# CIA TEAM

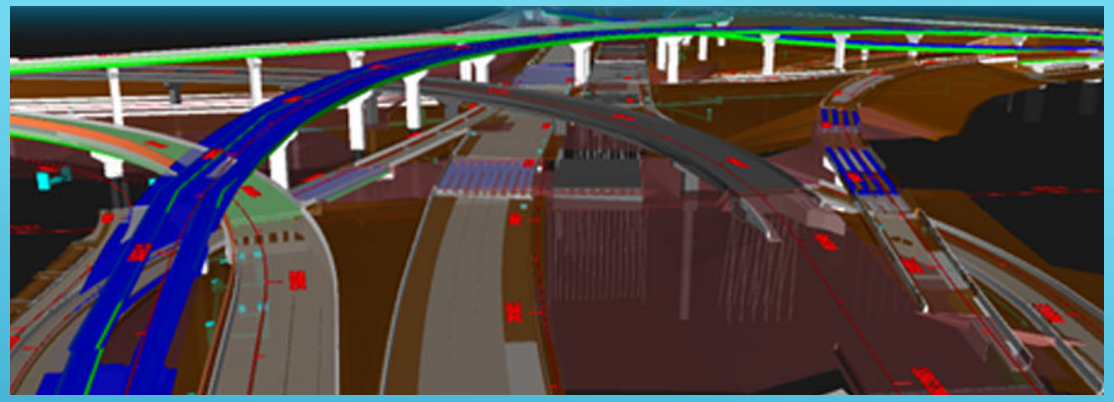
## *INFRASTRUCTURE PRESERVATION*

NJDOT – Bob Signora

FHWA – Nunzio Merla

# EDC – 6

## Digital As-Builts



***Purpose:*** *To explore the use of 3D models to build projects and update that digital information to reflect the project's as-built condition*

***Benefits:***

- Construction using digital information can lead to safer projects
- Digital information streamlines project delivery
- Digital as-builts can provide enhanced historical data

**Status:**

- Team assembled (NJDOT, FHWA, Industry), Baseline Report completed, Working on preparing a list of required resources and preparing a cost estimate

# EDC – 6

## e-Ticketing

**Purpose:** Provide stakeholders with an electronic means to produce, transmit, and track and verify materials deliveries

**Benefits:**

- *Enhances data collection & reduces exposure to construction equipment*
- *Time Savings - Real-time access*
- *Project documentation is more consistent and efficient using e-Ticketing*

**Status:**

- *Effort in Development Stage*
- *Two Vendors have given presentations to date. Continuing to reach out to other Vendors for future presentations.*

# EDC – 6 *Targeted Overlay Pavement Solutions (TOPS)*

***Purpose:*** *To develop and install overlays that provide long-life performance under a wide range of traffic, environmental, & existing pavement conditions*

***Benefits:***

- Improve surface characteristics, such as smoothness, friction, and noise
- Timely and well-designed overlays are consistently cost-effective
- Targeted solutions to high-traffic areas result in reduced maintenance needs, fewer work zones, and improved safety

**Status:**

- NJDOT is a *lead agency* using High-Performance Thin Overlay (HPTO), Binder Rich Intermediate Course (BRIC), & Stone Matrix Asphalt (SMA)
- Ultra-HPTO (aka HiMA) pilot project bid and awarded in region south currently being monitored

# EDC – 6

## UHPC for Bridge Preservation and Repair

***Purpose:*** *To explore the use of UHPC for Bridge Preservation and Repair.*

***Benefits:***

- Versatile & Strong - UHPC is a fiber-reinforced, cementitious composite material with mechanical and durability properties that far exceed those of conventional concrete materials
- UHPC repairs can outlive and outperform their conventional counterparts, resulting in life-cycle cost savings

**Status:**

- 2 Pilot projects using UHPC completed in 2020 as well as additional deployments in 2021. Info being gathered on performance and usability
- Life cycle cost analysis will also be conducted
- Bridge Design Manual will be updated to include UHPC P&R