

Chapter 3.4 — Public Facilities

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3.4.010 Purpose and Applicability

- A. Purpose.** The purpose of this Chapter is to provide planning and design standards for public and private transportation facilities and utilities. Streets are the most common public spaces, touching virtually every parcel of land. Therefore, one of the primary purposes of this Chapter is to provide standards for attractive and safe streets that can accommodate vehicle traffic from planned growth and provide a range of transportation options, including options for driving, walking, bus transit, and bicycling. This Chapter is also intended to implement the City’s Transportation System Plan.
- B. When Standards Apply.** Unless otherwise provided, the standard specifications for construction, reconstruction, or repair of transportation facilities, utilities, and other public improvements within the City shall occur in accordance with the standards of this Chapter. No development may occur unless the public facilities related to development comply with the public facility requirements established in this Chapter.
- C. Engineering Design Criteria, Standard Specifications and Details.** The Oregon Standard Specifications for Construction with Appendum shall be a part of the City’s adopted installation standard(s); other standards may also be required upon recommendation of the City Engineer. The design criteria, standard construction specifications and details maintained by the City Engineer, or any other road authority with jurisdiction, shall supplement the general design standards of this Development Code. The City’s specifications, standards, and details are hereby incorporated into this code by reference.
- D. Conditions of Development Approval.** No development may occur unless required public facilities are in place or guaranteed, in conformance with the provisions of this Code. Improvements required as a condition of development approval, when not voluntarily accepted by the applicant, shall be roughly proportional to the impact of the development on public facilities. Findings in the development approval shall indicate how the required improvements are directly related and roughly proportional to the impact.

3.4.100 Transportation Standards

A. Development Standards. The following standards shall be met for all new uses and developments:

1. All new lots created, consolidated, or modified through a land division, partition, lot line adjustment, lot consolidation, or street vacation must have frontage or approved access to a public street;
2. Streets within or adjacent to a development shall be improved in accordance with the Transportation System Plan and the provisions of this Chapter;
3. Development of new streets, and additional street width or improvements planned as a portion of an existing street, shall be improved in accordance with this Section, and public streets shall be dedicated to the applicable road authority; and
4. New streets, alleys and drives shall be paved.

B. Guarantee. The City may accept a future improvement guarantee (e.g., owner agrees not to object to the formation of a local improvement district in the future) in lieu of street improvements if one or more of the following conditions exist:

1. A partial improvement may create a potential safety hazard to motorists or pedestrians;
2. Due to the developed condition of adjacent properties it is unlikely that street improvements would be extended in the foreseeable future and the improvement associated with the project under review does not, by itself, provide increased street safety or capacity, or improved pedestrian circulation;
3. The improvement would be in conflict with an adopted capital improvement plan; or
4. The improvement is associated with an approved land partition in the R-1 or R-2 District and the proposed land partition does not create any new streets.

C. Creation of Rights-of-Way for Streets and Related Purposes. Streets shall be created through the approval and recording of a final subdivision or partition plat; except the City may approve the creation of a street by acceptance of a deed, provided that the street is deemed in the public interest by the City Council for the purpose of implementing the Transportation System Plan, and the deeded right-of-way conforms to the standards of this Code.

D. Creation of Access Easements. The City may approve an access easement when the easement is necessary to provide for access and circulation in conformance with Chapter 3.1, Access and Circulation. Access easements shall be created and maintained in accordance with the Uniform Fire Code Section 10.207.

E. Street Location, Width, and Grade. Except as noted below, the location, width and grade of all streets shall conform to the Transportation System Plan and an approved street plan or subdivision plat. Street location, width, and grade shall be determined in relation to existing and planned streets, topographic conditions, public convenience and safety, and in appropriate relation to the proposed use of the land to be served by such streets:

1. Street grades shall be approved by the City Engineer in accordance with the design standards in Section ‘O’, below; and
2. Where the location of a street is not shown in an existing street plan, the location of streets in a development shall either:
 - a. Provide for the continuation and connection of existing streets in the surrounding areas, conforming to the street standards of this Chapter, or
 - b. Conform to a street plan adopted by the City if it is impractical to connect with existing street patterns because of particular topographical or other existing conditions of the land. Such a plan shall be based on the type of land use to be served, the volume of traffic, the capacity of adjoining streets, and the need for public convenience and safety.

F. Minimum Rights-of-Way and Street Sections. Street rights-of-way and improvements shall be the widths in Table 3.4.100. A variance or Master Plan approval shall be required to vary the standards in Table 3.4.100. Where a range of width is indicated, the width shall be the narrower in the range unless unique and specific conditions exists as determined by the decision-making authority based upon the following factors:

1. Street classification in the Transportation System Plan;
2. Anticipated traffic generation;
3. On-street parking needs;
4. Sidewalk and bikeway requirements based on anticipated level of use;
5. Requirements for placement of utilities;
6. Street lighting;
7. Minimize drainage, slope, and sensitive lands impacts, as identified by Chapter 3.7;
8. Street tree location, as provided for in Chapter 3.2;
9. Protection of significant vegetation, as provided for in Chapter 3.2;

10. Safety and comfort for motorists, bicyclists, and pedestrians;
11. Street furnishings (e.g., benches, lighting, bus shelters, etc.), when provided;
12. Access needs for emergency vehicles; and
13. Transition between different street widths (i.e., existing streets and new streets).

Table 3.4.100.F Street Standards

Street Type	Avg. Daily Trips (ADT)	Right-of-Way Width	Curb-to-Curb Paved Width	Within Curb-to-Curb Area				Planting Strips or Tree Wells	Side-walks
				Motor Vehicle Travel Lanes	Median/Center Turn Lanes	Bike Lanes	On-Street Parking		
Arterials									
Boulevards:									
2-Lane Boulevard		60'-100'	32'-50'	11'	None	2 at 5-6'	8' bays	7'-12'	6'-12'
3-Lane Boulevard		70'-100'	44'-62'	11'	12'	2 at 5-6'	8' bays	7'-12'	6'-12'
5-Lane Boulevard		95'-121'	66'-84'	11'	12'	2 at 5-6'	8' bays	7'-12'	6'-12'
Avenues:									
2-Lane Avenue		60'-90'	30'-49'	10'-10.5'	none	2 at 5-6'	8' bays	7'-12'	6'-12'
3-Lane Avenue		70.5'-97.5'	41.5'-60.5'	10'-10.5'	11.5'	2 at 5-6'	8' bays	7'-12'	6'-12'
Collectors									
Residential:					As per traffic calming				
No Parking		50'-60'	22'	11'			None	7'-8'	6'-12'
Parking One Side		50'-80'	25'-27'	9'-10'			7' lane	7'-8'	5'-12'
Parking Both Sides		57'-80'	32'-34'	9'-10'			7' lanes	7'-8'	5'-12'
Commercial (Collectors and Local Streets):					As per traffic calming				
Parallel One Side		55'-80'	28'-40'	10'		5'-6'	8' lane	7'-8'	6'-12'
Parallel Both Sides		63'-80'	36'-48'	10'		5'-6'	8' lanes	7'-8'	6'-12'
Angled Parking One Side		65'-80'	37'-56'	10'		5'-6'	Varies	7'-8'	6'-12'

