

West of Randall Road to Shales Parkway

US 20

Hawthorne Hill Nature Center Larkin Ave



Settler's Park

Welcome

Community Advisory Group Meeting #2

December 2, 2014





Meeting Agenda

- 1. Introductions
- 2. Project Schedule
- 3. CAG #1 Overview
- 4. Problem Statement
- 5. Project Purpose

- Evaluation of Existing Conditions
- 7. Preview Potential Improvements
- 8. Breakout Session
- 9. Next Steps



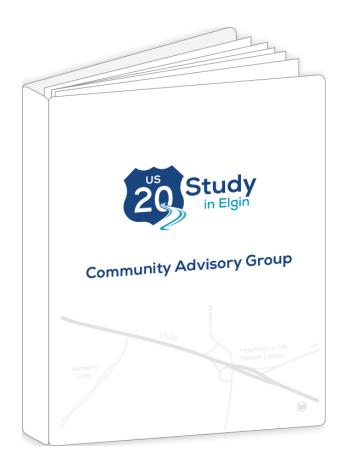


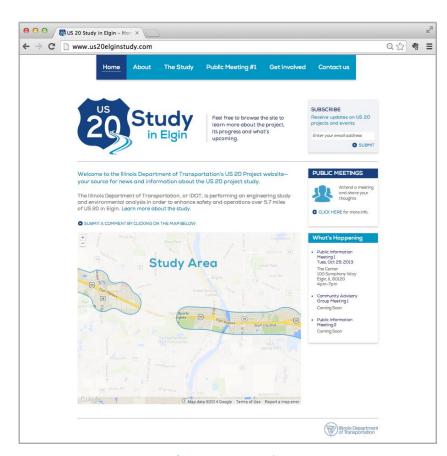
Introductions

Project Team & CAG Members



Binder Update and Additions





us20elginstudy.com

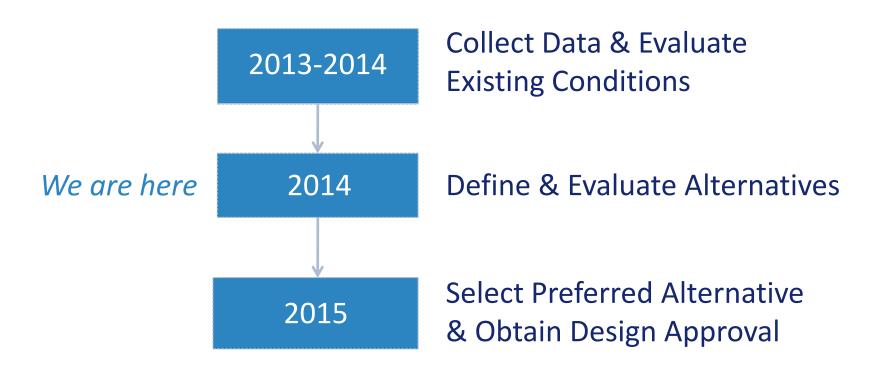




Project Schedule



Project Timeline







We are currently in Phase I

Phase I

- Preliminary Engineering
- Environmental Studies

<u>TIMELINE</u> 2013-2015

Phase II*

- Contract Plan Preparation
- Right-of-Way Acquisition

TIMELINE

Schedule to be determined

Phase III*

Construction

TIMELINE

Schedule to be determined

* Maintenance of the IL 31 Bridge is included in IDOT's FY 2015-2020 Proposed Multi-Modal Transportation Improvement Program





Phase I Milestones

CAG 1

Define Existing Conditions

Develop Problem Statement & Project Purpose

CAG 2

Identify & Evaluate Alternatives

Identify Alternatives to be Carried Forward

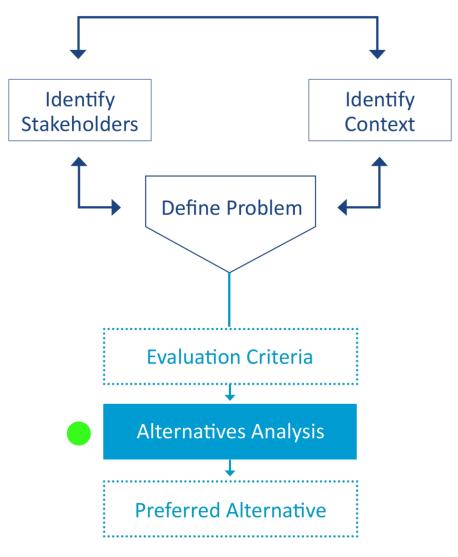
CAG₃

Select Preferred Alternative





THE CSS PLANNING PROCESS







CAG #1 Overview

Review, Binder Updates & Additions



CAG Meeting #1 Review

ISSUES/CONCERNS

- Safety Concerns
- Bike/Pedestrian Facilities
- Economic Development
- Public Transportation
- Environmental/Community
 Areas to Preserve

DISTRIBUTED

- Introduction of Project & Team Members
- Project Overview

- Description of CSS Process
- Overview of SIP Plan
- CSS Ground Rules





Problem Statement

Presenting & Discussing



Draft Problem Statement

Transportation problems along US 20 from Randall Road to Shales Parkway include safety, mobility, and access for all transportation modes. There is a lack of efficient access for emergency vehicles, and there are limited non-motorized crossings and connections. Providing opportunity areas for aesthetic treatments to enhance economic opportunities is also important. Improvement alternatives are limited to maintenance activities.





Project Purpose



Draft Purpose Statement

The purpose of the proposed improvement is to extend the service life of the US 20 mainline and bridges, enhance safety, and address mobility issues. In addition to serving the motoring public, the proposed action will also address the need for emergency vehicle access and safe access for pedestrians and bicyclists crossing the US 20 corridor.





Evaluation of Existing Conditions



Roadway Segments

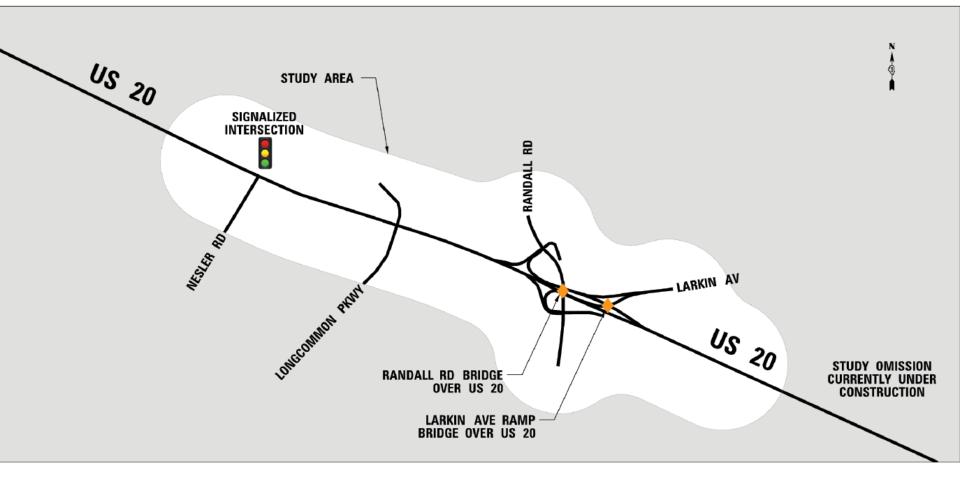
- Nesler Road to Longcommon Parkway
- Longcommon Parkway to Randall Road
- Illinois 31 (State Street) to Fox River

