

## Chapter 16.28

### DESIGN REQUIREMENTS\*

#### Sections:

- 16.28.010 Street design.**
- 16.28.020 Block design.**
- 16.28.030 Lot planning.**
- 16.28.040 Easement planning.**

#### **16.28.010 Street design.**

##### A. Required Minimum Right-of-Way and Street Widths.

1. Primary or Arterial Streets. Primary or arterial streets shall have a right-of-way of eighty feet or more, and an improved section of sixty-four feet and may contain a center dividing strip;

2. Secondary Roads. Secondary roads shall have a right-of-way width of eighty feet or more, and an improved section of sixty-four feet;

3. Collector and Local Streets. Collector streets shall have a right-of-way width of sixty feet or more, and an improved section of fifty feet. Residential streets shall have a right-of-way width of fifty feet or more, and an improved section of forty-two feet;

4. Limited Access Roads. Limited access roads shall have a right-of-way width of thirty feet or more, and an improved section of not less than twenty-five feet. The improved section must be surfaced with a dust-free material;

5. Cul-de-sac Streets. Cul-de-sac streets shall have a right-of-way width of fifty feet or more, and an improved section of not less than forty feet. Total center line length is not to exceed four hundred feet. The streets shall terminate in a circular right-of-way not less than forty-five feet in radius with an improved turning circle at least forty feet in radius. A cul-de-sac street must not be labeled as a dead-end street;

6. Alleys. Where permitted or required, twenty feet abutting commercial or industrial property.

a. Alleys in residential sections shall be prohibited,

b. Alley intersections and sharp changes in alignment shall be avoided, but where necessary, corners shall be cut off ten feet on each side to permit safe vehicular movement,

c. Dead-end alleys shall be prohibited,

d. "Half" alleys shall be prohibited;

7. Lesser developed street rights-of-way and sections may be permitted when it can be clearly established that no on-street parking is required or desired or where related to planned unit development approaches. Increased widths may be required where streets

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\*prior history: Prior code §§' 36.280 through 36.390.

are to serve commercial property or where public traffic conditions warrant such. In both cases, final sections will be recommended by the city engineer, and established by the city council and planning commission.

B. Street Grades.

1. Maximum Grades.

- a. Arterial streets. As determined by the city engineer,
- b. Collector and local streets: eight percent;

2. Minimum Grades. Asphalt streets with concrete gutters:

- a. Desirable: .5%,
- b. Minimum: .4%;

3. Exceptions. Where rigid adherence to these standards causes unreasonable or unwarranted hardship in design or cost without commensurate public benefit, exceptions may be made by the commission.

C. Vertical Curves.

1. Arterial and Secondary Streets. All; changes in grade should be connected by a vertical curve of minimum length equal to twenty times the algebraic difference in the rates of grade or a length of one hundred feet, whichever is larger;

2. Collector and Local Streets. The length of curve for these streets should be ten times the algebraic difference in the rates of grade or length of one hundred feet whichever is larger;

3. Reverse or compound curves shall be separated by tangents of not less than one hundred feet on primary, secondary and collector streets.

D. Horizontal Alignment.

1. Arterial Streets. As determined by the city engineer;

2. When tangent centerlines deflect from each other by more than ten degrees and less than ninety degrees, they shall be connected by a curve having a minimum centerline radius of two hundred fifty feet for arterial streets, or one hundred feet for local streets;

3. Between reverse curves there shall be a tangent section of centerline not less than one hundred feet long;

4. Streets intersecting an arterial street shall do so at a ninety-degree angle. Two collector streets, two local streets or a collector and a local street shall typically intersect at ninety degree angles, but in no case at less than seventy-five degree angles;

5. Street jogs shall be avoided, except where justified by unusual existing conditions, and approval by the city engineer;

6. Local streets intersecting a collector street or arterial street shall have a tangent section of centerline at least one hundred fifty feet in length measured from the right-of-way line of the more major street, except that no such tangent shall be required when the local street curve has a centerline radius greater than four hundred feet measured from a center located on the more major street right-of-way line;

7. Street intersections with more than four legs, and Y-type intersections with legs meeting at acute angles shall be prohibited.

E. Asphalt Thickness. Minimum asphalt thickness of all streets shall be in accordance with the public works standards except for streets designated for industrial use which shall be as follows:

1. Heavy Industrial. Four inches on twelve-inch aggregate base;
2. Light Industrial. Three inches on ten-inch aggregate base.

Arterial streets and industrial area streets shall be of the thickness designated on the "City Standard Detail Sheet."