3.4.100 – Transportation Standards

Street Type	Avg. Daily Trips (ADT)	Right-of-Way Width	Curb-to-Curb Paved Width	Within Curb-to-Curb Area				Planting Strips or Tree Wells	Side-walks
				Motor Vehicle Travel Lanes	Median/Center Turn Lanes	Bike Lanes	On-Street Parking		
Angled Parking Both Sides		81'-100'	54'	10'		5'-6'	Varies	7'-8'	6'-12'
Local Streets					As per traffic calming				
Parking One Side		50'-60'	28'	20'			7' lane	4'-12'	5'-6'
Parking Both Sides		56'-60'	32'	18'			7.5' lanes	4'-12'	5'-6'
No Parking		36'-56'	20'	20'			None	4'-12'	5'-6'

Figure 3.4.100.F(1) Three-Lane Arterial-Boulevard Street Section

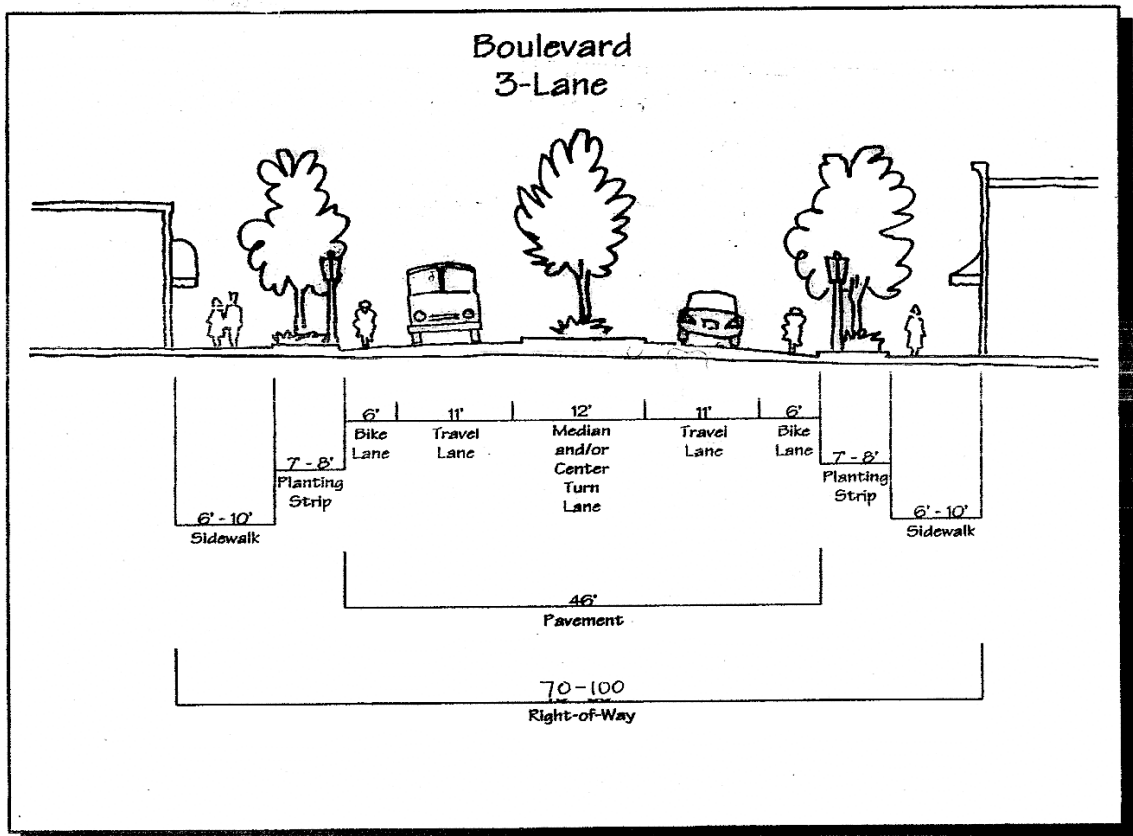


Figure 3.4.100.F(2) Residential Collector Street Sections

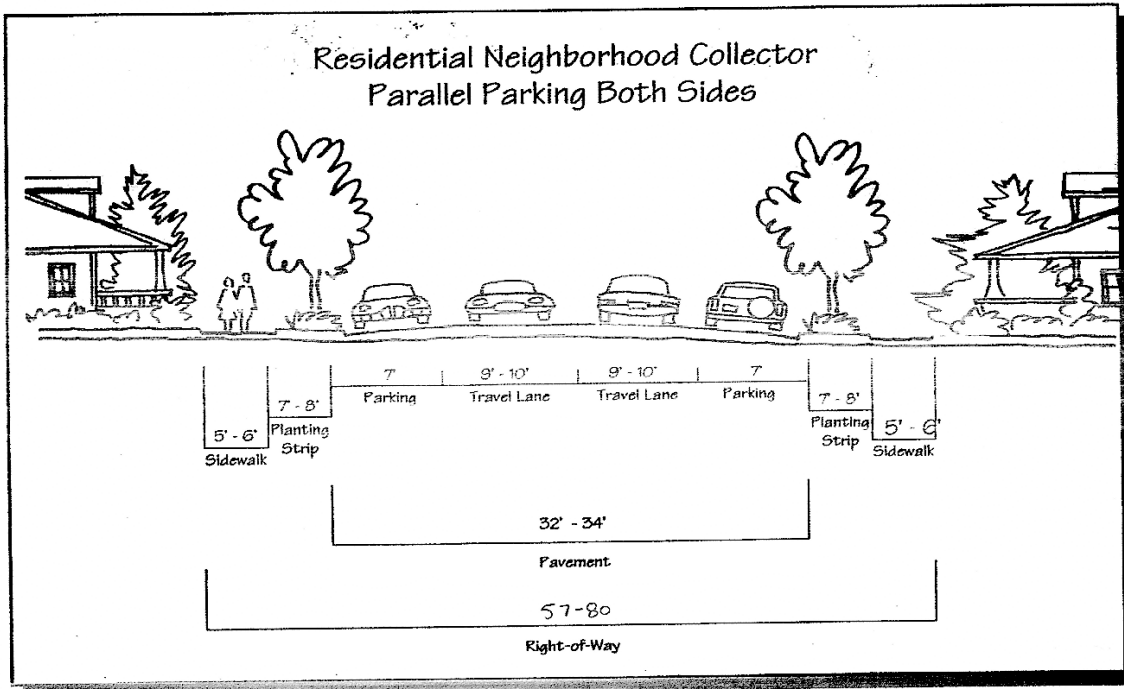
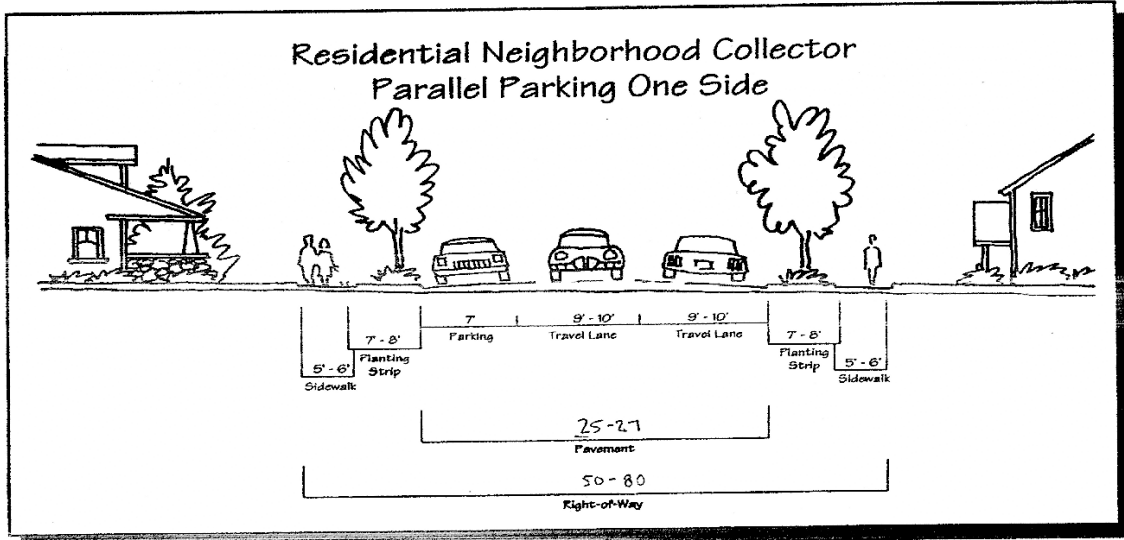


Figure 3.4.100.F(3) Commercial/Industrial Collector Street Sections (Parking One Side)

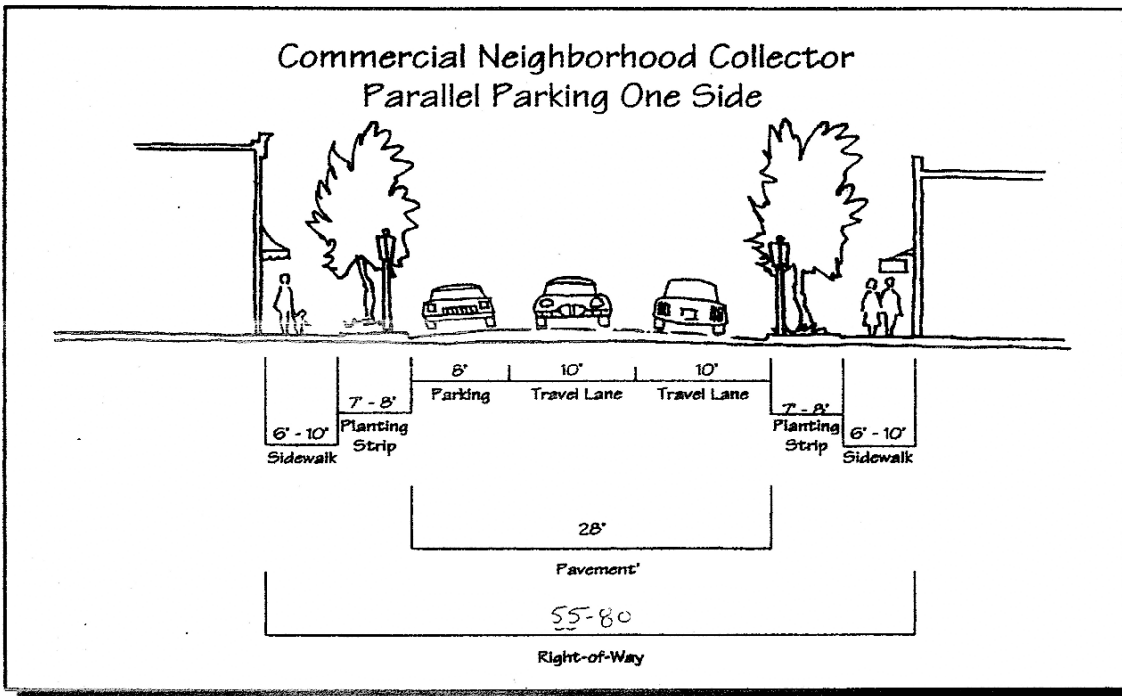
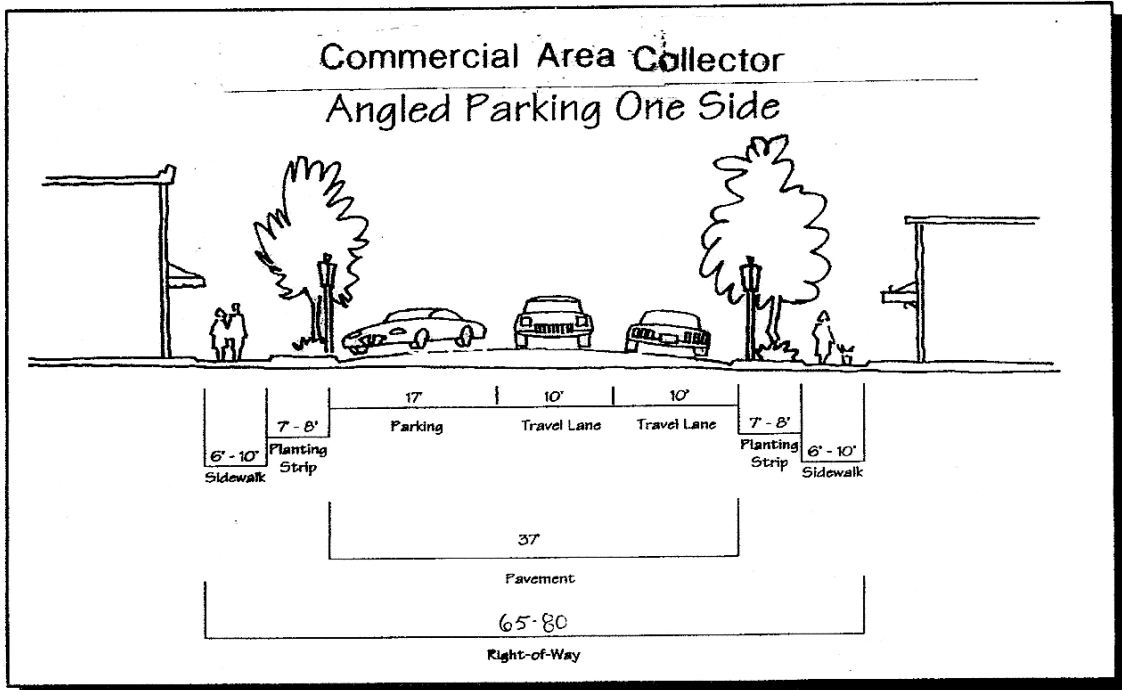


