



1 - Public Awareness

The success or failure of a project can often be attributed to how well the Department included the public in its development. This can be particularly true when introducing the modern roundabout because of its confusion with past circular intersections. There are several excellent resources to assist the designer in explaining the concept to the public.

Concept acceptance and project buy-in are best achieved when the local community has been involved from beginning of the project. Take as many opportunities as possible to explain the project. Public meetings are good places to start and continue to build project support.

Inform the public of advantages and disadvantages of a proposed roundabout. As with any new concept, the project team can anticipate a certain degree of skepticism about a proposed roundabout. It may be viewed as the traffic circle of the past; at best not seen as an improvement, at worst associated with poor operational characteristics. Early public education is essential to a successful project start up. Several educational tools and media are available to help designers inform the public about roundabouts, and build support for the concept. There are brochures, videos, and simulation software available that demonstrates the characteristics of roundabout operations. At times, a local newspaper may be looking for general interest articles; this may be an opportunity to increase public awareness of roundabouts. The WisDOT roundabout web site is another source of current information and frequently asked questions regarding modern roundabouts. The site address is

<http://www.dot.wisconsin.gov/safety/motorist/roaddesign/roundabout.htm>

Include state and local politicians, state and local police, local fire and emergency services personnel, maintenance personnel, local trucking companies, elementary and high schools, and any special interests in the awareness process as may exist due to project location.

Typically in the project process, alternatives are considered. The alternatives generally include traffic signal, stop sign, or roundabout control; some of which are familiar to drivers and pedestrians. Presenting a comparison of traffic operations and safety between alternatives is a good way to introduce roundabouts. It is also beneficial to inform the public of good nearby design examples.

2 - Public Meetings

Public meetings provide an excellent opportunity to bring the public into the design process. It is generally desirable to take the 30% preliminary plan to a public meeting and explain that a roundabout appears to be a reasonable alternative. Try to be as specific as possible about the real estate impacts, access impacts and anticipated operations (LOS) between the various alternatives. At this level of design it may be important to let the public know that you do not have all the answers about the various impacts. Roundabouts are a new form of intersection control that most people are not familiar with. Set a specific time at each PIM of approximately 10-20 minutes to explain the concept of roundabouts and why the Department has included the roundabout as an alternative. Also, illustrate to the public how pedestrians, bicyclists, and vehicles should travel through the roundabout. Holding an open house and public information "exchange" meetings, and attending village and town board meetings or local service organizational meetings are good formats for education and consensus building.

3 - Informational Brochures, Videos, and Web Site

Informational brochures are a very useful way to educate the public about roundabouts. Not only can they explain the roundabout concept, its advantages and disadvantages, but they can also be used to compare roundabouts to older circular intersection concepts and traditional intersection types. They can also include graphics or photographic images to assist in demonstrating technical issues to non-technical audiences. Wisconsin has developed the "All About the Roundabout" brochure for single lane roundabouts. You can order multiple copies at no charge from WisDOT Stores or download a PDF file at:

<http://www.dot.wisconsin.gov/safety/motorist/roaddesign/roundabout.htm>

There is Wisconsin Roundabout Video called "[All About the Roundabouts](#)", (click the title for a direct link to the video) which is available upon request from the Bureau of Project Development. Driver education is also provided in the Wisconsin Motorist's Handbook published by WisDOT.

Designers are encouraged to place project site-specific materials on the WisDOT web site. Coordination of this effort must be through the Central Office (IT) Coordinator and the Web Site Content Coordinator.

4 - Social, Environmental, and Economic Considerations

Public acceptance of roundabouts can be one of the biggest challenges facing a jurisdiction that is planning to install its first roundabout. Without the benefit of explanation or first-hand experience, the public is likely to incorrectly associate roundabouts with older, nonconforming traffic circles that they have either experienced or heard about. Equally likely, without adequate information the public (and agencies alike) will often have a natural resistance to changes in their driving behavior and driving environment.

Public receptivity can be improved by informing the public about the safety and operational benefits of roundabouts.

Impacts on historic and cultural resources need to be considered especially when a roundabout is proposed for an existing urban area. Public participation and coordination with the State Historic Preservation Office is necessary.

Impacts on visual resources can be a serious issue as well. However, the roundabout offers an excellent opportunity for enhancing the visual environment since the interior of the circle can be landscaped to become an attractive local feature. Also the potential adverse visual impact of signal poles is avoided with a roundabout solution. Public support can be encouraged if the local community can see the roundabout as a visual enhancement. With regards to noise, energy consumption and air pollution, the modern roundabout offers distinct advantages over other intersection types. Vehicles can create significant air and noise pollution while idling and accelerating through an intersection. On the other hand, vehicles are generally kept moving at lower speeds through a roundabout resulting in less fuel consumption and less air and noise pollution.

There is a socio-economic cost, or cost to society, as a result of crashes that should not be over looked. The cost of a crash is difficult to quantify with a specific value for every situation. The National Safety Council, (NSC) "Estimating the Cost of Unintentional Injuries, 2006" <http://www.nsc.org/lrs/statinfo/estcost.htm> also has calculated the costs of motor-vehicle crashes that may be used to estimate the impact on the economy. The costs are a measure of the dollars spent and income not received due to crashes, injuries, and fatalities shown in [Table 1](#).

Table 1. Crash Cost by Injury Type (2005 Dollars) [1,2,3]

Crash Injury Type	Comprehensive Cost	Economic Cost
Fatality	\$3,840,000	\$1,100,000
Incapacitating Injury	\$193,800	\$52,000
Non-Incapacitating Injury	\$49,500	\$18,000
Possible Injury	\$23,600	\$10,000
Property Damage	\$2,200	\$7,500

Construction cost is always a major factor in every project. It is important to understand that there is also a cost to society for the crashes experienced on our highways. It is in the best interest for the citizens of a community to consider all the costs of a proposed intersection control to include crash cost, construction cost, engineering cost, maintenance cost, and delay cost associated with the selection of the intersection control. The National Safety Council and literature review suggest that comprehensive crash costs be used for all benefit-cost analysis [1,2,3].

The Highway Safety Improvement Program (HSIP) uses significantly different values than those shown in [Table 1](#) to evaluate, identify and prioritize crash problem locations that are eligible to receive HSIP funding.

Pavement life-cycle cost and benefit is discussed in [Chapter 14](#).

5 - References

[1] National Safety Council. Estimating the Costs of Unintentional Injuries, 2006. National Safety Council Website. <http://www.nsc.org/lrs/statinfo/estcost.htm>

[2] Boardman, A., Greenberg, D., Vining, A., and Weimer, D. *Cost Benefit Analysis: Concepts and Practice*. Prentice Hall; 3rd Edition, 2005.

[3] Gómez-Ibáñez, J. A., Tye, W. B., and Winston, C. *Essays in Transportation Economics and Policy: A*

Handbook in Honor of John R. Mayer. Brookings Institution Press, 1999