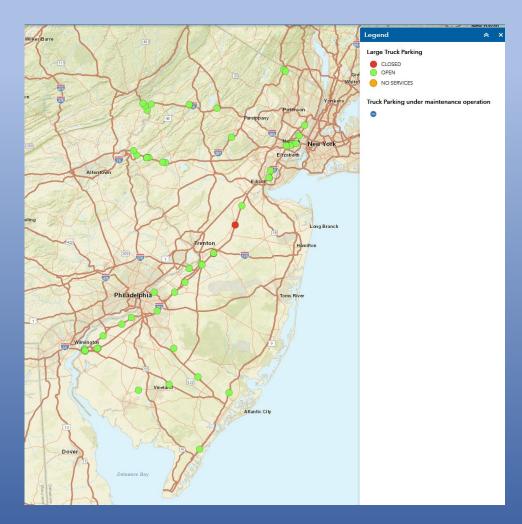
## Background

- In addition to the performance of New Jersey's highways, access to and the availability of secure truck parking is important.
- Truck drivers consistently rank parking availability as a top concern in annual surveys.
- The lack of longer-term, overnight parking is especially severe.
- Many state departments of transportation have engaged in a variety of truck parking expansion efforts in recent years.



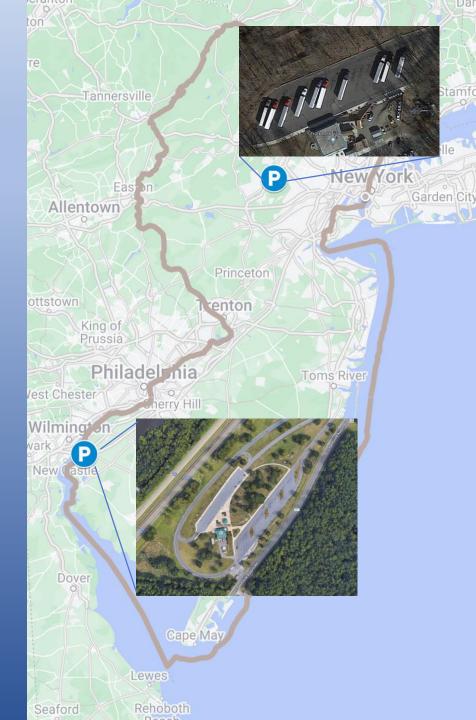
## New Jersey Truck Parking

- Despite 2,915 truck parking spaces available in New Jersey, there is also an evident shortage of truck parking in New Jersey
- Truck parking issues caused by this shortage are further exacerbated by the congestion on major New Jersey roadways.
- Coupled with the lack of real-time and accurate information on truck parking availability, the limited truck parking capacity disrupts the truckers' driving plans and routing.



# Real-Time Truck Parking Information System (TPIS) Pilot in New Jersey

- NJDOT TM commenced a pilot on technologies to collect and disseminate truck parking availability to the trucking community, especially the truck drivers.
- The concept of Operation (ConOps) and High-Level System Requirements Specifications for a Pilot Deployment developed in 2019.



## Harding Truck Rest Area

- In 2021, ITS technologies Deployed at the Harding Truck Rest Area are:
  - two traffic microwave sensors,
  - 9 CCTV cameras, and
  - 44 in-pavement sensors.



Mobile Trailer with traffic microwave sensor

#### Locations of cameras and camera coverages



#### Locations of in-pavement micro radar sensors



## Deepwater Truck Rest Area

- In 2023, ITS technologies Deployed at the Deepwater Truck Rest Area are:
  - Two traffic microwave sensors,
  - One CCTV cameras, and
  - 68 in-pavement sensors.



#### In-Pavement Micro Radar Sensor Installation







Measuring the position of a sensor hole

Core a hole

Clean and dry the hole



Sensor in a hole



Hole filled with epoxy

## Truck Parking Web Portal

- Web portal has been developed to provide:
  - Real-time situational awareness (utilization of the rest area)
  - Real-time detection reporting and analytics from all ITS Devices