Figure 3.4.100.F(4) Commercial/Industrial Collector Street Sections (Parking Two Sides)

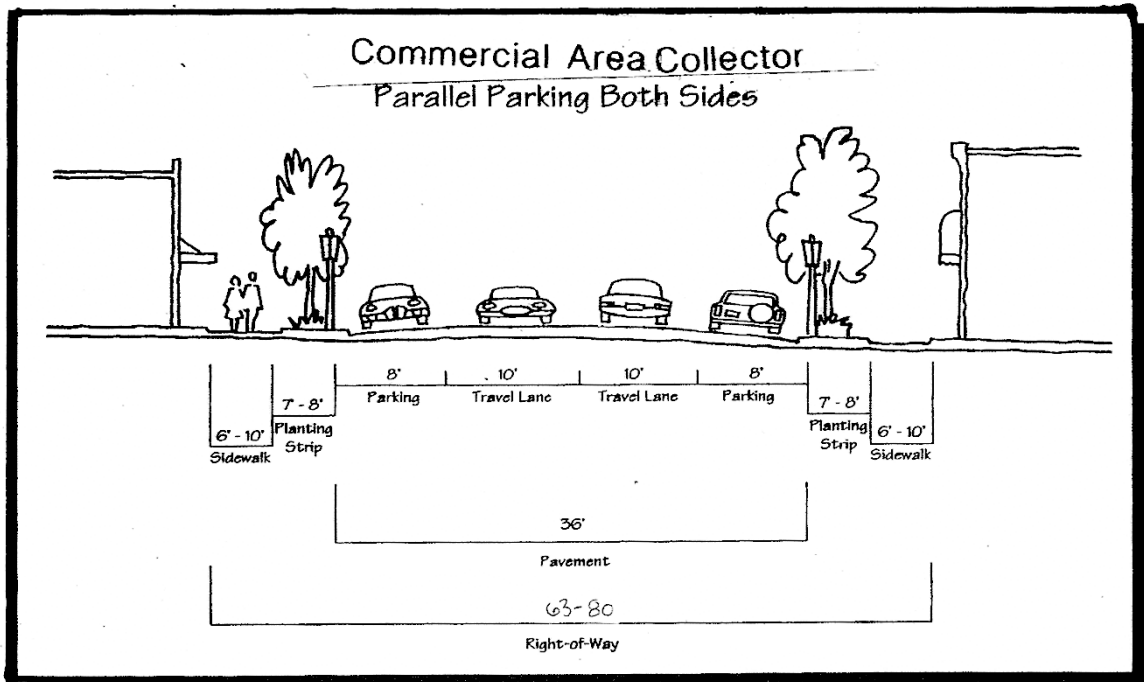
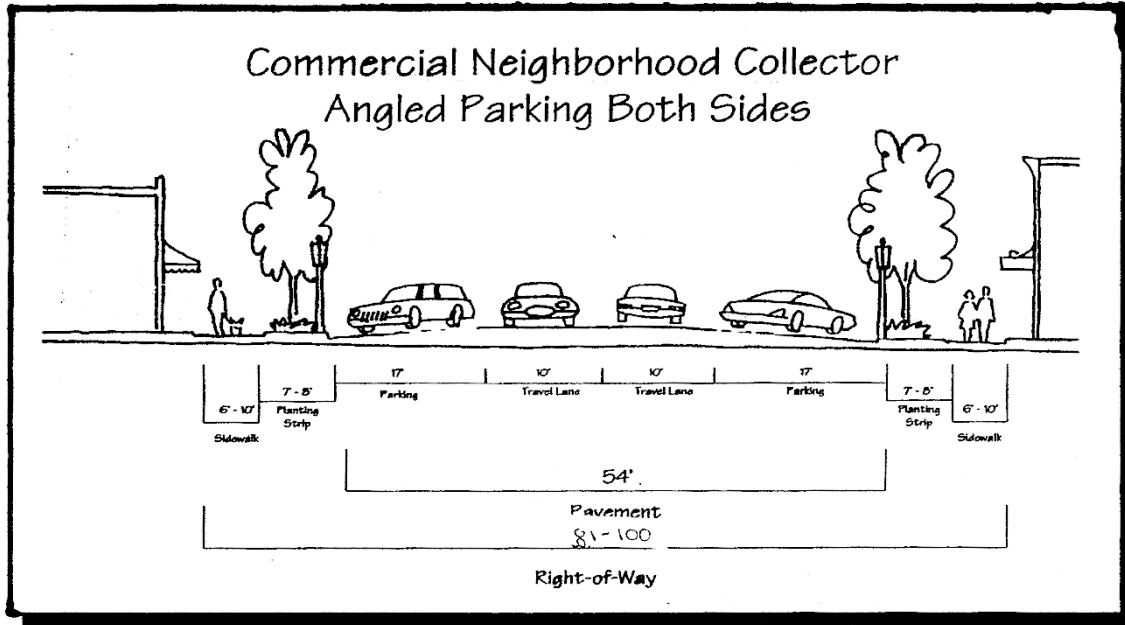
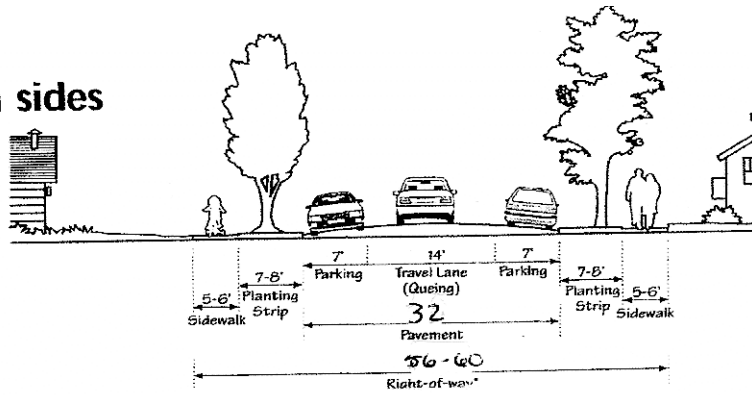


