Smart Work Zone Technology: A Case Study on I-135 Reconstruction in Kansas

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OTEC 2015
Agenda

Why a Smart Work Zone?

Application of the Smart Work Zone

Lessons Learned
Heavy rehabilitation project including patching, mill and overlay and bridge repairs. ADT +/- 50,000-80,000 vpd.

Original January 2014 bid was 50% over budget, mainly due to work restrictions (would have resulted in overtime or inefficient scheduling)

Rebid in April 2014 was $20M, with better accommodations for contractor work hours and other cost saving measures. It was determined that a SWZ that would ease congestion and it would be useful to inform users.
Device Layout

5 Cameras

6 Portable Traffic Sensors

7 Variable Message Signs
Device Layout

- 5 Cameras
- 6 Portable Traffic Sensors
- 7 Variable Message Signs
Quality Control

- Weekly GPS Travel Time run
- Bluetooth Sensors with Real Time data
- Close interaction with contractor and inspectors
### Quality Control

#### Smart Work Zone Technology

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#### Table

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<th>Description</th>
<th>Speed (mph)</th>
<th>Speed (km/h)</th>
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#### Image

- **I-135 at I-235**
- **SWZ I-135 at 53rd Northwest**
Lessons Learned

- Test, Test, Test.
- Expect the unexpected
- Public perception varies….
- Overall, KDOT & contractor were very pleased with the outcomes.
Questions?

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