

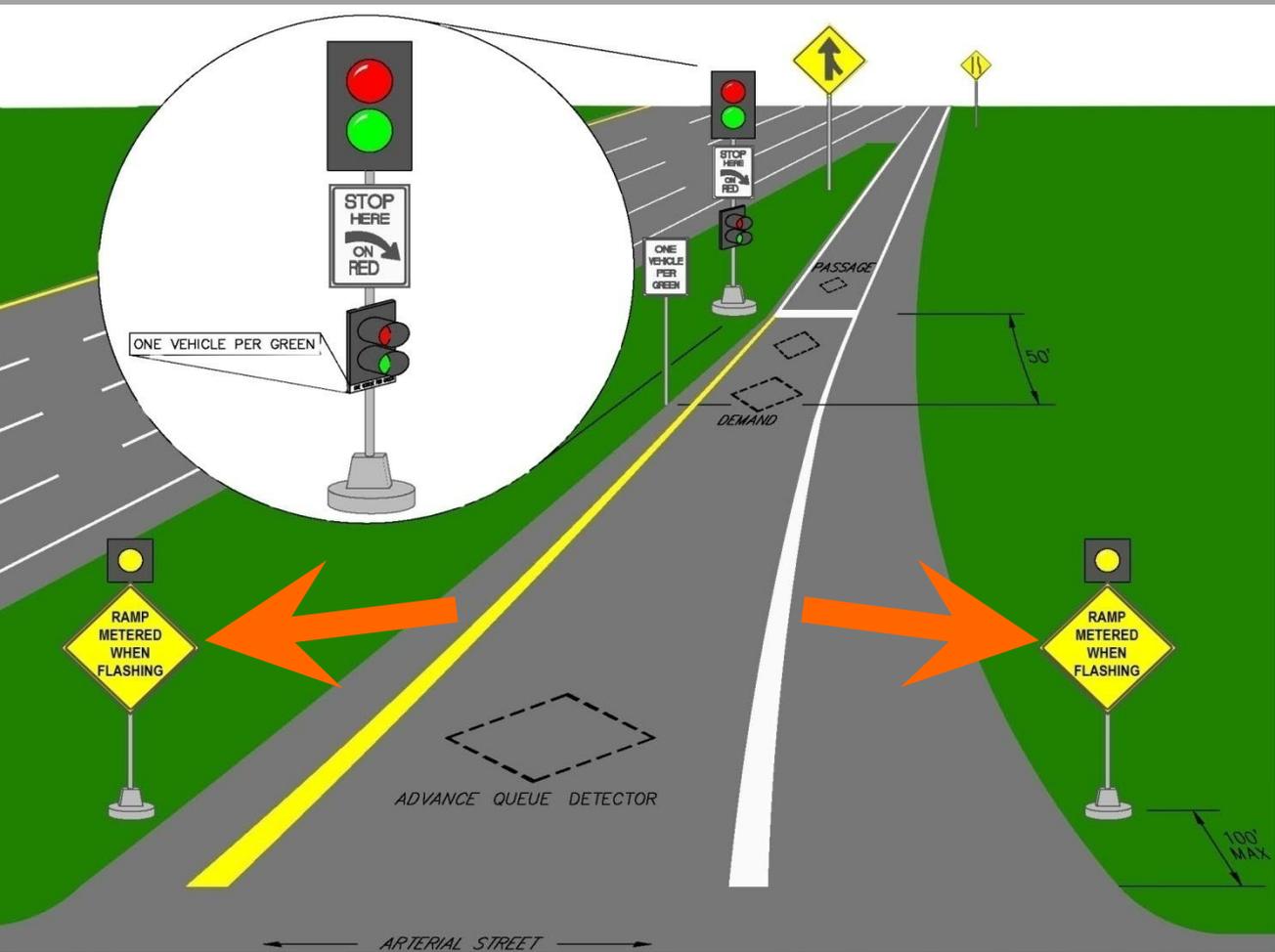
Kansas City Ramp Metering

“A Success Story”

