

# **CHAPTER 3**

## **ENGINEERING DESIGN and DEVELOPMENT STANDARDS**

**September 1999**  
Revised January 2017  
Revised May 2021  
Revised July 2025

**Prepared by:**  
**City of Marysville**  
**Public Works / Community Development**

- A. Any land development which will impact the service level, safety, or operational efficiency of serving roads or is required by other City code or ordinance to improve such roads shall improve those roads in accordance with these Standards. The Public Works Director or designee shall base the extent of off-site improvements to serving roads on an assessment of the impacts of the proposed land development.
- B. Any subdivision of land or development as described in ~~The~~ [Chapter 12.02A](#) of Marysville Municipal Code abutting and impacting existing roads shall improve the frontage of those roads in accordance with these Standards. The Public Works Director or designee shall base the extent of on and offsite improvements on an assessment of the impacts of the proposed land development.
- C. Any land development that contains internal roads shall construct or improve those roadways to these Standards.
- D. It is the City's practice to not allow subdivisions to be recorded unless there exists a recorded continuous public access, i.e., right-of-way or easement to the subdivision except as provided for in Section 3-205, nor will the City accept a road for maintenance until the road is directly connected to a City or other publicly maintained road.
- E. All road improvement and development projects shall include pedestrian access as a part of the design. Where existing roadways are to be modified, pedestrian facilities shall be as described in Sections 3-513, 3-518, 3-519, and 3-523.

### **3-103 GENERAL REFERENCES**

The Standards implement and are intended to be consistent with:

- A. Marysville Municipal Code
- B. Marysville Comprehensive Plans

### **3-104 WSDOT/APWA DOCUMENTS AS PRIMARY DESIGN AND CONSTRUCTION REFERENCES**

### **3-202 RESIDENTIAL ACCESS STREETS**

See Standard Plan No 3-202-001 through 3-202-004

CLASSIFICATION	NEIGHBORHOOD COLLECTORS	LOCAL ACCESS STREETS	LOCAL ACCESS STREETS	PRIVATE ROADS (RESIDENTIAL) (13)
<b>Land Use Area</b>				
Serving Potential Number of Single-Family <u>or Middle Housing</u> Dwelling Units	300 Max.	100 Max.	9 Max.	1 to 4 total lots and 2 to 8 total Units
CRITERIA				
A. Typical Road Type	Curb & Gutter [12]	Curb & Gutter [12]	Curb & Gutter [12]	Shoulder [12]
B. Design Speed (MPH) [5]	30	25	25	20
C. Horizontal Curvature Min. Radius (Ft.) [12]	300	165	165	90
D. Max. Grade [6]	12	15	15	15
E. Standard Stopping Sight Distance (Ft.) [7]	200	155 ft.	155	115
F. Standard Entering Sight Distance (Ft.) [8]	250	200	200	150
G. Pavement Width (Ft.)	36	28	24	Varies (See Std. Plan 3-202-004)
H. Right-of-way Width (Ft.)	60	50	40	Varies (See Std. Plan 3-202-04)
I. Corner Radii	See Section 3-209	See Section 3-209	See Section 3-209	See Section 3-209
J. Min. Half St. Paved Width (Ft.)	20	20	None	None

**NOTES:**

1. Within the above parameters, geometric design for specific streets shall be consistent with AASHTO Policy on Geometric Design of Highways and Streets.
2. See Section 3-213 for one-way loops.
3. See Section 3-215 for residential access connection requirements.
4. See Section 3-216 for urban exception criteria.
5. Design speed is a basis for determining geometric elements and does not imply posted or legally permissible speed.
6. Maximum grade may be exceeded for short distances. (See Section 3-210).
7. Standard Stopping Sight Distance (SSD) shall apply unless otherwise approved by the Engineer. (See Section 3-211).
8. Standard Entering Sight Distance (ESD) shall be determined at intersections and driveways unless otherwise approved by the Engineer (See Section 3-212).
9. For guardrail installation, shoulders shall be two feet wider.
10. For Local Access Streets only an elbow intersection may be constructed in accordance with standard plan 3-209-002

