

# WELCOME!

## Old McHenry Crossings Phase I Engineering Study

Stakeholder Involvement Group Meeting #2

February 17, 2022

(FOR ANY TECHNICAL DIFFICULTIES PLEASE CONTACT MAT AT 847-407-5276)

# WELCOME!

## Old McHenry Crossings Phase I Engineering Study

Stakeholder Involvement Group Meeting #2

February 17, 2022

- ✓ Introductions & Zoom Utilization
- ✓ SIG #1 Recap and Project Progress
- ✓ Where are we in the NEPA Process
- ✓ Project Purpose and Need
  - Large Group Discussion - Q & A
- ✓ Break
- ✓ Alternative Development Process
  - Evaluation and Screening Process
  - Small Group Breakout Discussion
- ✓ Next Steps & Schedule
- ✓ Q & A

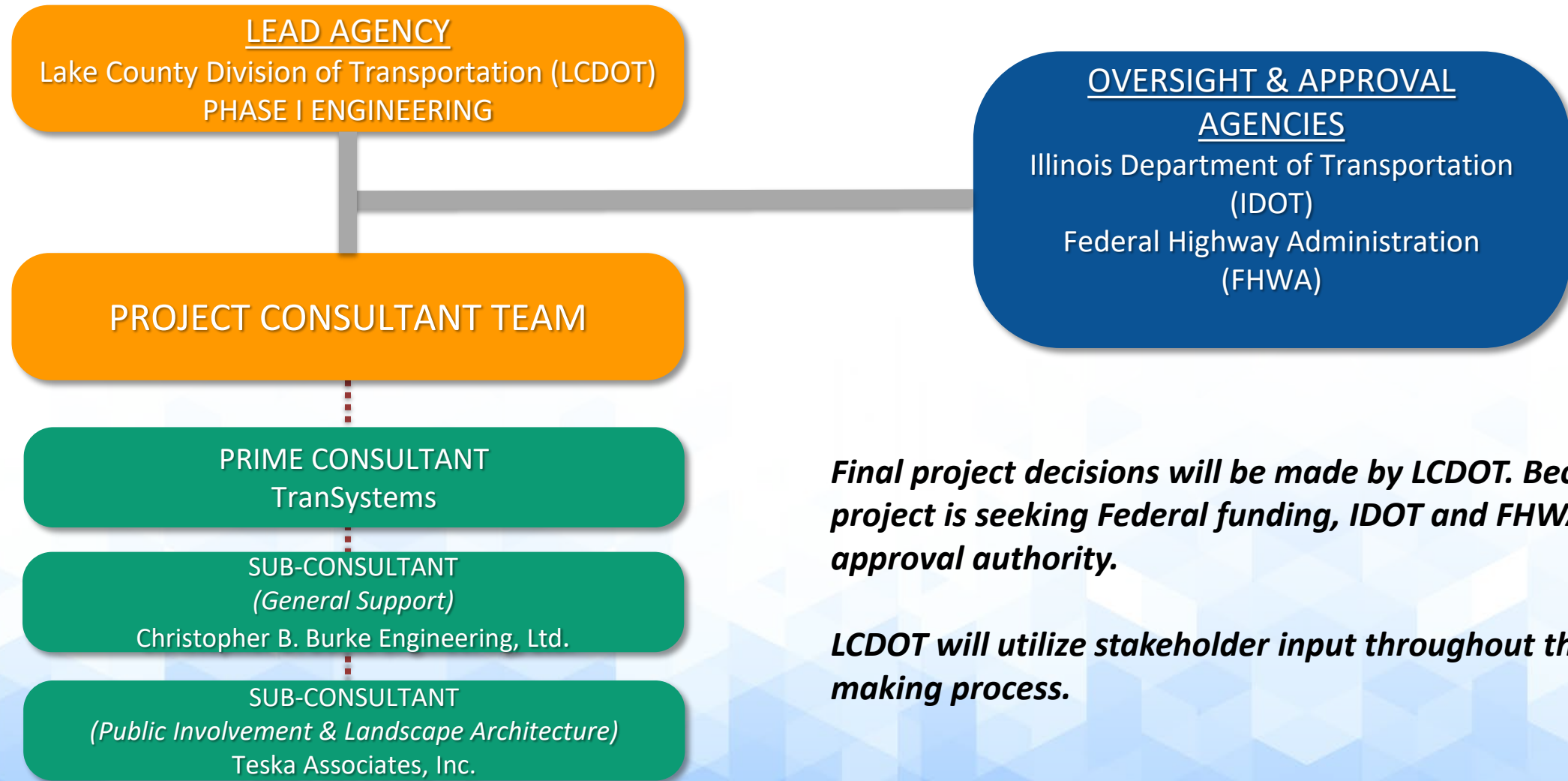


## OLD MCHENRY CROSSINGS

Fairfield • Midlothian • CN RR • Quentin



# Introductions: Project Team



# Introductions: Project Team



**KEVIN CARRIER**  
LCDOT  
DIRECTOR OF PLANNING  
& PROGRAMMING



**CHUCK GLEASON**  
LCDOT  
PROJECT MANAGER



**MATT SMITH**  
TRANSYSTEMS  
SPEAKER



**JULIA NIGOHOSIAN**  
CBBEL  
SPEAKER



**MIKE MATKOVIC**  
CBBEL  
SPEAKER



**MATT HUFFMAN**  
CBBEL  
FACILITATOR



**JODI MARIANO**  
TESKA  
FACILITATOR



**MAT CISS**  
TRANSYSTEMS  
FACILITATOR



**BEN VANDER WAL**  
TRANSYSTEMS  
FACILITATOR



**CHUCK STENZEL**  
TRANSYSTEMS  
FACILITATOR

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# Introductions: Stakeholder Involvement Group

## The SIG Members Represent

- ✓ Residents
- ✓ Commuters
- ✓ Transit Management Association Lake-Cook
- ✓ Apex Landscaping
- ✓ Village of Lake Zurich
- ✓ Lake Zurich Fire Department
- ✓ St. Matthew's Lutheran Church & School
- ✓ Forest Lake Community Association
- ✓ Village of Hawthorn Woods
- ✓ Fogila YMCA
- ✓ Quentin Road Baptist Church
- ✓ Hawthorn Garden Center
- ✓ Lake Zurich School District 95
- ✓ Forward Stride Stables
- ✓ Wicklow Village Community Group

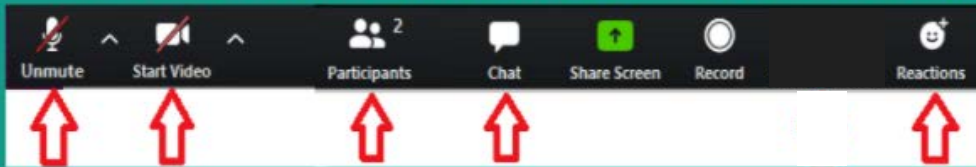


# Zoom Utilization

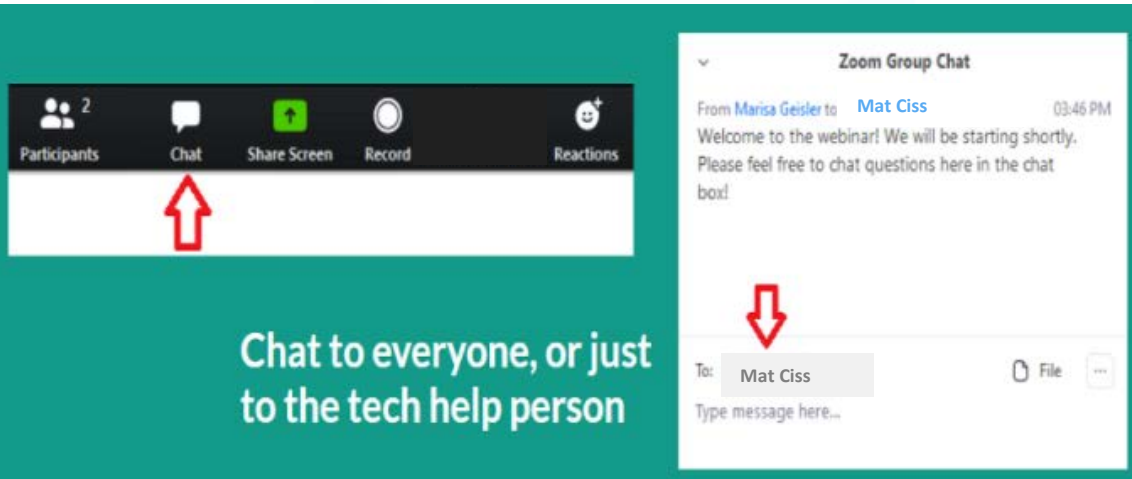
- In the upper right corner:



