

K-10 Capacity Improvements Project Olathe City Council

KDOT Project No. 10-46 KA-6549-01 Publication No. KA-6549.PR.2024.02 February 6, 2024





Agenda



- 1. Project Schedule & Status
- 2. Level 2 Toll Study Results
- 3. Stakeholder Engagement Summary
- 4. Analysis of Alternatives at Clare Rd & Lone Elm Rd
- 5. Preliminary Implementation Plan





Project Schedule and Status



| Activity | 2023 | | | | 2024 | | | |
|--|------|----|----|----|------|----|----|----|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Data Collection/Prelim Traffic/NEPA Boundary | | | | | | | | |
| Notice of Intent | | | | | | | | |
| Draft Purpose & Need | | | | | | | | |
| Alternatives Impact Analysis | | | | | | | | |
| Preferred Alternative Analysis | | | | | | | | |
| Draft Environmental Assessment | | | | | | € | | |
| Public Hearing | | | | | | | | |
| NEPA Decision | | | | | | | | |







Level 2 Toll Study Results





Toll Feasibility Approach



Will lanes be utilized?

Is it revenue responsible?

Can debt support any capital costs?

Gross Revenue

- Who can use?
- How it's used?
- Does it manage congestion?

Net
Revenue

• Covers
0&M?
• Covers
lifecycle
costs?

Financing Capacity Does net revenue warrant a toll revenue financing?





New Features with Level 2 Study



- Updated land use and growth from 5-County model
- Analyze only segment east of Cedar Creek Pkwy (6 miles)
- 3 new/different access configurations
 - Hybrid
 - Open
 - Transitional
- Increased sophistication and level of detail
- Updated Traffic & Revenue assumptions





Level 2 Toll Study Results Summary



- Open and transitional alternatives are not revenue responsible.
- Hybrid alternative is revenue responsible, but tolls are not projected to increase above the minimum toll rates through 2050.
- Express lanes are not projected to provide a significant congestion management benefit.
- Hybrid alternative has a higher upfront capital cost (+\$45 million) than a highly functional toll-free alternative.
- Projected cumulative net revenue is not a significant source of local contribution.
- Express Lanes are not KDOT's preferred strategy for K-10 Expansion.
- No request for Approval by Olathe and Lenexa City Councils, KTA Board, or State Finance Council.







Stakeholder Engagement Summary

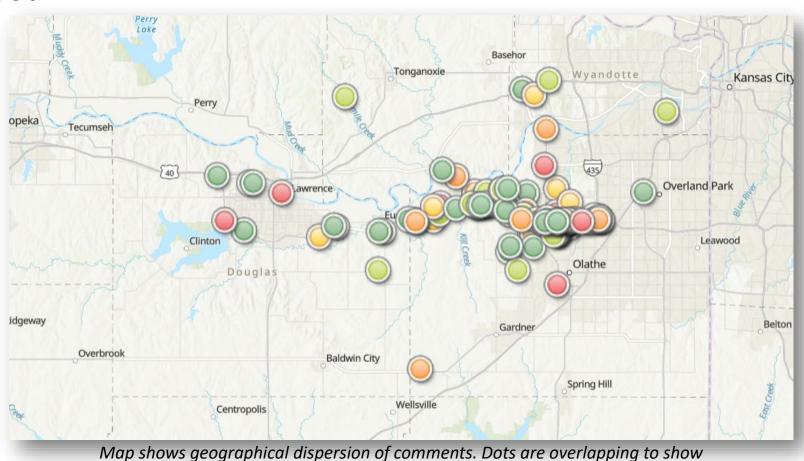




Public Meeting #1



- Open December 6th through January 5th
- Focused on Purpose & Need
- 459 participants
 - 283 Olathe residents
- 463 comments received
 - ~100 Olathe residents
- Common Themes
 - ➤ Safety
 - ➤ Congestion
 - Express Lanes
 - > Access
 - ➤ Noise
 - > ROW



ap shows geographical dispersion of comments. Dots are overlapping to s concentration of comments, so image isn't reflective of all comments. Colors indicate favorability towards the project.

Green is favorable vellow is neutral orange is leaning negative, and red is negative

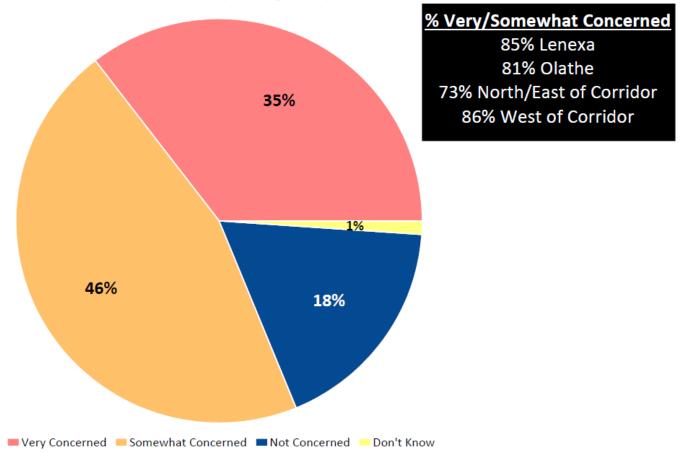
Public Survey Results



Q8. How concerned are you with driver safety when you travel on K-10 between the Johnson/Douglas County line and I-435?

