



WITH
YOU
TODAY



Nate Hardisty
Civil Engineer
Shive-Hattery

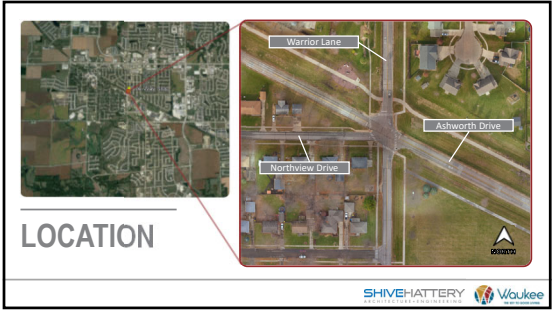


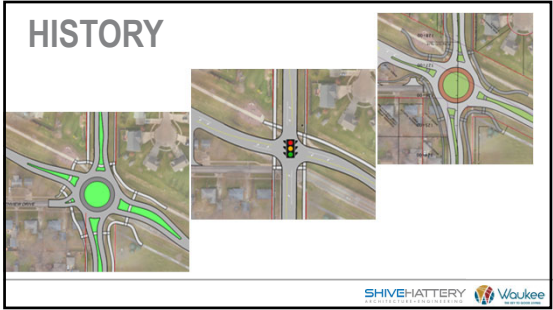
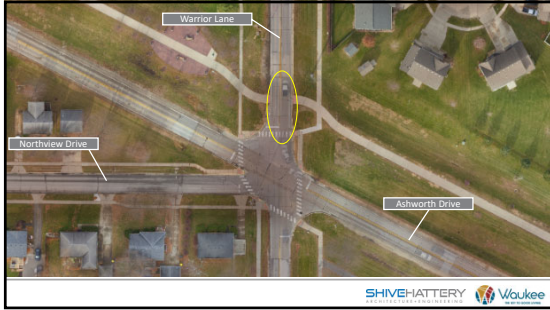


Rudy Koester
Public Works Director
City of Waukee











PEAK SCHOOL HOUR TRAFFIC



School Dismissal

- Long Backups at Five-Way
- Blocked Access to Middle School
- Unsafe Passing Near Middle School

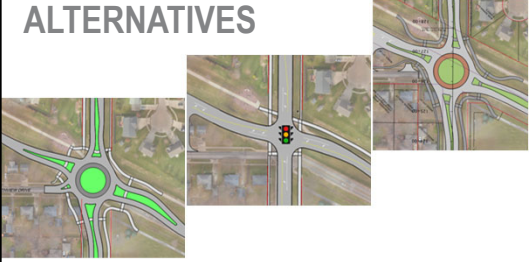
PEAK HOUR TRAFFIC



Traffic Study Completed

- Existing Conditions
- Future Traffic Projections
- Safety Issues + Mitigation
- Five-Way Intersection Alternatives

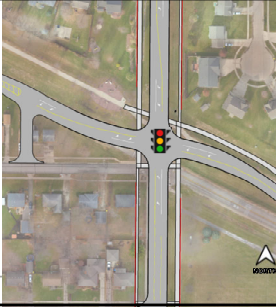
ALTERNATIVES



SHIVEHATTERY

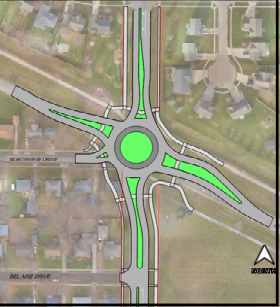
Waukegan

TRAFFIC SIGNAL



- Improves traffic flow
 - slightly worse than a roundabout
- Through traffic does not slow down
- Pedestrians cross multiple lanes of traffic at a time
 - Crossing guards can be utilized
- Northview Drive leg of intersection separated from five-way
 - Reduces neighborhood cut-through traffic
- Risk of high-speed right-angle crashes
- No Traffic Safety or ICAAP funding

