

# Roundabouts and Pedestrians



*Martin Luther King roundabout, Springfield, OR*

*Photo courtesy City of Springfield, OR*

*Pedestrian activated RRFB*



*Martin Luther King roundabout, Springfield, OR*

*Video Courtesy City of Springfield, OR*

[See video of pedestrian crossing here](#)

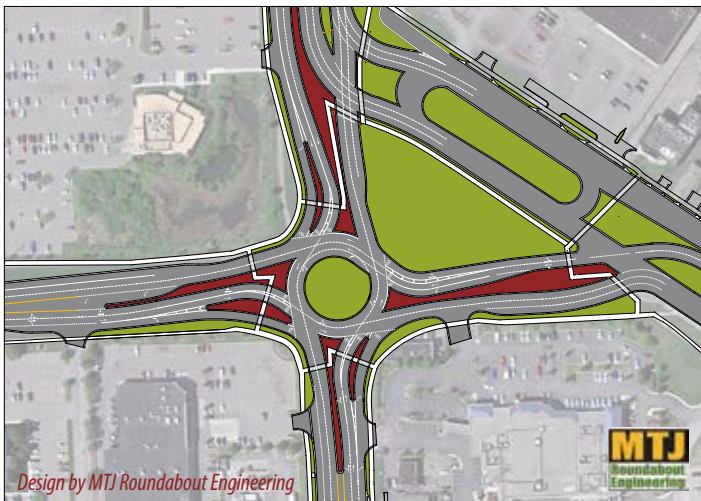
## Pedestrian Safety

Pedestrians play a major component in the design of any traffic control system. Roundabouts are a safer alternative to traditional signalized or stop sign based intersections since vehicle speeds are low and contiguous lanes are usually narrower, requiring pedestrians to spend less time in active lanes and more time on shoulders or islands. Additionally, since traffic is not required to queue, pedestrians have more freedom to proceed when comfortable instead of racing to catch a “walk” signal.

Higher capacity roundabouts may require additional visual and audible cues to better accommodate pedestrian traffic and specifically pedestrians with disabilities. This topic has yielded much discussion recently due to a proposed ADA ruling (PROWAG) regarding the accessibility of multi-lane crossings for the visually impaired.

The project pictured above includes Rectangular Rapid Flashing Beacons (RRFB) to meet this challenge by providing an improved pedestrian environment. The RRFB's contain LEDs that flash at a rapid rate to facilitate driver recognition and awareness of pedestrians at or near a cross walk.

RRFB's are placed closer to driver eye-level at entry and exit points where pedestrians traditionally wait to cross an intersection. This brings the drivers attention to the road side making pedestrians more visible than overhead pedestrian signal alternatives. The RRFB devices have shown significant improvements to yielding rates and safety due to greater visibility of pedestrians in crosswalks for multiple lane crossings (City of St. Petersburg, FL RRFB Study, 2009).



*Design by MTJ Roundabout Engineering*



*14 Mile Rd. and Orchard Lake Rd. Roundabout, W. Bloomfield Township, MI*



Photo courtesy City of Springfield, OR

MLK Roundabout Springfield, OR

### NCHRP 674 Study

The NCHRP 674 study's authors report significant reservations with the proposed Draft rule making recommendations contained in the PROWAG. These reservations are summarized in the following statements excerpted from the NCHRP 674 study:

- “An increasing national debate in this area is very positive. However, a narrow focus in that debate on the signalization of two-lane crossings is associated with major concerns. . . . The emphasis on signalization gives a perceived blanket obligation for a one-size-fits-all treatment at all two-lane locations...”
- “The results and conclusions previously discussed should not be construed as absolute, and readers should remain cautious about basing policy decisions on these limited data...”

- “This report provides a firm conceptual measurement driven approach to the study of the effect of such treatments, but it is clear that more field research is needed to explore and substantiate treatment effects...”

NCHRP 674 notes that the proposed draft ADA guidelines allow for “equivalent facilitations in all implementations of requirements,” thus there are options other than full pedestrian signalization often referred to as a ‘HAWK’ system.

It is noted that the PROWAG Guidelines place a strong emphasis on “way finding” and the NCHRP 674 study's conclusions also repeat this emphasis on including ‘way finding’ features, and adds other treatments to include rectangular rapid flashing beacons (RRFBs) shown in our picture to the right and other flashing beacons, as well as traffic-calming treatments such as raised pedestrian crossings.



R1-6 pedestrian sign



[See video of pedestrian crossing here](#)