- Fox River to Poplar Creek
- Poplar Creek to Shales Parkway





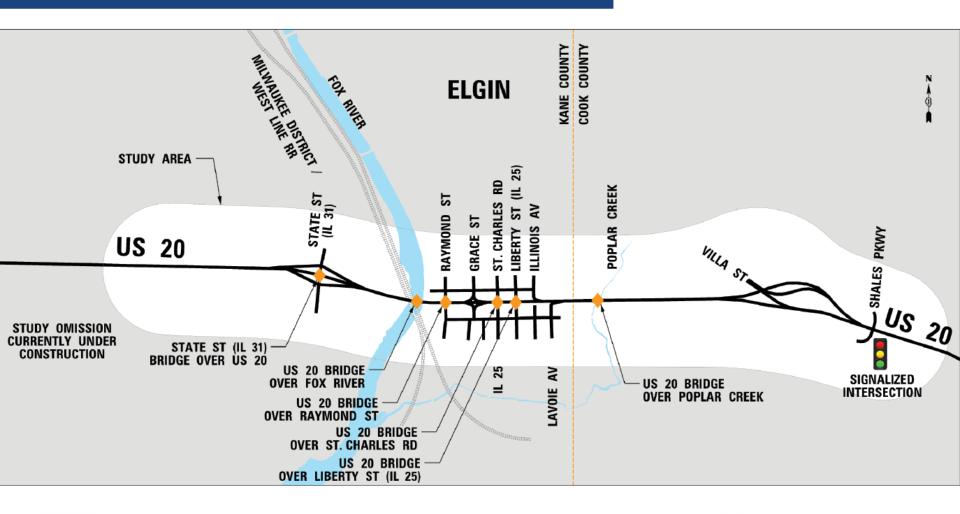
US 20 Project Area THE STUDY-WEST







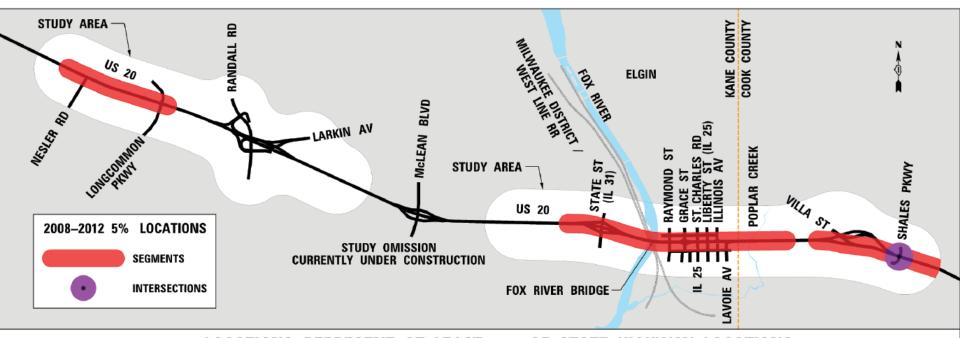
US 20 Project Area THE STUDY-EAST







Current Conditions 5% Locations

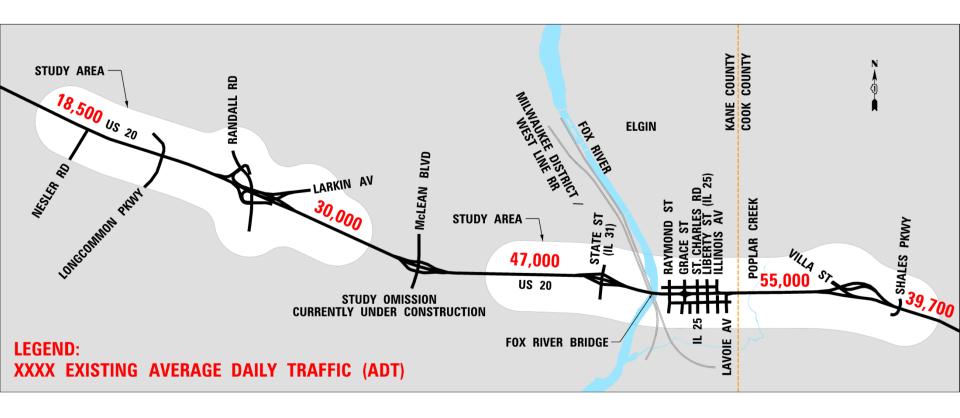


5% LOCATIONS REPRESENT AT LEAST 5% OF STATE HIGHWAY LOCATIONS EXHIBITING THE MOST PRESSING SAFETY NEEDS



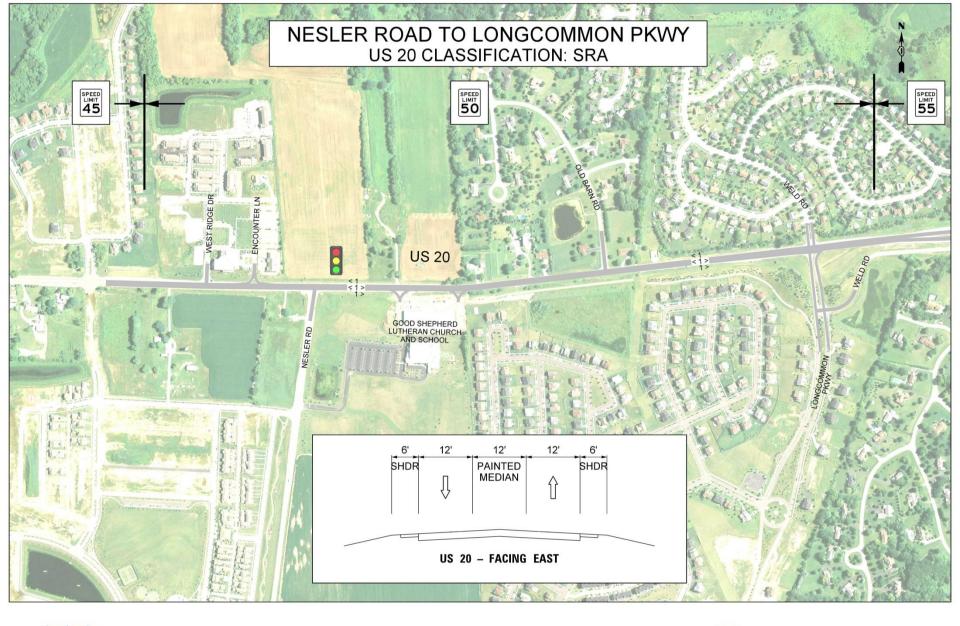


Existing Average Daily Traffic Volumes









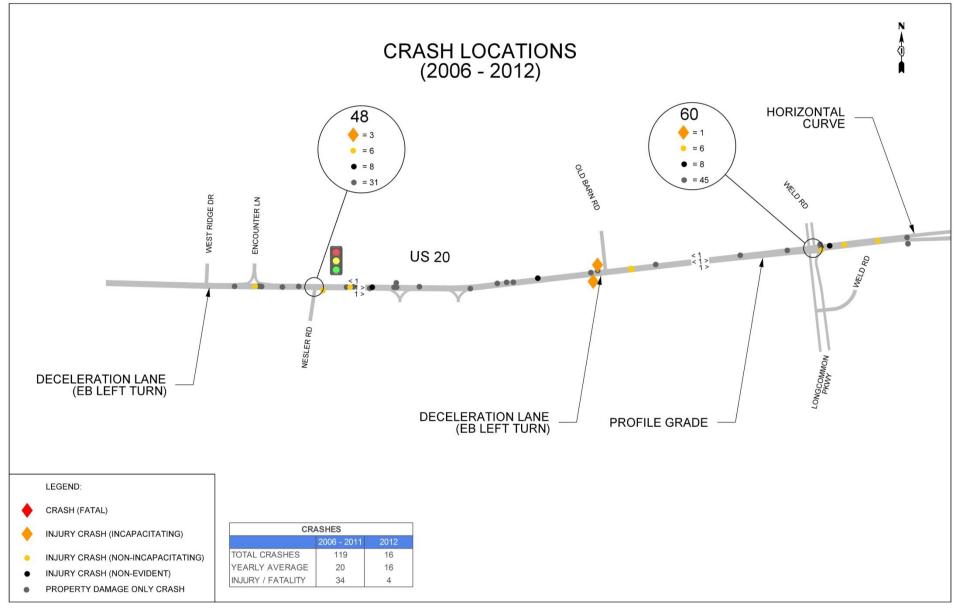




FEATURES THAT DO NOT MEET **CURRENT DESIGN STANDARDS** HORIZONTAL CURVE WEST RIDGE DR ENCOUNTER LN **US 20** DECELERATION LANE (EB LEFT TURN) DECELERATION LANE (EB LEFT TURN) PROFILE GRADE

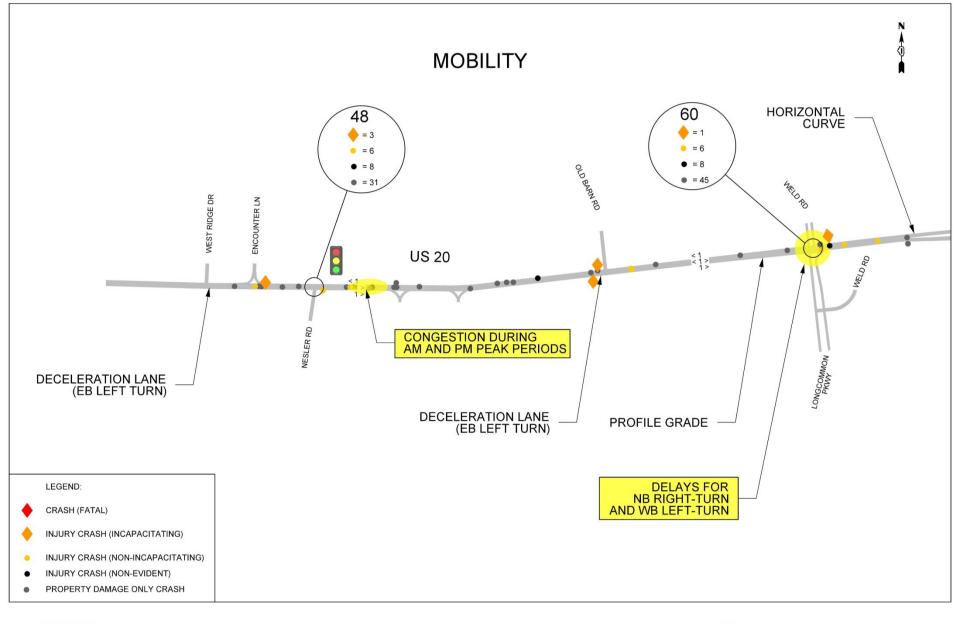






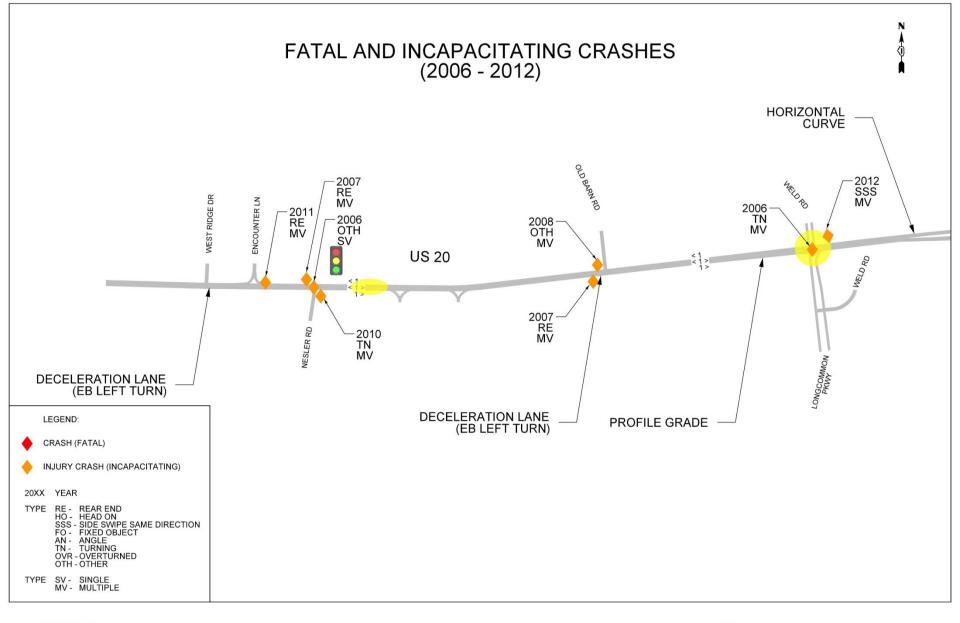












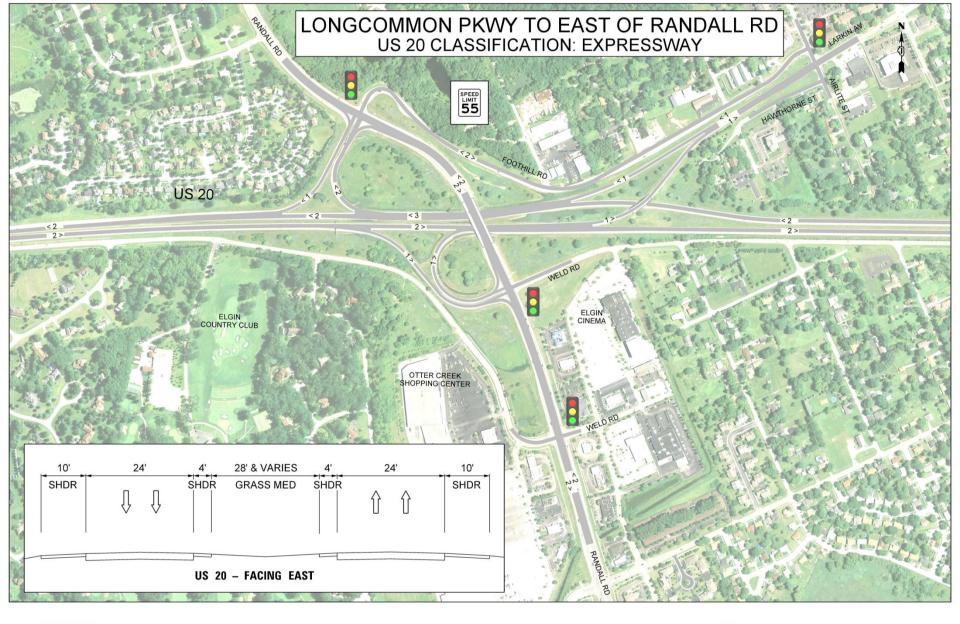




POTENTIAL COUNTERMEASURES 2007 RE MV 2012 SSS MV WEST RIDGE DR ENCOUNTER LN 2006 2011 2006 OTH SV TN RE MV 2008 OTH MV MV **US 20** 2007 RE MV NESLER RD 2010 TN ΜV LEGEND: - ADD RETROREFLECTIVE SHEETING TO SIGNAL - RESTRICT SB LEFT TURNS - RESTRICT SB LEFT TURNS CRASH (FATAL) - ADD ADVANCE SIGNING INJURY CRASH (INCAPACITATING) 20XX YEAR TYPE RE - REAR END HO - HEAD ON SSS - SIDE SWIPE SAME DIRECTION FO - FIXED OBJECT AN - ANGLE TN - TURNING OVR - OVERTURNED OTH - OTHER TYPE SV - SINGLE MV - MULTIPLE

