



# Heggen Street Bridge Replacement and 11<sup>th</sup>/Coulee & Heggen/Crest View Intersection Reconstruction Project

Dean Chamberlain, PE – City Engineer

Image Courtesy of Google Earth



# Outline

- What are we considering doing with this project? Why are we considering doing this project?
- What are the alternatives that we are considering?
- What are the steps moving forward?
- What do we want from you as a result of this meeting?



Image Courtesy of Google Earth

# Project Location



Image Courtesy of Microsoft Bing Maps



What are we considering doing with this project and why are we considering doing this project?

First, what do you think?

What issues do you experience at this location?



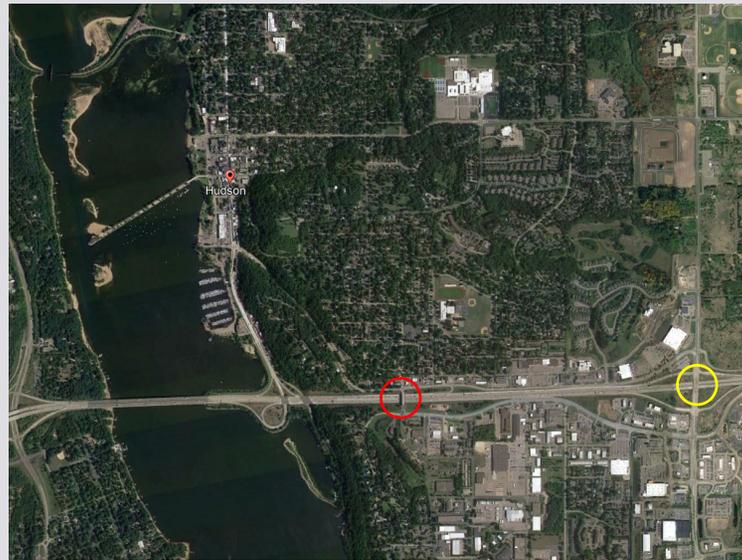
## Purpose of the Project



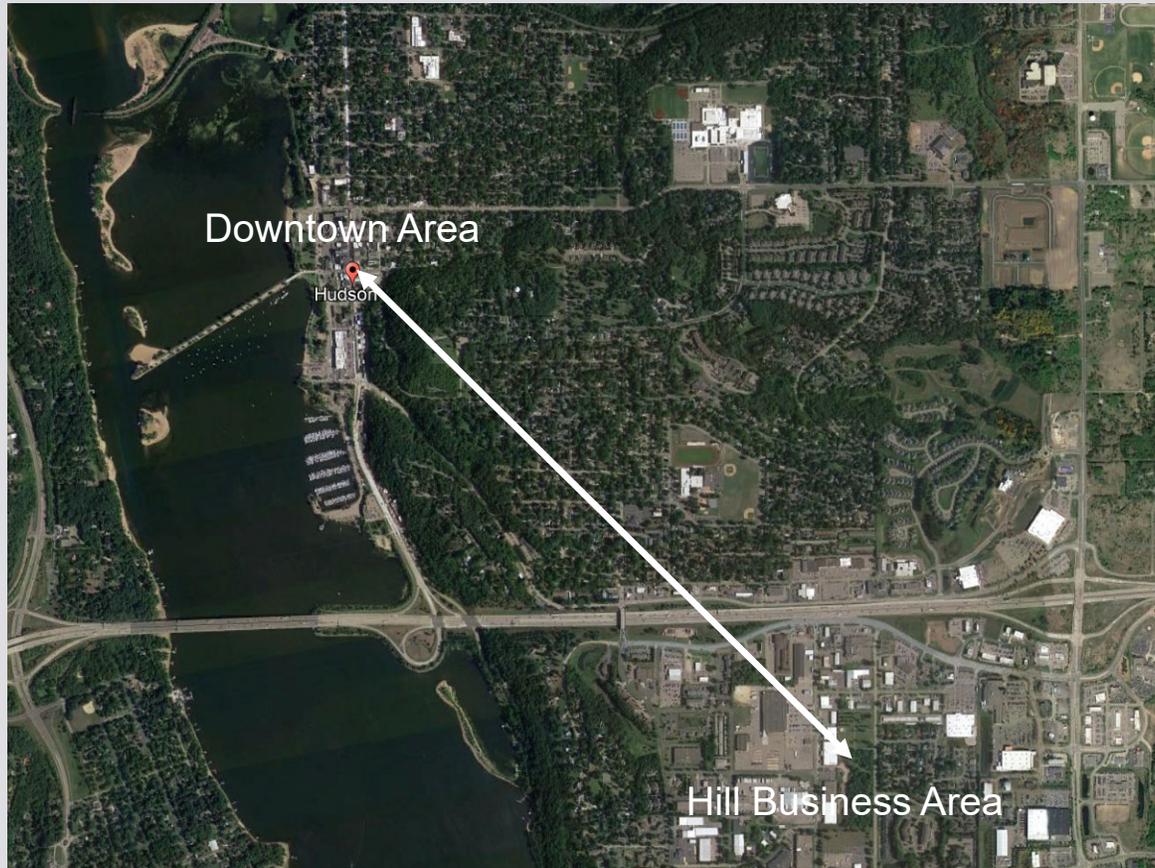
- Upgrade the capacity of vehicle, bicycle, and pedestrian travel across Interstate 94 at or near the location of the existing Heggen Street bridge.
- Enhance the aesthetics and functionality of the bridge as a gateway to the community.

