APPENDIX A
FOCUS GROUPS MATERIAL

- Consent form
- Demographics questionnaire
- Script for focus groups*
- DVD of roundabout video clips used during the focus groups

*PowerPoint presentations containing still photos of various roundabouts’ layouts, signage, and pavement markings were used as visual aids during the focus groups. These pictures have been inserted directly into the script for the purpose of this report.
PHASE I: CONSENT FORM

INFORMED CONSENT

I have been invited to participate in a group survey concerning the use of roundabouts (also known as traffic circles) at intersections. No prior knowledge or use of these facilities is required to be included in this study. The session is taking place in the offices of the Texas Transportation Institute or other predetermined venues located in Texas. A total of 40 participants will be interviewed in this study. I am being selected as a possible participant because I am aged 65 and older, I possess a valid driver’s license, and I have no apparent limitations impeding my ability to drive. I have been instructed to read this form and ask any questions I may have before agreeing to participate in the study.

Background Information: The purpose of this study is to understand how older drivers view the use of roundabouts and which design elements could be improved to facilitate their use.

Procedures: If I agree to be in this study, I am asked to observe a presentation consisting of short video clips and pictures of roundabouts. Throughout the presentation, I will be asked to engage in a discussion about the characteristics of the presentation. I will also be asked to complete a brief questionnaire about my driving habits. This session will take no longer than 2 hours. I understand that it is my right to stop participating in the study at any time for any reason without any repercussion. At the end of the interview, I will be paid $40 for my participation. If I ask to leave early, I will be paid adjusted to the portion of the scheduled 2 hours in which I participated.

Confidentiality: This session will be audio taped so that all comments can be captured. There may also be note takers present. I understand the records of this study will be kept confidential. In any sort of report that might be published, no information will be included which may make it possible to identify me. I understand the research records will be kept in a locked file, accessible only to the investigator. I will be asked to sign a form acknowledging payment for my participation. These forms are kept separate from this signed consent form and any other data that would identify me by name.

Voluntary Nature of the Study: My decision whether or not to participate will not affect my current or future relations with the Texas Transportation Institute, Texas A&M University, or the Centers for Disease Control and Prevention (CDC). If I decide to participate, I am free to withdraw at any time without affecting those relationships. A copy of this form will be given to me prior to my proceeding with the experiment if I request it.

Contacts and Questions: The researcher conducting this study is Dr. Dominique Lord of the Texas Transportation Institute. He can be reached at (979) 458-1218 or d-lord@tamu.edu. The Centers for Disease Control and Prevention is funding this project.

This research study has been reviewed and approved by the Institutional Review Board, Human Subjects in Research, Texas A&M University. For research-related problems or questions regarding subjects’ rights, the Institutional Review Board may be contacted through the IRB Coordinator, Office of Vice President for Research and Associate Provost for Graduate Studies at (979) 845-1811.

Statement of Consent: I have read and understand the explanation provided me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study. I have been provided a copy of this consent form if I so desire.

______________________________ ___________
Signature of Research Participant  Date

______________________________ ___________
Signature of Principal Investigator  Date
PHASE I: DEMOGRAPHICS QUESTIONNAIRE

Please circle the appropriate response.

DEMOGRAPHICS

Sex: Male Female

Age: ___________ Zip Code: ____________________

Marital Status: Married Divorced Widowed Never Married

Racial Background: White African-American Asian or Pacific Islander Hispanic Other

Current Employment: Retired Full-Time Part Time

Highest Level of Education Completed: Some High School High School Graduate Some College or Vocational School College Graduate Some graduate school Graduate degree

What type of area do you live in permanently? Large City Suburb Small City Rural Area

DRIVING HISTORY

How many years have you been driving? 1-10 yrs 11-25 yrs 25+ yrs

How long have you lived in the state where you currently permanently reside? ________________ years

What other states have you lived in during the last twenty years? (List state and period lived there.) __________________________________________

Do you own a vehicle? Yes No

If yes, how many vehicles are in your household? ________
PHASE I: DEMOGRAPHICS QUESTIONNAIRE

How often do you drive a motor vehicle?

_____ A few times a year  _____ Once a day

_____ A few times a month  _____ Several times a day

_____ A few times a week

How often are you the “navigator” or co-pilot, that is, a passenger who is assisting the driver in reading signs and maps to navigate in an area?