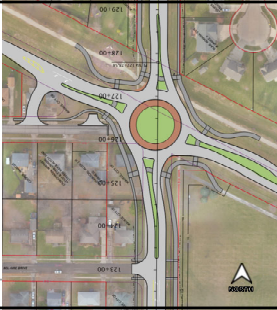
FIVE-LEG ROUNDABOUT



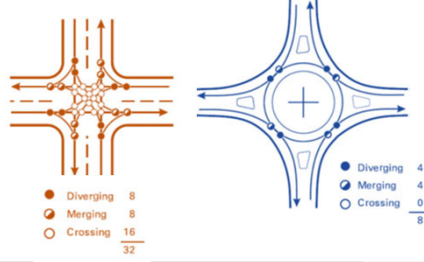
- Improves traffic flow
- Better traffic flow = less impatient drivers at crosswalks
- Pedestrians cross one lane of traffic at a time
 - crossing guards can still be utilized
 - More total crosswalks than four-leg option
- Cut-through traffic not discouraged from Northview Drive
- More confusing for drivers than four-leg roundabout

FOUR-LEG ROUNDABOUT

- Improves traffic flow
 - slightly better than a traffic signal
 - 80% reduction in on the worst leg of the intersection
- Better traffic flow = less impatient drivers at crosswalks
- All vehicles slow to enter
- Pedestrian cross one lane of traffic at a time
 - Crossing guards can still be utilized
- Northview Drive leg of intersection separated from five-way
 - Reduces neighborhood cut through traffic
- Safest intersection choice
 - outside funding secured - \$1.7 Million



VEHICULAR CONFLICT POINTS



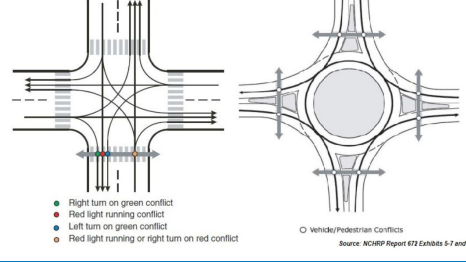
Diverging	8
Merging	8
Crossing	16
	<hr/> 32

Diverging	4
Merging	4
Crossing	0
	<hr/> 8

SHIVEHATTERY

Waukeg

PEDESTRIAN CONFLICT POINTS



- Right turn on green conflict
- Red light running conflict
- Left turn on green conflict
- Red light running or right turn on red conflict

○ Vehicle/Pedestrian Conflicts

Source: NCARP Report 672 Exhibits 5-7 and 8-4

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ROUNDABOUT SAFETY

- 39 percent reduction in crashes
- 76% reduction in serious injury crashes
- 90% reduction in fatalities


NCCHRP Report 372: Roundabouts in the United States. National Cooperative Highway Research Program, TRB, NAS, Washington, D.C., 2007.

Safety Effect of Roundabout Conversions in the United States: Empirical Bayes Observational Before-After Study." Transportation Research Record 1751, Transportation Research, National Academy of Sciences (NAS), Washington, D.C., 2001.

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FUNDING



COST ≈ \$3.3 M

Outside Funding /contingent on roundabout/

Traffic Safety Improvement Program = \$500,000

Iowa Clean Air Attainment Program = \$1,277,370

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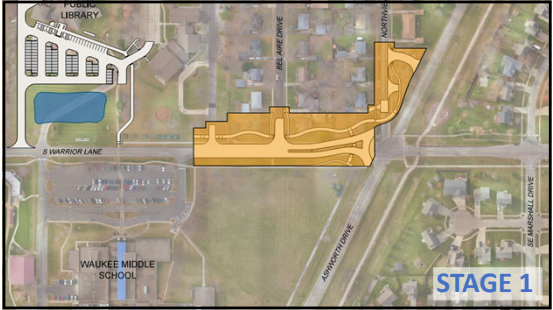
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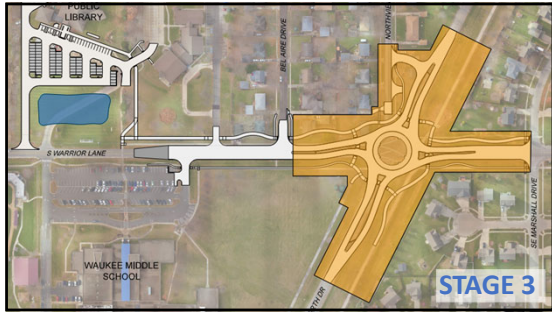
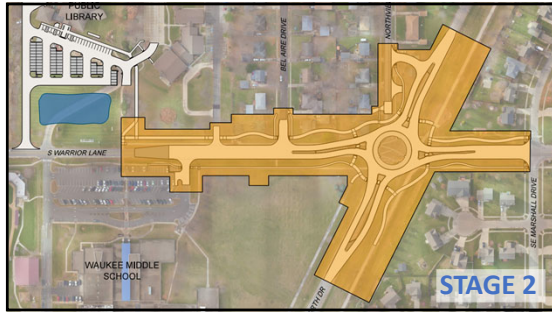


SHIVEHATTERY

Waukegan





























PUBLIC PERCEPTION

... for getting this open in time for school open house night!

