

## Projects

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Prepared by Transportation Planning  
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## Real-Time Digital Alerts for Motorists [Video](#)



### Description

MoDOT workers face increasingly dangerous conditions working on highways. Often, the array of lights on MoDOT's fleet can be ineffective in grabbing the attention of traveling motorists. To reduce crashes with MoDOT Emergency Response (ER) vehicles and improve safety for everyone, Kansas City Scout, Gateway Guide, KC/SL Emergency Response and Central Office Highway Safety and Traffic Division have teamed up to utilize Real-Time Digital Alerts. This technology enables the 29 ER vehicles in Kansas City and St. Louis to send real-time digital alerts to motorists to supplement their lights and sirens. The most well-known tool to receive these alerts to motorists is via the WAZE navigation app.

Even though the technology is advanced, the process is actually very simple. When an ER operator activates their light bar, a real-time digital alert and safety message is automatically sent to drivers. These drivers are predicted to be in the most probable path of the ER vehicle that is preparing to approach or arrive on-scene. Depending on roadway geometrics and the area, a light bar may only give 3-5 seconds of warning whereas the digital alert technology may give the driver closer to 25 seconds to react to the ER vehicle ahead. In addition to the alerts being sent to the motorists, vital information is being sent to Traffic Management Centers (TMC). When the light bar on the ER vehicle is activated, the GPS icon on the TMC operators map will change color noting the ER operator is going from routine driving to emergency mode.

### Benefit

As navigation apps and in-car navigation increases, more motorists will be alerted of ER operators nearby. This will help reduce the number of Dynamic Message Signs needed since motorists will be alerted inside their vehicle and will not need to rely as much on external signs, which in the long run will save money. No additional efforts need to be made by either the ER or TMC operator to send real-time digital alerts to the traveling motorists. This helps ensure the ER operator can focus on safety at the incident scene and not worry about extra steps to send this vital safety information to nearby motorists. Every second counts for those working on busy highways. This advance notification to nearby motorists of ER vehicles and personnel will help motorists be alert and prepare to move over.

## **Materials and Labor**

The total cost of materials was \$5,000 with approximately \$3,000 in reoccurring costs for the ER vehicles. To install and analyze took approximately 80 hours of labor.

## **For More Information Contact**

### **Central Office Highway Safety and Traffic Division**

Randy Johnson at [randy.johnson@modot.mo.gov](mailto:randy.johnson@modot.mo.gov) or 816-347-2200. Additional contacts: Jamie Rana, Mark Croarkin, Brian Umfleet, Owen Hasson, Ashley Buechter, Alex Wassman, Michael Flory, Scott Banes, Marcus Slaughter and Kelly Alvarez

Additional information, photos or videos can be seen by accessing Innovations Challenge SharePoint page at: <http://sp/sites/tp/planpol/SitePages/InnovationHome.aspx>