Figure 3.4.100.F(5) Local Residential Street Sections

32 Ft Street

Parking on both sides



28 Ft Street

Parking on one side

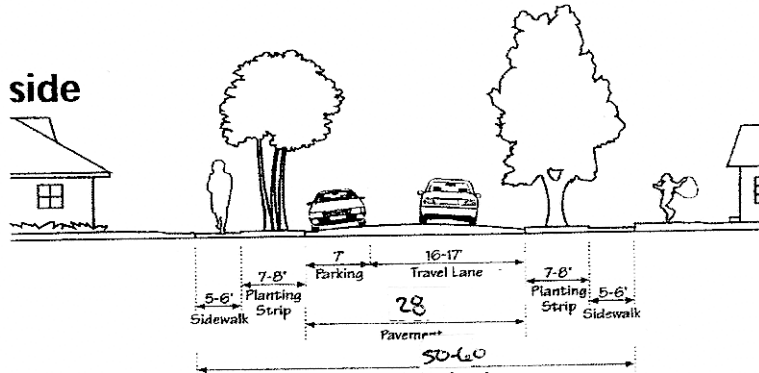
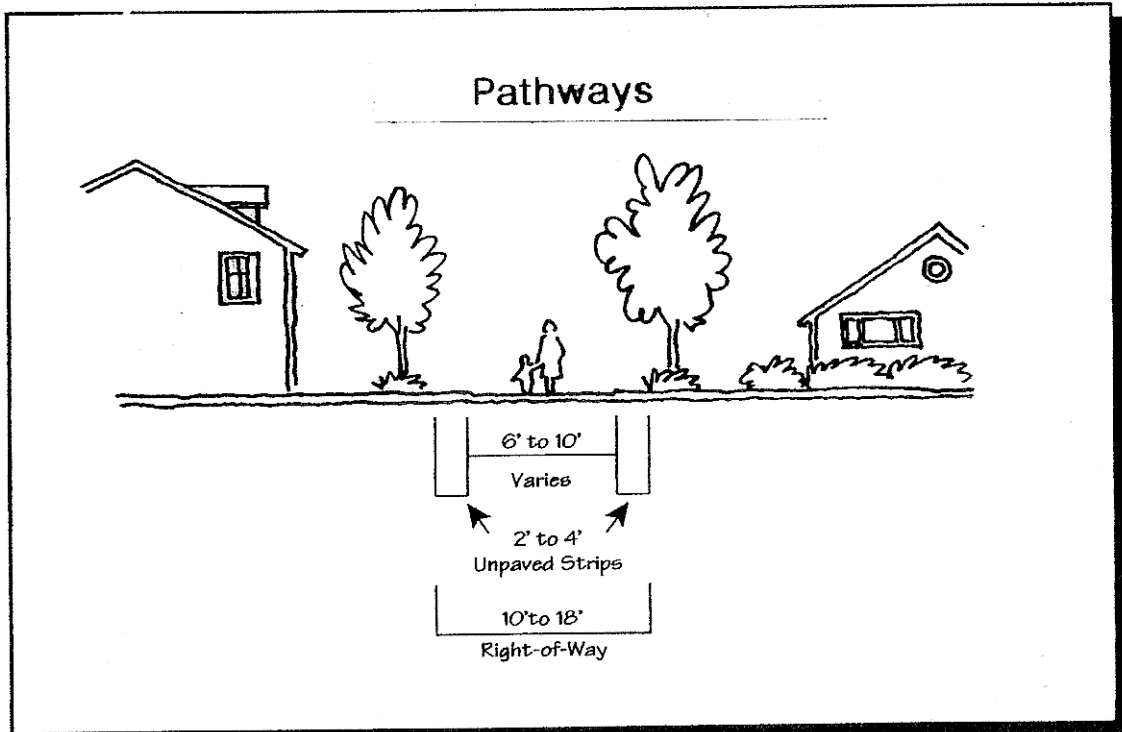
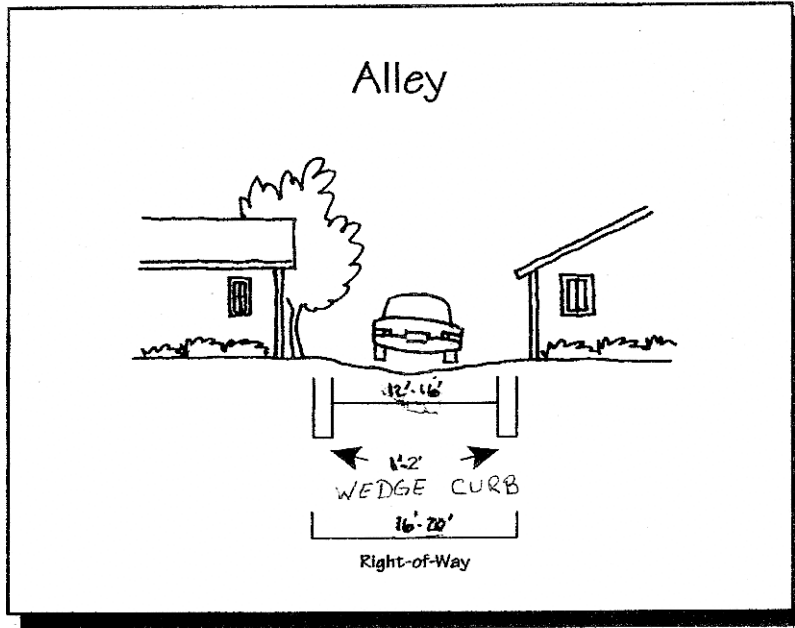


