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## Information/Education Synthesis on Roundabouts

<http://www.mdt.mt.gov/research/projects/traffic/roundabouts.shtml>

### Introduction

Roundabouts are a form of at-grade traffic control that have seen increased application across the United States in recent decades and are one of the Federal Highway Administration's (FHWA) nine proven countermeasures for improving highway safety. In Montana, however, there has been strong public opposition to some of the roundabout projects proposed by the Montana



**Figure 1. South Hills Interchange Roundabout-Helena, MT**

Department of Transportation (MDT). While MDT staff members have presented facts and figures to the public on the effectiveness of roundabouts to generate support for these projects, the public has remained skeptical about their benefits. Montana's experience regarding public apprehension of roundabouts is not unique. Other states have encountered the same lack of public support for roundabout projects. The reasons for the lack of public acceptance vary, but typically include driver apprehension and cost concerns (roundabouts being more costly than most alternatives). As a result, many prospective roundabout projects are never built due to public opposition.

MDT resolved it was necessary to identify other effective and efficient strategies to use in public meetings and other venues. This information would be used to develop strategies to promote roundabouts as a preferred approach to intersection control and as an effective safety countermeasure. As it is generally recognized that public acceptance and buy-in

of roundabouts is essential to moving their use forward, many states and locales have developed successful approaches to be used in this regard. This experience can provide MDT with additional tools and approaches that can be used to educate the public on roundabouts, and in the process, engender support for these projects in the future.

### What We Did

The research employed a multi-faceted approach to determine how other states handled roundabout education and outreach. This included a literature review of existing education/information campaigns, a survey/interview of states regarding their experiences with educating stakeholders and public on roundabouts, a review of public comment records from past MDT projects that recommended or incorporated roundabouts, a limited survey of Montana residents on their opinions of roundabouts and education, and a review of other state/agency education/information campaigns

that have been successful (not necessarily transportation-specific).

## What We Found

The results of the literature review found that the use of public meetings/forums to bring the public into the process was advisable. A willingness to engage in meaningful dialogue with the public during such meetings helps in addressing the participants concerns with roundabouts, as does demonstrating that a full range of design alternatives have been considered. An agency must keep in mind that different audiences will have different concerns, and the message and its delivery should be structured accordingly.

**Table 1. Projects Incorporating Roundabouts in Montana and Public Support**

Project	FOR	AGAINST
Kalispell MT 35	5	67
Missoula East/West Interchange	15	16
Billings Shiloh Road reconstruction	6	18
Bigfork North and South	1	9
Missoula Russell Street reconstruction	3	7
Billings Airport entrance	1	6
Red Lodge Northwest project	5	2
Bozeman College Street and 11 <sup>th</sup> Avenue intersection	2	0
Billings Bench Boulevard	0	1
<b>TOTAL</b>	<b>38</b>	<b>126</b>

Based on agency survey responses and telephone interviews, it was clear that a majority of agencies have encountered similar issues of public opposition early in their development and deployment of roundabouts. Many staff members stressed that early roundabouts should be built where they are most likely to be successful (i.e. operate well, produce safety benefits, etc.). A key finding of the agency survey and follow-up interviews was that no agency appears to engage in promotion

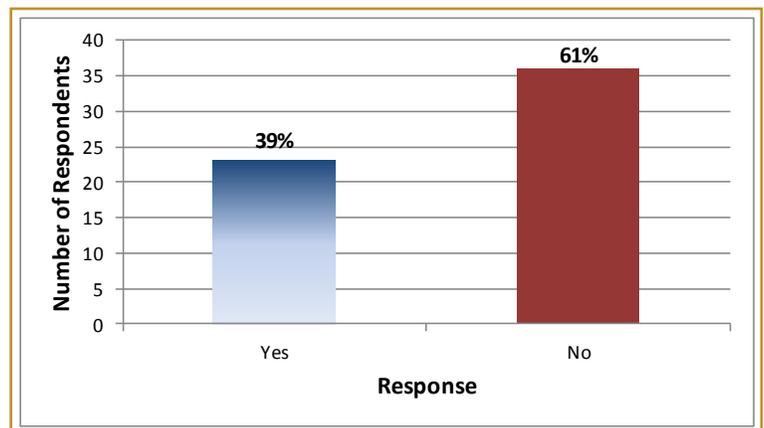
of roundabouts through media campaigns. No agency has developed advertisements that champion the use of roundabouts. Rather, agencies appear to recognize that project-specific justification for roundabouts based on the clear benefits they may offer is needed before they are proposed to the public.