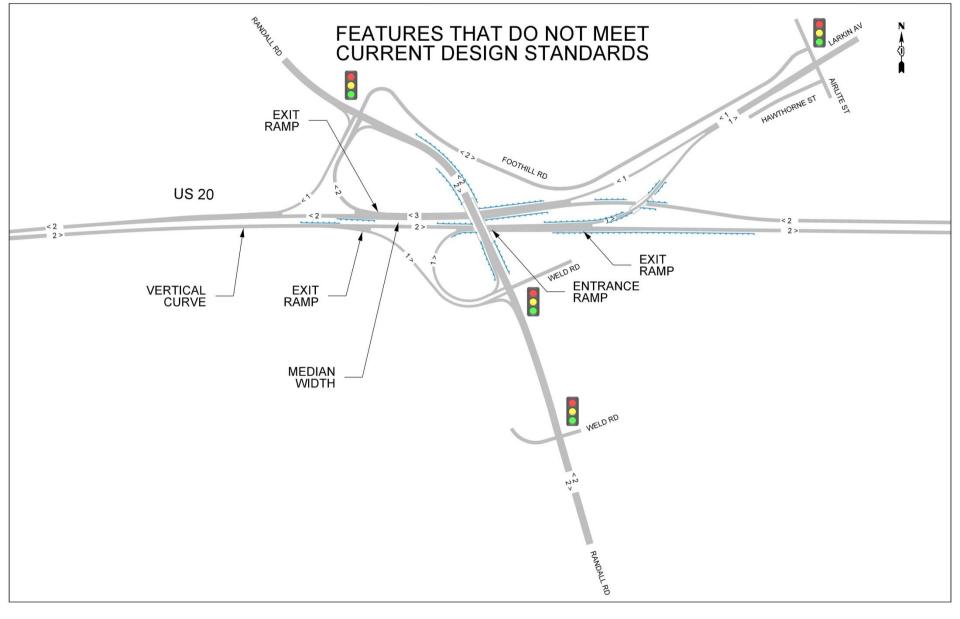






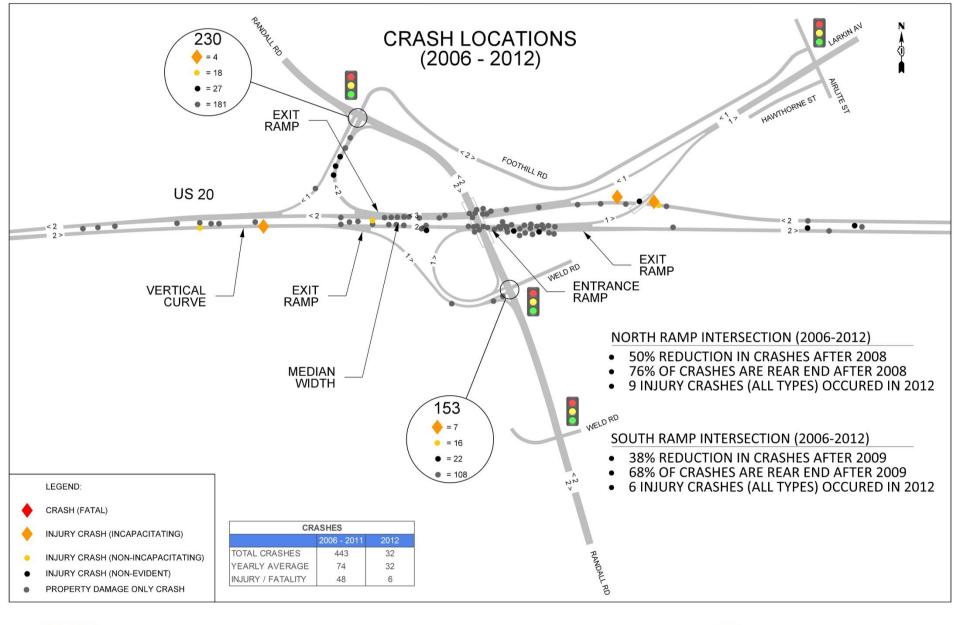






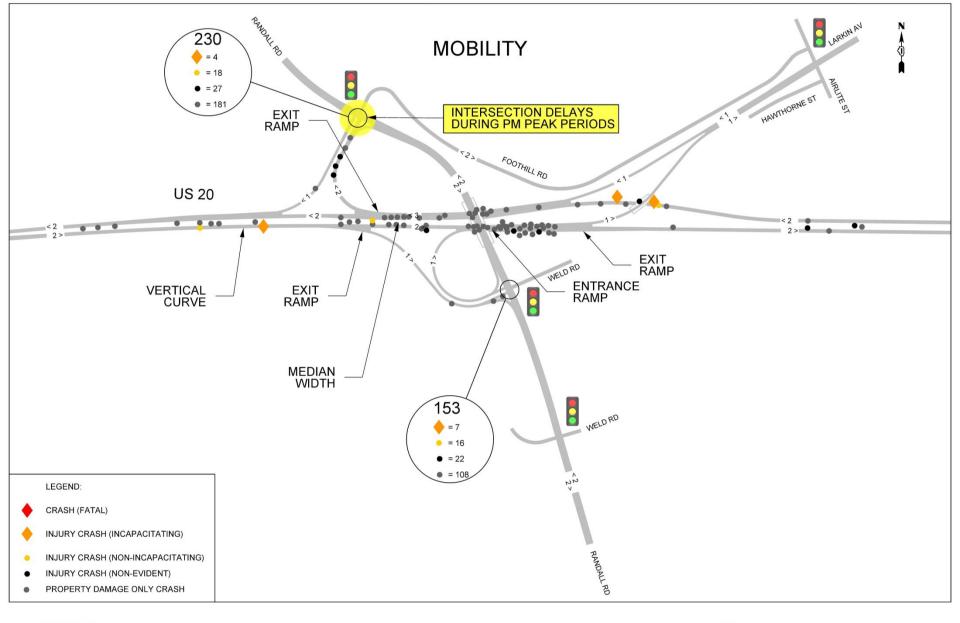






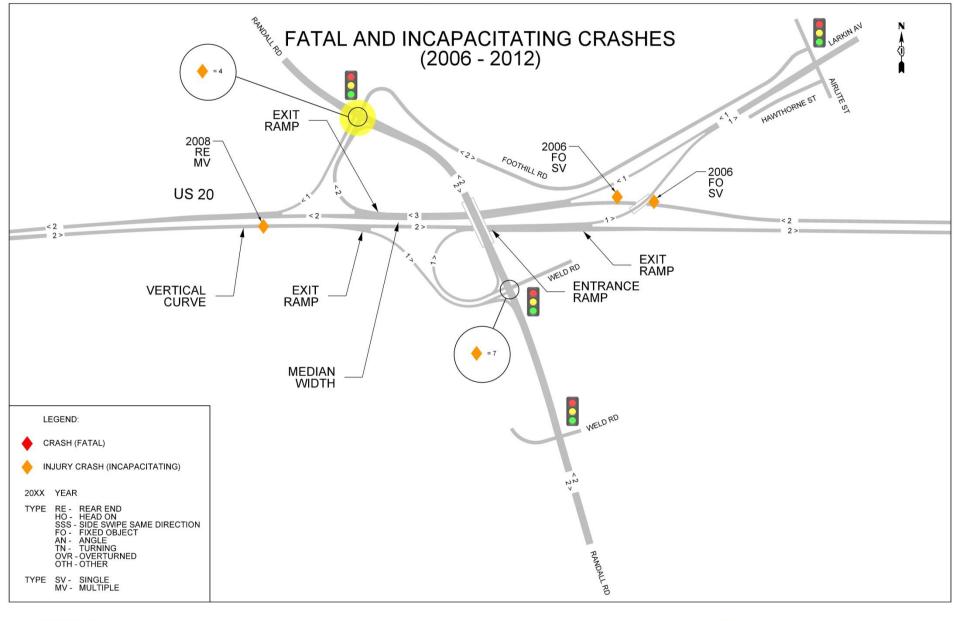






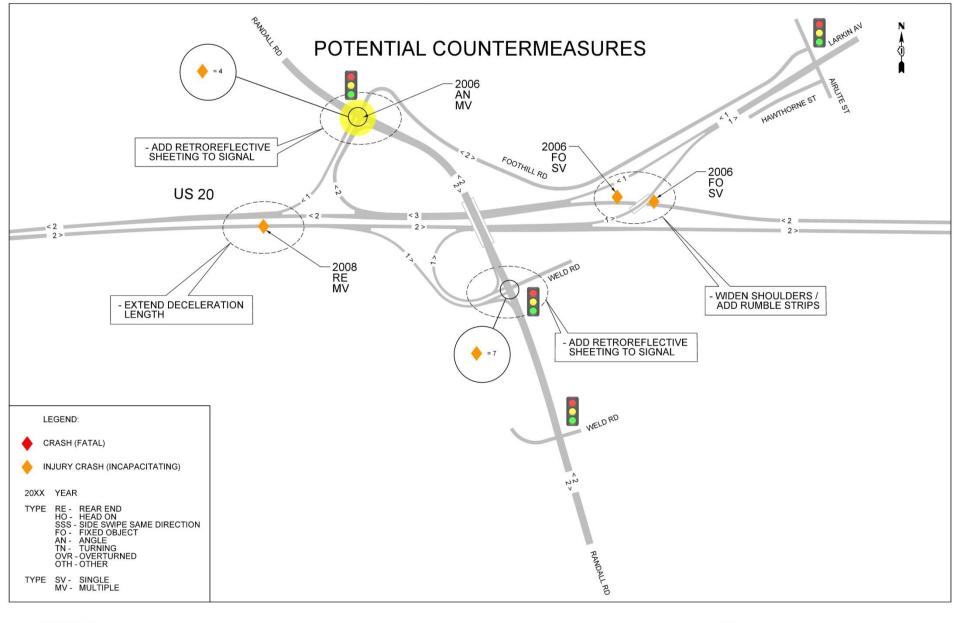






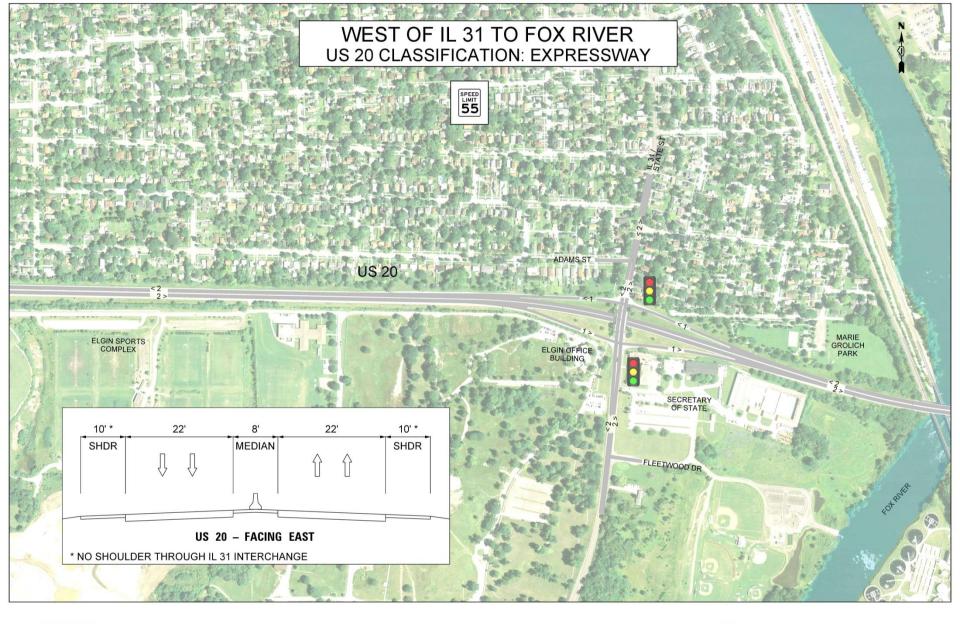






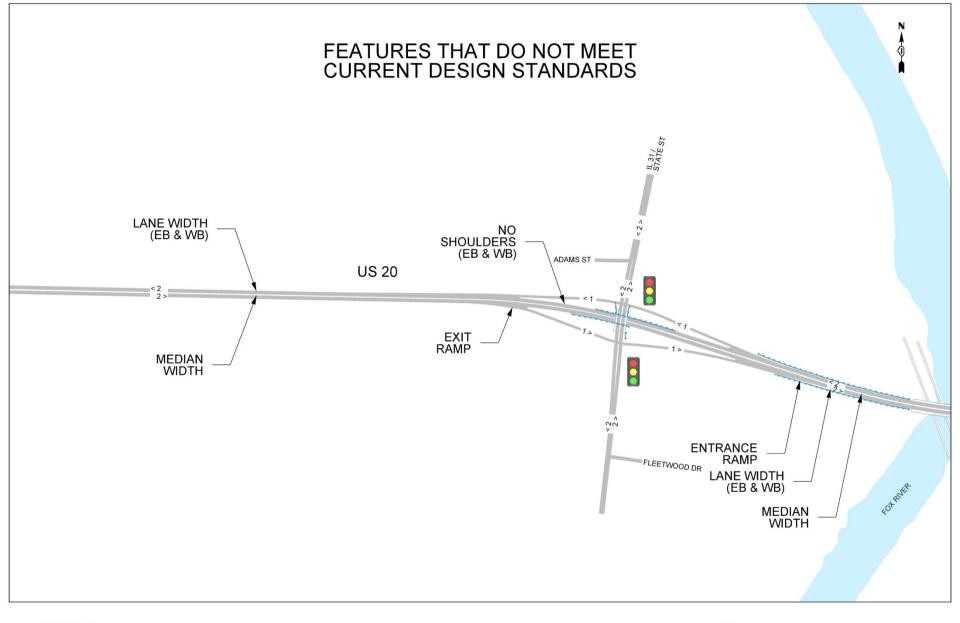






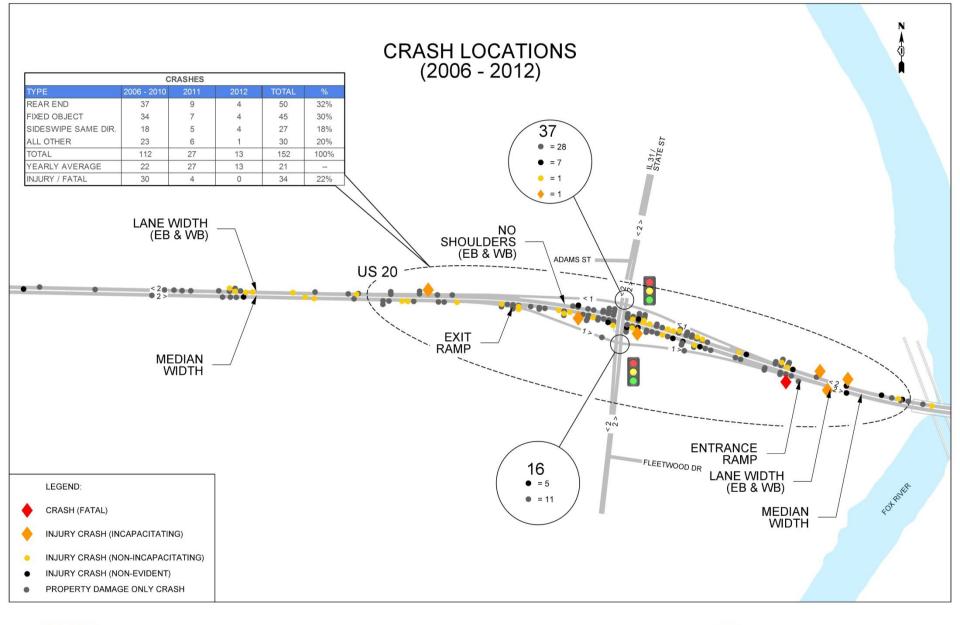






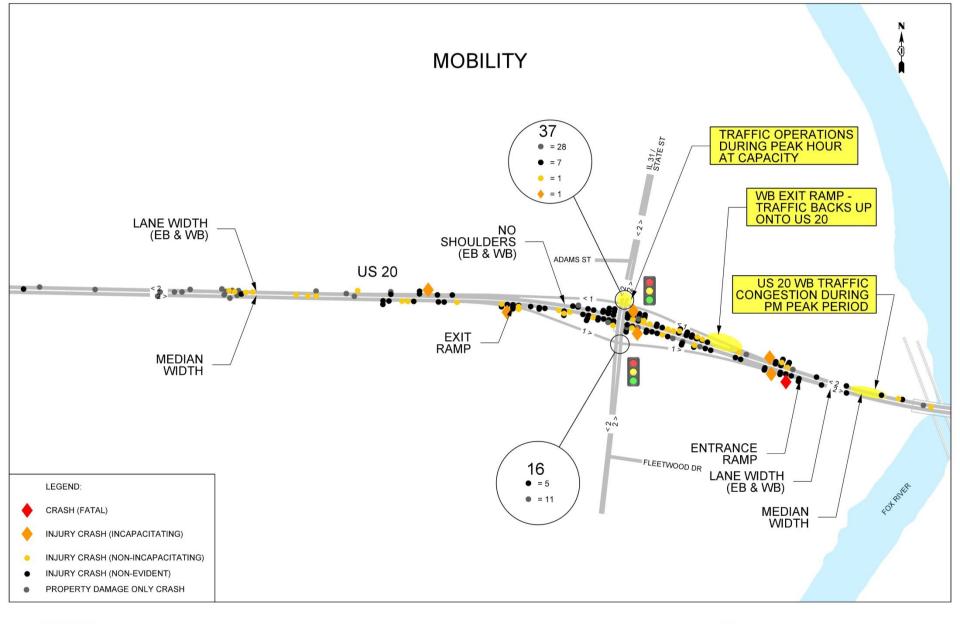






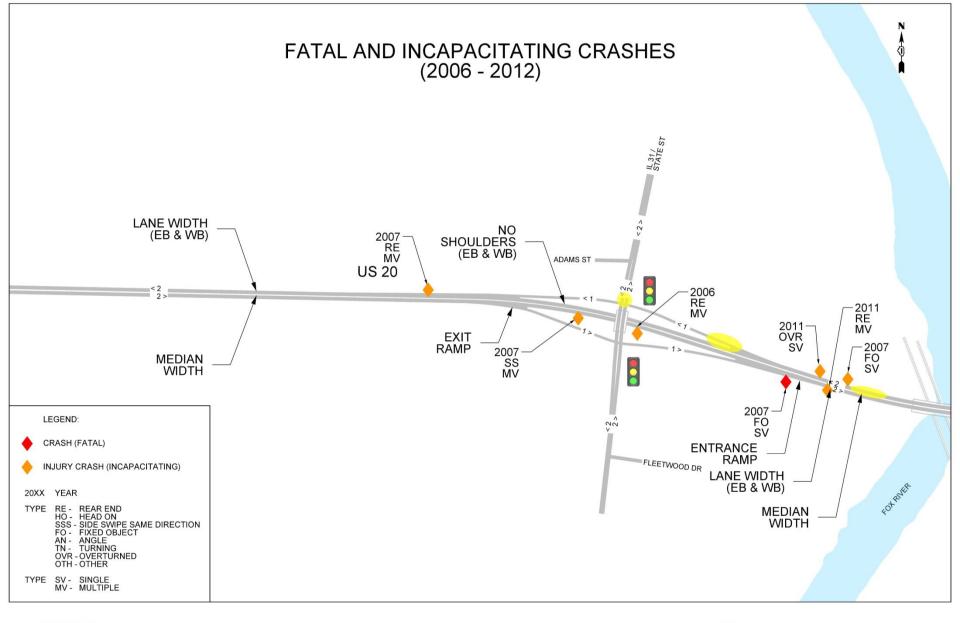






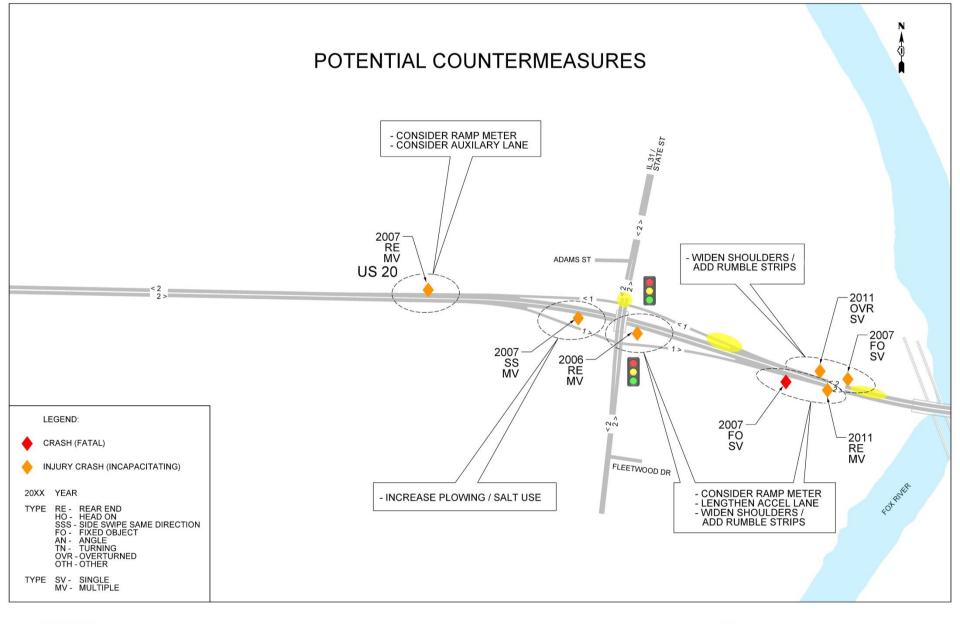






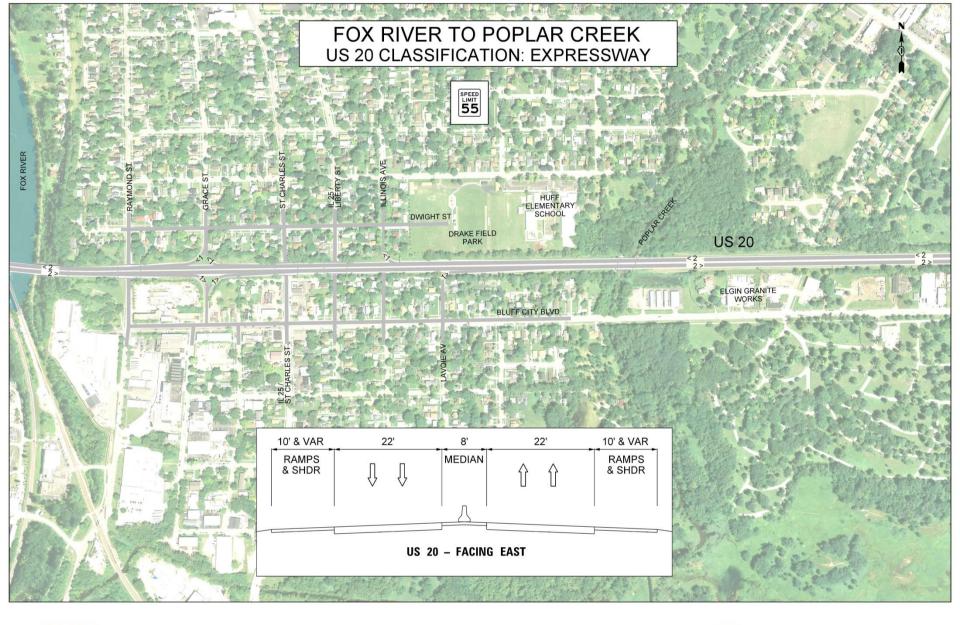












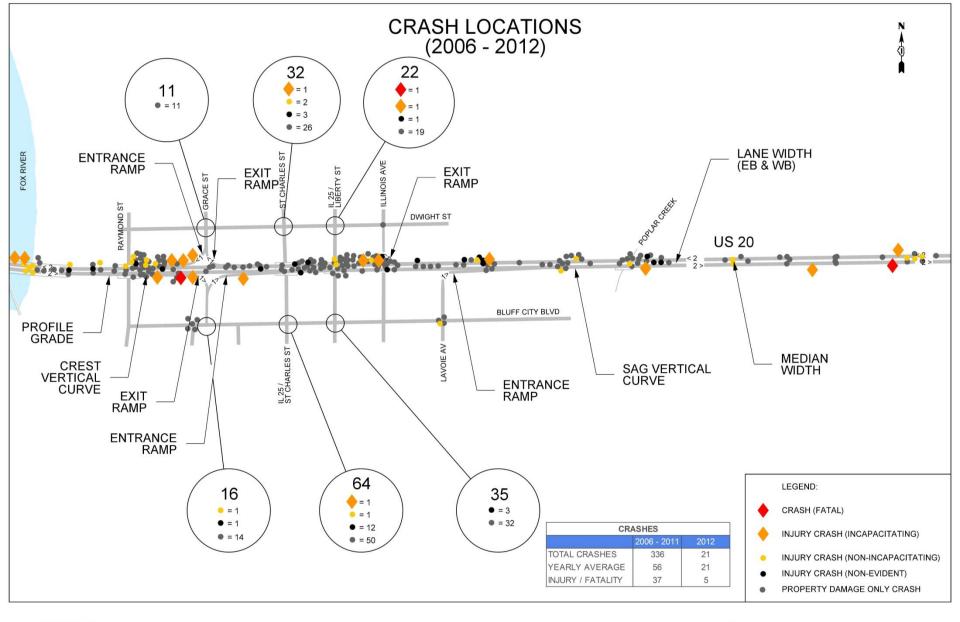




FEATURES THAT DO NOT MEET **CURRENT DESIGN STANDARDS** ENTRANCE RAMP: SHARP CURVE, SHORT ACCELERATION DISTANCE -EXIT RAMP: VERY SHARP CURVE, SHORT DECELERATION DISTANCE EXIT RAMP: VERY SHARP CURVE, SHORT DECELERATION DISTANCE FOX RIVER LANE WIDTH: 11-FT LANES EXISTING, ILLINOIS AVE RAYMOND ST IL 25 / LIBERTY ST 12-FT LANES PREFERRED ST DWIGHT ST **US 20** 8-FT MEDIAN WIDTH DOES NOT PROVIDE BLUFF CITY BLVD FOR INSIDE SHOULERS. PROVISION FOR INSIDE SHOULDERS PREFERRED. LAVOIE AV PROFILE: EXISTING SAG VERT. CURVE = 600 FT., 710 FT PREFERRED PROFILE: EXISTING GRADE 0.15%. 0.3% PREFERRED ENTRANCE RAMP: SHARP CURVE, SHORT ACCELERATION DISTANCE EXIT RAMP: ENTRANCE RAMP: SHARP CURVE, SHORT ACCELERATION DISTANCE SHARP CURVE, SHORT DECELERATION DISTANCE