- At the bottom: (hover your mouse to reveal)



Keep mic and video off  
(looks like this - red line)



Chat to everyone, or just  
to the tech help person

- Click on either Gallery View or Speaker View to change your screen setting
- Please keep your mic and video off unless you are speaking
- Questions may be submitted at any time in the 'Chat' box
- Comment Period and Q&A session after presentation
- Please be courteous and have an open mind. The SIG is meant to be a constructive and productive group to help provide input to the project team
- **The SIG Presentation will be recorded and will be posted on project website**

# SIG #1 Recap

# SIG #1 Recap



- The primary objective of this project is to improve:
  - Safety
  - Traffic operations
  - Connectivity for motorists, bicyclists, and pedestrians
- Phase 1 of Project Development Process



- Public Involvement Approach – SIG Schedule & Responsibilities
- Virtual Public Forum Recap – Sept 30<sup>th</sup> to Oct 15<sup>th</sup>
- Issues & Needs Interactive Workshops
- Introduction to NEPA (National Environmental Policy Act)

## OLD MCHENRY CROSSINGS

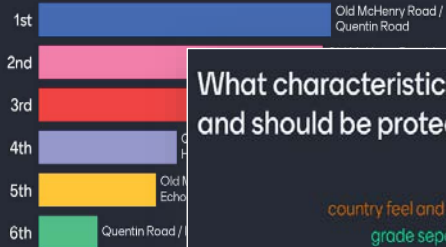
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# SIG #1 Recap

## Interactive Workshop #1 Feedback

We heard about delays associated with the RR crossing.  
Please rank the intersections that present the greatest concerns. (1=greatest concern)



What characteristics about the corridor are special and should be protected?

country feel and glavor  
grade separation  
trees and nature  
country  
intentional design  
open spaces  
rural feel  
natural land scape  
country-rural  
nature  
fields  
low profile  
rural  
forest lake  
open space  
trees  
character  
wildlife  
farming and horses  
not seeing an overpass  
historic buildings

Are there other projects that we should look at?

Fairfield and Holmes

Light at Q

Lakeside Dr and OMH Rd.

it needs to stay open ...

people bike McHenry all the time and its dangerous without a path

a path on Old McHenry would be great too

I know its a dark skies area, but lights would be nice

noise pollution is awful in that area



(Interactive Exercise using Mentimeter)

Large Group Discussion and Q&A to review outcomes from the Virtual Public Forum & Seek Input on Issues/Needs

### Questions Topics:

- Intersection of Greatest Concern?
- Other Areas That Should Be Looked Into Further?
- Top Biking/Walking Destinations?
- Other Walking/Biking Destinations That Should Be Reviewed?
- Special Characteristics About the Corridor That Should Be Protected?
- Other Issues/Concerns?

# SIG #1 Recap

## Interactive Workshop #2 Feedback

Input from the breakout groups was used to help formulate and craft the project Purpose and Need.

### Small Group Breakout Discussion:

- Project Issues
- Project Needs
- Relative Importance of Goals/Objectives

(Small Group Activity Note Sheets)

**MEETING NOTES**  
SIG Meeting #1  
Old McHenry Crossings Phase I  
Section No. 19-00999-65-ES  
November 18, 2021

**BREAKOUT GROUP # 1**  
Facilitated by: Matt Smith, TransSystems  
Documented by: Gabi Van der Vant, Teska

Purpose and Need Categories	Goals & Objectives
<b>SAFETY</b>	<ul style="list-style-type: none"> <li>Access for Emergency vehicles when train is coming through</li> <li>Access to Churches/ schools ( Issues entering and exiting, backups and safety c</li> </ul>
<b>TRANSPORTATION</b>	<ul style="list-style-type: none"> <li>Improve traffic signal timing and coordination</li> <li>Heather Lane/ Quentin Rd cars get trapped when train gate is down</li> <li>Possibility of traffic cameras to prevent drivers from rolling through lights, but from people stopping on yellow</li> <li>Roundabouts as an option to help with traffic, but they are difficult for pedestrians</li> <li>Introduce more conflict points for pedestrians and cyclists and traffic doesn't ai</li> <li>Accident statistics for roundabouts – Improve safety for motorists by about 80 conflict points) Will roundabouts be single lane or double lane? Because of the roundabouts will have to be looked at</li> <li>Yellow buses require most turning space (truck apron)</li> </ul>
<b>DRAINAGE</b>	<ul style="list-style-type: none"> <li>Issues with water draining under the roads in corridor</li> </ul>
<b>ENVIRONMENTAL</b>	
<b>TRAFFIC CONGESTION</b>	
<b>QUALITY OF LIFE</b>	

**MEETING NOTES**  
SIG Meeting #1  
Old McHenry Crossings Phase I  
Section No. 19-00999-65-ES  
November 18, 2021

**BREAKOUT GROUP # 2**  
Facilitated by: Matt Huffman (CBREL)  
Documented by: Pete Knyz (CBREL)

Purpose and Need Categories	Old McHenry Road Goals & Objectives
<b>SAFETY</b>	<ul style="list-style-type: none"> <li>Maintain/Improve (CH RR) backups with respect to emergency services)</li> </ul>
<b>TRANSPORTATION</b>	
<b>DRAINAGE</b>	<ul style="list-style-type: none"> <li>Potential floodplain impacts and potential added impervious surface – project will require detention/pond storage</li> </ul>
<b>ENVIRONMENTAL</b>	<ul style="list-style-type: none"> <li>Potential wetland impacts – will require wetland mitigation</li> </ul>
<b>TRAFFIC CONGESTION</b>	<ul style="list-style-type: none"> <li>Minimize additional traffic in area</li> <li>Alleviate congestion at RR</li> <li>Maintain access at church</li> </ul>
<b>QUALITY OF LIFE</b>	
<b>NON-MOTORIZED TRAVEL</b>	<ul style="list-style-type: none"> <li>Maintain/improve walkability (2)</li> <li>Improve safety for cyclists (on-road, including north on Midlothian)</li> </ul>
<b>OTHER CONSIDERATIONS</b>	

**MEETING NOTES**  
SIG Meeting #1  
Old McHenry Crossings Phase I  
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November 18, 2021

**BREAKOUT GROUP # 3**  
Facilitated by: Chuck Stenzel, TransSystems  
Documented by: Mat Ciss, TransSystems

Purpose and Need Categories	Old McHenry Road Goals & Objectives	Quentin Road Goals & Objectives
<b>SAFETY</b>	<ul style="list-style-type: none"> <li>Poor lines of sight at intersections, preemption at intersections, protection for pedestrians</li> <li>Trains at rush hour/ all the time causing emergency response delays for safety vehicles, Police and fire department shift change also affected by train traffic with officers needing to cross the tracks</li> <li>People behind others turning into Garden Center think they are turning down Quentin</li> </ul>	<ul style="list-style-type: none"> <li>Turn lane at Heather – people chest and use this turn lane to get to turn lanes at Old McHenry. Results in crashes and near misses.</li> <li>Same comment as Old McHenry Road - Poor lines of sight at intersections, preemption at intersections, protection for pedestrians</li> <li>Going around the corner into a right turn lane too fast and is an accident waiting to happen</li> </ul>
<b>TRANSPORTATION</b>	<ul style="list-style-type: none"> <li>Be cognizant of roundabouts and losing trees/land</li> <li>Install emergency pre-emption on traffic signals</li> </ul>	<ul style="list-style-type: none"> <li>How will you get 4 lanes passed the barn?</li> <li>Crossing improvements</li> </ul>
<b>DRAINAGE</b>	<ul style="list-style-type: none"> <li>15 years ago, LCDOT wanted to borrow resection from Hawthorn Gardens, put 6" pipe in ground. Public water/ague Illinois is on Hawthorn Gardens property b/c pipe is in front of garden center</li> </ul>	
<b>ENVIRONMENTAL</b>	<ul style="list-style-type: none"> <li>Residents moved here for what they have – all sorts of wildlife. Don't want cement city</li> </ul>	
<b>TRAFFIC CONGESTION</b>	<ul style="list-style-type: none"> <li>How does church members and garden customers get out when the road elevation changes?</li> <li>How do users get to YMCA?</li> </ul>	<ul style="list-style-type: none"> <li>Unique time to look at Quentin Road. Haven't experienced congestion because Old McHenry currently closed, except for turn lane SB to EB on 22 is backed up.</li> </ul>

## OLD MCHENRY CROSSINGS

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# Project Progress Since SIG #1

- SIG #1 Summary distributed and finalized
- Completed roadway and stream surveys
- Completed wetland delineations & final report preparation in-progress
- Completed cultural (historic) structure survey field work & final report in-progress
- IDOT archeological survey coordination (Spring 2022)
- Existing & Projected 2050 No-Build Traffic Modeling
- Purpose & Need development
- CN Railroad Coordination



# Where Are We in the Project Development Process?

## PHASE 1 STUDY PROCESS



### OLD MCHENRY CROSSINGS

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# Purpose and Need

## OLD MCHENRY CROSSINGS

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# What Is the Project Purpose and Need?

