Street Design Standards Update

Plan Commission Hearing

Sept 23, 2020

The City of Choice

What are we doing? And Why?

- Update to Chapter 3 of the Design Standards
- Also updated to SMCs mostly Chapter 17
- Used by city staff and the development community

Balancing many interests and comments with the latest draft.

Schedule for Completion

06/24/2020 – Design Review Board

07/21/2020 – Plan Commission Transportation Subcommittee

07/22/2020 – Plan Commission workshop

07/30/2020 – Issue updated draft (version 10)

08/11/2020 – Plan Commission Transportation Subcommittee

08/12/2020 – Plan Commission workshop

08/24/2020 – Public Infrastructure, Environment, and Sustainability Committee

09/23/2020 - Plan Commission hearing

10/14/2020 – Plan Commission hearing (if continued)

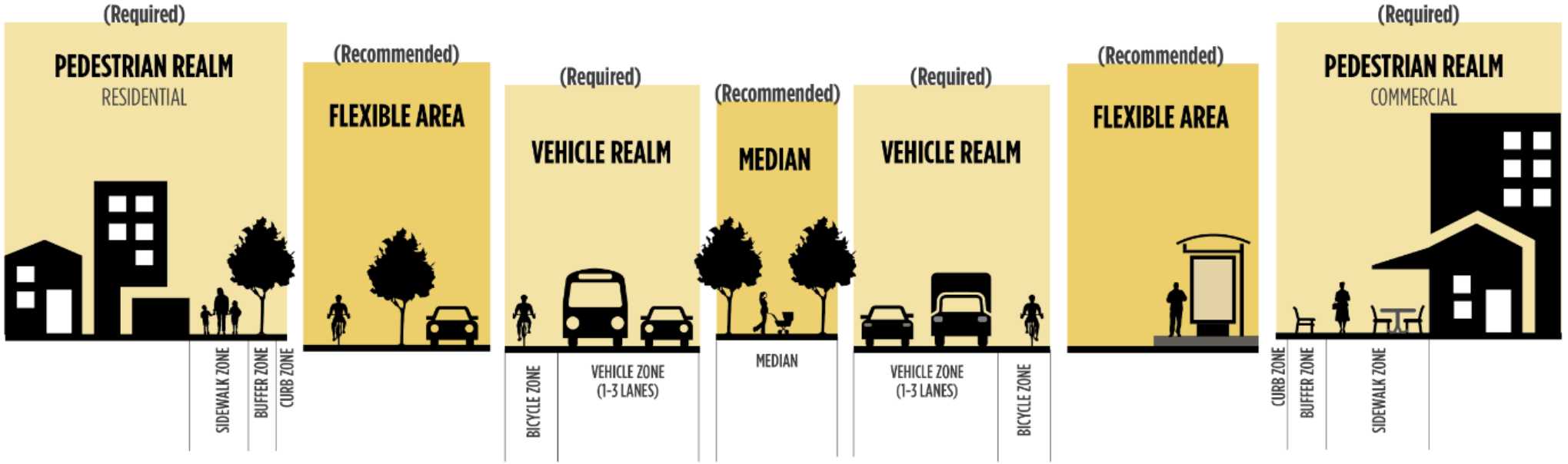
Oct-Nov 2020 – City Council workshops and hearing

Street Characterization

Characterization = Classification + Context

- Classification
  - Principal, Minor, Major or Minor Collector, Local
- Context
  - Based on Land Use Zoning

Components of the Street



Sidewalk Zone
Walkway
Building Frontage

Buffer Zone
Street Trees/Grass
Street Furniture
Street Lighting
Transit Stop

Curb Zone
Curb

Curb Extensions
Bioswales
Parking/Loading
Shared-Use Paths
Bus Bulbs

Bicycle Zone
Bicycle Facilities
Bicycle Facility Buffer

Vehicle Zone
Transit Lane
Auto Lane
Turn Lanes

Median
Landscaping
Bioswales
Shared-Use Paths
Pedestrian Crossing Refuge
Turn Lanes
Transit Stop