11. Private roads are only permitted in Short Subdivisions or Unit Lot Subdivisions with 4 or less total development lots, and 8 or less total units.
12. Pervious concrete pavement and other Low Impact Development (LID) stormwater techniques are allowed without a waiver and may modify this requirement, subject to plan review and approval.
13. Unit lot subdivisions shall provide access as follows:
  - a. Unit lot subdivisions with up to 9 unit lots can be served via a private road or local access street as applicable, alley, or private multi-family drive aisle (see standard plan 3-202-005); and
  - b. Unit lot subdivisions with 10 to 20 unit lots can be served via an alley or private multi-family drive aisle (see standard plan 3-202-005).

5. Not going to result in land locking of present or future parcels; and
  6. Not needed as public roads to meet the minimum road spacing requirements of these Standards; and
  7. A private road maintenance agreement consistent with Appendix E has been approved, recorded, and verified with the City, which will provide for maintenance of the private streets and associated parking areas by owners in the development.
  8. At least one of the following conditions exists:
    - a. The private street is located within a short subdivision or unit lot subdivision with 9 or fewer units.
    - b. The roadways serve commercial or industrial facilities where no circulation continuity is necessary.
    - c. The Public Works Director or designee and Fire Marshal determines that no other access is available and the private road is adequate.
  9. Maintained by a capable and legally responsible owner or homeowners' association or responsible entity or parties including all benefited property owners; and
  10. Clearly described on the face of the plat, short plat, or other development authorization and clearly signed at street location as a private street, for the maintenance of which City of Marysville is not responsible.
- C. The City of Marysville will not accept private streets for maintenance as public streets until such streets are brought into conformance with current City road standards.
- D. The City of Marysville will not accept private streets within short plats when the roads providing access to the short plat are private and already have the potential to serve more than the number of lots specified in Section 3-202. Short plats proposed on properties to which the access is over private streets that do not meet the standards in this section shall be denied.
- E. Private access shall conform to Standard Plan 3-202-004 for private roads and access easements subject to:

1. A maximum of four (4) lots or ~~in the case of duplexes~~ eight (8) units are accessed from the private road.
2. Minimum tract width of 20 feet for up to one (1) lot or two (2) units, and 30 feet for two (2) to four (4) lots or four (4) to eight (8) units.
3. Access road length shall not exceed 300 feet and shall not extend from any portion of a public cul-de-sac.
4. Private roads exceeding 150' shall construct a turn-a-round consistent with Standard Plan 3-207-004.

### **3-206 HALF STREETS**

See Standard Plans 3-206-001.

A. A half street may be permitted as an interim facility when:

1. Such street shall not serve as primary access to more than 25 dwelling units or tax lots whichever is lesser for residential or 240 ADT for commercial/industrial; and
2. Such alignment is consistent with or will establish a reasonable circulation pattern; and
3. There is reasonable assurance of obtaining the prescribed additional right-of-way from the adjoining property with topography suitable for completion of a full-section road.
4. To provide access to an existing Standard City Street.

B. A half street shall meet the following requirements:

1. Right-of-way width of the half street shall equal at least 30 feet; and
2. If feasible the half street shall be graded consistent with locating centerline of the ultimate road section on the property line; and

3. Traveled way shall be surfaced the same as the designated road type to a width not less than 20 feet, sidewalk shall be constructed as required for the designated road type; and
  4. Property line edge of street shall be finished with temporary curbing, shoulders, ditches, and/or side slopes so as to assure proper drainage, bank stability, and traffic safety; and
  5. Half streets shall not intersect other half streets unless so approved by the Public Works Director or designee.
- C. When a half street is eventually completed to a whole street, the completing builder shall reconstruct the original half street as necessary to produce a proper full-width street of designated section.
- D. The obtaining of any right-of-way or easements needed to accomplish the above shall be the responsibility of the owning builder or developer.

### **3-207 CUL-DE-SACS AND EYEBROWS**

See standard plans 3-207-001 through 3-207-003.