## National Environmental Policy Act (NEPA) - Federal Requirement

**The Purpose** – Defines the transportation problem to be solved and outlines the goals and objectives.

**The Need** – Provides the context and data that supports the stated project purpose.

- ✓ Formal NEPA document that establishes the basis for identifying feasible and reasonable alternatives to be considered.
- ✓ Alternatives must meet Purpose and Need to be considered reasonable under NEPA.
- ✓ The SIG will have opportunity to review the Draft Purpose and Need Statement.

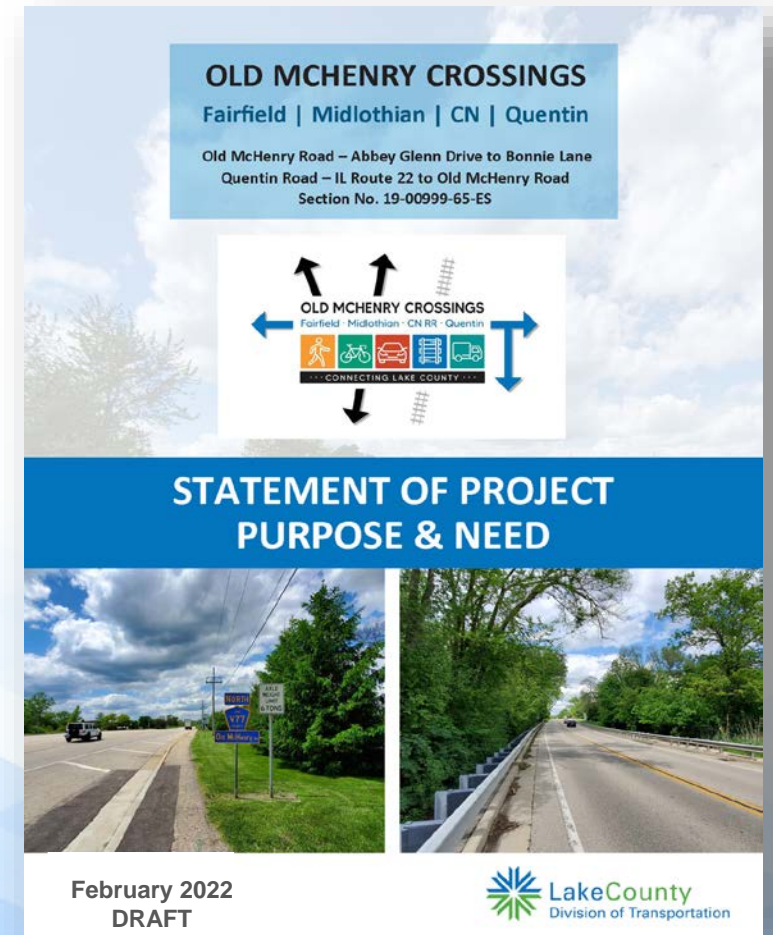


Categorical Exclusion - Environment- Federal-aid  
Essentials for Local Public Agencies (dot.gov)

# What Is the Purpose of the Old McHenry Crossings Project?

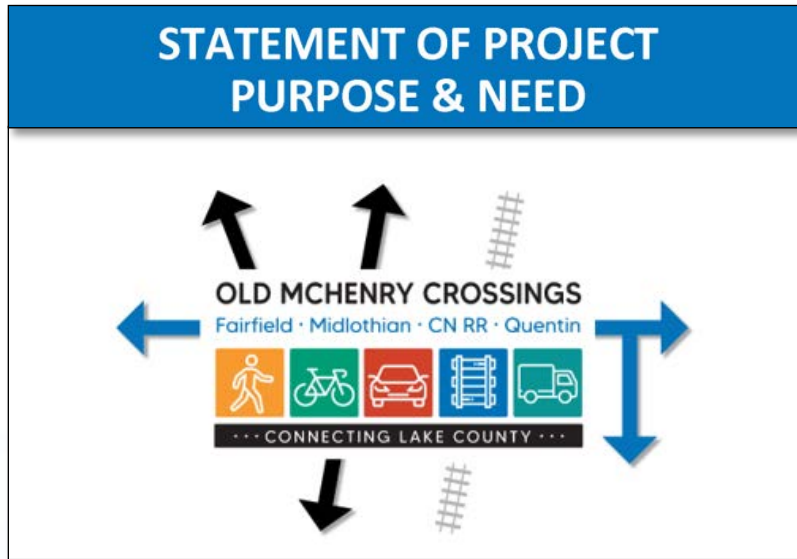
## Draft Project Purpose:

To provide an improved transportation system to address capacity, safety, and mobility deficiencies along Old McHenry Road and Quentin Road based on past and projected future growth in the project area, and to improve non-motorized connections within the project area. A key element of the project will be to evaluate a new grade separation (over or under) of Old McHenry Road at the Canadian National (CN) Railroad crossing.



# What Is the Need for the Old McHenry Crossings Project?

## Key Elements:



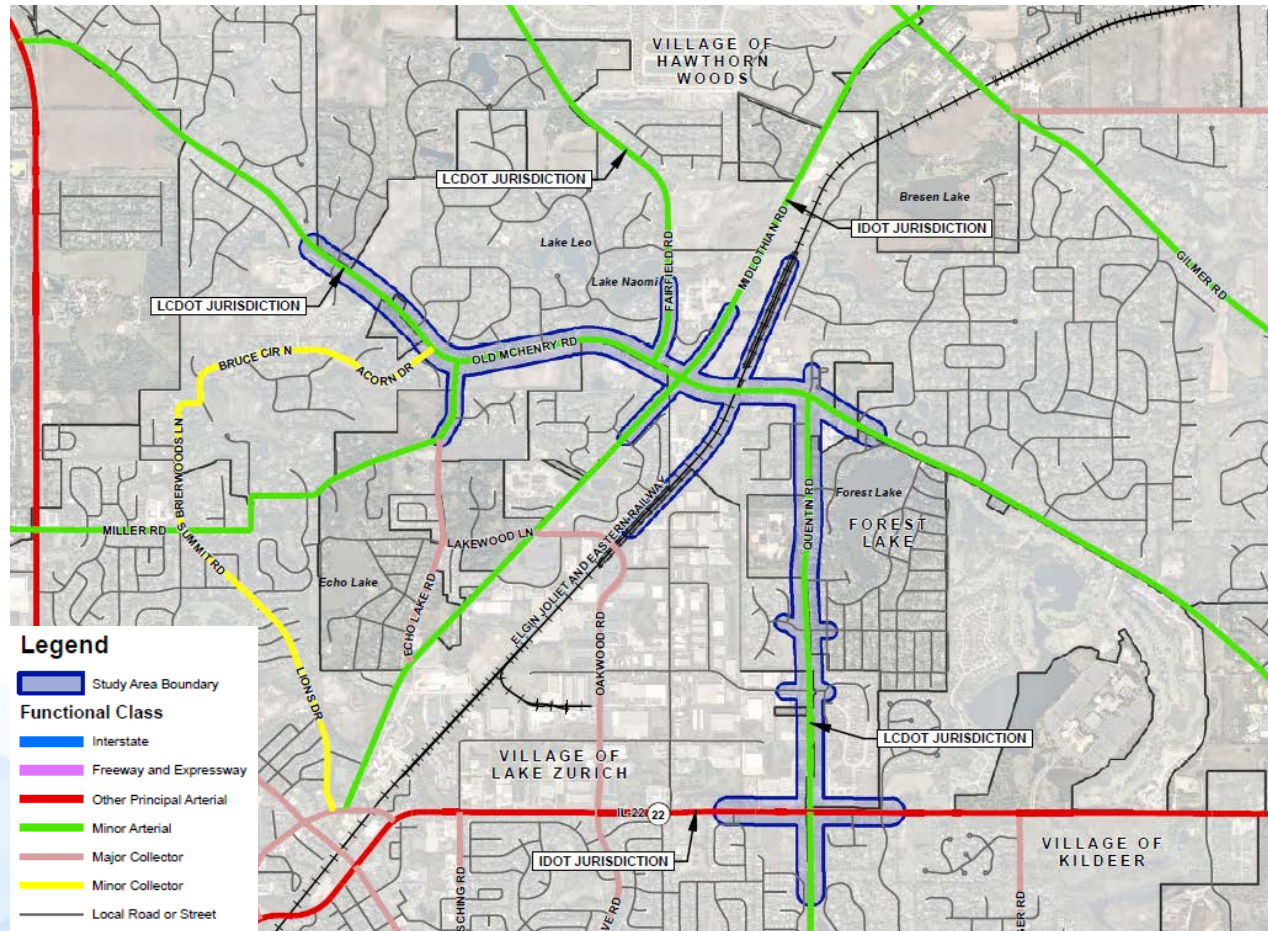
- ✓ Planning History
- ✓ Connection to Regional Transportation Network
- ✓ Project Area Population and Employment Trends and Projections
- ✓ Travel Demand Trends and Projections
- ✓ Evaluate Performance Measures for Existing and 2050 No-Build Conditions
  - Capacity
  - Safety
- ✓ Address Non-Motorized Connection Deficiencies
- ✓ Stakeholder Input