Bicycle Zone
Bicycle Facilities
Bicycle Facility Buffer

Vehicle Zone
Transit Lane
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Curb Extensions
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Parking/Loading
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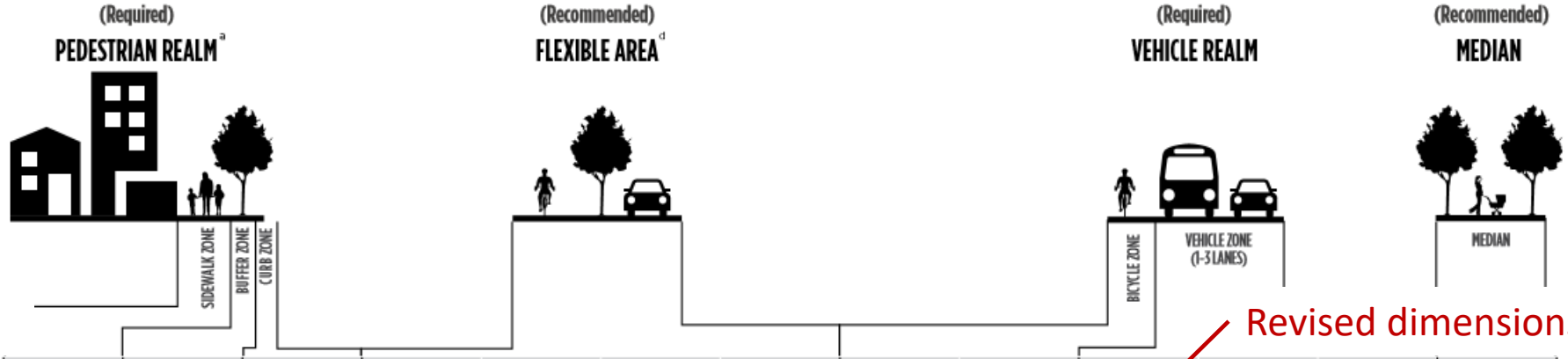
Sidewalk Zone
Walkway
Building Frontage

Buffer Zone
Street Trees/Grass
Street Furniture
Street Lighting
Transit Stop

Curb Zone
Curb

Added Transit Stops

Table 1 **Street Dimensions**



Needs further discussion

Revised dimensions

	Sidewalk Zone	Buffer Zone[b,c]	Curb Zone	Opt. Shared Use Path[e,f]	Stormwater Management[g]	Curb Extensions[h] / Bus Bulbs[i]	Parking	Bicycle Zone[f]	Bicycle Buffer[i]	Vehicle Zone Outer Lane[k,l]	Vehicle Zone Inner Lane[k]	Vehicle Zone Left Turn or TWLTL	Median[m]
Center & Corridor CC1, CC2, CC3, CC4													
Urban Principal Arterial	8	4	0.5	12	10	7	8	6	1-3	11	11	11	6-20
Urban Minor Arterial	8	4	0.5	12	10	7	8	6	1-3	11	11	11	6-20
Urban Major/Minor Collector	8	4	0.5	12	10	7	8	6	NA	11	11	10	6-20
Urban Local Access	5	6	0.5	12	6.5	NA	7	6	NA	10	NA	NA	6-20
Downtown DTC, DTG, DTU, DTS; Commercial O, OR, NR, NMU, CB, GC; and Form Based Code CA1, CA2, CA3, CA4													
Urban Principal Arterial	7	5	0.5	12	10	7	8	6	1-3	11	11	11	6-20
Urban Minor Arterial	7	5	0.5	12	10	7	8	6	1-3	11	11	11	6-20
Urban Major/Minor Collector	7	5	0.5	12	10	7	8	6	NA	11	11	10	6-20
Urban Local Access	5	6	0.5	12	6.5	NA	7	6	NA	10	NA	NA	6-20
Residential RA, RSF, RSF-C, RTF, RMF, RHD													
Urban Principal Arterial	6	6	0.5	12	6.5	NA	8	6	1-3	11	11	10	6-20
Urban Minor Arterial	6	6	0.5	12	6.5	NA	8	6	1-3	11	11	10	6-20
Urban Major/Minor Collector	6	6	0.5	12	6.5	NA	8	6	NA	11	11	10	6-20
Urban Local Access	5	6	0.5	12	6.5	NA	7	6	NA	10	NA	NA	6-20
Industrial LI, HI, PI													
Urban Principal Arterial	6	6	0.5	12	6.5	NA	NA	6	3	12	12	12	6-20
Urban Minor Arterial	6	6	0.5	12	6.5	NA	8	6	3	12	12	12	6-20
Urban Major/Minor Collector	6	6	0.5	12	6.5	NA	8	6	NA	12	12	12	6-20
Urban Local Access	5	6	0.5	12	6.5	NA	7	6	NA	11	NA	NA	6-20