_____ A few times a year  _____ Once a day

_____ A few times a month  _____ Several times a day

_____ A few times a week

Please circle your primary mode of transportation; what is the most common way you get around town on a daily basis.

_____ Drive my own vehicle  _____ Take the bus

_____ Take a taxi  _____ Get a ride from a friend, neighbor, or co-worker

_____ Get a ride from a family member

Do you find making left turns at intersections difficult?  

Yes  No

If yes, what type of difficulty are you experiencing?

______________________________________________________

Have you ever driven through a roundabout or traffic circle before?  

Yes  No

If yes, please answer the questions below:

Where was this/these roundabout(s) located (country, county, city)?

______________________________________________________

How many times?

______________________________________________________

Did you understand how to maneuver inside a roundabout?

______________________________________________________

Did you have difficulty maneuvering inside the roundabout?

______________________________________________________

Do you find them more difficult than regular intersections?
PHASE I: DEMOGRAPHICS QUESTIONNAIRE

What have you learned about roundabouts today?

After today’s discussion, do you think roundabouts are a good idea?

COMMENTS ON TODAY’S STUDY Use this space to make any general comments on today’s study.
PHASE I: SCRIPT FOR FOCUS GROUPS

SCRIPT FOR ROUNDABOUT FOCUS GROUPS

INTRODUCTION
Thank you for coming today. My name is Sue Chrysler, and I am a research scientist at the Texas Transportation Institute at Texas A&M University in College Station. We are conducting four focus groups like this one with drivers over the age of 65 to get their thoughts on a new type of roadway intersection called a roundabout. The Centers for Disease Control and Prevention is funding this research in their Injury Prevention area. As a group, older drivers have more of their traffic crashes at intersections than anywhere else. Now, there are many reasons for this, but the CDC feels that if there are traffic engineering improvements which could be made to intersections, there could be fewer crashes involving older drivers. You were selected for participation in today’s focus group because you are licensed drivers and are still driving at least three times a week. We want to talk to you because you represent the average driver, and we want to build roads that serve you, the average driver. We will take the results of these focus groups to develop a more scientific test of drivers’ understanding of and preference for specific roadway features associated with roundabouts. This test will be conducted later this spring.

Today’s session will last approximately two hours, and we will have a short break about halfway through. I have a few ground rules. (ON POWERPOINT)
1) Everyone must participate (and if you don’t I will call on you).
2) There are no wrong answers (we want to know when drivers may be confused).
3) One person speaks at a time (for the sake of the tape).

We will be audio taping today’s session so that we can transcribe it later. If we report any of your comments, they will be reported anonymously, like “a 72-year-old male driver from Central Texas.” If I repeat your comment or identify you by name, that’s just so we know who was saying what when we transcribe it.

Any questions about the procedures?

Let’s take a moment and introduce ourselves. Please tell us your first name, where you live, and how long you’ve lived there.

Let’s look at some photos of roundabouts and let me explain a little bit. Then we’re going to begin today’s session by watching a 10-minute video produced by the Washington State Department of Transportation.

SHOW OVERVIEW PHOTOS (PowerPoint presentation)
PHASE I: SCRIPT FOR FOCUS GROUPS

Roundabouts can be:
• single or double lane
• not used where there is high traffic (e.g., Holleman and Anderson)
• not used where there is an imbalance in traffic on one leg

This video will explain what roundabouts are and how you are supposed to drive on them. If you think of a comment or question while watching the video, please jot it down on your notepad, and we will discuss it when the video is complete.

SHOW INSTRUCTIONAL VIDEO (DVD)

Can everyone hear?

OK, so did anyone have any questions or comments they thought of while watching the video?

Do you think roundabouts sound like a good idea?

Do you think the video did a good job of explaining the benefits of roundabouts?

Do you think the video did a good job of explaining how to safely drive a roundabout?

Do you think you would know how to drive a roundabout if you had not seen the video? (Use a board with a simple roundabout diagram if necessary.)

Has anyone driven a roundabout like this?
• Where was it?
• What was your experience?

INFORMATION NEEDS QUESTIONS—START GENERAL ASKING ABOUT COMFORT, RIGHT OF WAY, SPEED, AND LANE ASSIGNMENT

For the rest of today’s session we will watch a series of videos of actual roundabouts in use which were filmed in Washington state. I’ll ask you to discuss your understanding and comfort with roundabouts in general, and then later we’ll talk about some specific roadway features like signs and curbs.