- A. Whenever a dead end public street serves 5 or more lots or 10 units, a private/public road extends more than 150 feet from edge of the intersecting right of way to farthest extent of the road an approved turn-a-round shall be constructed as follows:
1. Minimum right-of-way diameter across bulb section: 100 feet in a permanent cul-de-sac for all public roads; and 84 feet in a temporary cul-de-sac, with bulb area lying outside straight-street right-of-way provided as temporary easement pending forward extension of the street.
  2. Minimum diameter of surfacing across bulb: 80 feet of paving in curb, gutter, and sidewalk roadway section; 80 feet total in shoulder type or thickened edge cul-de-sacs to include 64 feet of paving and eight-foot shoulders with compacted crushed surfacing material. See Standard Plan 3-207-001.

3. Private roads shall construct a turn-a-round consistent with Standard Plan 3-207-004.
- B. A permanent cul-de-sac shall not be longer than 600 feet measured from the edge of intersecting street right of way to the geometric center monument of the cul-de-sac. The Public Works Director or designee based on pertinent traffic planning factors such as topography; sensitive areas and existing development will consider exceptions to this rule.
- C. The Public Works Director or designee may require an emergency vehicle access to connect a cul-de-sac at its terminus with other streets.
- D. If a temporarily cul-de-sac exists, removal of the temporary cul-de-sac, re-grading/restoration of disturbed area, and extension of the sidewalk shall be the responsibility of the developer who extends the road. See Standard Plan 3-207-002.
- E. The maximum cross slope in a bulb shall not exceed 6 percent. Partial bulbs or eyebrows shall have a minimum paved radius and an island configuration as shown on Standard Plan 3-207-003. Island shall be offset two feet from edge of traveled way.
- F. Pedestrian walkways shall be provided on all permanent cul-de-sacs to abutting property see Standard Plan 3-207-001.

### **3-208 ALLEYS**

- A. An alley is considered a public road. Requirements of Section 3-202, local access streets, for horizontal curvature and stopping sight distance, apply.
  1. New alleys serve a maximum of 30 ~~units lots~~, with a maximum length of 400 feet, no dead ends or cul-de-sacs. **Fire access must meet all requirements of IFC requirements.**
  2. Minimum right-of-way width 20 feet with a pavement surface of 20 feet. For differing structure setback requirements, alley configuration shall be designated to provide for safe turning access to properties.
  3. Paved surface shall be in accordance with Standard Plan 3-208-001.

Private Roads per standard plan 3-202-004 may only be used in special circumstances as determined by the City Engineer/Community Development Director or designee.

PRD Access Streets may be required to increase travel lane width, curb return radius and/or include left turn pockets at intersections as determined by the City Engineer or designee.

### **3-219 AUTOCOURTS**

Definitions:

“Auto court” means an access way that is privately owned and maintained, that is designed to accommodate vehicles, pedestrians, and bicycles within the same circulation space. An auto court is not a through facility; it ends in a “court” or courtyard area used for garage access and other activities of the residents. For examples, see the City of Marysville [Residential Small Lot Design Guidelines](#).

“Court” means a short street, especially a wide alley walled by buildings on 3 sides.

Design Requirements [\(see also Standard Plan 3-219-001\)](#):

- Shall serve a maximum of 6 units.
- An auto court is only allowed in a Planned Residential Development (PRD).
- Shall not access from an arterial street or from a cul-de-sac.
- Maximum length of 150 feet unless an acceptable emergency vehicle turnaround is provided and designed so vehicles will not back onto public streets.
- Minimum width of 20 feet; [provided that, if emergency services access is required, the driving surface dimensions will comply with emergency vehicle access requirements.](#)
- Surfacing with [broom-finished, Portland cement concrete with four-foot-wide concrete ribbon on each side of the autocourt pigmented “brick red” or approved equal scored concrete,](#) ~~paving blocks, bricks, or other ornamental pavers~~ to clearly indicate that the entire surface is intended for pedestrians as well as vehicles.
- Driveway length may be reduced to between three feet and six feet for garages when at least two parking spaces are provided for the unit in addition to the garage. The additional parking shall be conveniently located to the dwellings.
- Minimum separation of opposing garage doors facing the auto court shall be 28 feet.