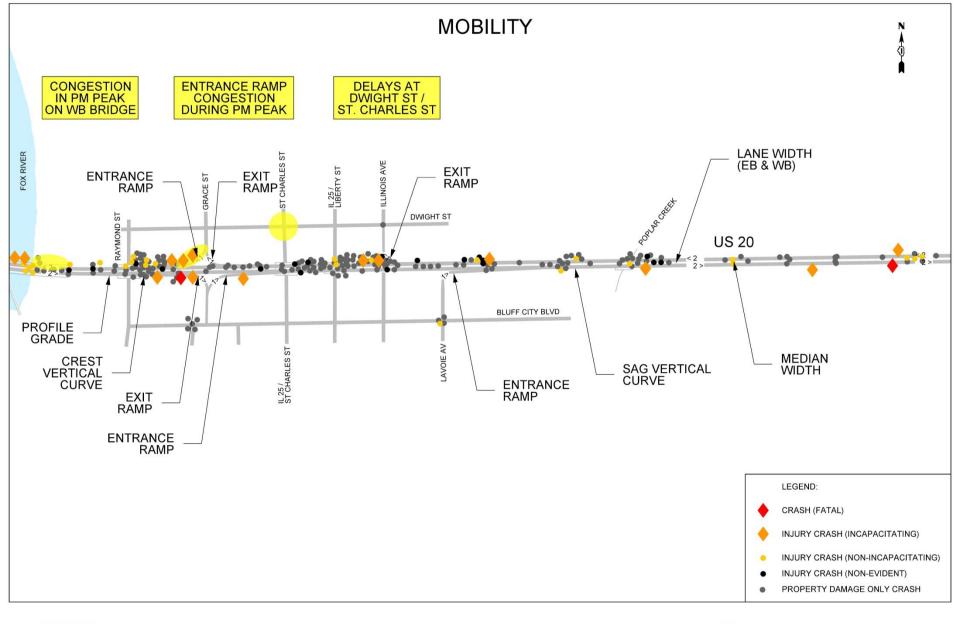






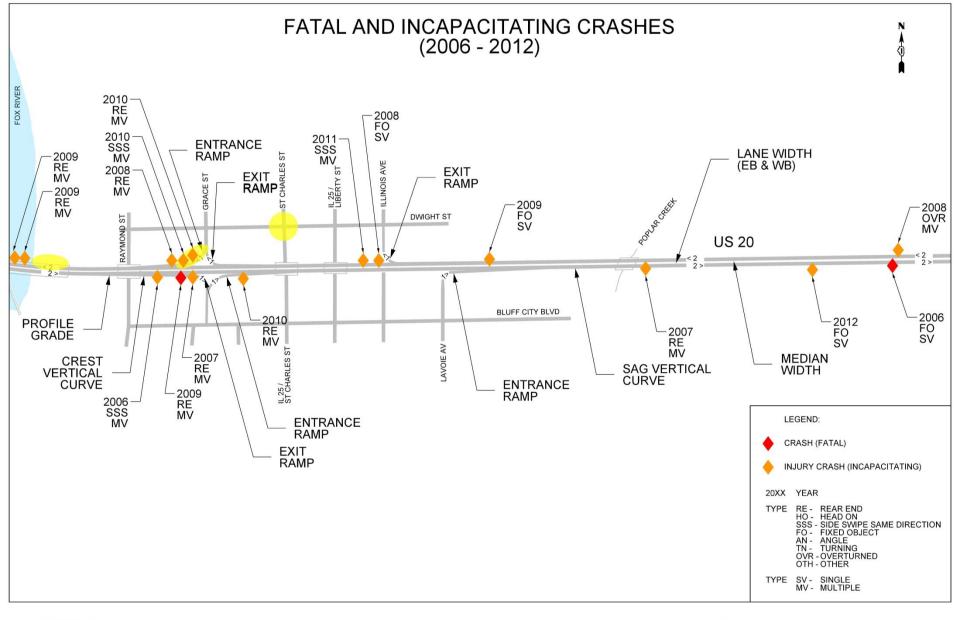






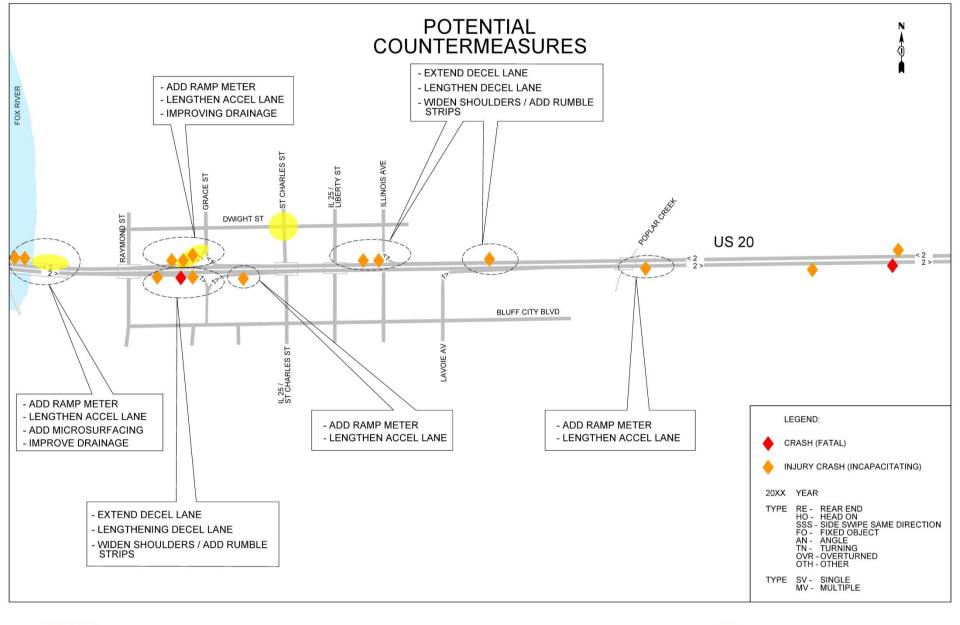






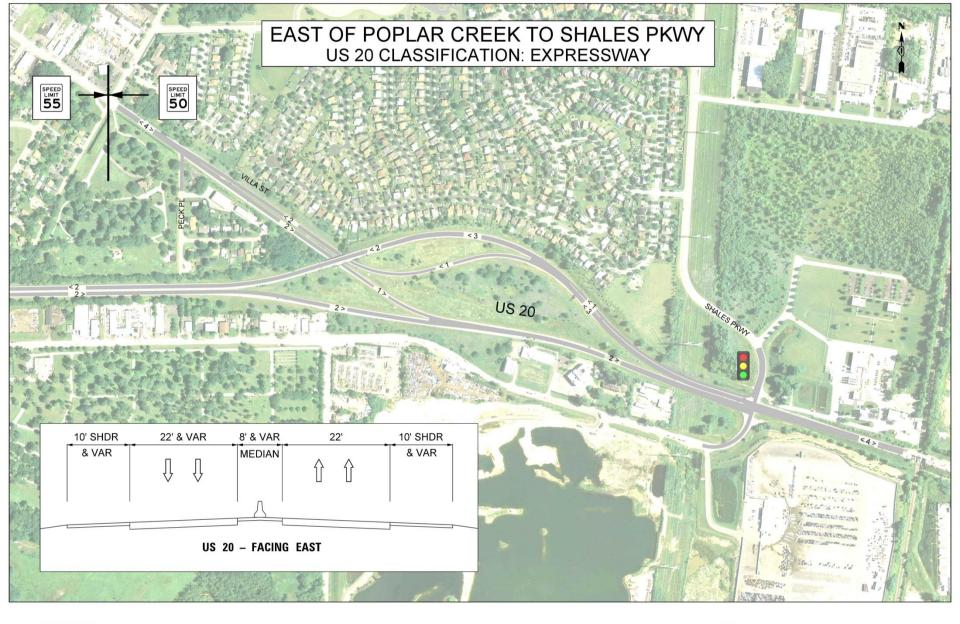






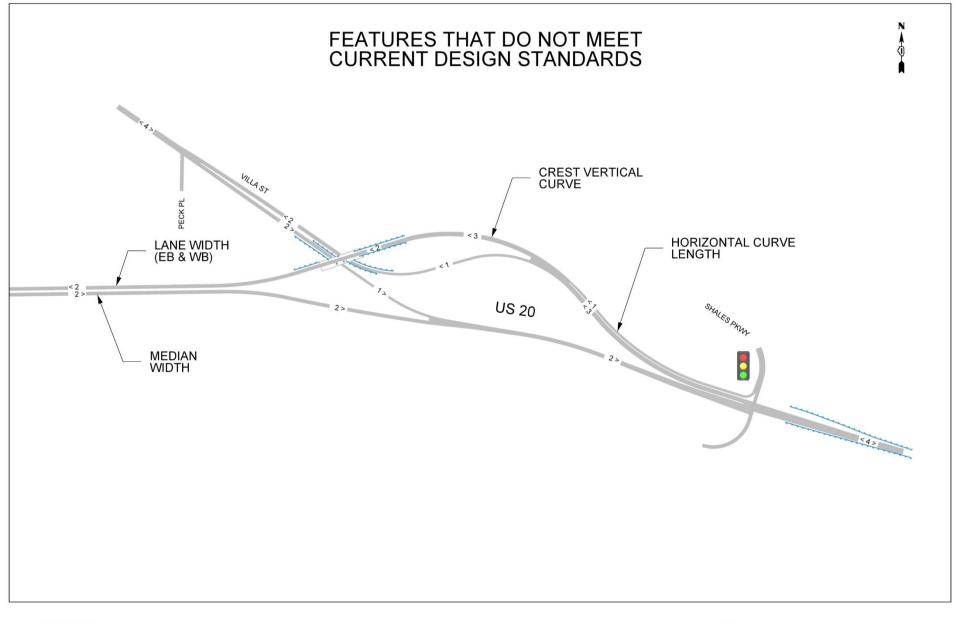
















CRASH LOCATIONS (2006-2012)**CREST VERTICAL** CURVE PECK PL HORIZONTAL CURVE LANE WIDTH LENGTH (EB & WB) 162 US 20 8 = = 11 The state of the s **MEDIAN** WIDTH CRASH STATISTICS AT US 20 & SHALES PARKWAY (2006-2012) LEGEND: 70% REDUCTION IN CRASHES AFTER 2009 CRASH (FATAL) REDUCTION COINCIDES WITH 2009 INTERSECTION IMPROVEMENTS CRASHES 66% OF CRASHES ARE REAR END AFTER 2009 INJURY CRASH (INCAPACITATING) • INJURY CRASHES SIGNIFICANTLY REDUCED AFTER 2009 TOTAL CRASHES 312 24 INJURY CRASH (NON-INCAPACITATING)



INJURY CRASH (NON-EVIDENT)

PROPERTY DAMAGE ONLY CRASH

YEARLY AVERAGE

INJURY / FATALITY

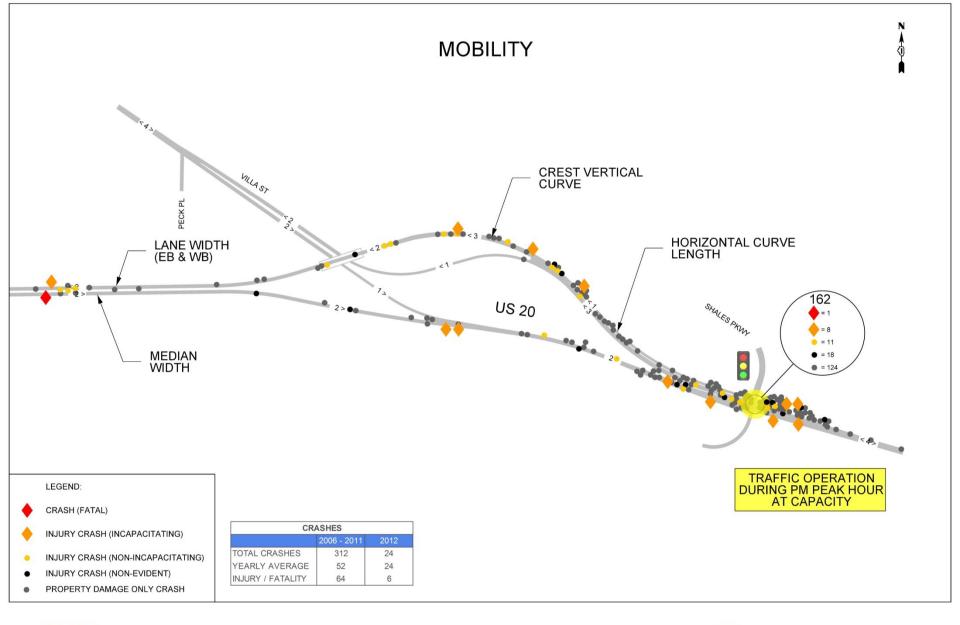
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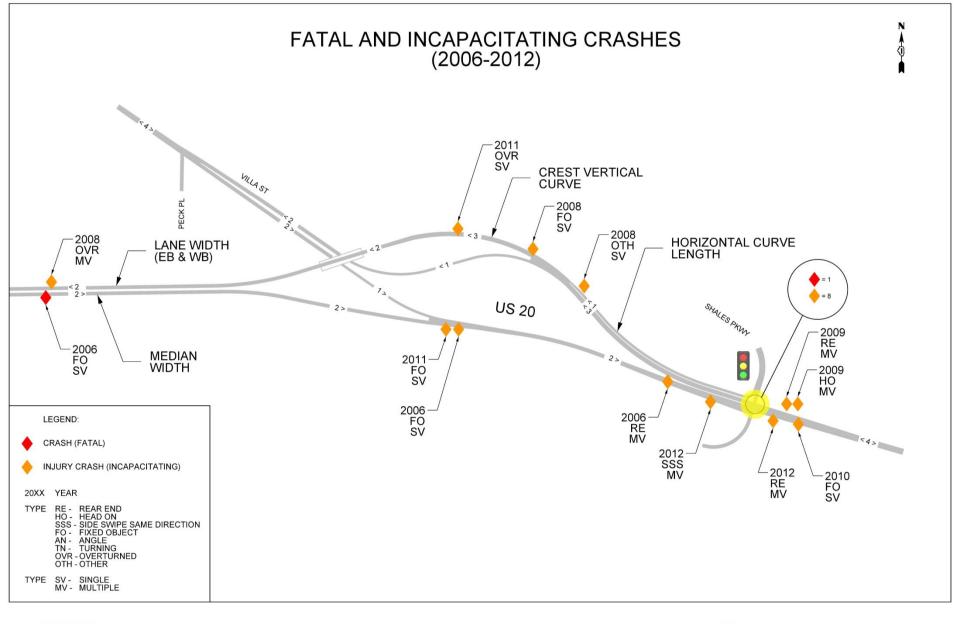
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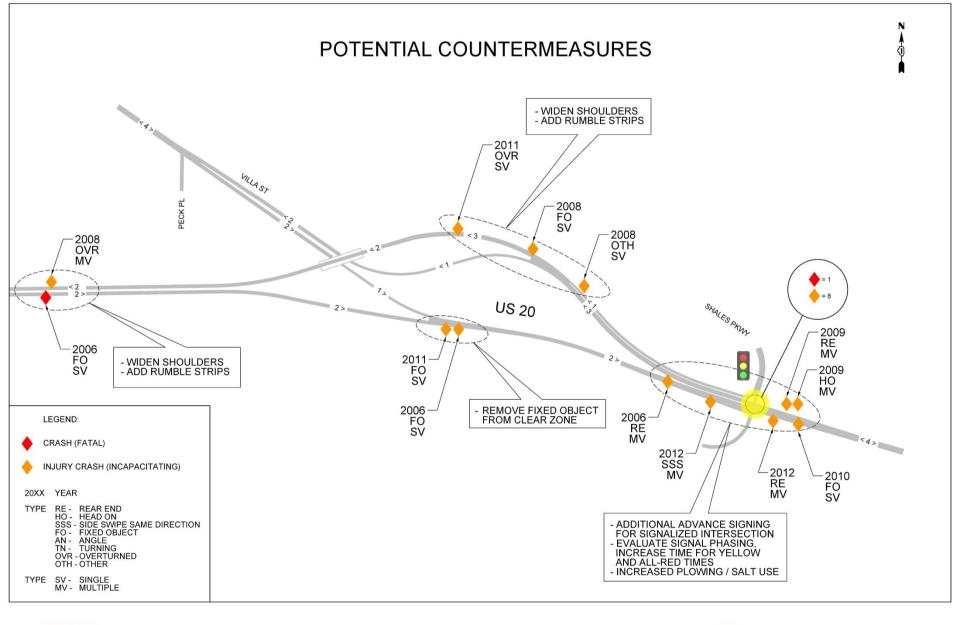
















