

- Circulatory Roadway shall be sloped 2% outward away from the central island. The outward cross-slope design means drivers making through and left-turn movements must negotiate the roundabout at negative superelevation. Sloping the circulatory roadway outward away from the central island is required for the following reasons:
 - It promotes safety by raising the elevation of the central island and improves visibility,
 - It promotes lower circulating speeds due to the adverse superelevation,
 - It minimizes breaks in the cross slopes of the entrance and exit lanes, and
 - It allows surface water to drain to the outside of the roundabout.*
- Curb and/ or Curb and Gutter shall be provided on the outside of the circulatory roadway and on all approaches a minimum distance equal to the length of the splitter island to help approaching drivers recognize the need to reduce their speed, prevent corner-cutting, and to confine vehicles to the intended design path.
- Inscribed Circle diameter is the distance measured across the circle inscribed by the face of the outer curb or front edge of the gutter pan of the circulatory roadway. See Figure 2-14.
- Profiles – The vertical design shall begin with the development of the approach roadway and the central island. Each profile shall be designed to the point where the approach baseline intersects with the central island. A profile for the central island is then developed that passes through these four points (in the case of a four-legged roundabout). The approach roadway profiles shall be refined as necessary to meet the central island profile. For examples see, Chapter 6 of the [NCHRP Report 672 Roundabouts; An Informational Guide, Second Edition](#). In addition to the approach and central island profiles, creating an additional profile around the inscribed circle of the roundabout and / or outer curbs are also beneficial. The combination of the central island, inscribed circle, and curb profiles allows for quick verification of cross slopes and drainage and provides additional information to contractors for staking out the roundabout.
- Example Plan Sheets, Typical Section, Profile Sheets for a Typical Single-Lane Roundabouts can be accessed at: <http://www.virginiadot.org/info/faq-roundabouts.asp> as well as in [NCHRP Report 672 Roundabouts; An Informational Guide, Second Edition](#), page 6-82.