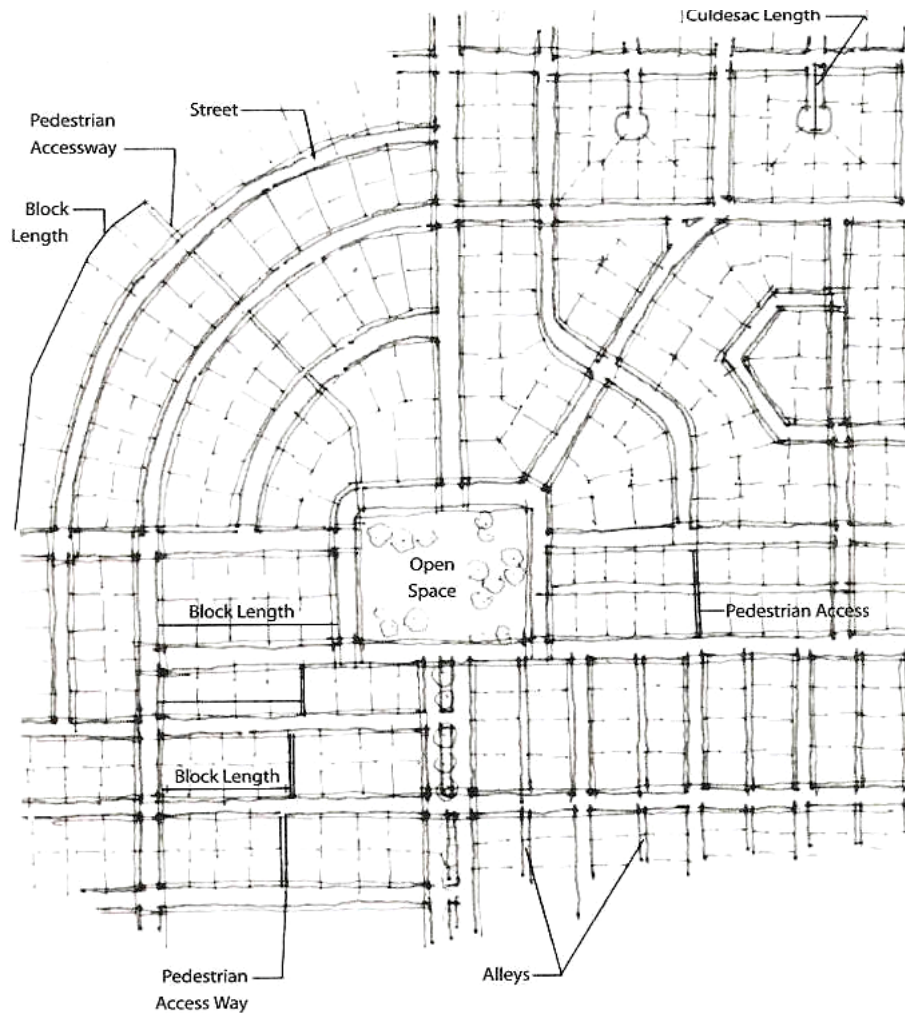
Figure 3.4.100.F(6) Alley and Pathway Sections



G. Subdivision Street Connectivity. All subdivisions shall conform to all the following access and circulation design standards, as applicable:

1. Connectivity to Abutting Lands. The street system of proposed subdivisions shall be designed to connect with existing, proposed, and planned streets outside of the subdivision as provided in this Section. Wherever a proposed development abuts unplatted land or a future development phase of the same development, street stubs shall be provided to allow access to future abutting subdivisions and to logically extend the street system into the surrounding area. All street stubs shall be provided with a temporary turn-around unless specifically exempted by the Fire Marshal, and the restoration and extension of the street shall be the responsibility of any future developer of the abutting land.
2. When Abutting an Arterial Street. Property access to abutting arterials shall be minimized. Where such access is necessary, shared driveways may be required in conformance with Section 3.1.2. If vehicle access off a secondary street is possible, then the road authority may prohibit access to the arterial.
3. Continuation of Streets. Planned streets shall connect with surrounding streets to permit the convenient movement of traffic between residential neighborhoods and to facilitate emergency access and evacuation. Connections shall be designed to meet or exceed the standards in subsection 4, below, and to avoid or minimize through traffic on local streets. Appropriate design and traffic control and traffic calming measures, as provided in subsection H, below, are the preferred means of discouraging through traffic.
4. Street Connectivity and Formation of Blocks. In order to promote efficient vehicular and pedestrian circulation throughout the city, subdivisions and site developments of more than 2 acres shall be served by a connecting network of public streets and/or accessways, in accordance with the following standards (minimum and maximum distances between two streets or a street and its nearest accessway):
 - a. Residential Districts: Minimum of 100 feet block length and maximum of 400 feet length; maximum 1,400 feet block perimeter;
 - b. Commercial Districts: Minimum of 100 feet length and maximum of 400 feet length; maximum 1,200 feet perimeter;
 - c. Not applicable to the Industrial Districts.

Figure 3.4.100.G - Street Connectivity and Formation of Blocks



5. Accessway Standards. Where a street connection in conformance with the maximum block length standards in subsection 4 is impracticable, an accessway shall be provided at or near the middle of a block in lieu of the street connection, as generally shown in Figure 3.4.100.G. The City may also require developers to provide an accessway where a cul-de-sac or other street is planned and the accessway would connect the streets or provide a connection to other developments. Such access ways shall conform to all of the following standards:
 - a. Accessways shall be no less than 10 feet wide and located within a right-of-way or easement allowing public access and, as applicable, emergency vehicle access;
 - b. If the streets within the subdivision or neighborhood are lighted, all accessways in the subdivision shall be lighted. Accessway illumination shall provide at least 2 foot candles;

- c. A right-of-way or public access easement provided in accordance with subsection b that is less than 20 feet wide may be allowed on steep slopes where the decision body finds that stairs, ramps, or switch-back paths are required;
- d. All accessways shall conform to applicable ADA requirements;
- e. The City may require landscaping as part of the required accessway improvement to buffer pedestrians from adjacent vehicles, provided that landscaping or fencing adjacent to the accessway does not exceed 4 feet in height; and
- e. These standards may be modified by the decision body without a variance when the modification affords greater convenience or comfort for, and does not compromise the safety of, pedestrians or bicyclists.

H. Traffic Signals and Traffic Calming Features.

1. Traffic signals shall be required with development when traffic signal warrants are met, in conformance with the Highway Capacity Manual and Manual of Uniform Traffic Control Devices. The location of traffic signals shall be noted on approved street plans. Where a proposed street intersection will result in an immediate need for a traffic signal, a signal meeting approved specifications shall be installed in conformance with the road authority's requirements. The developer's cost and the timing of improvements shall be included as a condition of development approval.
2. When an intersection meets or is projected to meet traffic signal warrants, the City may accept alternative mitigation, such as a roundabout, in lieu of a traffic signal, if approved by the City Engineer and applicable road authority.
3. The City may require the installation of calming features such as traffic circles, curb extensions, reduced street width (parking on one side), medians with pedestrian crossing refuges, and/or special paving to slow traffic in neighborhoods or commercial areas with high pedestrian traffic.

I. Future Street Plan and Extension of Streets.

1. A future street plan shall be filed by the applicant in conjunction with an application for a subdivision in order to facilitate orderly development of the street system. The plan shall show the pattern of existing and proposed future streets from the boundaries of the proposed land division and shall include other divisible parcels within 600 feet surrounding and adjacent to the proposed land division. The street plan is not binding; rather it is intended to show potential future street extensions with future development
2. Streets shall be extended to the boundary lines of the parcel or tract to be developed when the City determines that the extension is necessary to give street access to, or permit a satisfactory future division of, adjoining land. The point where the streets temporarily end shall conform to a-c, below:

- a. These extended streets or street stubs to adjoining properties are not considered to be cul-de-sacs since they are intended to continue as through streets when the adjoining property is developed.
- b. A barricade (e.g., fence, bollards, boulders or similar vehicle barrier) shall be constructed at the end of the street by the subdivider and shall not be removed until authorized by the City or other applicable agency with jurisdiction over the street. The cost of the barricade shall be included in the street construction cost.
- c. Temporary street ends shall provide turnarounds constructed to Uniform Fire Code standards for streets over 150 feet in length. See also, Section 3.1.200.

