

Note: For federal-aid projects, documentation must be provided to explain why the preferred values are not being met. For non-federal aid projects, the designer must contact the Jurisdiction to determine what level of documentation, if any, is required prior to utilizing design values between the “Preferred” and “Acceptable” tables.

Table 5C-1.01 Footnotes:

- ¹ Number of traffic lanes, turn lanes, intersection configuration, etc. should be designed to provide the overall specified LOS at the design year ADT. Two LOS values are shown for collectors and arterials. The first indicates the minimum overall LOS for the roadway as a whole; the second is the minimum LOS for individual movements at intersections.
- ² Width shown is for through lanes and turn lanes.
- ³ Bridge width is measured as the clear width between curbs or railings. Minimum bridge width is based upon the width of the traveled way (lane widths) plus 4 feet clearance on each side; but no less than the curb-face to curb-face width of the approaching roadway. Minimum bridge widths do not include medians, turn lanes, parking, or sidewalks. At least one sidewalk should be extended across the bridge.
- ⁴ See Table 5C-1.02, for acceptable values for width of bridges to remain in place.
- ⁵ Vertical clearance includes a 0.5 foot allowance for future resurfacing.
- ⁶ Object setback does not apply to mailboxes constructed and installed according to US Postal Service regulations, including breakaway supports.
- ⁷ Values shown are measured from the edge of the traveled way to the back of curb. Curb offset is not required for turn lanes. On roadways with an anticipated posted speed of 45 mph or greater, mountable curbs are required. For pavements with gutterline jointing, the curb offset should be equal to or greater than the distance between the back of curb and longitudinal gutterline joint.
- ⁸ Parking is allowed along one side of local or collector streets unless restricted by the Jurisdiction. Some jurisdictions allow parking on both sides of the street. When this occurs, each jurisdiction will set their own standards to allow for proper clearances, including passage of large emergency vehicles. Parking is normally not allowed along arterial roadways.
- ⁹ For local, low volume residential streets, two free flowing lanes are not required and a 26 foot or 31 foot (back to back) roadway may be used where parking is allowed on one side or both sides respectively. For higher volume residential streets, which require two continuously free flowing traffic lanes, a 31 foot or 37 foot roadway should be used for one sided or two sided parking respectively. **The minimum street width with parking on one side stipulated in the 2018 International Fire Code is 27 foot back to back. Some jurisdictions allow narrower street widths in low density residential areas due to the size of their firefighting apparatus.**
- ¹⁰ Some minimum roadway widths have been increased to match standard roadway widths. Unless approved by the Jurisdiction, all two lane roadways must comply with standard widths of 26, 31, 34, or 37 feet.
- ¹¹ Median width is measured between the edges of the traveled way of the inside lanes and includes the curb offset on each side of the median. Values include a left turn lane with a 6 foot raised median as required to accommodate a pedestrian access route (refer to Chapter 12) through the median (crosswalk cut through). At locations where a crosswalk does not cut through the median, the widths shown can be reduced by 2 feet to provide a 4 foot raised median.
- ¹² **The minimum cul-de-sac radius stipulated by the 2018 International Fire Code is 48 feet. Some jurisdictions allow lesser radii due to the size of their firefighting apparatus.**
- ¹³ It is preferred to select a design speed that is at least 5 mph greater than the anticipated posted speed limit of the roadway. Selecting a design speed equal to the posted speed limit may also be acceptable and should be evaluated on a project by project basis, subject to approval of the Engineer.
- ¹⁴ Values for low design speed (<50 mph) assume no removal of crown (i.e. negative 2% superelevation on outside of curve). Radii for design speeds of 50 mph or greater are based upon a superelevation rate of 4%. For radii corresponding to other superelevation rates, refer to the AASHTO’s “Green Book.”
- ¹⁵ Assumes stopping sight distance with 6 inch object.

From Section 5C-2 - Geometric Design Elements

O. Cul-de-sacs

A local street open at one end only should have a cul-de-sac constructed at the closed-end. The 2018 International Fire Code stipulates a minimum cul-de-sac radius of 48 feet however some jurisdictions allow lesser radii due to the size of their fire apparatus. The minimum radius for cul-de-sacs is 45 feet, which may be increased in commercial areas or if significant truck traffic is anticipated. The border area around the cul-de-sac should be the same as the approach street. The transition radius with the approach street will be 50 feet for residential streets and 75 feet for commercial and industrial streets.

Reason for Revision: Adding alternatives for agencies who have a larger fire apparatus.

Comments: None.

District: 1 2 3 4 5 6 **2/27/2020 Webinar**
Comments: None.

District: 1 2 3 4 5 6 **4/2020 Webinars**
Comments: None.

Action: Deferred Not Approved Approved

Final District Action Summary: All 6 districts approved.

Board of Directors Action: Approved.