Figure 5a. How to Use a Roundabout: General Information (Tri-Fold Brochure)

What is a Modern Roundabout?

A modern roundabout is a circular intersection where entering traffic yields to vehicles traveling counter-clockwise around a central island. The modern roundabout is used to slow the speed of vehicles to increase capacity and improve safety. Multi-lane roundabouts are used to move traffic around the central island though lanes which correspond to an intended destination. The lane should be chosen by the driver before entering the roundabout

Advantages of Roundabouts

Safety

Roundabouts reduce vehicle speeds, as well as the number of conflict points. Roundabouts eliminate head-on/left-turn and angle type crashes which frequently result in serious or fatal injuries.

Operations

With the use of yield signs instead of stop signs or traffic signals, vehicles are able to enter the roundabout when there are adequate gaps in the traffic flow. This reduces the number of vehicles which have to stop and also reduces the time vehicles are stopped. This reduces delays and increases the capacity of the intersection.

Maintenance

Roundabouts reduce long-term operational and maintenance costs associated with traditional signalized intersections. There are no traffic signals to power and maintain, which can amount to a savings of approximately $5,000 per year.

Aesthetics

Roundabouts create an area for communities to provide green space and landscape architecture. There are no large poles, overhead wires, or signals cluttering the visual environment.

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How to Use a Roundabout

General Information

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How to Use a Roundabout

Step 1: Slow down as you approach the roundabout.

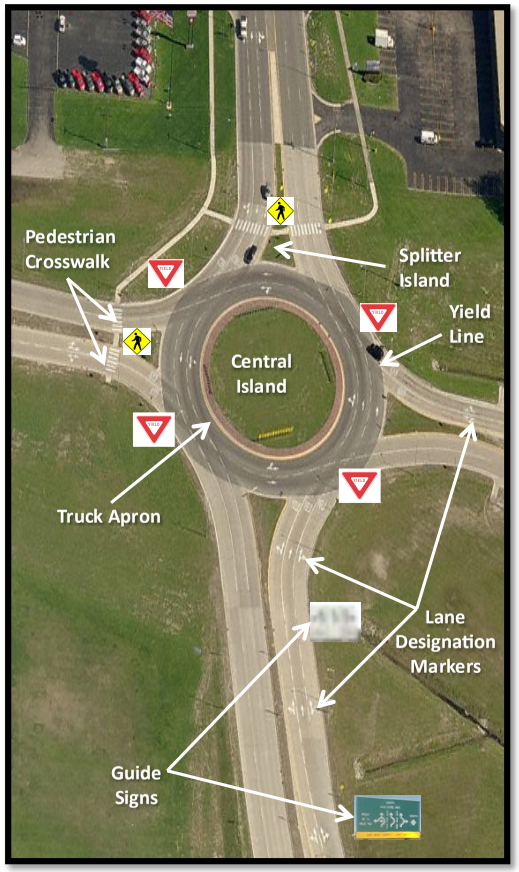
Step 2: Use the guide signs and lane designation markers to choose the appropriate lane for the intended destination.

Step 3: Look for pedestrians and bicyclists as you approach a crosswalk. Yield to those who are in the crosswalk.

Step 4: Slow down as you approach the yield sign and dashed yield line. Look to the left to see if vehicles are traveling within the roundabout.

Step 5: Once there is an adequate gap in traffic, enter the roundabout Do not stop or change lanes once in the roundabout.

Step 6: As you approach the intended destination, signal your intent to exit. Look for pedestrians and bicyclists as you exit.



What Not To Do in a Roundabout

- **Do not stop inside a roundabout**
- **Do not change lanes while in a roundabout**
- **Do not pass another vehicle**

Pedestrians

Roundabouts create a safer environment for pedestrians to cross by slowing vehicles and dividing the crossing into two stages. When crossing the roadway, pedestrians should look for oncoming vehicles and bicyclists. Even though pedestrians have the right of way, they should be aware of vehicles and make sure drivers see them and are going to yield. When there is a sufficient gap in traffic or vehicles have yielded, the pedestrian should cross to the splitter island. The process is then repeated to finish the crossing of the roadway. The pedestrian should not try to cross both directions of traffic in one attempt.

Bicyclists

Bicyclists can use the roundabout as a pedestrian or in the same manner as a vehicle. When crossing as a pedestrian, dismount the bicycle and cross using the same guidelines. When using the roundabout in the same manner as a motor vehicle, the cyclists should center themselves in the lane so they are more visible to motorists and to prevent motorists from trying to pass or overtake them. They should then follow the same procedure as a vehicle.

Emergency Vehicles

If you have not yet entered the roundabout and see an emergency vehicle approaching, pull over to the right and allow the emergency vehicle to enter and clear the roundabout. If you are already traveling in the roundabout as an emergency vehicle approaches, exit at the nearest exit and then pull over to allow the emergency vehicle to clear the roundabout. Do not stop within a roundabout.

Trucks

Roundabouts are designed to accommodate trucks and other large vehicles. Trucks require more room to turn and may use the mountable truck apron, the raised pavement around the centralized island, for additional space. Drivers should be aware of large vehicles on the approach and within the roundabout. Do not drive next to a truck or try to pass a truck on the approach or while traveling in a roundabout.

Figure 5b. How to Use a Roundabout: General Information (Tri-Fold Brochure)

Figure 6a. How to Use a Roundabout: Sharing the Road (Tri-Fold Brochure)

What is a Modern Roundabout?

A modern roundabout is a circular intersection where entering traffic yields to traffic circulating counter-clockwise around a centralized island. The modern roundabout is used to slow the speed of vehicles to increase capacity and increase safety. It is designed to accommodate all road users and their individual needs. This ranges from the large turning radius of a truck to the safety of pedestrians.

Trucks

Roundabouts are designed to accommodate trucks and other large vehicles. Trucks require more room to turn and may use the mountable truck apron, the raised pavement around the centralized island, for additional space. Drivers should be aware of large vehicles on the approach and within the roundabout. Do not drive next to a truck or try to pass a truck on the approach or while traveling in a roundabout.

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How to Use a Roundabout

Sharing the Road

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Pedestrians

Roundabouts create a safer environment for pedestrians to cross by slowing traffic and dividing the crossing into two stages. When crossing the roadway, pedestrians should look for oncoming vehicles and bicyclists. Even though pedestrians have the right of way, they should be aware of vehicles and make sure drivers see them and are going to yield. When there is a sufficient gap in traffic or vehicles have yielded, the pedestrian should cross to the splitter island. The process is then repeated to finish the crossing of the roadway.

Walking Through a Roundabout

Walk the perimeter of the roundabout, and use the designated crosswalks.

Step 1: Look in the direction of traffic for oncoming vehicles and bicycles.

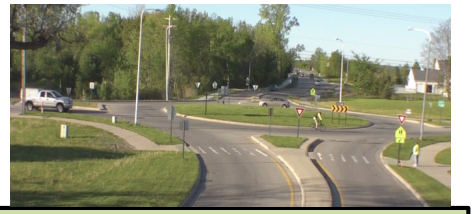
Step 2: Be aware of vehicles and make sure the drivers see you and are going to yield. Do not assume vehicles are going to stop.

Step 3: Once there is a sufficient gap or vehicles have yielded, cross the roadway to the splitter island.

Step 4: Repeat the process for the other direction of traffic and finish crossing.

Bicyclists

Bicyclists can use the roundabout as a pedestrian or in the same manner as a vehicle. When crossing as a pedestrian, dismount the bicycle and cross using the same guidelines. When using the roundabout, bicyclists should center themselves in the lane so motorists are able to see them and will not pass them. They should then follow the same procedure as a vehicle.



