

CHAPTER 4

DESIGN STANDARDS

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11-4-1: **STANDARDS AND SPECIFICATIONS:** Standards for design, construction specifications, and inspection of street improvements, curbs, gutters, sidewalks, storm drainage and flood control facilities shall be provided by the City Engineer; standards for water distribution and sewage disposal facilities by the Board of Health; and similar standards for fire protection by the Fire Department. All developers shall comply with the standards established by such departments and agencies of the City, County and State; provided, that such standards shall be approved by the City Council. Construction specifications approved and as may be amended from time to time by action of the City Council are hereby adopted by reference as if fully set forth herein, three (3) copies of which are on file in the City Recorder's office for public inspection. These standards and specifications, in addition to the general standards set forth in this Title, shall be used by all developers and/or development. (Subd. Ord., 1-24-1990; 1998 Code)

11-4-2: **BLOCKS, LOTS AND OPEN SPACES:** The design of the preliminary and final plats of the development in relation to streets, blocks, lots, open spaces and other design factors shall be in harmony with design standards recommended by the Planning Commission and by other departments and agencies of City government as necessary. Design standards shall be approved by the City Council and shall include provisions as follows, which are hereby approved by the City. All improvements shall be designed by a professional engineer licensed in the State.

- A. Length: Streets shall not exceed nine hundred fifty feet (950') in length between intersections.
- B. Width: Blocks shall be wide enough to adequately accommodate two (2) tiers of

lots.

- C. Walkways/Trails. Dedicated walkways/trails may be required. Such trails shall be a minimum of eight feet (8') in width, but may be required to be wider where determined necessary by the City. The developer shall surface the full width of the walkway with an approved surface.
- D. Multi-Family Housing: Multi-family dwellings or other types of cluster housing will be considered at the option of the City. If approved, adequate space for off-street parking shall be required.
- E. Arrangement; Design: The lot arrangement and design shall be such that lots will provide satisfactory and desirable sites for buildings, be properly related to topography, to the character of surrounding development and to existing requirements.
- F. Adjoin Street: Each lot shall abut on a street or lane shown on the development plat or on an existing publicly-dedicated street. Double frontage lots shall be prohibited, except where unusual conditions make other designs undesirable.
- G. Open Space: A portion of land or development site that is permanently set aside for public or private use and will not be developed. Open space may be used as community open space or preserved as green space. Green Space is open space maintained in a natural, undisturbed, or revegetated condition.

11-4-3: **STREETS AND STREET IMPROVEMENTS:**

- A. Arrangement: The arrangement of streets in new development shall make provision for the continuation of existing streets in adjoining areas and shall provide access to unsubdivided adjoining areas insofar as such continuation or access shall be deemed necessary by the City.
- B. Connection: New streets must connect with existing public streets. (Subd. Ord., 1-24-1990)
- C. Width; Costs:
 - 1. The total street right of way shall be standard at eighty feet (80') for major streets, sixty-six feet (66') for collector streets; and fifty-six feet (56') for feeder streets. All reference to the "total width" of a street, road, right of way or easement shall refer to the "total width" stated in the property title or right-of-way rights transferred or dedicated to the City. The paved or traveled portion of the street or road may be less than the "total right of way" to allow for public improvements in accordance with City ordinances. (Ordinance Modification 98-OM013 06/08/98)

