

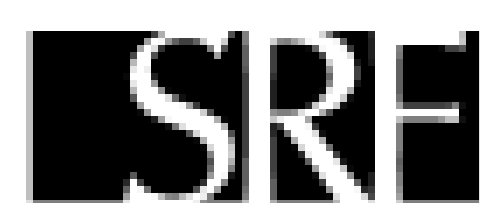
WELCOME

MARSHALL AREA

HWY 23

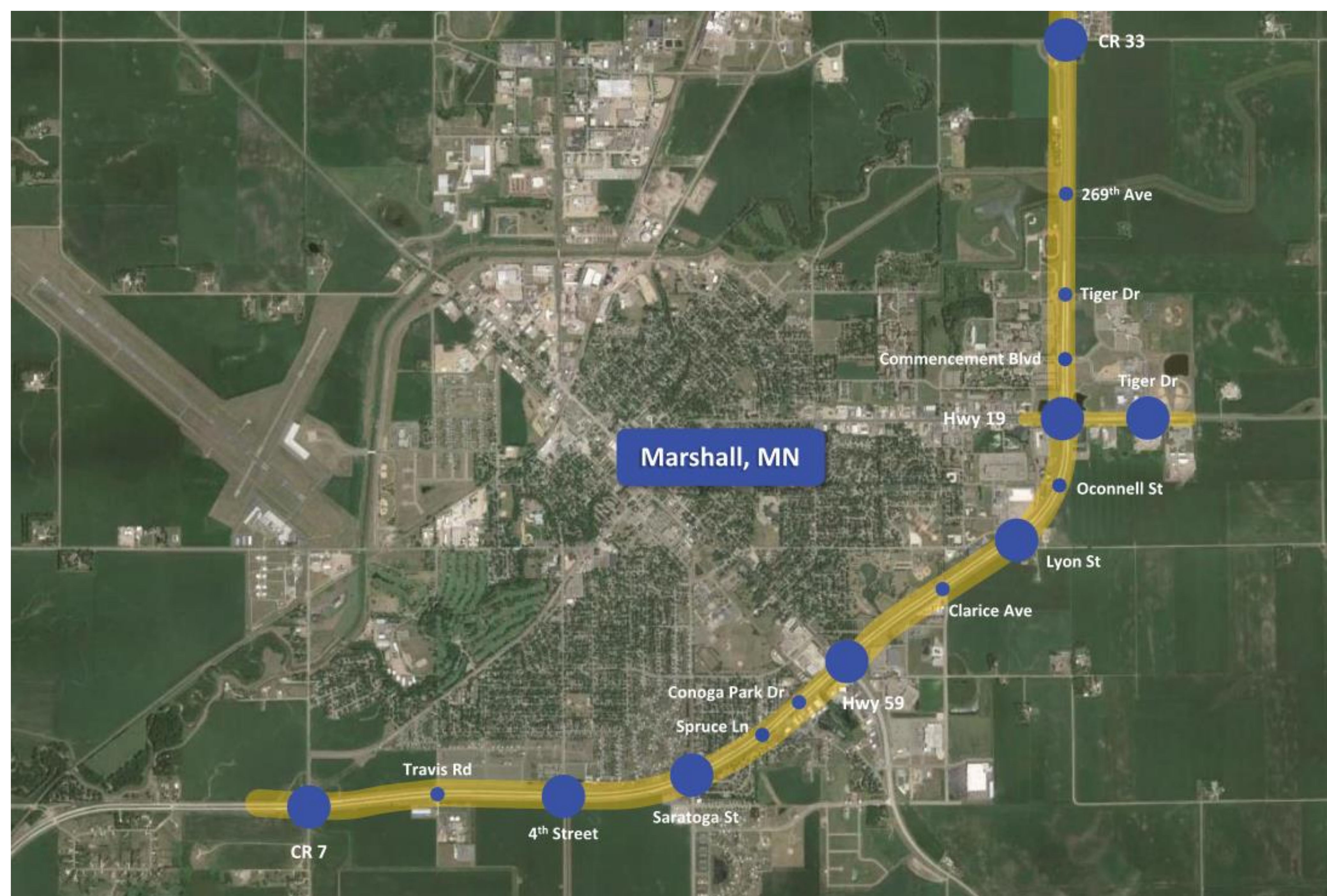
SAFETY ASSESSMENT

Public Open House, June 21, 2016



TONIGHT'S AGENDA

- ✓ Assessment overview and timeline update.
- ✓ Review setting speed limits & reducing speeds.
- ✓ Discuss **preferred safety strategies**.
- ✓ Discuss next steps.
- ✓ Obtain feedback.