In reviewing public comments provided on past projects incorporating or recommending a roundabout, several interesting observations were made. For all projects, more comments were registered against the use of roundabouts as opposed to favoring them (see Table 1). Whether this is the result of a propensity of those against the use of roundabouts to

attend public meetings and formally submit comments is not clear. Those who were against the use of roundabouts cited the following reasons:

- Difficult for trucks to navigate
- Less safe than alternatives
- Driver confusion
- Less efficient
- Higher cost
- Bike / pedestrian safety concerns
- Snow removal difficulties
- High approach speeds
- Right of way needs
- No need for a roundabout
- Increased emergency response times

As seen in Figure 2, survey results of Montanans show that 61 percent of respondents opposed roundabouts. Additionally, only 14 percent of respondents indicated that improved information on roundabouts would change their opinion. Most of those surveyed (56 percent) had seen MDT-produced or other information on roundabouts, with some finding the materials useful and others finding it too technical or uninformative. Recommended improvements to outreach materials made by respondents included considering the use of videos, simulations, and three dimensional renderings, as well as increased education to help drivers learn how to navigate roundabouts.



**Figure 2. Montanans Opposed to Roundabouts**

While many states use roundabouts to some extent on their roadway systems, not all have developed dedicated websites that present information on roundabouts. For states that have developed websites, the content presented was straightforward, introducing what roundabouts are, highlighting their benefits, answering basic questions, providing driver guidance, and presenting images, videos, and/or maps of existing roundabout. Not all states have developed their own roundabout videos; the videos that do exist focus on educating drivers on how to use them, or promoting their advantages and benefits. Most videos used local footage of successful applications. Aside from videos, some states also developed radio public service announcements (PSA) which were also brief and highlighted driving tips.

A review was also made of transportation-specific outreach efforts not directly related to roundabouts. Typically these efforts focused on safety, and the approach employed in most cases was the same: a dedicated website that contained background information and statistics, as well as embedded videos (or links to them) and radio spots that served as the public media outreach components. In some cases, printed materials, primarily posters, were also developed. The use of social media (Facebook, Twitter and YouTube) was mixed, although it would appear that use of these mechanisms is growing. Outside of the transportation field, public outreach approaches were similar to those employed by transportation agencies. Traditional approaches such as television and radio commercials were cited, along with other print mediums such as brochures and mailings.

Overall, the synthesis found that agencies have provided a number of different types of outreach materials,

relative to their focus and delivery mechanism. The information disseminated has generally centered on how to use roundabouts and highlighting the safety and other benefits they provide. In terms of the types of media available to provide roundabout education and outreach, some were more traditional, such as television and radio commercials in the form of PSAs, while some are more recent such as websites and social media. The messages conveyed via the different media are largely the same, being educational or informative in nature. Project specific outreach efforts universally are centered on public meetings.

## What the Researchers Recommend

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Based on the information reviewed during the course of this research, a number of recommendations can be made. These recommendations are intended for consideration during all phases of a roundabout project (or program). In many cases, the needs of an individual roundabout project will vary, and the outreach and education efforts should be tailored to meet those needs. Note that their order does not convey prioritization.

- **When considering roundabouts in general a promotional campaign could be considered, although no such effort has been pursued elsewhere.** Many states interviewed during the survey indicated that they did not pursue such an approach to avoid the appearance of “selling” the concept. Rather, education and outreach for roundabouts was often approached on a project by project basis, with the facts presented to explain why a roundabout was the preferred alternative at that location. However, given MDT’s experience with resistance, an aggressive

approach employing direct television and/or radio promotion of roundabouts might still be considered. Direct promotion of roundabouts would essentially be a “first” in the United States, as no other agencies were identified that presented the concept to the public in such a manner. If such an approach is pursued, it should consider employing information on successful sites already built in the state.