Bridges in the US 20 Study Area

- Illinois 31 (State Street) over US 20
- US 20 over Fox River
- US 20 over Raymond Street

- US 20 over St. Charles Road
- US 20 over Illinois 25 (Liberty Street)
- US 20 over Poplar Creek



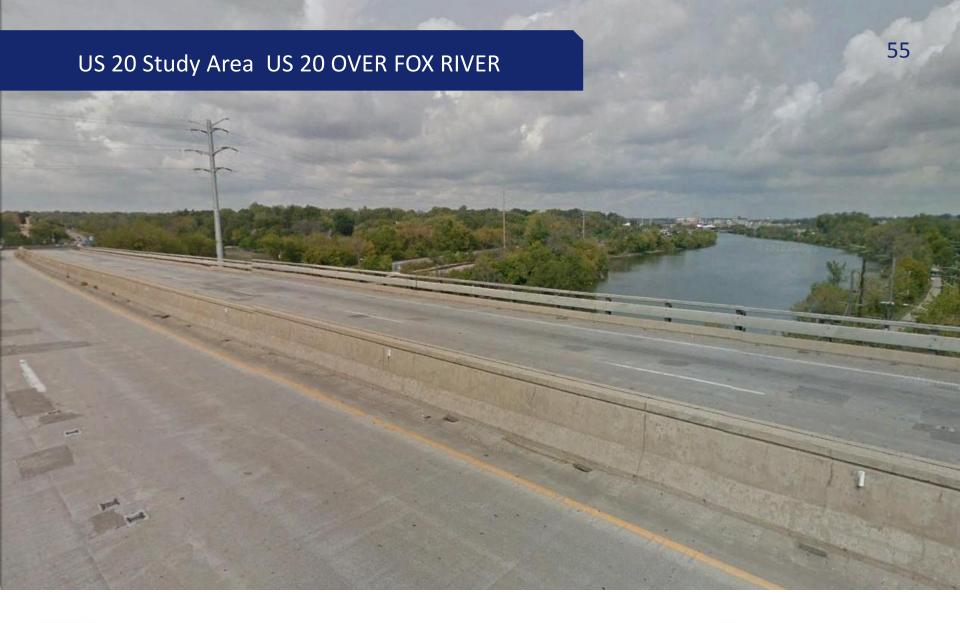


Bridge History

- Bridges Originally Constructed in 1961
- Received Deck Overlays in 1987
- Structures are over 50 years into their life cycle
- Rehabilitation is required

















Preview Potential Improvements

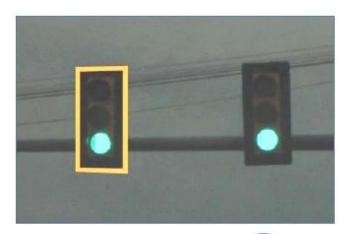


Countermeasure for Signalized Intersection Crashes

3-INCH RETROREFLECTIVE TAPE

- Enhances visibility day or night
- Cost effective









Countermeasure for Angle Crashes at Unsignalized Intersections

TURNING MOVEMENT RESTRICTIONS

- Reduces potential for crashes
- Requires out of direction travel



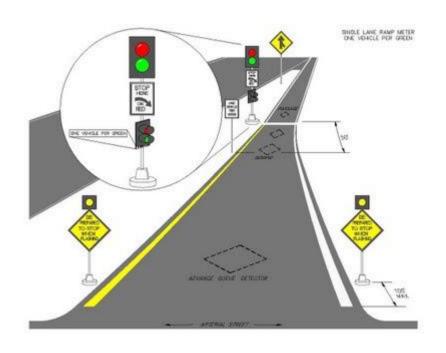




Countermeasure for Rear End Crashes near On-Ramps

RAMP METERS

- WB on-ramps at IL 31 and IL 25
- EB on-ramps at Randall Road and IL 31







Countermeasure for Run Off Road Crashes

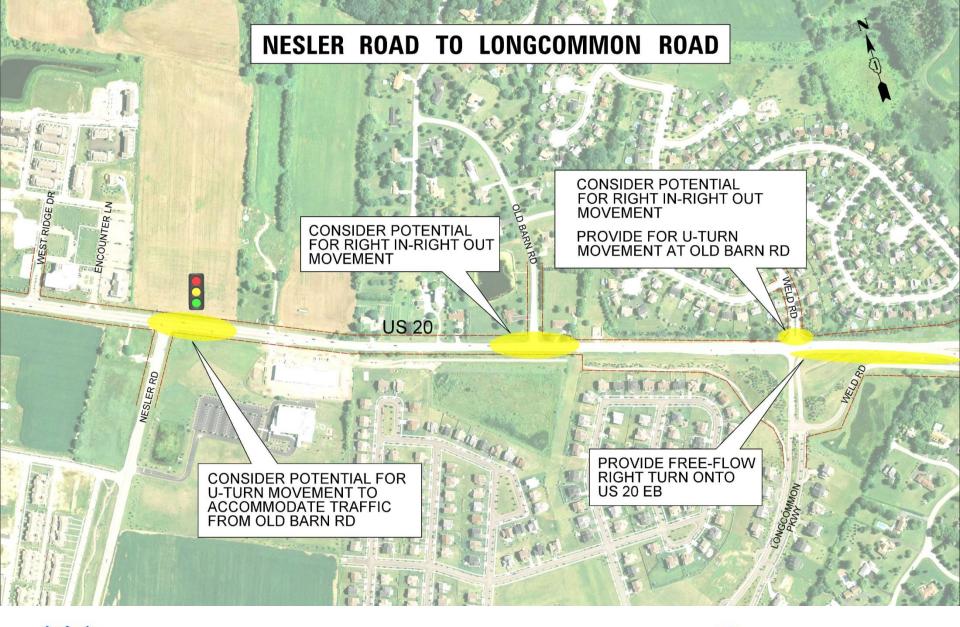
WIDEN SHOULDERS/ADD RUMBLE STRIPS

- East Half (IL 31 to Shales)
- Provides recovery zone
- Provides safe spot for disabled vehicles
- Less hazardous than guardrails