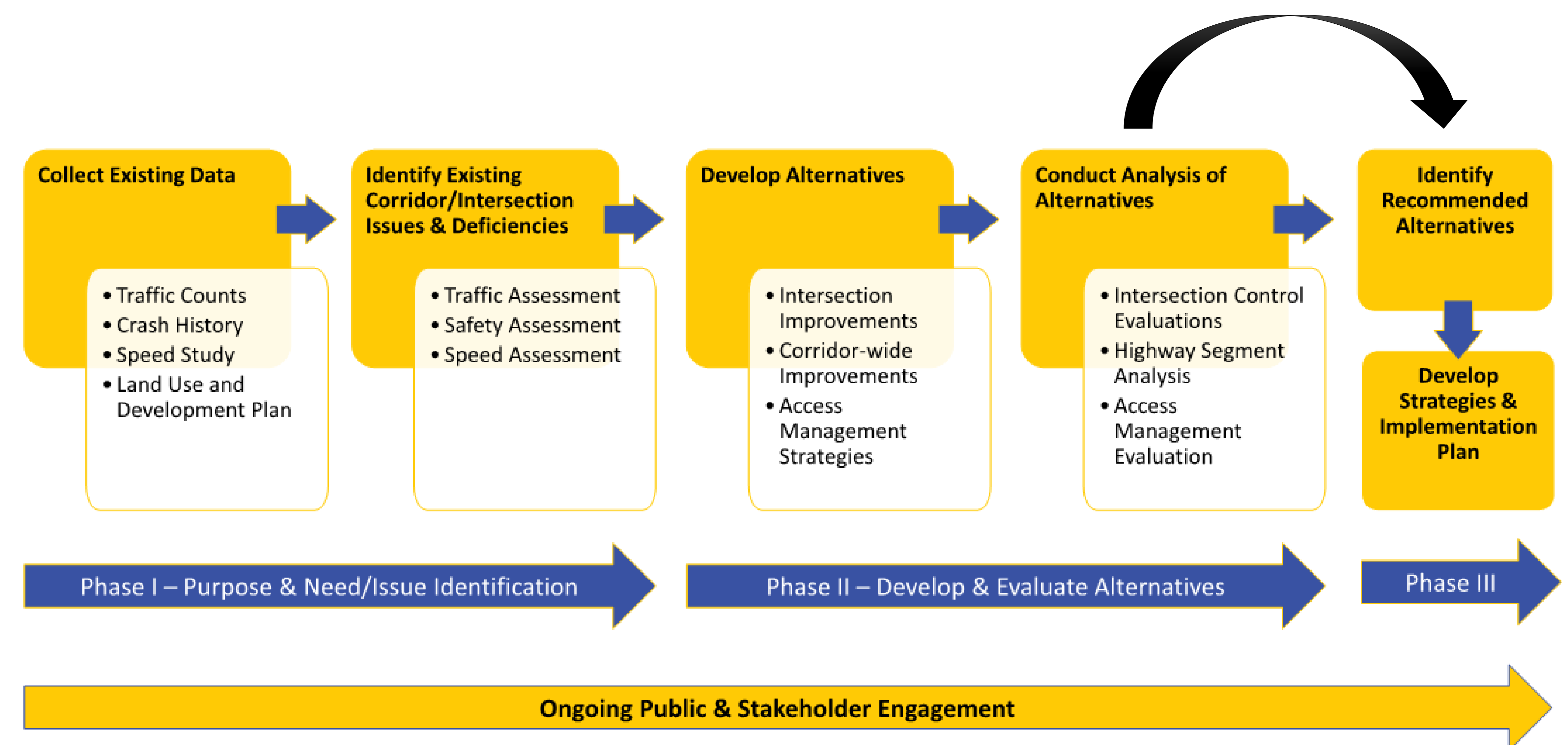


Mission Statement:

Develop a common vision and guidance for managing the Highway 23 corridor now and into the future.

UPDATE ON ASSESSMENT PROCESS

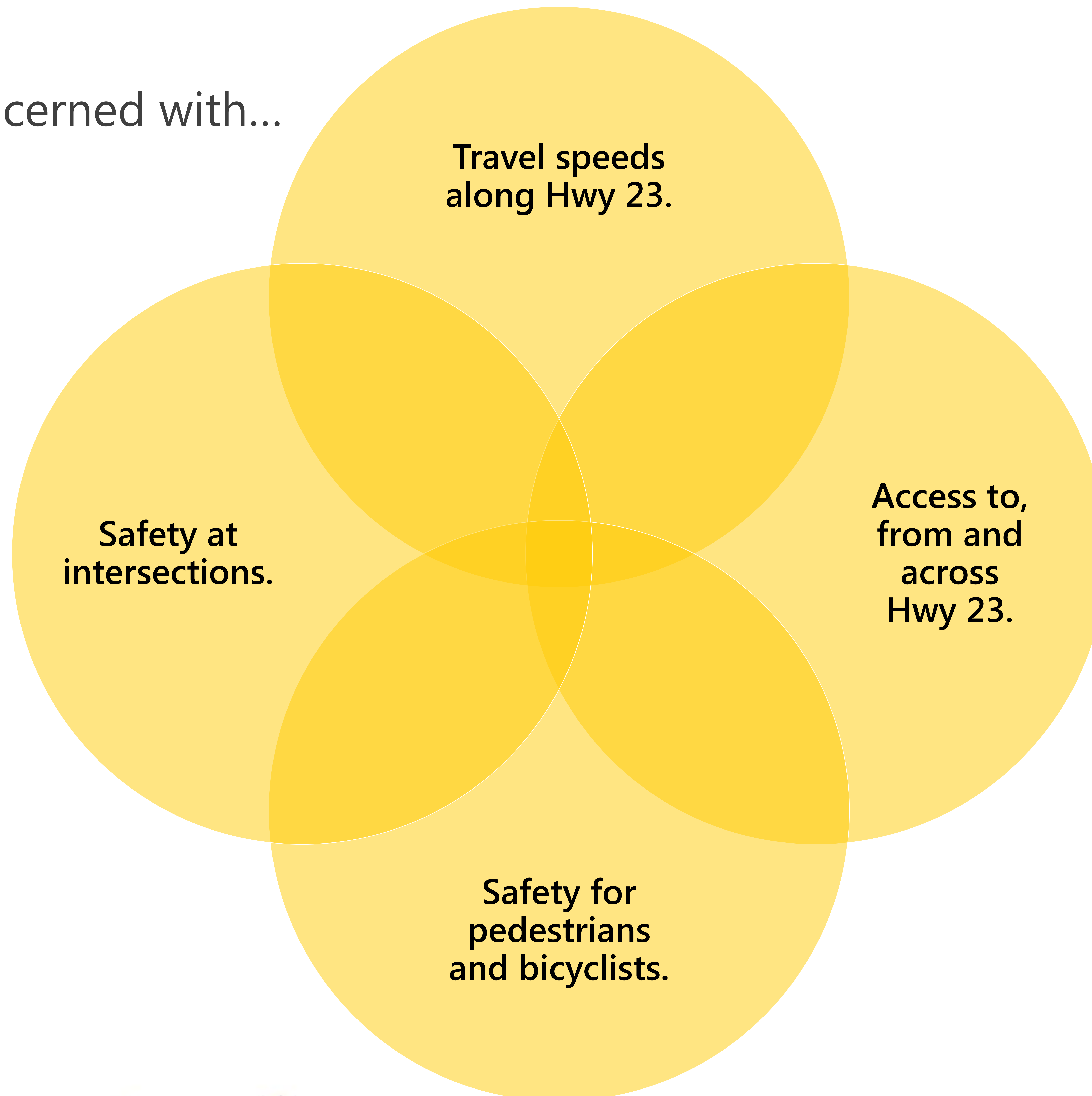
- ✓ Data collection is complete.
- ✓ Preliminary traffic, safety and speed assessment are complete.
- ✓ Developed and evaluated potential safety improvement alternatives.
- ✓ Identified **preliminary alternatives** and **preferred strategies**.
- ✓ Community engagement is ongoing.



We are here!

COMMUNITY INVOLVEMENT FEEDBACK

We are concerned with...