May 16, 2012

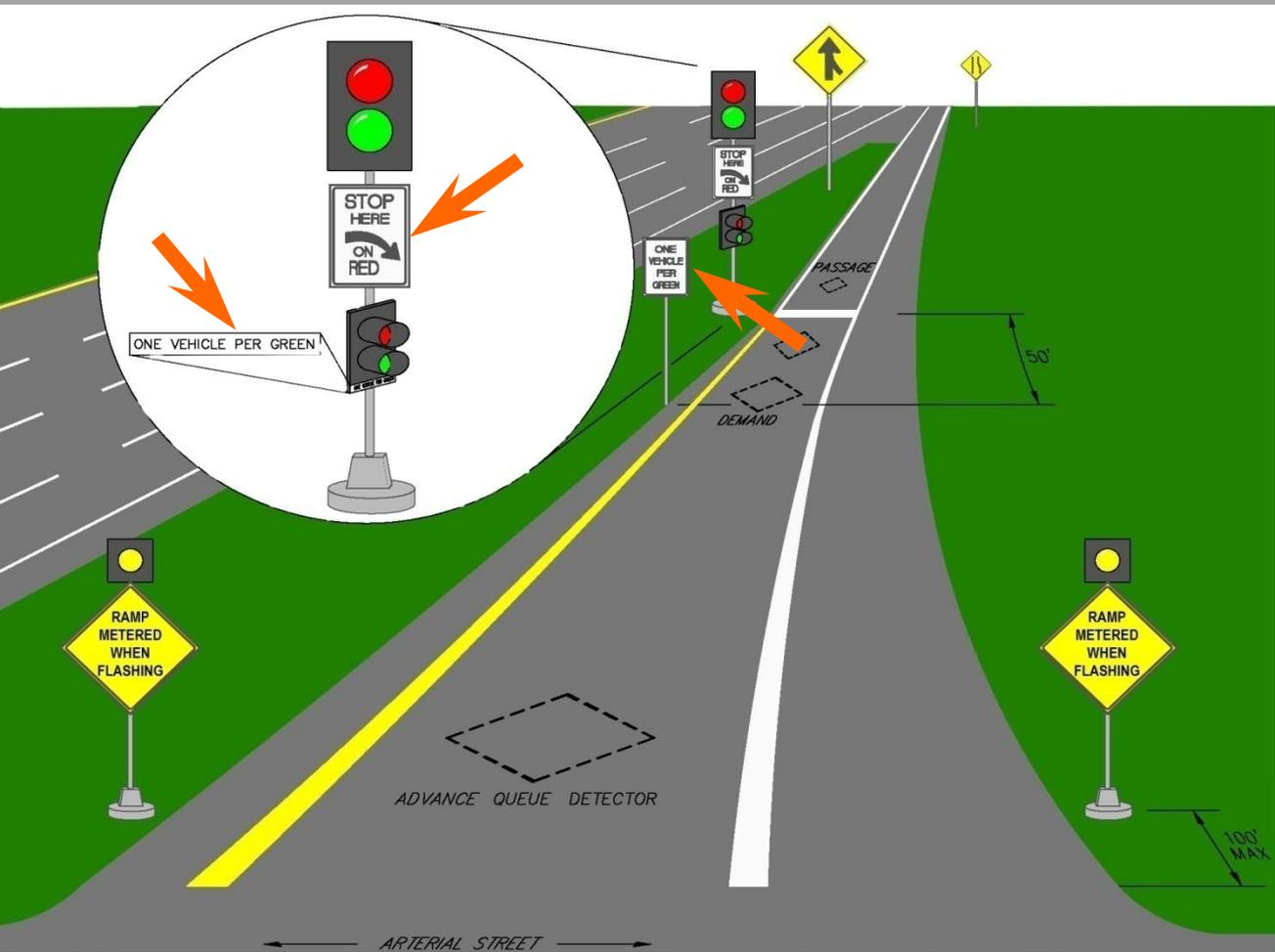
E. Jason Sims P.E.
(Kansas City Scout Center Manager)