Like Reply · 7w

It's a first day of school miracle!!

Like Reply · 7w

Can't wait for the high school to let loose and still be blocked up for 30 mins

Like Reply · 7w

I HATE roundabouts. I drove on this one tonight and it wasn't too bad. Hope there'll be more lighting in the future.

Like Reply · 7w

Unfortunately that Northview is no longer through since it went straight to 6th and Wauke Elementary

Like Reply · 7w

Looks like it's wide enough for bigger trucks to get through! Good job on planning for that!

Like Reply · 7w

TERY

Wauke

PUBLIC PERCEPTION

I hate roundabouts!

Like Reply · 7w

does anyone really know how to use a round about?

Like Reply · 7w

NO

Like Reply · 7w

Hey I'm starting to learn. Sometimes I drive to find them just to go round in circles! Its so much fun.

Like Reply · 7w

waste of tax dollar. A set of lights would have been far more economical, and widen the streets. Project still does not address the issues with traffic with the schools.

Like Reply · 7w

Quite the bumper cars lol

Like Reply · 7w

VEHATTERY

Wauke

PUBLIC PERCEPTION

It is top dog... would be much safer if you could see the traffic from all around the roundabout.

Like Reply · 7w

What are you looking for exactly? You can see the cars on your right and your left when you're entering the roundabout.

Like Reply · 7w

... gives it to traffic entering?

Like Reply · 7w

How does someone entering the roundabout directly across from you impact your actions?

Like Reply · 7w

... when they are going the wrong way, the more time I have to react the better. Especially since it's a single lane. There are people that fly around it, go way too slow or even stop. It is a horrible location to have a roundabout, especially when you can't see the whole thing. A stop light would have fixed the traffic issue at that intersection, been way less expensive & not caused traffic issues further south on Wauke.

Like Reply · 7w

It's pretty damn hard to go the wrong way... Have you not used it? It's literally when you're in the correct direction, it's the perfect place for a roundabout. If you don't know how to use it, or are scared, just say so.

Like Reply · 7w

I have seen someone going wrong way. Pretty scary. Also seen several rear end wrecks. Need to be able to see whole area. I do like the round about though.

Like Reply · 7w

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Like Reply · 7w

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Like Reply · 7w

A stop light is not the answer. The next time you are stopped at a stop light when no one else is around and you need to wait, ask yourself how far down the road you would be if there had been a roundabout at that location. Intersections are more efficient for traffic flow when roundabouts are utilized. Would you rather be forced to stop at a red light when the potential exists there is no one there or would you rather drive through a roundabout without stopping when there's no one there?

Like Reply · 7w

SHIVEHATTERY

Wauke

PUBLIC PERCEPTION

It was intentionally designed that way because you should not be looking across the roundabout therefore you can't. Very smart from a design standpoint!

Like Reply 10

that does make sense. The roundabout that I referenced earlier is roundabout to where you cannot see directly across the roundabout.

Like Reply 6

blocks headlights that are distracting.

Like Reply 6

and makes it impossible to see what may be in the road as you navigate it. Designed for awards, not safety.

Like Reply 6

I live nearby & haven't heard of any major accidents w/ this intersection. Living w/ 1 in IL, made the drives much easier & safer; fewer accidents too.

Like Reply 10

SHIVEHATTERY

Waukeee

PUBLIC PERCEPTION

the round-a-bout that should still be a 5-way stop. But apparently new humans can't grasp the concept of a 5-way.

Like Reply 10

ok thanks

Like Reply 10

August 18

Is the round about by WMS have a crossing guard by chance after school ?

My son, who walked to school every day, said it was pretty easy to cross the street with the roundabout.

Like Reply 4

SHIVEHATTERY

Waukeee

An aerial photograph of a modern roundabout with multiple lanes and landscaped greenery. Overlaid on the bottom left is a semi-transparent blue box with the text "THANK YOU! QUESTIONS?". In the top right corner, there are two logos: "SHIVEHATTERY ARCHITECTURE+ENGINEERING" and "Waukeee THE KEY TO GOOD LIVING".

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