Selections from Olympia Engineering and Design Development Standards (EDDS)

2.040 Street and Transportation Requirements

B. Streets and Alleys

1. General. Streets and alleys will be designed and constructed in conformance with the provisions of the *Engineering Design and Development Standards* Chapter 4, the minimum requirements established by the current editions of the American Association of State Highway and Transportation Officials (AASHTO) and the Institute of Transportation Engineers (ITE) standards, and as identified in Chapter 4.

4B.030 Functional Classification

City streets are divided into Arterial, Major Collector, Neighborhood Collector, and Local Access street classifications. The City Council has the authority to classify or reclassify all streets, in accordance with regional transportation needs and the functional use each serves. Definitions for each of these street classifications can be found in section 2.020 of these Standards.

2.020 Definitions

STREET, ARTERIAL - The largest local streets intended to move the most traffic, an arterial street provides an efficient, direct route for long-distance travel within the region and different parts of the City. Street-connecting freeway interchanges to commercial concentrations are classified as arterials. Traffic on arterials is given preference at intersections, and some access control may be considered in order to maintain capacity to carry high volumes of traffic.

STREET, LOCAL ACCESS - Local access streets carry local traffic within a neighborhood and may provide connections to collectors or arterials, they provide access to abutting land uses.

STREET, MAJOR COLLECTOR – Major collectors provide connections between arterials and concentration of residential and commercial activities. The amount of through traffic on a major collector is less than an arterial, and there is more service to abutting land uses. Traffic flow is given preference to lesser streets.

STREET, NEIGHBORHOOD COLLECTOR – Neighborhood collectors collect and distribute traffic between a residential neighborhood and an arterial or major collector. Neighborhood collectors serve local traffic, provide access to abutting land uses, and do not carry through traffic. Their design is compatible with residential and commercial neighborhood centers.

STREET STANDARDS – Design standards that guide the uniform development of public streets to support present and future multimodal transportation. Street standards define the specific features and dimensions of different classes of streets and can be found in Chapter 4 of these Standards.

Table 2: Street Design Standards

Design Standards	Functional Classification											
	Arterial Blvd	Arterial	Major Industrial Collector	Commercial Collector Blvd	Commercial Collector	Major Collector Blvd	Major Collector	Neighbor-hood Collector Blvd	Neighborhood Collector	Local Access	Alleys	
											Com.	Res
Minimum Structural Design	See Standard Drawing 4-6A											
ADT	14,000-40,000	14,000-40,000	3,000-14,000	3,000-14,000	3,000-14,000	3,000-14,000	3,000-14,000	500-3,000	500-3,000	0-500	N/A	N/A
Sidewalks	8' both sides (1)(10)	8' both sides (1)(10)	6' both sides (1)	10' Both sides (10)	10' Both sides (10)	6' both sides	6' both sides	5' both sides	5' both sides	5' both sides	None	None
Planting Strips (4)	10' between curb & walk both sides --- 14' center median	10' between curb & walk both sides	6' between curb & walk both sides	2-lane = 10' median --- 4-lane = 14' median	4-ft in sidewalk adjacent to curb	8' between curb & walk both sides --- 14' center median	8' between curb & walk both sides	8' between curb & walk both sides (2) --- 10' median	8' between curb & walk both sides (2)	8' between curb & walk both sides (2)	None	None
Street Tree Spacing (5)	40' on center	40' on center	40' on center	40' on center (9)(10)	40' on center (9)(10)	40' on center	40' on center	40' on center	40' on center	40' on center	None	None
Parking Lanes	None (12)	None	None	8' both sides	8' both sides	None	None	None	7' one side	7' one side (6)	None	None
Curbs	Curb both	Curb both	Curb both sides	Curb both sides	Curb both sides	Curb both sides	Curb both sides	Curb both sides	Curb both sides	Curb both	None	None