First we’ll look at some simple roundabouts like you’d find in a residential area. All the video was shot from a car driver’s perspective. We’ll see two different intersections. For each intersection, the first pass will show you going straight through, and the second pass will show a left turn. As you watch these I just want you to put yourself in the role of the driver and watch how the other traffic behaves in the roundabout. Feel free to jot down your impressions which we’ll discuss after we’ve watched all of them. I’m especially interested in hearing your opinion on items that may make you feel unsafe or uncomfortable if you were driving through these intersections.

Show Videos 10/11 and 32/33 (These are all single-lane entrance and single lanes in circle.)
PHASE I: SCRIPT FOR FOCUS GROUPS

Take note of other traffic in the circle.

Does anyone have any comments?
Make sure they address:
- comfort in use
- right of way
- speed choice
- left-turn movement

What was the first thing you noticed that clued you in that there was a roundabout coming up?

CHECK: Is everyone contributing? Is one person dominating? Does tape need to be changed?

Now let’s watch some videotape from some larger roundabouts and talk about those. Again, jot down any comments and impressions you think of while watching the tapes.

Show Videos 23, 24, 25, 26 (These are all two-lane approach and two lanes in circle.)

Notice where the vehicle places itself at the entry.
Think about how this compares to the single-lane roundabouts we just saw.

Does anyone have any comments?
Make sure they address:
- comfort in use
- right of way
- speed choice
- lane choice in circle
- lane choice on two-lane approaches
- left-turn movement

Was there anything about the scene that made you feel unsafe or uncomfortable?

What about the other drivers may make you feel uncomfortable?

Can you imagine what they may look like at night? What would make you feel comfortable at night?

What would help you feel more comfortable?

OK, good. Now I will show some shorter video clips to address some specific items in the scene. You may have noticed some differences among the various roundabouts we showed you in terms of landscaping, pavement type, curbs, road stripes, and signs. These are all things that can be designed and selected by traffic engineers. As I show you the next series of video clips, I will ask you to focus your attention on specific items.
PHASE I: SCRIPT FOR FOCUS GROUPS

CENTRAL ISLAND
In the first series of runs, I want you to pay attention to the central island area of the different roundabouts shown. Notice the materials used in the central island, the curb area, the road striping around it, and the landscaping in it. By curb, I mean the raised concrete perimeter around the central island. We will talk about signs later. Some of these video clips are from roundabouts you’ve seen already, and some are new.

SHOW 26 (bare, roundabout 3)
  19 (tall landscape, roundabout 10)

HAVE POWERPOINT READY WITH CENTRAL ISLAND FILE

What did you notice about the central islands?
Make sure they address:
- size of circle
- landscaping
  - Does landscaping help identify that there’s a roundabout up ahead while you’re approaching it?
  - What other landscaping or objects would you like to see placed in that central island?
(SHOW PHOTOS)

- Do you think those would improve or hurt the safety of the intersection? Address visibility and obscuration.
- contrasting pavement and curb
  - Does the contrasting brick help you see the edge of the circle?
PHASE I: SCRIPT FOR FOCUS GROUPS

SPLITTER ISLAND/APPROACH GORE

Now let’s concentrate on the approach to the roundabout. In this next series pay attention to how traffic is diverted as it approaches the entrance to the roundabout. You’ll notice some different road striping, some different curb types, and some landscaping. Again, we’ll talk about signs later. For now focus your attention on the roadway and curb area.

Discuss:
- island size
- curb type
- landscaping
- striping

SHOW 17 (roundabout 9, average-sized splitter with pedestrian crossing)
  8 (roundabout 4, long gore with small splitter)
  24 (roundabout 2, long splitter with bushes)

HAVE POWERPOINT READY WITH PHOTOS

What did you think of those?
Do you think one would be more effective in slowing driver down as they approached the roundabout?

What other designs of paint or curbs do you think would make you feel safe and comfortable approaching a roundabout?

SHOW PHOTOS IF NECESSARY
Which treatment did you like the best? Why?

Make sure they address:
- landscaping
  - curb color
  - amount and style of gore striping
  - longitudinal length of gore markings
- splitter island
  - splitter island size
  - splitter island color
- yield bars
  - Do you think they helped?