A. In the case of hillside development, defined as low-density development under 10 units per acre, ensure streets are built with 5-foot sidewalks on both sides of the street plus an optional 6.5-foot bio-infiltration swale. On street parking is required on one side of the street. See SMC 17H.010.110 for exceptions.

B. Per SMC 17C.200.050-1, a tree-planted continuous buffer requires a 5-foot minimum width for commercial zones. For residential and industrial zones, the minimum increases to 6 feet. Alternatively, a narrower buffer may be used in select zones if tree vaults are implemented.

C. Buffers in commercial areas may be planted or concrete. When stormwater disposal is a governing concern, consideration should be given to use pervious surfaces.

D. The flexible area includes a menu of options which are chosen based on what makes most sense according to city plans, environmental responsibilities, and context. In some cases, none of these will fit within the project. Only in very rare cases will more than one fit - for instance, a parking lane plus bio-retention swale.

E. In places designated for shared-use paths, the path can take the place of the sidewalk zone.

F. Consult Master Bicycle Plan for guidance on facility type and selection. Possible facilities include bike lanes, buffered bike lanes, and parking protected bike lanes (cycle tracks). Bicycle facilities may operate in the Flexible Area or the Vehicle Realm. Bicycle boulevards and shared roadways are possibilities on Urban Local Access streets.

G. Consult the Spokane Regional Stormwater Manual and Eastern Washington Low Impact Development Guidance Manual for desired locations for stormwater facilities. The stormwater catchment area must meet the required volume generated by the planned impervious area.

H. Intersections and mid-block crossings, provide curb extensions into the parking lane.

I. On transit corridors, use bus bulbs if space allows to ease boarding, reduce sidewalk congestion, and allow buses to easily re-enter traffic. This should typically be done only if there is a second lane for vehicles to continue around stopped buses.

J. "High Traffic" and "Medium Traffic" lane routes on the Master Bicycle Plan should include buffers. Separation buffer between bike lane and vehicle lane should be implemented via parallel lane edge stripes with a periodic cross-hatch.

K. When constraints are prohibitive, consider 10-foot lane width as the minimum.

L. Travel lane includes the width of the gutter pan, if integral curb and gutter is used.

M. Medians less than 6 feet wide are considered traffic channelization. A pedestrian refuge is a raised median with a minimum width of 6 feet. Wider medians may be implemented in the context of boulevards.

Arterial ROW Widths - SMC 17H

Table 17H.010-1 Arterial Right-of-way Widths			
	Right-of-way Width		Street Width
	Minimum[1]	Typical	Curb to Curb
ARTERIAL (all types)			
2 lanes[2]	60 ft	60 ft – 80 ft	Varies[3]
3 lanes[2]	65 ft	65 ft – 80 ft	Varies[3]
4 lanes[2]	75 ft	75 ft – 100 ft	Varies[3]
5 lanes[2]	90 ft	80 ft – 100 ft	Varies[3]
6 lanes[2]	100 ft	90 ft - 110 ft	Varies[3]
7 lanes[2]	100 ft	90 ft – 125 ft	Varies[3]

Notes:

[1]Additional right-of-way may be required if roadside swales are used to control storm drainage, for bike lanes if designated on the plan, or for wider sidewalks depending on the zoning.