## Why Do This Project?

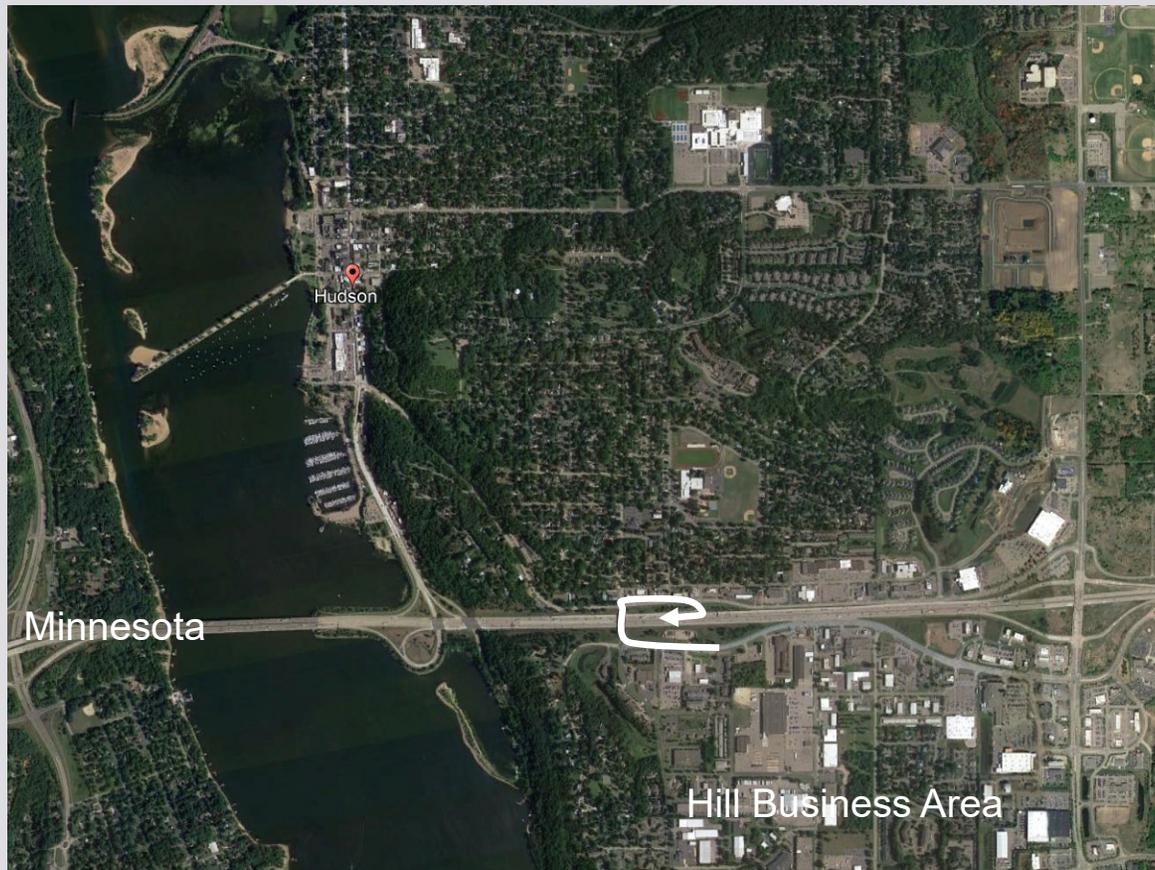
One of only two connections across Interstate 94 connecting the north and south halves of the City