Would you say you are...

by percentage of respondents







Upcoming Stakeholder Engagement



- City Council Updates Olathe, Lenexa, De Soto February
- Public Survey #2 February
- Presentations to Civic Organizations As requested
- Public Meeting #2 April Alternatives Analysis
- Public Meeting #3 Summer Public Hearing for Environmental Assessment







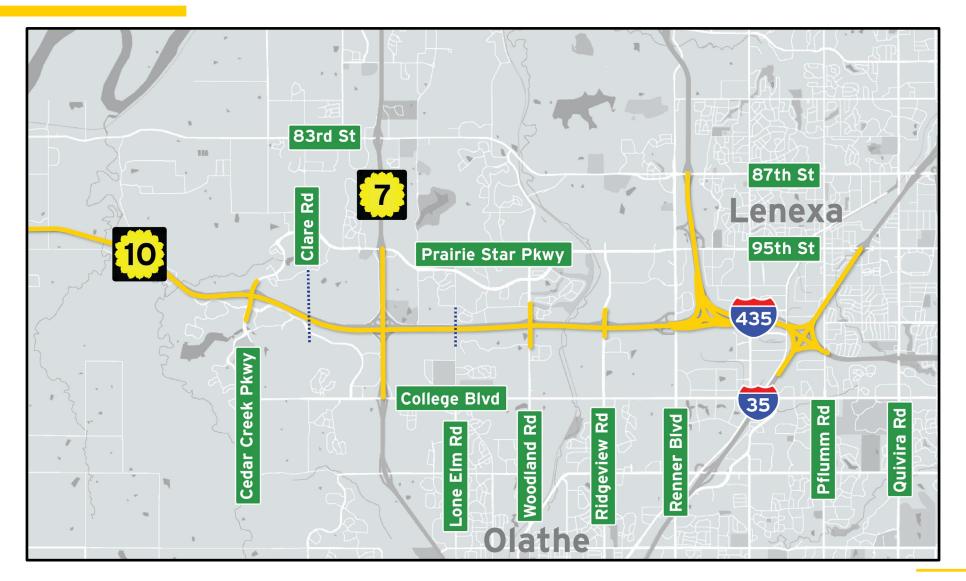
Clare Road & Lone Elm Road





Alternatives at Clare Road & Lone Elm Road









Alternatives at Clare Road & Lone Elm Road



Evaluation Considerations

- Engineering
- Traffic & Safety
- Impact or benefit to the local street network
- Environmental impact
- Cost
- Economic benefit
- Public input
- Input from local staff & elected leaders



Alternatives at Clare Road & Lone Elm Road



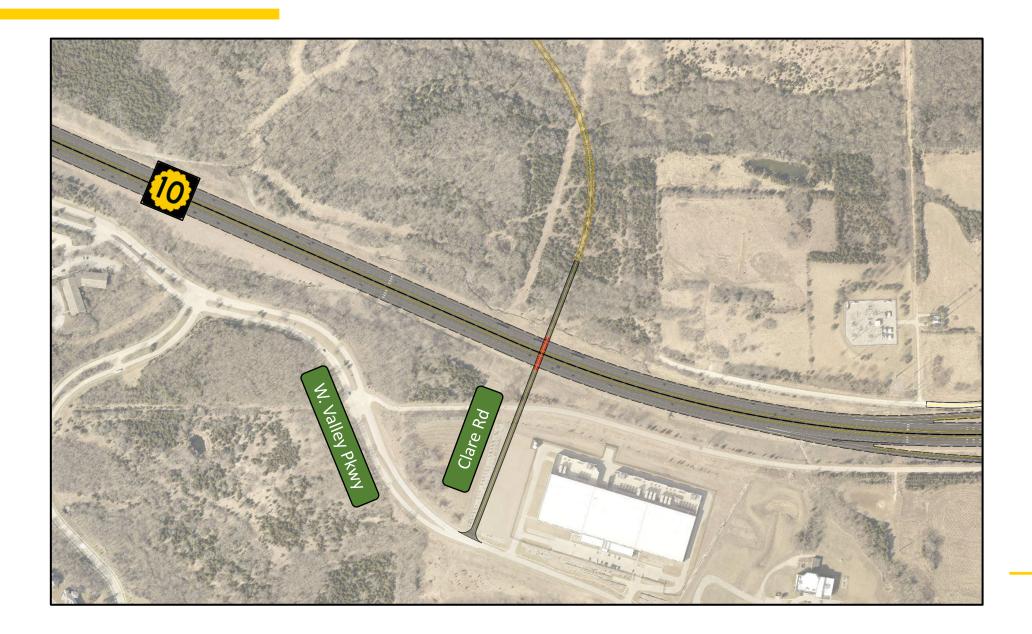
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Clare Road Overpass



