

CHAPTER 4

DESIGN STANDARDS

SECTION:

- 11-4-1: Standards and Specifications
- 11-4-2: Blocks, Lots and Open Spaces
- 11-4-3: Streets and Street Improvements
- 11-4-4: Water System
- 11-4-5: Sewer System
- 11-4-6: Storm Drainage
- 11-4-7: Irrigation Ditches
- 11-4-8: Trees
- 11-4-9: Lighting
- 11-4-10: Signs
- 11-4-11: Monuments

11-4-1: **STANDARDS AND SPECIFICATIONS:** Standards for design, construction specifications, and inspections 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 protections 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 the 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 two blocks, which is typically one thousand three hundred twenty feet (1,320'), in length between intersections with functioning cross streets (not a cul-de-sac).
- 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 of 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 the 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 a 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 a 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. If a future street or the expansion of an existing street is shown in the City's General Plan or Master Transportation Plan as involving some of the land involved with a proposed new development, then the proposed development plan shall make appropriate provisions for the construction of the new street or expansion of that existing street, as the land use authority reviewing the proposed new development shall determine.
- B. Connection: New streets must connect with existing public streets. (Subd. Ord., 1-24-1990)
- C. Width; Costs:
 - 1. The General Plan and/or Transportation Corridor Master Plan designates the location of the various street types.
 - 2. The minimum right-of-way width for residential streets shall be sixty-six feet (66').
 - a. Generally, residential streets shall have a minimum asphalt width of thirty feet (30').
 - b. When designated on the General Plan and/or Transportation Corridor Master Plan, residential streets shall have a minimum asphalt width of thirty-seven feet (37').
 - 3. The minimum right-of-way width for a commercial street shall be eighty feet (80'), with a minimum asphalt width of forty-nine feet (49').
 - 4. The minimum right-of-way width for a major street shall be ninety-nine feet, with a minimum asphalt width of sixty-six feet (66').
 - 5. Costs of new roads and repairs to existing roads caused by development:
 - a. The costs of new residential streets and repairs to existing roads caused by development shall be borne by the developer.
 - b. Where a major street or a commercial street is required, the cost of paved section over and above thirty-nine feet (39') of width may be shared by the City.
 - c. The City's participation shall be determined by the cost estimates reviewed by the City Engineer and approved by the City Council. The approve estimates shall be part of the development agreement attached to the final plat.

- 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 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 (a length of street that exceeds 150'), unless otherwise approved by the City. Grades of roads shall be a minimum of one-half of one percent (0.5%).
 2. Streets shall be designed and constructed to a grade of less than four percent (4%) for a distance of at least one hundred feet (100') approaching all intersections. If the intersection includes a pedestrian crossing, the pedestrian crossing must meet the requirements of the Americans with Disabilities Act (ADA).
 3. All changes in street grades 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 commercial streets; and one-half (1/2) of this minimum for all residential streets.
 4. Grades through cul-de-sacs (permanent or temporary) shall not exceed four percent (4%).
- F. Curvature on Center Line: Minimum radii of curvature on center line shall be as follows: major and commercial streets, five hundred feet (500'); residential streets, three hundred feet (300'); 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, residential streets should approach the major or commercial streets 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 road to the lip of the curb shall be a minimum of two percent (2%).
- J. Swales: Swales may be designed to replace curb and gutter. Designs shall include, but are not limited to, providing methods and planting materials that will be used to ensure the integrity of the swale is maintained in a manner that will prevent erosion of soils and infiltration of silt and other materials along the swale area and into storm retention systems, streets, and other properties. The developer is responsible to maintain the swales for a warranty period of two years.

- K. Sidewalks: Sidewalks may be required 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.
- L. 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.
- M. 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.
- N. 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 exception in 5. below). See the current Providence City Department of Public Works Standards and Specifications Manual.
 1. Turnarounds at temporary ends to streets may be a cul-de-sac or a "T" configuration; and must meet fire department requirements. A temporary end to a street that is less than one hundred and fifty feet (150') may be used as a "T" turnaround.
 2. The City, at its sole discretion, may restrict driveway location for lots adjacent to streets with temporary ends.
 3. The City, at its sole discretion, may require an easement for snow removal at a temporary end to a street.
 4. Exception to hot mix asphalt. If the grade in a temporary turnaround is 2% or less, a hard surface other than hot mix asphalt may be accepted. However, the grade of the temporary turnaround must be designed with safety in mind. The City reserves the right to reject a temporary turnaround at a grade of 2% or less, if the City Engineer feels safety may be compromised.
- O. Park Strips: Park strips shall be at least seven feet (7') in width.
- P. Bicycle Lanes: On major, commercial, and residential streets, bicycle lanes should be added as specified in the General Plan and/or Transportation Corridor Master Plan, and other streets where possible. If necessary and approved by the City Council, bicycle lanes may be added in lieu of a sidewalk and/or park strip on one side of the street to help accommodate alternative modes of transportation.
- Q. Residential Access to a Major, Commercial, or Specified Residential Street: Access to a major, commercial, or specified residential street, as shown on the General Plan and/or Transportation Corridor Master Plan, from a residential unit (i.e. driveway cutout) shall only be allowed where no other option or solution exists.

- R. Parking: Parking on major, commercial, or specified residential street, as shown on the General Plan and/or Transportation Corridor Master Plan, should be limited to areas designated by Providence City, so as not to impede the flow of traffic.
- S. Seal Coat on Asphalt Surfaces: Provisions for sealing all asphalt surfaces within the subdivision shall be determined during the subdivision development plan approval process. Developers may seal asphalt using one of the following methods:
 1. Ancillary Agreement. The developer may enter into an ancillary agreement with the City in which the developer provides to the City a predetermined guarantee for improvements in exchange for the City agreeing that the developer will seal all asphalt within the subdivision no later than two (2) years after the completion of the subdivision and by a date agreed to by the City Engineer; or
 2. Seal Coat Fee. The developer may pay a seal coat fee to the City, and the City will seal all asphalt in the subdivision. The seal coat fee shall be equal to the square footage of road surfaces in the subdivision multiplied by the cost per square foot for the type of seal coat to be used. The fee per square foot shall be set by resolution of the City Council in the Master Fee Schedule and modified as needed from time to time.

Pursuant to either seal option stated above, the City's Streets Superintendant shall determine the type of seal coat to be used (chip seal, slurry seal, etc.) based on "best practice" for the type of street to be sealed. If a developer selects the seal coat fee option, the use of the fees collected for the actual application of the approved seal coat shall be at the discretion of the City as determined by the City's municipal budget. The seal coat fee shall be used by the City to accomplish the initial seal coating for the subdivision no later than two (2) years after the completion of the subdivision. (Ord. No. 2018-002, 04/10/2018)

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 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, Realigning, 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.