

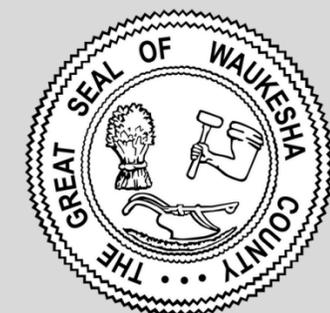


WAUKESHA COUNTY GOVERNMENT

CTH K (CTH JK to Brookfield Road) Scoping Study

Public Involvement Meeting, Locally Preferred Alternative & SEWRPC Plan Amendment

July 9, 2025

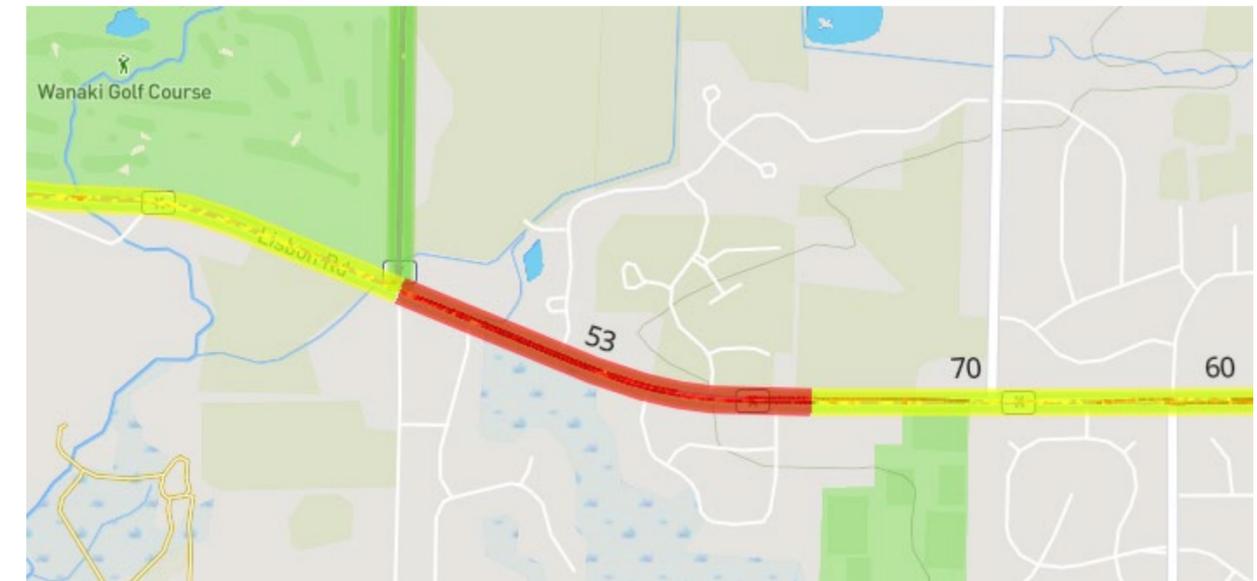
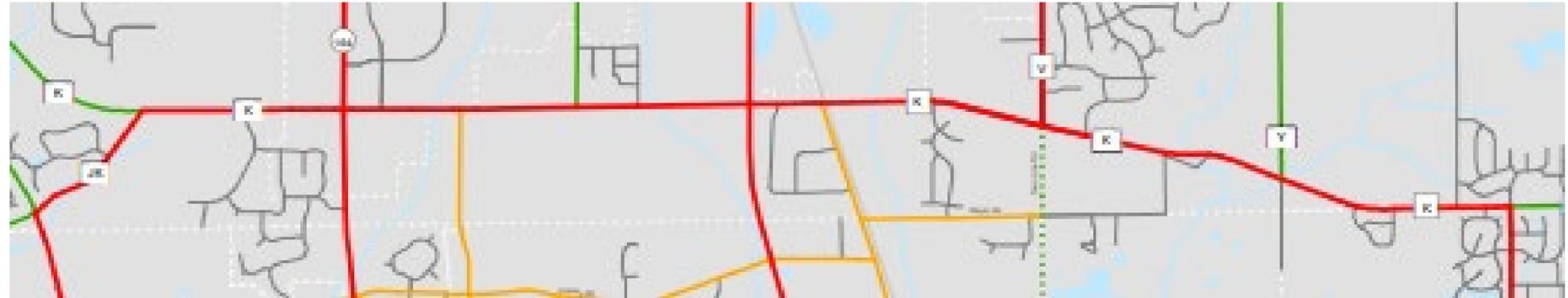


Public Involvement Meeting #2 Agenda

1. Introductions.
2. Public Involvement (Round 1) Feedback
3. East Project Limit Extension
4. Capacity Expansion Decision
Justification
5. Proposed Cross Sections & Speed Limits
6. CNRR Overpass Justification
7. Preliminary Intersection Concepts
8. Bike/ Ped Opportunities
9. SEWRPC 2050 Plan Amendment
10. SAC Input
11. Next Steps

East Project Limit Extension*

- Functional Classification
 - Principal Arterial
- Traffic Forecast
- Land Use
- National Highway System (NHS)
- Pavement Condition
- Safety, Protected Turn Lanes
- Speed Zone Transition