2. Costs of new roads and repairs to existing roads caused by development for collector (66 feet) and feeder (56 feet) streets shall be borne by the developer. Where a major (80 feet) street is required, the cost of paved section over and above that required to the collector (66 feet) street may be shared by the City. The City's participation shall be determined by cost estimates reviewed by the City Engineer and approved by the City Council. The approved estimates shall be part of the development agreement attached to the final plat. (Ordinance Modification 98-OM013 06/08/98)
- D. Surfacing: All streets shall be improved as shown in the current Providence City Department of Public Works Standards and Specifications Manual.
- E. Grades:
1. Grades of streets shall not be in excess of ~~eighteen percent (18%) on short unsustained stretches~~ fifteen percent (15%) for a maximum of one hundred fifty feet (150') measured along the center line of the street, nor in excess of eight percent (8%) on sustained grades, unless otherwise approved by City. Grades of roads shall be a minimum of one-half of one percent (0.5%).
 2. Streets shall be leveled to a grade of less than four percent (4%) for a distance of at least one hundred feet (100') approaching all intersections.
 3. All changes in street grade shall be connected by vertical curves of a minimum length equivalent to fifteen (15) times the algebraic difference in the rate of grade for major streets and secondary streets and one-half ($\frac{1}{2}$) of this minimum for all local streets. (Subd. Ord., 1-24-1990)
- F. Curvature On Center Line: Minimum radii of curvature on center line shall be as follows: major streets, five hundred feet (500'); collector streets, three hundred feet (300'); and feeder streets, one hundred feet (100'); unless otherwise approved by the City.
- G. Partial Streets: When a partial street is approved, it will require sufficient right of way to construct improvements as shown on the partial street cross section in the current Providence City Department of Public Works Standards and Specifications Manual.
- H. Intersection Angles; Curb Radii: In general, streets should intersect at right angles, feeder streets should approach the major or collector street at an angle of not less than eighty-five degrees (85°) and not more than ninety-five degrees (95°), and curb corners should have radius of not less than twenty feet (20').

I. Curbs And Gutters:

1. All streets within the development shall be improved as shown in the current Providence City Department of Public Works Standards and Specifications Manual.

2. Minimum grades for curb and gutters and streets shall not be less than one-half of one percent (0.5%), and from crown of the road to the lip of the curb shall be a minimum of two percent (2%). (Ord., 11-12-1996, eff. 11-13-1996)

J. Sidewalks: Sidewalks shall be provided on both sides of all public streets. Sidewalks placed on both sides of public streets shall be concrete and five feet (5') wide minimum and four inches (4") thick minimum. All sidewalks that cross residential driveways shall be six inches (6") thick minimum. All sidewalks that cross commercial driveways shall be eight inches (8") thick minimum. Sidewalks at all intersections of public streets shall conform to adopted American Disabilities Act standards.

K. Existing and Proposed Streets: The developer shall improve existing and proposed streets in all development, except on the rear of lots that back on streets where access is not permitted. Timetable of completion and the security performance of all improvements will be listed in the development agreement. (Ord., 11-12-1996, eff. 11-13-1996)

L. Damage: In the event existing sidewalks or curbs and gutters are damaged at any time, the damaging party shall repair or replace the damaged items as per Section 7-3-1 of this Code. (Subd. Ord., 1-24-1990)

M. Nonconnecting Streets; Turnarounds: At all temporary ends to streets on nonconnecting streets, provisions shall be provided by the developer for a turnaround for snow plows, garbage trucks and other service vehicles. Turnarounds must be paved with hot mix asphalt. See the current Providence City Department of Public Works Standards and Specifications Manual (Subd. Ord., 1-24-1990)(Ordinance No. 009-2009 10/27/2009)

11-4-4: **WATER SYSTEM:**

A. Design; Construction: The entire system shall be designed and constructed in accordance with City standards and the State Health Department standards. If there is conflict between the standards, the most stringent shall rule.

B. City Standards. The city standards are contained in the current Providence City Department of Public Works Standards and Specifications Manual.

- C. Fees: The costs for connection to the City water supply shall be specified in the fee schedule to be held in the City office. (Subd. Ord., 1-24-1990)
- D. Fire Hydrants: Fire hydrants shall be installed at the expense of the developer and in accordance with the regulations of the Fire Department and City standards.
- E. City Line to Development: Where a development does not border an existing City water line, the developer shall install and bear all costs of pipeline from the development to the nearest existing City water line.

