

CIA TEAM MOBILITY & OPERATIONS

NJDOT – Vandana Mathur FHWA – Ek Phomsavath

EXPANSION OF WEATHER-SAVVY- COMPLETE!

Installations started in December 2023

•Expanded from 24 to 45 vehicles

 Increased the focus on plows- during a weather event these trucks stay on the road

Mobility				
North		South		
2 IMRT		1 IMRT		
3 SSP		3 SSP		
Operations				
North	Central		South	
7 Plows	8 Plows		10 Plows	
6 Pickups	3 Pickups		2 Pickups	

WEATHER-SAVVY IMPROVEMENTS

- •Previously components were installed on the floor of the cab under the seats
- •Components were susceptible to damage from water, dirt, misc. items in the cab and tampering
- •Now components are installed in a junction box with a plexiglass lid







TRUCK PARKING PILOT

- •Started in 2021 at Harding
- •Expanded to Carney's Point in the summer of 2023
- •Data gathered from cameras, remote traffic microwave sensors, and in-pavement micro radar sensors (a.k.a., Pucks) is visible on the web portal

•Next steps

- Install a portable DMS signs approx. 5 miles from Harding on I-287 and I-78 to alert truckers to the number of available spots
- Potential future expansion to Knowlton in 2025

DRIVEWYZE ALERTS

- Provides free safety alerts to commercial vehicle drivers
- Alerts show up directly on the driver's Electronic Logging Device (ELG)
- We can view when and where alerts were sent through the Tableau dashboard
- However, we wanted to verify the accuracy of the alerts



Most Active Corridors - By Alert Count		
name	lut	
PHMTE to Mainline NB MM 106	1,040	
NJTP NB Western Spur-I 95 Extension	1,091	
NJTP Mainline SB MM107-PHMTE Outsi	792	
NJTP Mainline SB MM107-0	538	
NJTP Mainline NB MM0-106	847	
NJTP I-95- Western Spur SB MM122-106	1,245	
NJTP I-95 SB Express Lane	23	
NJTP Eastern Spur SB MM117-106	185	
NJTP Eastern Spur NB MM106-117	138	
NJ 440_I-287 SB MM-67	1,254	
NJ 440_I-287 NB MM-67	1,419	
NBHCE WB MM6-0	4	
NBHCE EB MM0-6	21	
I-80EB MM0-69	543	
I-80 WB MM69-0	923	
I-80 WB Express Lane		





OBJECTIVES & METHODOLOGY

Drivewyze





Alert Accuracy

The objective was to verify if Drivewyze accurately identified known static alert locations, ensuring drivers receive timely notifications.

Real-time Environment

The system's ability to detect realtime environmental alerts, such as congestion and standstill traffic, was assessed.





Testing Hours

Four days of testing were conducted during AM Peak Rush hours, between 6 AM and 10 AM, to capture the most challenging traffic conditions.

Data Collection

GPS logging applications were used alongside Drivewyze to record precise location data and real-time traffic conditions

EVALUATION PROCESS

Drivewyze^{*}

95%

Notification Collection

18/19 alerts received

0%

Congestion Alerts

25 congestion points (<10 mph) not flagged by Drivewyze

Missed Alert

✓ NJ DOT Truck Left Lane Restrictions Turnpike Ridgefield SB

I-95 SB [MP 70.5]

✓ Drivewyze Site, Weigh Station, 2 Miles

✓ GWB EXIT: H. HUD PKWY/9A, Passenger Cars Only

I-287 North [MP 7.0]/I-95 [MP 71.8]

Drivewyze Static Alerts

- ✓ NO TRUCKS Left Lane
- Drivewyze Site, Weigh Station, 2 \checkmark Miles
- Weight Limit 5 Tons, Along \checkmark Hillcrest Rd
- GWB EXIT: H. HUD PKWY/9A, \checkmark **Passenger Cars Only**

Bradley Gardens



DRIVEWYZE ACTIVITY

Received Alert

Congestion Zone







EDC-7: NEXT-GENERATION TIM -TECHNOLOGY FOR SAVINGS LIVES







Deployment of TIM Technologies:

- Light towers are equipped on NJDOT Incident Management Response Trucks (IMRT) to provide lighting at incident scenes.
- Utilizing LED flares at incident scenes.

Institutionalized Stage:

- Integrate activities into the NJDOT ITS/Traffic Operations work programs.
- Offer real-time alerts to truck drivers for slowdowns and congestion.
 - "No Trucks in Left Lane" alerts to avoid traffic congestion.

Last But Not Least

NJDOT along with FHWA-NJ jointly submitted an article to the FHWA HQ (Accelerating Innovation Programs) in Washington, D.C. for consideration to be in the EDC newsletter (43,000 subscribers) for the EDC innovation spotlight.

It was under the category Shine a Spotlight on EDC Innovation Deployments in NJ

The title was

NJDOT Deploys Advance Warning Messages for Truck Drivers