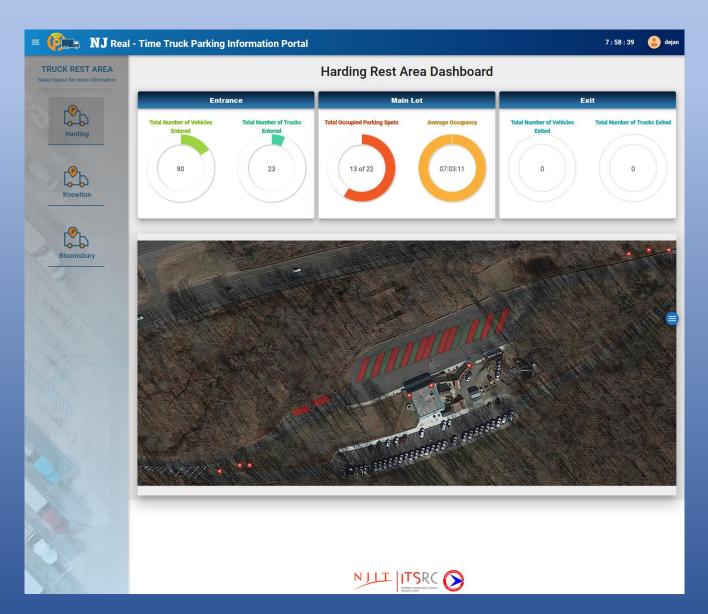


NJ Real -Time Truck Parking Information Portal

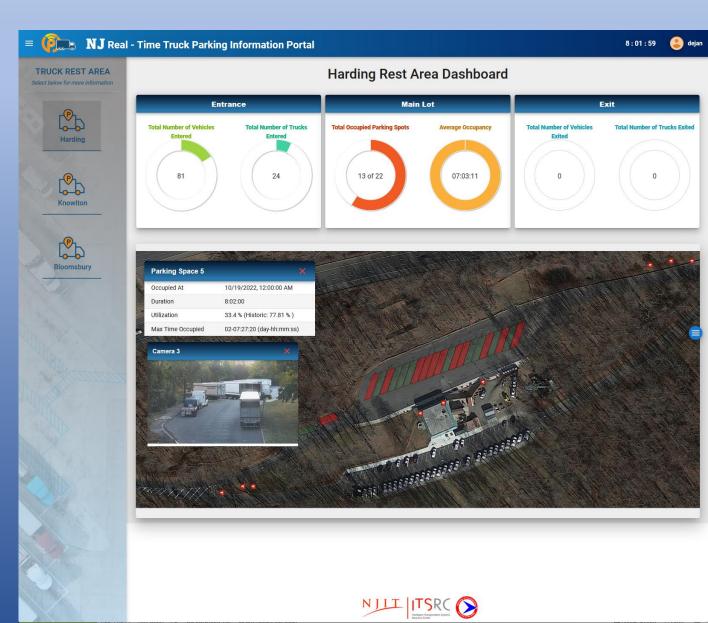




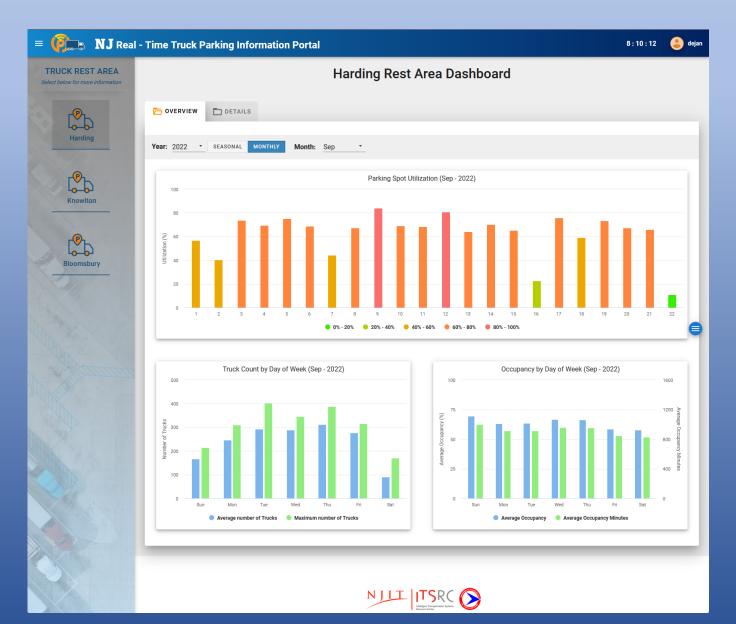
- Information collected and displayed:
  - Number of trucks and other vehicles entering
  - Main parking lot utilization and average dwell time of vehicles
  - Number of vehicles left the facility



- For each parking spot information available:
  - When it was occupied
  - For how long
  - Historically how much the spot is being used
  - Maximum time spot has been occupied
- Access to every camera feed

