

# Queue Warning

Warnings delivered by static or dynamic signs alert motorists that traffic is slowed or stopped ahead.

## TRANSPORTATION NEEDS ADDRESSED

-  Travel Time
-  Environmental Impact
-  Safety
-  Reliability
-  Mobility
-  Work Zones
-  Unplanned Events

## COST MAGNITUDE

CAPITAL COST



OPERATION AND MAINTENANCE COST



## WHEN TO CONSIDER THIS STRATEGY

-  ROADWAYS WITH RECURRING CONGESTION, SIGHT DISTANCE RESTRICTIONS, OR HIGH SECONDARY CRASH RATES
-  IN ADVANCE OF WORK ZONES

## COMPLIMENTARY STRATEGIES

-  DYNAMIC SPEED LIMIT
-  DYNAMIC LANE USE CONTROL
-  TRAFFIC SURVEILLANCE
-  TRAVELER INFORMATION
-  SMART WORK ZONE
-  WORK ZONE MANAGEMENT

## HOW WILL THIS HELP?

-  Improve safety by reducing end-of-queue crashes.
-  The strategy may also lead to speed harmonization, reducing delay, fuel consumption, and gas emissions caused by queues.

## HOW DOES IT WORK?

-  Static signs with flashing beacons or dynamic message signs are deployed on freeways and arterials in advance of roadway curves, recurring bottlenecks, and work zones.
-  The flashing beacons or queue warning messages are activated based on queue detection from real-time traffic sensors.

## CONSIDERATIONS

- + LOCATE SIGNAGE IN ADVANCE OF LOCATIONS WHERE QUEUES TYPICALLY FORM.
- + ADDRESS THE NEED FOR INFRASTRUCTURE AND SOFTWARE ENHANCEMENTS TO MEET THE OPERATIONAL NEEDS.