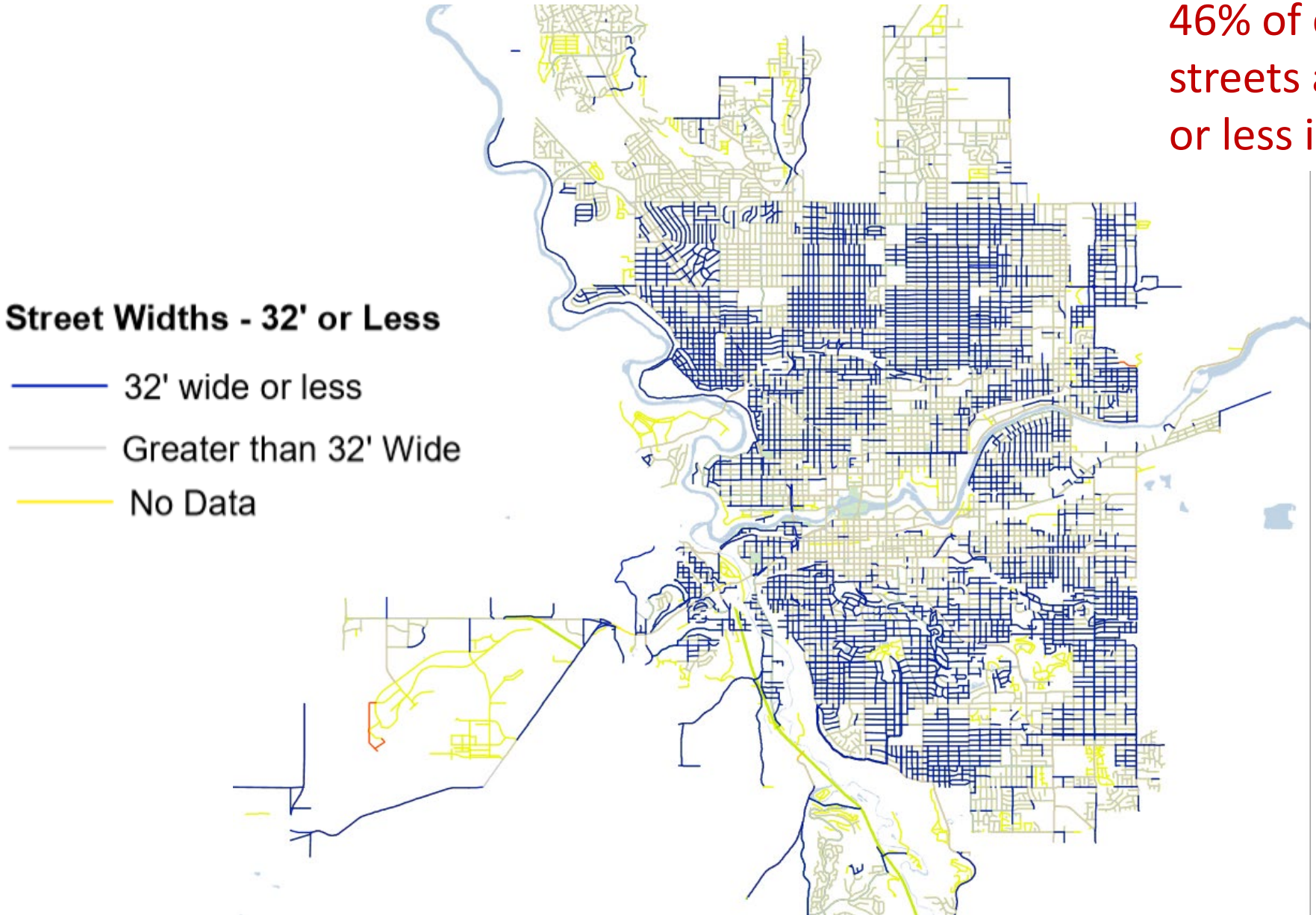
[2]Lanes can be through lanes, turn pockets, or continuous TWLTL.