*Proposed in 2026-2030 Waukesha County Capital Plan

Capacity Expansion Decision Justification

- Traffic Capacity
- Safety
- Railroad
- Regional Significance
- Other Considerations
- Decision Facilitates SEWRPC 2050 Plan Amendment
 - Requirement for Federal Funding
 - ‘Locally Preferred Alternative’*

raSmith

CREATIVITY BEYOND ENGINEERING

MEMORANDUM

DATE: June 11, 2025

TO: Brett Wallace, PE
Engineering Services Manager
Waukesha County

FR: Pat Hawley, PE, PTOE, RSP, raSmith

CC: Rachel Ketterhagen, PE, raSmith

RE: County K (County JK to Brookfield Road) Preliminary Scoping Study
Expansion Evaluation Summary Memo

Introduction

Waukesha County retained raSmith to conduct a preliminary scoping study for County K (Lisbon Road) from County JK (Lyndale Road) to Brookfield Road¹. As part of these services, raSmith evaluated multiple factors to assess whether County K should be expanded to a four-lane divided roadway. This memorandum identifies these factors, summarizes the evaluation and provides a recommendation on the potential expansion.

Traffic Capacity

- There has been significant development in northeast Waukesha County, which has led to increased traffic volumes along the County K corridor. County K is expected to exceed the capacity of a two-lane undivided corridor by the year 2055.
- The design year 2055 forecast County K daily traffic volumes (AADT of 13,000-16,700 vehicles per day) push the planning level capacity thresholds used by WisDOT and SEWRPC for two-lane undivided roadways (3,500-16,000 vehicles per day). The upper end of the WisDOT and SEWRPC capacity ranges reflect optimal conditions in terms of lane and shoulder width, truck percentages, passing zones and traffic characteristics. Given the less than optimal conditions along County K, the design year daily forecasts are expected to exceed the capacity thresholds for a two-lane undivided rural roadway.
- Most of the study intersections will experience falling movements during the design year 2055 peak hours with the existing geometry and traffic control.
- The Maple Avenue and County F intersections require expansion to a four-lane divided roadway to provide acceptable peak hour operating conditions in the design year 2055.
- The County JK, County V and County Y intersections will require a mix of additional travel lanes and/or enhanced traffic control to provide acceptable peak hour traffic conditions in the design year 2055.
- The numerous stop-controlled left intersections are expected to continue to operate unacceptably in the design year with the existing two-lane County K geometry and minor street stop control. A four-lane median divided roadway would improve operations at these intersections by accommodating two-stage left turns from the minor streets, shortening platoons of vehicles along County K to create more gaps, and in some instances, limiting the side-street to right-in/right-out movements.
- Increasing the capacity of the County K corridor will improve the operation of the north-south movements at signalized intersections by allowing additional green time to be allocated to these movements.

¹ The east project limits have been extended from Lannon Road (County Y) to Brookfield Road. The safety and operational analysis of the County K segment between Lannon Road and Brookfield Road is currently underway. This expansion evaluation summary will be updated if the additional analysis requires modifications to the memorandum.

Brookfield, WI | Milwaukee, WI | Appleton, WI | Madison, WI | Cedarburg, WI
Naperville, IL | Irvine, CA

raSmith

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Safety

- Key historic crash findings (2020-2024):
 - The existing County K corridor crash rate of 285.34 crashes per 100 million vehicle miles traveled (HMVT) exceeds the statewide average of 84.07 HMVT for similar roadway facilities.
 - Four fatalities occurred along the corridor, including two at the Maple Avenue intersection.
 - There was a concentration of 17 crashes near the Duplainville Road intersection and the railroad crossing.
 - Fatal and injury crashes represented 47% of all midblock and minor intersection crashes, which is higher than normal and is a point of concern.
- Predictive safety analysis shows a four-lane divided roadway would have fewer crashes than a two-lane undivided roadway.
- Raised medians provide safety benefits mid-block by physically separating opposing movements and limiting driveways and minor intersections to right-in/right-out movements.
- The raised median provides safety benefits at unsignalized intersections by allowing minor street left-turn vehicles to complete the movement in two stages.
- The expansion to four lanes provides safety benefits at unsignalized intersections by minimizing long platoons of vehicles, which creates additional acceptable gaps in traffic and minimizes the pressure to execute risky minor street maneuvers.

Railroad

- The County K study is evaluating the potential to grade separate the existing railroad crossing located east of Duplainville Road. If a grade separated overpass is constructed, a four-lane bridge would be constructed to take advantage of the bridge structure's 75-year design life. A four-lane County K roadway would be consistent with the four-lane overpass.
- If the crossing remains at-grade, a four-lane divided roadway would provide operational and safety benefits.
 - The additional travel lane in each direction would provide increased queue storage, which would be especially beneficial for eastbound traffic due to the proximity of the County F signalized intersection.
 - The additional travel lanes would allow the queues to disperse quicker after the arm gates are lifted.
 - The raised median would provide a positive deterrent for vehicles attempting to bypass the railroad gate arms.