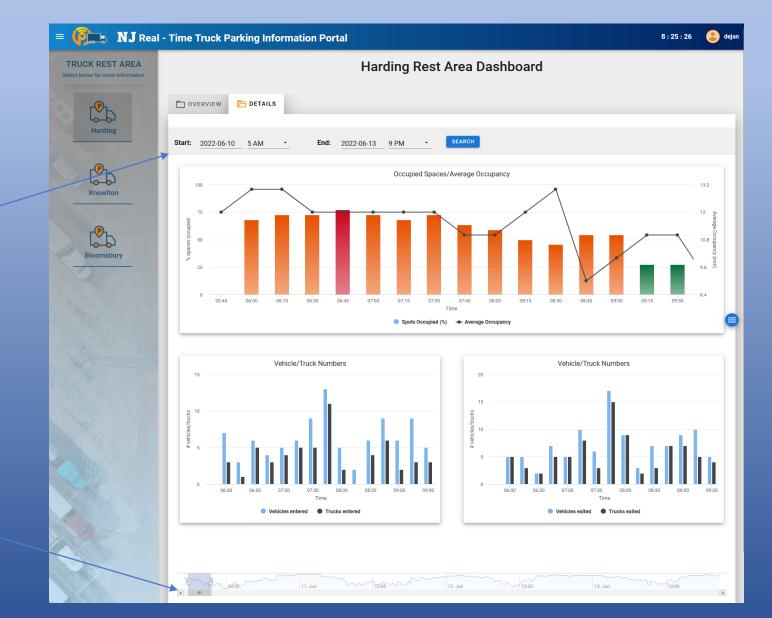


 Web Portal provides a user to obtain monthly or seasonal statistics of how the facility has been utilized or

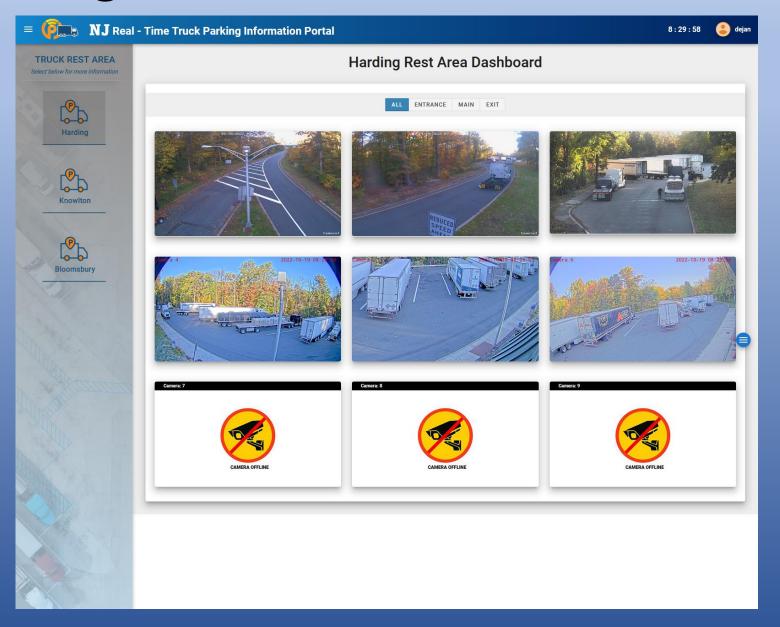


 Obtained the utilization of the facility for a custom date/time period

Custom Start and End date/time



## Harding Rest Area Virtual Video Wall



# No Trucks In Left Lane Notifications

## No Trucks In Left Lane Notifications

- Development of a "No Trucks in Left Lane" notification for our truckers, through Drivewyze.
- Notifications strategically placed roughly every 15 miles in every 3+ lane sections of our roadways.
- Roads receiving this notification:
  - I-80, I-195, I-280, I-287, I-295, I-676, NJ440, Turnpike, Parkway, and AC Expressway.
- Purpose: Alleviate traffic congestion, increase the traffic flow rate, and increase safety.



