

# Randall Road at Big Timber Road Intersection Improvements

## **VIRTUAL PUBLIC MEETING**

February 25, 2021



# Meeting Agenda

## Welcome and Meeting Agenda

### 1. Project Introduction

Project Limits, Purpose and Need, What Was Analyzed, and Crash Data

Q&A session

### 2. Proposed Improvements

Geometry, Key Features, Typical Sections

Q&A Session

### 3. Project Impacts

Environmental, Drainage, and Land Acquisition

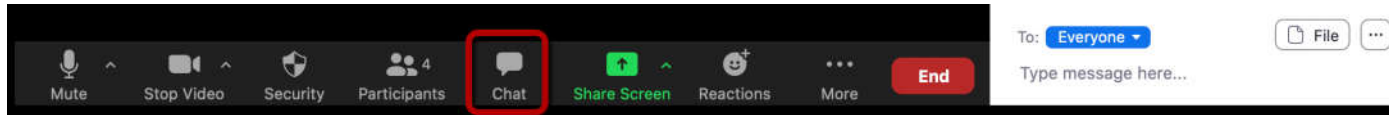
Q&A Session

### 4. Project Timeline

## Comments and Q&A Session

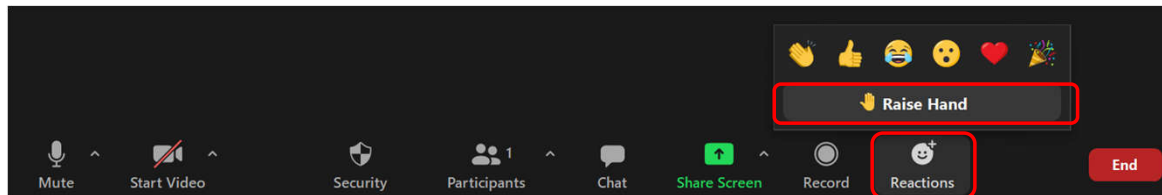
# Asking Questions

## Typing in the Chat Box



- Click on the **Chat** icon is located at the bottom of your screen.
- A Chat Box should appear on your screen.
- Type your question in the message box.
- Chat Box questions can be asked at any time.

## Verbally via Raise Hand



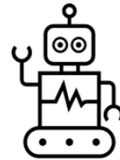
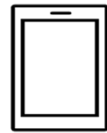
- Click on the **Reactions** icon at the bottom of your screen.
- Click on **Raise Hand** command
- The host will be notified that you have raised your hand.
- Verbal questions will be taken during Q&A sessions.

# Rules of Engagement

**DURING THIS MEETING**



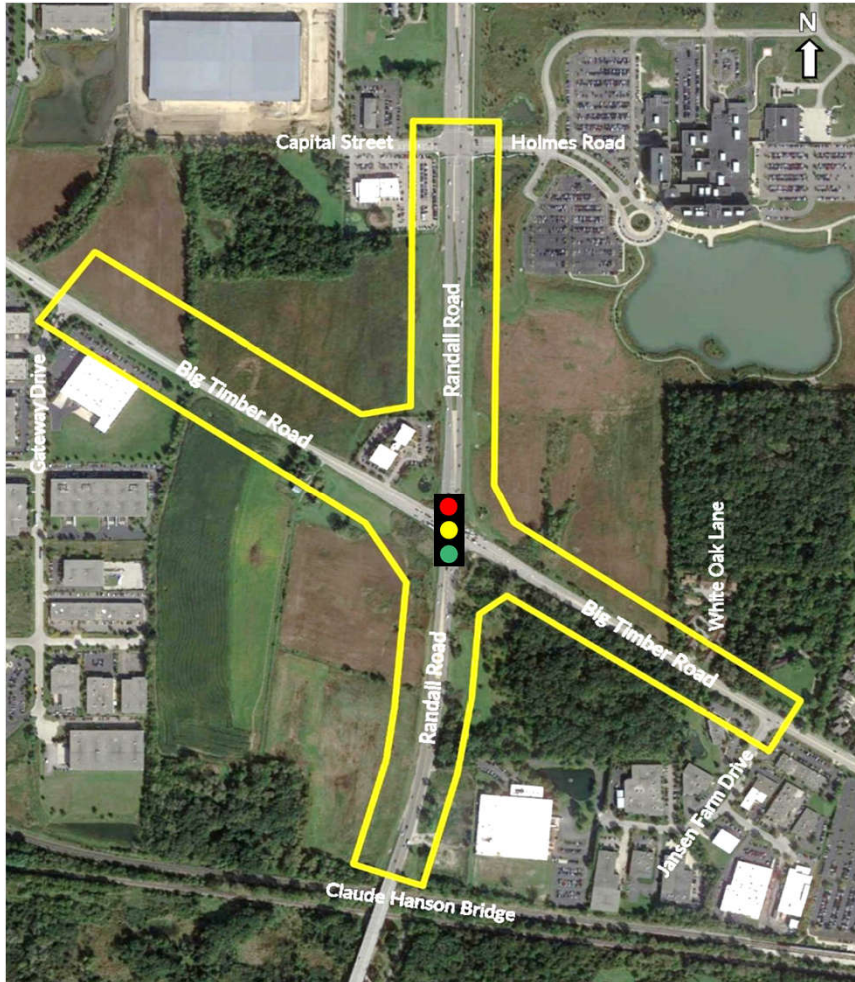
**Please Mute Your Devices**



***This meeting will be recorded and available on the project website following the meeting.***

# Project Introduction

Randall Road at Big Timber Road



*The signalized intersection of Randall Road and Big Timber Road is located in Elgin, IL and unincorporated Kane County.*