## **SITE ACCESS**

### **3-300 GENERAL**

- A. Access to City roads is regulated through the Right of Way (R/W) Use permit process. No construction of access points or related improvements will be allowed without a valid R/W Use permit. Permits will be evaluated and issued based on the ability of the proposed access or use to meet these Standards.
- B. If a proposed property access point cannot meet these Standards, the Engineer may designate one or more access points based on traffic safety, operational needs, and conformance to as many of the requirements of these Standards as possible.
- C. Access points for parking or loading areas shall be designed so that backing maneuvers from or onto a public street R/W will not occur. This does not apply to single family or ~~duplex~~ Middle Housing residential uses on non-arterial roads.
- D. Where necessary for the safe and efficient movement of traffic, the Engineer may require investigation by the applicant to determine whether access points should be designed to limit turning movements. The Engineer may also require joint access and circulation agreements between neighboring properties to further provide safe and efficient movement of traffic.
- E. Temporary access may be granted to undeveloped property prior to completion of a final development plan if access is needed for construction of preliminary site access. Temporary access points are subject to removal, relocation, or redesign after final development plan approval.
- F. Secondary access for emergency vehicles may be required for certain high volume or public safety sensitive developments. They shall be designed to the satisfaction of the Public Works Director or designee based on review by the City of Marysville Fire Department.
- G. No relocation, alteration or reconstruction of existing access points is permitted without prior written approval from the Public Works Director or designee.
- H. Existing Access points that do not meet these standards may be required to be revised or removed if deemed necessary by the Public Works Director or designee.

4. The standard driveway width shall be 12 feet minimum and 26 feet maximum for ~~single family~~ one and two unit residential uses, 20 foot minimum and 30 foot maximum for multiple family residential uses (three units and above), and 24-foot minimum and 40 foot maximum for commercial/industrial driveways. Driveways shall be the minimum width feasible.
5. Driveway widths shall not be wider than 30% of the property's roadway frontage. Except as provided in MMC.
6. Recommended driveway width standards for the City's pedestrian oriented corridors shall be 30% less than the standard driveway width.

C. Location and Width of New Driveways.

1. A residential driveway shall typically serve only one parcel. A driveway serving more than one parcel shall be classed as a commercial driveway or a private street, except as provided in 2.a. and 2.b. below.
2. No portion of driveway width shall be allowed within 6 feet of side property lines except as follows:
  - a. A joint use driveway tract/easement may be used to serve two parcels:
    - (1) Minimum tract width shall be 20 feet, cross slope in one direction and curb or thickened edge on one side. Minimum tract/easement length shall be 20 feet from right-of-way line.
    - (2) The City Engineer or designee may allow use of an easement if the only access to a serving roadway is through an adjacent parcel not owned by the applicant or for residential short plats or unit lot subdivisions to satisfy minimum lot width requirements.
    - (3) Joint use driveways exceeding 150 feet in length shall provide an approved turnaround.

- b. Industrial: That portion of a municipality in a business development, normally manufacturing, warehousing or wholesale oriented, where ordinarily there are few pedestrians and a low parking turnover, but there is a large amount of truck, multiple axle truck, and trailer traffic.
- c. Intermediate: That portion of a municipality which is outside a downtown area but generally within the zone of a business or industrial development, often characterized by moderately heavy nighttime pedestrian traffic and a somewhat lower parking turnover than is found in a commercial area. This definition encompasses densely developed apartment areas, hospitals, public libraries, and neighborhood recreational centers.
- d. Residential: A residential development or a mixture of residential and commercial establishments characterized by few pedestrians and a low parking demand for turnover at night. This definition includes areas with single family homes, townhouses, [Middle Housing](#), and/or small apartments. Regional parks, cemeteries, and vacant land are also included.