# "No Trucks in Left Lane" Notifications Three Months Ago and Most Recent

Site ID	Site Name	Alerts	Trucks
21927	NJ DOT Truck Left Lane Restrictions Parkway Lacey Township SB	188	137
21928	NJ DOT Truck Left Lane Restrictions Parkway Stafford Township SB	167	126
21929	NJ DOT Truck Left Lane Restrictions Parkway Middle Township SB	210	121
21930	NJ DOT Truck Left Lane Restrictions AC Expressway Atlantic City WB	80	50
21931	NJ DOT Truck Left Lane Restrictions AC Expressway Hamilton WB	680	368
21932	NJ DOT Truck Left Lane Restrictions AC Expressway Hammonton EB	637	361
21933	NJ DOT Truck Left Lane Restrictions AC Expressway Hamilton EB	641	357
21934	NJ DOT Truck Left Lane Restrictions I-280 Roseland EB	1,386	826
21935	NJ DOT Truck Left Lane Restrictions I-280 Kearny WB	1,650	1,109
21936	NJ DOT Truck Left Lane Restrictions I-287 Edison NB	5,082	2,658
21937	NJ DOT Truck Left Lane Restrictions I-287 Bridgewater NB	5,942	3,281
21938	NJ DOT Truck Left Lane Restrictions I-287 Harding Township NB	7,766	4,475
21939	NJ DOT Truck Left Lane Restrictions I-287 Montville NB	7,708	4,561
21940	NJ DOT Truck Left Lane Restrictions I-287 Mahwah SB	10,422	5,008
21941	NJ DOT Truck Left Lane Restrictions I-287 Riverdale SB	6,739	3,926
21942	NJ DOT Truck Left Lane Restrictions I-287 Hanover SB	6,971	3,954
21943	NJ DOT Truck Left Lane Restrictions I-287 Bedminster SB	7,727	4,386
21944	NJ DOT Truck Left Lane Restrictions I-287 Piscataway SB	5,630	3,122
Grand Total	Total	395,018	18,502

Site ID	Site Name	Alerts	Trucks
21806	NJ DOT Truck Left Lane Restrictions NJ-42 Blackwood NB	4,531	1,762
21807	NJ DOT Truck Left Lane Restrictions NJ-42 Bellmawr SB	16,688	5,946
21809	NJ DOT Truck Left Lane Restrictions I-76 Gloucester City EB	7,745	2,446
21810	NJ DOT Truck Left Lane Restrictions I-76 Bellmawr WB	10,478	3,959
21811	NJ DOT Truck Left Lane Restrictions I-78 Phillipsburg EB	64,949	16,114
21812	NJ DOT Truck Left Lane Restrictions I-78 Union township EB	64,444	16,310
21813	NJ DOT Truck Left Lane Restrictions I-78 Bedminster EB	21,574	6,149
21814	NJ DOT Truck Left Lane Restrictions I-78 Springfield EB	28,825	7,982
21815	NJ DOT Truck Left Lane Restrictions I-78 Jersey City EB	981	497
21867	NJ DOT Truck Left Lane Restrictions I-78 Jersey City WB	752	442
21943	NJ DOT Truck Left Lane Restrictions I-287 Bedminster SB	37,776	12,214
21944	NJ DOT Truck Left Lane Restrictions I-287 Piscataway SB	28,724	8,991
	Total	1,816,327	500,538

## TIM Outreach Tracker

## Traffic Incident Management Outreach Tracker

- Goal of 5,000 first responders trained in 2023.
- Outreach tracker provides:
  - Management of TIM outreach efforts.
  - Follow up with other agencies and their POC after initial meet-and-greet.
    - The tracker records names of individuals (who did the outreach, who was contacted), agency contacted (county, municipality), date, give aways, address, and any additional comments.
  - Unity faster updates, any success and necessary improvements.



## Example of Tracker List Item

Name	Date	Outreach Location	Contact	Address	Municipality	County	Give Aways	Notes
Robert Mcgeehan II	8/3/2023	Conferences	Name: Pat Gurscik Agency: Washington Twp PD Title: Chief Phone: (856) 589-6664 Email: cfiorle@pd.twp.washington.nj.us	1 McClure Drive, Sewell, 08080	Washington Twp	Gloucester	Challenge Coins: 1 Bumper Stickers: 250 key chains: 250 Cell Phone Holders: 500	National Night out 8/1/2023
Sal Cowan	3/23/2023	Specific Agency Meeting	Name: Greg Kierce Agency: Jersey City OEM Title: Director Phone: (201) 424-8625 Email: wkierce@njjcps.org	715 Summit Avenue, Jersey City, 07306	Jersey City	Hudson	Challenge Coins: 2 Bumper Stickers: 2 key chains: 2	Discussed incorporating Jersey City first responders into NJTIM classes throughout the year.

Questions



### **Contact Information**

Vandana Mathur: Vandana.Mathur@dot.nj.gov

• Kimberly Ferguson: Kimberly A. Ferguson@dot.nj.gov

• Thomas Murphy: Thomas.Murphy@dot.nj.gov

• Luis Rivera: Luis R. Rivera@dot.nj.gov

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## REMINDERS & ANNOUNCEMENTS

NJDOT Tech Transfer Website www.njdottechtransfer.net

NJ STIC Website www.njdottechtransfer.net/nj-stic/

## NJ Transportation Ideas Portal

**Welcome!** The New Jersey Department of Transportation's Bureau of Research uses this website to gather and share ideas from NJDOT's research customers and other transportation stakeholders.