Bicycling Through a Roundabout

Step 1: Slow down and center yourself in the lane as you approach the roundabout.

Step 2: Use the guide signs and lane designation markers to choose the appropriate lane for the intended destination.

Step 3: Look for pedestrians and bicyclists as you approach the roundabout. Yield to those in the crosswalk.

Step 4: Slow down as you approach the yield sign and dashed yield line. Look to the left to see if vehicles are traveling within the roundabout.

Step 5: Once there is a sufficient gap in traffic, enter the roundabout. Position your bicycle in the center of the lane so you are visible to vehicles. Do not stop or change lanes once in the roundabout.

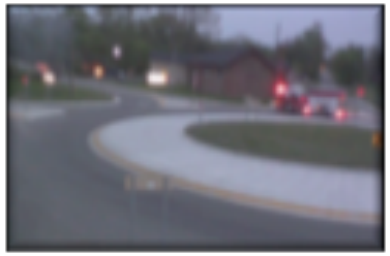
Step 6: As you approach the intended destination, signal your intent to exit. Look for pedestrians and bicyclists as you exit.

What Not To Do When Crossing a Roundabout

- **Do not assume drivers see you and are going to yield.**
- **Do not cross to the central island.**
- **Do not cross both directions of traffic in one attempt.**

Emergency Vehicles

If you have not yet entered the roundabout and see an emergency vehicle approaching, pull over to the right and allow the emergency vehicle to enter and clear the roundabout. If you are already traveling in the roundabout as an emergency vehicle approaches, exit at the nearest exit and then pull over to the right to allow the emergency vehicle to clear the roundabout. Do not stop within a roundabout.



What Not To Do in a Roundabout

- **Do not stop inside the roundabout.**
- **Do not change lanes once in the roundabout.**
- **Do not pass another vehicle.**

Figure 6b. How to Use a Roundabout: Sharing the Road (Tri-Fold Brochure)

How To Use a Roundabout

What is a Modern Roundabout?

A modern roundabout is a circular intersection where entering traffic yields to vehicles traveling counter-clockwise around a central island. The modern roundabout is used to slow the speed of vehicles to increase capacity and improve safety. Multi-lane roundabouts are used to move traffic around the central island through lanes which correspond to an intended destination. The lane should be chosen by the driver before entering the roundabout.

How to Use a Roundabout

Step 1: Slow down as you approach the roundabout.

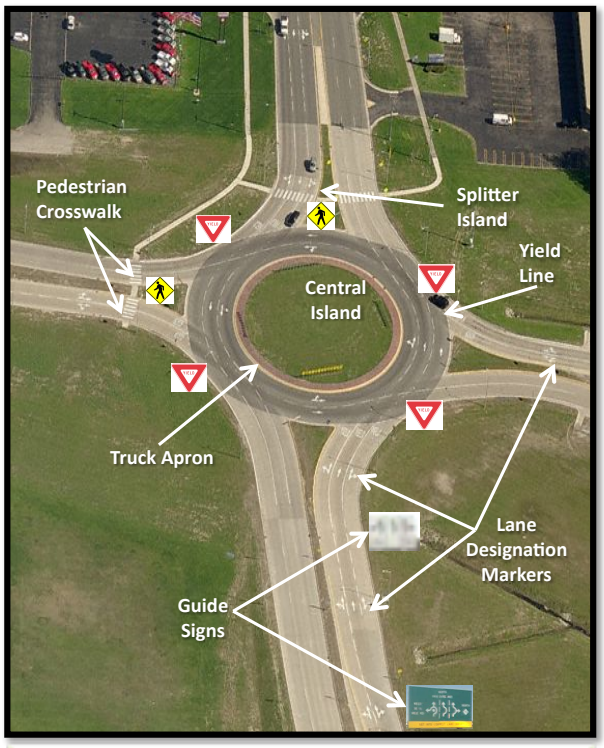
Step 2: Use the guide signs and lane designation markers to choose the appropriate lane for the intended destination.

Step 3: Look for pedestrians and bicyclists as you approach the crosswalk. Yield to those intending to cross.

Step 4: Slow down as you approach the yield sign and dashed yield line. Look to the left to see if other vehicles are traveling within the roundabout.

Step 5: Once there is an adequate gap in traffic, enter the roundabout. Do not stop or change lanes once in the roundabout.

Step 6: As you approach the intended destination, signal your intent to exit. Look for pedestrians and bicyclists as you exit.



What Not To Do in a Roundabout

- **Do not stop inside a roundabout**
- **Do not change lanes while in a roundabout**
- **Do not pass another vehicle**

Advantages of Roundabouts

Safety

Roundabouts reduce vehicle speeds, as well as the number of conflict points. Roundabouts eliminate head-on/left-turn and angle type crashes which frequently result in serious or fatal injuries.

Maintenance

Roundabouts reduce long-term operational and maintenance costs associated with traditional signalized intersections. There are no traffic signals to power and maintain, which can amount to a savings of approximately $5,000 per year.

Aesthetics

Roundabouts create an area for communities to provide green space and landscape architecture. There are no large poles, overhead wires, or signals cluttering the visual environment.

Operations

With the use of yield signs instead of stop signs or traffic signals, vehicles are able to enter the roundabout when there are adequate gaps in the traffic flow. This reduces the number of vehicles which have to stop and also the time vehicles are stopped. This reduces delays and increases the capacity of the intersection.

For More Information, Please Visit:
www.michigan.gov/roundabouts

Figure 7. How to Use a Roundabout (Poster)

Roundabouts In Michigan

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What is a Modern Roundabout?

A modern roundabout is a circular intersection where entering traffic yields to traffic circulating counter-clockwise around a centralized island. The modern roundabout is used to slow the speed of vehicle to increase capacity and reduce severe crashes. Multi-lane roundabouts are used to move traffic around the central island through lanes which correspond to an intended destination. The lane should be chosen by the driver before entering the roundabout.

Modern roundabouts possess two key features that distinguish them from traffic circles:
1) Yield at entry and 2) Substantial deflection of traffic around the center island.

MDOT

How to Use a Roundabout

Step 1: Slow down as you approach the roundabout.

Step 2: Know your intended destination. Use the guide signs and lane designations markers to choose the appropriate lane before entering the roundabout.

Step 3: Look for pedestrians and bicyclists as you approach the crosswalk. Yield to those intending to cross.

Step 4: Slow down as you approach the yield sign and dashed yield line. Look to the left to see if other vehicles are traveling within the roundabout.

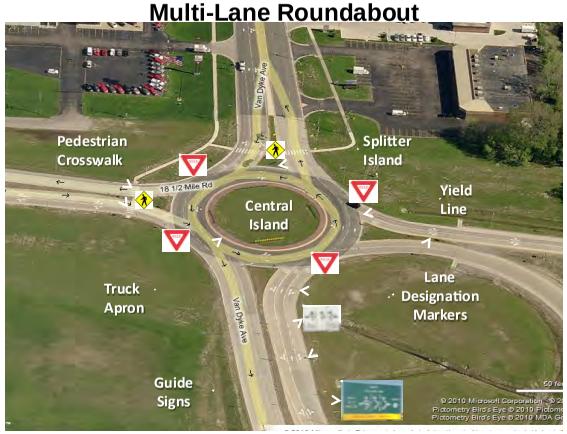
Step 5: Once there is an adequate gap in traffic, enter the roundabout. Do not stop or change lanes once in the roundabout.

Step 6: As you approach your intended destination, signal your intention to exit and look for pedestrians and bicyclists as you exit.

