

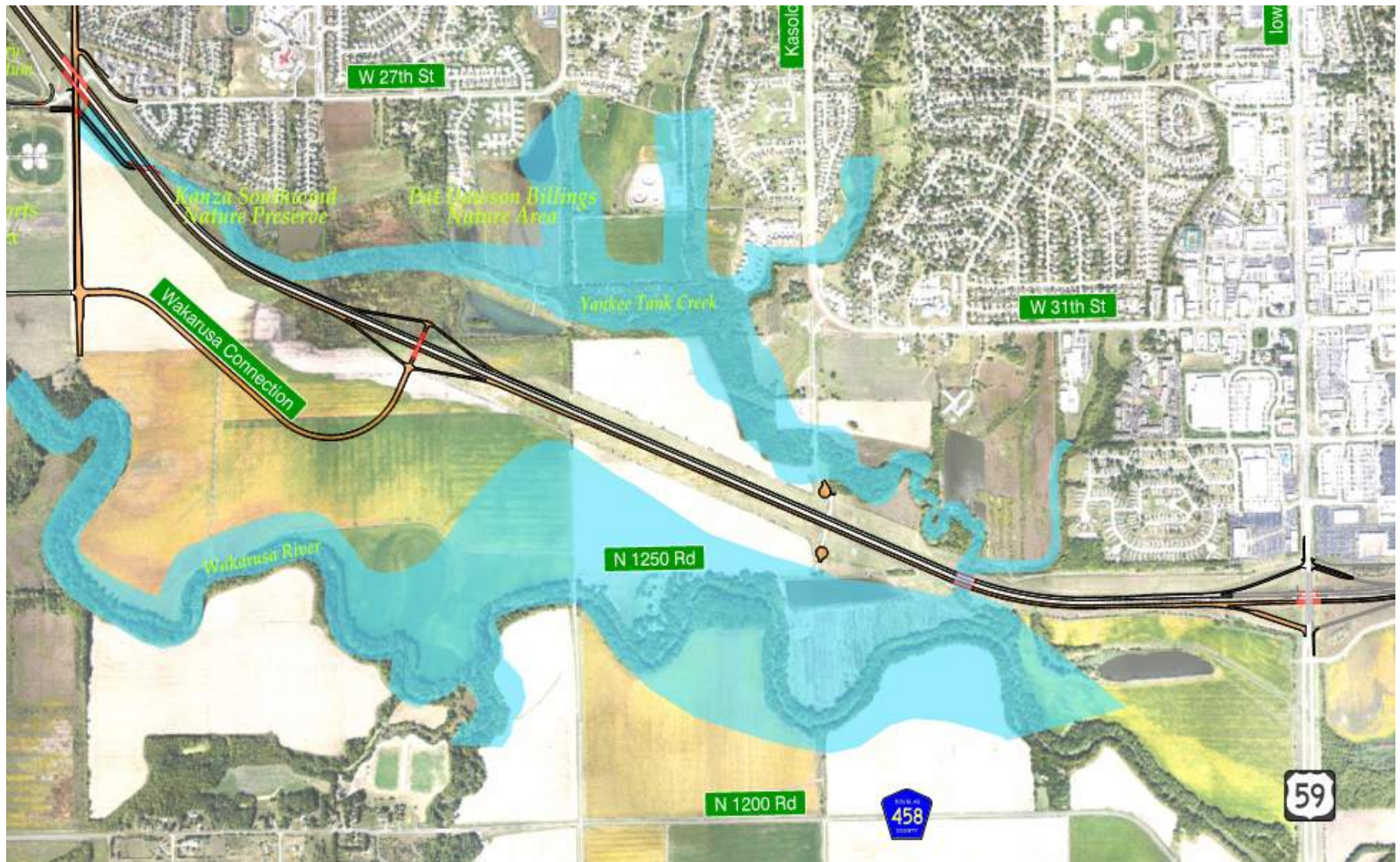
E 1200 Road/K-10 Intersection
10-23 KA-3634-04
February 18, 2016



Outline

- K-10 West Leg Concept
- E 1200 Road/K-10 existing intersection conditions
- Impacts of East Leg SLT Opening
- Mitigation of impacts
- Closure Decision

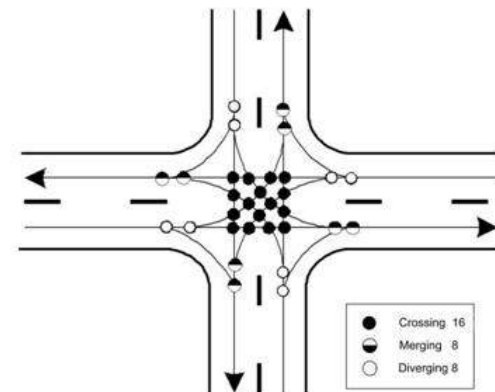
K-10 West Leg SLT Concept



Existing Intersection Conditions

- K-10 is a two-lane highway, posted 65 mph
- 7,500 ADT on K-10 (both directions)
- E 1200 Road is a two-lane road, posted 30 mph
- 2,700 ADT on E 1200 Road north of K-10 (both directions)
- 800 ADT on E 1200 Road south of K-10 (both directions)
- 32 Conflict points for typical 4-leg intersection
 - Left turn movements operate at level of service D in peak hour
- Five crashes in a 4-year period
 - Rate of 1.25 crashes/year
 - 60% severe (T-bone)

Note: ADT = Average Daily Traffic



Impact of East Leg SLT Opening

- Traffic entering intersection = 18,300 ADT
 - K-10 traffic increases to 16,800 ADT
 - Negligible change to E 1200 Road ADT
- Left turn movements operate at level of service F in peak hour
 - Greater than 120 seconds of wait time
 - Encourages risky driver behavior
- Crash rate increase to 3.1 crashes/year
 - 12-13 crashes in a 4-year period
 - 60% (7-8 crashes) likely to be severe
- Safety concern in doing nothing

Mitigation of Impacts

- Reduce conflict points (Right-in, Right-out)
 - Requires acceleration & deceleration lanes to meet criteria (impacts bridge over Yankee Tank Creek)
 - Requires physical separation of eastbound and westbound lanes on K-10
 - Results in anticipated crash rate of 1.3 crashes per year (5-6 crashes in a 4-year period)
 - Reduces crash severity (4 conflict points)
- Inconsistent with ultimate freeway configuration
- Approximately \$1.6 M to construct “temporary” configuration



Mitigation of Impacts

- ELIMINATE conflict points (Cul-de-sac)
 - Zero conflict points
 - Consistent with ultimate freeway configuration
 - Approx. \$335,000



Closure Decision

- Eliminate E 1200 Road/K-10 intersection prior to or concurrent with East Leg SLT opening
 - Maximum safety benefit
 - Consistent with ultimate configuration
 - Lowest cost
 - Responsible action both in short and long term
- Ongoing operational/safety analysis at County Road 458 and US-59 intersection
 - Signal Warrants
 - Geometric Improvements