## **Randall Road Limits**

Claude Hanson Bridge to Capital Street

## **Big Timber Road Limits**

Gateway Drive to Jansen Farm Drive

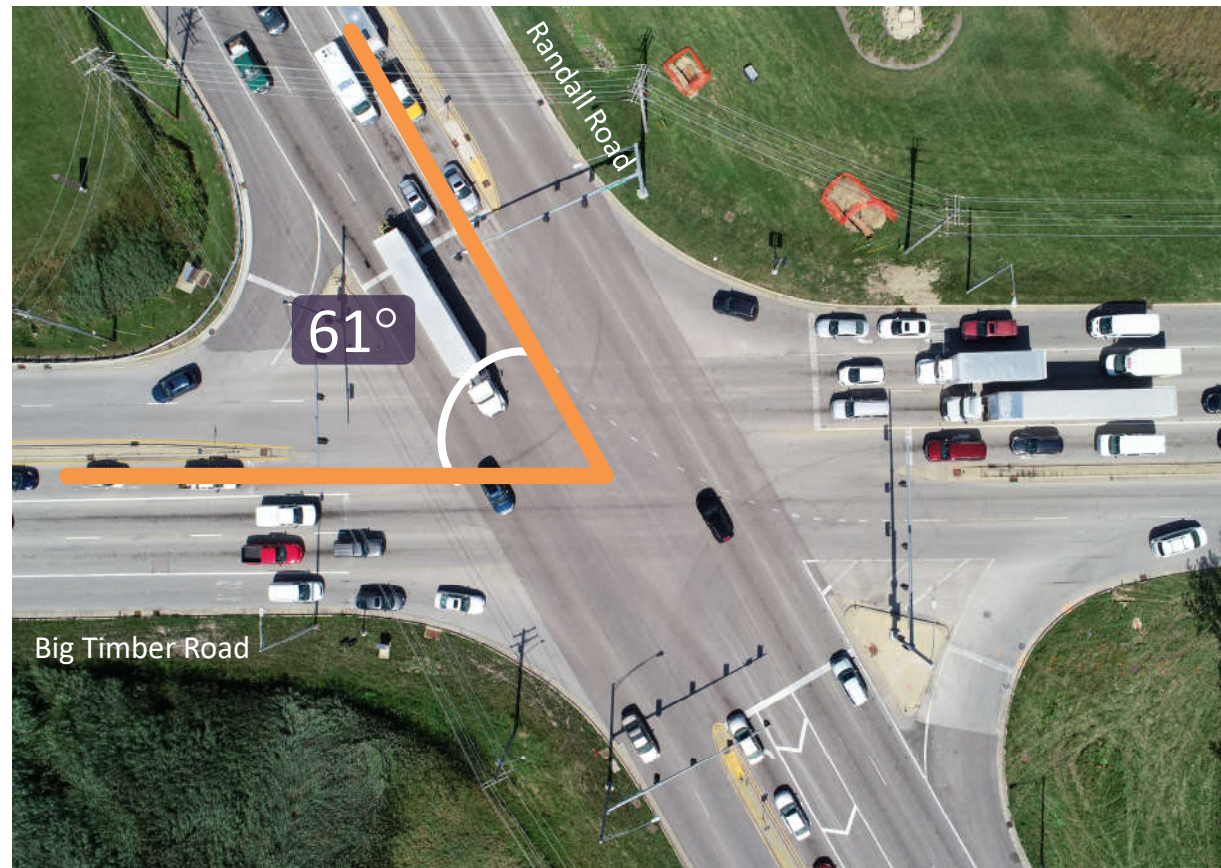
## Intersection Capacity

- Existing intersection is at capacity with **long queues** and **delays**.
- Pavement widening is needed to **accommodate future traffic** growth along Randall Road.
- **Turn lane storage lengths** are not sufficient for existing or future traffic and need to be increased.



## Intersection Geometry

- Existing **intersection skew** is below standard.
- Existing **truck turning geometrics** need to be improved.





## Pedestrian Accommodations

- No **existing pedestrian accommodations** at or near the intersection.
- Provide **connectivity** between existing pedestrian facilities



## Other Needs

- Motorists currently use other routes to **bypass intersection** because of existing congestion.
- **Emergency Vehicle access** to and from Advocate Sherman Hospital is important.