[3]Curb-to-curb width varies depending on street features including number of lanes, on-street parking, bike lane, median and turn lanes. See Design Standards for more detail.

Overly wide local streets

The City of Choice

Existing Streets at 32’ or less



46% of city streets are 32’ or less in width

Local Street survey of other “snowbelt” cities

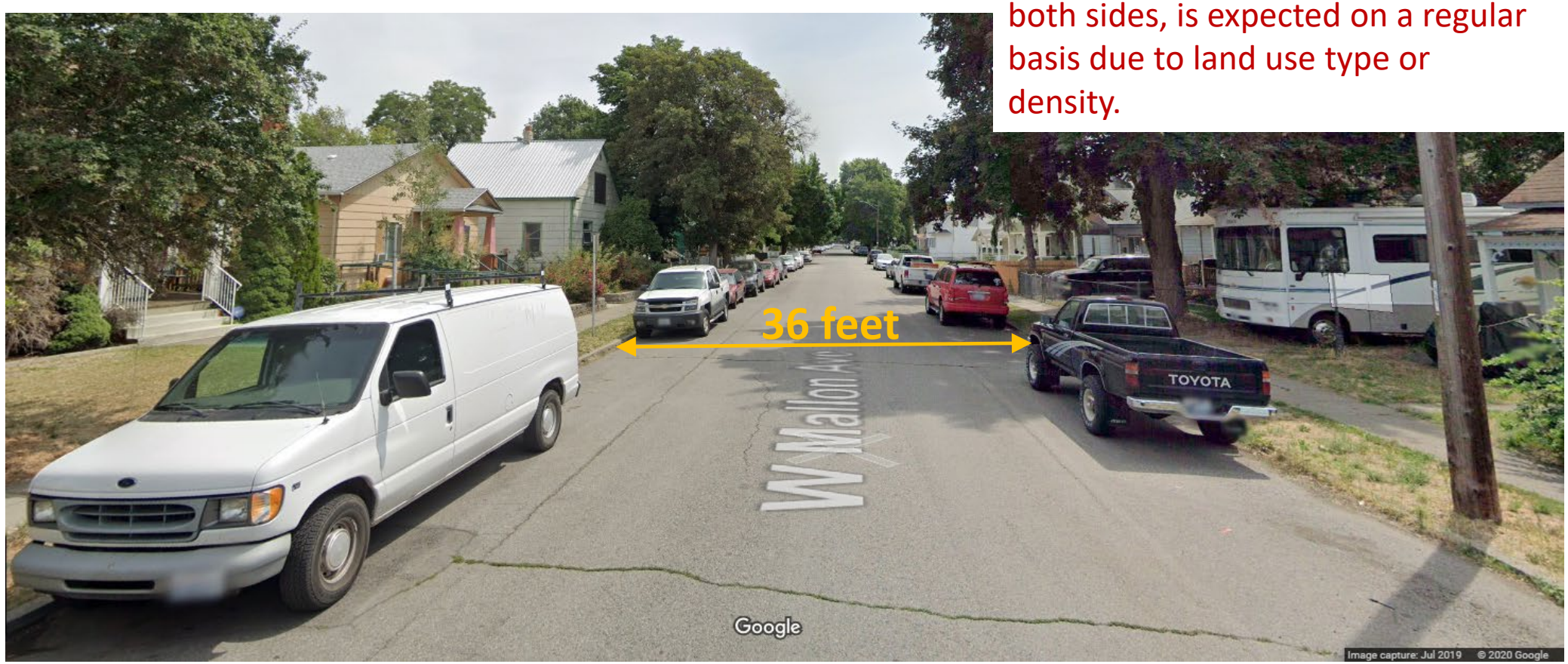
City	Minimum Width for Parking on Both Sides
Coeur d’Alene, ID	32’
Post Falls, ID	32’
Liberty Lake, WA	29’
Spokane Valley, WA	30’ above 200 ADT
Spokane County, WA	32’
Salt Lake City, UT	30’ in single-family zone, 36’ for multi-family
Madison, WI	32’
Denver, CO	32’
Provo, UT	30’
Tacoma, WA	28’

Notes: Street width research provided by City of Spokane Planning staff.