Regional Significance

- SEWRPC's Vision 2050 currently shows County K as a future four-lane roadway east of Brookfield Road and it recommends reserving right-of-way for a future four-lane roadway between Brookfield Road and Lannon Road (County Y). Waukesha County has formally requested an update to the SEWRPC 2050 Plan to show County K as a four-lane facility between Brookfield Road and CTH JK (Lyndale Road) on the Arterial Street and Highway Network.
- County K is one of a few Waukesha County roadways spanning nearly the entire county from 124th Street to WIS 57 in Oconomowoc. It provides connectivity to 11 Waukesha County communities.
- Providing additional capacity along County K would enhance regional connectivity and route options.
- County K is a National Highway System (NHS) route throughout the project limits (County JK to Brookfield Road). NHS routes are critical to the nation's economy, defense, and mobility providing a primary network for movement of goods and services through the nation. The NHS network supplements the national interstate system.

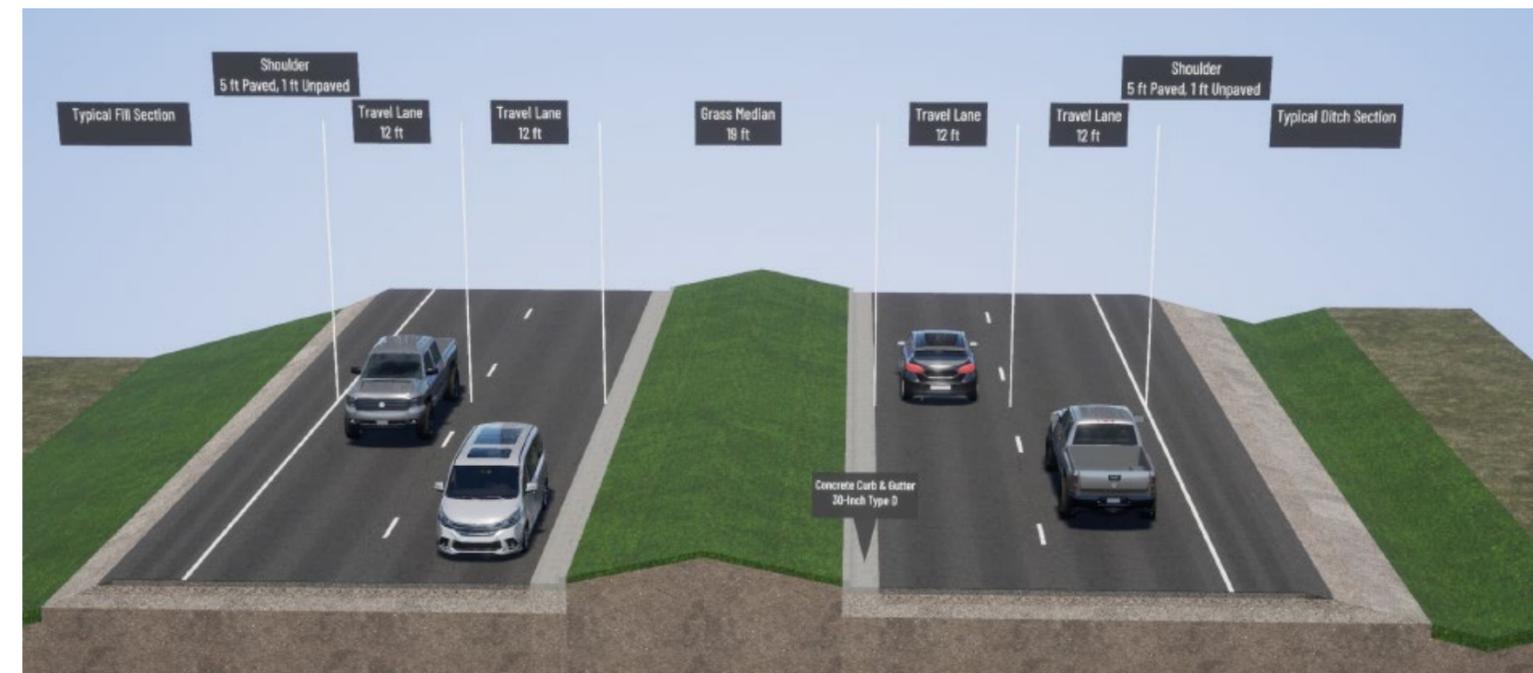
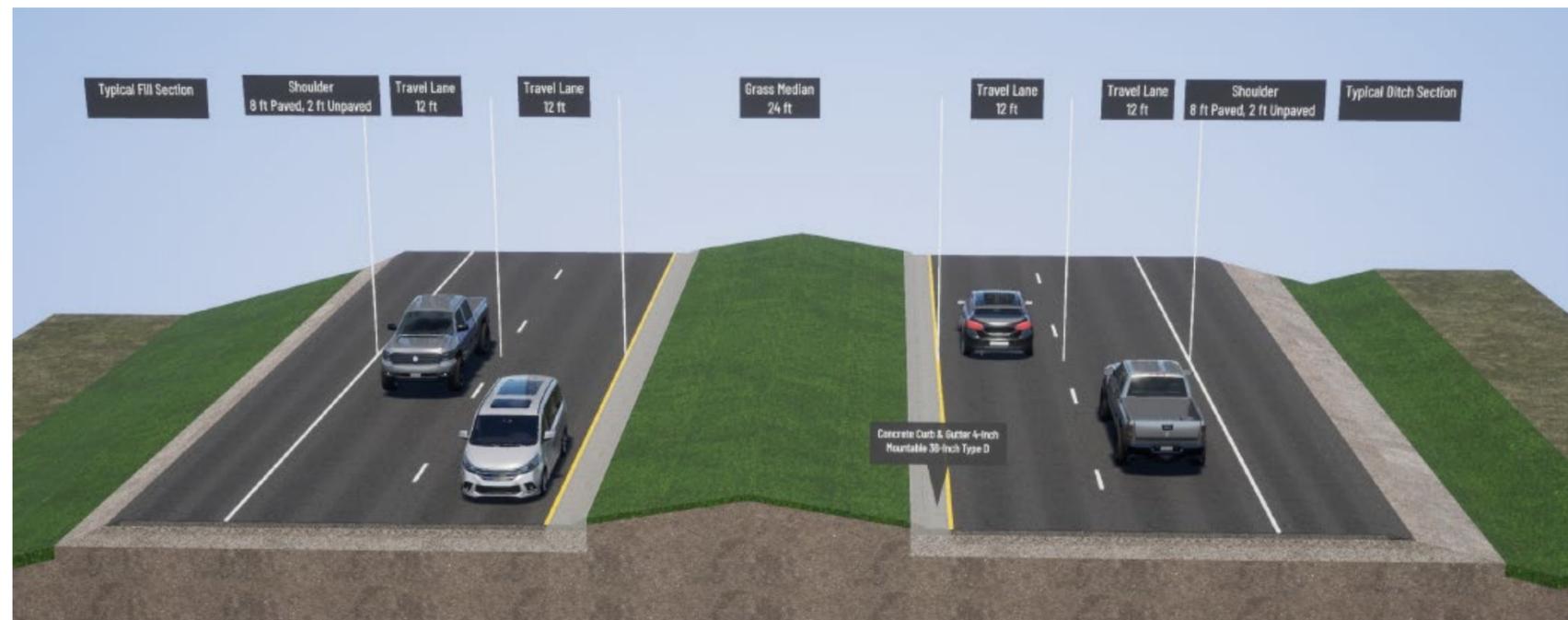
Other Considerations