F. Slope and Fill Requirements.

1. No existing slope or proposed cut slope shall be steeper than 1.5 horizontal to 1 vertical and no fill slope, existing or proposed, shall be steeper than 2 horizontal to 1 vertical, unless recommended by a competent soils engineer acceptable to the city. Slope areas are not to be included in usable lot areas;

2. Where a cut or fill slope is outside the normal right-of-way of the street, a slope easement shall be provided of sufficient width to permit proper maintenance of the slopes by the city, or the dedicated right-of-way width shall be widened to include such slopes;

3. Retaining walls may be required whenever topographic conditions warrant or where necessary to retain fill or cut slopes within the rights-of-way of slope easement;

4. All fills to be used for building sites shall be compacted to not less than ninety percent as per AASHO Modified Spec. T149-57. (Ord. 506 § 1 (part), 1988; Ord. 477 § 1 (part), 1988; Ord. 391 § 110, 1983)

#### **16.28.020 Block design.**

A. Maximum Length of Blocks. Within the following maximums, blocks shall be as long as reasonably possible in order to achieve all possible street economy and to reduce the expense and safety hazard arising from excessive street intersections. Maximum block length measured along the centerline of the street and between intersecting street centerlines, shall not exceed:

1. In subdivisions with lot areas averaging under one-half acre, six hundred eighty feet exclusive of streets;

2. In subdivisions with lot areas averaging one-half acre or more, or where extreme topographic conditions warrant, one thousand sixty feet, exclusive of streets.

B. Pedestrian Ways. Pedestrian ways with a right-of-way width of ten feet may be required where, in the opinion of the commission, they are essential for pedestrian circulation within the subdivision or access to schools, playgrounds, or other community facilities. Pedestrian ways may be used for utility purposes.

C. Corners. At each street intersection, the property line at each block corner shall be rounded by a curve having a radius of not less than fifteen feet for right angle corners. (Ord. 391 § 111, 1983)

#### **16.28.030 Lot planning.**

A. Lot Width, Depth and Area. Lot width, depth and area shall comply with the zoning requirements; appropriate for the location and character of development proposed, and for the type and extent of urban street and utility improvements being installed. "Urban improvements" is interpreted to mean paved and curb streets, sidewalks, local storm

drainage system, public water supply, and public sanitary sewage. However, where steep topography, unusual soil conditions, or drainage problems exist or prevail, the commission may require increased lot width, depth, and/or area exceeding the minimum requirements of the particular zoning district.

B. Lot depths and widths must be in accordance with the requirements for the applicable zoning district. Provided, however, that the planning commission may allow narrower widths on cul-de-sacs.

C. Building Setback. Minimum front and exterior side building setbacks shall be twelve feet in accordance with the requirements for the applicable zoning district.

D. Side lot lines shall be substantially at right angles or radial to street lines, except where, in the opinion of the commission, other alignment may be justified.

E. Every lot shall abut a public street.

F. Double-frontage lots intended for single-family residences shall be improved in such way that eliminates the ability to drive from one street to the other through the lot.

G. A minimum of two off-street parking spaces per dwelling unit shall be required (one parking space is  $9 \times 20 = 180$  square feet). Ord 477 § 1 (part), 1988: Ord. 391 § 112, 1983)

#### **16.28.040 Easement planning.**

A. Utilities shall be placed underground unless a modification is approved to permit overhead utilities by the planning commission and only where overhead utilities are determined acceptable by the commission.

1. Where alleys are platted, utility easement four feet wide on each side of alley for aerial overhang shall be provided by dedication. Where alleys are not platted, utility easements six feet wide on each side of rear lot lines shall be provided and delineated on the plat. In addition, guy and anchor easement shall be provided one foot wide on each side of a side lot line and thirty-five feet in length measured from the rear lot line, in locations selected by the utility committee, or as required by the utility company.

2. Along side lot lines where required for distribution facilities, utility easements five feet wide on each side of side lot lines; where service to street lighting is required, one foot on each side of such lot lines, or as required by the utility company.

B. Where all utilities are underground:

1. Rear Lot Lines. Where alleys are platted, easements as required by serving utilities;

2. Side Lot Lines. All utility service lines, including gas, electric, telephone and street lighting, shall be channeled in easements four feet wide on each side of the lot line separating pairs of lots, as required by the utilities for service.

C. For lots facing on curvilinear streets, alleys and easements for overhead utilities shall usually consist of a series of straight lines with points of deflection not less than one hundred twenty feet apart, such points of deflection always occurring at the junction of side and rear lot lines on the side of the exterior angle, however, curvilinear easements or alleys may be employed, providing that the minimum radii of centerlines shall be not less than eight hundred feet.

D. Where a stream or major surface drainage course abuts or crosses a tract, dedication of a public drainage easement which is sufficient to permit widening, deepening, relocation, or protecting such drainage course shall be required. Information shall be prepared by the subdivider's engineer.

E. Land within a public street or drainage easement, or land within a utility easement for major power transmission lines or pipelines, shall not be considered a part of the minimum required lot area, however, that this provision shall not be applicable to land included in utility easements to be used for distribution of service purposes.

F. Lots arranged with backs to arterial streets, railroads, canals, or commercial or industrial districts as provided in this chapter shall have a minimum depth of one hundred ten feet, the rear one foot of which shall be recorded as a nonaccess private easement. (Ord. 391 § 113, 1983)