SETTING SPEED LIMITS & REDUCING SPEEDS




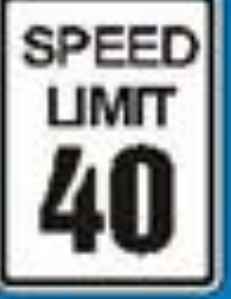



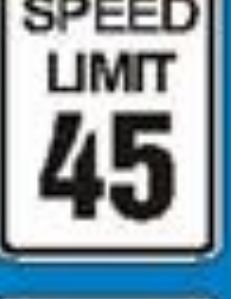










Will lowering the speed limit reduce speeds?

No. Studies show there is little change in the speed pattern after the posting of a speed limit. The driver is much more influenced by the roadway conditions.

What are the effects of the posted speed limit?

- ✓ Compliance exists only when expectation is met.
- ✓ Lower posted speed limits do not reduce speeds.
- ✓ Higher posted speed limits do not increase speeds.
- ✓ Read the road, not the sign.

Speed Zoning Studies

Study Location	Before	After	Sign Change +/- mph	85% Before After	Change mph
T.H.65			-10	34 34	0
T.H.65			-10	44 45	+1
Anoka CSAH 1			-5	48 50	+2
Anoka CSAH 24			+15	49 50	+1
Anoka CR 51			+5	45 46	+1
Henn CSAH 4			-10	52 51	-1
Nobles Ave			+5	37 40	+3
62nd Ave N			-5	37 37	0
Miss. St			+5	39 40	+1

Miss. St			+2	40 38	+1
Ave N			-2	37 37	0
Ave Nobles			+2	40 38	+3

SETTING SPEED LIMITS & REDUCING SPEEDS



Hwy 169 – St. Peter
Posted Speed = 30 mph



Hwy 23 – Spicer
Posted Speed = 40 mph



Hwy 371 – Baxter
Posted Speed = 50 mph



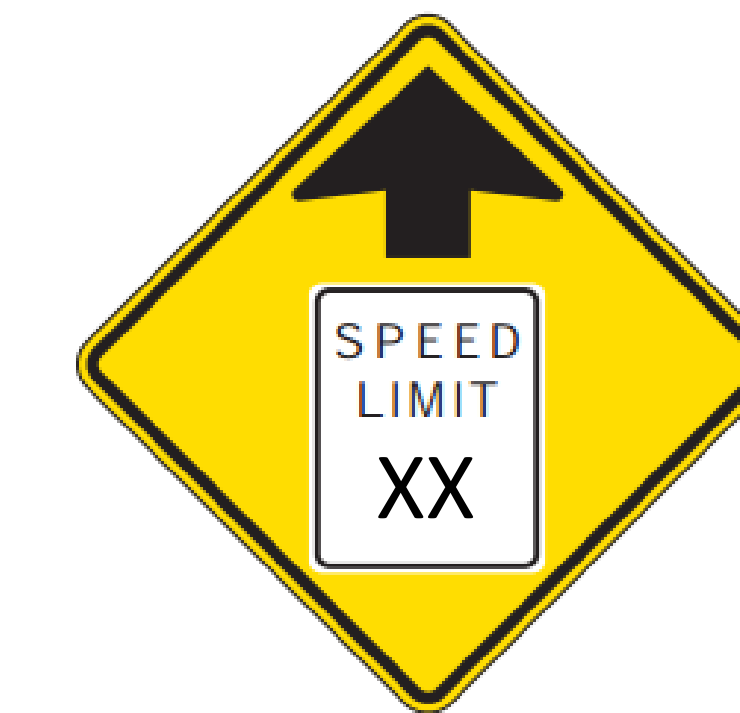
Hwy 23 – Marshall
Posted Speed = 55 mph

HWY 23 STRATEGIES THROUGH MARSHALL

ENGINEERING:

- (ES) Install advanced signing for reduced speed ahead
- (SC) Install trees and landscaping along Hwy 23 to serve as speed calming measures
- (SC) Strategically locate driver feedback signs to assist with speed calming
- (SC) Review posted speed limit in conjunction with highway characteristic changes

Speed Calming = SC
Enhanced Signing = ES



Advanced
Signing



Driver
Feedback Signs

ENFORCEMENT:

- Work with law enforcement to enhance enforcement of posted speed limit



Enforcement
Campaign

EDUCATION:

- Conduct education campaign regarding speeding and distracted driving



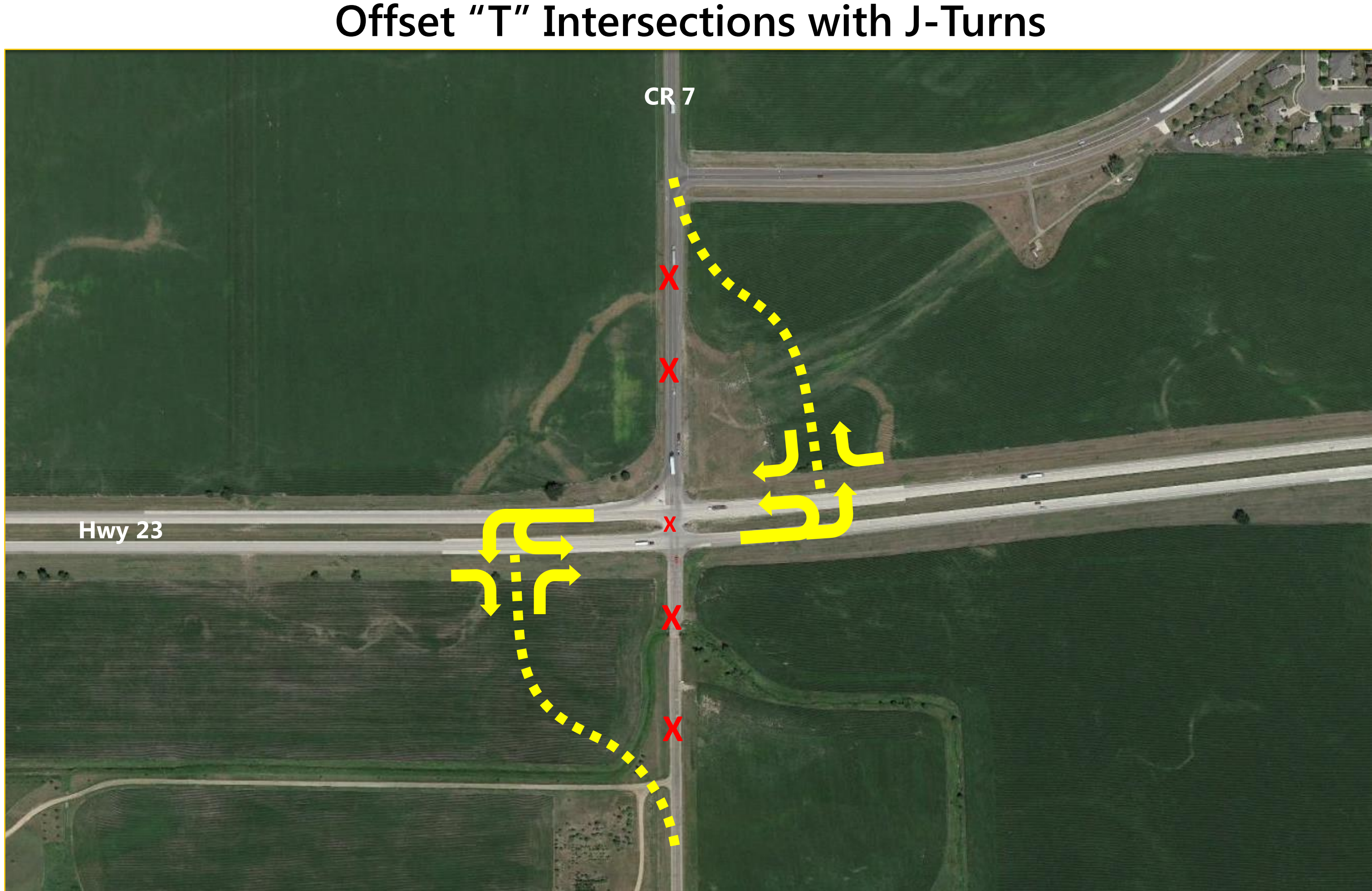
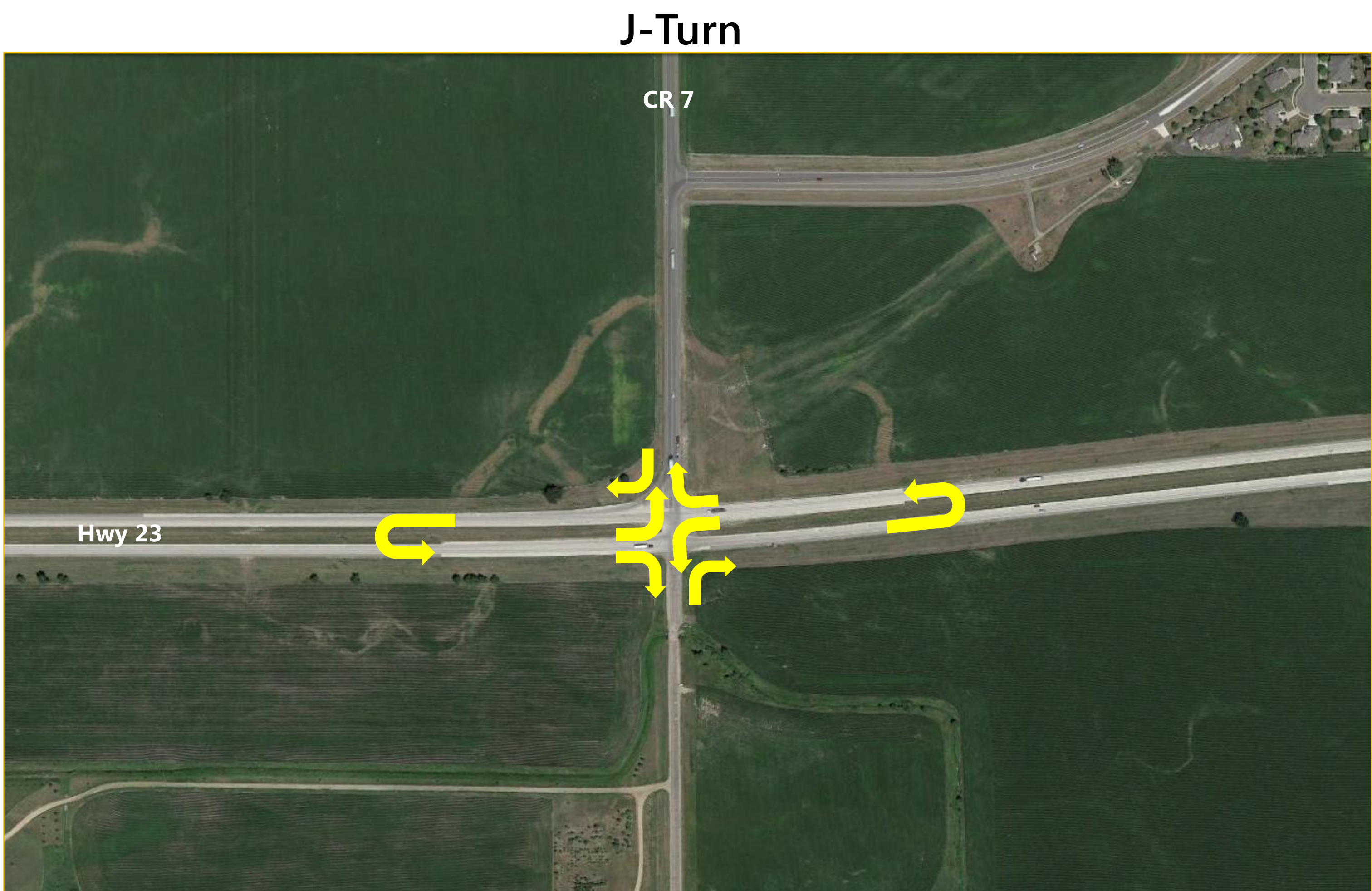
Education
Campaign

EVALUATION:

- Evaluate changes in travel speeds following any improvements
- Evaluate for local frontage/backage road connections with future development
- Evaluate potential removal of advanced warning flashers at traffic signals

CR 7 / HWY 23 STRATEGIES

Preferred Strategies	Reduces travel speeds along Hwy 23?	Improves safety at intersections?	Improve safety of access to, from and across Hwy 23?	Improves safety for pedestrians and bicyclists?	Potential Reduction in Total Crashes	Cost Comparison
J-Turn		✓	✓		++	\$\$
Offset "T" Intersections with J-Turns		✓	✓		++	\$\$\$



Legend
 Potential Reduction in Total Crashes:
 + = Good
 ++ = Better
 +++ = Best
 Cost Comparison:
 \$ = Under \$500,000
 \$\$ = \$500,000-\$900,000
 \$\$\$ = \$900,000-\$1.3M
 \$\$\$\$ = \$1.3M-\$5M
 \$\$\$\$\$ = Over \$5M

