



IMPROVE **81**

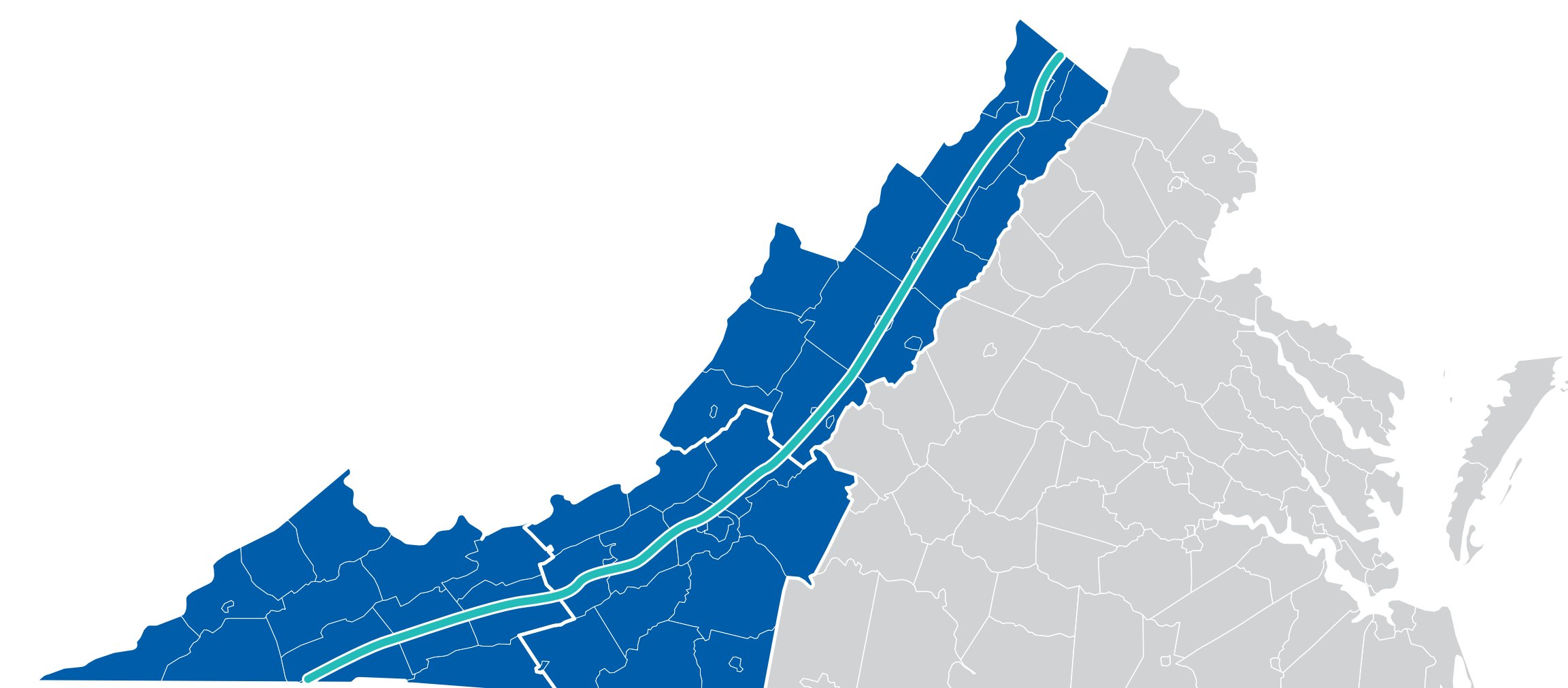
I-81 is a Critical Transportation Corridor



