

ID 2310-14-70
WIS 60 & County Y Intersection, Ozaukee County
Alternatives Comparison Table



February 2014

Note: information is approximate and is based on preliminary conceptual plans

Comparison Factor	Alternative	
	Signalized	Roundabout
Project Length		
Along WIS 60 (miles)	0.4	0.3
Along County Y (miles)	0.4	0.3
Real Estate Acquisition		
Right of way (acres)	1.1	0.8
Temporary easement (acres)	1.5	0.4
Environmental Impacts		
Agricultural land (acres)	New right of way – 0.7 Temporary easement – 1.2	New right of way – 0.5 Temporary easement – 0.3
Wetlands (acres)	0.4	0.2
Engineering Considerations		
Safety	<p> Fewer crashes than existing condition (due to fewer traffic conflicts) Crashes may initially increase as drivers adjust Reduced crash severity compared to existing Higher crash severity than roundabout (due to high speeds and perpendicular angles of signalized intersection) Increased rear-end crashes compared to existing </p> <p>Traffic signals generally¹:</p> <ul style="list-style-type: none"> • Reduce overall crashes by 10% - 40% • Reduce fatal crashes by 40% 	<p> Fewer crashes than existing condition and signalized alternative (due to even fewer traffic conflicts) Crashes may initially increase as drivers adjust Reduced crash severity compared to existing Lower crash severity than signals (due to lower speeds and flatter angles of roundabout) Increased rear-end crashes compared to existing </p> <p>Roundabouts generally²:</p> <ul style="list-style-type: none"> • Reduce overall crashes by 10% - 50% • Reduce fatal crashes by 90%
Operations	<p> Level of Service B in year 2040 Traffic on WIS 60 will need to stop intermittently Accommodates all turning movements </p>	<p> Level of Service B in year 2040 Traffic on WIS 60 will need to slow down Accommodates all turning movements, provides ability to make U-turns </p>
Access (driveways)	<p> Reduced driveway safety and operations: <ul style="list-style-type: none"> • Driveways within areas of conflicting turning movements • Driveways in areas of higher speed traffic </p>	<p> Better driveway safety and operations: <ul style="list-style-type: none"> • Driveways outside areas of conflicting turning movements • Driveways in areas of lower speed traffic </p>
Utility impacts	More than roundabout alternative	Less than signalized alternative
Cost		
Construction cost (2013 dollars)	\$1.8 million* to \$2.3 million**	\$1.8 million
	<p>* partial reconstruction/partial pavement rehabilitation, right turn lanes on WIS 60 only</p> <p>** full reconstruction, right turn lanes on all 4 legs</p>	

Alternatives were also evaluated for the following factors, but were considered to be similar between alternatives:

- Floodplain impacts (none)
- Hazardous materials sites (no impacts)
- Archaeological and historic sites (none)
- Bicycle accommodations (bicycles are fully accommodated)
- Pedestrian accommodations (an exception to providing accommodations is being pursued, but not yet approved)
- Intersection lighting (required for signalized intersection and roundabout)

¹ Desktop Reference for Crash Reduction Factors+, prepared by US DOT, September 2007

² Multiple sources, including %Comprehensive Evaluation of Wisconsin Roundabouts Volume 2: Traffic Safety+, prepared by Wisconsin Traffic Operations & Safety Laboratory, September 2011