The City of Marysville shall determine the area classification for specific areas.

### **3-507 SURVEY MONUMENTS**

- A. All existing survey monuments, which are disturbed, lost, or destroyed due to land disturbance shall be referenced and re-established by a land surveyor registered in the State of Washington at the expense of the responsible contractor or developer.
- B. Survey monuments shall be placed or replaced in accordance with recognized good practice in land surveying, and in conformance with Standard Plans 3-507-001 and 3-507-002.
- C. Establishment of new monumentation will be required at the expense of the responsible contractor or developer.

## **CONSTRUCTION**

### **3-800 CONSTRUCTION CONTROL AND INSPECTION**

#### **3-801 BASIS FOR CONTROL OF THE WORK**

- A. Work performed in the construction or improvement of City streets, whether by or for a private developer or by City contractor, shall be done in accordance with these Standards and approved plans and specifications. It is emphasized that no work may be started until such plans are approved. The Public Works Director or designee shall approve any revision to such plans before being implemented.
  
- B. The Public Works Director or designee will have authority to enforce the Standards as well as other referenced or pertinent specifications. The Public Works Director or designee will appoint project engineers, assistants, and inspectors as necessary to inspect the work and they will exercise such authority as the Public Works Director or designee may delegate.

Provisions of Section 1-05 of the WSDOT Standard Specifications shall apply, with the term "Public Works Director or designee" therein construed to be the Public Works Director or designee.

#### **3-802 SUBDIVISION, COMMERCIAL AND RIGHT-OF-WAY INSPECTION**

On all road and drainage facility construction, proposed or in progress, which relates to residential, subdivision, commercial, industrial, and right-of-way development, City of Marysville Public Works will do control and inspection. Unless otherwise instructed by the Public Works Director or designee, construction events which require monitoring or inspections by Public Works are identified as follows, with prior notification to Public Works (telephone 360-363-8100):

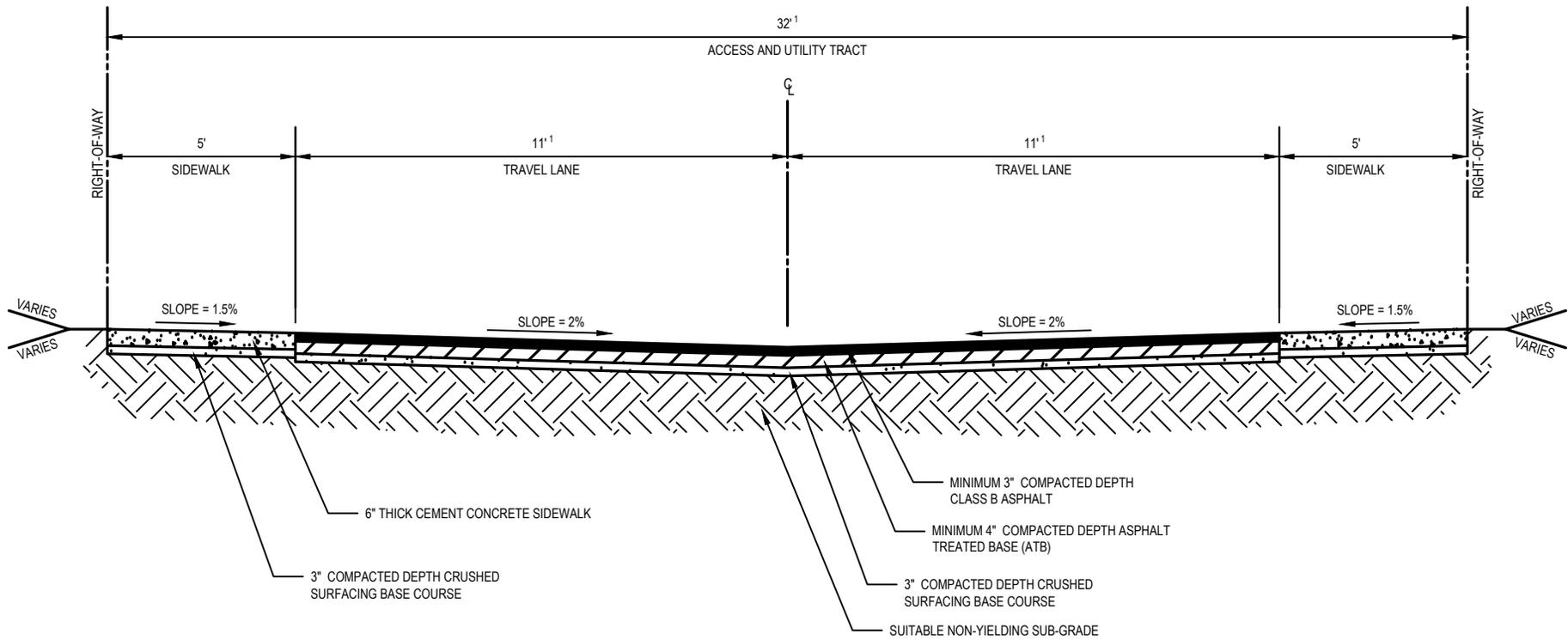
- A. Preconstruction Conference: Three working days prior notice. Conference must precede the beginning of construction and include contractor, designing Engineer, utilities, and other parties affected. Plan approvals and permits must be in hand prior to the conference.