- **Before proposing a roundabout, care should be taken to establish that it is the right solution for a site and that it will be successful.** Many of the states interviewed during this project indicated that building a roundabout where it will work correctly and succeed goes a long way toward developing public acceptance and support. The success of such roundabouts can be highlighted when proposing their use in other locations
- **When considering roundabouts for a specific project, an initial meeting with local government officials is advisable.** Many agencies have found that meeting with local officials and establishing their support before public meetings helps to increase public support for the project.
- **At subsequent public meetings, the materials and discussion points should be tailored for the audience (e.g. local residents, businesses, etc.).** In presenting roundabouts, information should be kept basic and non-technical. When engaging the public (e.g. taking questions) a dialogue or two way conversation should be pursued, as opposed to trying to explain a question away with facts. This creates an atmosphere where the public feels that their thoughts and opinions are being heard, rather than the perception that their thoughts and views have

been dismissed.

- **Visual aids for meetings and other roundabout materials are essential in helping to explain how the alternative will operate and why it is preferred.** Such visual aids can include conceptual images, scale models of roundabouts, and simulation videos. When a large parking lot is available, it might be advantageous to conduct a full-size roundabout demonstration in conjunction with a project to allow the public to understand the dimensions and layout for the proposed design. This approach has been successfully used by MDT in the past and should receive future consideration. In line with visual aids, printed materials, specifically pamphlets and handbills should also be employed. These materials should incorporate imagery from roundabouts that have been constructed and are successfully operating in the state.
- **When roundabouts are new to an area, it may be a good idea to air PSAs that discuss how to use them.** These PSAs could air on television and the radio, and may be developed for a specific site or be a general video/audio script developed for statewide use. The use of newspaper and print media (pamphlets/brochures) should also be pursued as these can provide more details than short video and audio announcements. Regardless, the focus of PSAs should be on education and the benefits of roundabouts rather than promoting them in a manner that comes across as a sales pitch.
- **It would be beneficial to develop a longer video(s) that can be placed on the internet, either on**

**a dedicated roundabout website for the state or on a YouTube-type of site.** A longer video can provide more detail on different aspects of roundabouts (a series of videos could also be produced to discuss individual topics in more detail) and allow viewers to learn about the subject at their convenience. Creativity should be incorporated into roundabout videos as much as possible, although most current roundabout videos that were reviewed were basic and to the point. Whenever possible, local scenes from roundabouts throughout the state should be employed in the video footage, along with testimonials from local residents and officials.

- **Outreach to local television, radio and newspaper media outlets should be employed during all phases of a proposed project incorporating roundabouts.** It should be viewed as an opportunity to explain why a roundabout has been considered, what its benefits would be and other background information. The intent should not be to “sell” the roundabout, but rather, explain why it is a preferable option and how it can be a positive feature if/when constructed. The benefit of this approach is that it reaches a large audience while putting a positive light on roundabouts.
- **MDT’s dedicated roundabout webpages should be expanded.** A web presence allows anyone who is interested in roundabouts to review information at their convenience. The roundabout website also offers a good opportunity to highlight successful projects and provide longer duration video footage. Many

websites have provided maps and images of the different roundabout sites that have been constructed throughout the state, and this is another idea that should be considered.

- **Supplemental approaches to roundabout education and outreach should be considered for use when appropriate.** For example, if a roundabout is being proposed or constructed in a local community, posters, direct mailings and/or restaurant advertising (placemats and coasters) might be considered. Other efforts, such as local kiosk displays at shopping malls or booths at public events such as county fairs are other ideas that might be employed on a case-by-case basis.
- **Publicizing the benefits of roundabouts is an important part of outreach and education activities.** Several agencies indicated that pointing to local successes is critical in presenting the benefits of roundabouts. To this end, it might be a good idea to quantify some of the benefits of roundabouts that have been installed in different locations in Montana. For example, a before and after study of intersection crashes at different sites would quantify how roundabouts have reduced crashes following installation. Similar work could quantify the operational and environmental (reduced emissions) benefits as well.

## For More Details . . .

The research is documented in Report FHWA/MT-13-007/Information/Education Synthesis on Roundabouts.

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## MDT Implementation Status September 2013

The technical panel and Department staff met September 2013 to discuss the results and recommendations of this research project. Responses to project recommendations are documented in an implementation report available on the project website at:

<http://www.mdt.mt.gov/research/projects/traffic/roundabouts.shtml>

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