

Traffic Calming Fact Sheets

March 2019 Update

Roundabout

Description:

- Raised islands placed in unsignalized intersections around which traffic circulates
- Approaching motorists yield to motorists already in the intersection
- Requires drivers to slow to a speed that allows them to comfortably maneuver around them
- Different from traffic circles or mini-roundabouts; possible substitute for traffic signal control

Applications:

- Intersections of arterial and/or collector streets
- One or more entering lanes
- Can be used at intersections with high volumes of large trucks and buses, depending on design



(Source: Grant Kaye)



(Source: PennDOT Local Technical Assistance Program)

ITE/FHWA Traffic Calming EPrimer: https://safety.fhwa.dot.gov/speedmgt/traffic_calm.cfm

Design/Installation:

- See NCHRP Report 672 for design details
- Design vehicle is determined specifically for each site ranging from emergency vehicles to over size/overweight vehicles
- Typically circular in shape but may be an oval shape
- Key physical elements are center islands, truck aprons, and splitter islands
- Controlled by YIELD signs on all approaches with pedestrian crosswalks, if included, one car-length upstream of YIELD bar
- Key design features include: fastest paths, swept paths, and path alignment
- Large vehicles circulating around the center island for all movements may traverse the apron
- Landscaping needs to be designed to allow adequate sight distance per NCHRP 672
- Preferable to have a closed-section road (i.e. curb and gutter)
- Bicycle facilities, if provided, must be separate from the circulatory roadway with physical barriers; cyclists using the circulatory roadway must merge with vehicles. Bicycle facilities are prohibited in the circulatory roadway to prevent right-hook crashes.

Potential Impacts:

- Limited impact on access, except for access points immediately adjacent to intersection
- Limited impact on roadways with on-street parking
- May draw additional traffic but with reduced delays and queues

Emergency Response:

- Appropriate for emergency vehicle routes or streets that provide access to hospitals
- Emergency vehicles may traverse the apron

Typical Cost

- Cost varies widely by site, but is usually comparable to a traffic signal