Single-Lane Roundabout

25 Mile and Hayes
Shelby Township, MI

Multi-Lane Roundabout



Van Dyke Avenue (M-53) and 18 ½ Mile Road
Sterling Heights, MI

For More Information, Please Visit:
www.michigan.gov/roundabouts

Dual Roundabout

Tienken Road and Washington Road
Rochester Hills, MI

Baldwin Court and Indianwood Road
Clarkston, MI

Lee Road and Whitmore Lake Road
Lee Road and SB US-23
Brighton, MI

Lee Road and Fieldcrest Drive
Brighton, MI

Utica Road and Dodge Park Boulevard
Sterling Heights, MI

Figure 8. Roundabouts in Michigan (Poster)

Benefits of Roundabouts in Michigan

What is a Modern Roundabout?

A modern roundabout is a circular intersection where entering traffic yields to traffic circulating counter-clockwise around a centralized island. The modern roundabout is used to slow the speed of vehicle to increase capacity and reduce severe crashes. Multi-lane roundabouts are used to move traffic around the central island through lanes which correspond to an intended destination. The lane should be chosen by the driver before entering the roundabout.

Modern roundabouts possess two key features that distinguish them from traffic circles:
1) Yield at entry and 2) Substantial deflection of traffic around the center island.

Safety

Roundabouts create a safe environment for motorists, pedestrians and bicyclists. Roundabouts reduce vehicle speeds, as well as the number of conflict points. Roundabouts eliminate head-on/left-turn and angle type crashes which frequently result in serious or fatal injuries. Crashes that do occur tend to be of a lower severity, such as sideswipes. Roundabouts have been shown to reduce the total number of injury crashes by up to 75% and the total number of fatal crashes by up to 90%.

Maintenance

Roundabouts reduce long-term operational and maintenance costs associated with traditional signalized intersections. There are no traffic signals to power and maintain, which can amount to a savings of approximately $5,000 per year.

Operations

With the use of yield signs instead of stop signs or traffic signals, vehicles are able to enter the roundabout when there are adequate gaps in the traffic flow. This reduces the number of vehicles which have to stop and also reduces the time vehicles are stopped. This reduces delays and increases the capacity of the intersection.

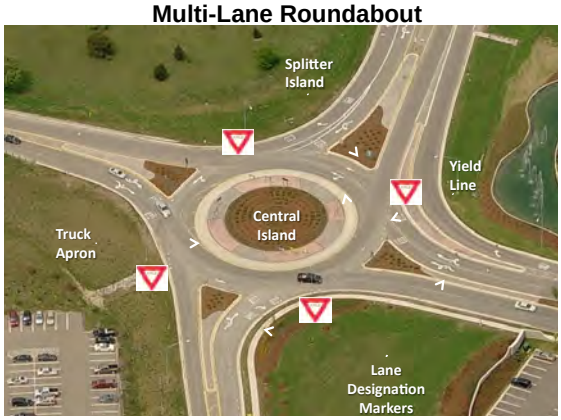
Aesthetics

Roundabouts create an area for communities to provide green space and landscape architecture. There are no large poles, overhead wires, or signals cluttering the visual environment.

Single-Lane Roundabout

Tienken Road and Runyon Road/Washington Road
Rochester Hills, MI

Multi-Lane Roundabout



Lee Road and Fieldcrest Drive
Brighton, MI

Dual Roundabouts

I-75 and M-81 (Washington Road)
Saginaw, MI

For More Information, Please Visit:
www.michigan.gov/roundabouts

How are Roundabouts Safer for Pedestrians?

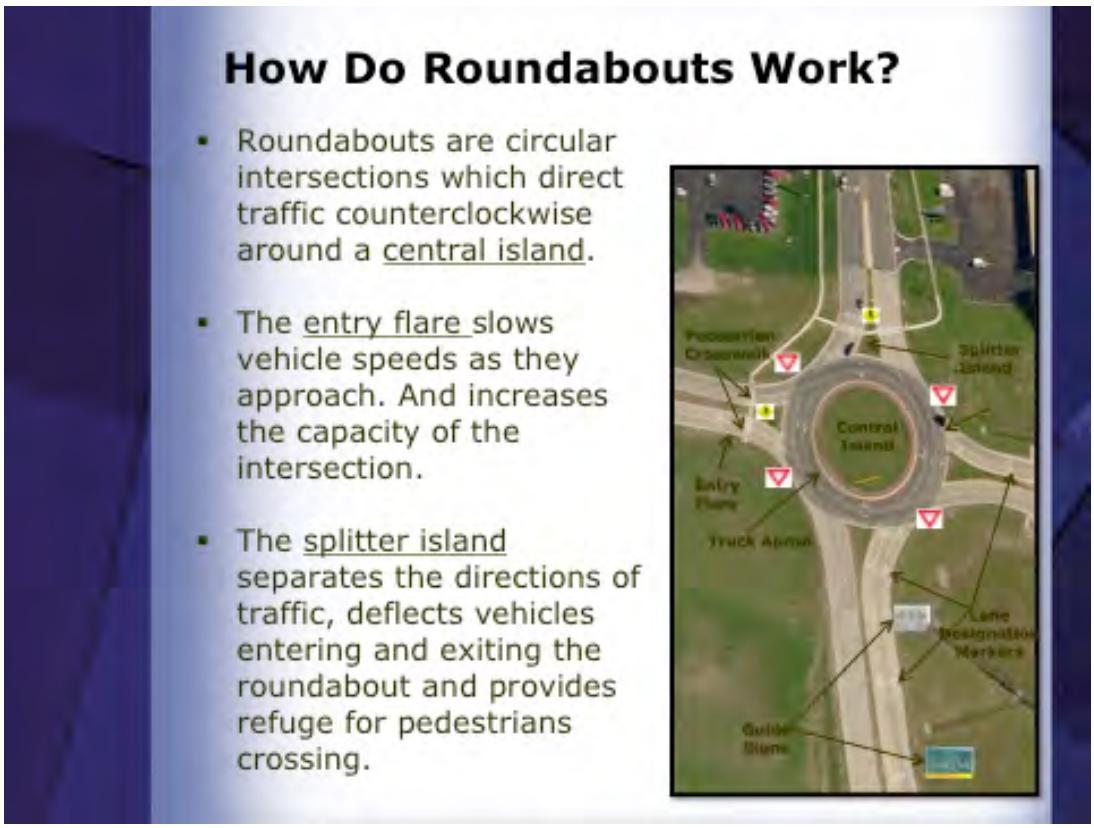
Modern roundabouts create a safer environment for pedestrians and bicyclists than signalized intersections. At a signalized intersection, pedestrians/bicyclists must be aware of turning vehicles and vehicles running the red. At a modern roundabout, vehicles travel at slower speeds and the crossing is divided into two stages. In each stage of the pedestrian crossing, the pedestrian has to look at one direction of traffic and cross fewer lanes. The splitter island in the middle creates a "refuge" for pedestrians before they begin to cross the other direction of traffic.

Bicyclists traveling in the roundabout become visible to motorists as they position themselves in the center of the lane and are not to be passed by another vehicle. They are to be treated the same as any motorized vehicle.

What About Trucks?

Roundabouts are designed to accommodate trucks and other large vehicles. Trucks require more room to turn and may use the mountable truck apron, the raised pavement around the centralized island, for additional space. Drivers should be aware of large vehicles on the approach and within the roundabout. Do not drive next to a truck or try to pass a truck on the approach or while traveling in the roundabout.