# What Is the Planning History?

- **Lake County 2040 Transportation Plan**
  - By 2040, the estimated number of peak period trips in Lake County is expected to increase by 36%
  - The plan recommends an evaluation of future improvement needs along Old McHenry Road and Quentin Road
- **Lake County 5 Year Proposed Transportation Plan**
  - OMX Project included for initiation of Planning and Design Engineering.
- **The Illinois Commerce Commission (ICC)**
  - CN Railroad crossing at Old McHenry Road is included in the ICC Crossing Safety Improvement Program for future improvements.
- **CMAP - Northeastern Illinois Priority Grade Crossings**
  - One of 47 Priority Locations in Northeastern Illinois identified for further evaluation of grade separation feasibility and cost effectiveness.



# How Does the Project Area Fit Into the Transportation Network?



## • Arterial Roadways (categorized based on travel demand & connectivity)

- Old McHenry Road: County Route
- Fairfield Road: County Route
- Quentin Road: County Route
- Midlothian Road: State Route
- IL 22: State Route



Trip Type	Daily
Through the Project Area	38%
Origin Out – Destination In	22%
Origin In – Destination Out	22%
Origin and Destination Within	18%

Based on an analysis of travel patterns, **38%** of trips pass through the project area during the daily peak travel periods, with **44%** of trips with either the trip origin or destination outside the project area, and **18%** of trips fully within the project area

## OLD MCHENRY CROSSINGS

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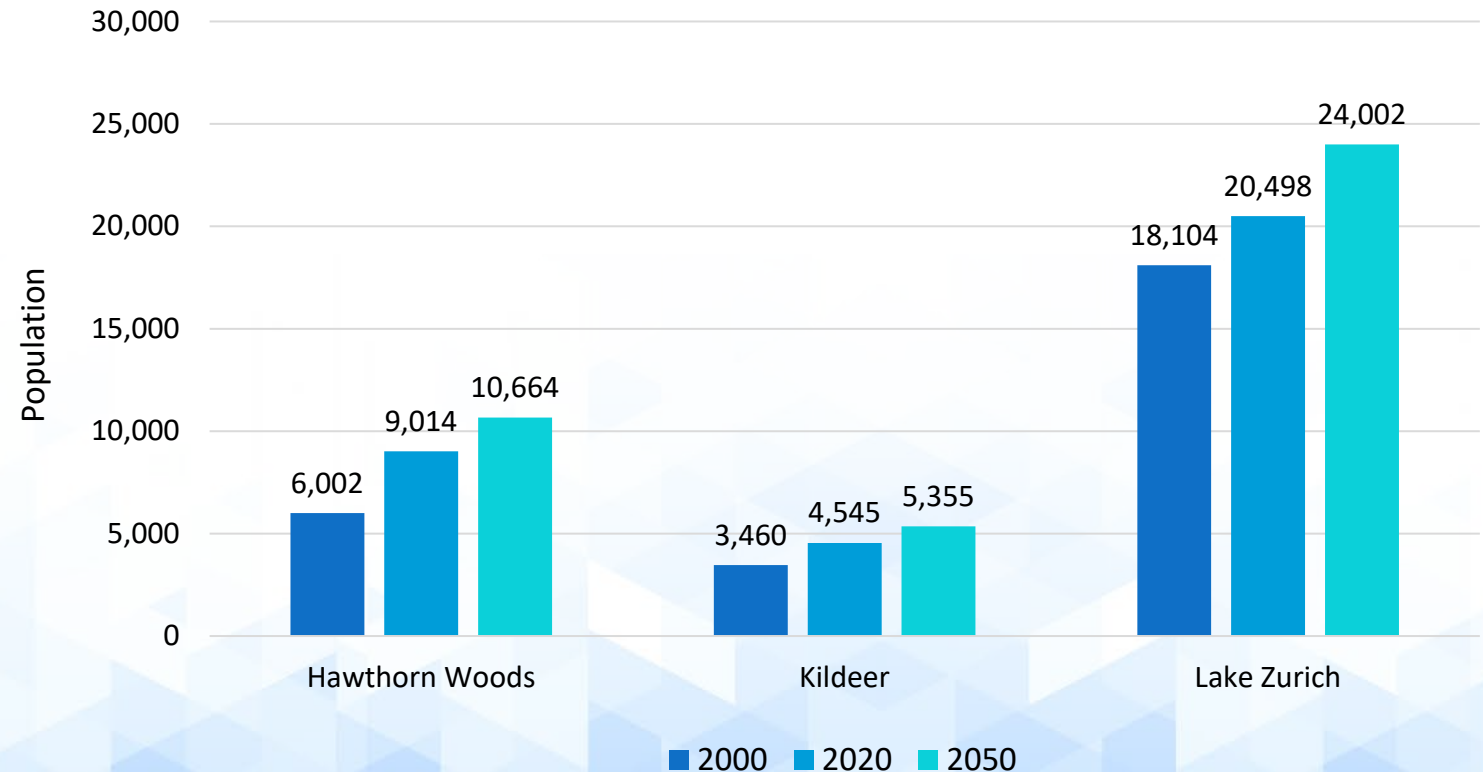


# How Is the Project Area Anticipated to Grow?

## 2020 to 2050 Projected Population Growth

- **Village of Hawthorn Woods**
  - 18.3% population projected increase
- **Village of Kildeer**
  - 17.8% population projected increase
- **Village of Lake Zurich**
  - 17.1% population projected increase
- **Lake County's population has grown and will continue to grow by the year 2050**
  - 21.9% population projected increase

Population Growth (2000 to 2050)