Residential standard street width

Residential high density street width

For use where on-street parking, on both sides, is expected on a regular basis due to land use type or density.



Local Access Widths - SMC 17H

Table 17H.010-2 Local Access Right-of-way and Street Widths			
	Minimum Right-of-way Width[1]		Minimum Street Width
	Sidewalks in ROW	Sidewalks on Easements	Curb to Curb
LOCAL ACCESS			
Commercial / Industrial	60 ft.	50 ft.	36 ft.
Residential High Density[2]	60 ft.	50 ft.	36 ft.
Residential Standard[3]	56 ft.	46 ft.	32 ft.
Residential One-side Parking[4]	51 ft.	41 ft.	27 ft.
Hillside Development[4,5]	40 ft.	35 ft.	27 ft.
Cul-de-sac (radius)	56 ft.	51 ft.	50 ft.
Alley[6]	20 ft.	20 ft.	12 ft.

Notes:

[1]Additional right-of-way may be required if roadside swales are used to control storm drainage.

[2]Appropriate in areas where parking on both sides of the street is expected on a regular basis, such as apartment complexes. Refer to SMC 17H.010.070 for more information.

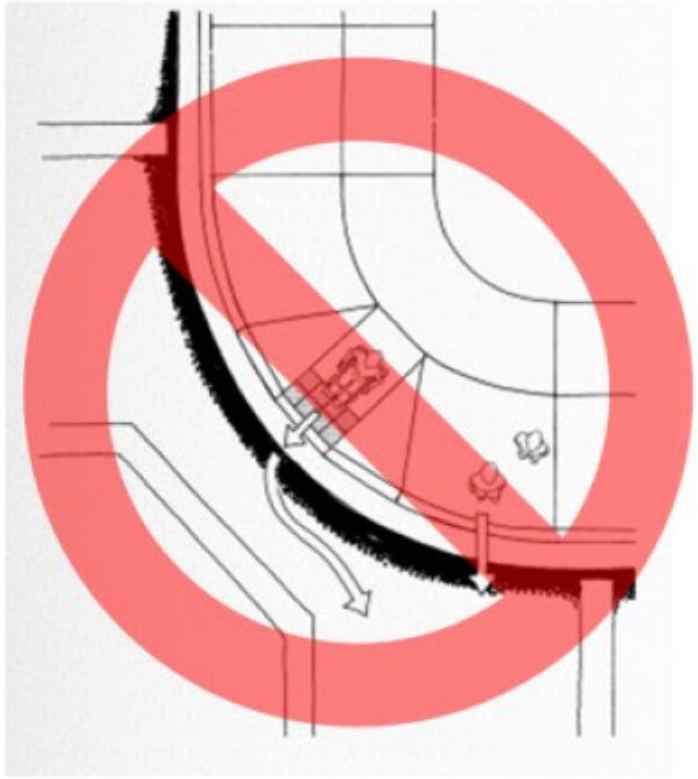
[3]Appropriate in areas where homes have street-facing garages and driveways for parking. On-street parking is used by visitors and extra vehicles. Refer to SMC 17H.010.070 for more information.