Figure 9. Benefits of Roundabouts in Michigan (Poster)



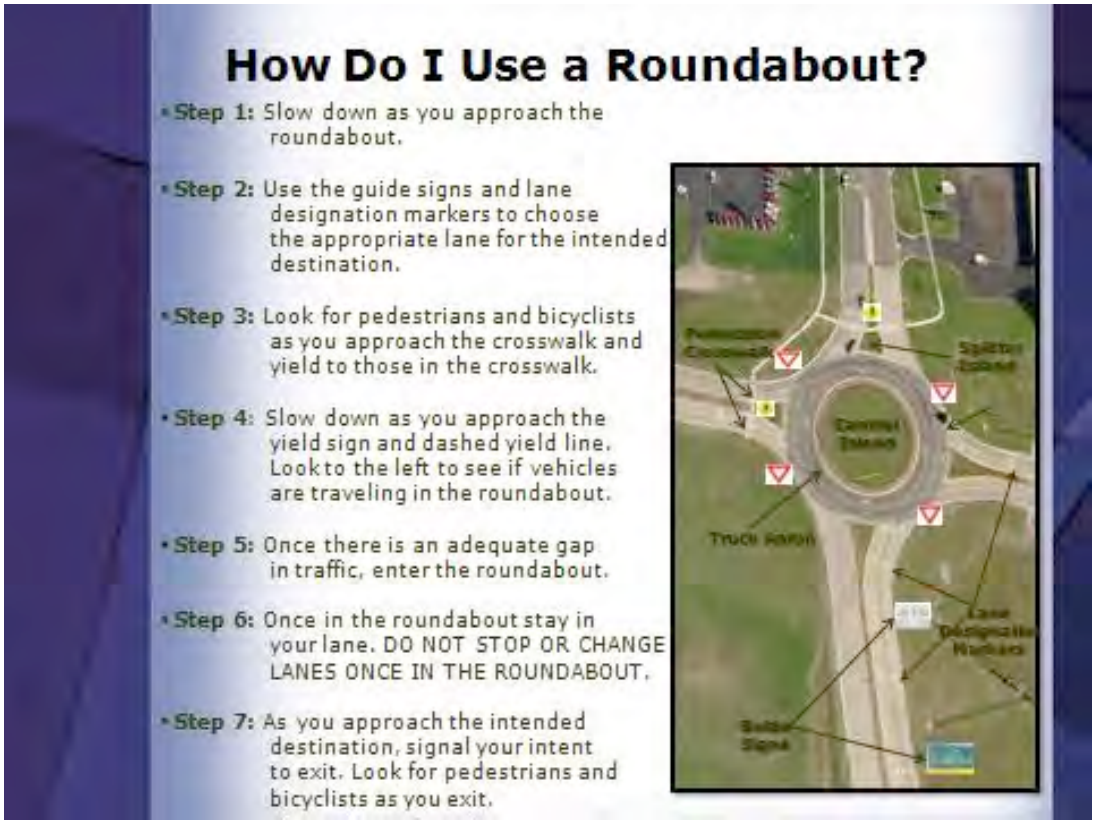


Figure 10a. Frequently Asked Questions (PowerPoint Slides)

When Do Drivers Need to Stop or Yield?

- Drivers do not have to come to a complete stop at the YIELD sign.
- Drivers should slow down as they approach the roundabout.
- Look to the left, if there are no vehicles in the roundabout the driver may enter the roundabout without stopping.
- Driver should never stop in a roundabout unless it is to avoid a collision
- It is not "OK" to let a vehicle in the roundabout. Vehicles in the roundabout have the right-of-way. Vehicles entering the roundabout must yield to those traveling in the roundabout.

When Should I Yield to Pedestrians?

- Drivers should yield to pedestrians at the marked crosswalks as they enter and exit the roundabout

Figure 10b. Frequently Asked Questions (PowerPoint Slides)

Figure 10c. Frequently Asked Questions (PowerPoint Slides)

Can I Change Lanes in the Roundabout?

- Drivers should not change lanes in the roundabout. Once in the roundabout the driver must remain in their lane.
- The intended lane should be chosen before the driver enters the roundabout.
- Drivers should use the guide signs and lane designation markers to choose the proper lane before entering the roundabout.
- The lane should be chosen by the driver before they enter the roundabout.
- The left lane is for u-turn, left turn and through movements
- The right lane is for through and right turn movements only.

What is the Right Speed to Drive Through the Roundabouts?

- Roundabouts are designed for slow operating speeds with speeds between 15mph and 25mph.
- The speed advisory sign will notify the driver of the proper speed for the individual roundabout.

Figure 10d. Frequently Asked Questions (PowerPoint Slides)

What Should I Do When I See an Emergency Vehicle?

- If you have not entered the roundabout when the emergency vehicle is approaching pull over to the right and allow the emergency vehicle to pass
- If you are already in the roundabout as the emergency vehicle is approaching, exit at the nearest exit, drive past the splitter island and then pull over to allow the emergency vehicle to clear the roundabout.
- Drivers should NEVER STOP INSIDE THE ROUNDABOUT.

How Do Large Trucks Use a Roundabout?

- Roundabouts are designed to accommodate trucks and other large vehicles.
- Trucks require larger turning radii and may use the mountable truck apron, the raised pavement around the centralized island, for additional space.
- Drivers should be aware of large vehicles on the approach and within the roundabout.
- Do Not drive adjacent to or try to pass a truck on the approach or while traveling in the roundabout.

Figure 10e. Frequently Asked Questions (PowerPoint Slides)

