Increase an Intersection Curb Radius

Reconstruction of the edge of traveled way at the intersection to provide a larger corner radius, which will better accommodate turning trucks and other large vehicles.

Targeted Crash Types

- Rear-end (major road)
- Rear-end (minor road)
- Sideswipe, opposite direction

Conditions Addressed

- Turning trucks or other large vehicles routinely drive over the curb and onto pedestrian facilities and signs adjacent to the roadway.
- Turning trucks or other large vehicles routinely encroach upon other lanes when completing their maneuver, perhaps causing temporary gridlock or forcing other vehicles to back up or change lanes.

Problems Addressed

- Excessive intersection conflicts
- Poor operational performance

Considerations

- The benefits of providing additional space on the roadway to accommodate large turning vehicles should be weighed against the drawbacks of lengthening the pedestrian crossing.
- While a single circular arc between the edges of pavement of the intersecting roadways provides the simplest design, two alternatives are available for accommodating large vehicles: (1) a three-centered curve, or (2) a simple offset curve with connecting tapers. Each alternative may more closely mimic the turning path of large vehicles.
- If a larger radius is required to accommodate trucks or buses, consider installing a channelizing island with the tail pointing upstream to promote slower right turns. The island should be raised, large enough to accommodate pedestrians, and fully pedestrian-accessible.

Industry Standard

AASHTO Green Book
Section 2.1.2: Minimum Turning Paths of Design Vehicles