	sides	sides								sides		
Lane Widths	All Arterials and Major Collectors will use 10-foot travel lanes, 5-foot bike lanes and 11-foot center turn lanes. On high frequency bus routes and truck routes, upon evaluation, the City Engineer may require different lane width dimensions to address safety concerns. Street widths will be measured as shown on Standard Drawings for each street classification.							2 lane - 1'-6'	1 lane-10' 1 lane-9'	1 lane-12'	12	Two-36" ribs
								Street widths will be measured as shown on Standard Drawings for each street classification.				
R-O-W	2 lanes - 88' 3 lanes - 88' 4 lanes - 104' 5 lanes - 104'	2 lanes - 68 '3 lanes - 79' 4 lanes - 88' 5 lanes - 99'	2 lanes - 56' 3 lanes - 67' 4 lanes - 76' 5 lanes - 87'	2 lanes - 80' 3 lanes - 84' 4 lanes - 104' (3)	2 lanes - 68' 3 lanes - 79' 4 lanes - 88' (3)	2 lanes - 80' 3 lanes - 80' 3 lanes - 96' (3)	2 lanes - 60' 3 lanes - 71' 4 lanes - 80' (3)	2 lanes - 74' 2 lanes w/ swale - 70'	2 lanes - 55' - 65' w/ class II and III 2 lanes w/ swale - 51' - 61' w/ class II and III	1 lane - 48' 1 lane w/ swale - 44'	12	12 No dead ends
Intersect-ion Radii	35' turning radius (7)	35' turning radius (7)	35' turning radius (7)	35' turning radius (7)	35' turning radius (7)	35' turning radius (7)	35' turning radius (7)	25' curb radius (7a)	25' curb radius (7a)	30' curb radius (7a)	N/A	N/A
Cul-de-sac Radii	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	47' w/ 22' land-scaped island	N/A	N/A
Pedestrian Bulb-outs	Curb bulb-outs required on all Arterials, Major Collectors, Neighborhood Collectors, Commercial Collectors, and streets in the Downtown, where on-street parking exists. Downtown is defined in Chapter 2, and shown in Appendix 4 of this Chapter.											
Grades	0.5-8%	0.5-8%	0.5-8%	0.5-10%	0.5-10%	0.5-10%	0.5-10%	0.5-12%	0.5-12%	0.5-15%	0.5-15%	0.5-15%
Maximum Design Speeds	35 mph	35 mph	30 mph	25 mph	25 mph	30 mph	30 mph	25 mph	25 mph	20 mph	10 mph	10 mph
Site Access	See Access Points and Intersection Criteria Guidelines							20' from inter-section	20' from inter-section	20' from inter-section	N/A	N/A
Street Lighting	Highmast ornament	Highmast ornament	Highmast ornament	Highmast ornament	Highmast ornament	Highmast ornament	Highmast ornament	Highmast ornament	Highmast ornament	Ped Scale	N/A	N/A

Access Width	See Access Points and Inter-section Criteria Guide-lines	10' at PL 15' at PL Curb	10' at PL 15' at PL Curb		10' at PL 15' at PL Curb	N/A	N/A					
Bicycle Facilities	Arterials, Major Collectors and selected Neighborhood Collectors will have Class II bicycle facilities, with the exception of those listed in 4D.020.E. Commercial Collectors shall include bike lanes as they apply to Major Collectors and Neighborhood Collectors (refer to section 4D. Bikeways for guidance).							N/A	Class II - only for those listed in 4D.020.E	N/A	N/A	N/A

Table Notes:

(1) Sidewalk width will be 10 feet in the Central Business District or where the extensions of existing frontage improvements are being extended and the sidewalk width is 10'.

(2) Swale will only be used as an alternative design based on environmental standards. When swale required, swale width = 12' between curb and sidewalk, 6' tree easement opposite side of swale.

(3) The need for left-turn channelization will be evaluated at intersections and access points.

(4) Unless otherwise agreed upon by the City of Olympia, maintenance of street trees, turf or other landscaping within the planting strips is the responsibility of the adjacent landowner.