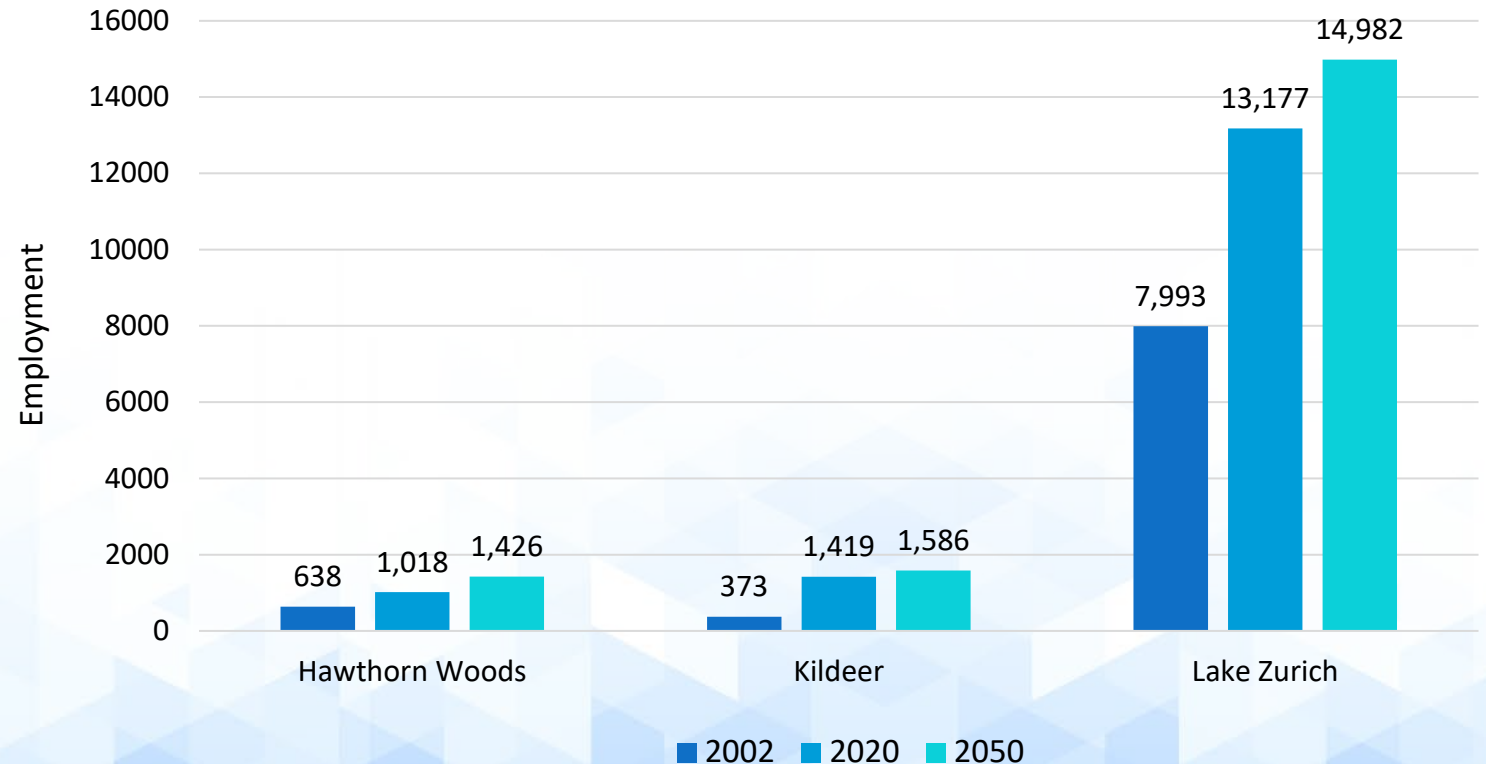
Sources: [2050 Forecast of Population, Households and Employment - Datasets - CMAP Data Hub \(illinois.gov\)](#); [censusedemographics2000.doc \(ilga.gov\)](#)

# How Is the Project Area Anticipated to Grow?

## 2020 to 2050 Projected Employment Growth

- **Village of Hawthorn Woods**
  - 40.1% employment projected increase
- **Village of Kildeer**
  - 11.8% employment projected increase
- **Village of Lake Zurich**
  - 13.7% employment projected increase
- **Lake County's employment has grown and will continue to grow by the year 2050**
  - 18.9% employment projected increase

Employment Growth (2002 to 2050)



Sources: [2050 Forecast of Population, Households and Employment - Datasets - CMAP Data Hub \(illinois.gov\)](#); [OnTheMap \(census.gov\)](#)

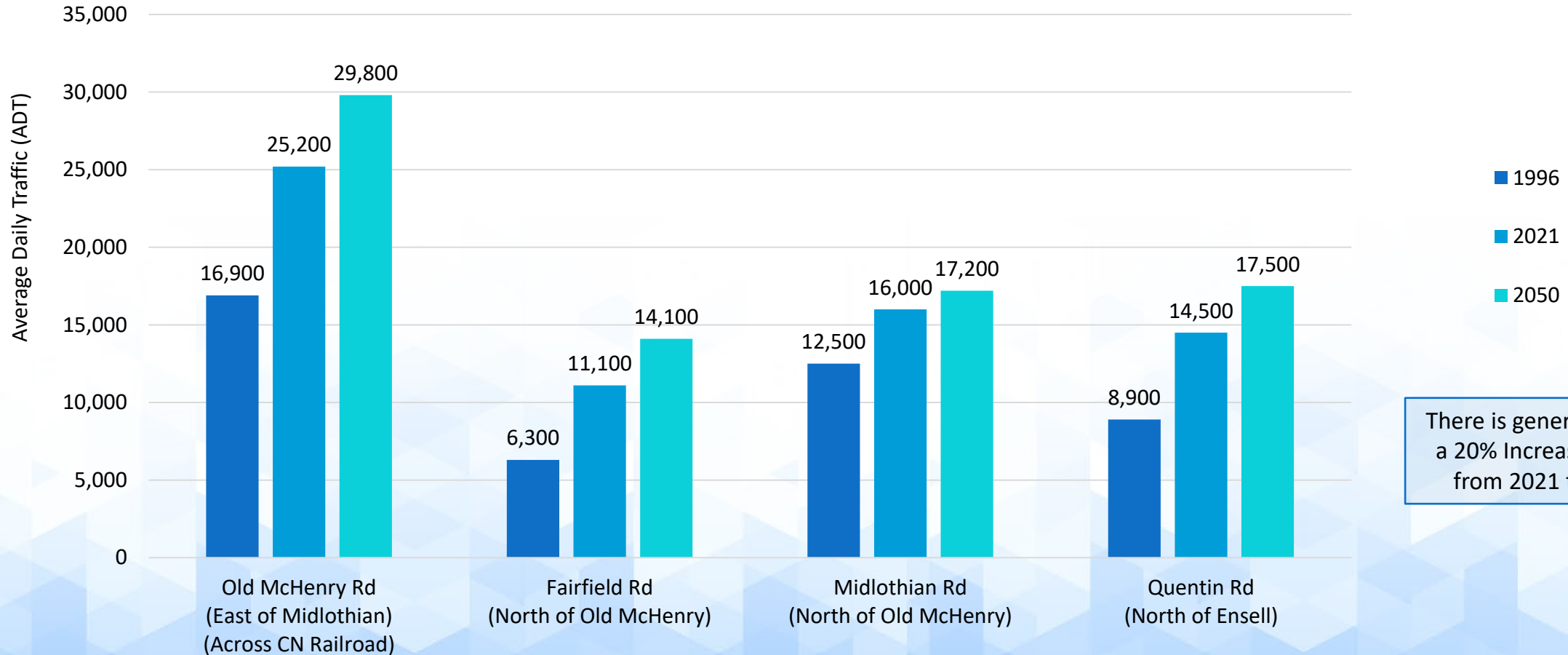
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# How Does the Population/Employment Growth Influence Traffic Growth?

Historical and Projected Average Daily Traffic



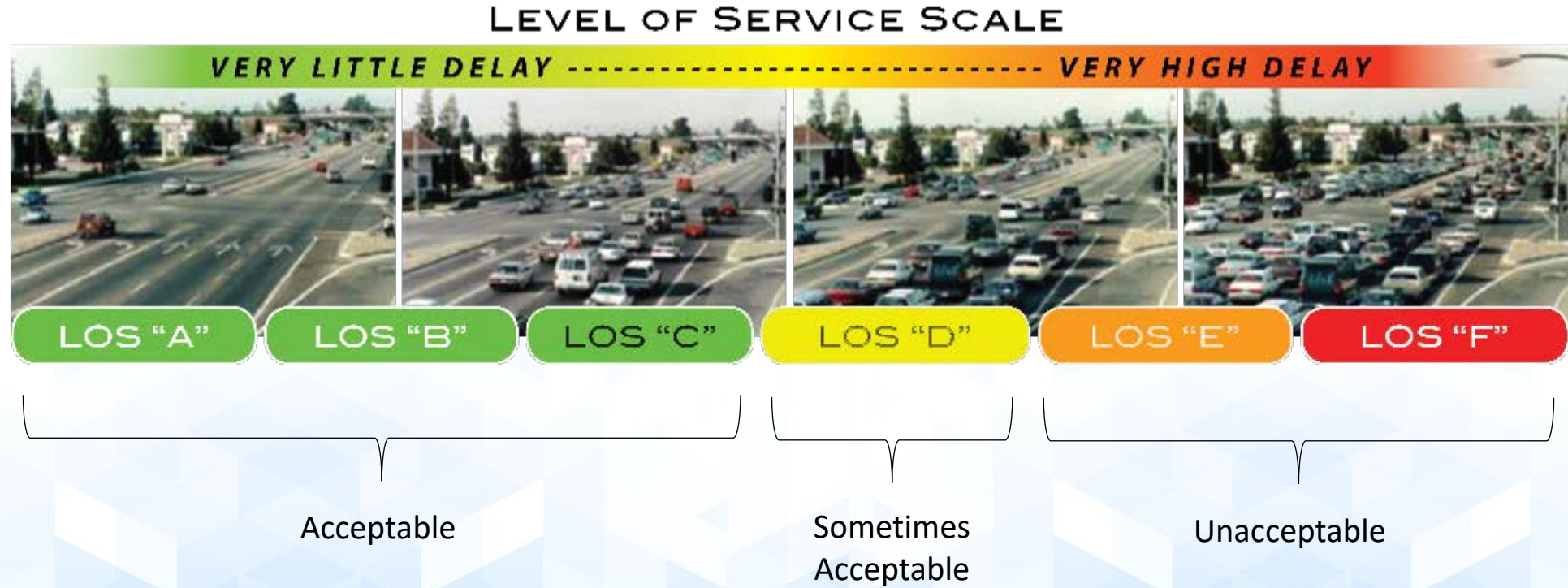
1996 Data Source: <https://datahub.cmap.illinois.gov/dataset/lake-county-historic-traffic-volumes>