Other Strategies Considered:

Roundabout	✓	✓	✓	✓	++	\$\$\$
Widen Hwy 23 Median		✓	✓		++	\$\$\$\$
Overpass		✓	✓	✓	+++	\$\$\$\$\$

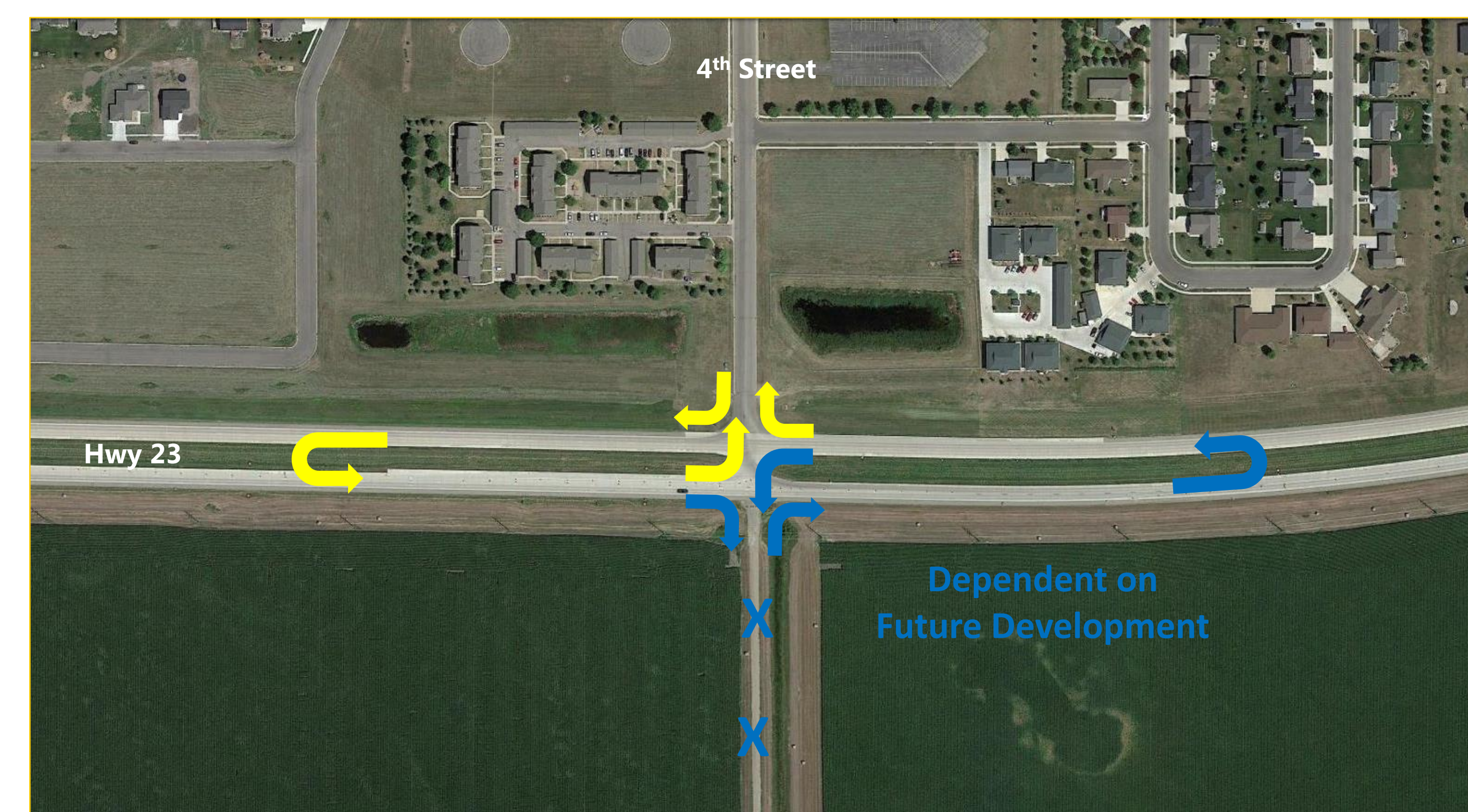
4TH STREET / HWY 23 STRATEGIES

Preferred Strategies	Reduces travel speeds along Hwy 23?	Improves safety at intersections?	Improve safety of access to, from and across Hwy 23?	Improves safety for pedestrians and bicyclists?	Potential Reduction in Total Crashes	Cost Comparison
Close South Leg		✓			+	\$
J-Turn		✓	✓		++	\$\$
Roundabout	✓	✓	✓	✓	++	\$\$\$

Close South Leg



J-Turn



Legend

Potential Reduction in Total Crashes:

- + = Good
- ++ = Better
- +++ = Best

Cost Comparison:

- \$ = Under \$500,000
- \$\$ = \$500,000-\$900,000
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- \$\$\$\$ = \$1.3M-\$5M
- \$\$\$\$\$ = Over \$5M

Roundabout



CLARICE AVE / LYON ST / HWY 23 STRATEGIES

Preferred Strategies	Reduces travel speeds along Hwy 23?	Improves safety at intersections?	Improve safety of access to, from and across Hwy 23?	Improves safety for pedestrians and bicyclists?	Potential Reduction in Total Crashes	Cost Comparison
<u>Lyon St</u> - J-Turn (with no left-turn conflict at Clarice Ave)		✓	✓		++	\$\$
<u>Lyon St</u> - Roundabout (with no left-turn conflict at Clarice Ave)	✓	✓	✓	✓	++	\$\$\$
<u>Lyon St/Clarice Ave</u> - J-Turn (combined with frontage roads)		✓	✓		++	\$\$\$
<u>Lyon St/Clarice Ave</u> - Roundabout (combined with frontage roads)	✓	✓	✓	✓	++	\$\$\$\$

J-Turn at Lyon St



Roundabout at Lyon St



J-Turn at Lyon St/Clarice Ave



Roundabout at Lyon St/Clarice Ave



Legend

Potential Reduction in Total Crashes:

- + = Good
- ++ = Better
- +++ = Best

Cost Comparison:

- \$ = Under \$500,000
- \$\$ = \$500,000-\$900,000
- \$\$\$ = \$900,000-\$1.3M
- \$\$\$\$ = \$1.3M-\$5M
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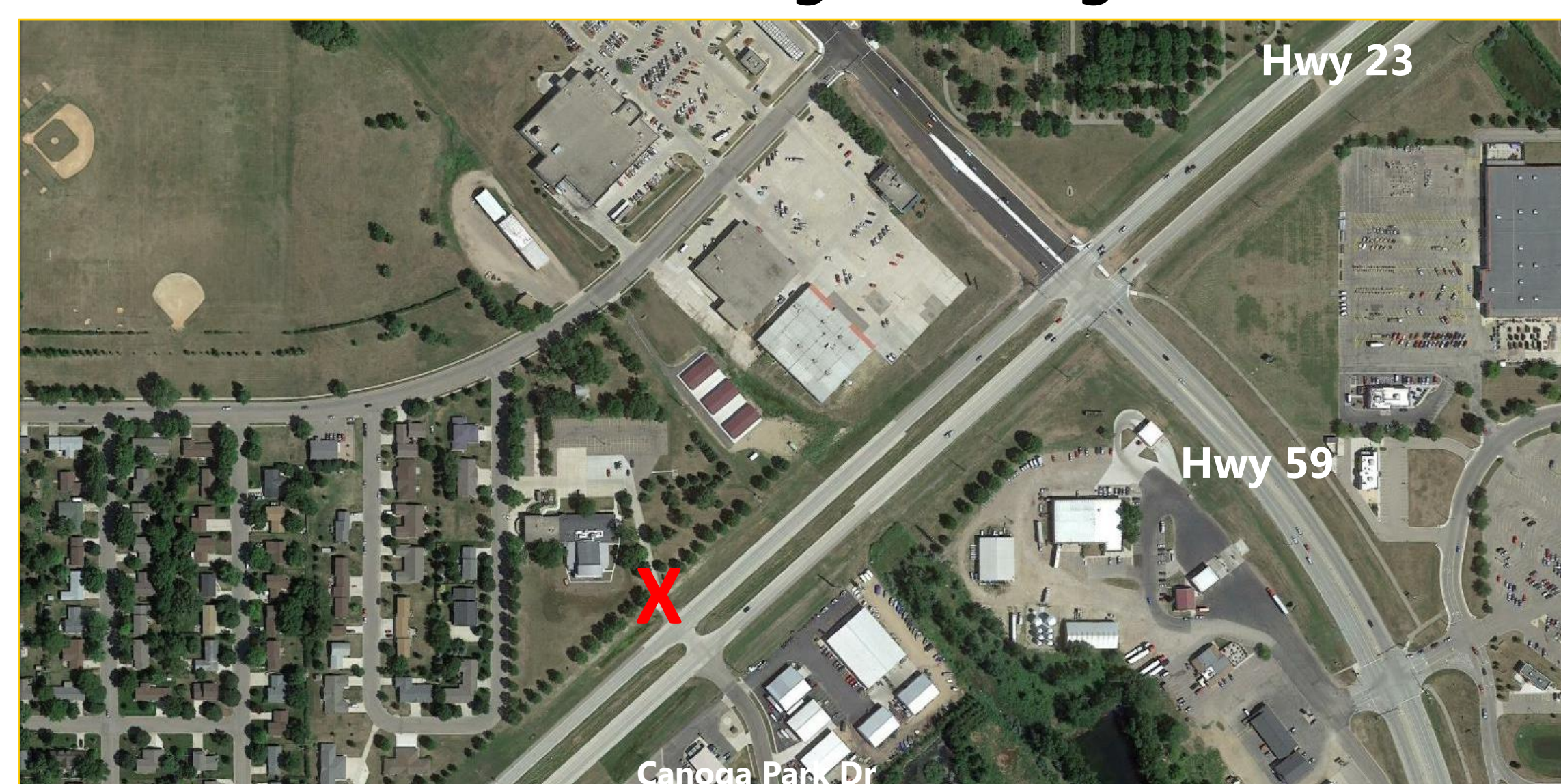
Other Strategies Considered:

<u>Lyon St/Clarice Ave</u> - Traffic Signal (combined with frontage roads)	✓		✓	✓	+	\$\$\$
<u>Lyon St</u> - Traffic Signal (with no left-turn conflict at Clarice Ave)	✓		✓	✓	+	\$

CANOGA PARK DR / HWY 59 / HWY 23 STRATEGIES

Preferred Strategies	Reduces travel speeds along Hwy 23?	Improves safety at intersections?	Improve safety of access to, from and across Hwy 23?	Improves safety for pedestrians and bicyclists?	Potential Reduction in Total Crashes	Cost Comparison
<u>Canoga Park Dr</u> - Close Northwest Leg		✓			+	\$
<u>Canoga Park Dr</u> - Remove Left-Turn Conflict		✓	✓		++	\$
<u>Hwy 59</u> - Raised Median with Landscaping	✓	✓		✓	+	\$
<u>Hwy 59</u> - Analyze Signal Timing and/or Phasing (including leading pedestrian interval)		✓	✓	✓	+	\$