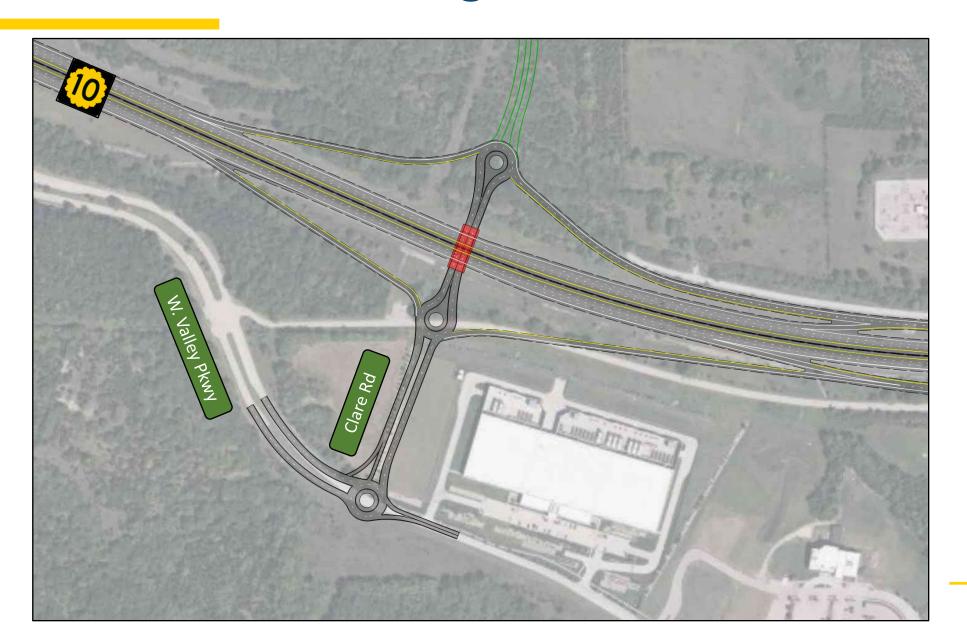






Clare Road Interchange





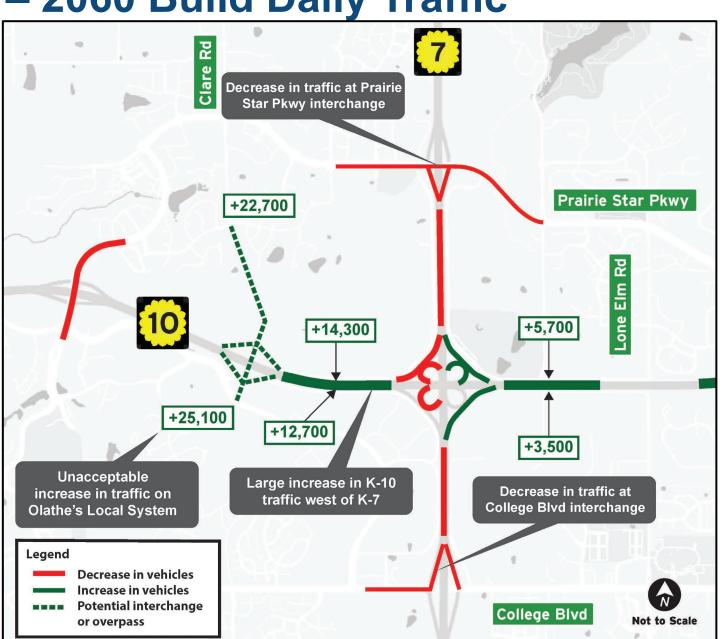




Interchange at Clare Road Traffic Redistribution – 2060 Build Daily Traffic



- Negatively impacts Olathe local roadways
- Ramp spacing and increased traffic detrimental to K-10 operations
- Interchange at Clare Road not recommended for additional analysis



Lone Elm Road Overpass









Lone Elm Road Design from Previous Study





- Impacts to private properties
- Did not function under projected 2060 traffic





Lone Elm Road Modified Diamond Interchange





- Reduces impact to private properties
- Reduces utility impacts
- Operates well under projected 2060 traffic

