

10-24-8: STREET DESIGN:

The following standards apply to all public streets. (See subsection 11-5-3C5 of this code for street width requirements.)

- A. All street grades shall be a maximum of fifteen percent (15%). However, when conditions can be made more desirable by exceeding fifteen percent (15%) and produce less disturbance to the existing terrain, along with improvement in safety features, upon recommendation of the public works director and approved by the land use authority, grades may exceed the fifteen percent (15%) limit based on the merits of each case.
- B. Where at all possible, all intersections shall be ninety degree (90°) angles. In the event an acute angle intersection is required, it can be mitigated by realigning to achieve a ninety degree (90°) intersection using a fifty foot (50') section prior to the PC of the curve or a landing area design in which a vehicle is brought ninety degrees (90°) to the intersecting road.
- C. Intersections should be spaced far enough apart so that the traffic stopped to make left turns at one intersection does not interfere with traffic movements at the adjacent intersections. On low volume streets such as access from one local street to another, the minimum distance should be two hundred feet (200'). For local to collector streets the minimum distance should be two hundred fifty feet (250').
- D. The design of geometric features such as horizontal and vertical alignment will depend on the design speed selected for each street. The design speed is primarily determined by the street function and classification, and is the maximum speed for safe and comfortable operation of a vehicle. Other than a collector, all streets in hillside areas are classified as local streets with a speed of thirty five (35) miles per hour or less. The use of design speeds other than those listed must be approved by the public works director, who may decide that the speed provided in this section be reduced to that which is reasonable and prudent under the conditions and having regard to the actual and potential hazards.

Street Design Classification	Speed Design	Speed Posted
Local street	25 - 30 mph	25 mph
Collector street	30 mph	30 mph
Hillside local street	25 1 mph	25 1 mph

Note:

1. The variance of design speeds may be granted by the public works director to no greater than 5 miles per hour or less when conditions warrant. Variances will not be granted for short segments of roads, but for entire contiguous stretches so that consistency and driver expectancy are maintained.

- E. At intersections, adequate, clear sight distance should be provided to permit drivers entering the street to see approaching traffic

from a long enough distance to allow them to decide when to enter the street safely, turn onto the street, and accelerate in advance of approaching traffic. Clear sight distance should be in accordance with the following table:

Posted Speed	Minimum Clear Sight Distance	Desired Sight Distance
20 mph	210 feet	240 feet
25 mph	260 feet	300 feet
30 mph	310 feet	380 feet
35 mph	365 feet	475 feet

F. The vertical alignment of residential streets should ensure that drivers can safely negotiate hills in adverse weather and that sight distances are adequate for safety. The requirements for vertical curve design shall be in accordance with the latest editions of AASHTO geometric design of highways and streets. All designs shall be approved by the county public works director.

Vertical alignment with the intersection is also of special nature, and design alternatives may be required. As a guideline, the approach area where vehicles stop while waiting to enter an intersection shall not exceed four (4) to five percent (5%) from the gutter line of the street being intersected for a distance of fifty feet (50') though a range of fifty feet (50') to one hundred feet (100') is more desirable. This applies to all intersections, except those intersections where both intersecting streets are collectors. The landing area for a collector street shall be designed for a grade of two percent (2%) to three percent (3%) for a distance of one hundred feet (100').

G. The minimum sight distance to be provided before a stop is required shall comply with the requirements set forth in the table below:

Design Speed	Minimum Stopping Distance	Add On For 15 Percent Grade Distance
20 mph	125 feet	20 feet
25 mph	150 feet	36 feet
30 mph	197.5 feet	64 feet
35 mph	250 feet	95 feet

H. The minimum centerline radius for horizontal curves on local streets is outlined as follows:

<u>Speed</u>	<u>Curve Radius In Feet</u>
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20 mph 100

25 mph 185

30 mph 310

I. The minimum requirements for street cross section configurations are based on the following factors:

1. Traffic capacity,
2. Design speed,
3. Projected traffic,
4. Designs to reduce scarring.

Alternate street cross sections may be used if applicable safety and traffic standards are met and approved by the public works director. (See Washington County construction standards to identify alternates that may be available.) (Ord. 2006-910-O, 5-2-2006)