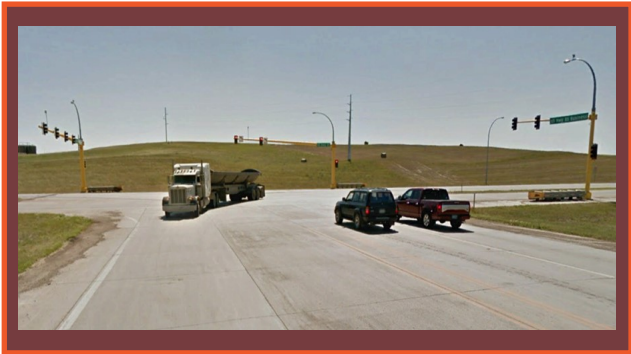


ALTERNATIVES CONSIDERED

Acceleration Lanes

- Will not eliminate crashes or reduce the speed
- Crossing movements are the movement of concern



Traffic Signals

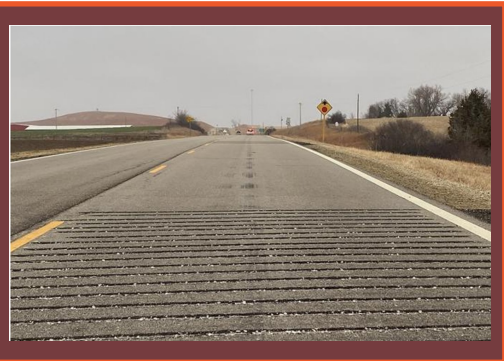
- Does not meet warrants
- Potential to increase rear end crashes
- Signalized intersections are some of the highest crash locations

Public Comment— Add similar to Ruthville Intersection

- Intersection currently has various flashing lights
 - Intersection Warning System – Flashes on US 83 warning of intersection
 - Flashing LED Stop Signs
 - Portable Message sign – states cross traffic does not stop
- Does not eliminate/reduce high-speed right angle crashes

Intersection Rumble Strips

- ND 23 currently has rumble strips
- Do not recommend adding to US 83 as it gives drivers contradictory information as US 83 does not stop



Public Suggestions

- Approaching Deadly Intersection Sign
- Add 4' median between US 83 SB lanes
- Extend Turn Lane
- Flashing Beacon
- Yield Signs on 83
- Speed Bumps
- Additional Signing

US 83 - ND 23 INTERSECTION ALTERNATIVES



Intersection Improvements

- 2000 – Sign revisions
- 2006 – NB & SB left turn lane
- 2009 – Median roadway rumble strips
- 2012 – Offset right turn lane installed with signing improvements
- 2015 – Intersection conflict warning system & illumination lighting
- 2023 – Added additional signage, message boards and modified pavement markings
- 2024 – moved poles to reduce Visual distraction

Fatal Crash History

- 12 Total Fatal crashes – 1999-2024 with the following breakdown:
 - Location: 11 on SB US 83, 1 on NB US 83
 - Lighting: 10 daylight, 2 dark
 - Conditions: 9 with dry, 2 wet, and 1 frosty

NDDOT Intersection Concerns and Goals

- All fatal crashes were the result of ND 23 crossing traffic running the stop sign or failing to yield to US 83 traffic
- Results in a high-speed right-angle crash
- Approximately 80% of eastbound ND 23 traffic crosses US 83
- DOT goal is to reduce/eliminate right-angle crashes at high speeds

NDDOT Intersection Details

- Intersection operates at Level of Service (LOS) A
- All options maintain a LOS A
- 18,000 Oversized/Overweight Permits issued for this intersection in 3 years
- Alternatives created based on DOT and Public comments

ALTERNATIVES COMPARISON

Cost In Millions			
Years Until Construction Can Start	Short Term (Less than 4 Years)	Mid-Term (4-10 years)	Long Term (Beyond 10 years)
Interchange	\$\$\$\$\$\$\$\$\$	\$\$\$\$\$\$\$\$\$	\$\$\$\$\$\$\$\$\$
Roundabout	\$\$\$\$\$\$\$\$\$		
RCI	\$\$\$		
Speed Reduction/Lane Reduction	\$\$\$		





Interchange

Advantages

- Separates traffic to reduce the potential for high-speed right-angle crashes
- Maintain US 83 free flow movement

Disadvantages

- 20'6" clearance height for oversized load routes

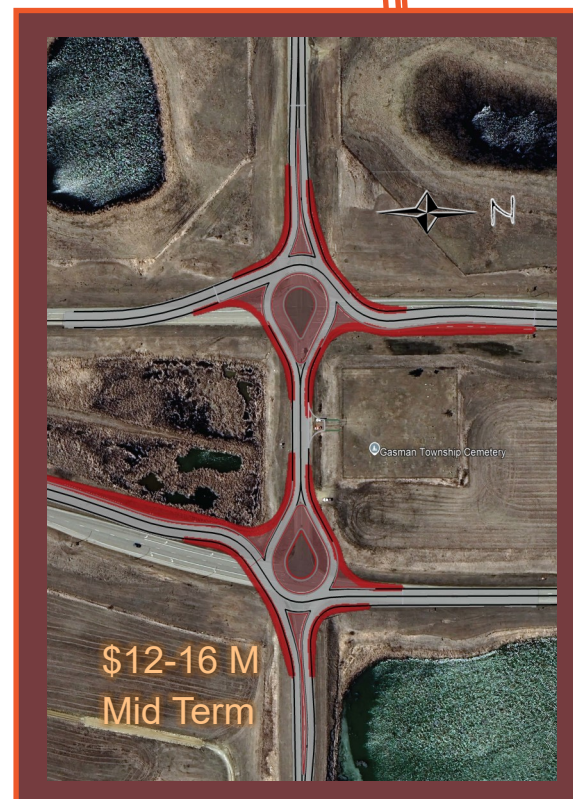
Roundabout

Advantages

- NDDOT: Severe injury and fatal crashes reduced by 59% & overall crashes reduced by 33%
- Reduces the speed for all directions
- Reduces conflict points
- Eliminate potential for high-speed right-angle crashes

Disadvantages

- Does not maintain US 83 free flow (Traffic entering roundabout yields to traffic within the roundabout)



Reduced Conflict Intersection

Advantages

- Eliminates potential for right angle crashes
- Reduces conflict points

- MnDOT Before/After Study
 - 69% decrease in fatal & serious injury crashes
 - 70% decrease in angle crashes

Disadvantages

- Require R/W depending on north crossing location
- Introduces weaving conflict
- MnDOT Before/After Study
 - 103% increase in rear-end crashes



Speed Reduction/Lane Reduction

Advantages

- Potentially reduces the severity of a crash
- Reduces conflict points
- Eliminate light poles near intersection and reduces visual distraction
- Moves right turning traffic from intersection
- Potential to reduce driver confusion

Disadvantages

- Doesn't eliminate high-speed right-angle crashes, but it may reduce them



BUILD ALTERNATIVES

