

## Customer Survey Shows Support for IceAlert Signing

An in-house survey by Organizational Results in cooperation with the Southeast Area District

### MoDOT Summary Statement

*Based on this field survey, overall the public embraces the Ice Alert System concept. However, the current size and design of the signs have not fully gained the public's attention and understanding. The reflectors may be too small to be seen on Interstates at highway speeds, as only 26 percent of citizens polled noticed the signs and statements were made that the signs need to be larger in size to capture motorist attention.*

*The public's opinion of the IceAlert signs was positive with 82 percent satisfied. Only 6 percent of citizens ranked their overall opinion of the signs as dissatisfied and 10 percent had no opinion. However, almost three quarters of the citizens polled were not aware of the IceAlert signs. Of the 26 percent of citizens who noticed the signs, 81 percent reported understanding the signs and finding them helpful. Also, 80 percent reported seeing the reflectors in enough time to prepare for ice on the road. On the flip side, 19 percent of the public did not understand the signs or find them helpful and 20 percent did not see them in enough time to prepare for ice on the bridge.*

### Background

In January 2010, District 10 (Sikeston) installed IceAlert Incorporated's Bluestar Roadway System at the Diversion Channel Bridge on northbound Interstate 55 in Cape Girardeau County. IceAlert is a temperature-sensitive reflector mounted on standard guideposts that acts as normal delineators until temperatures near freezing. At that time the reflectors turn blue to alert drivers of freezing conditions and eliminate the surprise of difficult-to-see ice.

IceAlert roadway reflectors are typically installed in a series of three to five reflectors, positioned well in advance of the problem area, which provide motorists time to react to the ice-warning. Spacing between individual IceAlert reflectors is generally identical to standard guidepost reflector spacing and is primarily dependent upon traffic speed. IceAlerts are post-mounted, stand-alone units with no batteries or electronic components. Installation requires a post on which the IceAlert can be bolted. The reflectors change from white to white and blue when temperatures reach below 32 degrees.

The IceAlert system was installed in January 2010 on the Diversion Channel Bridge where the temperature-sensitive reflectors were mounted on standard guideposts and placed in front of the bridge. The reflectors are evenly spaced 200 feet



### Background (cont'd.)

apart along the median and shoulder. Also installed two hundred feet before the reflectors is a sign stating, "Blue Reflectors Indicate Freezing Temperature." During January, February and March 2010 the area had six snow and two ice storms and 14 days with temperatures below freezing, all in which motorists may have found the IceAlert signs helpful.

A survey was conducted in March 2010 to measure the public's awareness and the effectiveness of the signs. The survey was conducted both in person and online, however only 1 percent or five respondents took the online survey. Citizens were randomly polled in person at a local Wal-Mart and area gas stations in Cape Girardeau County and shown a picture of the informative sign and the activated temperature-sensitive reflector.

Citizens were asked the following questions:

- *Did you notice the reflectors and signs along northbound I-55 before the Diversion Channel Bridge?*
- *Did you understand what the reflectors mean?*
- *Did you find the reflectors helpful?*
- *Did you see the reflectors in enough time to prepare you for ice on the road?*
- *Please rate your overall opinion of the IceAlerts Bluestar Roadway System.*
- *Are there any specific locations within Missouri you would like to see the IceAlerts Bluestar Roadway System used?*

### Results

With an average daily traffic of 14,104 vehicles on northbound I-55, a total of 442 citizens were polled with 113 citizens or 26 percent noticing the reflectors and signs before the Diversion Channel Bridge. The remaining 329 citizens or 74 percent did not notice the signs. Of the 113 citizens aware of the signs, 82 continued with the survey and answered the second question, "Did you understand what the reflectors mean?" Of those 82 responding, 66 citizens or 81 percent said they understood the meaning of the reflectors and 16 citizens or 19 percent stated they did not.

A total of 81 citizens answered the question "Did you find the reflectors helpful?" with 66 citizens or 81.5 percent answering yes and 15 citizens or 18.5 percent answering no. A total of 75 citizens answered the question "Did you see the reflectors in enough time to prepare you for ice on the road?" with a total of 60 citizens or 80 percent answering yes and 15 citizens or 20 percent answering no.

When asked to rate their overall opinion of the IceAlerts Bluestar Roadway System, a total of 83 citizens responded with 68 citizens or 82 percent answering that they are satisfied or very satisfied with the IceAlert system. Only five respondents or six percent were dissatisfied or very dissatisfied. Ten respondents or 12 percent had no opinion.

Question	Total Number Polled	Yes	Percent Yes	No	Percent No
<i>Did you notice the reflectors and signs along northbound I-55 before the Diversion Channel Bridge?</i>	442	113	26%	329	74%
<i>Did you understand what the reflectors mean?</i>	82	66	81%	16	19%
<i>Did you find the reflectors helpful?</i>	81	66	81%	15	19%
<i>Did you see the reflectors in enough time to prepare you for the ice on the road?</i>	75	60	80%	15	20%

**Results (cont'd.)**

	<b>Total Number Polled</b>	<b>Very Satisfied</b>	<b>Satisfied</b>	<b>Dissatisfied</b>	<b>Very Dissatisfied</b>	<b>No Opinion</b>
<i>Please rate your overall opinion of the IceAlerts Bluestar Roadway System.</i>	83	35	33	2	3	10
Percent	100%	42%	40%	2%	4%	12%

Citizens were also asked if they would like to see the IceAlert Bluestar Roadway System used at other locations within Missouri. The majority of citizens who responded said they would like the system used on any and all bridges and overpasses. The specific locations citizens said the signs should be used include the Mississippi River Bridge, Missouri River Bridges, Highway 25 (Advance to Dutchtown) and the US 60 & I-55 ramps. Also mentioned by a few citizens were minor and secondary roads.

Citizens made statements that the signs need to be larger in size to capture motorist attention. Also, some said they became aware of the IceAlert signs from reading the local newspaper but had not actually seen the signs while driving. Others said they were not confident they understood the signs, although they knew the signs had something to do with freezing temperatures. Also, several citizens said they noticed the informational sign along the road but had not seen the reflectors.