(5) Street trees required. Exact spacing and species to be determined by Urban Forester. Spacing is approximate - exact spacing will depend on locations of streetlights, fire hydrants, driveways, sign clearance triangles, etc.

(6) Block faces that are greater than 350 feet require parking bulb-outs at both street ends to define parking with a 100 foot No Parking Zone center block.

(7) Turning radius dimensions represent the vehicle turning path. The smallest curb radius should be used while maintaining the specified turning radius. Lane width and the presence of a bike lane and parking lane affect a vehicle's turning path and allow a smaller radius to be used. All curb radii shall be designed to accommodate a bus, garbage and fire truck turning path. On streets with more than one lane in that direction of travel, large vehicles may encroach into no more than one-half of the adjacent travel lane to complete the turn. On Arterials and Major Collectors, encroachment into oncoming travel lanes is unacceptable. The minimum curb radius is 15 feet.

(7a) At the intersection of two classes of streets, the radius for the higher class of street is used. Where larger truck types are anticipated, further engineering design will be required to determine an adequate radius.

(8) Parking may be required on a case-by-case analysis of neighborhood parking needs.

(9) Street trees in sidewalk section of Commercial Collector will require street tree frames and grates per Standard Drawing 4-49.

(10) Awnings shall conform to OMC 12.24.020 "Awnings."

(11) In the Chambers Basin R-4CB zone, all streets shall conform to the local 'full-dispersion' street standard, per Standard Drawing 4-2JX2.

(12) Exceptions to this include where on-street parking exists on an Arterial Street, where such on-street parking can remain.

Table 3: Street Characteristics

Street Characteristics	Arterial Street	Major Collector	Neighborhood Collector	Local Access Street
Types of Traffic Served	Regional and City-wide	Sub-regional, feed Arterial traffic	Subarea and local traffic, feed Major Collector traffic	Local traffic, feed Neighborhood/Major Collector or Arterial Traffic
Traffic Volumes	14,000 - 40,000 Average Daily Traffic	3,000 - 14,000 Average Daily Traffic	500 - 3,000 Average Daily Traffic	0 - 500 Average Daily Traffic
Percent Local Traffic	0 - 15% of origins and destinations are within a one mile radius of the street	0 - 30% of origins and destinations are within a one mile radius of the street	70% - 100% of origins and destinations are within a one mile radius of the street	80% - 100% of origins and destinations within a one mile radius of the street
Average Travel Length	10 to maximum miles	2 to 15 miles	1 to 2 miles	Minimum to 2 miles
Street Spacing (1)	1 - 2 miles	1/2 - 3/4 mile	1000' - 1500'	350' - 500'
Intersection Spacing (2)	500' - 750'	350' - 500'	250' - 350'	250' - 350'
Design Speed	30 - 35 mph	25 - 35 mph	25 mph	20 - 25 mph
On-Street Parking	No - except where parking exists and where exempt. Existing parking may be removed for other Transportation needs. Where parking exists, intersection bulb-outs are required.	No - except where parking exists and where exempt. Existing parking may be removed for other Transportation needs. Where parking exists, intersection bulb-outs are required.	Yes - with bulb-outs at intersections.	Yes - one side with parking bulb-outs to define parking areas.

Driveway Access	No	No - except for existing developments	Yes	Yes
Bike Lanes (Class II)	Yes -See 4D.020.E for exceptions.	Yes - See 4D.020.E for exceptions.	Some - See 4D.020.E for exceptions	No
Planting Strips (between sidewalk and curb)	Yes	Yes	Yes	Yes
Sidewalks	Yes	Yes	Yes	Yes
Traffic Calming	No	As needed	Yes - if problem is anticipated or determined through an engineering study.	Yes - if problem is anticipated or determined through an engineering study.
Transit Shelters	Every 1/2 mile	Every 1/2 mile	None	None
Transit Pullouts	Every 1/2 mile	Every 1/2 mile	None	None

Table 3 Notes:

(1) Street spacing means the frequency of street types within the street network.

(2) Intersection spacing means how often a cross street occurs on a particular class of street.