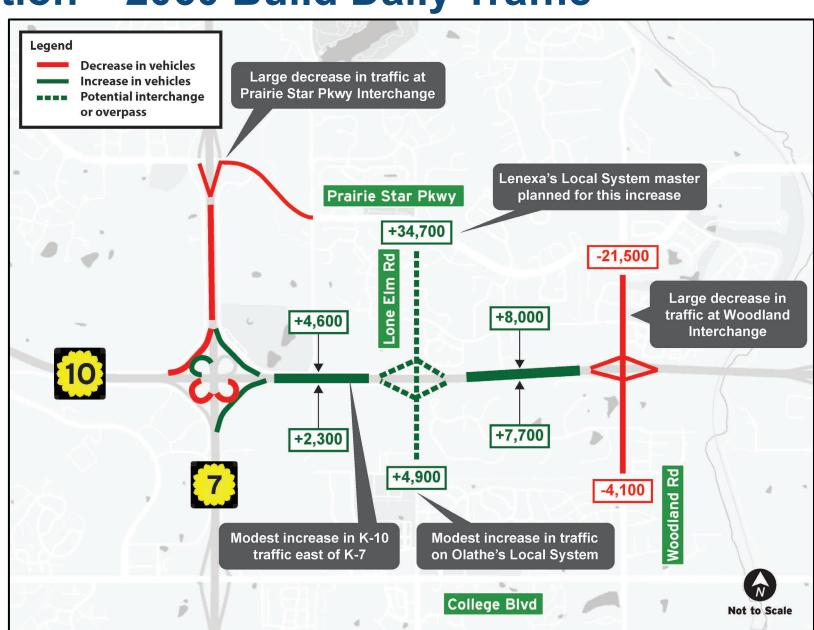




Interchange at Lone Elm Road Traffic Redistribution – 2060 Build Daily Traffic

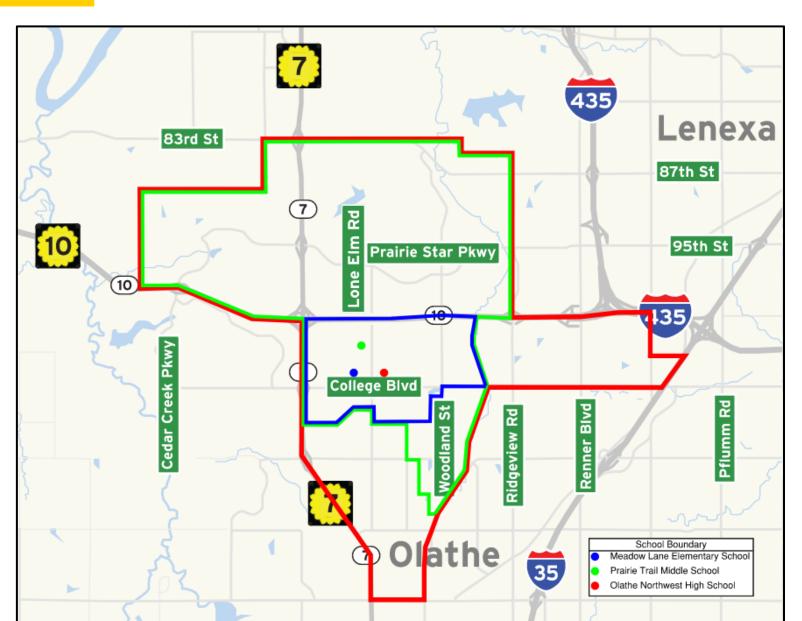


- Modest increase in traffic on Lone Elm Road
- Improves operations at Woodland Road interchange
- K-10 operates well under future traffic
- Continue evaluation of interchange at Lone Elm Road



Additional Analysis Needed School Traffic and Safety









Lone Elm Road & Clare Road Next Steps



- Do not advance Interchange Option at Clare Road
- Develop traffic redistribution for Overpass alternatives at Clare Road and Lone Elm Road – Does it provide any benefit to K-10?
- Complete Economic Impact Analysis
- Complete School Traffic and Safety Analysis
- Solicit public input on alternatives Next Public Meeting, Surveys, Focus Groups
- Continue engagement with Olathe and Lenexa City Staff







Preliminary Implementation Plan



Preliminary Implementation Plan Guiding Principles



- Focus on addressing existing or near-term traffic and safety problems first
- Consider infrastructure condition in implementation timing
- Greater flexibility with toll-free preferred alternative
- Be mindful of overall IKE program budget and statewide needs
- 3 "buckets"
 - IKE Program Improvements
 - 2030-2040 Improvements
 - 2040+ Improvements





Preliminary Implementation Plan All Improvements - \$1.1 Billion









Questions / Open Discussion