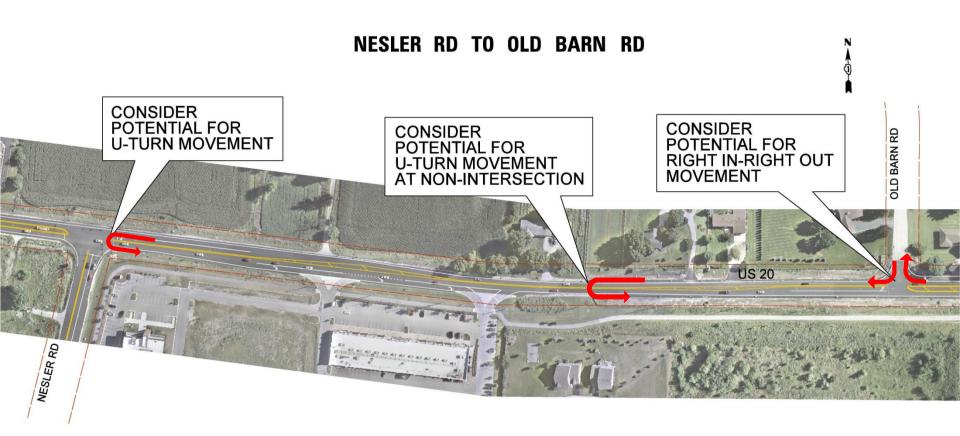






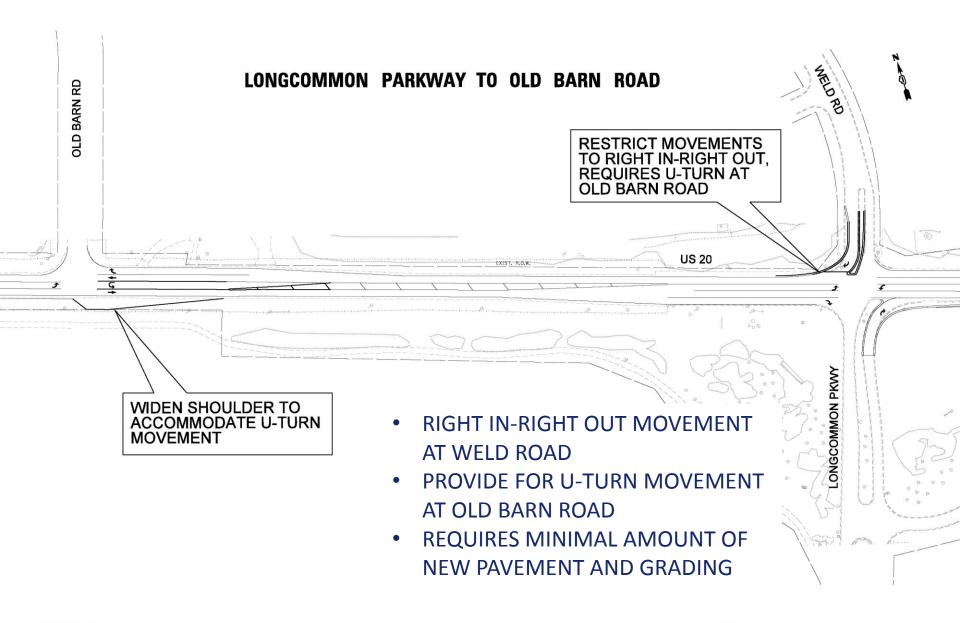






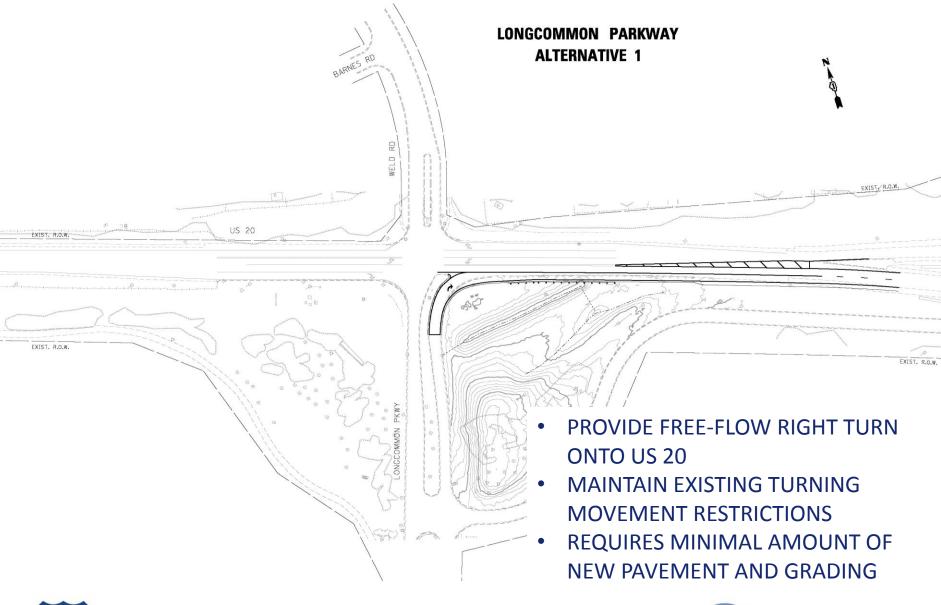






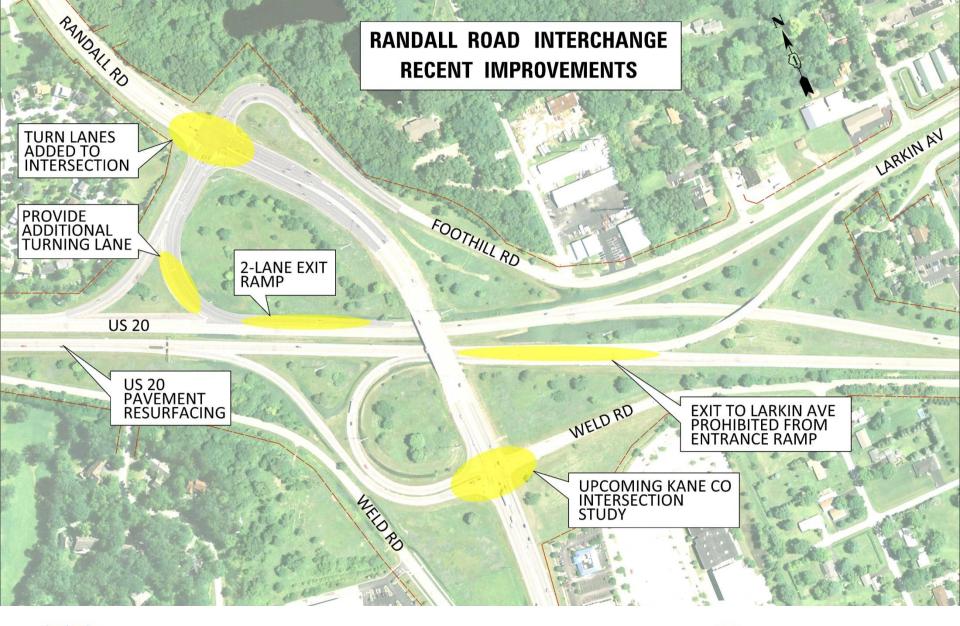






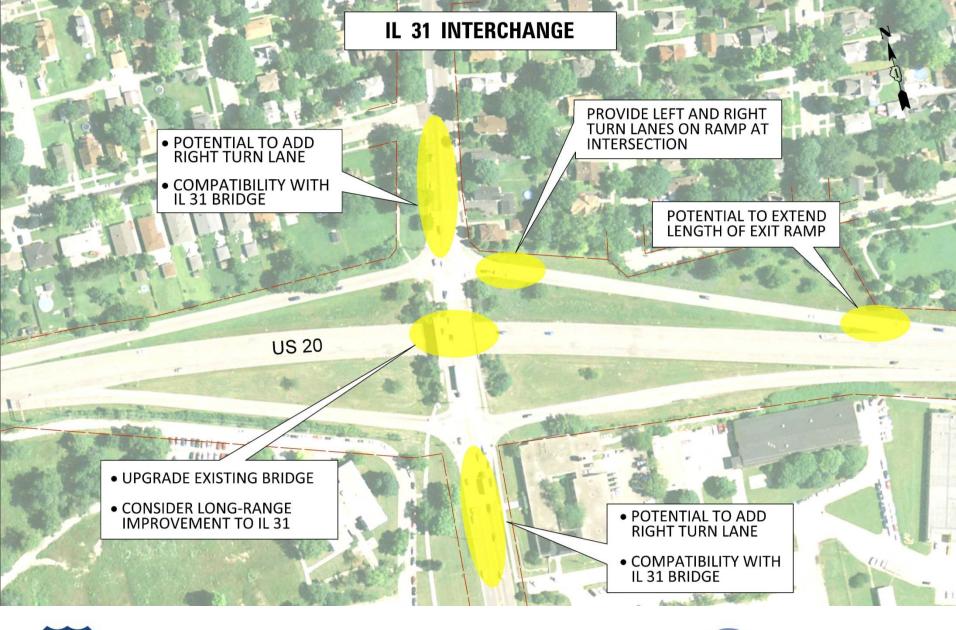






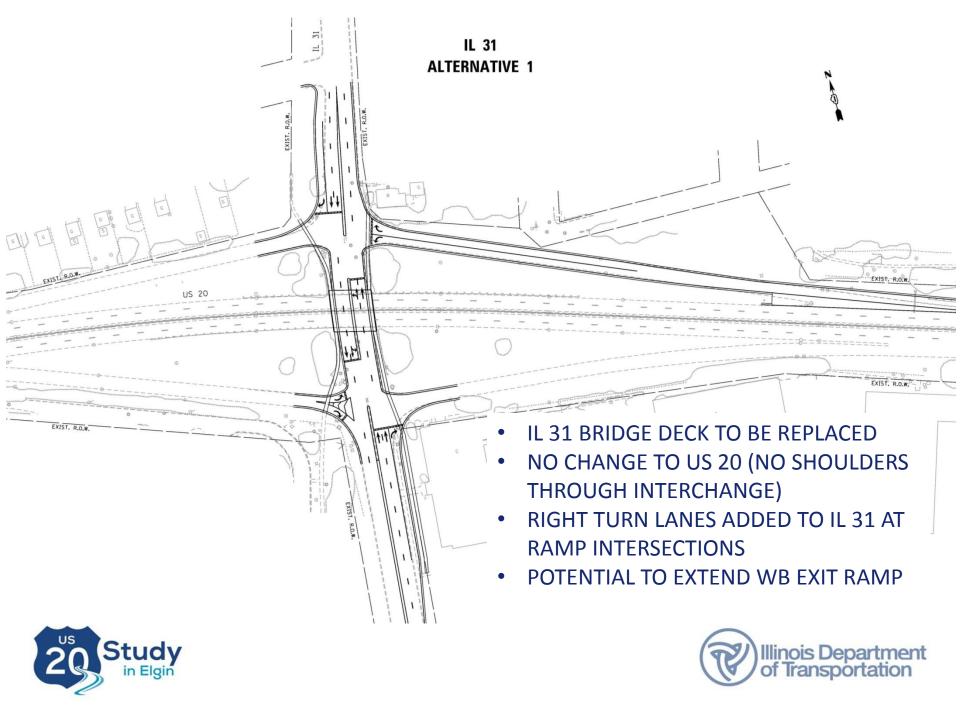


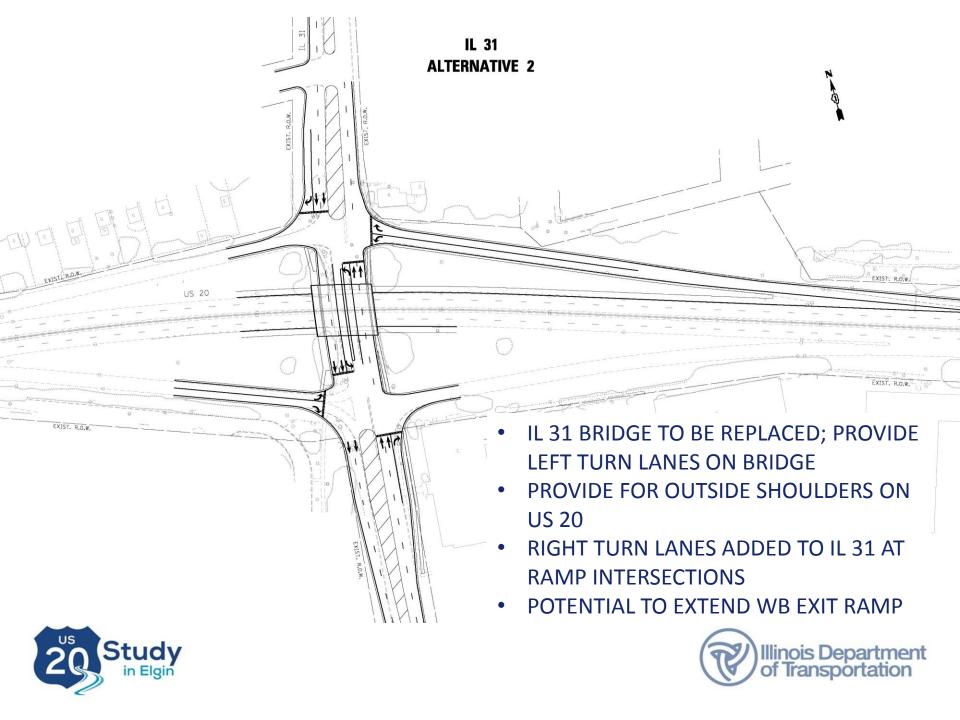


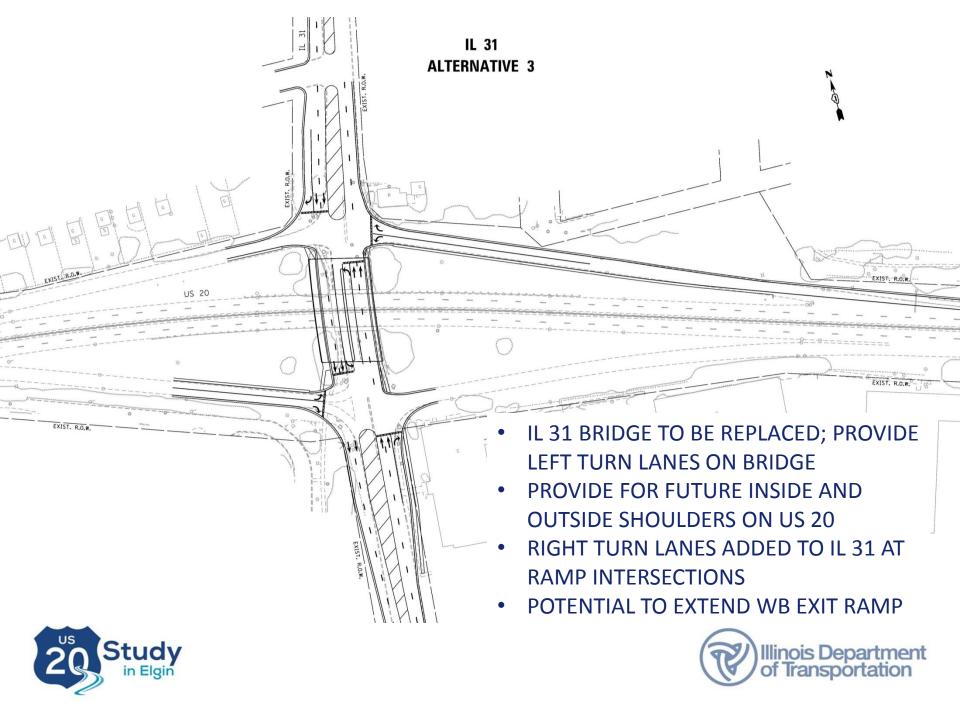




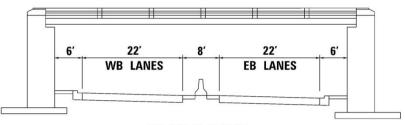




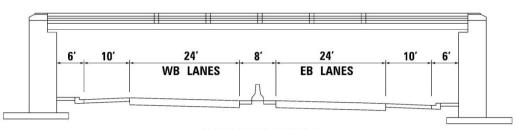




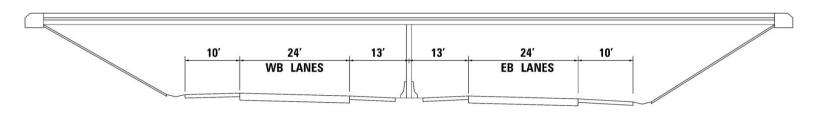
IL 31 BRIDGE



ALTERNATIVE 1



ALTERNATIVE 2

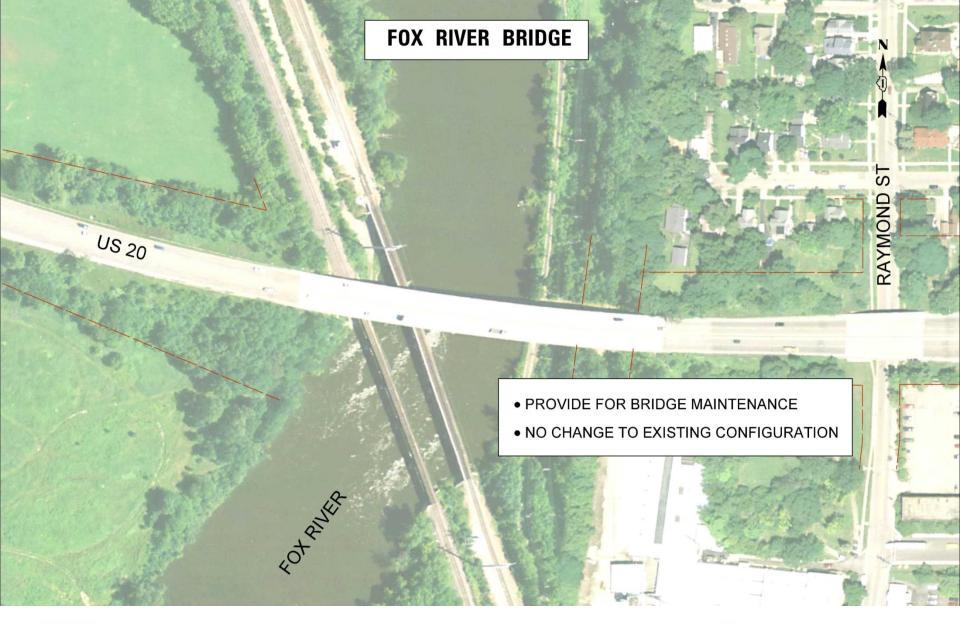


ALTERNATIVE 3

(ACCOMMODATES POTENTIAL FUTURE LANE ARRANGEMENT)