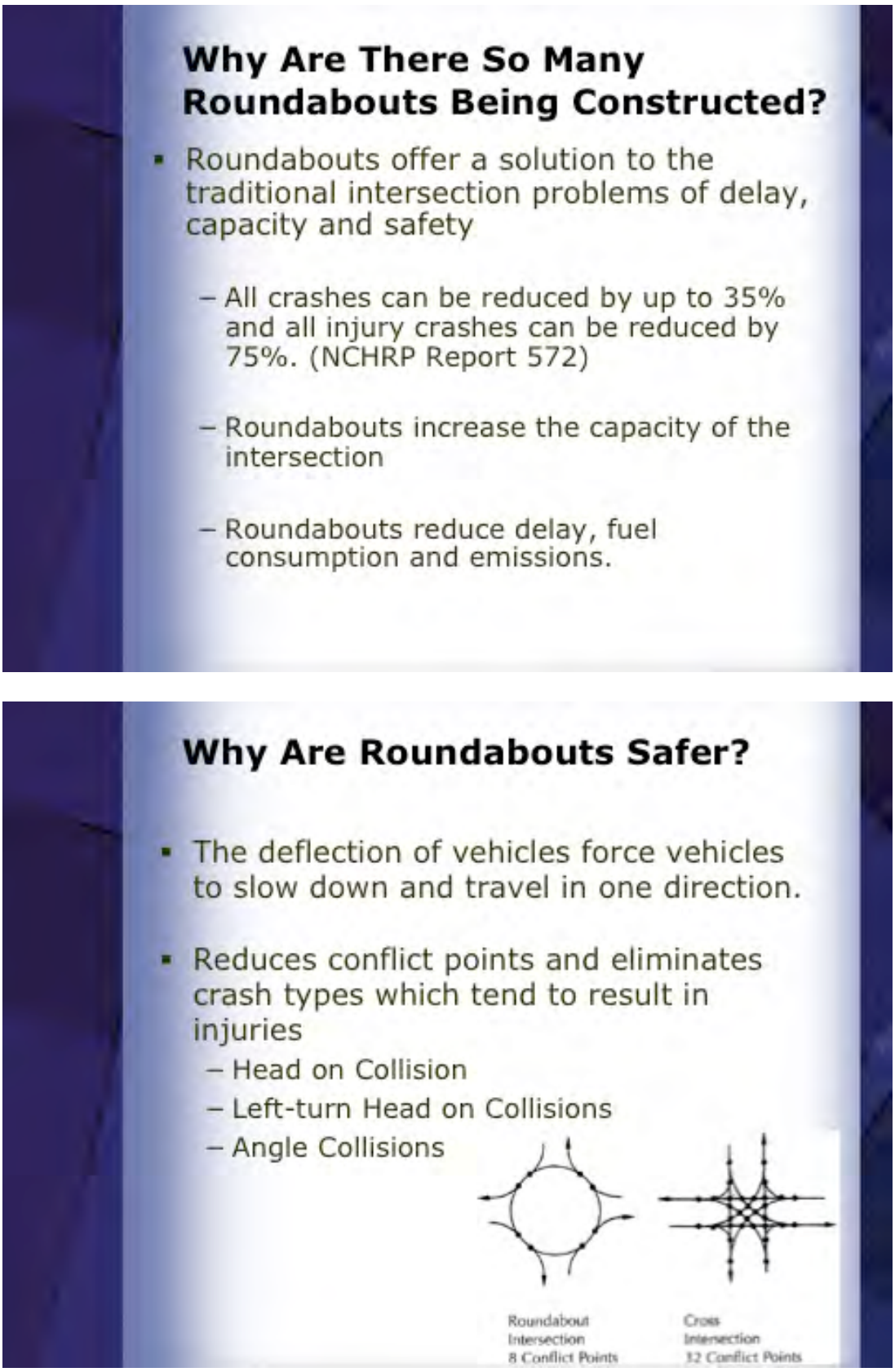


Figure 10f. Frequently Asked Questions (PowerPoint Slides)

Figure 10g. Frequently Asked Questions (PowerPoint Slides)

What Are the Best/Worst Locations for a Roundabout?

Best Locations

- Intersections with high crash patters of head on, left-turn head on and angle type crashes.
- Intersections with high delay.
- Intersections with unusual geometry or more than 4 legs.
- Intersections with fluctuating traffic patters.
- Intersections with high left-turn volumes or limited storage capacity for turn lanes.

Worst Locations

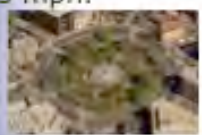
- Roundabouts are not appropriate at an intersection which is apart of a coordinated signalized corridor which provides progression of vehicles.
- Roundabouts are not appropriate at intersections at the top or bottom of a hill.
- Roundabouts are not appropriate at intersections with heavy traffic volumes on the major roadway and low traffic volumes on the minor roadway.

We Had A Roundabout Before and it Didn't Work

Roundabouts have began been constructed in the United States in the 1990s, before then traffic circles were typically used.

Traffic Circles

- Typically, vehicles circulating in the traffic circle yield to entering vehicles.
- Large inscribed central island.
- High design speeds of 30 to 55 mph.



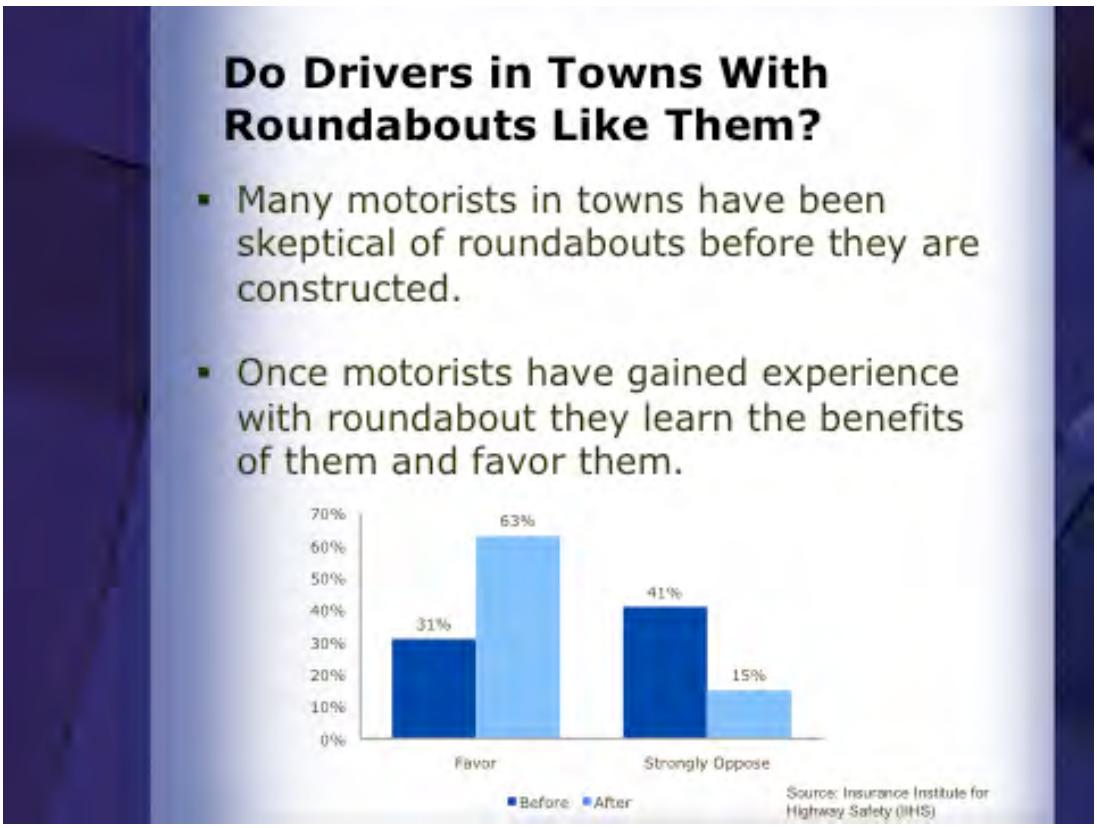
Dupont Circle in Washington, DC

Roundabouts

- Yield at Entry. Vehicles entering the must yield to vehicles circulating in the roundabout.
- Small inscribed circle.
- Low design speed of 15 to 30 mph.

Bennett Road and Hulett Road Meridian Township, MI

Figure 10h. Frequently Asked Questions (PowerPoint Slides)



