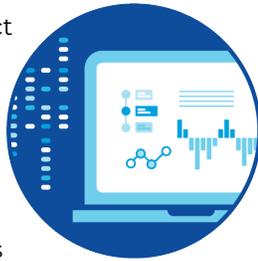


Overview

The Advanced Technologies project is one of the six ground-breaking projects that make up Contra Costa Transportation Authority's (CCTA's) INNOVATE 680 program. This program is specifically designed to unify existing systems within the corridor and increase efficiency by addressing corridorwide congestion and long-standing operational challenges along Interstate 680 (I-680) in Contra Costa County. Similar congestion management concepts are in operation around the world and could provide great relief to travelers in our area.



Our Advanced Technologies project will develop a central command center for the corridor. Like the body's nervous system, the command center will maintain the overall health of the corridor by sending signals to and from its various systems.

Beginning with the development of a centralized data center and system operator, the Advanced Technologies project is paving the way for future integrated systems to manage I-680 (like ramp metering, lane-use signs, and speed limit signs) and arterial roads (traffic signals, electronic message boards) in synchrony.



FOR ILLUSTRATION PURPOSES ONLY

At the core of the Advanced Technologies project is the countywide connected data center, which will collect traffic data, adjust technologies, and share information with partners and travelers in real time. All INNOVATE 680 projects are underpinned by the data gathered as part of the Advanced Technologies project.



Goals



BETTER TRAFFIC FLOW

Reduced travel time, fuel consumption, and vehicular emissions



GREATER SAFETY

Fewer accidents and faster responses from emergency responders



IMPROVED RELIABILITY

A resilient system with more predictable trips and less motorist stress



INFORMED DECISIONS

Information supporting travelers' choices about their travel time, mode, and route

Countywide Connected Data Center

At the core of the Advanced Technologies project is the **countywide connected data center**, which will house data gathered from other transportation agencies, transit providers, local agencies, high-tech infrastructure, and external partners. This data will:

- Guide system decision-making.
- Adjust traffic signals, speed limit signs, and lane-use signs automatically to absorb the impact of traffic events.
- Alert travelers to changes that may affect their journey via mobile app, roadside electronic message boards, and transit station signs.

For more information about this project contact:

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In Practice

In San Diego—one of the first places to integrate smart traffic infrastructure, services, and management along a major corridor—travelers saved 1,403 person hours each day during peak periods. Benefits were greatest during high congestion due to major incidents. Projects under the umbrella of advanced technology are benefiting travelers nationwide:

- Varying speed limits to better meet traffic and road conditions reduced crashes caused by low visibility by **50%** in Virginia.
- Adapting traffic signals on arterials reduced travel times by **20-50%** in Arizona and reduced intersection delays by **20%** in Maine.
- Notifying traffic signals of approaching buses reduced late arrivals by **40%** in Utah.
- Ramp metering reduced delays by nearly **50%** in Minnesota and reduced odds of collisions by **6%** in Florida.
- Warning drivers of work zones and providing alternative routes reduced accidents by **44%** in Texas.

Project Status

Regular stakeholder engagement and public outreach will occur throughout the project. Our team is working diligently to meet several milestones between now and 2024, including:

- **FINALIZE** and adopt a Concept of Operations document and begin its implementation.
- **CONDUCT** environmental studies and produce an environmental document.
- **BEGIN** the design phase.



Stay Informed!

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