A Smart, State-of-the-Art, 21st Century Corridor

The new Jane Addams Memorial Tollway (I-90) has been reconstructed with the latest technologies to make the roadway safer and more efficient for Tollway customers.

The new roadway delivers a 21st century corridor incorporating active traffic management, integrating transit and introducing the Tollway’s first SmartRoad scheduled to go live in spring 2017.

Data collected from the corridor also will be shared with navigation apps such as Waze, MapQuest and Google Maps allowing drivers to choose their preferred access to real-time travel information to better plan for travel.

- **Active Traffic Management (ATM)**
  ATM uses data and video collected by the Tollway’s Traffic and Incident Management Center to provide real-time information to drivers including travel times, traffic incident advisories, lane closure and traffic pattern changes, as well as the ability for Pace buses to drive in the shoulder lanes. SmartRoad high-tech gantries are located every half mile between Barrington Road and the Kennedy Expressway to communicate with drivers.

- **Upgraded Digital Message Signs**
  New over-the-road digital message signs feature high-resolution, full-color graphic capability to enhance communication throughout the corridor. In addition, the I-90 SmartRoad gantries features smaller, four-color digital message signs to direct and inform drivers.

- **State-of-the-Art Wireless Traffic Sensors**
  New traffic sensors will provide more comprehensive travel time information. In addition, sensors added to ramps along the corridor, will enable the Tollway to monitor and alert drivers of potential backups. These systems will be available for integration with communities along the Tollway and communication with local traffic signal systems.

- **Upgraded and Expanded Camera System**
  Upgraded from analog to digital high-definition, roadway cameras along I-90 enhancing the Tollway’s ability to pan and zoom in and out to better respond to roadway incidents. Camera coverage has been increased to provide for viewing along the full length of the I-90 corridor from the Tri-State Tollway (I-294) to Rockford.

- **New Weather Stations**
  Upgraded weather stations along the I-90 corridor offer state-of-the-art technology capable of providing pavement monitoring and weather condition information at critical locations, including bridges on the system, to monitor and report on snow and icing conditions.

**FLEXIBILITY FOR THE FUTURE**

The new I-90 includes flexible infrastructure that will enable the Tollway to add new “smart” features as needed or as they become available in the years to come.

- **Vehicle-to-Infrastructure Communication**
  This feature could allow our infrastructure to communicate with cars over a wireless network, exchanging data about each vehicle’s speed, location and direction of travel and providing feedback to drivers to react to developing situations. The roadway will include infrastructure elements that will accommodate the equipment needed to communicate with vehicles in the future.

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SMART CORRIDOR FEATURES

I-90 will feature active traffic management (ATM) through the use of high-tech gantries placed every half mile that provide real-time information to drivers including:

- Nature and status of traffic incidents ahead
- Ability for Pace buses to drive in the shoulder lanes
- Advisory speeds
- Proposed alternate routes
- Real-time lane closures and traffic pattern changes

The new I-90 roadway will also feature:

- Upgraded and expanded roadway camera system for full-coverage of the I-90 corridor
- State-of-the-art wireless traffic sensors to provide more comprehensive travel times and monitor for traffic backups
- New weather stations to monitor and report on pavement conditions at critical locations
- Flexible infrastructure to enable the vehicles of the future to communicate with one another and the roadway