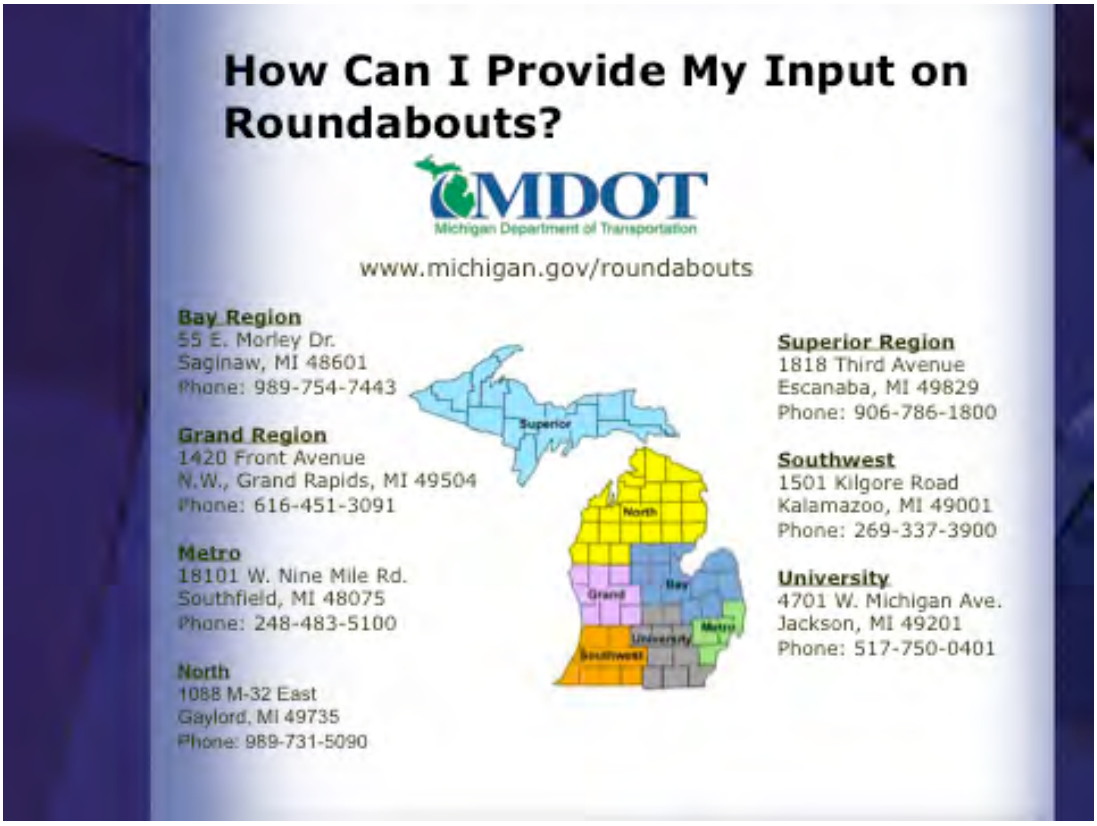


Figure 10i. Frequently Asked Questions (PowerPoint Slides)

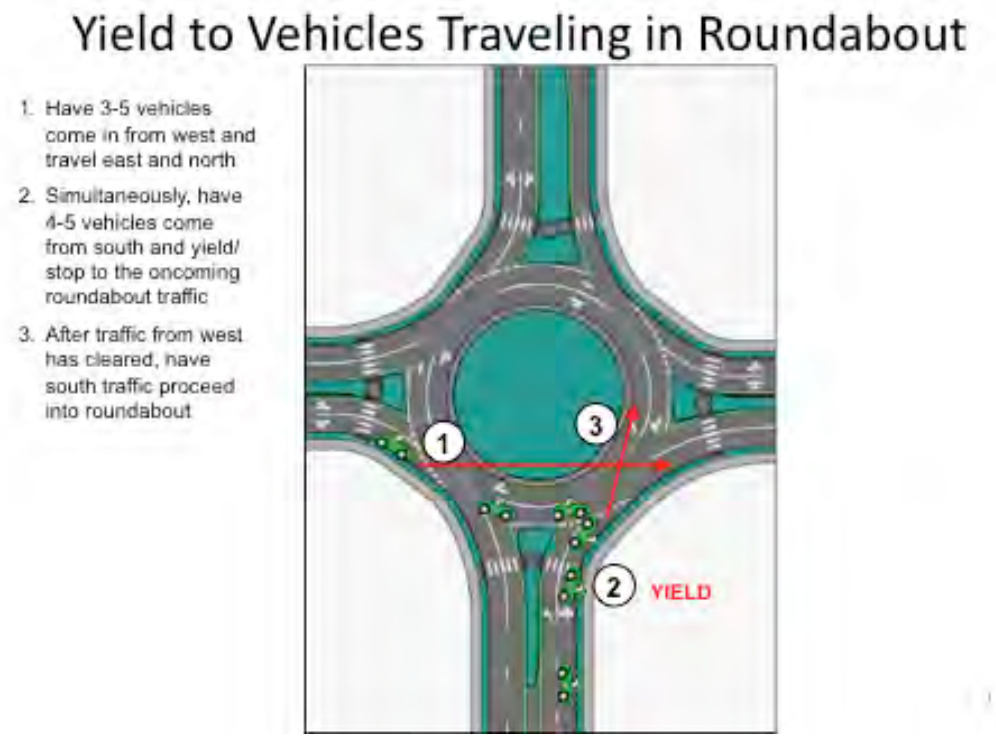


FIGURE 11a. Roundabout Animation Storyboards

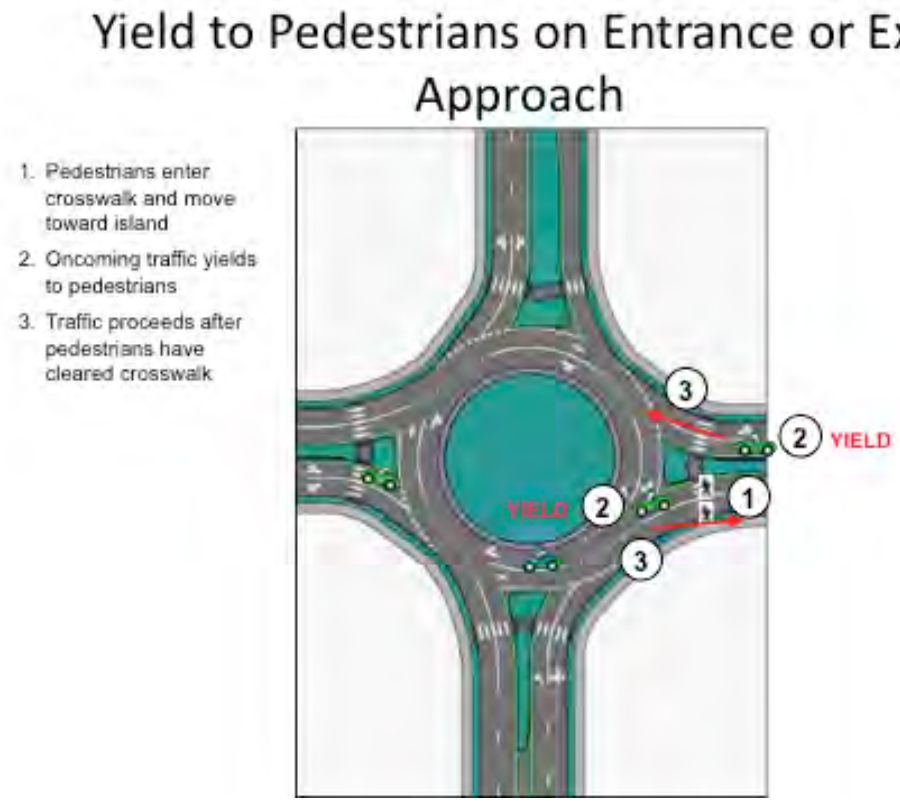


FIGURE 11b. Roundabout Animation Storyboards

How to Approach a Roundabout

1. Have vehicles come in from south
2. Have vehicles enter roundabout nearly side-by-side (but not changing lanes)
3. Exit west

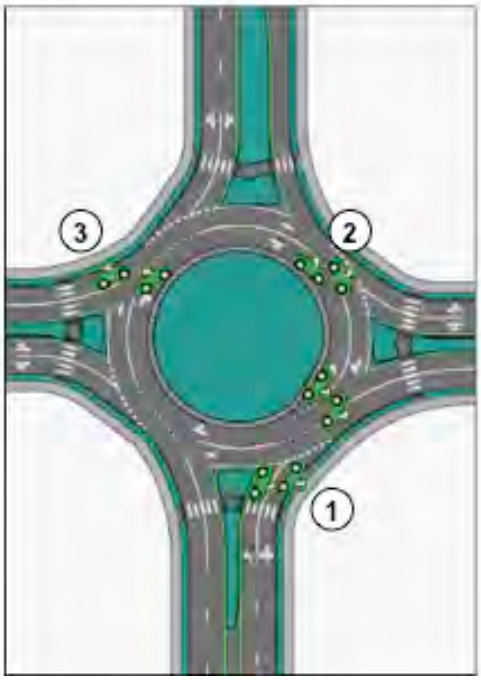


FIGURE 11c. Roundabout Animation Storyboards

Traveling Next to Large Vehicles

1. Have semi truck approach roundabout in right lane, with small car in left
2. Semi truck proceeds into roundabout, car yielding to allow truck extra room (show truck making wide turn)
3. Small car then enters roundabout