MAXIMIZING THE FLOW



- Advance Warning
 - ‘Ramp Metered When Flashing’ sign
 - Flashing yellow indication
 - Located on both sides of ramp
 - Clear Messages
 - Flashing beacons dark when not in operation

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• Ramp Meter Control

- 'One Vehicle Per Green' sign
- Two red/green indications
- 'Stop Here on Red' sign
- 'One Vehicle Per Green' sticker on bottom indication
- All located on left side of ramp

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The Ramp Metering Review Board



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Presentation Feedback Committee



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Project Team

- **Design**

- Kimley-Horn and Associates, Inc.
- CJW Transportation Consultants



Kimley-Horn
and Associates, Inc.

- **Traffic Analysis**

- George Butler and Associates, Inc.



- **Public Involvement**

- Patti Banks Associates



Software Design—Delcan Inc.



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Project Map



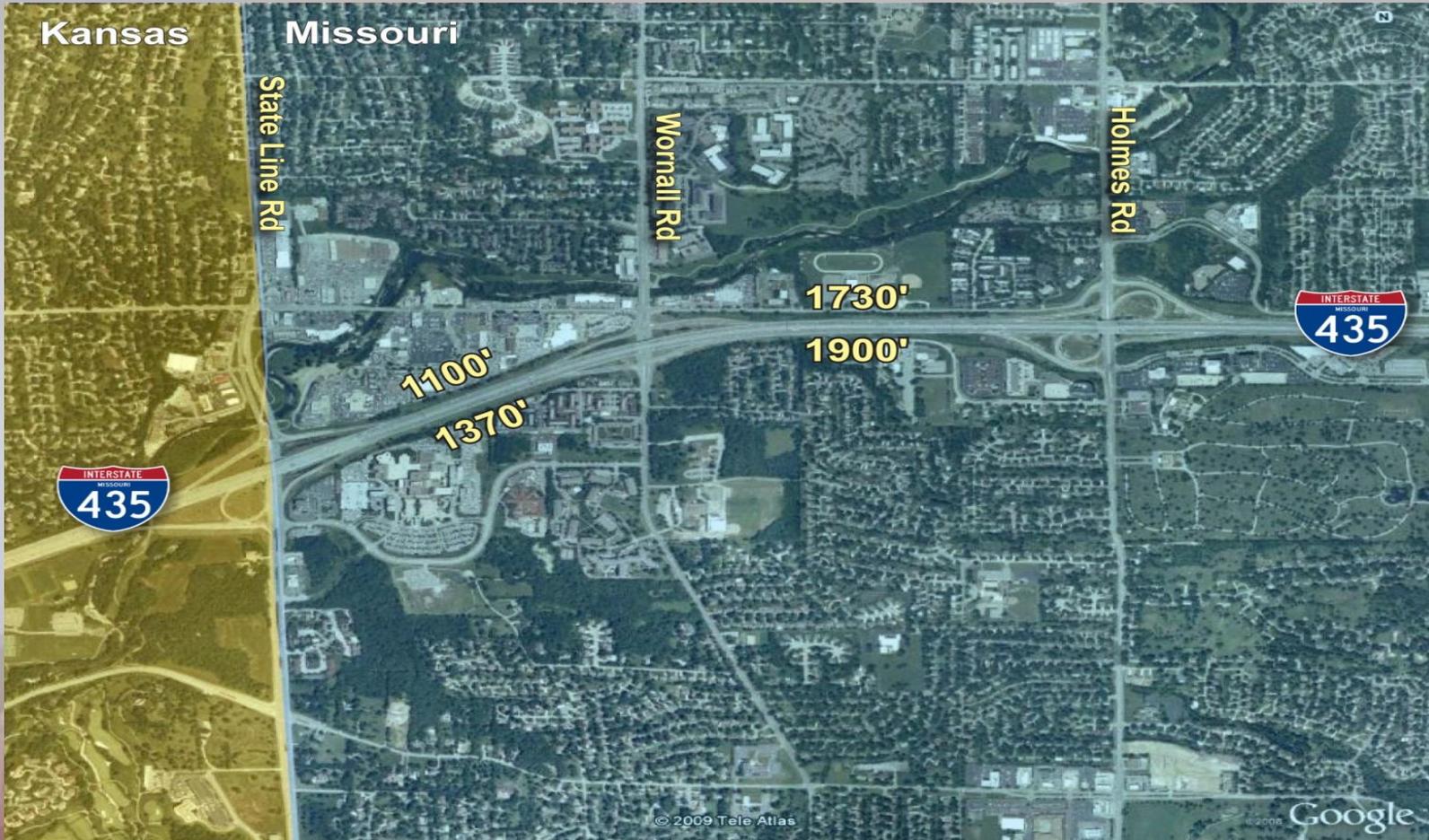
✘ Ramp Meter Location



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Geometric Constraints



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Corridor Geometrics



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The Five Biggest Reasons Why Ramp Metering in KC is Successful.

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#1—Preplanning, Forethought, Deployment Study

- Development of a Metro-wide Ramp Metering Deployment Study
- Ramp Loops and Controller Options installed in the initial deployment of Scout
- LOW COST

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#2-Ramp Metering is a proven national traffic management strategy

- Minnesota Deployment Study
- Ramp Metering has been instrumented since the 1960's
- Scout's software was a hybrid of Caltrans software, which has the most ramp meters in the country
- Mentor for ramp metering

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#3-Public Involvement Campaign

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Along the Way...

- Develop clear, accurate, easy to understand information
- Establish consistent themes/speaking points
- Understand that the media is our biggest ally
- Recognize the campaign is a collaborative effort

