Questions and Answers

In layman's terms, what is the significance of the 85th percentile speed?

- Definition: The 85th percentile speed is the speed 85% of the traffic drives at or below, with 15% exceeding.
- The 85th percentile speed is the safest speed and recommended to be used to establish speed limits in accordance with the Manual on Uniform Traffic Control Devices.
- For every five miles per hour you drive over or under the 85th percentile speed your chances of being involved in a crash increase.



Can you compare the cost or efficiency of speed limit enforcement by our police officers compared to influencing compliance with speed limits by street design?

- Enforcing speed limits 24/7 is not a realistic expectation for any one particular street.
- The LPD does not have a dedicated traffic enforcement patrol but does so as time allows.
- The most efficient way to influence compliance with speed limits is through the design of the road.

If we choose to go with the road diet option, what other projects would you recommend with the balance of the funds available from not going with the other alternative?

Following is what \$1 M could Fund

Sidewalk Projects:

- Kasold 6th Street to Peterson shared-use path (\$250k)
- Complete sidewalk on one side of all safe routes to school (\$230k)
- Fix 650 of the 3760 non ADA compliant sidewalk ramps (\$520k)
- Sidewalks on all Arterials (\$330)

Street Maintenance - \$1 Million can fund

- 31 residential Blocks of Mill and overlay or-
- 67 blocks of patching and Microsurfacing or-
- 25,000 LF of C&G

\$1M in Road Projects:

- Reconstruct Kasold from 22nd Street to Clinton Parkway including shared-use path on west side and sidewalk on east side or-
- Reconstruct intersection @ Wakarusa and Overland or-
- Reconstruct East 15th St from Maple Lane to Brook St

What do you estimate will be the ongoing operational costs of the road diet option and the typical option?

- A traffic signal has an estimated annual operational cost of \$8000 per year, including electrical costs and maintenance of equipment.
- A roundabout has an estimated annual maintenance cost of \$1000 per year, including lighting, irrigation, and maintenance of landscaping.
- Pavement life is expected to be 30+ years. Over the life of the pavement minor maintenance will be needed such as crack sealing and minor patching. There is approximately 20% less pavement between the two options.
- 20% less pavement will also take less time for snow removal and will have less storm water runoff

What is before and after crash data for roundabouts in Lawrence?

There are two roundabouts in Lawrence that have been retrofitted from 4-way stops to roundabouts with before and after crash data.

- Wakarusa & Inverness (Completed in Jan. 2015) 26% decrease in crashes and 100% decrease in injury crashes
 - 2.7 crashes per year before (8 total in 3 years prior) 1 injury crashes
 - o 2.0 crashes per year after (3 total in 1.5 years after) 0 injury crashes
- 19th & Barker (Completed in 2004) 25% decrease in crashes and 75% decrease in injury crashes
 - 4.0 crashes per year before (12 total in 3 years prior) 4 injury crashes
 - 3.0 crashes per year after (9 total in 3.0 years after) 1 injury crashes

Copies of the KU endowment picture presented during consultant's presentation



500 Units (or equivalent) creates 3,325 additional VPD, 310 VPH PM Peak. Not All will go north, 24%-25% from counts, or 830 VPD, 78 VPH PM Peak. Study accounts for 1,841 VPD increase to 2040 to 16,576 VPD and to 736 VPH PM Peak. Even if these numbers are added on top of the growth factors, the totals do not exceed single lane parameters for daily (25,000 VPD)or hourly (1,250 VPH) thresholds.

What is before and after traffic counts on 9th Street? (Lane reconfiguration from Emery to Mississippi Street was complete in Fall 2014)

- <u>9th & Miss. PM Peak hour</u>
 2011 1553 vph on 9th St.
 2015 1579 vph on 9th St.
- <u>9th & Maine PM Peak hour</u>
 2011 1494 vph on 9th St.
 2015 1553 vph on 9th St.
- <u>9th & Emery PM Peak hour</u>
 2011 1553 vph on 9th St.
 2015 1454 vph on 9th St.

Provide explanation on if hammerhead/ circle drives allowed on Kasold and address option to eliminate median for residential lots (There are 17 residential lots with driveways on Kasold; 1 has existing circle drive)

- Lots with frontage of 100' or less (11 of the 17 lots) are not permitted by code to have multiple curb cuts. Hammerheads could be constructed by the property owners.
- Medians assist in separating opposing lanes and reducing traffic speeds
- A break-in access is not typically allowed for a residential driveways
- A roundabout would provide a safe & efficient way to turn around

Kasold - if you don't design for capacity, what do you design for?