# Why Do This Project?



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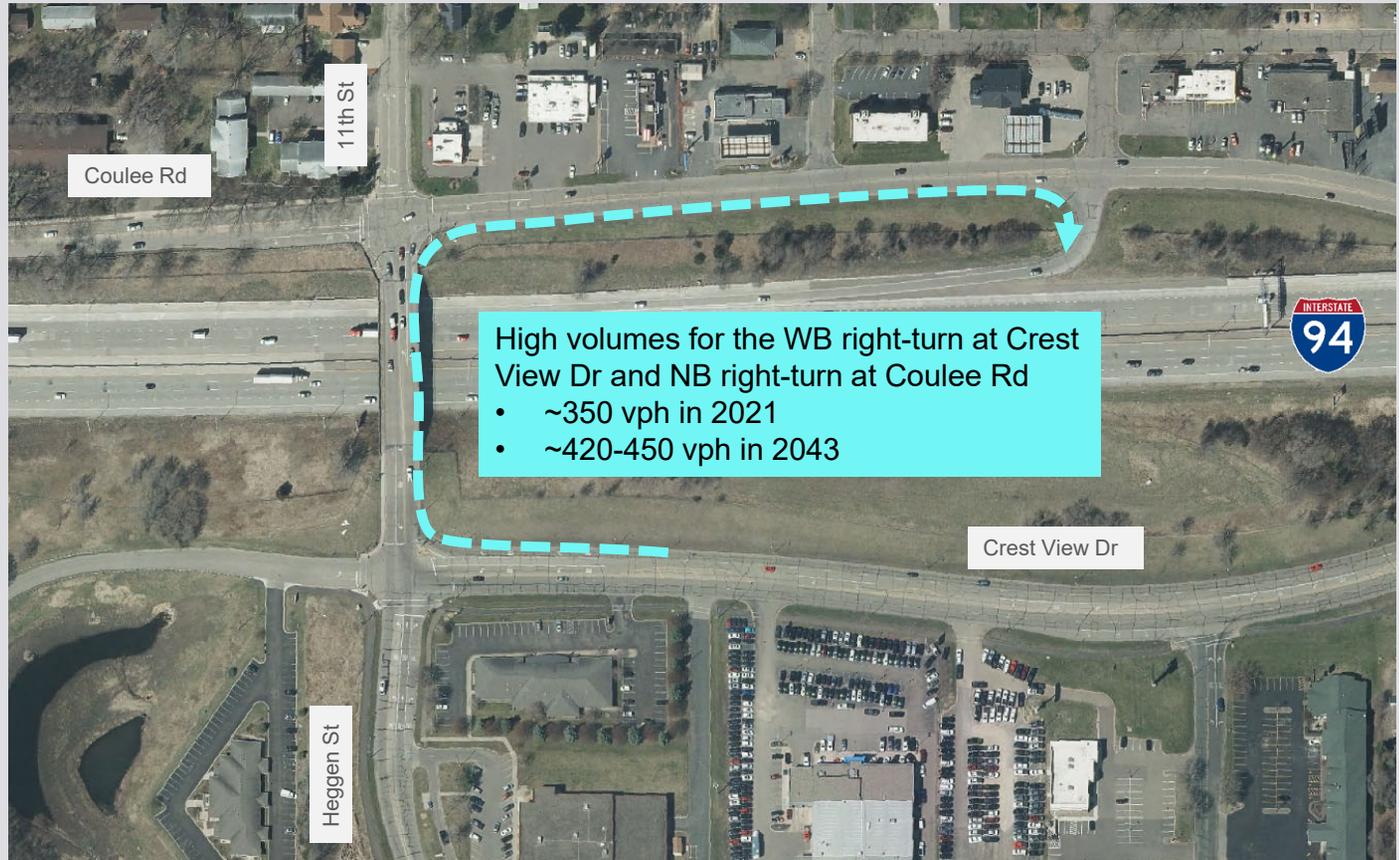
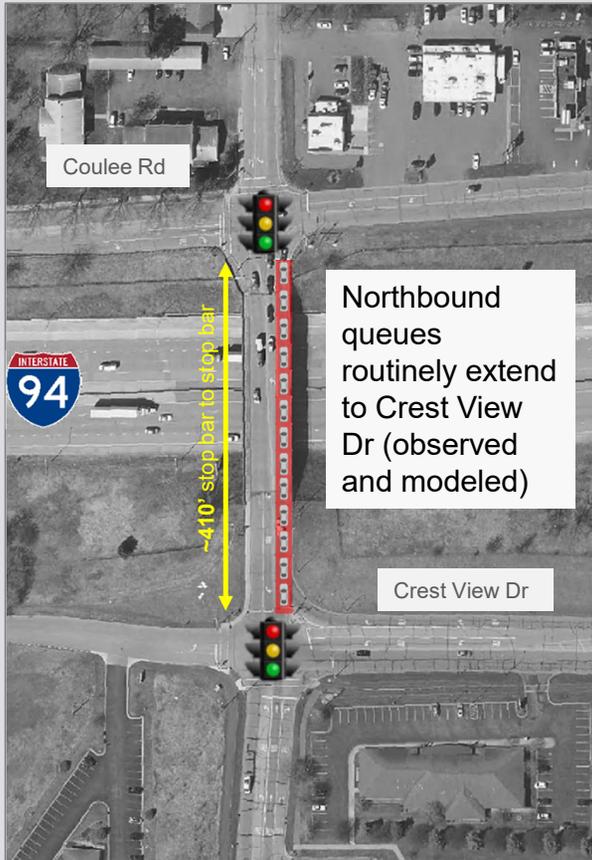


## Why Do This Project?

Long delays and queues for existing vehicles, particularly heading northbound across the bridge



# Existing and No-Build Operations



## Why Do This Project?



### Fun Facts:

- Heggen Street bridge is busiest non-4-lane bridge over Interstate 94 in the state of Wisconsin – over 13,400 vehicles per day
  - More than US 12 (Exit 4) bridge
- Exit 2 is in the top 5 busiest interchanges on Interstate 94 in the state of Wisconsin (not including interstate-to-interstate interchanges) – over 45,000 vehicles per day