- There is an existing half mile section of four-lane divided roadway near WIS 164 that would remain.
- Heavy trucks have slower operating speeds, acceleration rates and deceleration rates. They occupy more roadway and require more turning room. These factors cause heavy trucks to have a greater impact on operations than passenger vehicles. Roadway counts along the corridor recorded up to 1,800 trucks per day on a weekday from 6:00am to 7:00pm. Trucks volumes are highest and have the greatest impact near the quarries (between Swan Road and County Y). Through traffic on County K

*Pre-NEPA locally preferred scoping alternative

Proposed Cross Sections

- ❑ Transitional, CTH JK (Lynndale Road) to CTH Y (Lannon Road)
- ❑ Low Speed, CTH Y (Lannon Road to Brookfield Road)
- ❑ High Speed, Not Incorporated



Proposed Speed Limits

- ❑ Existing Speed Limits vary from 35 MPH, 45 MPH and 50 MPH
- ❑ Design Speed, 5 MPH over Posted Speed Limit
- ❑ Planned Posted Speeds
 - ❑ 45 MPH, CTH JK (Lynndale Road) to CTH Y (Lannon Road)
 - ❑ 35 MPH, CTH Y (Lannon Road) to Brookfield Road



CNRR Overpass Justification

- Physical Feasibility
- Daily Train Volume
- Freight Train Crossing Exposure
- Vehicle Delay
- Emergency Response Time and Reliability
- Safety Performance, Crash History
- Life Cycle, Benefit-Cost Analysis, TBD
- Weyer Road Closure Justification

Railroad Grade Separation Technical Analysis

County K (Lisbon Road) over
Wisconsin Central Ltd (Canadian National)