PROBABLY TIME FOR A BREAK HERE

APPROACH SIGNS, WARNING AND GUIDE

On this next set of passes I want you to pay attention to the signs. I know that it’s difficult to see some of the signs in the video. After we’re done watching them, we’ll talk about what kinds of information you’d like in a sign as you approach a roundabout. I’ve got some examples of signs in blown-up photos that I can show you. Again, make notes during the tape if you need to.

SHOW 32 (roundabout 7, yield ahead and roundabout ahead)  
36 (roundabout 9, rectangular sign)

Let’s say you were a block away from a roundabout. What kind of information would you like to have before you got there?

If you had to put a single sign up, what would it be?  
(Give them an opportunity to draw on the flip chart, trying to see if they think warning or guide is more important.)

What colors should these signs be?  
What shape should these signs be?
PHASE I: SCRIPT FOR FOCUS GROUPS

What side of the road should these signs be on?
Should they be repeated more than once?

SHOW EXAMPLES OF “ROUNDBOUT AHEAD” SIGN

Do you think this sign is necessary?
What action would you take if you saw this sign?
Did you like the speed advisory plaque?
Which one do you like best?
Can you think of a different sign that would convey this message?
PHASE I: SCRIPT FOR FOCUS GROUPS

SHOW EXAMPLES OF ADVANCE GUIDE

Do you think this type of sign is necessary?
What action would you take if you saw this sign?
Which one do you like best?
Why?
Could you read each sign?
Can you think of a different sign that would convey this message?

In some of these photos, there were signs and markings for where there are two lanes leading up to the roundabout.

Did you see a sign or road marking in any of the videos or photos that was trying to tell you which lane to be in?

What information do you need as you approach this kind of roundabout?

Do you remember which lane you’re supposed to be in if you want to turn left?

Can you draw that sign or road marking that explains this?

Can you think of a new sign or marking that could be used at these two-lane entrances?
PHASE I: SCRIPT FOR FOCUS GROUPS

What do you think of these signs?

**SHOW STILL PHOTOS OF ADVANCE LANE ASSIGNMENT, INCLUDE PHOTO OF PAVEMENT MARKINGS**

Which one do you like best?
Why?
Can you think of a different sign that would convey this message?
Do you think you need both signs and road markings? Would one alone be enough?

What would help you feel more comfortable?

**ENTRANCE AREA SIGNS AND MARKINGS**

In the next set of video clips, I want you to pay attention to the entrance area (point to board with drawing). Look for the signs in the vicinity of the entrance. Remember to make any notes as you watch the video.
PHASE I: SCRIPT FOR FOCUS GROUPS

SHOW VIDEO OF APPROACH AND INITIAL TURN INTO CIRCLE. I DON’T THINK WE NEED TO SHOW THE WHOLE PASS.

SHOW 8 (Roundabout 4, no yield bar) 
10 (Roundabout 5, pedestrian sign, contrast brick)

What kinds of information do you need as you are entering a roundabout? Make sure they address:
- no left turn
- one way
- speed
- yield
- lane assignment

Do you think the roundabouts in the video provided all this information?

SHOW PHOTOS OF ROUNDABOUT ENTRANCES
PHASE I: SCRIPT FOR FOCUS GROUPS

Was there a particular sign or marking that did a really good or really bad job?

Do you think we need two yield signs?

Where at the entrance should the yield signs be placed?

SHOW STILL PHOTOS OF ONE WAY/CHEVRON
PHASE I: SCRIPT FOR FOCUS GROUPS

Where in the road do you think one-way signs should be placed (use diagram on board)?

Do you think we need both one-way signs and chevrons?

EXIT SIGNS

In this next group of video clips, I want you to pay attention to the signs which mark the exits. These include street name signs with and without arrows. I want you to note where they are placed, how they are designed, and how legible they are. Like before, you’ll get a chance to see some still photographs of some of them after we’ve talked for a bit.

SHOW 1 (roundabout 1, freeway)
   25 (roundabout 3, SNS)
   27 (roundabout 4, route shield)

What street name or exit information do drivers need?

What else would help you know where and when to exit?

What did you think of the placement of these signs?
Make sure they address:
   • splitter versus corner
   • height

If we have street name signs on each leg of the roundabout, do we still need the advance sign that shows the name of each street as you’re approaching the intersection?
PHASE I: SCRIPT FOR FOCUS GROUPS

SHOW PHOTOS OF SIGNS
PHASE I: SCRIPT FOR FOCUS GROUPS

Which one of these do you like the best?