# What was analyzed?

6



**Current Traffic Patterns and Volumes**



**Crash Data**



**Environmental Impacts**



**Community Impacts**



**Stakeholder and Property Owner Input**



**Utilities**

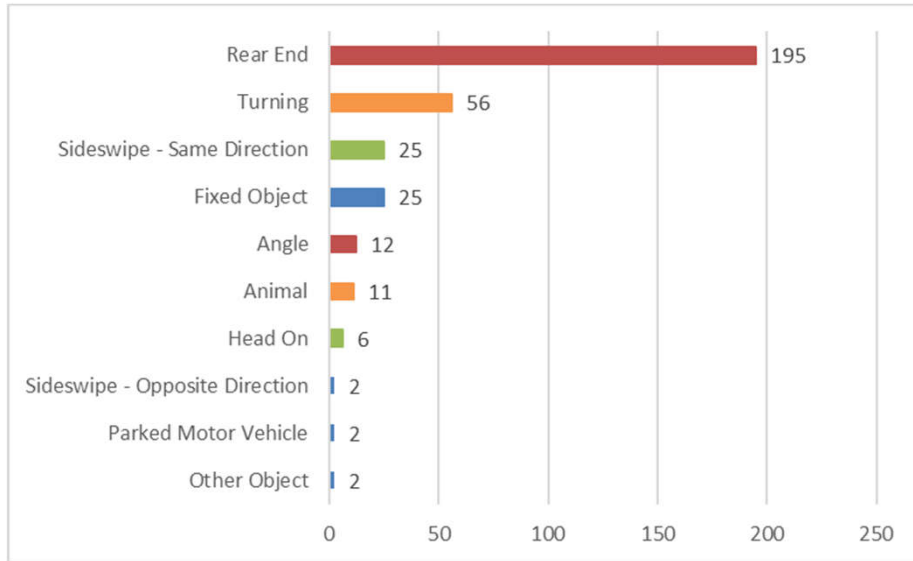


**Pedestrian and Bicycle Accommodations**

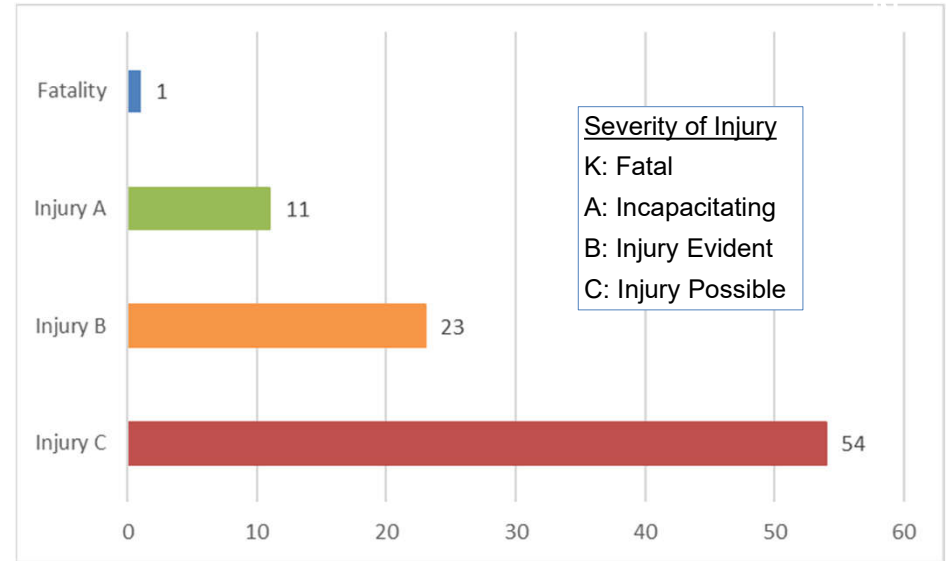


**Drainage**

## Randall Road at Big Timber Road, Years 2014-2018



## Injury Types



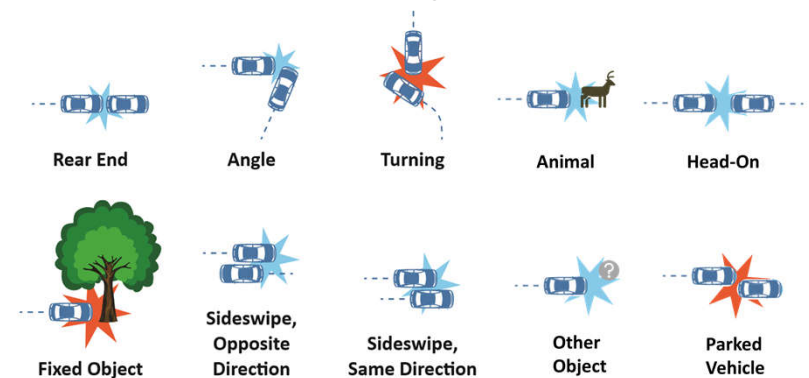
**336 TOTAL CRASHES, 2014-2018**

**89 TOTAL INJURIES**

INCLUDING 1 FATALITY

**75% were Rear End or Turning**  
 which indicates congestion in the  
 corridor.

## Crash Types



# Questions?

Project Introduction

# Proposed Improvements

Randall Road at Big Timber Road

# Proposed Improvements

## Key Features...

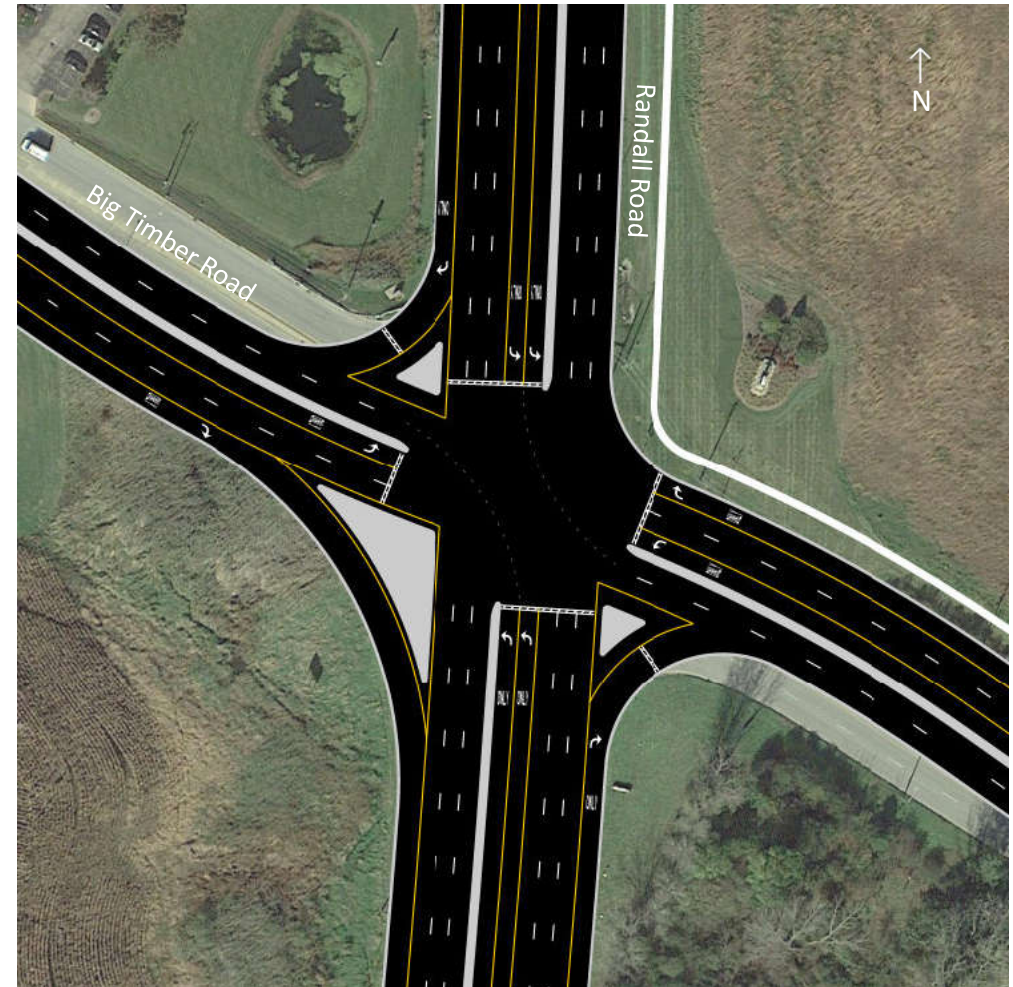
### Randall Road

- Three through lanes in each direction.
- Dual northbound left turn lanes.
- Extend turn lane storage lengths.
- Southbound merge lane to accommodate the eastbound free flow right turn.

### Big Timber Road

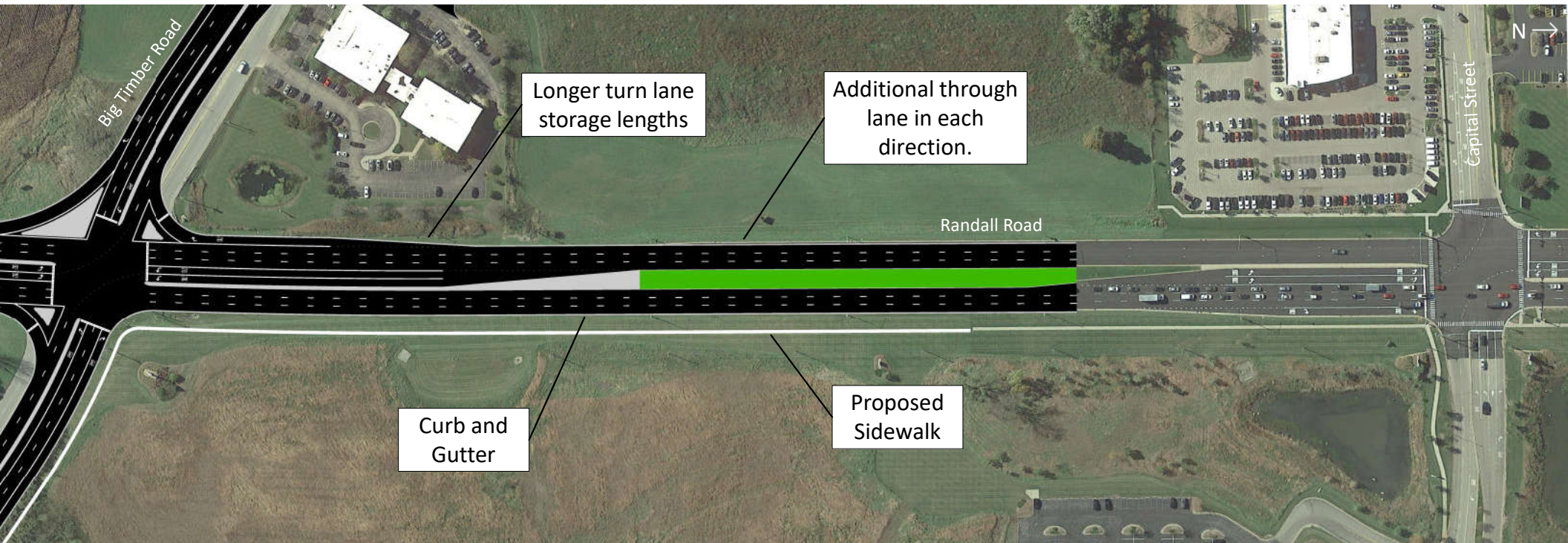
- Realign existing roadway
- Free flow eastbound right turn
- Extend second westbound through lane
- Relocate driveway west of the intersection