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Reach Targeted Audiences

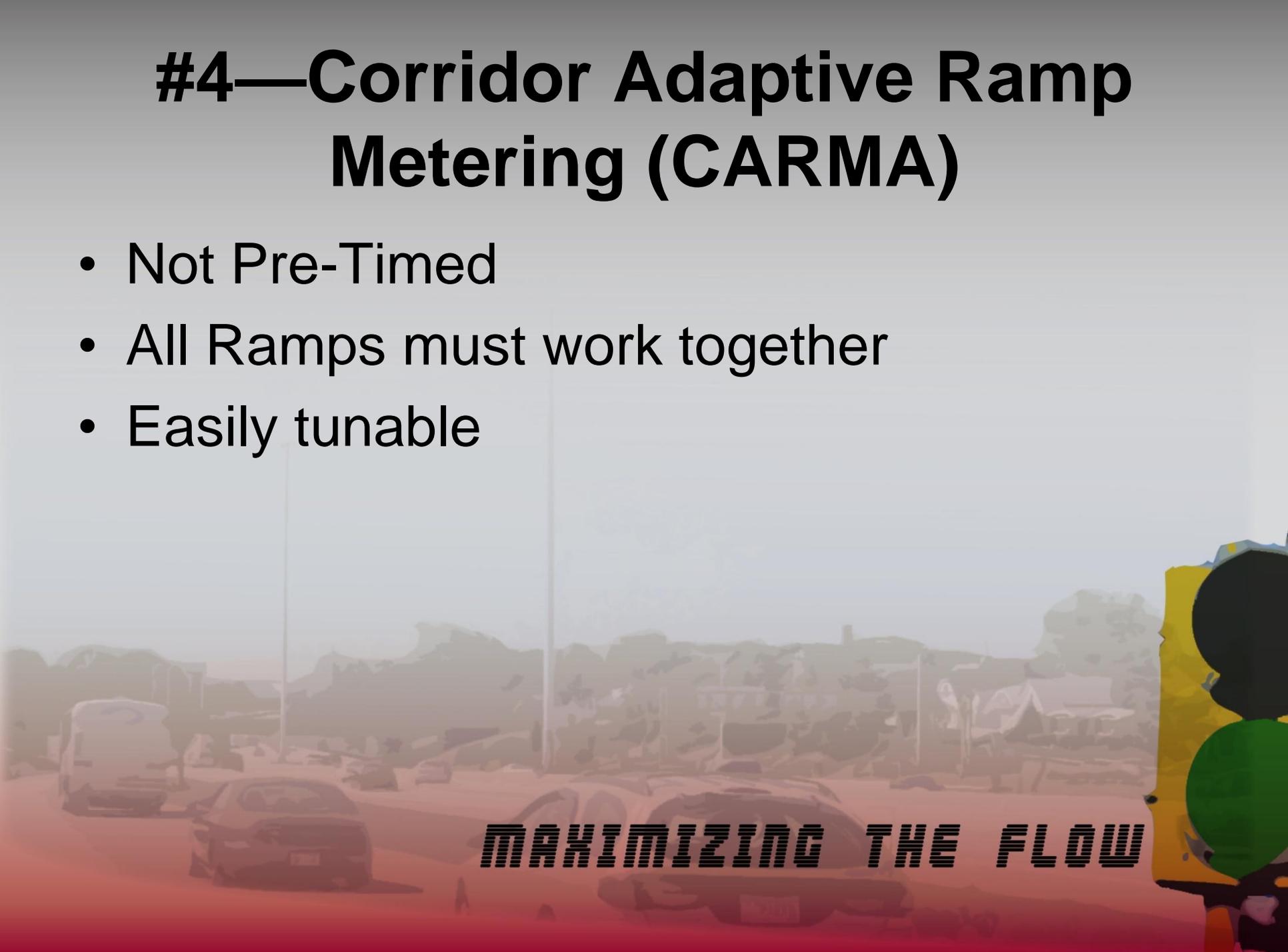
Audience	Thematic Outreach Materials
Technical staff and local officials	Technical content with emphasis on facts, benefits, and experiences of other communities
Local public officials	Less technical content with accent on ramp metering benefits and safety
Law enforcement (highway patrol)	Focuses on ramp metering operation and enforcement
General public	Highly graphic, non-technical, and focuses on the need for ramp metering

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#4—Corridor Adaptive Ramp Metering (CARMA)

- Not Pre-Timed
- All Ramps must work together
- Easily tunable

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The background of the slide is a blurred photograph of a highway. In the foreground, several cars are visible, including a white van and a dark sedan. To the right, a traffic light is partially visible, showing a green light. The overall scene is out of focus, emphasizing the text in the foreground.



**#5-Execute, Be Transparent with
Performance Measures
“Deliver the Results You
Promised”**

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MoDOT & KDOT Promised

1. *Reduce Rear End and Side Swipe Accidents*
2. *Travel Time on the Corridor would not increase but would stay the same or decrease with more volume.*
3. *No Ramp Meter will back up on to city streets.*
4. *No Motorist will wait more than 1 minute on any ramp.*
5. *Incidents will be cleared faster*

MAXIMIZING THE FLOW

MoDOT & KDOT Delivered

1. *Reduce Rear End and Side Swipe Accidents-
(Reduced by 64%)*
2. *Travel Time on the Corridor would not increase but would stay the same or decrease with more volume.
(Most sections decreased in travel time or stay the same with 20% more volume going through the corridor)*
3. *No Ramp Meter will back up on to city streets. (Rare-
24 hr. repair policy)*
4. *No Motorist will wait more than 1 minute on any ramp.
(Accomplished)*
5. *Incidents will be cleared faster (22 min-16 min)*

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www.kcscout.net/ramp metering

1 year study is published

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