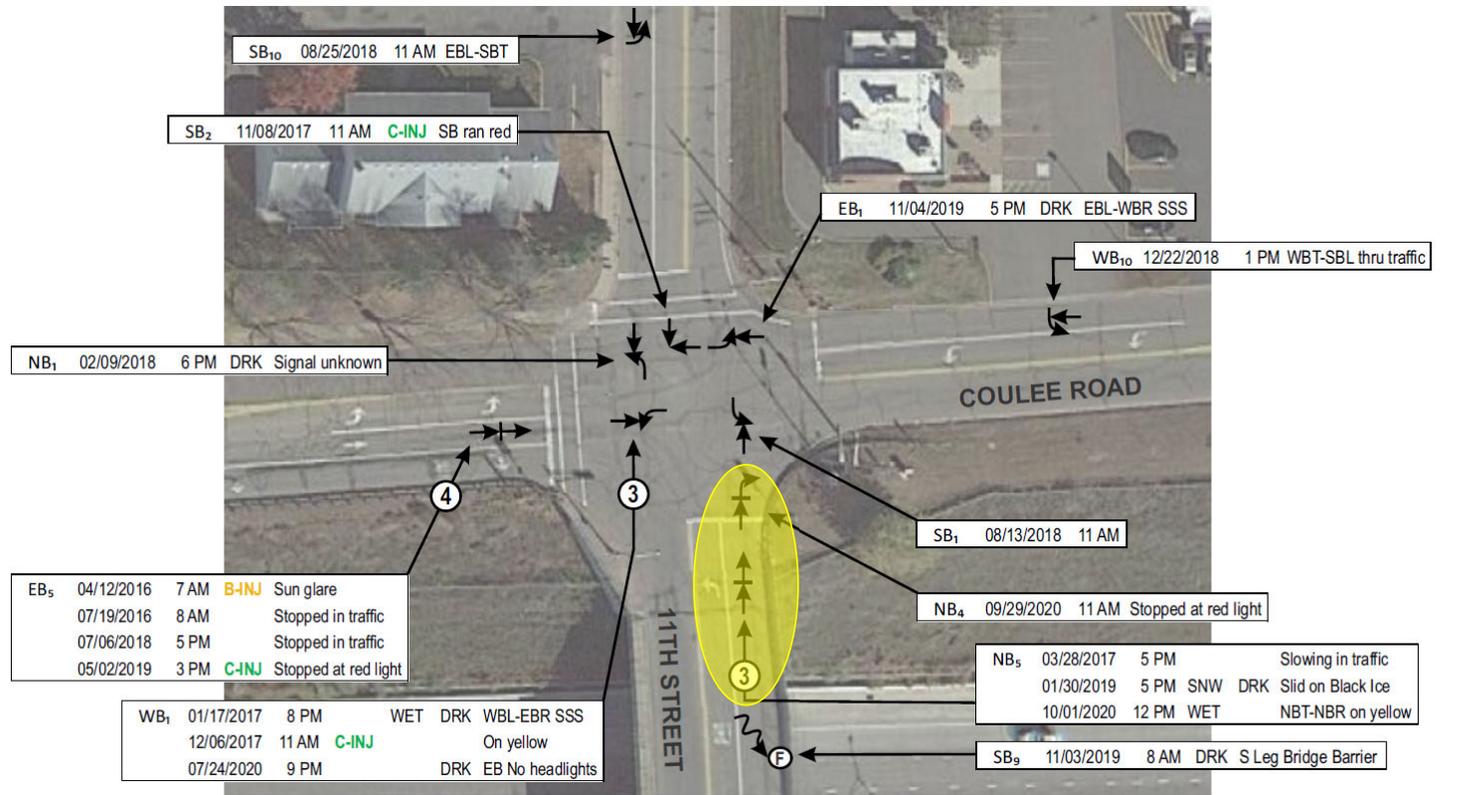
# Why Do This Project?



Bicycle and pedestrian facilities are substandard



# Crash History (2016-2020)



### CRASH STATISTICS

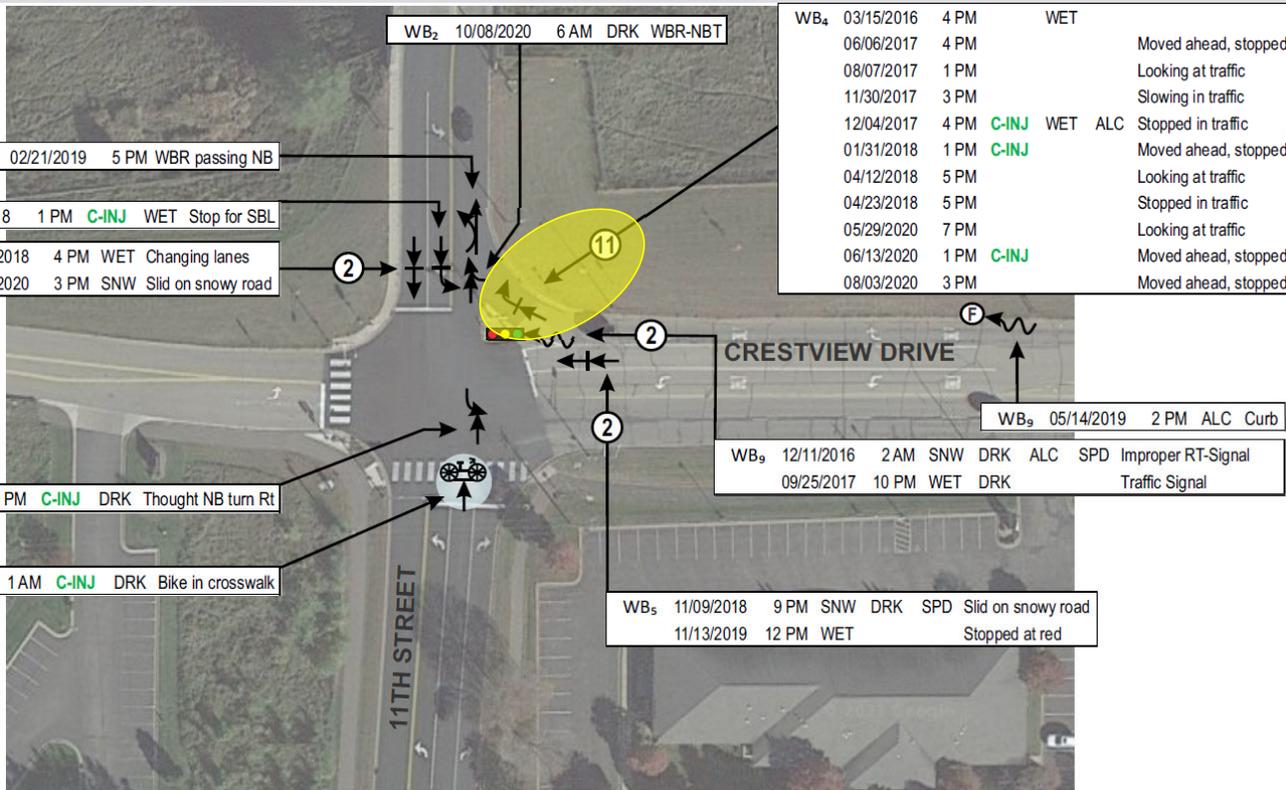
18 Crashes

- 0 Fatal Crash (K)
- 0 Suspected Serious Injury (Type A)
- 1 Suspected Minor Injury (Type B)
- 3 Possible (Type C)
- 14 Property Damage Only

