

Ordinance for Design Standards for Roundabouts

Legislative Findings:

WHEREAS, West Windsor wishes to build a bicycle and pedestrian friendly community for people of all ages and abilities; and

WHEREAS, West Windsor's Master Plan Goal is to create a pedestrian and bikeway system that makes walking and cycling a viable alternative to driving, and which improves bicyclist and pedestrian safety; and

WHEREAS, Roundabouts are nationally and internationally recognized for creating calmer traffic and fewer collisions; and

WHEREAS, The Federal Highway Administration (FHWA) recognizes that "Roundabouts may not provide safety benefits to bicyclists" and "crash reductions are most pronounced for motor vehicles, less pronounced for pedestrians, and equivocal for bicyclists, depending on the study and bicycle design treatments"; and

WHEREAS, The American Association of State Highway and Transportation Officials (AASHTO) recognizes bicyclists are vulnerable users of roundabouts; and

WHEREAS, The National Cooperative Research Program of the Transportation Research Board recognizes a roundabout study which found "About half of the bicycle and moped crashes were due to a refusal of priority of the entering vehicle vis-a-vis the circulating bicycle"; and

WHEREAS, There is already an implemented roundabout in West Windsor and others are planned; and

WHEREAS, West Windsor wishes to provide the safest design of roundabouts based on national standards that enable usage by the 3 categories of bicyclists recognized by New Jersey Department of Transportation (NJDOT) – experienced, casual and child.

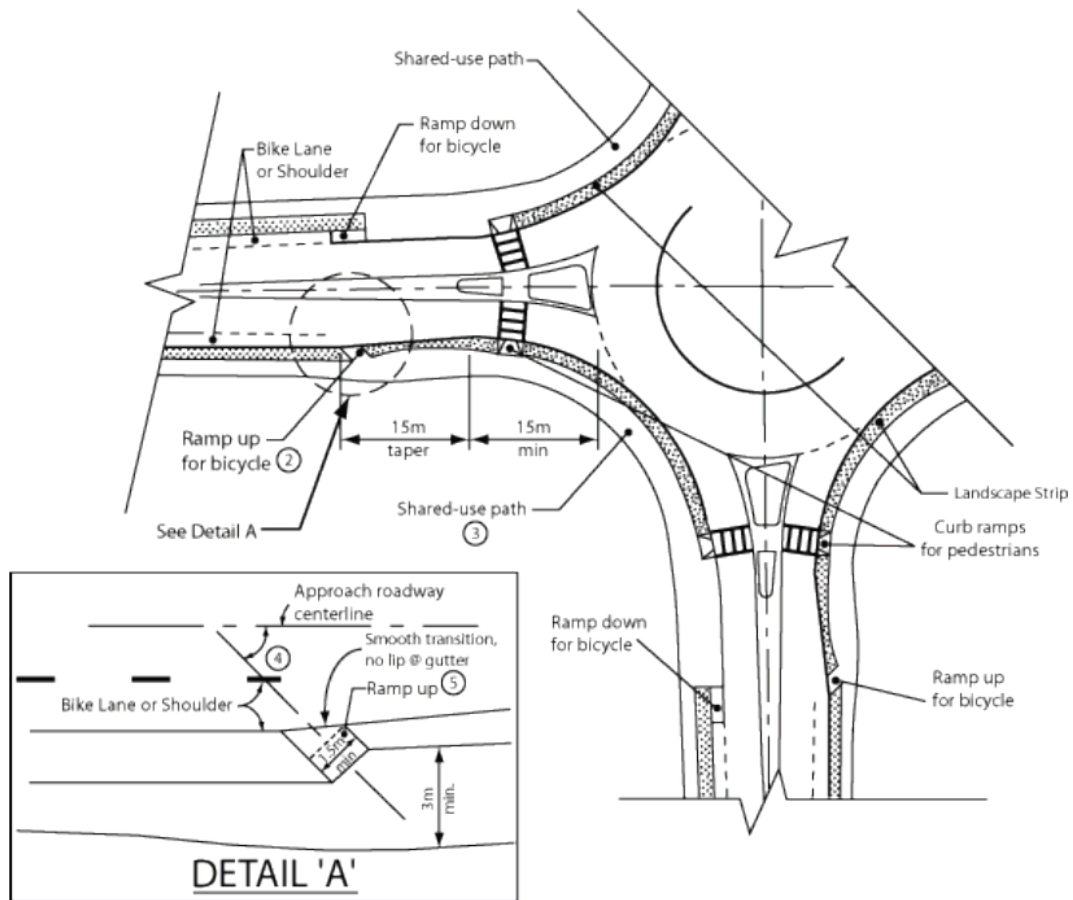
NOW, THEREFORE, BE IT ORDAINED by the Township Council of the Township of West Windsor:

A new Article titled Design Standards for Roundabouts shall be created as follows (new language underlined):

Roundabout intersections shall conform to the New Jersey Department of Transportation (NJDOT)-adopted reference standards for urban roundabouts found in the Federal Highway Administration publication FHWA – Roundabouts: An Informational Guide, (2000), Publication No. FHWA-RD-00-067, or any future roundabout standards adopted by NJDOT. Roundabouts including an arterial or collector roadway shall include

pedestrian and bicycle facilities, including marked crossings, sidewalks, a shared bicycle-pedestrian path, and designated bike lanes with ramps to and from the shared bicycle-pedestrian path, to accommodate bicyclists who prefer not to use the circulatory roadway, as shown in Roundabout Detail A, below.

### Roundabout Detail A



#### NOTES

- ① Each roundabout intersection is unique and will require sound engineering judgement on the part of the designer as to the appropriate solution. These illustrations are only intended to show potential details that may be included in the design of a roundabout. For further guidance on how to comply with Departmental standards on landscaping, delineation, signing, pedestrian accessibility and accommodation per the Americans with Disability Act (ADA), and bicycle standards contact the Traffic Operations Liaison and the Design Coordinator.
- ② Ramps for bicyclists choosing not to proceed through the roundabout as a vehicle should be designed to provide adequate stopping sight distance for the bicyclists and, for the comfort of the pedestrians using the path, balance the bicyclists' desire to maintain momentum with the possibility that conflicts may occur with pedestrians.
- ③ Shared-use path will be used by both pedestrians and bicyclists and should be designed accordingly taking into account the unique behavior characteristics and needs of both types of users. For further discussion, see the Highway Design Manual and the AASHTO Guide for the Development of Bicycle Facilities, 1999.
- ④ The target value for this angle is 45° (30° minimum); however, the actual angle designed at a given entrance should take into consideration all of the users of the path.
- ⑤ Ramp up as necessary; should not exceed 15%. Round the landscape strip slopes to match the grade of the ramp. Curbs should not be placed between the landscape strip and the ramp.