**These elements are expected to increase capacity and improve the safety of the intersection.**



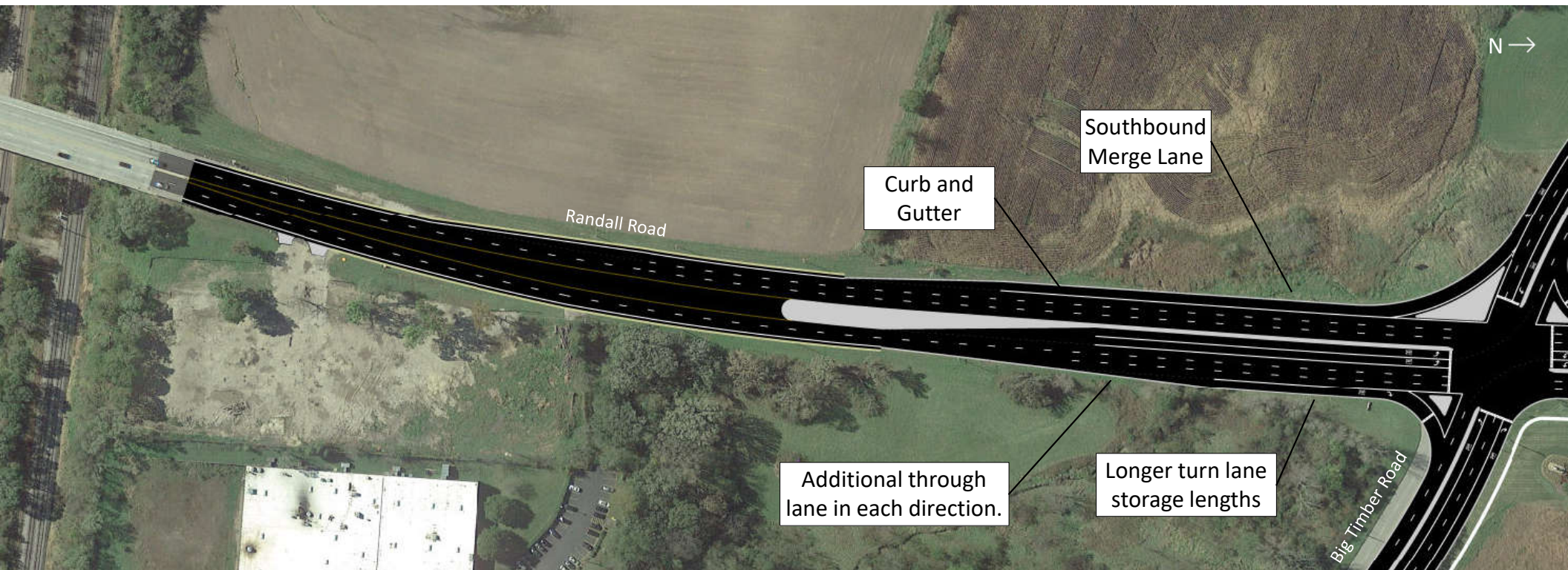
# Proposed Improvements

## Randall Road | North Leg

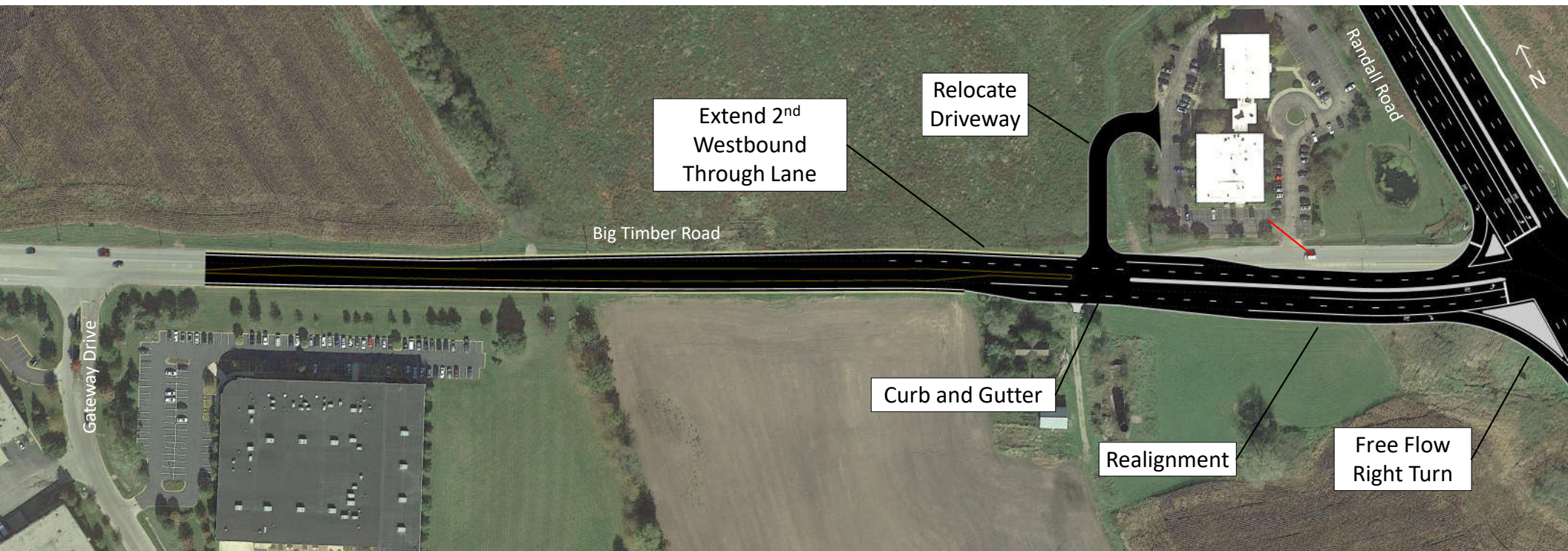




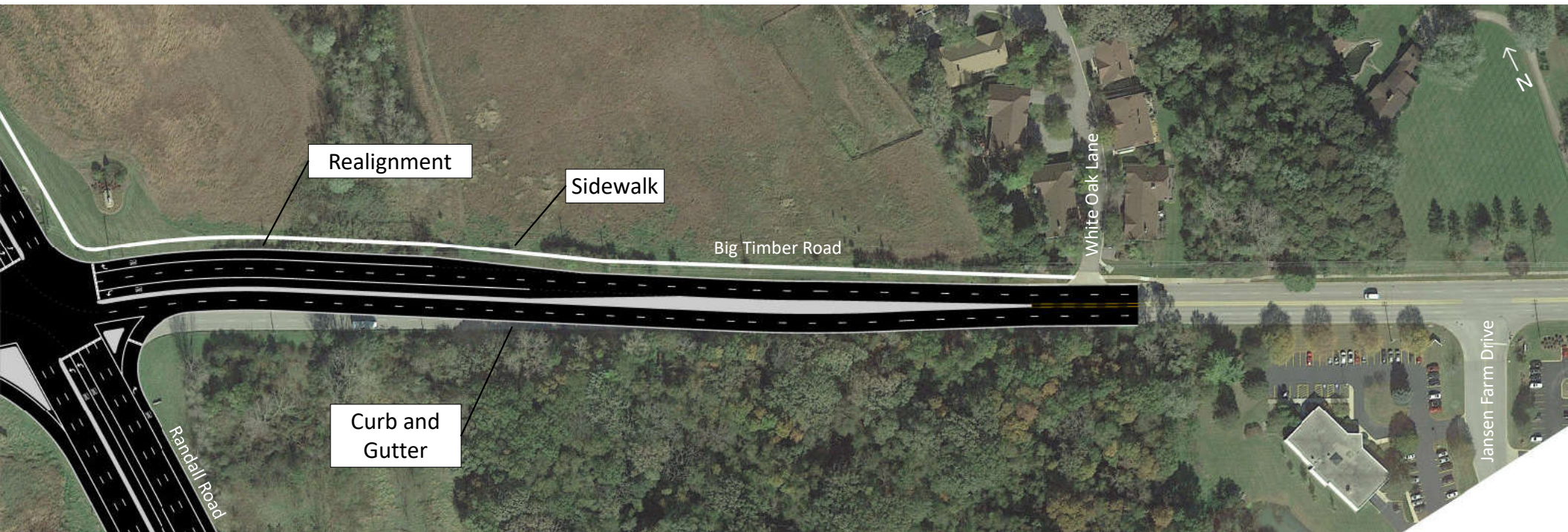
## Randall Road | South Leg



## Big Timber Road | West Leg

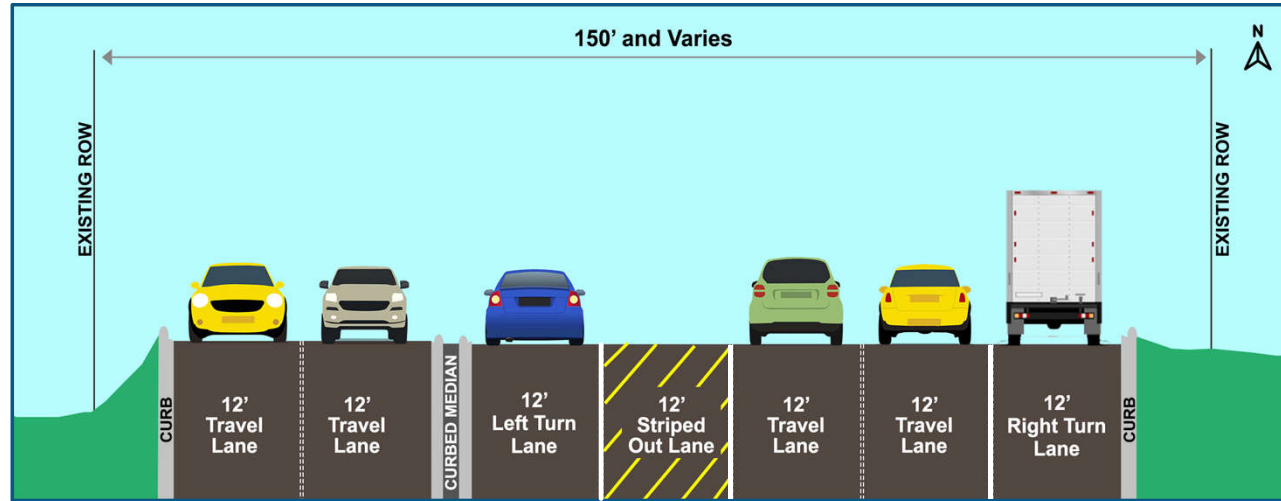


## Big Timber Road | East Leg



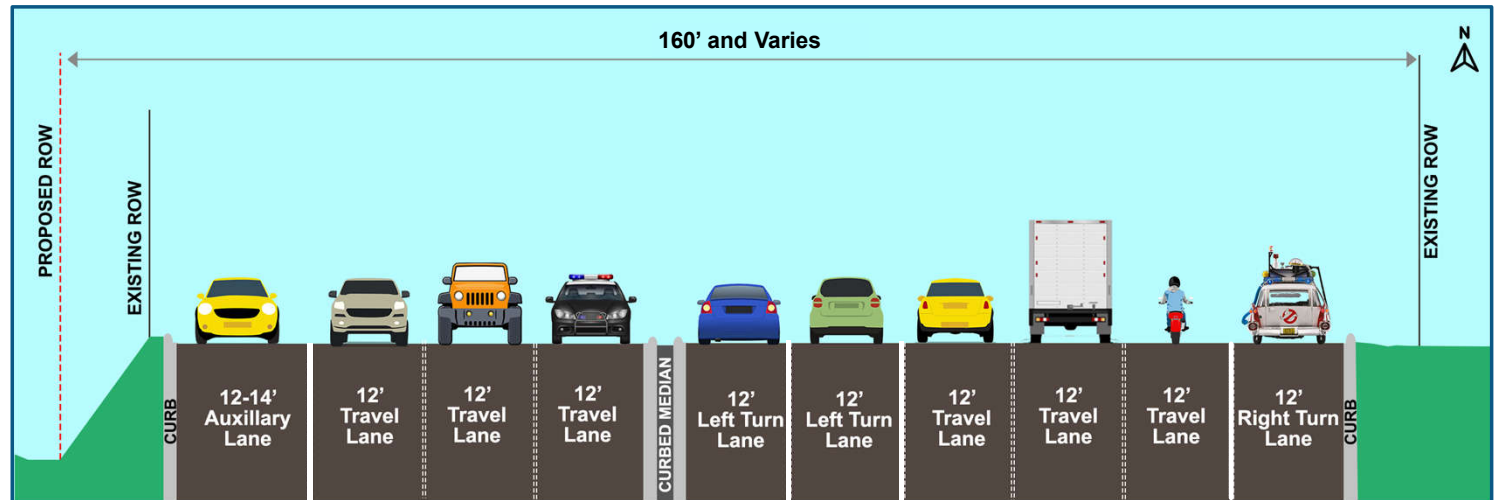
# Typical Sections | Randall Road

Existing



Traveling  
Northbound on  
Randall Road

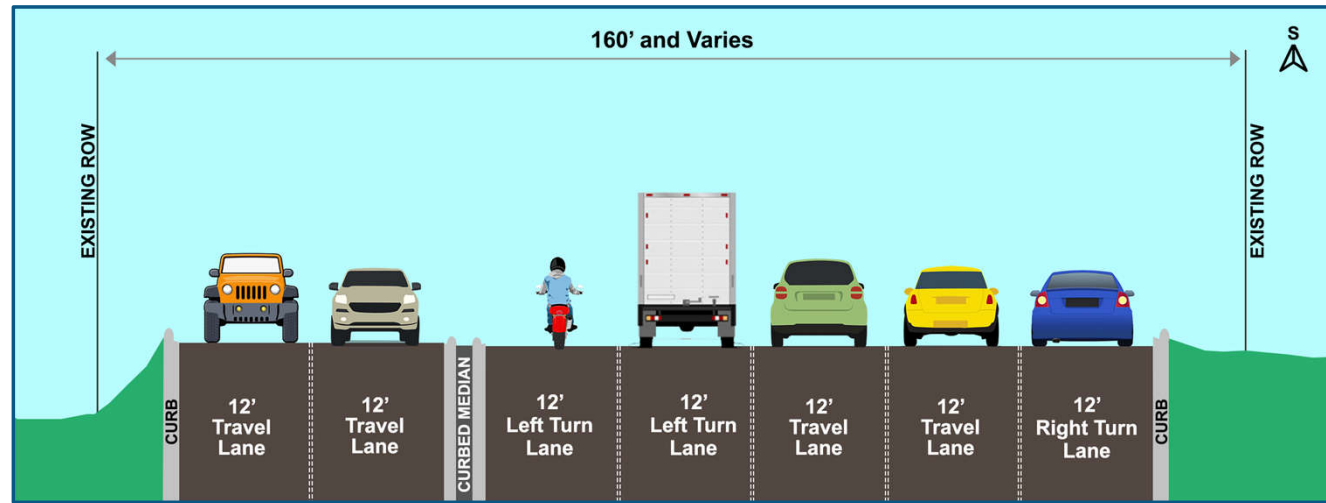
Proposed



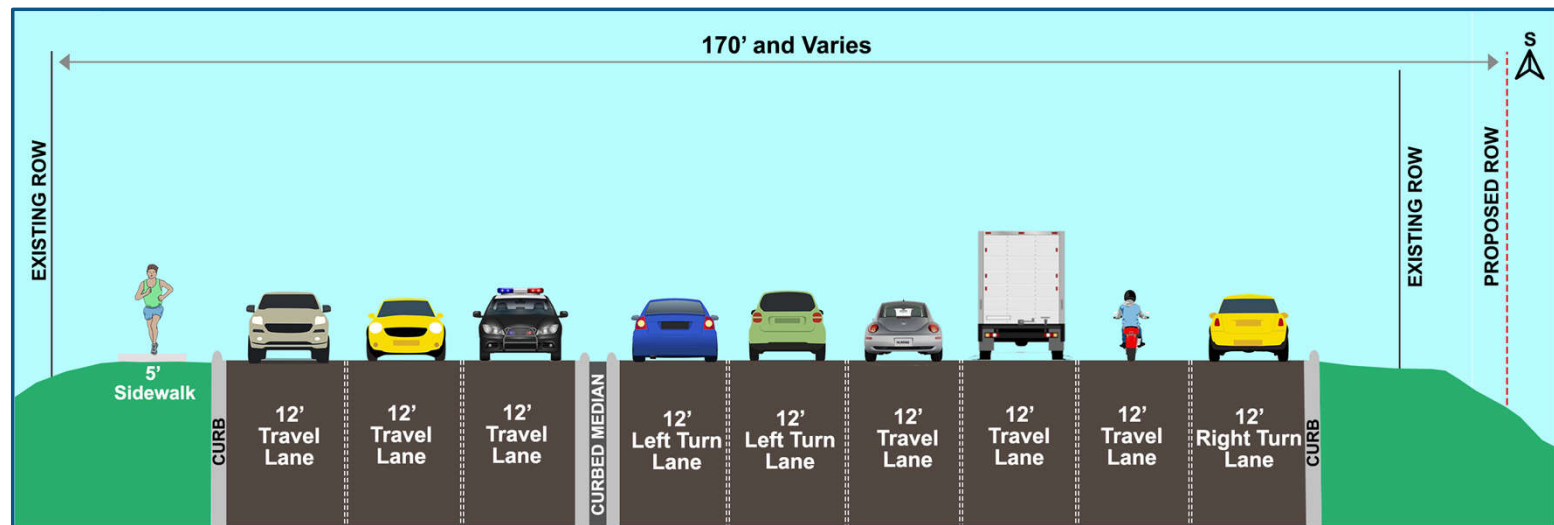
# Typical Sections | Randall Road

Existing

Traveling Southbound on Randall Road

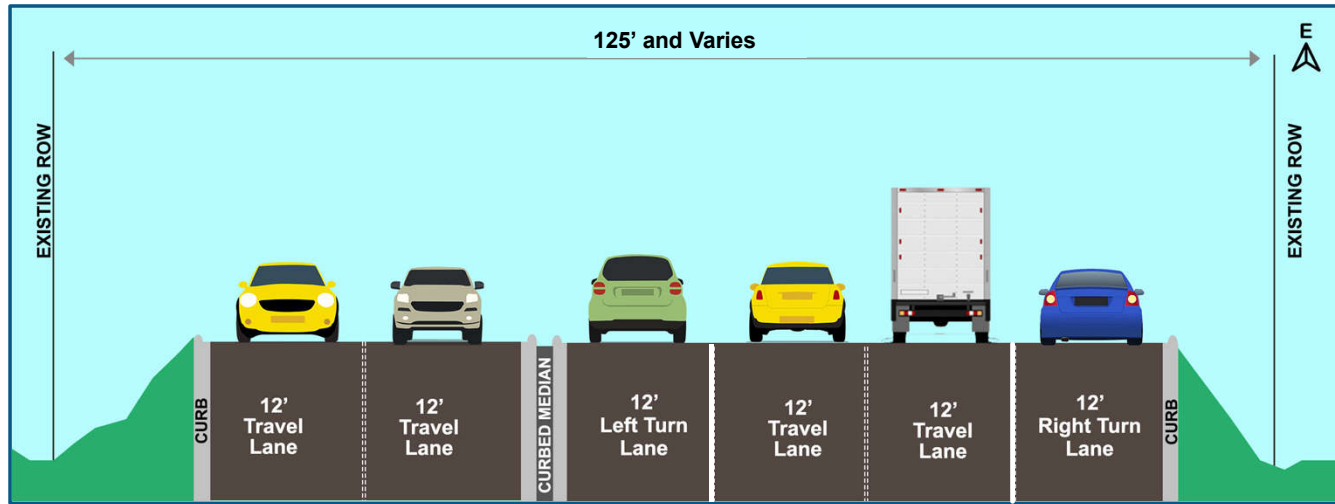


Proposed



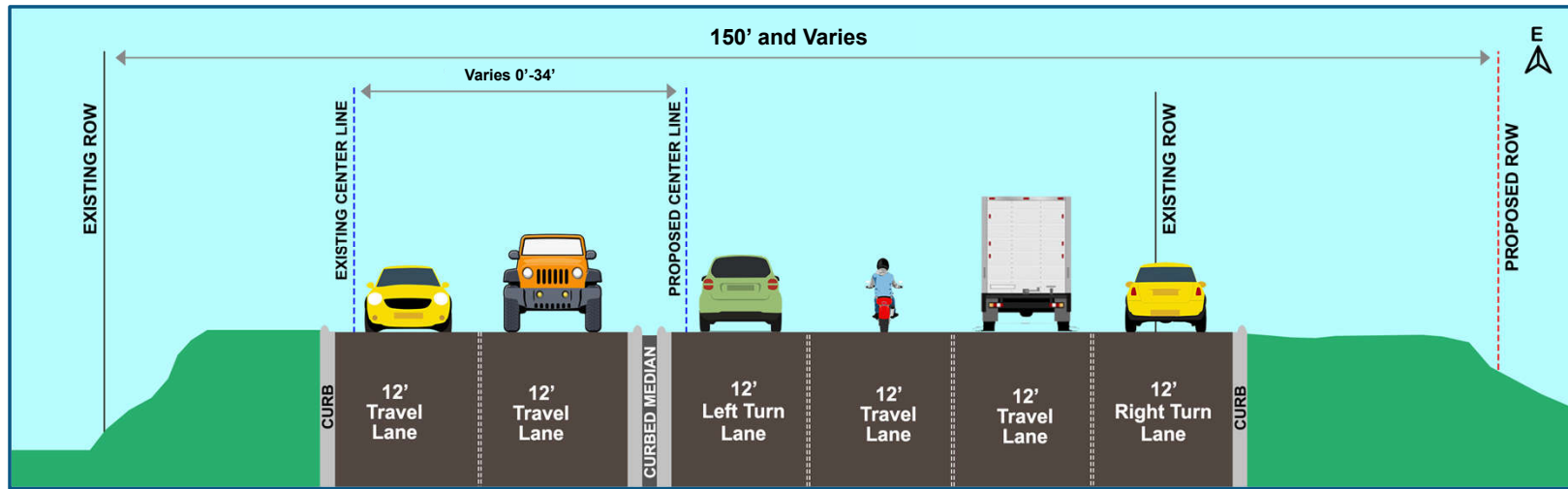
# Typical Sections | Big Timber Road

Existing



Traveling Eastbound on Big Timber Road

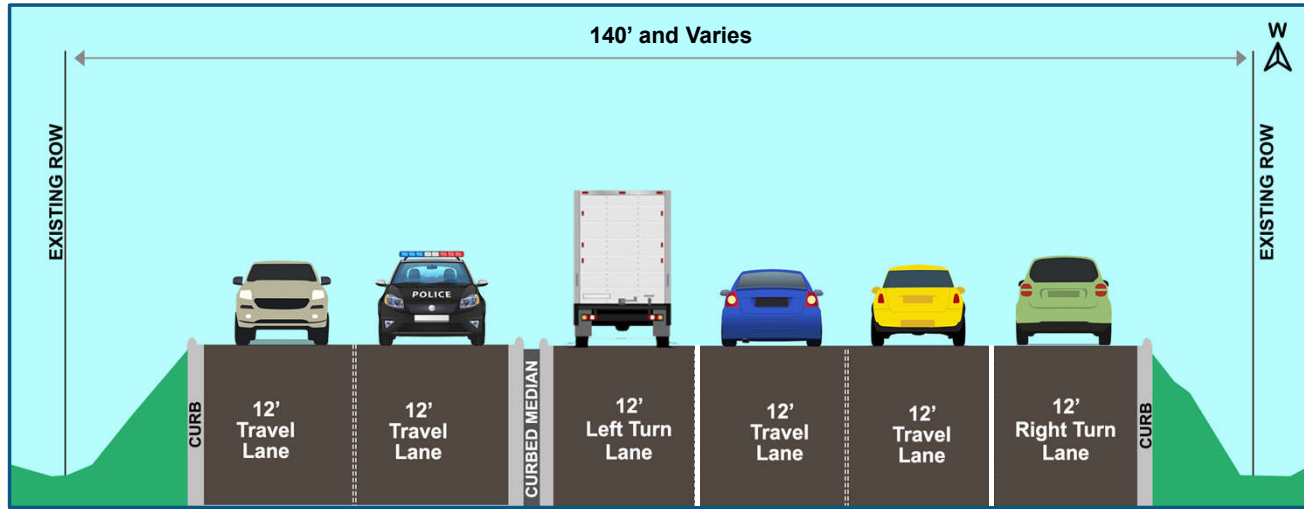
Proposed



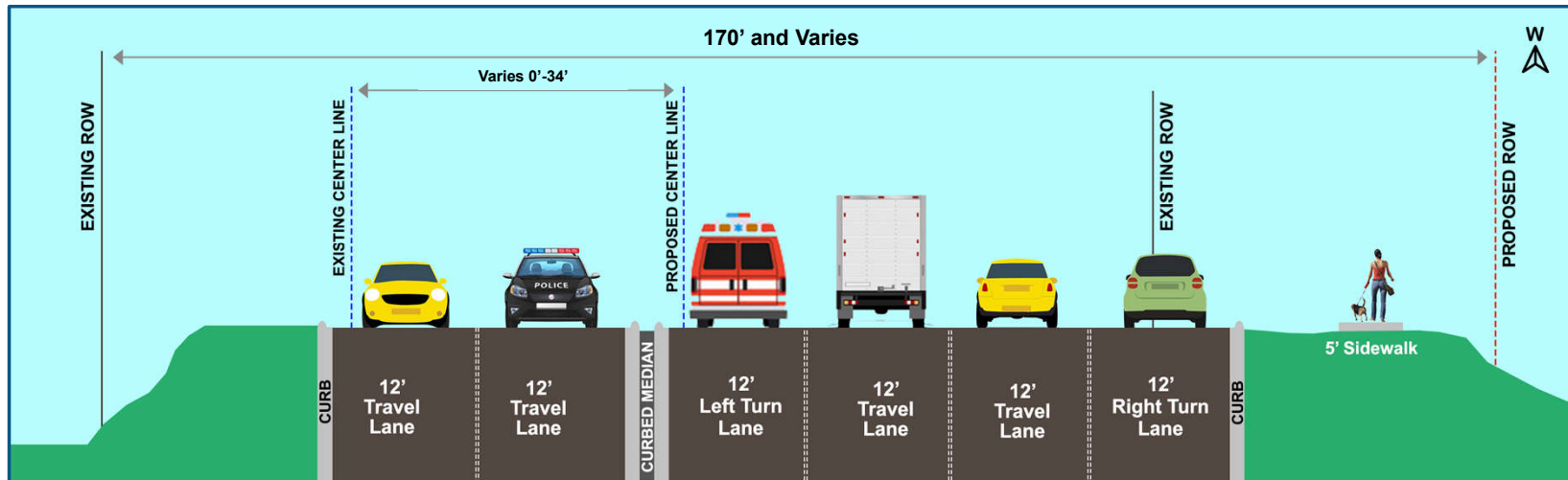
# Typical Sections | Big Timber Road

Existing