0.53 Crashes Per Million Entering Vehicles

CRASH TYPE	K	A	B	C	PDO	TOT.
LT-ANGLE	0	0	0	1	5	6
RT-ANGLE	0	0	0	1	0	1
PEDESTRIAN	0	0	0	0	0	0
RT-TURN REAR-END	0	0	0	0	2	2
REAR-END	0	0	1	1	4	6
SIDE-SWIPE-SAME	0	0	0	0	0	0
BICYCLE-RELATED	0	0	0	0	0	0
PARKED-VEHICLE	0	0	0	0	0	0
FIXED-OBJECT	0	0	0	0	1	1
DRIVEWAY-RELATED	0	0	0	0	2	2
HEAD-ON	0	0	0	0	0	0
MISC. OTHER	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>14</b>	<b>18</b>

# Crash History (2016-2020)



### CRASH STATISTICS

23 Crashes

- 0 Fatal Crash (K)
- 0 Suspected Serious Injury (Type A)
- 0 Suspected Minor Injury (Type B)
- 6 Possible (Type C)
- 17 Property Damage Only

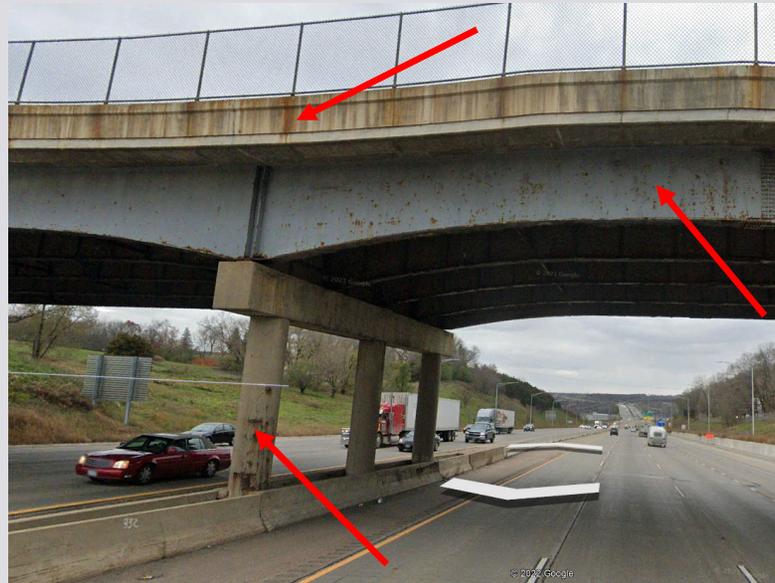
0.90 Crashes Per Million Entering Vehicles

CRASH TYPE	K	A	B	C	PDO	TOT.
LT-ANGLE	0	0	0	1	0	1
RT-ANGLE	0	0	0	0	1	1
PEDESTRIAN	0	0	0	1	0	1
RT-TURN REAR-END	0	0	0	3	8	11
REAR-END	0	0	0	1	4	5
SIDE-SWIPE-SAME	0	0	0	0	0	0
BICYCLE-RELATED	0	0	0	0	0	0
PARKED-VEHICLE	0	0	0	0	0	0
FIXED-OBJECT	0	0	0	0	3	3
DRIVEWAY-RELATED	0	0	0	0	0	0
HEAD-ON	0	0	0	0	0	0
MISC. OTHER	0	0	0	0	1	1
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>17</b>	<b>23</b>

# Why Do This Project?



The bridge is an eyesore





What alternatives are we considering?

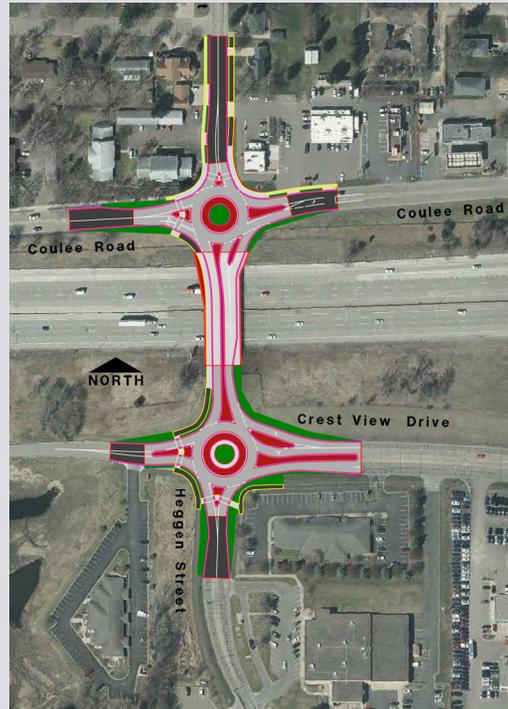
# What alternatives are we considering?