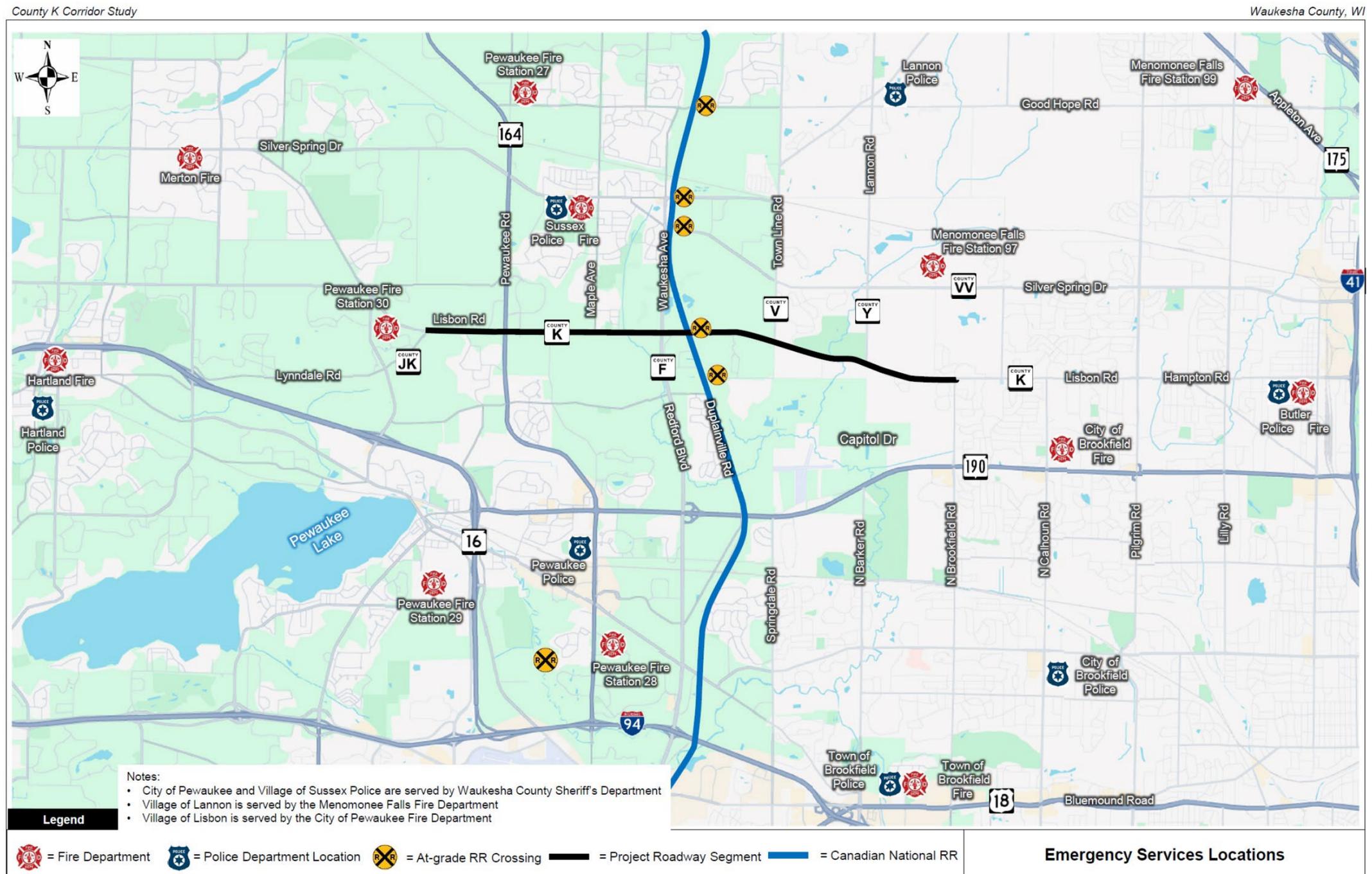
Waukesha County

06/19/2025



CNRR Overpass Justification

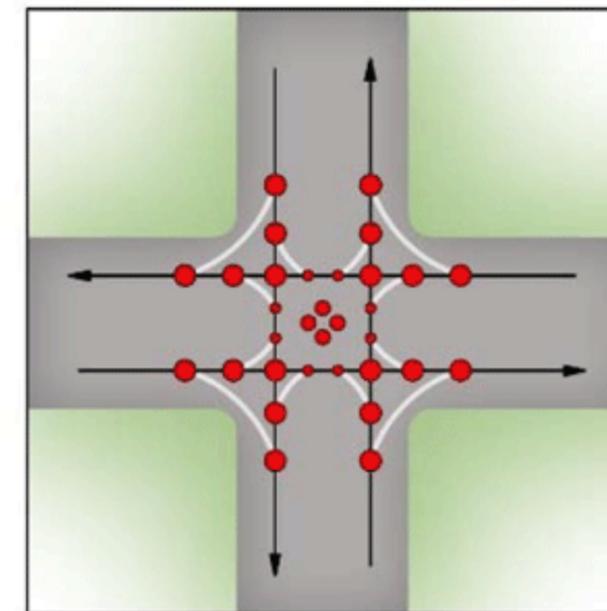
- ❑ Emergency Response Time and Reliability
- ❑ Additional Feedback
- ❑ Response Delay
- ❑ Planning Challenges
- ❑ Costs



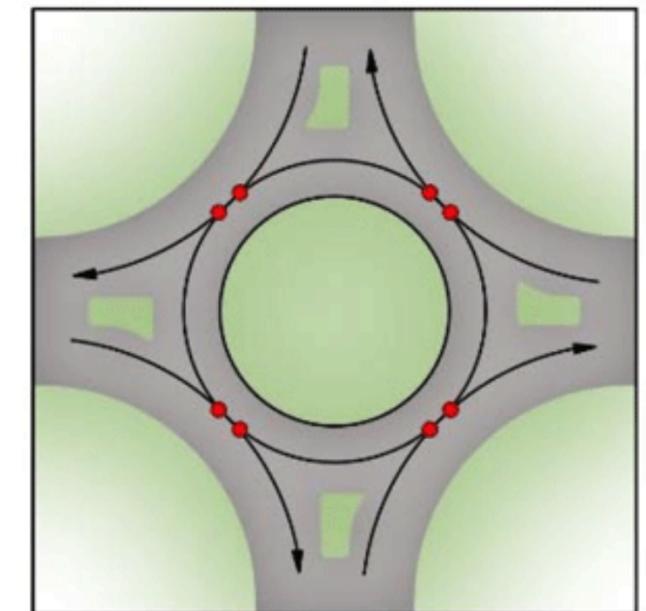
Preliminary Intersection Concepts

- ❑ CTH JK (Lynndale Road), Roundabout
- ❑ Maple Avenue, Roundabout
- ❑ CTH F (Redford Blvd), Traffic Signal
- ❑ Quarry Corners Pkwy, TBD
- ❑ Duplainville Road, TBD
- ❑ CTH V (Townline Road), Roundabout
- ❑ CTH Y (Lannon Road), Roundabout
- ❑ Brookfield Road, TBD