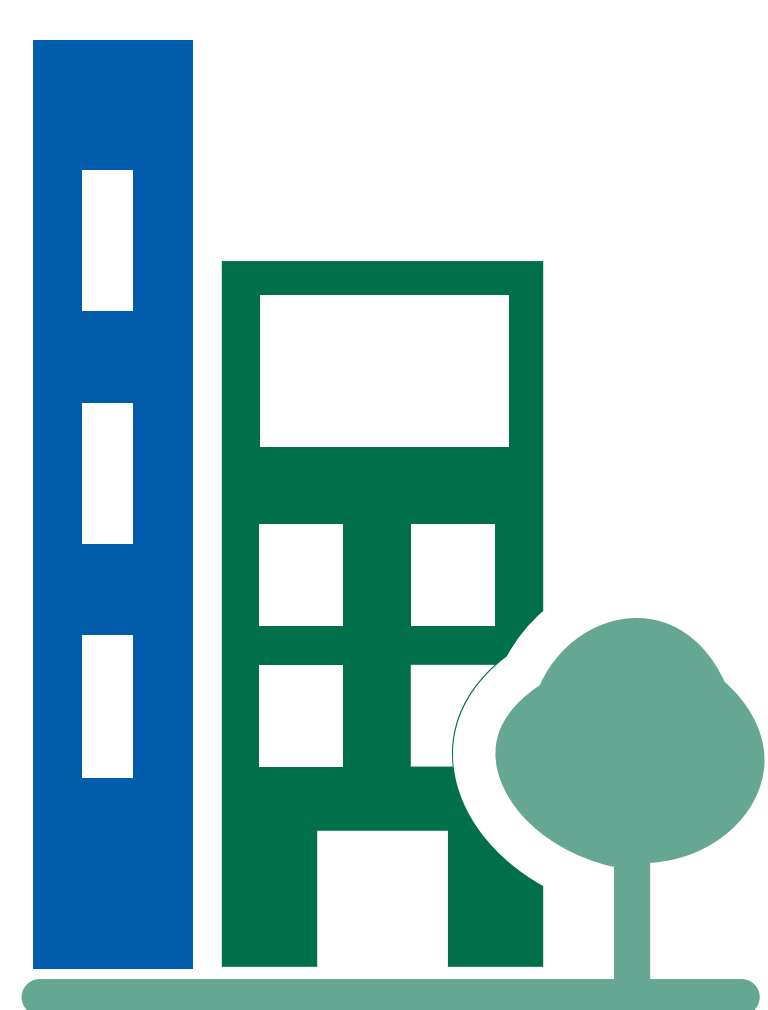
325-mile
Corridor Within Virginia



30
Colleges and Universities



13
Counties



45
Cities and Towns



1.4 Billion
Truck VMT Annually

43%
of Statewide Interstate
Truck VMT



\$300+ Billion
in Goods Per Year



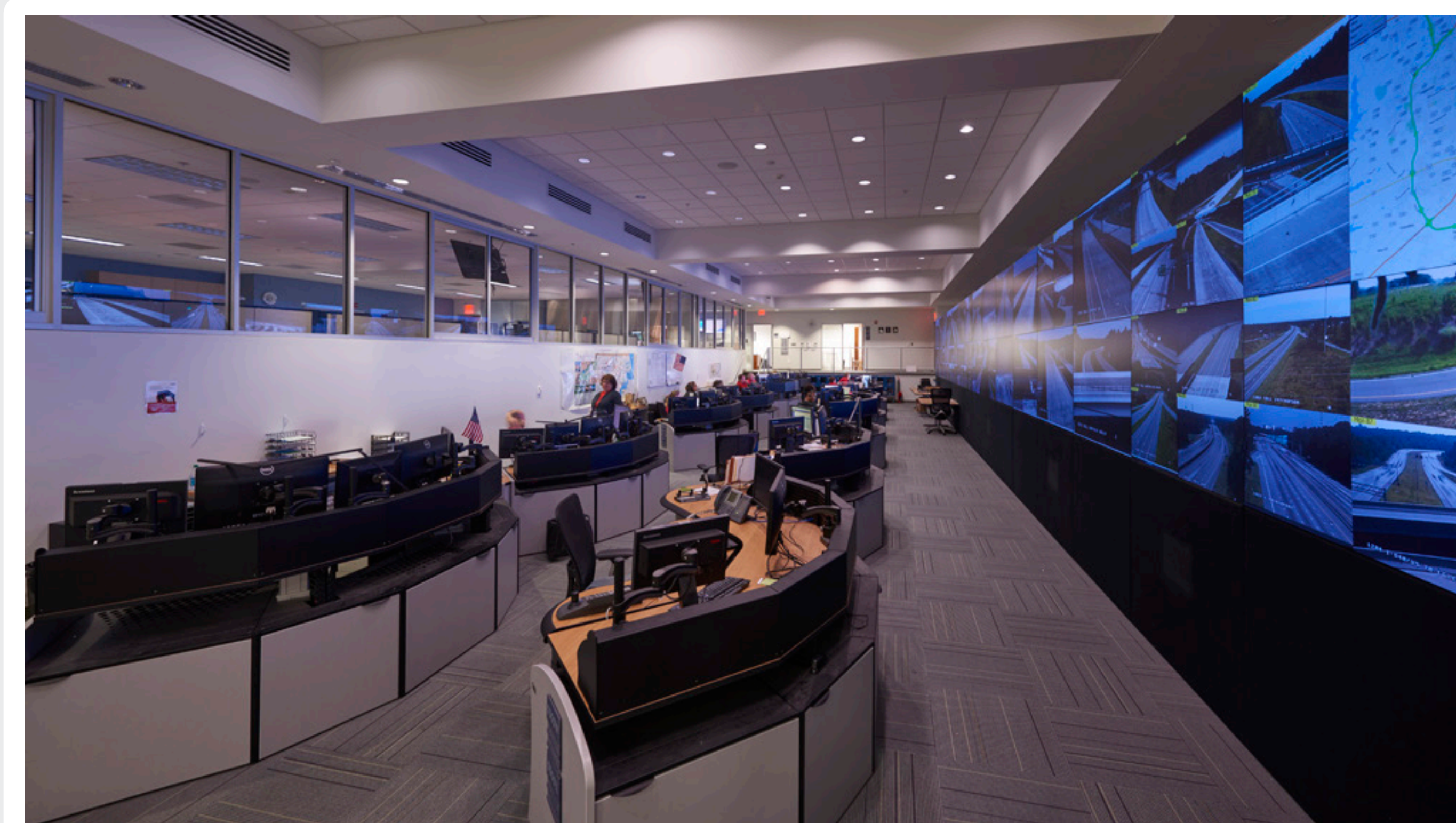
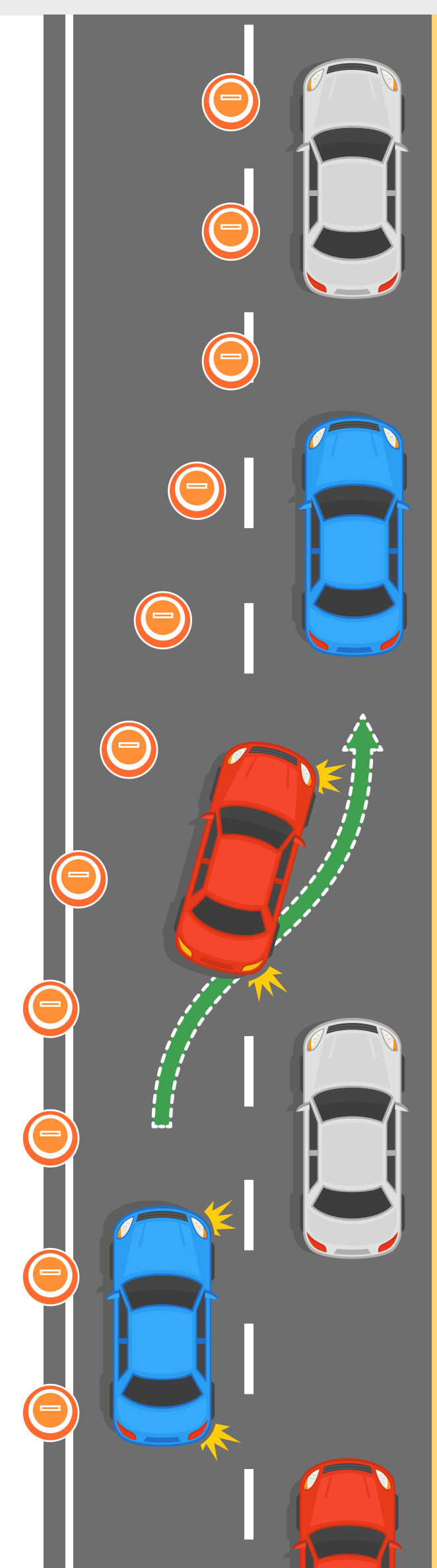
IMPROVE **81**

Exploring Smart Operations and Technology Enhancements

Concepts being considered and evaluated to enhance travel along the I-81 corridor

Zipper Merge (Dynamic Late Merge)

Improves traffic flow in construction areas by guiding drivers to merge late and evenly at the merge point.