Traveling Westbound on Big Timber Road



Proposed



# Questions?

Proposed Improvements



# Project Impacts

Randall Road at Big Timber Road

## Wetland Impacts

- Total of 14 sites were investigated
- 13 sites were classified as wetlands totaling 7.5 acres.
- **0.93 acres** of permanent Wetland Impacts.



## Trees

- Approximately **33** trees impacted
- Trees will be replaced on a 1:1 basis according to IDOT Tree Replacement Policy where feasible
- Detailed landscaping plans completed during contract plan preparation



## Highway Noise is Dependent on...

- Traffic Volumes
- Traffic Composition
- Traffic Speeds
- Receptor Distance/Elevation

## Types of Noise Receptors

- Single Family Homes
- Multi Family Homes
- Hospital with Outdoor Space

The **distance** to Randall Road or Big Timber Road was the main component used to select receptor locations for this project.

## Noise Analysis Results

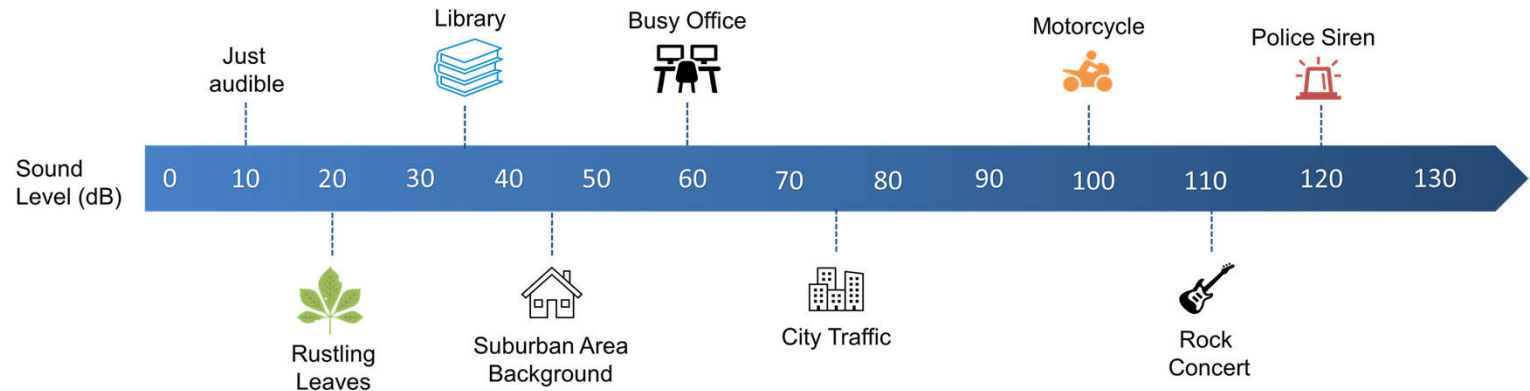
- Noise levels are expected to increase from year 2020-2050.

<b>Existing</b> noise levels	→	<b>51-67</b> dB