With roundabouts, head-on and high-speed right angle collisions are virtually eliminated.



Traditional Intersection



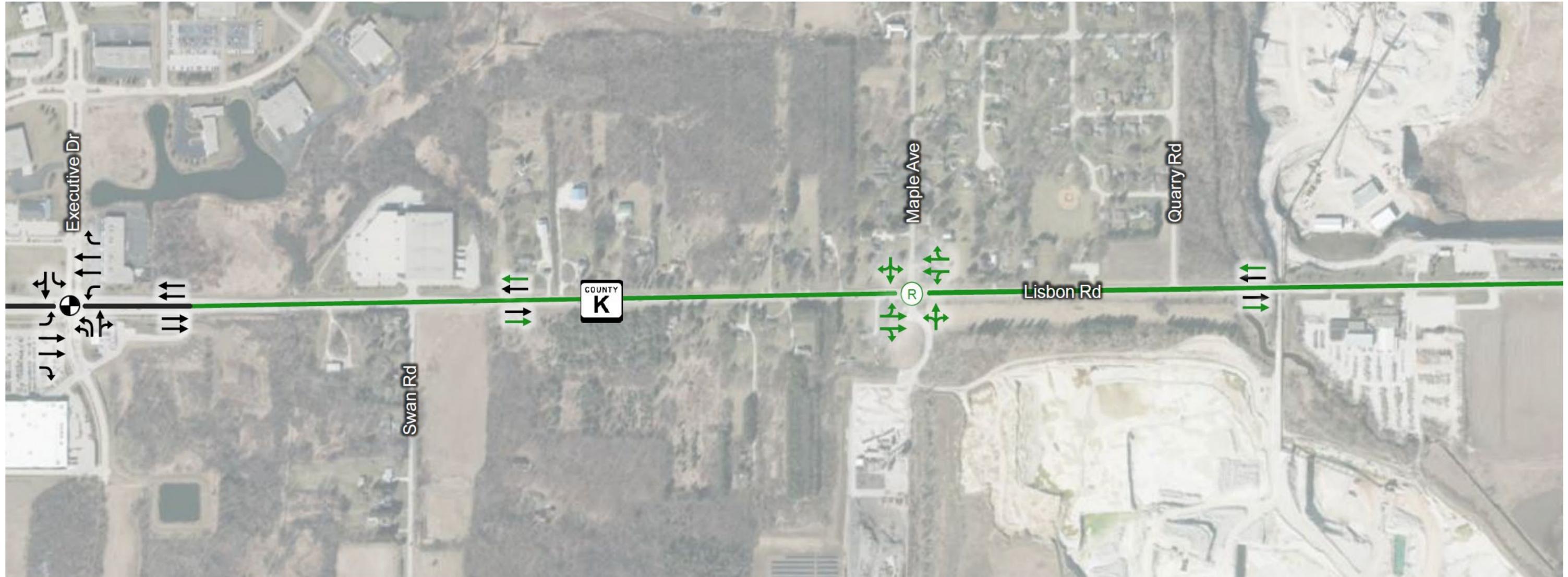
Roundabout

● Potential Vehicle Conflict Point

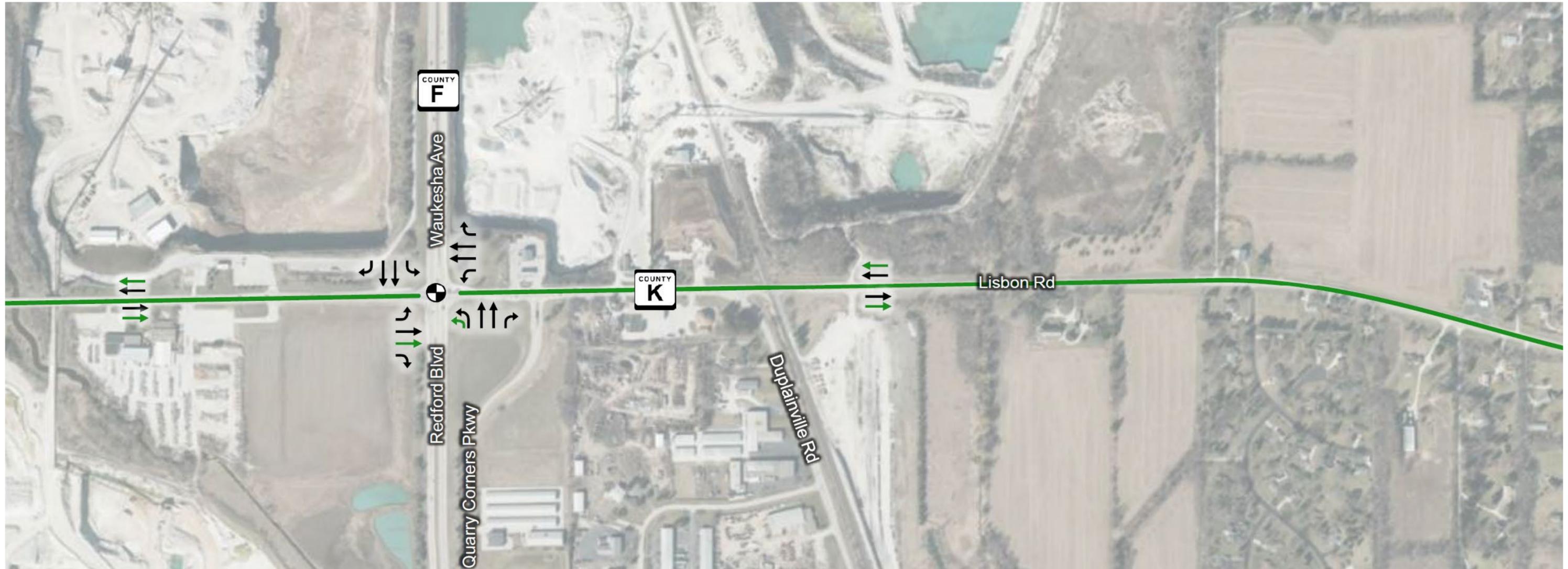
WC Locally Preferred Alternative



WC Locally Preferred Alternative



WC Locally Preferred Alternative



WC Locally Preferred Alternative



WC Locally Preferred Alternative



Bike/ Ped Opportunities

- Complete Streets-Safe, Convenient & Comfortable Access and Travel
 - 'Due Consideration'
 - Fed. Law 23 USC 217(g)(1)
 - Wis. Stats. 84.01(35)
 - On-Road Bicycle Accommodation/ Shoulder
- Municipal Coordination
- Municipal Shared Use Path/ Sidewalk
 - Maintenance Agreements
 - Project Cost Sharing Agreements
 - Federal Funds (80/ 20)



SEWRPC 2050 Plan Amendment Required

- Waukesha Request
- SEWRPC Transportation Plan Update Process
 - VISION 2050 Arterial Street and Highway Network Update