- Capacity and level-of-service. Capacity is a quantitative measure of the number of vehicles that a segment of roadway can accommodate
- Level-of-service is a measure of the quality of the driving conditions that considers the speed and density to evaluate the delay.

How are street classifications and truck routes established?

- Street classification and truck routes are independent of each other.
 - Kasold is classified as a principal arterial street and a truck delivery route.
 - Truck routes are primary truck routes and truck delivery routes are secondary routes.
 Truck delivery routes are to be used to make the most direct routes for deliveries from truck routes. Truck Route are limited to N. 2nd, 6th St, 23rd/ Clinton Pkwy, and Iowa
 - Both options can accommodate the current and projected future traffic and trucks.

The question has been raised why do we need bike lanes, why not a multi-use path?

- Both options contain an 8 ft. multi-use path. Currently there are not bike lanes at either end of this project to connect. There are sidewalks on 6th Street and multi-use paths at Bob Billings Parkway, Kasold Drive south of Bob Billings Parkway and on Clinton Parkway.
 - Bike lanes are identified on this section of Kasold in the adopted Countywide Bikeway Plan.
 - This project is a total reconstruction of Kasold Drive and therefore the Complete Streets Policy would support the construction of bike lanes.
 - An alternative would be a 10 ft. multi-use path on one side.

Complete Street:

• Both options contain complete street elements (areas provided for safe operation of multimodel uses).

The difference between the two options with respect to complete streets is the context.

Option 1 is similar to 6th Street or Iowa Street. A 5-lane section does not lend itself to ease for pedestrians to cross or comfort of cyclists to use. This option feels wide open to the motorist and speeds will tend to be faster.

Option 2 provides a better environment for other users of the road. It is narrower and easier for a pedestrian to cross, speeds will be slower, and there is not as much pavement or stormwater runoff. Between 14th Street and 8th Street the adjacent property is residential with several driveways accessing Kasold Drive. From a livability perspective a 3-lane roadway would be preferred over a 6th Street or Iowa Street.

ITE (Institute of Transportation Engineers) developed guidelines for designing walkable urban thoroughfares which include design factors that contribute to speed reduction and should be incorporated into thoroughfare designs in urban areas which include using narrower travel lanes and physical measures to narrow the roadway.

KDOT Funding:

• The funding available is through Federal Aid Safety Program. Through a cost/benefit analysis KDOT determines the eligibility of a project to receive safety funding. KDOT has offered \$475,000 for the construction of a single lane roundabout at Kasold & Harvard. These are Federal Transportation Funds that are meant to be dispersed by KDOT for transportation safety improvements. The State of Kansas cannot re-appropriate these funds.

Comparison of recent construction:

• Over the last few weeks the City has begun the improvements on Bob Billings Parkway from Kasold to Wakarusa. Recently the intersection of Bob Billings Parkway and Kasold saw lane reductions (as a result of pavement widening on Bob Billings Parkway) and experienced traffic delays. The affects (and traffic back-ups) are not comparable to the proposed "Complete Street Option."

During the construction a single lane in each direction on Bob Billings Parkway was needed as pavement was removed and replaced. Turning movements, both on Kasold and Bob Billings Parkway were restricted and signal timing was lengthened. Additional phases were needed to permit left turns and the signals were manually cycling versus using video detection (due to shifting lanes).

But more important is that the 5-lane section south of 14th Street will remain. The lane reduction will begin north of 14th.

Additional Resources:

• The FHWA has developed easy to read information on Road Diets and Roundabouts at:

Questions & Answers

Dan Burden – Video <u>http://www.bing.com/videos/search?q=dan+road+diet+</u> <u>video&qpvt=dan+road+diet+video&view=detail&mid=</u> D98EAF608B3B8C82F87ED98EAF608B3B8C82F87E&FORM=VRDGAR

Road Diet <u>http://www.fhwa.dot.gov/innovation/everydaycounts/edc-3/roaddiets.cfm</u>

http://safety.fhwa.dot.gov/road_diets/case_studies/roaddiet_cs.pdf

Road Diet Myths <u>http://safety.fhwa.dot.gov/road_diets/resources/pdf/roadDiet_MythBuster.pdf</u>

Roundabouts

http://safety.fhwa.dot.gov/intersection/innovative/roundabouts/case_studies/fhwasa09013/