## OLD MCHENRY CROSSINGS

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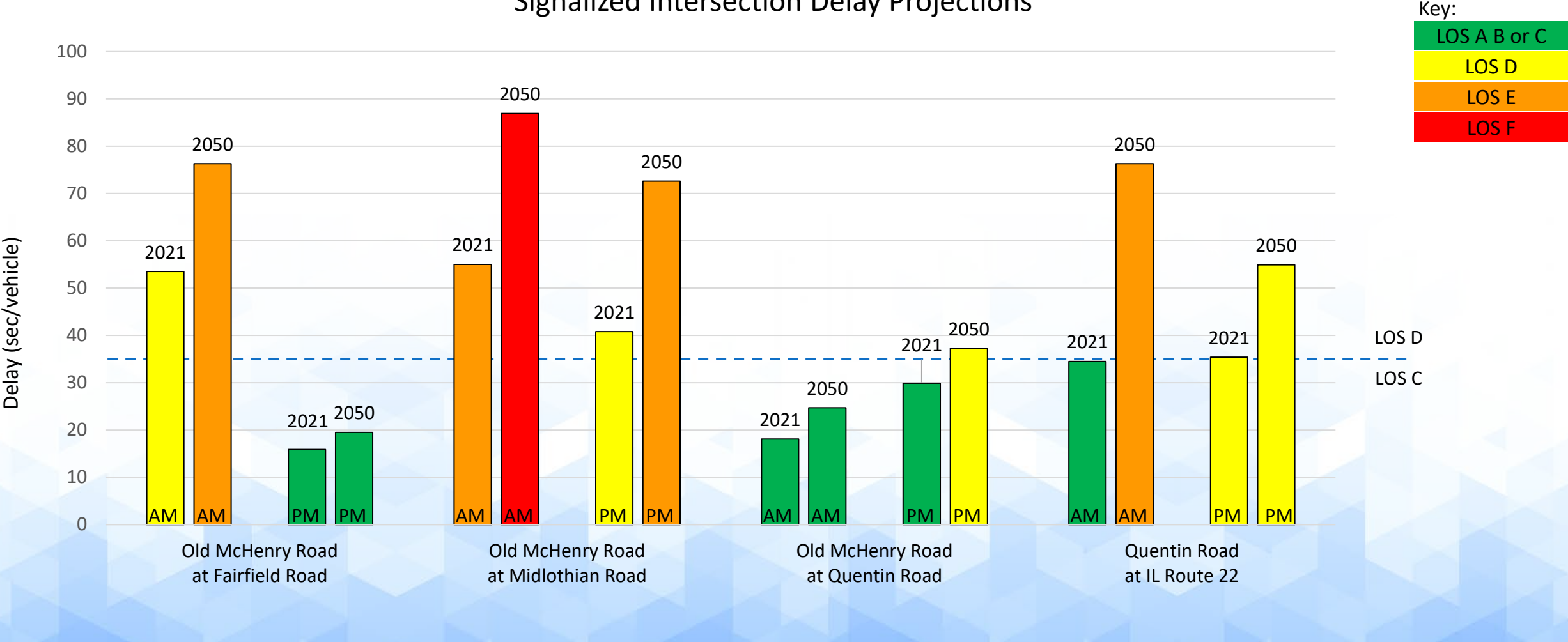
# What Are the Intersection Capacity Needs?



LOS is a qualitative performance measure used to evaluate roadway & intersection delays

# What Are the Intersection Capacity Needs?

Signalized Intersection Delay Projections



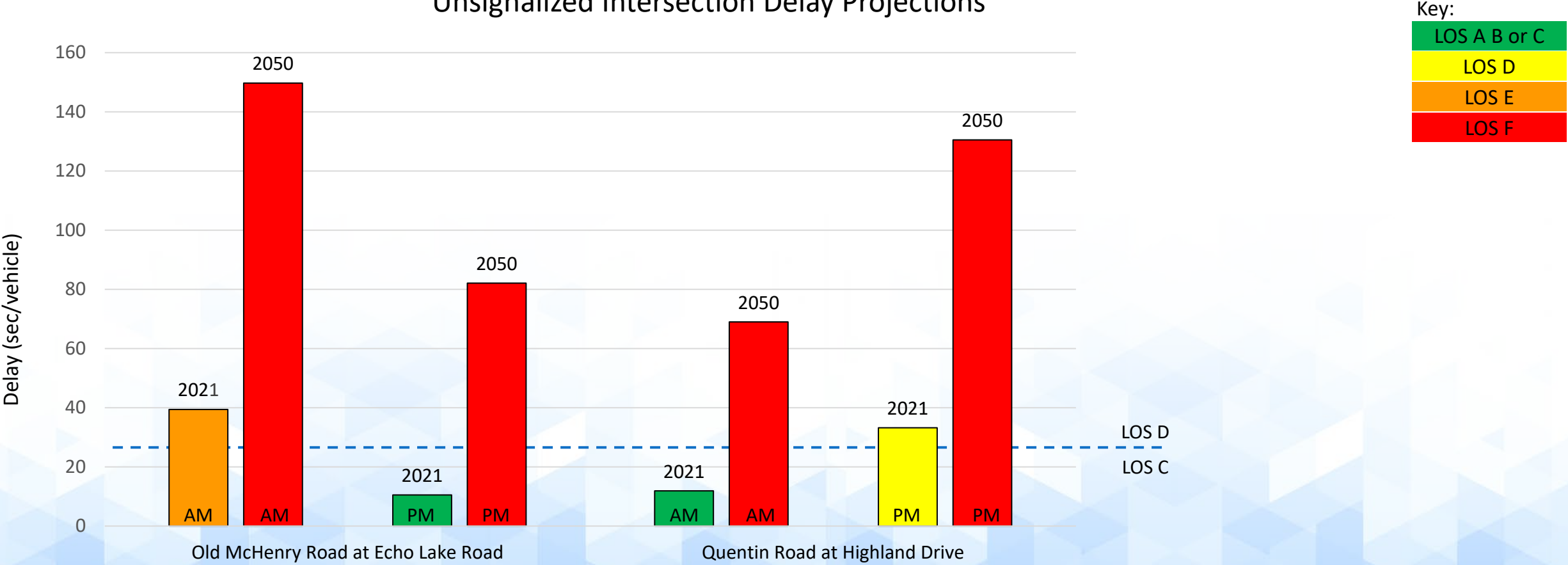
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# What Are the Intersection Capacity Needs?

Unsignalized Intersection Delay Projections



## OLD MCHENRY CROSSINGS

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# What Are the Capacity Needs at the CN Railroad Crossing?