<b>No Build</b> noise levels	→	<b>53-69</b> dB
<b>Build</b> noise levels	→	<b>52-69</b> dB

**No Build** noise levels increase due to traffic volume increases

**Build** noise levels increase due to the increase in traffic volumes and change in distance from source to receptor

Sound is produced by the vibration of air molecules as pressure waves and is measured on a logarithmic scale using units of decibels (dB).



## Existing Drainage System

- Storm Sewer System that drains through various outlets, ultimately discharging to Tyler Creek.
- Curb and gutter at all legs of the intersection with inlets and catch basins that drain into the storm sewer system.
- Existing detention basin along the north leg of Randall Road.
- Existing culverts on the west, east, and south legs of the intersection.



Detention Basin



Pipe Culvert

## Proposed Drainage System

- Maintain existing drainage patterns.
- Curb and gutter runoff collected into inlets and catch basins that drain into a new storm sewer system, ultimately draining to Tyler Creek.
- New reinforced concrete pipe culverts on the west, east, and south legs of the intersection.
- Stormwater mitigation/BMPs to reduce the volume of runoff and improve water quality.
- Additional detention storage provided to offset the impacts of new impervious areas.



*Measures taken to reduce the volume of runoff and improve water quality.*

## Temporary BMPs | Construction

- Temporary Seeding/Mulching
- Ditch Checks
- Perimeter Erosion Barriers
- Settlement Basins
- Perforated Riser

## Permanent BMPs

- Riprap Erosion Protection
- Open Drainage System
- Permanent Seeding
- Catch Basins
- Detention Basin

BMPs = Best Management Practices



## TYPES OF LAND ACQUISITION

### Fee Simple Acquisition – 1.7 acres

- Acquisition of all rights and interest
- Roadway widening and drainage improvements

### Permanent Easements – 0.66 acres

- Partial ownership retained by property owner
- Allows permanent access to construct and maintain facilities

### Temporary Easements – 0 acres

- Ownership retained by property owner
- Temporary use for a specified term or to completion of construction
- Driveway replacement and roadside grading

**Total - 2.36 acres**

## LAND ACQUISITION PROCESS



\* Court Proceedings if Necessary



# Questions?

Project Impacts

# Project Timeline

Randall Road at Big Timber Road

# Project Timeline



# Comments and Questions

## Written Comments

Multiple Ways to Submit

### 1. Online at the Meeting

Type your comment/question in the  
Chat Box

### 2. Google Form

Use the Google Form link during the  
public meeting or on the project website

### 3. Comment Form

Visit project website to download  
comment form and mail to Project  
Manager.

### 4. Email or Call Project Manager

## Project Website

<http://kdot.countyofkane.org/Pages/Projects/Randall-BigTimber/Randall-BigTimber.aspx>

## Project Manager Contact Information

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St. Charles, IL 60175

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**Phone:** (630) 406-7355

Comments must be received by **March 19, 2021**  
to be included in public record.