Arterial Classification	Name	Number Of Lanes [4]	Bicycle Lane (5 feet)	Streetscape [1]	Right Of Way Width (feet) [2]
<b>Collector</b>					
East/West					
	1 <sup>st</sup> St: Ash Ave to Cedar Ave	2	Yes	No	60
	2 <sup>nd</sup> St: State Ave to 47 <sup>th</sup> Ave	2	No	No	60
	3 <sup>rd</sup> St: Ash Ave to Beech Ave	2	Yes	Yes	70
	5 <sup>th</sup> St: Ash Ave to Beech Ave	2	No	No	60
	8 <sup>th</sup> St: Ash Ave to 47 <sup>th</sup> Ave	2	Yes	No	60
	44 <sup>th</sup> St: 67 <sup>th</sup> Ave to 83 <sup>rd</sup> Ave	2	Yes	No	60
	76 <sup>th</sup> St: State Ave to 47 <sup>th</sup> Ave	2	No	No	60
	80 <sup>th</sup> St: State Ave to 51 <sup>st</sup> Ave	2	Yes	No	60
	84 <sup>th</sup> St: State Ave to City Limits	2	No	No	60
	100 <sup>th</sup> St NE: State Ave to 76 <sup>th</sup> Ave	2	Yes	No	65
	108 <sup>th</sup> St: 51 <sup>st</sup> Ave to 67 <sup>th</sup> Ave	2	Yes	No	60
	116 <sup>th</sup> St: State Ave to 44 <sup>th</sup> Dr	2	No	Yes	60
	132 <sup>nd</sup> St: 51 <sup>st</sup> Ave to 67 <sup>th</sup> Ave	2	Yes	No	60
	164 <sup>th</sup> St: 22 <sup>nd</sup> Ave to 27 <sup>th</sup> Ave	2	No	Yes	60
	169 <sup>th</sup> St: 19 <sup>th</sup> Ave [5] to 27 <sup>th</sup> Ave	2	No	Yes	60
	Grove St: Ash Ave to Cedar Ave	2	Yes	No	60
	Grove St: 67 <sup>th</sup> Ave to 83 <sup>rd</sup> Ave	3	Yes	Yes	75
North/South					
	19 <sup>th</sup> Ave [5]: SR 531 to 169 <sup>th</sup> St	2	No	Yes	60
	22 <sup>nd</sup> Ave: SR 531 to 164 <sup>th</sup> St	2	No	Yes	60
	22 <sup>nd</sup> Ave Extension: 164 <sup>th</sup> St to 136 <sup>th</sup> St	2	No	Yes	60
	25 <sup>th</sup> Ave: SR 531 to 164 <sup>th</sup> St	2	No	Yes	60
	47 <sup>th</sup> Ave: 2 <sup>nd</sup> St to 3 <sup>rd</sup> St	3	No	No	75
	47 <sup>th</sup> Ave: Armar Rd to 84 <sup>th</sup> St	2	Yes	No	60
	48 <sup>th</sup> Dr: City Limits to 100 <sup>th</sup> St	2	No	No	60
	79 <sup>th</sup> Ave Soper Hill Rd to 40 <sup>th</sup> St	2	No	No	60
	83 <sup>rd</sup> Ave: 84 <sup>th</sup> St to 96 <sup>th</sup> St	2	No	Yes	60
	87 <sup>th</sup> Ave: SR 528 Rd to 84 <sup>th</sup> St**	2	No	Yes	55
	87 <sup>th</sup> Ave: 84 <sup>th</sup> St to 96 <sup>th</sup> St	2	No	Yes	60
	87 <sup>th</sup> Ave: Soper Hill Rd to SR 528	2	No	Yes	60
	Ash Ave: 1 <sup>st</sup> St to 3 <sup>rd</sup> St	1	No	No	55
	Ash Ave: 5 <sup>th</sup> St to Grove St	2	No	Yes	65
	Beach Ave: 1st St to Short St	3	Yes	Yes	75
	Short St: Beach Ave to Cedar Ave	3	Yes	Yes	75
	Shoultes Rd: 100 <sup>th</sup> St to 108 <sup>th</sup> St	2	No	No	60