What do you think of this one that has an arrow built in? Do you think you’d notice that little arrow while driving through the roundabout?

Should the letters be all uppercase or mixed case?

Can anyone think of a different design which may be better? Would this new design be just for roundabouts or would it be better at regular intersections too?

**IF TIME, ASK**

**PAVEMENT MARKINGS IN CIRCLE FOR TWO LANE**

Now I’m going to show you some video of driving through a two-lane roundabout. I want you to pay attention to the road markings.

**SHOW 1** (roundabout 1, right turn lane marked)

25 (little marking)
PHASE I: SCRIPT FOR FOCUS GROUPS

What information do you need while you are driving in the circle?

How can we make it clear when it is safe and legal to change lanes?

Do you think most drivers will pay attention to these road markings?

What other types of striping could we use to communicate to drivers?

PEDESTRIAN FACILITIES

Lastly, let’s talk about pedestrian crossings at roundabouts. In this next set of videos pay attention to the pedestrian crossing areas both at the entrance and the exit.

First, let me ask, do you think it’s safe to have pedestrians trying to cross the street in these areas? Why or why not?

SHOW VIDEO WITH VARIOUS CROSSWALK TREATMENTS INCLUDING CONTRASTING BRICK. ALSO FLASHING BEACON.

Which pedestrian crosswalk do you think would help alert you as a driver that there may be a pedestrian?

Make sure they address:
- landscaping hiding pedestrians
- flashing beacon
- pedestrian crossing signs at exits

Do you think there should be traffic lights to stop traffic for pedestrians, where the pedestrian would push a button to activate a red light?
PHASE I: DVD OF ROUNDABOUT VIDEO CLIPS

Folder: DVD of Roundabout Video Clips Used During the Focus Groups
APPENDIX B
STRUCTURED INTERVIEWS MATERIAL

- Consent form
- Questionnaire for Stage 1
- Questionnaire for Stage 2
- Questionnaire for Stage 3
- Demographic questionnaire
- PowerPoint slide presentation used for the structured interviews

*PowerPoint presentations containing still photos of various roundabouts’ layouts, signage, and pavement markings were used as visual aids during the focus groups. These pictures have been inserted directly into the script for the purpose of this report.
INFORMED CONSENT

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Background Information: The purpose of this study is to understand how older drivers view the use of roundabouts and which design elements could be improved to facilitate their use.

Procedures: If I agree to be in this study, I am asked to observe a presentation consisting of short video clips and pictures of roundabouts. Throughout the presentation, I will be asked to complete an opinion survey and rating scale about the video. I will also be asked to complete a brief questionnaire about my driving habits. This session will take no longer than 90 minutes. I understand that it is my right to stop participating in the study at any time for any reason without any repercussion. At the end of the interview, I will be paid $40 for my participation. If I ask to leave early, I will be paid adjusted to the portion of the scheduled 2 hours in which I participated.

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Statement of Consent: I have read and understand the explanation provided me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study. I have been provided a copy of this consent form if I so desire.

Signature of Research Participant ___________________________ Date __________

Signature of Principal Investigator ___________________________ Date __________
Form A

Use this scale of 1 to 7 to answer each question below.

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<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<tr>
<td>significantly lower</td>
<td>a lot lower</td>
<td>a little bit lower</td>
<td>the same—no change</td>
<td>a little bit higher</td>
<td>a lot higher</td>
<td>significantly higher</td>
</tr>
</tbody>
</table>

Compared to the first drive, how would your level of **comfort** change, if at all, based on the new feature included in the second drive?

Compared to the first drive, how would your level of **confidence** that you are using the roundabout correctly change, if at all, based on the new feature included in the second drive?

Compared to the first drive, how would your **feeling of safety** change, if at all, based on the new feature included in the second drive?

Thinking about 10 average drivers your age, how many do you think will feel comfortable when they see the sign or marking that is shown

- in the first drive  _______ out of 10 drivers will feel comfortable.
- in the second drive  _______ out of 10 drivers will feel comfortable.