J. Street Alignment, Radii, and Connections.

1. Staggering of streets making “T” intersections at collectors and arterials shall be designed so that offsets of more than 300 feet on such streets are created, as measured from the centerline of the street.
2. Spacing between local street intersections shall have a minimum separation of 200 feet, except where more closely spaced intersections are designed to provide an open space, pocket park, common area, or similar neighborhood amenity. This standard applies to four-way and three-way (off-set) intersections.
3. All local and collector streets that stub into a development site shall be extended within the site to provide through circulation unless prevented by environmental or topographical constraints, existing development patterns, or compliance with other standards in this code. The applicant must show why the environmental or topographic constraint precludes some reasonable street connection.
4. Proposed streets or street extensions shall be located to allow continuity in street alignments and to facilitate future development of vacant or redevelopable lands.
5. In order to promote efficient vehicular and pedestrian circulation throughout the city, the design of subdivisions and alignment of new streets shall conform to block length standards in Section 3.1.200.
6. Corner curb radii shall be 20 feet -30 feet based on street classification, except where smaller radii are approved by the City Engineer.

K. Sidewalks, Planter Strips, Bicycle Lanes. Sidewalks, planter strips, and bicycle lanes shall be installed in conformance with the standards in Table 3.4.100, applicable provisions of Transportation System Plan, the Comprehensive Plan, and adopted street plans. Maintenance of sidewalks and planter strips in the right-of-way is the continuing obligation of the adjacent property owner.

L. Intersection Angles. Streets shall be laid out so as to intersect at an angle as near to a right angle as practicable, except where topography requires a lesser angle or where a reduced angle is necessary to provide an open space, pocket park, common area or similar neighborhood amenity. In addition, the following standards shall apply:

1. Intersections which are not at right angles shall have a minimum corner radius of 20 feet along the right-of-way lines of the acute angle; and
2. Right-of-way lines at intersection with arterial streets shall have a corner radius of not less than 20 feet.

M. Existing Rights-of-Way. Whenever existing rights-of-way adjacent to a proposed development are less than standard width, additional rights-of-way shall be provided at the time of subdivision or development, subject to the provision of Section 3.4.100.

N. Cul-de-sacs. A cul-de-sac street shall only be used when environmental or topographical constraints, existing development patterns, or compliance with other standards in this code preclude street extension and through circulation. When cul-de-sacs are provided, all of the following shall be met:

1. The cul-de-sac shall not exceed a length of 400 feet; the length of the cul-de-sac shall be measured along the centerline of the roadway from the near side of the intersecting street to the farthest point of the cul-de-sac;
2. The cul-de-sac shall terminate with a circular or hammer-head turnaround meeting the Uniform Fire Code. Circular turnarounds shall have a radius of no less than 39.5 feet, and not more than a radius of 45 feet (i.e., from center to edge of pavement); except that turnarounds shall be larger when they contain a landscaped island or parking bay at their center. When an island or parking bay is provided, there shall be a fire apparatus lane of 20 feet in width; and
3. The cul-de-sac shall provide, or not preclude the opportunity to later install, a pedestrian and bicycle accessway connection between it an adjacent streets access ways, parks, or other right-of-way. Such accessways shall conform to Section 3.1.400.

O. Grades and Curves. Grades shall not exceed 6% on arterials, 10% on collector streets, or 15% on any other street (except that local or residential access streets may have segments with grades which exceed 15% for distances of no greater than 100 feet), and:

1. Centerline curve radii shall not be less than 300 feet on arterials, 200 feet on major collectors, or 100 feet on other streets; and
2. Streets intersecting with a minor collector or greater functional classification street, or streets intended to be posted with a stop sign or signalization, shall provide a landing averaging five percent or less. Landings are that portion of the street within 20 feet of the edge of the intersecting street at full improvement.

- P. Curbs, Curb Cuts, Ramps, and Driveway Approaches.** Concrete curbs, curb cuts, wheelchair ramps, bicycle ramps, and driveway approaches shall be constructed in accordance with standards specified in Chapter 3.1, Access and Circulation.
- Q. Streets Adjacent to Railroad Right-of-Way.** When a transportation improvement is proposed within 300 feet of a public railroad crossing, or a modification is proposed to an existing public crossing, the Oregon Department of Transportation and the rail service provider shall be notified and given an opportunity to comment, in conformance with the provisions of Chapter 4. Private crossing improvements are subject to review and licensing by the rail service provider.
- R. Alleys, Public or Private.** Alleys shall conform to the standards in Table 3.4.100. Alley intersections and sharp changes in alignment shall be avoided. The corners of necessary alley intersections shall have a radius of not less than 12 feet.
- S. Private Streets.** Private streets shall conform to City standards of construction and Table 3.4.100.F and shall provide sidewalks or pathways as approved by the City. Private streets shall not be used to avoid public access connectivity required by this Chapter. Gated communities (i.e., where a gate limits access to a development from a public street) are prohibited; and
- T. Street Names.** No new street name shall be used which will duplicate or be confused with the names of existing streets in Lane County. Street names, signs, and numbers shall conform to the standards in Chapter 12.16 of the Cottage Grove Municipal Code, except as requested by emergency service providers.
- U. Survey Monuments.** Upon completion of a street improvement and prior to acceptance by the City, it shall be the responsibility of the developer's registered professional land surveyor to provide certification to the City that all boundary and interior monuments shall be reestablished and protected.
- V. Street Signs.** The city, county, or state with jurisdiction shall install all signs for traffic control and street names. The cost of signs required for new development shall be the responsibility of the developer. Street name signs shall be installed at all street intersections. Stop signs and other signs may be required.
- W. Mail Boxes.** Plans for mail boxes shall be approved by the United States Postal Service.
- X. Street Light Standards.** Street lights shall be installed in accordance with City standards.
- Y. Street Cross Sections.** Street cross sections shall be constructed to Engineering Department Standards.

3.4.200 Public Use Areas

A. Dedication of Public Use Areas.

1. Where a proposed park, playground, or other public use shown in a plan adopted by the City is located in whole or in part in a subdivision, the City may require the dedication or reservation of this area on the final plat for the subdivision, provided that the impact of the development on the City park system is roughly proportionate to the dedication or reservation being made.
2. The City may purchase or accept voluntary dedication or reservation of areas within the subdivision that are suitable for the development of parks and other public uses; however, the City is under no obligation to accept such areas offered for dedication or sale.

