Concrete Roundabouts

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RIGHT TURN CLYDE
# Roundabout Category Comparison

<table>
<thead>
<tr>
<th>Design Element</th>
<th>Mini-Roundabout</th>
<th>Single-Lane Roundabout</th>
<th>Multilane Roundabout</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desirable maximum entry design speed</td>
<td>15 to 20 mph (25 to 30 km/h)</td>
<td>20 to 25 mph (30 to 40 km/h)</td>
<td>25 to 30 mph (40 to 50 km/h)</td>
</tr>
<tr>
<td>Maximum number of entering lanes per approach</td>
<td>1</td>
<td>1</td>
<td>2+</td>
</tr>
<tr>
<td>Typical inscribed circle diameter</td>
<td>45 to 90 ft (13 to 27 m)</td>
<td>90 to 180 ft (27 to 55 m)</td>
<td>150 to 300 ft (46 to 91 m)</td>
</tr>
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</tr>
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<td>--------------------------------------------------------------------------------</td>
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<tr>
<td>Central island treatment</td>
<td>Fully traversable</td>
<td>Raised (may have traversable apron)</td>
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</tr>
<tr>
<td>Typical daily service volumes on 4-leg roundabout below which may be expected to operate without requiring a detailed capacity analysis (veh/day)*</td>
<td>Up to approximately 15,000</td>
<td>Up to approximately 25,000</td>
<td>Up to approximately 45,000 for two-lane roundabout</td>
</tr>
</tbody>
</table>

*Operational analysis needed to verify upper limit for specific applications.
GOOD LUCK

45 M.P.H.
How Concrete Roads Create Wealth
17%
Longevity
Durability
Increasing stress

7000 lbs load

Asphalt

Pressure ~ 15 - 20 psi

Subgrade
Concrete subgrade

7000 lbs load

pressure ~3 - 7 psi

increasing stress

subgrade
“Perpetual Payment”
Bellefontaine, OH

- Placed 1891
- Guaranteed for 5 years
- 120+ years old and still in service!
To Do:
Look! Kittens!
ROUNDABOUTS: AN INFORMATIONAL GUIDE

Although roundabouts have been in widespread use in other countries for a number of years, it is only during the past few years that their application in the United States has received increased attention by both the public and transportation professionals. A lack of sufficient information on roundabout operation and design under local U.S. conditions is one of the reasons why these roundabout intersections have seen only sporadic implementation. This national guide bridges this gap by providing a comprehensive source of information on modern roundabouts, from small mini-roundabouts to large freeway interchange roundabouts.

To make the information widely accessible, the guide has been structured and written to address the needs of a wide range of readers, including the general public, policy-makers, transportation planners, operations and safety analysts, and conceptual and detailed designers. Not only does the guide provide general information and planning level analysis techniques, but it also includes evaluation procedures for assessing operational and safety performance, as well as design guidelines. Input from transportation practitioners and researchers from around the world was used in developing the guide. This book covers the needs of all travel modes and provides design guidance for incorporating these needs into final plans.

SAFETY AND OPERATIONAL BENEFITS

Many international studies have found that one of the most significant benefits of a roundabout installation is the improvement in overall safety performance. Specifically, in the United States, it has been found that single-lane roundabouts operate more safely than two-
Roundabouts: An Informational Guide

Second Edition

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES
Crossing Solutions at Roundabouts and Channelized Turn Lanes for Pedestrians with Vision Disabilities