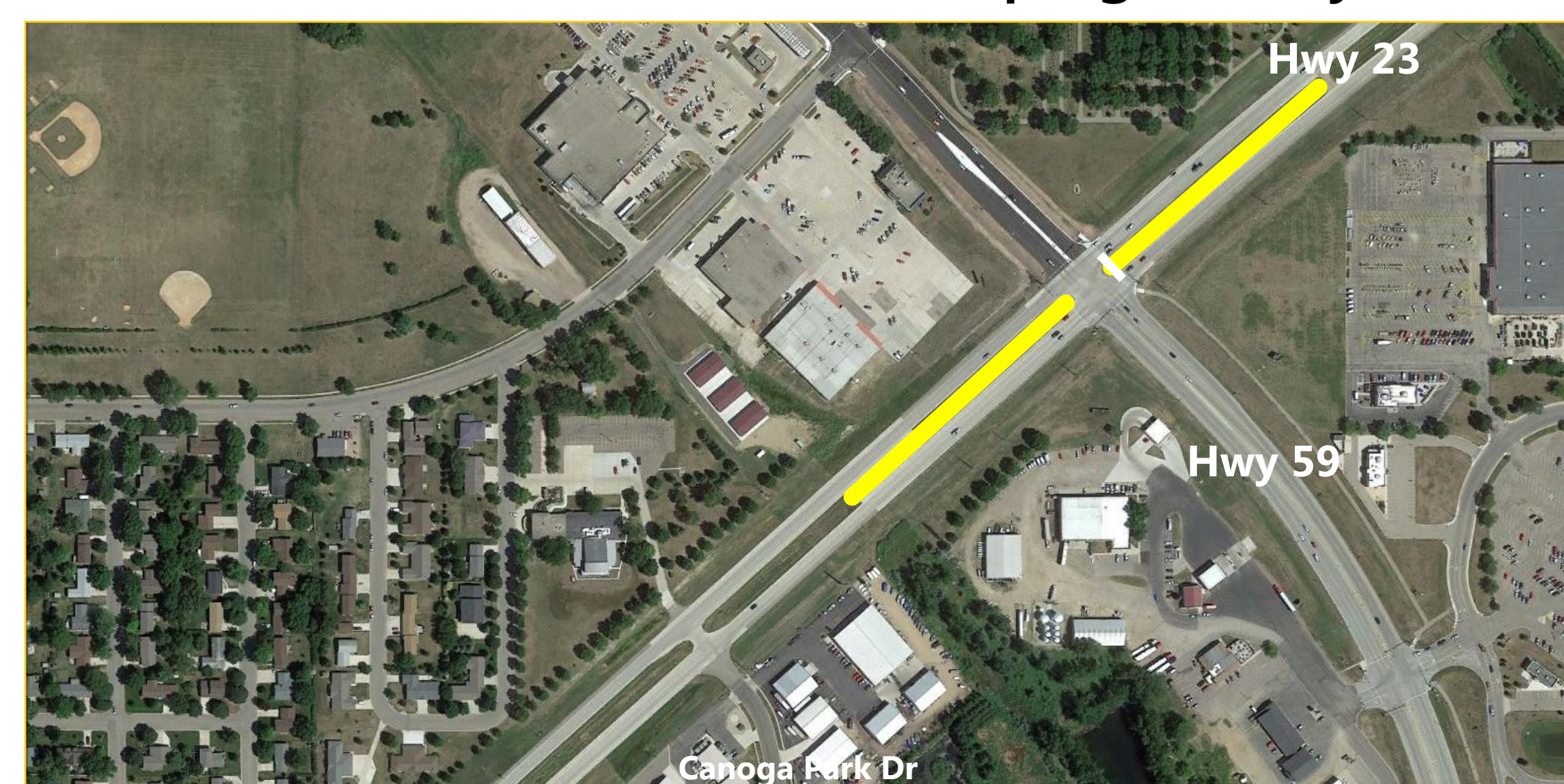
Close Northwest Leg at Canoga Park Dr



Remove Left-turn Conflict at Canoga Park Dr



Raised Median with Landscaping at Hwy 59



Legend

Potential Reduction in Total Crashes:

- + = Good
- ++ = Better
- +++ = Best

Cost Comparison:

- \$ = Under \$500,000
- \$ = \$500,000-\$900,000
- \$ = \$900,000-\$1.3M
- \$ = \$1.3M-\$5M
- \$ = Over \$5M

Other Strategies Considered:

<u>Hwy 59</u> - Roundabout	✓	✓	✓	✓	++	\$\$\$\$
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HWY 19 / HWY 23 STRATEGIES

Preferred Strategies	Reduces travel speeds along Hwy 23?	Improves safety at intersections?	Improve safety of access to, from and across Hwy 23?	Improves safety for pedestrians and bicyclists?	Potential Reduction in Total Crashes	Cost Comparison
Raised Median with Landscaping	✓	✓		✓	+	\$
Analyze Signal Timing and/or Phasing (including leading pedestrian interval)		✓	✓	✓	+	\$

Raised Median with Landscaping



Legend

Potential Reduction in Total Crashes:

- + = Good
- ++ = Better
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Cost Comparison:

- \$ = Under \$500,000
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- \$ = \$900,000-\$1.3M
- \$ = \$1.3M-\$5M
- \$ = Over \$5M

Other Strategies Considered:

Lengthen Acceleration Lanes		✓	✓		+	\$
Remove Right-turn Channelization		✓	✓	✓	+	\$
Roundabout	✓	✓	✓	✓	++	\$\$\$

COMMENCEMENT BLVD / TIGER DR / HWY 23 STRATEGIES

Preferred Strategies	Reduces travel speeds along Hwy 23?	Improves safety at intersections?	Improve safety of access to, from and across Hwy 23?	Improves safety for pedestrians and bicyclists?	Potential Reduction in Total Crashes	Cost Comparison
<u>Tiger Dr</u> - Roundabout	✓	✓	✓	✓	++	\$\$\$
<u>Tiger Dr</u> - J-Turn		✓	✓		++	\$\$

Roundabout at Tiger Dr



J-Turn at Tiger Dr



Legend

Potential Reduction in Total Crashes:

- + = Good
- ++ = Better
- +++ = Best

Cost Comparison:

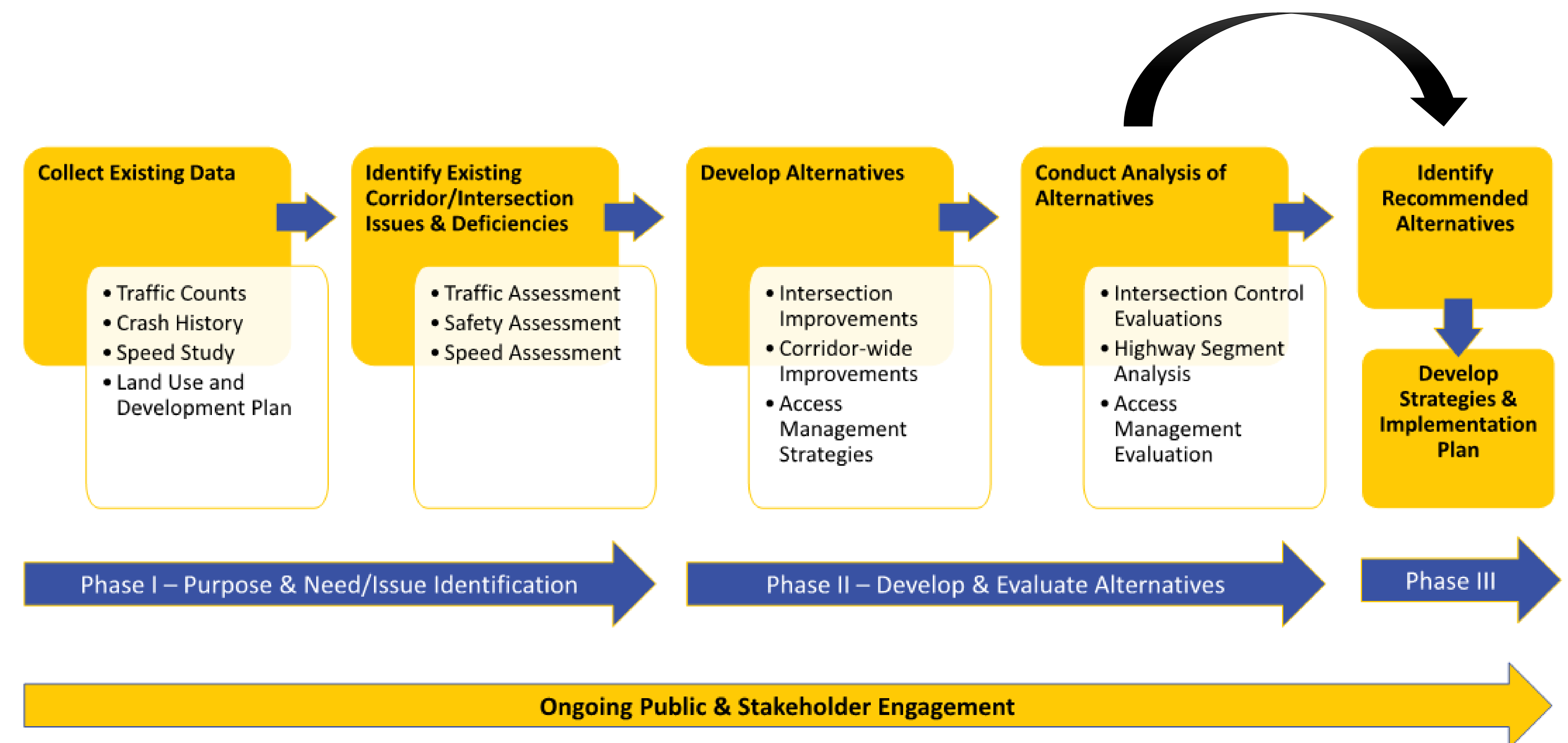
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- \$\$\$\$ = \$1.3M-\$5M
- \$\$\$\$\$ = Over \$5M