 - Extends Arterial Widening and Additional Traffic Lanes to CTH JK (Lynndale Road)
- Public Comment Period, 30-days
 - Closes July 25th
- County Board Resolution
- Village Board/ City Council Resolutions



SEWRPC 2050 Plan Amendment, Capacity Expansion

□ How to provide comment:

Commenting on Proposed Amendment

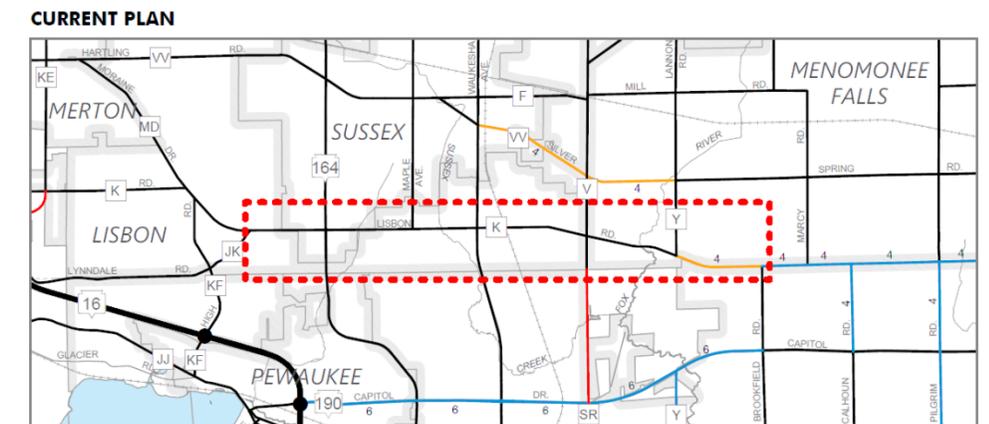
The Southeastern Wisconsin Regional Planning Commission will review all comments received by Waukesha County on the widening of CTH K from two to four traffic lanes as part of their public hearing on the preferred alternative. Those comments will be considered as the Commission considers the necessary attendant amendment to VISION 2050. In addition, comments related to the amendment to VISION 2050 adding the widening of CTH K from two to four lanes between CTH JK and Brookfield Road may be submitted for consideration by the Commission through July 25, 2025, via U.S. mail or e-mail.

