



COLORADO
Department of
Transportation

Fact Sheet

Eisenhower/Johnson Memorial Tunnels Fixed Fire Suppression System

What is this project?

The Colorado Department of Transportation (CDOT) is installing a fixed fire suppression system in the Eisenhower/Johnson Memorial Tunnels (EJMT) to better identify the location of and ultimately suppress a fire. This project improves life safety and protects an essential transportation asset that connects the Front Range with the Western Slope and facilitates interstate commerce.

Why do the Eisenhower/Johnson Tunnels need a fire suppression system?

On average, more than 30,000 vehicles pass through the EJMT each day, and historically, the tunnels have experienced two to three fires a year since their opening. A severe fire in the tunnels can be a danger to motorists, as well as cause long-term closures and damages, costing Colorado billions of dollars and impacting tourism and commerce along the I-70 mountain corridor.

While CDOT currently has firefighting capability at the EJMT complex, this project will help tunnel staff more accurately identify a fire within feet of its location and allow them to activate the corresponding water deluge zone. The detection system will also activate cameras so the EJMT onsite staff can view and better assess a fire event.

What are the travel impacts from this project?

Each tunnel must be closed while the heat detection system is installed, but CDOT will keep one tunnel open at all times and use pilot cars to escort alternating directions of I-70 traffic through the open tunnel. Traffic will be held for up to 20 minutes, but motorists could experience longer delays as the queues are cleared in each direction.

Work will take place during the overnight hours of 10 p.m. to 6:30 a.m. each Sunday through Thursday night, with traffic control beginning at 8 p.m. Work begins the night of Monday, April 6, and continues for 20 nights. Work is weather dependent and therefore subject to change.

Single lane closures will be set up at night, as necessary, for the duration of the project following the full bore closures.

How will emergency service vehicles operate during the tunnel closures?

Emergency service vehicles will take priority if they need to travel through the EJMT to respond to an incident. Traffic will be stopped in both directions to allow an emergency service vehicle access through the open tunnel.

What are the various elements of the project?

Major project elements include:

- A water-only deluge fire suppression system which is capable of suppressing a fire in the first two minutes of the event
- A system capable of providing water for 60 minutes with two deluge sprinkler zones, as well as 500 gallons per minute from the existing standpipe system
- A containment system to capture fire suppression system runoff
- A Fiber Optic Linear Heat Detection system

What is the construction schedule for the project?

Work that could impact the traveling public begins the night of Monday, April 6, and continues for 20 nights. The tunnel closure schedule is:

- April 6 - 10 | Eastbound bore closed
- April 12 - 17 | Eastbound bore closed
- April 19 | Eastbound bore closed
- April 20 - 24 | Westbound bore closed
- April 26 - 30 | Westbound bore closed
- May 3 | Westbound bore closed

The above tunnel closure schedule is subject to weather.

Single lane closures will be set up at night as necessary for the duration of the project following the full bore closures.

The vast majority of the construction work will be “invisible” to the traveling public, occurring in the ventilation shafts above the tunnels; resulting in minimal traffic disruptions. The fixed fire suppression system is anticipated to be fully functional by December 2015.

How much does the project cost?

The fixed fire detection and suppression system will cost \$20 million and is funded through a federal Transportation Investments Generating Economic Recovery (TIGER) grant, state transportation funds and funds appropriated by the Colorado General Assembly. CDOT has contracted a Design Build team led by Barnard Construction, supported by Rondinelli Life Safety, BCER Engineering and Western States Fire Protection and Systems Group.

How do I reach out to the project team?

Project Contacts:

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