Other Strategies Considered:

Offset "T" Intersections		✓	✓		+	\$\$
<u>Tiger Dr</u> - Traffic Signal	✓		✓	✓	+	\$

NEXT STEPS

- ✓ Prioritization of intersections and concerns by public.
- ✓ Develop long-term strategies for corridor.
- ✓ Develop implementation plan for improvements.
- ✓ Document assessment methodology, assumptions, key findings and recommendations.
- ✓ Present report to public in Summer/Fall 2016.



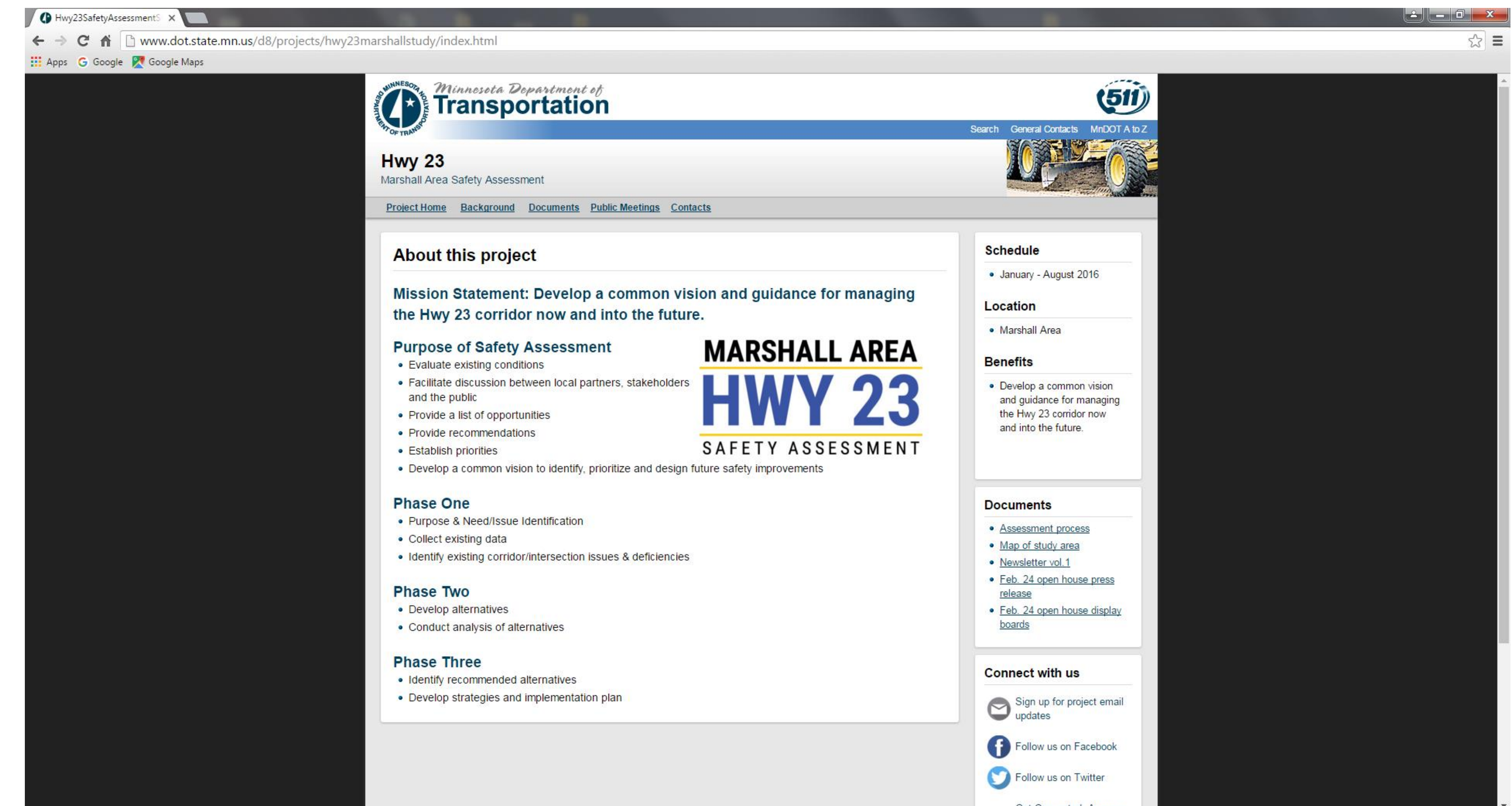
We are here!

WE WANT TO HEAR FROM YOU!

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Assessment website:

<http://www.dot.state.mn.us/d8/projects/hwy23marshallstudy/index.html>