Public Safety Answering Point (PSAP) Integration

Traffic operations centers are notified in real time when 911 calls are made, allowing faster response to incidents on I-81.



Safety Service Patrol (SSP) Vehicle Cameras

These cameras provide real-time visuals to traffic operations centers, improving situational awareness and speeding up incident response.

System Resiliency

Backup power keeps traffic signals and cameras running during power outages.



Dynamic Detour Signs

Real-time signs guide drivers along detours, reducing confusion and delays.



Incident Signal Timing Plans

Signals along detour routes are optimized to handle extra traffic during I-81 incidents.



Widening

Adds new lane typically within the existing median



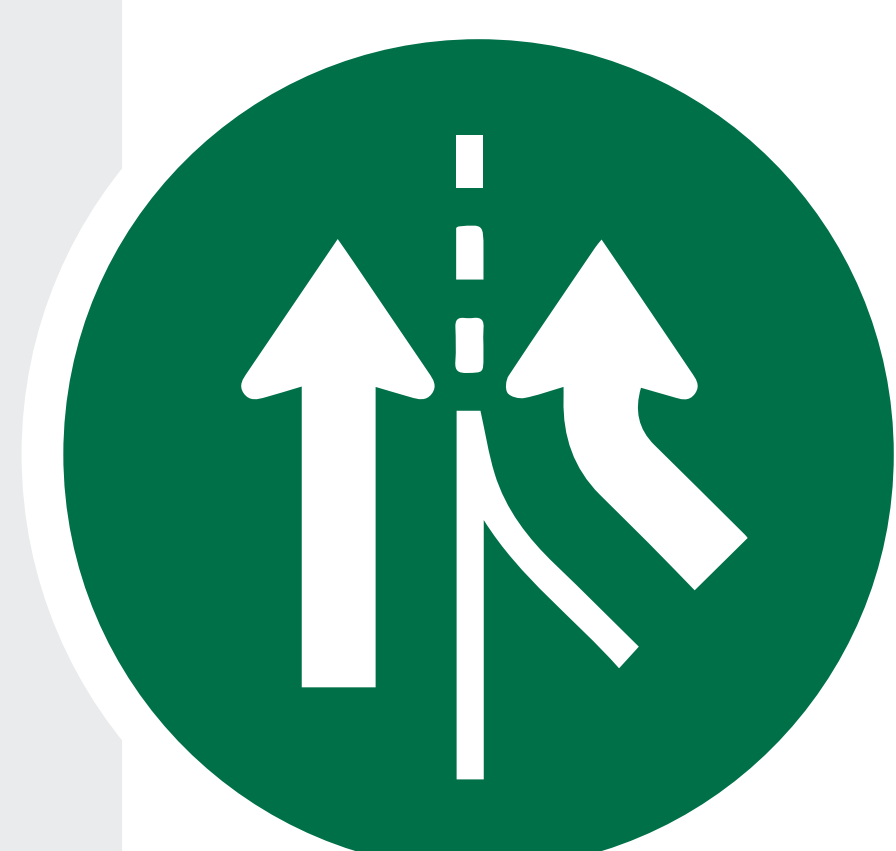
Acceleration/ Deceleration Extension

Extends ramps to allow for more distance to merge or exit



Curve Improvements

Addresses superelevation in curves to reduce the potential for run-off-the-road crashes



Auxiliary Lane

Connects interchange on- and off-ramps for additional distance to merge or exit



Realignment

Addresses roadway curvature by improving geometrics



Truck Climbing Lane

Adds lane on steep grades for trucks allowing cars to pass