- Average of 17 train crossings per day anticipated to increase to 25 train crossings per day by 2050
- Typically, 11 daytime crossings and 6 nighttime crossings
- Current average gates down time = 4.1 minutes

## Daily Traffic Delay

Measure	2021	2050 (No-Build)	Percent Increase
AM Peak Hour Traffic Delay (hours)	27	37	38 %
Daily Traffic Delay (hours)	88	181	110 %

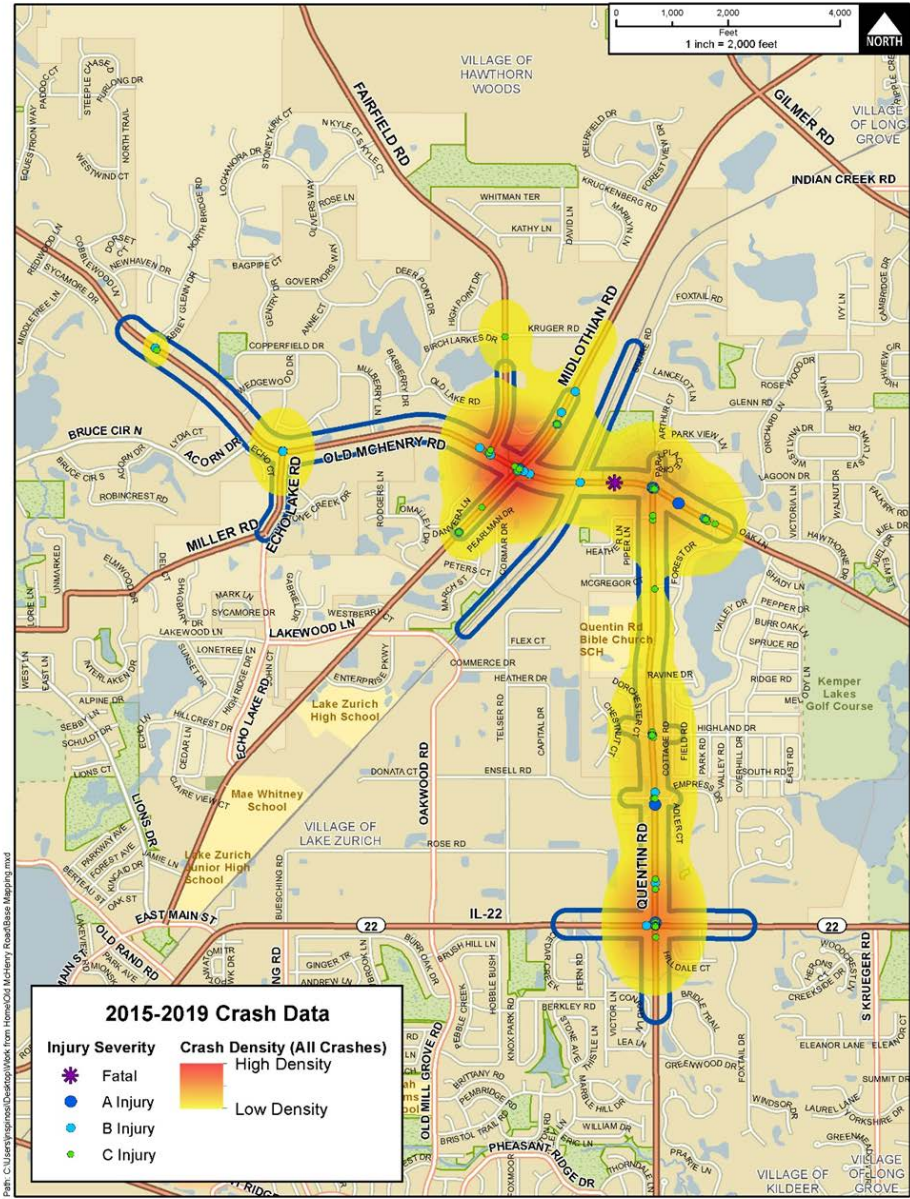
## Cost of User Delay

Measure	2021	2050 (No-Build)
Daily Cost of Delay	\$4,820	\$20,100
Annual Cost of Delay	\$1,760,700	\$7,337,000

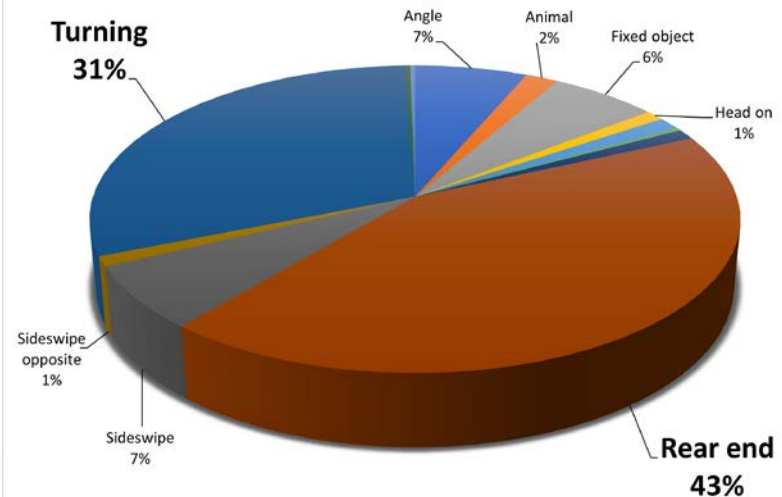
Accrued Cost of Delay (2021 to 2050): **\$131,917,500**



# What Is the Crash Experience?



CRASH TYPES



2015 to 2019 Crash Totals

- 373 Total Crashes
- 1 Type K – Fatal Crash
- 6 Type A – Incapacitating Injury Crashes
- 101 Total Injuries

- Reported Type K Crash was from 2019
- 2020 data was not included for annual comparisons based on lower traffic volumes due to the Pandemic
- A predictive highway safety model will be used to compare alternatives to the baseline condition

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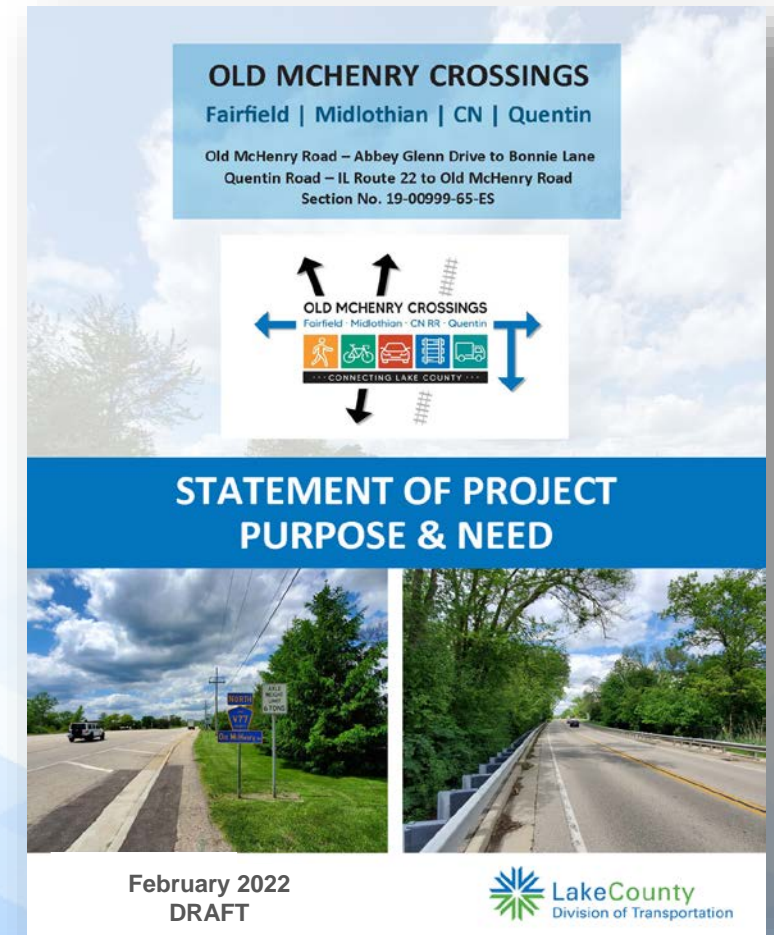


# What Other Information Is Available?

## What is Discussed Further in the Statement of Purpose & Need:

- ✓ What are the Characteristic of the Project Location?
- ✓ What are the Safety Needs?
- ✓ What are the Mobility Needs?
- ✓ What are the Non-Motorized Connection Needs?
- ✓ Stakeholder Input

To find this information and more, please review the Draft Purpose and Need Statement →



# Summary



**Population and Employment Growth is Projected to increase** about 20% on average within the OMX Project Area by the year 2050, which will increase traffic volumes.

With Projected increases in Traffic Volumes and the Likely increase in # of Trains, **Congestion and Delay will Increase** within the OMX Project Area if No Improvements are made.



If No Improvements are made, **Safety is expected to degrade** as traffic volumes and congestion increase.

A grade separation of the Canadian National Railroad will be evaluated to **Alleviate Congestion & Delay** increases projected within the OMX Project Area.