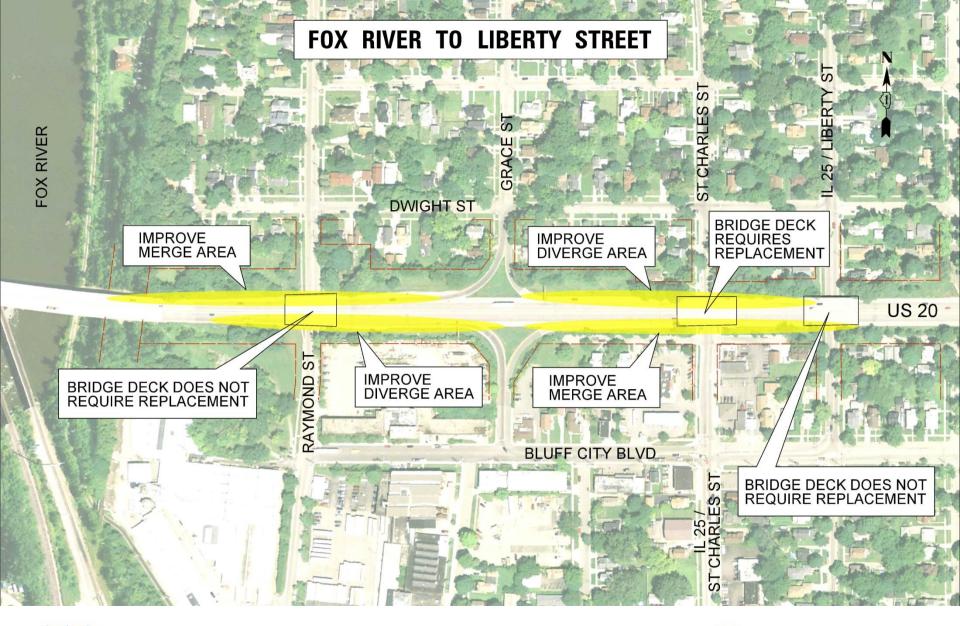










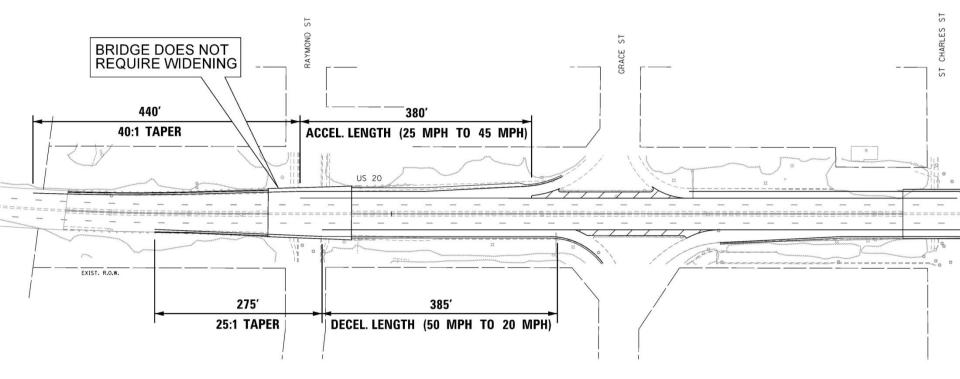






US 20 EB EXIT RAMP TO GRACE ST AND US 20 WB ENTRANCE EXIT RAMP FROM GRACE ST





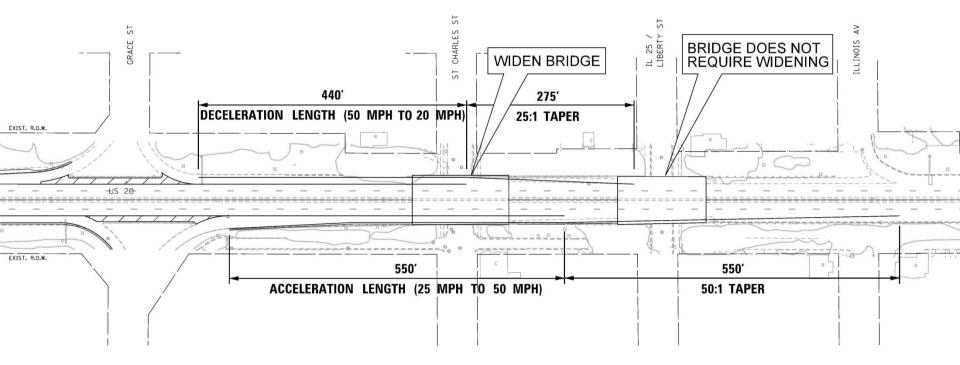
- EXTEND RAMP ACCELERATION AND DECELERATION LENGTHS BY STRIPING OUT EXISTING SHOULDERS
- NO WIDENING OF RAYMOND STREET BRIDGE REQUIRED





US 20 EB ENTRANCE RAMP FROM GRACE ST AND US 20 WB EXIT RAMP TO GRACE ST

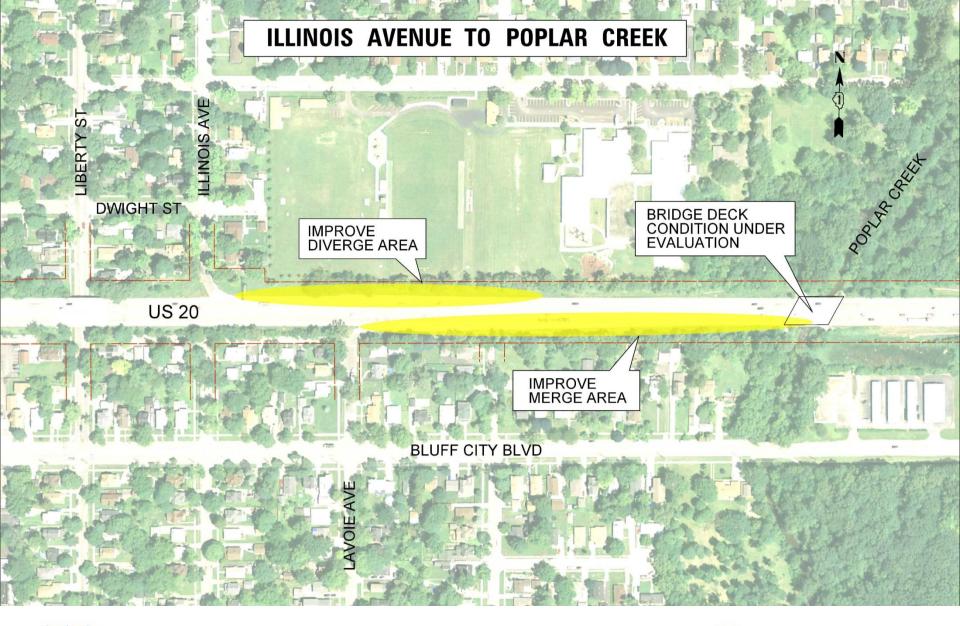




- EXTEND RAMP ACCELERATION AND DECELERATION LENGTHS BY STRIPING OUT EXISTING SHOULDERS
- WIDEN ST. CHARLES STREET BRIDGE
- NO WIDENING OF LIBERTY STREET BRIDGE REQUIRED



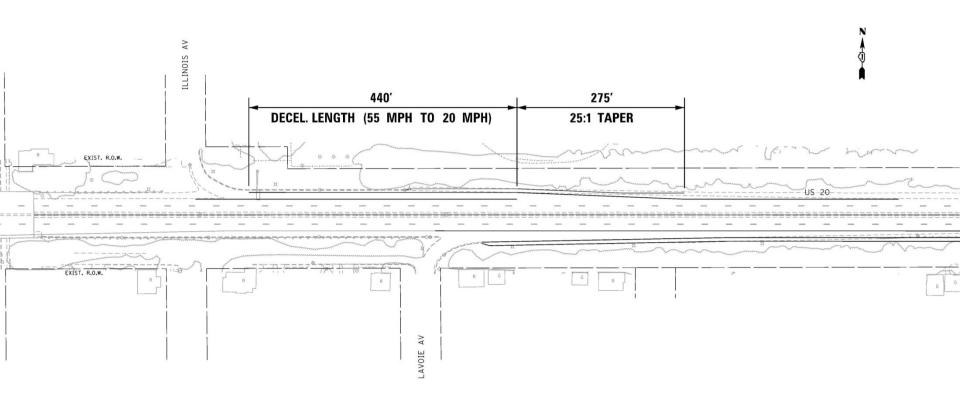








US 20 WB EXIT RAMP TO ILLINOIS AVE

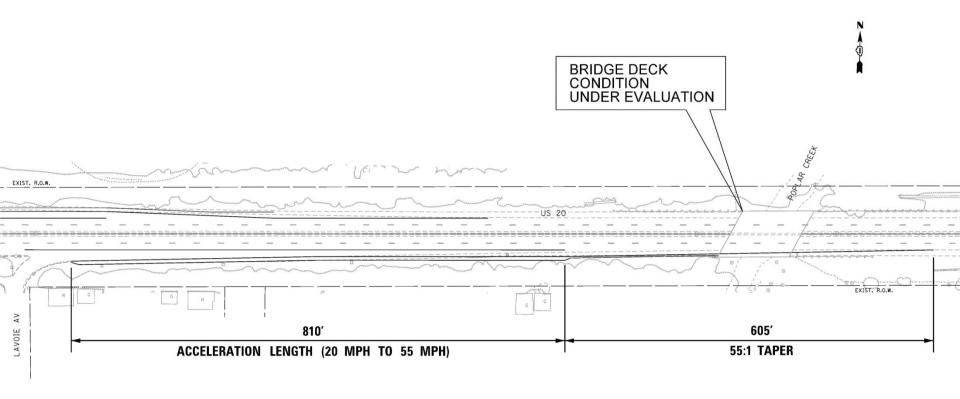


- EXTEND RAMP DECELERATION LENGTH BY STRIPING OUT PART OF EXISTING SHOULDER
- NO ADDITIONAL ROADWAY WIDENING REQUIRED





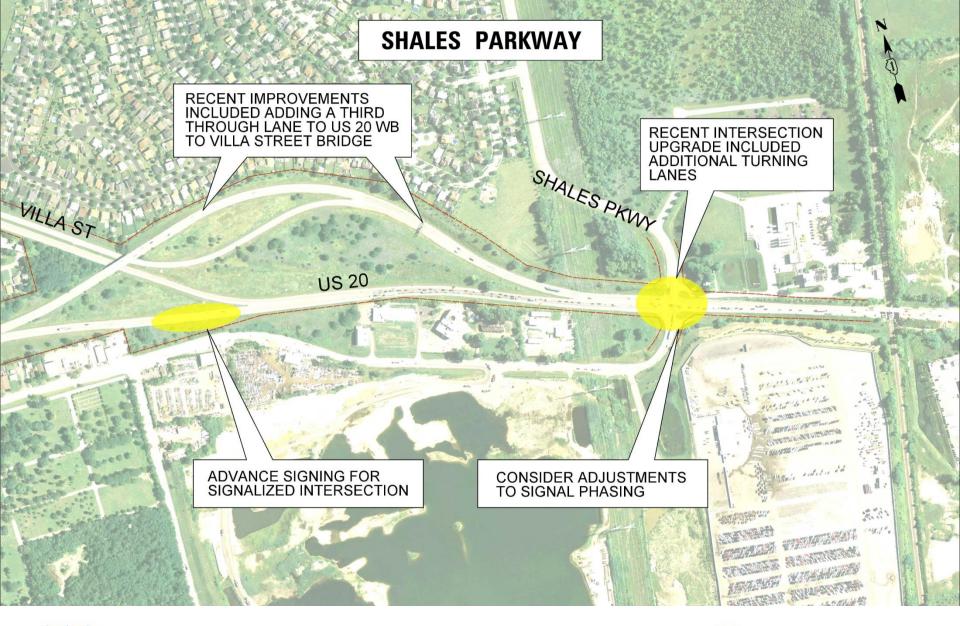
US 20 EB ENTRANCE RAMP FROM LAVOIE AVE



- EXTEND ACCELERATION LENGTH ON RAMP BY WIDENING ROADWAY
- STRIPE OUT SHOULDER ON POPLAR CREEK BRIDGE
- NO WIDENING OF POPLAR CREEK BRIDGE REQUIRED











Breakout Session

Alternative Development Activities



Discussion Topics

Nesler Road to Longcommon Parkway

- Access to US 20 from Longcommon Parkway and Weld Road
- Potential for left-turn restrictions at Weld Road and at Old Barn Road
- Potential for U-Turn movements on at Nesler Road and other locations

Longcommon Parkway to Randall Road

- Mobility concerns
- Improvements limited to maintenance activities





Discussion Topics

IL 31 to Fox River

- Long-range plans for IL 31
- Left-turn lanes on IL 31 (includes roadway widening)
- Bridge alternatives for short-term and long-term needs

Fox River to Poplar Creek

- Access to/from US 20 east of Fox River
- Stripe out shoulders to improve merge and diverge areas

Poplar Creek to Shales Parkway

- Mobility concerns
- Improvements limited to maintenance activities





Next Steps



Next Steps

- 1. Work with the Community Advisory Group, local officials, and the public to develop improvement alternatives
- 2. Refine proposed improvements
- Present the Preferred Alternative
- 4. Completion of Phase I Study





Additional Project Information

 Project Website: www.us20elginstudy.com

Illinois Department of Transportation
 201 W. Center Court, Schaumburg, IL 60196-1096

Attn: Bureau of Programming Lori Brown, P.E.

RE: US 20 (Randall Road to Shales Pkwy)





Thank You

