

Sec. 13.6

Street Connectivity Requirements

Paragraphs:

13.6.1 **Connectivity Defined**

13.6.2 **Required Ratio**

13.6.3 **Street Block Length and Block Perimeter**

An interconnected street system is necessary in order to promote orderly and safe development by ensuring that streets function in an interdependent manner, provide adequate access for emergency and service vehicles, enhance access by ensuring connected transportation routes, provide access for people walking and bicycling, and provide continuous and comprehensible traffic routes.

13.6.1 **Connectivity Defined**

A. Except in Design Districts, connectivity shall be defined by the ratio of links to nodes in any subdivision.

- 1.** The connectivity ratio shall be the number of street links divided by the number of nodes or end links, including cul-de-sac heads.
- 2.** A link shall be any portion of a street, other than an alley, defined by a node at either end. Stub-outs to adjacent property shall be considered links. For the purpose of determining the number of links in a development, boulevards, median-divided roadways, and divided entrances shall be treated the same as conventional two-way roadways.
- 3.** A node shall be:
 - a.** The terminus of a street or the intersection of two or more streets. A divided entrance shall only count once.

- b.** Where a street curves so that any two adjacent 100-foot chords thereof form an angle of 120 degrees or less, measured along the centerline of the street, such curve shall receive credit as a node.

B. Connectivity in Design Districts

For Design Districts, see Sec. [16.4](#), Streetscape, Right-of-Way, and Block/Lot Standards.

13.6.2 Required Ratio

A. Street Network

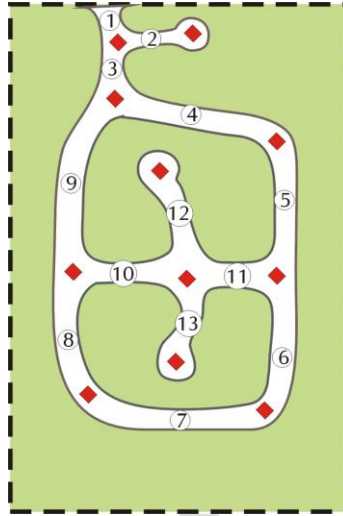
- 1.** The street network, including common access driveways permitted in paragraph [12.2.2B.2.b](#), Driveways, for any subdivision with internal roads or access to any public road shall achieve a minimum connectivity ratio of ~~1.40~~[1.6](#) in all tiers except the Rural and Downtown Tiers, measured within the subdivision.
- 2.** Within the Rural Tier, the street network, including common access driveways permitted in paragraph [12.2.2B.2.b](#), Driveways, for any subdivision with internal roads or access to any public road shall achieve a minimum connectivity ratio of 1.15, measured within the subdivision.

B. Street links and nodes along a collector or arterial street providing access to a proposed subdivision shall not be considered in computing the connectivity ratio.

C. Required stub-outs that cannot be constructed pursuant to paragraph [12.3.1F](#), Stub Outs, shall be considered as being present as a link at the ratio of one link per side as provided in paragraph [12.3.1F](#), Stub Outs, for purposes of determining if the required ratio has been met.

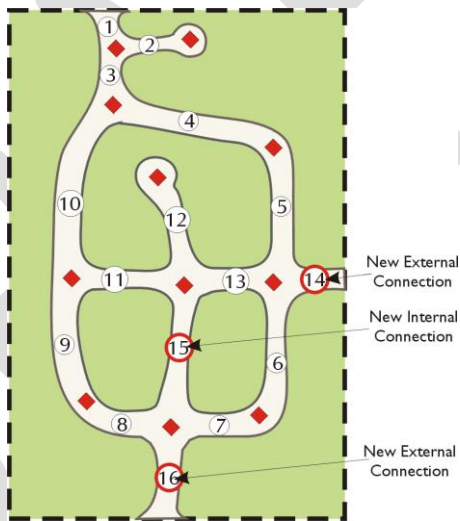
EXAMPLE 1: Does not meet ratio

(13 links/11 nodes = 1.18)



EXAMPLE 2: Modified to meet ratio

(16 links/11 nodes = 1.45)



Number = Link

◆ = Node

13.6.3 Street Block Length and Block Perimeter

A. Except as provided in subsection B below, the maximum length of any block within a subdivision shall comply with Table 1: Block Length Requirements. Streets shall be laid out such

that the requirements can be met both within and between proposed and future subdivisions on adjacent land.

Table 1: Block Length Requirements

<u>Zoning Districts</u>	<u>Maximum Average Block Length (ft)</u>	<u>Maximum Block Length (ft)</u>	<u>Maximum Block Perimeter (ft)</u>
<u>RS-20, RS-10, RS-8, RS-M, RU-5, RU-5(2), RU-M, RC, CI, CN, OI, CG, IL, PDR, UC, UC-2, CC, MU</u>	<u>550</u>	<u>650</u>	<u>2,200</u>
<u>RR, SRP, I, IP</u>	<u>800</u>	<u>1,000</u>	<u>2,400</u>

B. The City may approve a block length that does not comply with subsection A above in the following situations:

1. If the Planning Commission determines that one or more of the following conditions prevents a through connection and there are no other practical alternatives:

- a.** Physical obstacles such as prior platting of property from another landowner;
- b.** Construction of existing buildings or other barriers;
- c.** Slopes over 15 degrees;
- d.** Wetlands and water bodies;
- e.** Railroad or utility right-of-way;
- f.** Existing limited-access motor vehicle right-of-way;

2. To accommodate parks or dedicated open space, civic uses, pedestrian-oriented campuses, conference centers, stadiums or arenas, or other similar pedestrian-oriented, civic, or large-scale assembly uses.

C. Where a block exceeds the maximum average block length, a mid-block minimum eight feet wide pedestrian connection through the block shall be provided.