# Large Group Discussion-Q & A

Please Type Your Questions Into the Chat Box  
The Project Team Will Work Through Answering Questions

# Short Break

# Alternative Development and Evaluation Process

## PHASE 1 STUDY PROCESS



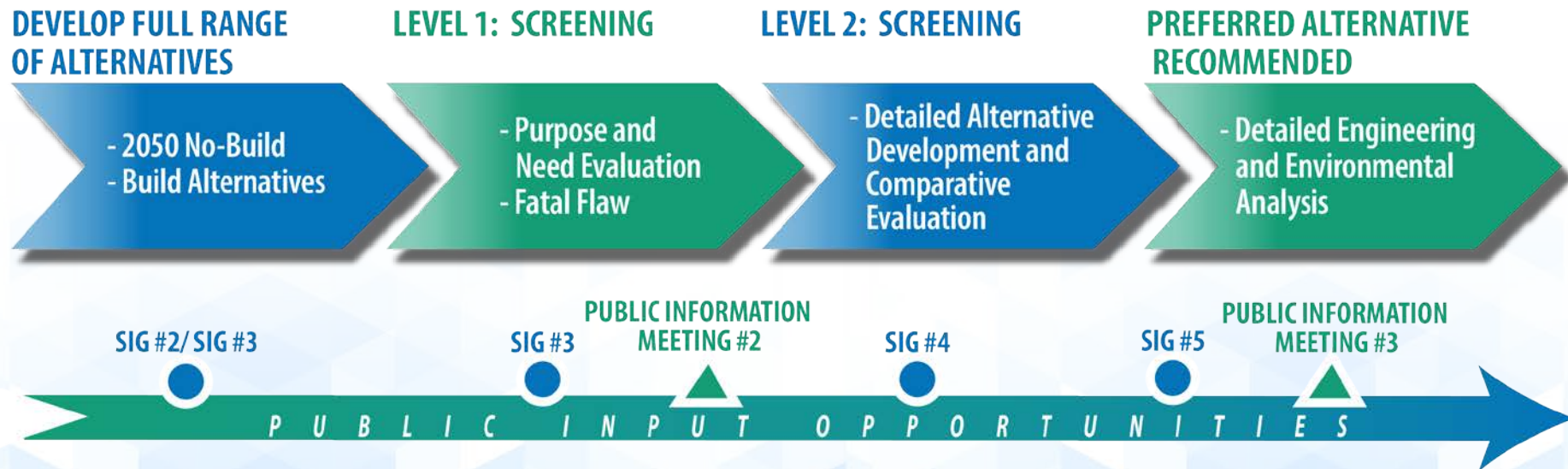
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# What Is the General Alternatives Development Process?

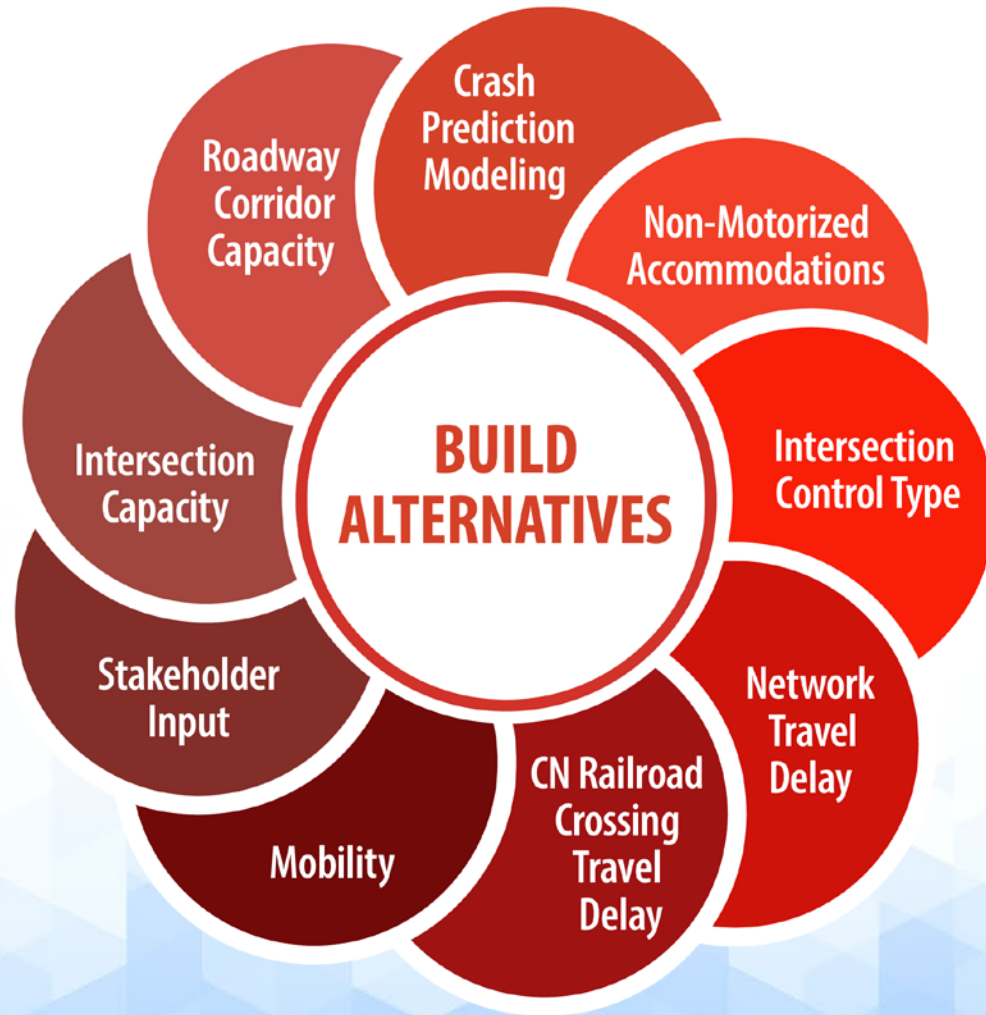


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# How Do We Develop Alternatives?



We'll use the 2050 No-Build Analysis results to identify potential alternatives

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# How Will We Compare Alternatives?

- Results from the Corridor Modeling and the Concept Alternative Design are compiled into a comparative evaluation matrix

<u>Level 1</u> Evaluation Criteria	Existing	2050 No-Build	Alternatives					
			Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6
Transportation Performance								
Safety								
Mobility								
Non-Motorized Accommodations								

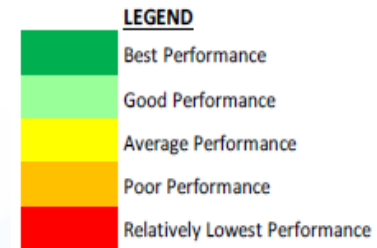
LEGEND	
	Best Performance
	Good Performance
	Average Performance
	Poor Performance
	Relatively Lowest Performance

Traffic Modeling and Overall Concept Design for Qualitative Assessment

# How Will We Compare Alternatives?

- Results from the Corridor Modeling and the Concept Alternative Design are compiled into a comparative evaluation matrix

<b><u>Level 2</u> Evaluation Criteria</b>	<b>Existing</b>	<b>2050 No-Build</b>	<b>Alternatives</b>					
			Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6
Transportation Performance								
Safety								
Mobility								
Non-Motorized Accommodations								
Environmental Resource Impacts								
Socio-Economic Impacts								
Relative Cost								



Traffic Modeling Refinements and Detailed Concept Design for Impact & Cost Assessment

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# Interactive Workshop

## Small Group Breakout Exercise

## Small Group Breakout to Discuss:

- Alternative Evaluation Criteria Recap (5 min)
- Discuss Alternative Evaluation Analysis (15 min)

## *Report Out to Large Group (15 min)*

### GROUP #1

Bob Atwater  
Douglas Duval  
Erika Frable  
Marc Linhardt  
Ryan May  
Dean Romano  
Patrice Ronczkowski  
George Sambor  
Paul Smith

*Facilitated by:*  
**Matt Smith &  
Jodi Mariano**

### GROUP #2

Michael Brown  
Roberto Diaz  
Greg Dwiel  
Jim Herriman  
Ellyn Kearney  
John Kelly  
Joel Klippel  
Erich Massat

*Facilitated by:*  
**Matt Huffman &  
Julia Nigohosian**

### GROUP #3

Jill Anderson  
Joe Christopherson  
Howard Goodman  
Michael Gressick  
Bill Koch  
Philip Lane  
Mia Langer  
Rob Sabo  
Kim Wasson

*Facilitated by:*  
**Chuck Stenzel &  
Mat Ciss**

# Next Steps & Schedule

## Next Steps & Schedule

- Screening of Initial Alternatives
- Identification of Finalist Alternatives
- SIG Meeting #3 – May 2022 (Targeted)



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# Q & A

Please Type Your Questions Into the Chat Box  
The Project Team Will Work Through Answering Questions

If You Have A Specific Question Pertaining To Your Property, Please Reach Out To The Project Team Outside Of This Meeting

[OMXTeam@transystems.com](mailto:OMXTeam@transystems.com)