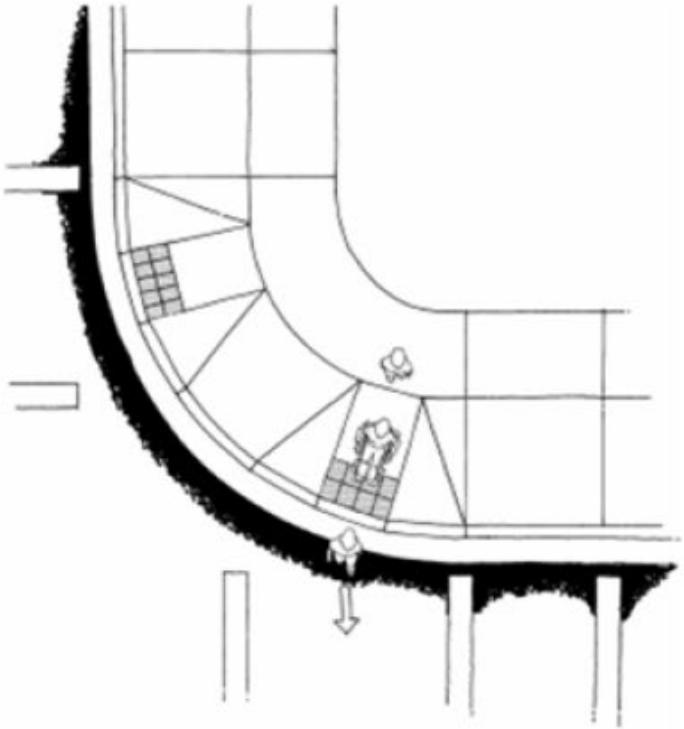
[4]Parking is allowed on one side of the street only. Refer to SMC 17H.010.120 for on-street parking requirements.

[5]Refer to SMC 17H.010.110 for more information.

[6]Alleys do not require sidewalk or curb. The widths shown apply to right-of-way and pavement width.

Diagonal Ramps are NOT ideal





At diagonal curb ramps, wheelchair users cross in different location than other pedestrians.

With 2 separate ramps pedestrians cross at the same location.

Curb Ramps – example

- Historic rock walls
- Narrow adjacent sidewalk
- Right-of-way constraints
- Stormwater system

Curb Ramps – Design Standards

In all new construction and reconstruction projects placement of two ADA compliant curb ramps per corner is required. Ramps should be aligned such that the running slope (and edge of curb if used) is parallel to the crosswalk markings and direction of pedestrian travel.

For retrofit or preservation work the priority is to use two curb ramps per corner. However, the use of single curb ramps per corner may be appropriate when relocation of utilities would be required to accommodate dual ramps, topographic constraints, right-of-way constraints or intersections with small curb radii.

Curb Ramps – SMC edits

17H.010.200 Curb Ramps

B. Not less than two curb ramps per lineal block shall be constructed on or near the crosswalks at intersections or other convenient locations approved by the director of engineering services. Two curb ramps are required on each corner unless utilities, topography, right-of-way or other existing conditions make two ramps infeasible.