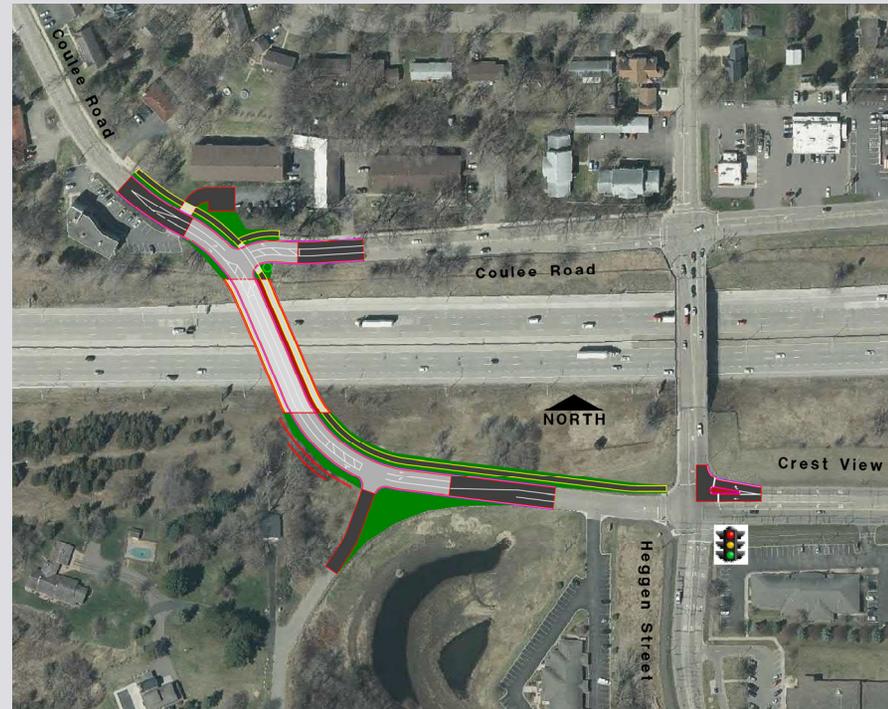
## 1) Expanded Signal



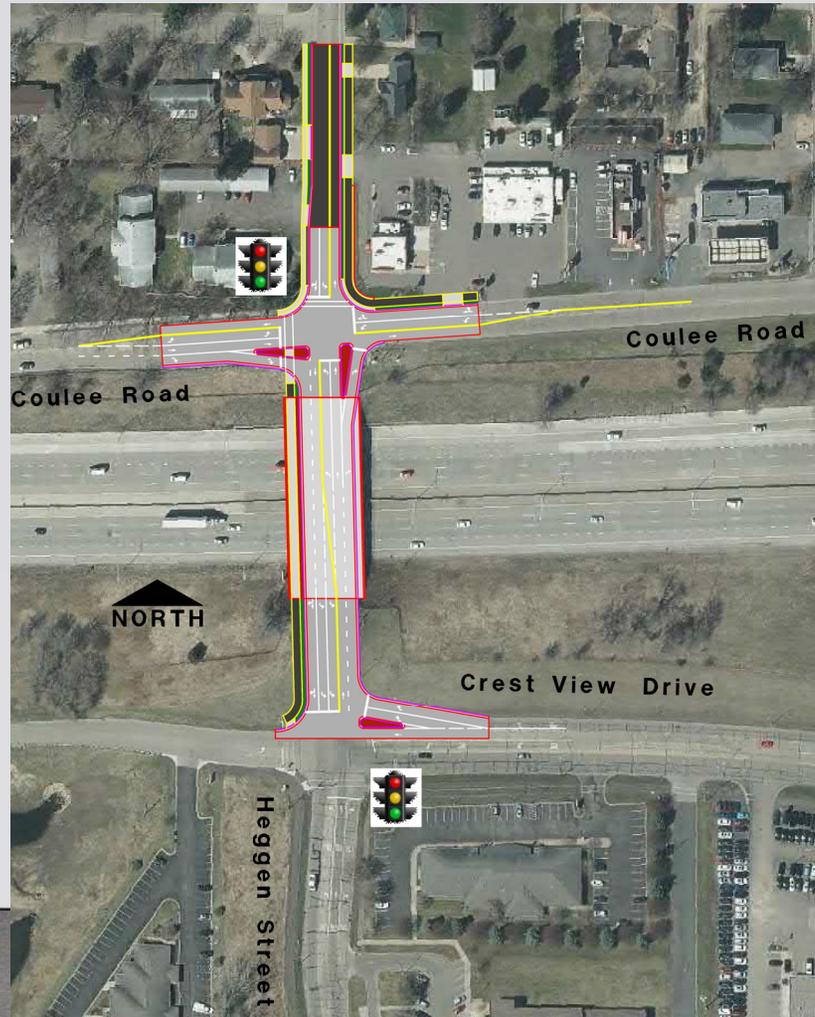
## 2) Roundabouts



## 3) New Bridge to West



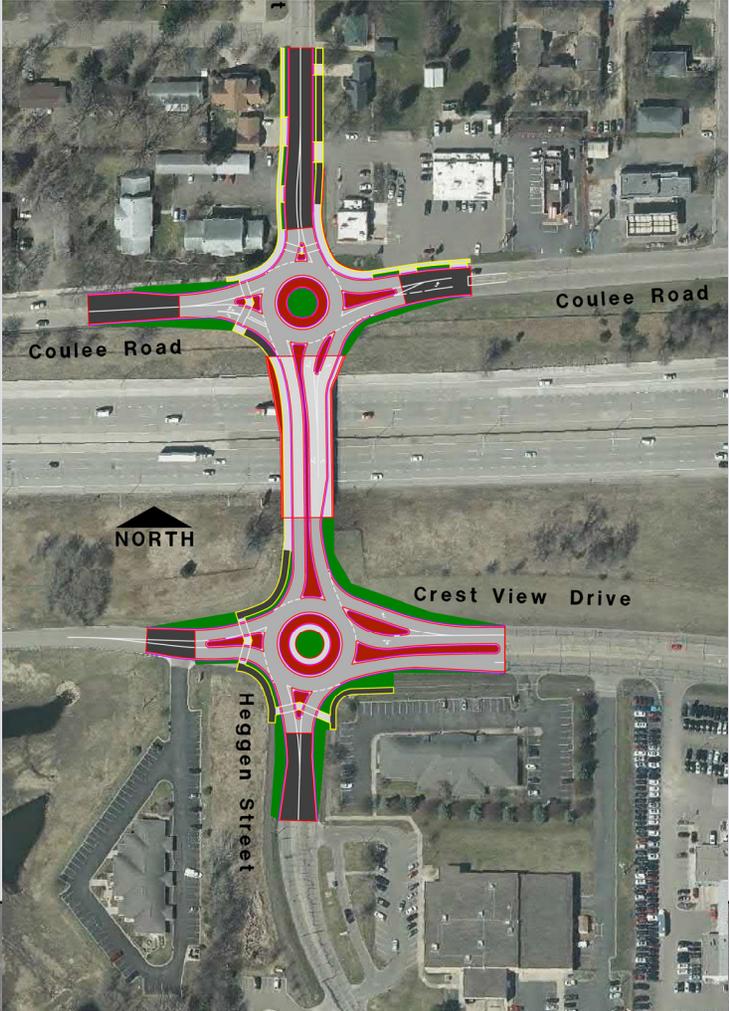
# Alternative 1: Expanded Signal



## Alternative 1: Expanded Signal

- 2043 Traffic Operations
  - Addresses needs of intersections (LOS B/C overall)
  - Coulee Rd NB right-turn = LOS B, Crest View WB right-turn = LOS C
  - Sensitivity: Accommodates 70% more traffic than existing (2021) or 40% beyond 2043 before failing
  
- Bike/Ped accommodations = provided on west side
  
- Constructability = able to keep two lanes open
  