\* SR 531 is to be constructed with Medians in place of two-way left turn lanes.

\*\* Collector Arterial built to Neighborhood Collector Standard

1. 5 foot planter strip between the back of curb and sidewalk. If within downtown core tree wells with grates may be substituted.
2. Right of way width may be increased as determined by the Public Works Director or designee
3. See Standard Plans 3-201-001 and 3-201-002
4. Collector Arterial shall be striped with a left turn pocket and removal of parking at roadway intersections.
5. 19<sup>th</sup> Avenue is now known as English Crossing Boulevard.



**NOTES:**

- TRAVEL LANES MUST BE INCREASED TO 13FT EACH AS REQUIRED BY THE FIRE DISTRICT PER IFC D105.2. IN LIEU OF THE 13 FT TRAVEL LANES, THE FIRE DISTRICT MAY ALLOW THE INSTALLATION OF ROLLED CURB PROVIDED THAT ADEQUATE ACCESS TO HYDRANTS IS PROVIDED PER IFC D103.1. TRAFFIC CALMING MAY BE REQUIRED AS APPROVED.

APPROVED BY

07/17/25

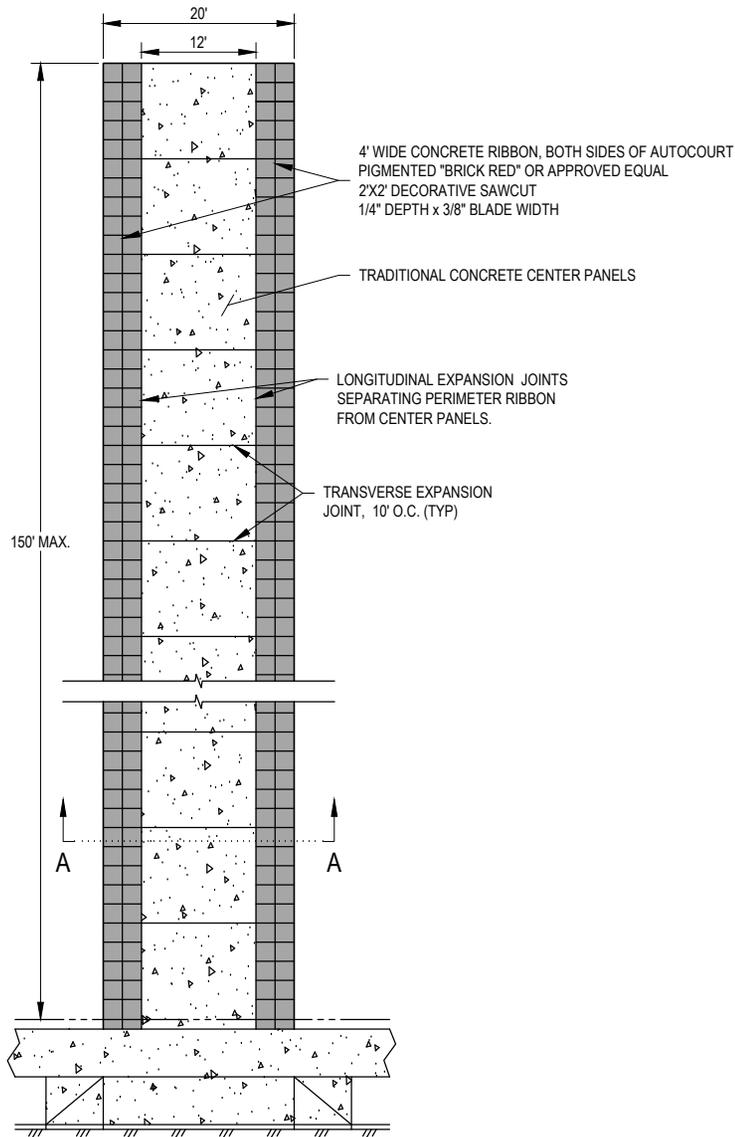
MARYSVILLE CITY ENGINEER

DATE



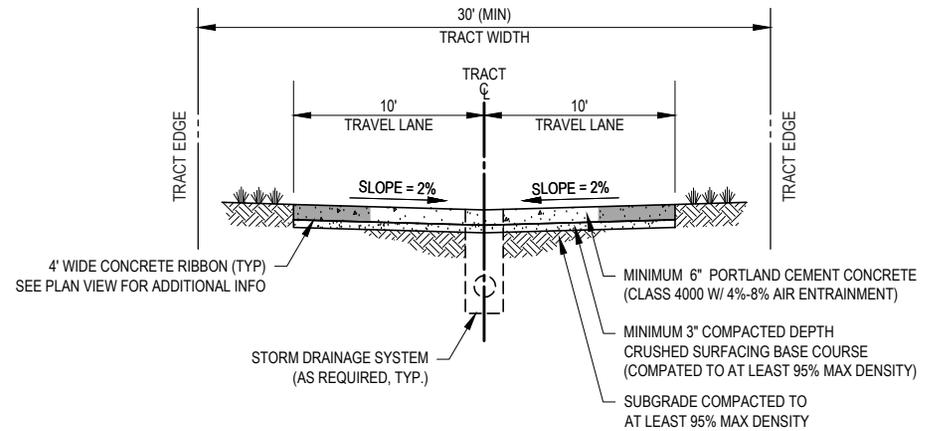
**MARYSVILLE**  
WASHINGTON

**MULTI-FAMILY DRIVE**  
**AISLE**



**NOTES:**

1. THE SURFACE OF THE AUTOCOURT SHALL BE PORTLAND CEMENT CONCRETE, CLASS 4000, WITH AIR ENTRAINMENT (4% - 8%). ALL CONCRETE SHALL BE BROOM-FINISHED.
2. ALTERNATIVE AUTOCOURT PROPOSALS MAY BE CONSIDERED, BUT REQUIRE ADVANCED WRITTEN APPROVAL FROM THE CITY ENGINEER, AND SHALL INCLUDE COLOR/TEXTURE VARIATIONS THAT MAKE THE AUTOCOURT VISUALLY DISTINCT FROM NEARBY SIDEWALK AND PAVEMENT.
3. THE AUTOCOURT SHALL EXTEND 5 FEET FURTHER THAN THE SIDE OF THE GARAGE DOOR NEAREST THE END OF THE AUTOCOURT.



**SECTION A-A**

APPROVED BY

MARYSVILLE CITY ENGINEER

06/27/25

DATE



**MARYSVILLE**  
WASHINGTON

**AUTOCOURT**