FIGURE 11d. Roundabout Animation Storyboards

Traveling Next to Large Vehicles

1. Have semi truck approach roundabout in left lane, with small car in left
2. Semi truck proceeds into roundabout, car yielding to allow truck extra room (show truck making wide turn)
3. Small car then enters roundabout

FIGURE 11e. Roundabout Animation Storyboards

Pedestrian Crossing

1. Since crossing to center island is prohibited, pedestrian must use crosswalks. Pedestrian will start by entering crosswalk and traffic will yield
2. Pedestrian will use sidewalk to proceed to next crosswalk; traffic proceeds
3. Pedestrian will enter crosswalk again, traffic will yield, and pedestrian will exit at desired location

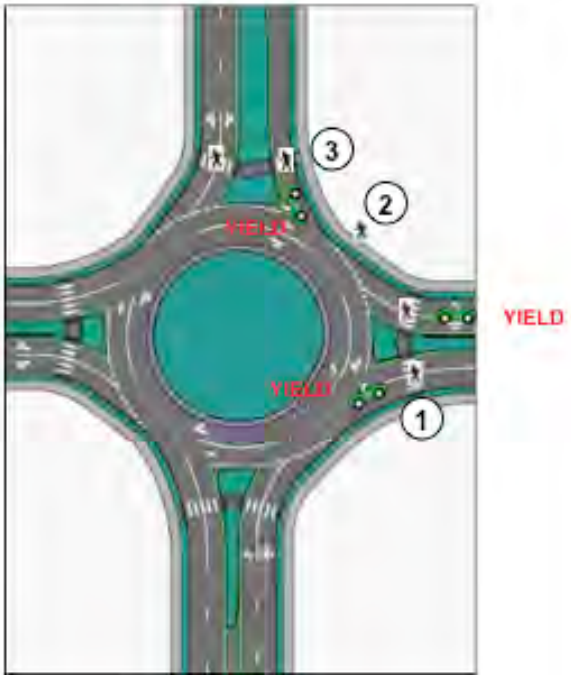


FIGURE 11f. Roundabout Animation Storyboards

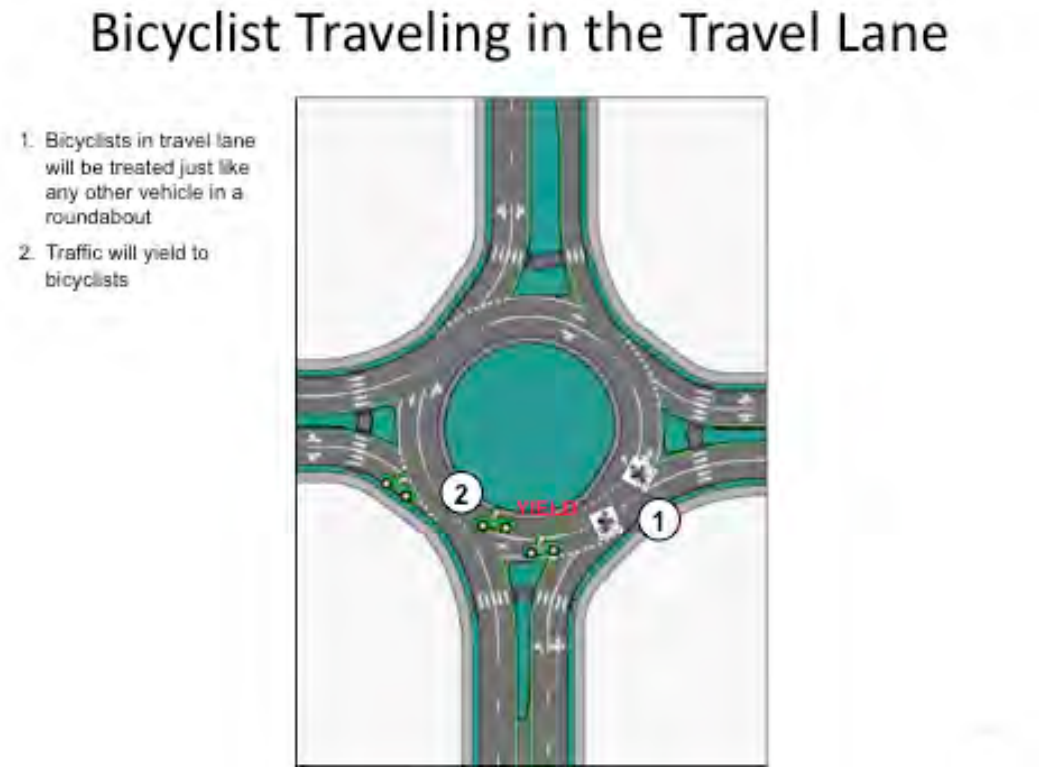


FIGURE 11g. Roundabout Animation Storyboards

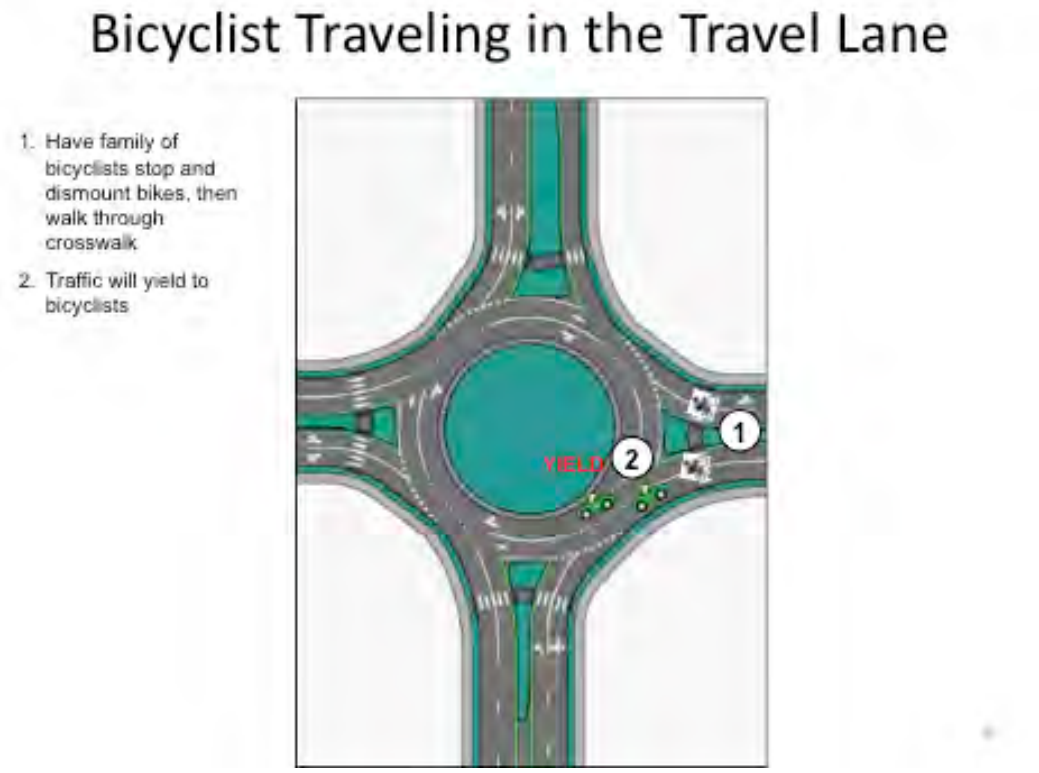


FIGURE 11h. Roundabout Animation Storyboards

8.0 CONCLUSIONS, IMPLEMENTATION, AND EVALUATION

This research involved an investigation of factors affecting operations and safety at roundabouts in the State of Michigan, as well as a determination of public perceptions regarding roundabouts, particularly as they compare to traditional signalized intersections. As a part of this study, various products were developed, including tri-fold brochures, posters, PowerPoint slides, animations, and videos as presented in Chapter 7. These materials provide a diverse toolbox for use by MDOT and other Michigan road agencies to educate the public as to safe and correct negotiation of roundabouts, as well as the benefits associated with roundabouts in comparison to traditional intersections. These materials can be distributed through a variety of settings, including the following:

- The PowerPoint presentation (or selected slides) can be presented to both technical audiences and the general public. MDOT can use these materials to disseminate information to county and local road agencies, as well as other safety partners such as the law enforcement community. Collectively, each of these agencies can also use these slides for presentation at public meetings and hearings. This may prove particularly beneficial during the period prior to construction of a new roundabout. The presentation slides also integrate several of the other educational materials (e.g., videos, animations, etc.), creating a suite of materials that are applicable across a wide range of settings.
- In addition to use at public meetings and hearings, the videos and animations may be made available to the public through websites maintained by MDOT or other stakeholders. This includes MDOT's official website, as well as YouTube. The videos can also be played at MDOT Welcome Centers and Rest Areas, Secretary of State's offices, or as a part of driver training programs throughout the state. These materials are well suited for use in museums, universities, and similar facilities.
- The printed materials can be distributed through some of the same venues discussed previously (public meetings, MDOT Welcome Centers and Rest Areas, Secretary of State's offices, driver training programs). The materials related to the rules of the road can also be integrated into the Secretary of State's driver licensing, testing, and training programs. Direct mailing of the materials in coordination with safety partners is also an alternative. For example, the brochures and handouts may be included as a part of direct

mailings from the Secretary of State (as a part of the license/registration renewal process), universities (included with tuition bills), or other outlets.

- Beyond driver training courses, these materials can also be integrated into existing educational programs at K-12 schools, including the statewide "Safe Routes to School" program. Given the degree of public concern related to pedestrian and bicyclist safety at roundabouts, this presents an ideal forum for educating road users at an early age as to how roundabouts operate and their prospective benefits. The materials are also appropriate for educating older students as several of the project deliverables were pilot tested at the "Drive Safely to Wayne State" traffic safety campaign on the campus of Wayne State University.
- Beyond their educational uses, the crash data, field videos, and survey data provide valuable information for MDOT that can be utilized to address other potential questions of interest. The field videos provide a rich source of information regarding driver behavior under a variety of conditions, providing data that can be used in assessing traffic safety and operations.

As the previous description illustrates, the complete suite of educational materials that were developed as a part of this project are appropriate for use in a variety of settings. Beyond the development of these materials, these products can be evaluated to determine both their short-term and long-term effectiveness, as well as longitudinal changes in road user (driver, bicyclist, pedestrian) performance and perceptions as they relate to roundabouts. While such an evaluation is beyond the scope of this research, it is important that a framework is established that will allow for such an evaluation if necessary.

Ultimately, these materials are aimed at educating the public as to the appropriate use of roundabouts and, as a result, improving the operational and safety characteristics of roundabouts throughout Michigan. The long-term impacts of these materials can be measured as it relates to various measures of effectiveness (MOEs). The primary MOE for such an effectiveness evaluation is typically roundabout crash data. Reductions in the annual number of crashes occurring at a specific roundabout or on a broader area- or statewide basis would signify effectiveness of the educational materials as illustrated in Figure 12. The number of crashes by

type (e.g., sideswipe at entrance points, rear-ends at exit points, etc.) and injury severity may also be compared. It is expected that these materials may also assist in reducing the number of crashes that occur in the periods immediately following the opening of a new roundabout. Comparisons can be conducted between crash trends at newly constructed roundabouts and previous trends at similar locations or via safety performance functions.

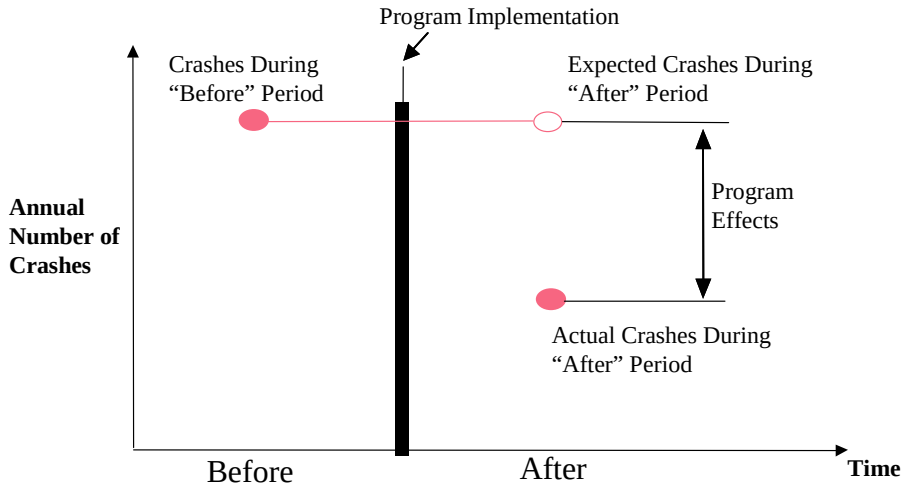


FIGURE 12. Before and After Evaluation Plan with Crash Data

While long-term evaluations of educational programs aimed at improving traffic safety can be assessed using crash data, it is frequently important to obtain more immediate feedback. In lieu of crash data, field behavioral studies can also be utilized to monitor improvements in driver performance over time. Some baseline data is available through the field studies conducted as a part of this research and the same approach utilized during these studies can be used at other locations, as well.

Furthermore, while the primary purpose of the educational materials developed as a part this project is to improve public knowledge regarding roundabout operations, various methods can be used to determine the degree to which this objective is accomplished. For example, the gain in public knowledge due to the educational materials can be assessed by using the results of targeted test questions on the Secretary of State licensing exams. Similar feedback can be obtained through public opinion surveys on a site-specific or regional basis in order to determine

how perceptions change between the periods before and after roundabout construction. Baseline data for various areas of the state are now available as a result of this project at the county-level and information has also been obtained regarding experience with specific roundabouts. Follow-up surveys can be used in the future to evaluate changes in road user perceptions over time. Alternately, the same survey instruments developed as a part of this project can be implemented on a more localized basis during the periods before and after implementation of specific programs.

Effectiveness on a more global basis could also potentially be assessed in coordination with the Secretary of State's office through the implementation of targeted driving training test questions related to roundabout operations. By tracking changes in performance on such questions over time, an assessment of the efficacy of the awareness materials can be obtained.

Finally, to ensure that the products and programs developed through this project are properly implemented, a process evaluation should also be conducted. Process evaluations involve tracking the delivery of program materials, which may include preparing an inventory of the number of educational materials created and distributed through various forums, as well as documenting the time periods during which these materials were distributed. Collecting such data will allow for a more precise determination of program impacts and cost-effectiveness over time. Ultimately, it is expected that the public awareness materials that were developed as a part of this project will serve to enhance the ability of MDOT and other state agencies to improve road user's understanding and abilities to successfully negotiate roundabouts throughout the State of Michigan.

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