******************************************************************************
PHASE II: QUESTIONNAIRE FOR STAGE 2

Participant #_______

Form B

Use this scale of 1 to 7 to answer each question below.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
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<th>4</th>
<th>5</th>
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<td>the same—no change</td>
<td>a little bit higher</td>
<td>a lot higher</td>
<td>significantly higher</td>
</tr>
</tbody>
</table>

It would be _______ level of comfort change, if at all, based on the new feature included in the third drive?

Compared to the first drive, how would your level of confidence that you are using the roundabout correctly change, if at all, based on the new feature included in the third drive?

Compared to the first drive, how would your feeling of safety change, if at all, based on the new feature included in the third drive?

Thinking about 10 average drivers your age, how many do you think will feel comfortable when they see the sign or marking that is shown:

in the first drive _______ out of 10 drivers will feel comfortable.

in the second drive _______ out of 10 drivers will feel comfortable.
Form C-1: Warning Sign

Looking at these three photos of the different signs you just saw, your ratings from before indicate that you liked this one (point to it) best.

Why do you like that one best?

Which one of these signs did you find the easiest to understand?

1 2 3

Was there one of these, or more, that you found particularly difficult to understand what it was trying to tell you?

1 2 3

Which sign do you think will do the best job of getting other drivers to become aware that there is a roundabout ahead?

1 2 3

Which sign do you think will do the best job of getting other drivers to slow down as they approach the roundabout?

1 2 3

* These highlighted sections will have to be changed for each design element.
Form C-2: Guide Sign

Looking at these three photos of the different signs you just saw, your ratings from before indicate that you liked this one (point to it) best.

Why do you like that one best?

Which one of these signs did you find the **easiest to understand**?

1 2 3

Was there one of these, or more, that you found **particularly difficult to understand** what it was trying to tell you?

1 2 3

Which sign do you think will do the best job of getting other drivers to **know which lane to travel in through the roundabout**?

1 2 3

Which sign do you think will do the best job of getting other drivers to **choose the correct lane based on their destination**?

1 2 3
PHASE II: QUESTIONNAIRE FOR STAGE 3

Participant #_______

Form C-3: Directional Sign

Looking at these three photos of the different signs you just saw, your ratings from before indicate that you liked this one (point to it) best.

Why do you like that one best?

Which one of these signs did you find the easiest to understand?

1  2  3

Was there one of these, or more, that you found particularly difficult to understand what it was trying to tell you?

1  2  3

Which sign do you think will do the best job of getting other drivers to become aware of the direction that traffic is traveling around the roundabout?

1  2  3

Which sign do you think will do the best job of getting other drivers to look for conflicts with approaching traffic in the roundabout before entering?

1  2  3

Which sign do you think will do the best job of keeping people from turning the wrong way into the roundabout?

1  2  3
PHASE II: QUESTIONNAIRE FOR STAGE 3

Participant #_______

Form C-4: Yield Treatment

Looking at these three photos of the different signs you just saw, your ratings from before indicate that you liked this one (point to it) best.

Why do you like that one best?

Which one of these signs did you find the easiest to understand?

1 2 3

Was there one of these, or more, that you found particularly difficult to understand what it was trying to tell you?

1 2 3

Which sign do you think will do the best job of getting other drivers to become aware that traffic in the roundabout has right of way?

1 2 3

Which sign do you think will do the best job of getting other drivers to yield to traffic in the roundabout?

1 2 3

* These highlighted sections will have to be changed for each design element.
Form C-5: Street Name Sign at Exit

Looking at these three photos of the different signs you just saw, your ratings from before indicate that you liked this one (point to it) best.

Why do you like that one best?

Which one of these signs did you find the easiest to understand?

1  2  3

Was there one of these, or more, that you found particularly difficult to understand what it was trying to tell you?

1  2  3

Which sign do you think will do the best job of getting other drivers to become aware that the next exit is Jones Road?

1  2  3

Which sign do you think will do the best job of getting other drivers to make speed and lane adjustments early enough to safely exit the roundabout?

1  2  3

* These highlighted sections will have to be changed for each design element.
PHASE II: QUESTIONNAIRE FOR STAGE 3

Participant #_______

Form D

(Line up the five photos representing their favorites for each design element.)

Let’s pretend we’ve built the dream roundabout that has your favorite signs and markings.