B. System Development Charge Credit. Dedication of land to the City for public use areas, voluntary or otherwise, shall be eligible as a credit toward any required system development charge for parks.

3.4.300 Sanitary Sewer and Water Service Improvements

- A. Sewers and Water Mains Required.** Sanitary sewers and water mains shall be installed to serve each new development and to connect developments to existing mains in accordance with the City’s Sanitary Sewer Master Plan, Water System Master Plan, and the applicable construction specifications. When streets are required to be stubbed to the edge of the subdivision, sewer and water system improvements shall also be stubbed with the streets, except as may be waived by the City Engineer.
- B. Sewer and Water Plan Approval.** Development permits for sewer and water improvements shall not be issued until the City Engineer has approved all sanitary sewer and water plans in conformance with City standards.
- C. Over-Sizing.** The City may require as a condition of development approval that sewer, water, and/or storm drainage systems serving new development be sized to accommodate future development within the area as projected by the applicable Water, Sewer, and/or Storm Drainage Master Plan, provided that the city may grant the developer credit toward any required system development charge for the same.
- D. Inadequate Facilities.** Development permits may be restricted by the City where a deficiency exists in the existing water or sewer system that cannot be rectified by the development and which if not rectified will result in a threat to public health or safety, surcharging of existing mains, or violations of state or federal standards pertaining to operation of domestic water and sewerage treatment systems.

3.4.400 Storm Drainage Improvements

- A. General Provisions.** The City shall issue a development permit only where adequate provisions for storm water and flood water runoff have been made in conformance with the City’s Storm Drainage Master Plan and Chapter 3.5, Surface Water Management.
- B. Accommodation of Upstream Drainage.** Culverts and other drainage facilities shall be large enough to accommodate existing and potential future runoff from the entire upstream drainage area, whether inside or outside the development. Such facilities shall be subject to review and approval by the City Engineer.
- C. Effect on Downstream Drainage.** Where it is anticipated by the City Engineer that the additional runoff resulting from the development will overload an existing drainage facility, the City shall withhold approval of the development until provisions have been made for improvement of the potential condition or until provisions have been made for storage of additional runoff caused by the development in accordance with City standards.
- D. Over-Sizing.** The City may require as a condition of development approval that sewer, water, and/or storm drainage systems serving new development be sized to accommodate future development within the area as projected by the applicable Water, Sewer, and/or Storm Drainage Master Plan, provided that the city may grant the developer credit toward any required system development charge for the same.
- E. Existing Watercourse.** Where a proposed development is traversed by a watercourse, drainage way, channel, or stream, there shall be provided a storm water easement or drainage right-of-way conforming substantially with the lines of such watercourse and such further width as will be adequate for conveyance and maintenance to protect the public health and safety.

3.4.500 Utilities

A. Underground Utilities.

1. Generally. All new utility lines including, but not limited to, those required for electric, communication, lighting, and cable television services and related facilities shall be placed underground, except for surface mounted transformers, surface mounted connection boxes and meter cabinets which may be placed above ground, temporary utility service facilities during construction, and high capacity electric lines operating at 50,000 volts or above.
2. Subdivisions. The following additional standards apply to all new subdivisions, in order to facilitate underground placement of utilities:
 - a. The developer shall make all necessary arrangements with the serving utility to provide the underground services. Care shall be taken to ensure that all above ground equipment does not obstruct vision clearance areas for vehicular traffic (Chapter 3.1);
 - b. The City reserves the right to approve the location of all surface-mounted facilities;
 - c. All underground utilities, including sanitary sewers and storm drains installed in streets by the developer, shall be constructed prior to the surfacing of the streets; and
 - d. Stubs for service connections shall be long enough to avoid disturbing the street improvements when service connections are made.

B. Exception to Undergrounding Requirement. An exception to the undergrounding requirement may be granted due to physical constraints, such as steep topography, sensitive lands (Chapter 3.7), or existing development conditions.

3.4.600 Easements

- A. Provision.** The developer or applicant shall make arrangements with the City, the applicable district, and each utility franchise for the provision and dedication of utility easements necessary to provide full services to the development. The City’s standard width for public main line utility easements shall be determined by the City Engineer.
- B. Recordation.** As determined by the City Engineer, all easements for sewers, storm drainage and water quality facilities, water mains, electric lines, or other public utilities shall be recorded with the final plat. See Chapter 4.2, Site Design Review, and Chapter 4.3, Land Divisions.

3.4.700 Construction Plan Approval and Assurances

- A. Plan Approval and Permit.** No public improvements, including sanitary sewers, storm sewers, streets, sidewalks, curbs, lighting, parks, or other requirements shall be undertaken except after the plans have been approved by the City, permit fee paid, and permit issued. The permit fee is required to defray the cost and expenses incurred by the City for construction and other services in connection with the improvement. The permit fee shall be set by City Council.
- B. Performance Guarantee.** The City may require the developer or subdivider to provide bonding or other performance guarantees to ensure completion of required public improvements. See Section 4.2.4, Site Design Review, and Section 4.3.180, Land Divisions.

3.4.800 Installation

- A. Conformance Required.** Improvements installed by the developer either as a requirement of these regulations or at his/her own option, shall conform to the requirements of this Chapter, approved construction plans, and to improvement standards and specifications adopted by the City.
- B. Adopted Installation Standards.** The Standard Specifications for Public Works Construction, Oregon Chapter A.P.W.A., shall be a part of the City's adopted installation standard(s); other standards may also be required upon recommendation of the City Engineer.
- C. Commencement.** Work shall not begin until the City has been notified in advance in writing.
- D. Resumption.** If work is discontinued for more than one month, it shall not be resumed until the City is notified in writing.
- E. City Inspection.** Improvements shall be constructed under the inspection and to the satisfaction of the City. The City may require minor changes in typical sections and details if unusual conditions arising during construction warrant such changes in the public interest. Modifications to the approved design requested by the developer may be subject to review under Chapter 4.6, Modifications to Approved Plans and Conditions of Approval. Any monuments that are disturbed before all improvements are completed by the subdivider shall be replaced prior to final acceptance of the improvements.
- F. Engineer's Certification and As-Built Plans.** A registered civil engineer shall provide written certification in a form required by the City that all improvements, workmanship, and materials are in accord with current and standard engineering and construction practices, conform to approved plans and conditions of approval, and are of high grade, prior to City acceptance of the public improvements, or any portion thereof, for operation and maintenance. The developer's engineer shall also provide 2 sets of "as-built" plans, in conformance with the City Engineer's specifications, for permanent filing with the City.