Southeastern Wisconsin Regional Planning Commission

PO Box, 1607, Waukesha, WI 53187-1607

vision2050@sewrpc.org

Exhibit A: Proposed Amendment to VISION 2050
Adding the Widening of CTH K from Two to Four Lanes between CTH JK and Brookfield Road



- ARTERIAL STREET OR HIGHWAY**
- NEW
- WIDENING AND/OR OTHER IMPROVEMENT TO PROVIDE SIGNIFICANT ADDITIONAL CAPACITY
- RESERVE RIGHT-OF-WAY TO ACCOMMODATE POTENTIAL FUTURE IMPROVEMENT BEYOND 2050 (ADDITIONAL LANES OR NEW FACILITY)
- RESURFACING OR RECONSTRUCTION TO PROVIDE ESSENTIALLY THE SAME CAPACITY
- 4 NUMBER OF TRAFFIC LANES FOR NEW OR IMPROVED FACILITY, INCLUDING RIGHT-OF-WAY RESERVATIONS (2 LANES WHERE UNNUMBERED)

- FREEWAY INTERCHANGE**
- NEW
- EXISTING

Note: This map has been updated to show capacity expansion projects completed or in progress through the end of 2024.

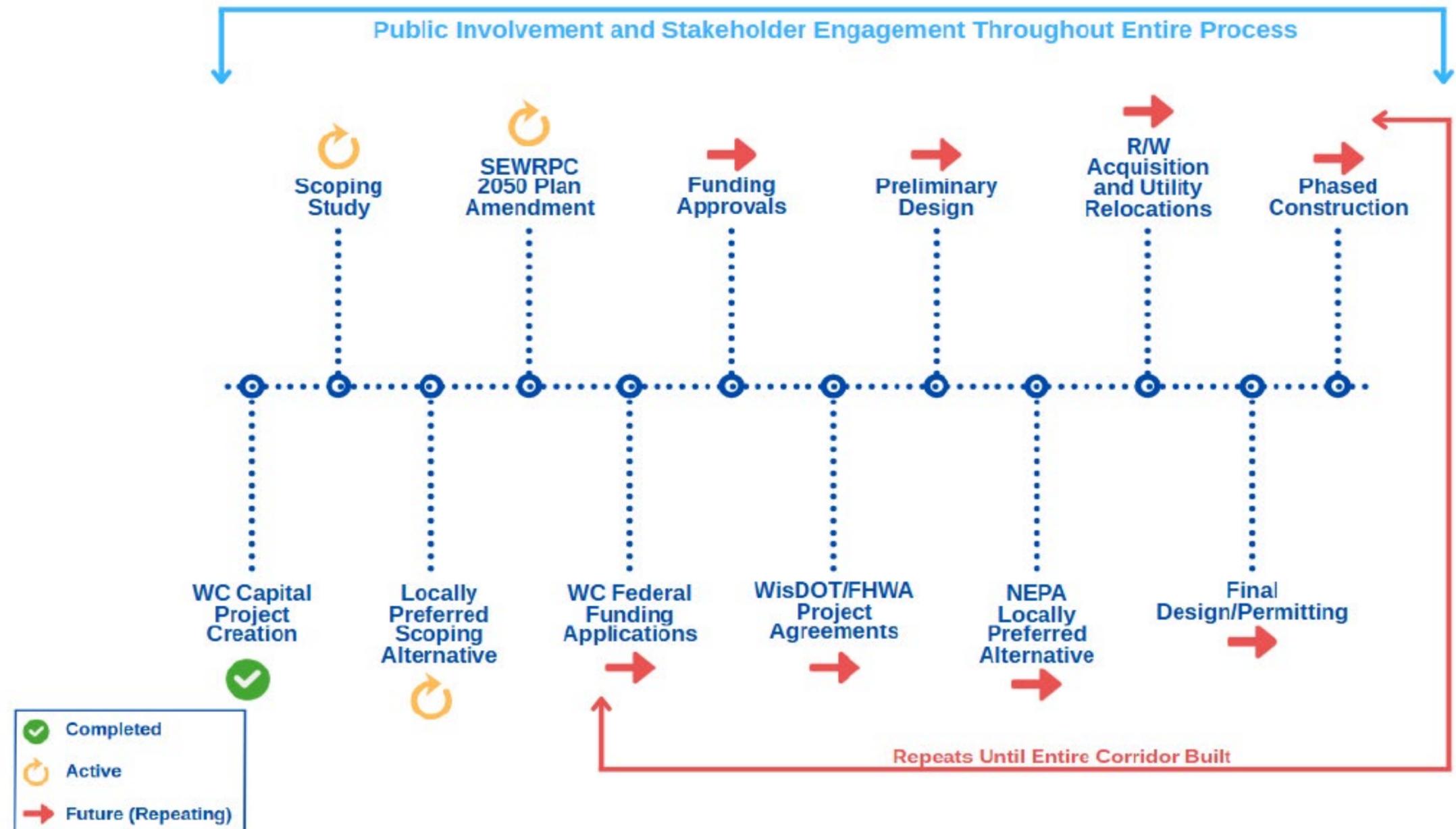


Source: SEWRPC, 6/2025

SEWRPC 2050 Plan Amendment

□ The Process.

CTH K Project Development Process



Next Steps

- Exhibit Review.
- Project Comment Forms.
 - SEWRPC 2050 Plan Amendment.
- November Public Meeting #3-TBD.
 - Preferred Corridor Alternative Plan.
- Contact Waukesha County-Questions.
- Public Support, Be a Champion.



Public Input

□ Questions, Feedback, Issues, Concerns...