Research Ideas. We seek to fund research that leads to implementation – to the testing and adoption of new materials and technologies, to better specifications and to greater efficiency. We strive to discover and advance feasible solutions for more durable infrastructure, greater environmental protection and resilience, and improved mobility and safety for residents, workers and visitors.

Innovation Ideas. We encourage the deployment of innovations and knowledge transfer. We work with the New Jersey State

Transportation Innovation Council (NJ STIC) whose mission is to identify, evaluate, and where possible, rapidly deploy new technologies and process improvements that will accelerate project delivery and improve the quality of NJ's transportation network.



njdottechtransfer.ideascale.com









Dr. Giri Venkiteela Research Scientist 2 NJDOT Bureau of Research









## STIC INCENTIVE PROGRAM

NJDOT Tech Transfer Website

https://www.njdottechtransfer.net/new-jersey-stic-requests/

Selection Criteria Eligible Projects/Activities How to Apply List of Projects

https://www.fhwa.dot.gov/innovation/stic/incentive\_project/

State	→ Fiscal Year	STIC Incentive Projects	Funds Allocated
CA	2024	<ol> <li>Advance modeling for Earth Retaining Structures (continued)         (\$22,400)</li> <li>Develop a Wrong-Way Driver Prevention Strategic Plan (continued)         (\$32,000)</li> </ol>	\$54,400
СТ	2024	Develop and pilot Wrong Way Rumble Strips	\$ 40,000
ME	2024	<ol> <li>Create an Equity Outreach Dashboard for Virtual Public Involvement Activities (\$40,000)</li> <li>Procurement of safety devices to be used to promote and encourage TIM training in rural areas. (\$20,000)</li> </ol>	\$60,000
AK	2023	Development of an intelligent truck transportation management application for freight and fuel movement through route optimization, scenario analysis, and incident management	\$100,000
CA	2023	Advance modeling for Earth Retaining Structures (\$52,000)     Develop a Wrong-Way Driver Prevention Strategic Plan (\$48,000)	\$100,000
СО	2023	<ol> <li>Implement Road Weather and Camera imagery in remote areas of the Front Range Colorado foothills (\$20,000)</li> <li>Colorado Road &amp; Bridge Institute (\$68.080)</li> </ol>	\$88,080

СТ	2023	Pilot and Develop specifications for Ultra High-Performance Concrete (UHPC) for Culvert Lining Repairs	\$ 100,000
DE	2023	<ol> <li>Implement UAS for inspections, survey work and Traffic Incident Management (TIM) (\$23,400)</li> <li>Dover Kent MPO Virtual Reality (VR) Experience (\$29,856)</li> <li>Pilot a Debris Removal Tool (\$34,400)</li> </ol>	\$ 87,656
FL	2023	Traffic-Related Community Air Quality Monitoring Network in Hillsborough County.	\$ 100,000
GA	2023	Leverage Probe Data for Incident Management in Rural Areas	\$ 100,000
IA	2023	Advance the use of Bridge Rating software for Local Public Agencies (LPA)	\$ 100,000
ID	2023	Pilot Workforce development program for female correctional residents	\$ 100,000
IL	2023	Implementation of e-Ticketing Statewide	\$ 100,000
IN	2023	Host Midwest Regional Innovation Peer Exchanges (50,000)	\$ 50,000
KS	2023	<ol> <li>Implement road debris removal systems (\$49,600)</li> <li>Deploy non-intrusive data collection equipment (\$50,400)</li> </ol>	\$ 100,000
MD	2023	Formalizing asset condition-based corridor/ network assessment procedures for Maryland SHA corridors and highway network.	\$ 100,000
ME	2023	Establish a Transportation & Infrastructure Workforce Development Collaborative Pilot Program	\$100,000









## NEXT MEETINGS

Exec. Team Meeting - March 6th 10:00am - 11:00am NJ STIC 2024 1st Triannual Meeting - April 17th 10:00am - 12:00pm

Exec. Team Meeting - July 17th 10:00am - 11:00am

NJ STIC 2024 2<sup>nd</sup> Triannual Meeting - August 7th 10:00am - 12:00pm

Exec. Team Meeting - November 6th 10:00am - 11:00am NJ STIC 2024 3<sup>rd</sup> Triannual Meeting - December 18th 10:00am - 12:00pm









## THANK YOU!

www.NJDOTtechtransfer.net/NJ-STIC

NJDOT Bureau of Research (609) 963-2242