Revised language

Design and Control Vehicles

Control Vehicles

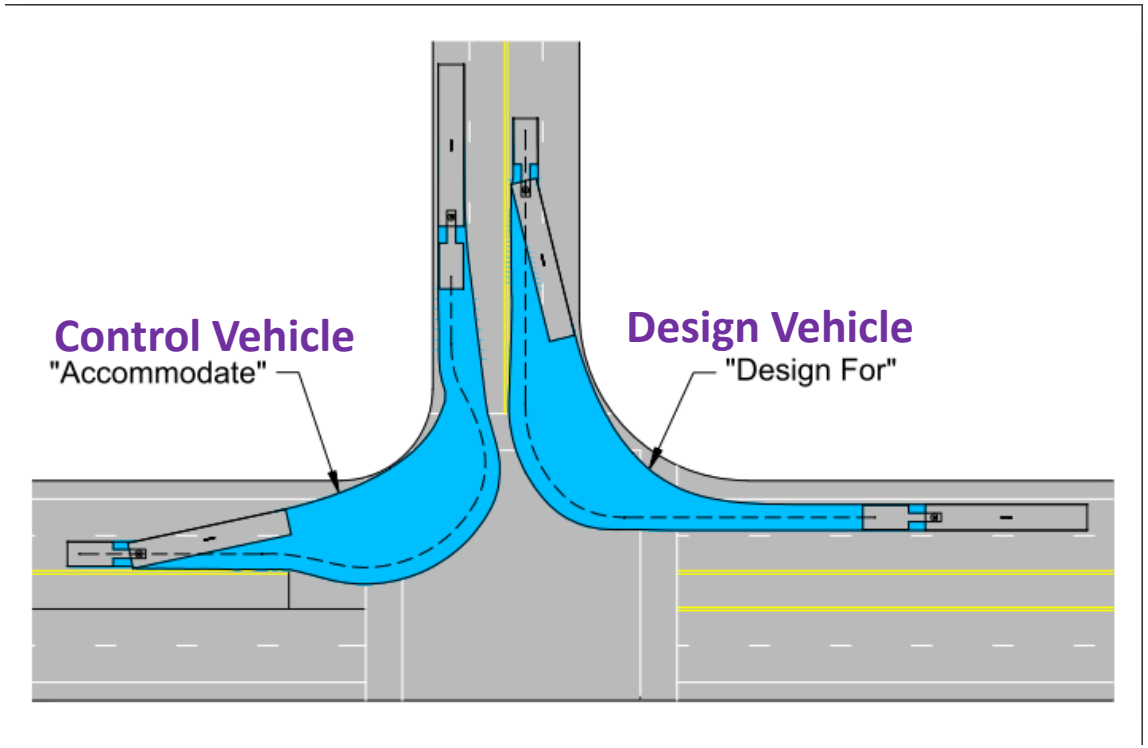
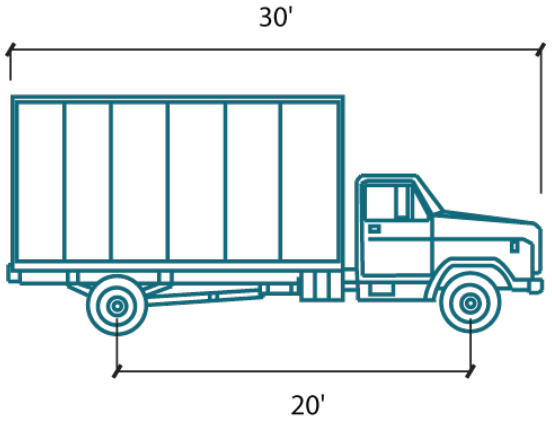


Image: City of Seattle



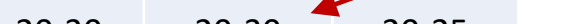
Design Vehicle

The City of Choice

Design Speeds

	RESIDENTIAL, INDUSTRIAL, CB AND GC				CC, DOWNTOWN, FORM BASED CODE			
Street Type	Principal Arterial	Minor Arterial	Collector	Local	Principal Arterial	Minor Arterial	Collector	Local
Design Speed = Posted Speed = Target Speed (mph)	30-35	30-35	30	25	20-30	20-30	20-30	20-25

Modified to include 20 mph zones



Clear Zone

- Current policy is 10’ from travelled way
- New policy based on speed
  - 20-35 mph: 1.5’ for existing objects, 4’ for new
  - 40+ mph: 6’ for existing objects, 10’ for new
- Exemptions include signals, lighting, parking meters, ITS equipment.
- Traffic signs, fire hydrants, residential mailboxes must be a breakaway/frangible.
- Exempts planter boxes, bike racks transit shelters, other street furniture but desired placement is 1.5’ from face of curb.
- Planters used in the street must be fixed in place or a frangible design

Place-making Language

- Artwork
- Landscaping
- Historic sidewalk patterns
- Decorative tree grates and manhole covers
- Pedestrian lighting
- Interpretive features
- Scenic overlooks

SMC Updates

~~17A.010.070 Delegation of Administration (downloaded here)~~

Removed due to planned update

17A.020 Definitions (downloaded here)

17C.200 Street Tree Requirements, 12.01 and 12.02 (downloaded here)

17H.010 Engineering Standards (downloaded here)

Several additional changes to match street standards

Schedule for Completion

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- Other slides if needed