- Estimated area of bridge reconstruction = 21,000 SF
  
- **Opinion of Probable Construction cost = ~\$7.3M**

# Alternative 2: Roundabouts



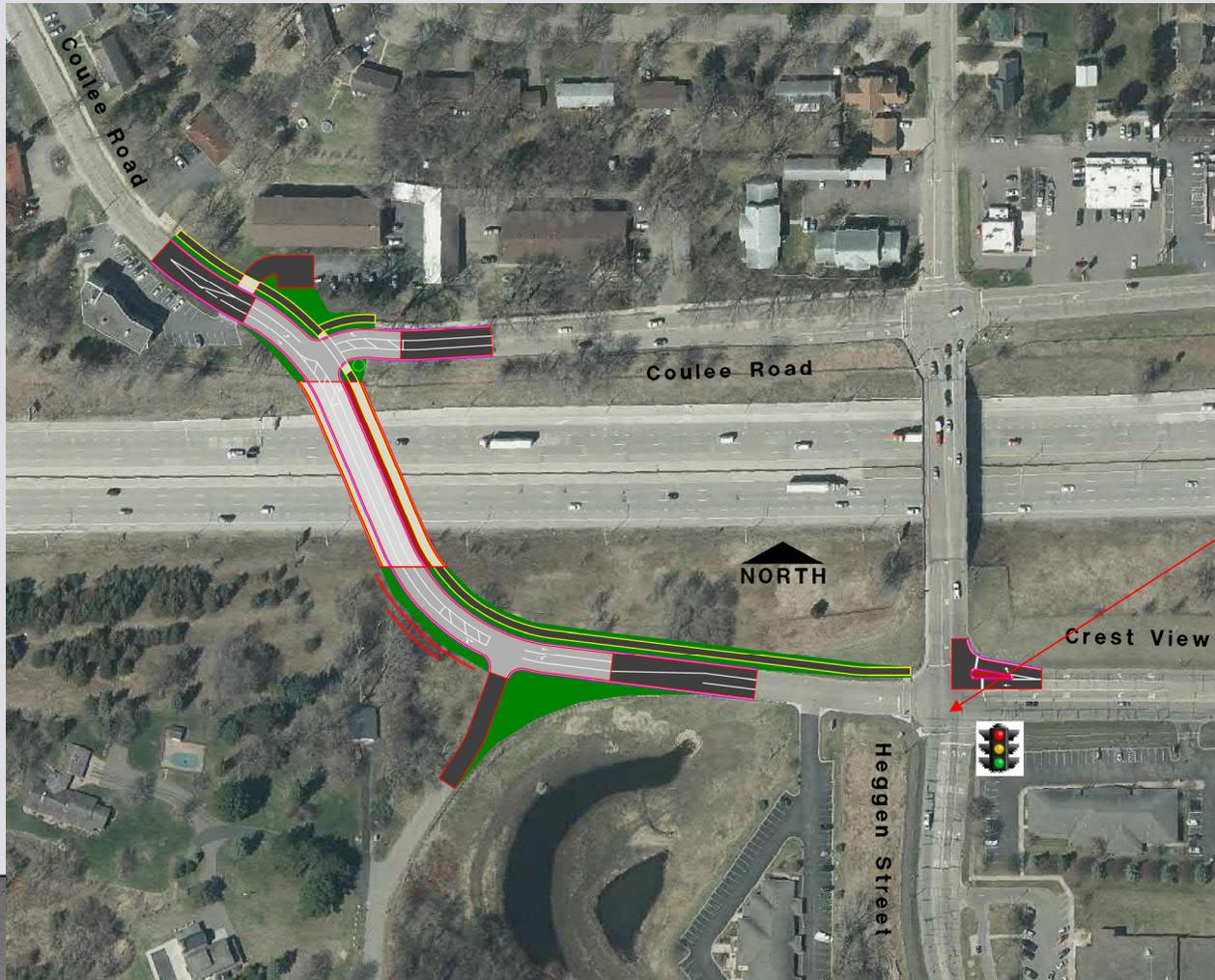
## Alternative 2: Roundabouts



- Operates acceptably in 2043 design year
  - LOS A overall
  - All movements LOS B or better)
  - Sensitivity: Accommodates 70% more traffic than existing (2021) or 40% beyond 2043 before failing
- Similar structure size compared to expanded signal (~20,500 SF bridge)
- Provides multimodal accommodations
- Constructability / Staging challenges
- Right of way impacts are anticipated