11-4-5: SEWER SYSTEM:

- A. Standards and Specifications: See the current Providence City Department of Public Works Standards and Specifications Manual.
- B. Fees: The costs for connection to the City sewer system shall be specified in the fee schedule to be held in the City office.
- C. Wastes Allowed: Domestic wastes only shall be allowed to enter a common collection system. Downspouts for roof drains, basement drains which lower ground water conditions, and other similar possible inflows to the sewer system shall not be allowed. Under no circumstance shall hazardous wastes or drainage from garage floors be allowed to enter a common collection system.
- D. City Main to Development: As with the water system, the developer shall be responsible for extending and connecting to the nearest existing sewer main. The final line sized and final approval shall also be subject to approval by the City Engineer.

11-4-6: STORM DRAINAGE:

- A. Ditches; Canals: No ditch or canal shall be approved as suitable for the use of storm drainage without the written permission of the appropriate ditch or canal company. At the discretion of the City, ditches, canals or other waterways may be prohibited on property dedicated or to be dedicated for public use.
- B. Structures Provided: Storm drains, cross-gutters, and other appurtenant structures shall be provided by the developer as required to adequately dispose of the 100-year frequency flood flows developed within the limits of the development along with the existing flows entering the proposed development from adjacent properties. The developer shall have the responsibility of providing "off-site" storm drain extensions in order to satisfactorily dispose of drainage.
- C. Plans: Complete drainage systems for the entire development area shall be

designed by a professional engineer, licensed in the State and qualified to perform such work, which shall be shown geographically. All existing drainage features which are to be incorporated in the design shall be so identified. If the development is to be platted in phases, a general drainage plan for the entire area shall be presented with the first phase, and appropriate development stages for the drainage structures shall be indicated. All proposed surface drainage structures shall be indicated on the plans. All appropriate designs, details, and dimensions needed to clearly explain proposed construction materials and elevations shall be included in the drainage plans.

- D. Design of System: The drainage system shall be designed to accommodate a one hundred (100) year storm event, using the rain fall data from sufficient sources, including but not limited to the nearest official weather station to track one hundred year storm events. Systems shall be designed to:
1. Permit the unimpeded flow of natural watercourses;
 2. Ensure adequate drainage of all low points; and
 3. Ensure applications of the following regulations regarding development in designated flood plains:
 - a. Construction of buildings shall not be permitted in a designated floodway with a return frequency more often than a 100-year flood.
 - b. Building construction may occur in the portion of the designated floodway where the return frequency is between a 100-year and a maximum probability flood, provided all usable floor space is constructed above the designated maximum probable flood level. (Subd. Ord., 1-24-1991; 1998 Code)

11-4-7: **IRRIGATION DITCHES:** The subdivider shall work with irrigation, drainage or ditch companies and the City Engineer with regards to ditches or canals as to:

- A. Covering, Realignment, Eliminating: Methods of covering, realigning or eliminating ditches or canals within or adjoining the subdivision.
- B. Pipe Size; Culverts: The size of pipe and culverts required.
- C. Responsibility: The responsibility for the periodic inspecting, cleaning and maintaining of such ditches, pipes and culverts. In cases where canals or ditches cross public roads or proposed public roads, specifications and grades for pipe or culvert must be approved by the City Engineer. (Subd. Ord., 1-24-1990)

11-4-8: **REPEALED.**

11-4-9: **LIGHTING:**

The developer is responsible for the street lights, location(s) to be determined by the City. The developer is responsible for the street lights along the frontage of and within the development. The developer will be responsible for all associated costs pertaining to the street lights and all coordination with the power company will be handled by the developer.

11-4-10: **SIGNS:** To assure uniformity, the City shall make available all required street signs and the cost thereof shall be charged to and paid by the developer. (Subd. Ord., 1-24-1990)

11-4-11: **MONUMENTS:** Permanent monuments shall be furnished in conformance with the current Providence City Department of Public Works Standards and Specifications Manual.