Please indicate how strongly you agree or disagree with the following statements about these signs using this scale:

1 2 3 4 5 6

| Very Strongly Disagree | Strongly Disagree | Slightly Disagree | Slightly Agree | Strongly Agree | Very Strongly Agree |

_____ I would avoid this intersection whenever possible.

_____ I would come to a complete stop every time before entering the roundabout.

_____ I would stay in the outside lane of the roundabout all the time, no matter which exit I wanted to take.

Now, I want you to think about driving through this roundabout and making a left turn. Using this scale of 1 to 7, answer each question below.

1 2 3 4 5 6 7

| It would be significantly lower with the roundabout | It would be a lot lower with the roundabout | It would be a little bit lower with the roundabout | It would be the same—no change with the roundabout | It would be a little bit higher with the roundabout | It would be a lot higher with the roundabout | It would be significantly higher with the roundabout |

_____ Compare in your mind making a left turn in this roundabout to making a left turn at a regular intersection with a four-way stop sign. How would your feeling of safety change?

_____ Compare in your mind making a left turn in this roundabout to making a left turn at a regular intersection with a traffic light but no turn arrow. How would your feeling of safety change?

_____ Compare in your mind making a left turn in this roundabout to making a left turn at a regular intersection with a traffic light with a turn arrow. How would your feeling of safety change?
## DEMOGRAPHICS

Please circle the appropriate response.

**Sex:**
- Male
- Female

**Age:**

**Zip Code:**

**Marital Status:**
- Married
- Divorced
- Widowed
- Never Married

**Racial Background:**
- White
- African-American
- Asian or Pacific Islander
- Hispanic
- Other

**Current Employment:**
- Retired
- Full Time
- Part Time

**Highest Level of Education Completed:**
- Some High School
- High School Graduate
- Some College or Vocational School
- College Graduate
- Some graduate school
- Graduate degree

**What type of area do you live in permanently?**
- Large City
- Suburb
- Small City
- Rural Area

## DRIVING HISTORY

**How many years have you been driving?**
- 1-10 yrs
- 11-25 yrs
- 25+ yrs

**How long have you lived in the state where you currently permanently reside?**

**What other states have you lived in during the last twenty years?** (List state and period lived there.)

---

**Do you own a vehicle?**
- Yes
- No

**If yes, how many vehicles are in your household?**

---

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PHASE II: DEMOGRAPHICS QUESTIONNAIRE

How often do you drive a motor vehicle?

_____ A few times a year  _____ A few times a month
_____ A few times a week    _____ Once a day
_____ Several times a day

How often are you the “navigator” or co-pilot, that is, a passenger who is assisting the driver in reading signs and maps to navigate in an area?

_____ A few times a year  _____ Once a day
_____ A few times a month    _____ Several times a day
_____ A few times a week

Please circle your primary mode of transportation; what is the most common way you get around town on a daily basis.

_____ Drive my own vehicle  _____ Take the bus
_____ Take a taxi  _____ Get a ride from a friend, neighbor, or co-worker
_____ Get a ride from a family member

Do you find making left turns at intersections difficult?

Yes  No

If yes, what type of difficulty are you experiencing?

____________________________________________________________________________________

____________________________________________________________________________________

Have you ever driven through a roundabout or traffic circle before?

Yes  No

If yes, please answer the questions below:

Where was this (these) roundabout(s) located (country, county, city)?

____________________________________________________________________________________

How many times?

____________________________________________________________________________________

Did you understand how to maneuver inside a roundabout?

____________________________________________________________________________________

Did you have difficulty maneuvering inside the roundabout?

____________________________________________________________________________________

Do you find them more difficult than a regular intersection?

____________________________________________________________________________________

____________________________________________________________________________________
PHASE II: DEMOGRAPHICS QUESTIONNAIRE

What have you learned about roundabouts today?

After today’s discussion, do you think roundabouts are a good idea?

COMMENTS ON TODAY’S STUDY Use this space to make any general comments on today’s study.
PHASE II: POWERPOINT SLIDE PRESENTATION

ONE WAY SIGN
- FORM I
  - Option 1
  - Option 2
- FORM II
  - Option 1
  - Option 3

COMPARE STILL PHOTOGRAPHS
- FORM III
  - Warning Sign
  - Yield Treatment
  - Street Name Sign
  - Lane Assignment Sign
  - One Way Sign

OVERALL QUESTIONS
- Form IV

DEMographics and driving habits

THANK YOU VERY MUCH!