**Opinion of Probable Construction cost = ~\$7.5M**

## Alternative 3: New Bridge to West



## Alternative 3: New Bridge to West



- Operates acceptably in 2043 design year
  - Signals = LOS C overall, New Ints = LOS A/B
  - Coulee Rd NB right-turn = LOS B, Crest View WB right-turn = LOS C
  - Sensitivity: Accommodates 50% more traffic than existing (2021) or 25% beyond 2043 before failing
- Similar structure size compared to expanded signal (~18,000 SF bridge)
- Constructability / Staging
- Excess capacity beyond design year
- Right of way / environmental impacts are anticipated

**Opinion of Probable Construction cost = ~\$6M for stoplight, ~\$7M for roundabout at Crest View/Heggen**

## Comparison of Alternatives

Evaluation Factor*	Expanded Signal	Single-Lane Roundabouts	New Bridge to West
Design Year Traffic	Acceptable	Best	Acceptable
Capacity Beyond 2043 Design Year	Most Capacity (+70%)	Most Capacity (+70%)	Decent Capacity (+50%, ability to add capacity)
Bike/Ped Access & Bike/Ped Plan	Provided on west side of reconstructed bridge	Provided on west side of reconstructed bridge	Provided along new bridge
Constructability	Somewhat Challenging	Most Challenging	Least Challenging
Duration of Construction	Moderate	Moderate	Least
Safety	Improves certain crash types, but crashes mostly as today	Low speeds = less severe crashes	Introduces more conflict points, but may lessen existing crash rates
Real Estate Impacts	Minimal	Moderate	Moderate
Environmental Impacts	Minimal	Minimal	Potential
Construction Cost	~\$7.3 M	~\$7.5 M	~\$6.0-7.0 M

## Other Alternatives Considered



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- Clearance problems to Interstate 94
- Raising Coulee Road would cause major impacts to nearby businesses
- Impacts to 14<sup>th</sup> Street onramp

## Other Alternatives Considered

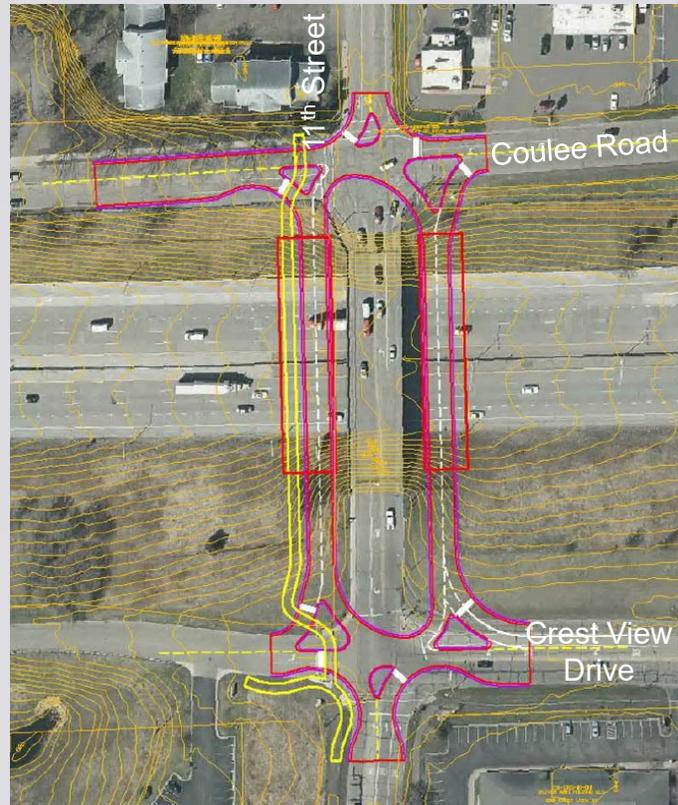


## Other Alternatives Considered



- Clearance problems to Interstate 94
- Bridge would have to go over both Coulee Road and Crest View Drive
- Right of Way/Property acquisition
- Would create circuitous traffic patterns – that most people wouldn't end up finding helpful

## Other Alternatives Considered



## Other Alternatives Considered

- No direct connection for Coulee Road eastbound without circulating entire “oval”
- Signals would be needed at each end
- Confusing layout



What are the steps moving forward?

# Where are we at with the conversation?



We are here!

**February 9<sup>th</sup>**

Public Informational Meeting

**February 21<sup>st</sup>**

Alternatives presented to City Council; decision on which option to proceed with made

**March-May 2022**

Consultant to do preliminary design

**May-June 2022**

City to apply for federal infrastructure funding

**Summer 2022**

Public Informational Meetings regarding design details

**Fall-Winter 2022**

Consultant to finish design

**Fall 2023 or later**

Begin construction



## What do we want from you right now?

- Any questions regarding the big picture of the proposed project
- Let us know if we are missing anything that you experience with this area on a regular basis
- Are there any alternatives we haven't considered that you think we should?



Any Questions???

Ask them now!

Thanks for coming!