Street Design Standards Update

Plan Commission workshop

Aug 12, 2020
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
09/09/2020 - Plan Commission hearing
09/26/2020 – Plan Commission hearing (if continued)
October 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

- **PEDESTRIAN REALM**
  - Residential

- **FLEXIBLE AREA**
  - (Required)

- **VEHICLE REALM**
  - (Required)

- **MEDIAN**
  - (Required)

- **FLEXIBLE AREA**
  - (Recommended)

- **PEDESTRIAN REALM**
  - Commercial

- **Added Transit Stops**
### Table 1 Street Dimensions

<table>
<thead>
<tr>
<th></th>
<th>(Required)</th>
<th>(Recommended)</th>
<th>(Required)</th>
<th>(Recommended)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>PEDESTRIAN REALM</strong></td>
<td><strong>FLEXIBLE AREA</strong></td>
<td><strong>VEHICLE REALM</strong></td>
<td><strong>MEDIAN</strong></td>
</tr>
<tr>
<td>Sidewalk Zone</td>
<td>8</td>
<td>4</td>
<td>0.5</td>
<td>12</td>
</tr>
<tr>
<td>Buffer Zone/Buffer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curb Zone</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cpt. Shared Use Path</td>
<td>8</td>
<td>4</td>
<td>0.5</td>
<td>12</td>
</tr>
<tr>
<td>Stormwater Management</td>
<td>8</td>
<td>4</td>
<td>0.5</td>
<td>12</td>
</tr>
<tr>
<td>Parking</td>
<td>5</td>
<td>6</td>
<td>12</td>
<td>6.5</td>
</tr>
<tr>
<td>Bicycle Zone</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bicycle Buffer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle Zone Outer Lane</td>
<td>5</td>
<td>6</td>
<td>12</td>
<td>6.5</td>
</tr>
<tr>
<td>Vehicle Zone Inner Lane</td>
<td>5</td>
<td>6</td>
<td>12</td>
<td>6.5</td>
</tr>
<tr>
<td>Vehicle Zone Left Turn or TWL</td>
<td>5</td>
<td>6</td>
<td>12</td>
<td>6.5</td>
</tr>
<tr>
<td>Residential RA, RSF, RSF-C, RST, RMH, RHD</td>
<td>5</td>
<td>6</td>
<td>12</td>
<td>6.5</td>
</tr>
<tr>
<td>Industrial LI, HI, PI</td>
<td>5</td>
<td>6</td>
<td>12</td>
<td>6.5</td>
</tr>
</tbody>
</table>

### Notes:

- **A. In the case of limited development, defend the street's density and/or improve streets on both sides of the street.**

- **B. Per SMC Code 20.060.650, a tree planted continuous buffer requires a 5-foot minimum width for commercial zones.**

- **C. Bicycle facilities may be placed in separated corridors.**

- **D. Bicycle infrastructure may be placed as part of a bikeway.**

- **E. On-street parking is recommended in designated areas.**

- **F. Stormwater management is required for all developments.**

- **G. Consider the Spokane Regional Stormwater Manual, or the Washington State Stormwater Best Management Practice.**

- **H. Stormwater management is required in mixed-use areas.**

- **I. Stormwater management is required in mixed-use areas.**

- **J. Stormwater management is required in mixed-use areas.**

- **K. Stormwater management is required in mixed-use areas.**

- **L. Stormwater management is required in mixed-use areas.**

- **M. Stormwater management is required in mixed-use areas.**

- **N. Stormwater management is required in mixed-use areas.**

- **O. Stormwater management is required in mixed-use areas.**

- **P. Stormwater management is required in mixed-use areas.**

- **Q. Stormwater management is required in mixed-use areas.**

- **R. Stormwater management is required in mixed-use areas.**

- **S. Stormwater management is required in mixed-use areas.**

- **T. Stormwater management is required in mixed-use areas.**

- **U. Stormwater management is required in mixed-use areas.**

- **V. Stormwater management is required in mixed-use areas.**

- **W. Stormwater management is required in mixed-use areas.**

- **X. Stormwater management is required in mixed-use areas.**

- **Y. Stormwater management is required in mixed-use areas.**

- **Z. Stormwater management is required in mixed-use areas.**
## Arterial ROW Widths - SMC 17H

### Table 17H.010-1

**Arterial Right-of-way Widths**

<table>
<thead>
<tr>
<th>ARTERIAL (all types)</th>
<th>Right-of-way Width</th>
<th>Street Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum(^1)</td>
<td>Typical</td>
<td>Curb to Curb</td>
</tr>
<tr>
<td>2 lanes(^2)</td>
<td>60 ft</td>
<td>60 ft – 80 ft</td>
</tr>
<tr>
<td>3 lanes(^2)</td>
<td>65 ft</td>
<td>65 ft – 80 ft</td>
</tr>
<tr>
<td>4 lanes(^2)</td>
<td>75 ft</td>
<td>75 ft – 100 ft</td>
</tr>
<tr>
<td>5 lanes(^2)</td>
<td>90 ft</td>
<td>80 ft – 100 ft</td>
</tr>
<tr>
<td>6 lanes(^2)</td>
<td>100 ft</td>
<td>90 ft - 110 ft</td>
</tr>
<tr>
<td>7 lanes(^2)</td>
<td>100 ft</td>
<td>90 ft – 125 ft</td>
</tr>
</tbody>
</table>

**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

- Small front yards
- 40 feet
- No home access on this side
- No sidewalk buffer
## Local Access Widths - SMC 17H

### Table 17H.010-2

<table>
<thead>
<tr>
<th>LOCAL ACCESS</th>
<th>Minimum Right-of-way Width&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Minimum Street Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>60 ft.</td>
<td>50 ft.</td>
</tr>
<tr>
<td>Residential Low Density&lt;sup&gt;2,3&lt;/sup&gt;</td>
<td>52 ft.</td>
<td>42 ft.</td>
</tr>
<tr>
<td>Hillside Development&lt;sup&gt;3,4&lt;/sup&gt;</td>
<td>41 ft.</td>
<td>36 ft.</td>
</tr>
<tr>
<td>Cul-de-sac (radius)</td>
<td>56 ft.</td>
<td>51 ft.</td>
</tr>
<tr>
<td>Alley&lt;sup&gt;5&lt;/sup&gt;</td>
<td>20 ft.</td>
<td>20 ft.</td>
</tr>
</tbody>
</table>

### Notes:

<sup>1</sup> Additional right-of-way may be required if roadside swales are used to control storm drainage.

<sup>2</sup> Narrow streets are appropriate only in low density (four to ten units per acre) residential neighborhoods. Adequate emergency vehicle access and staging areas must be provided as discussed in SMC 17H.010.140.

<sup>3</sup> Parking is allowed on one side of the street only. Refer to SMC 17H.010.120 for on-street parking requirements.

<sup>4</sup> Refer to SMC 17H.010.110 for more information.

<sup>5</sup> Alleys do not require sidewalk or curb. The widths shown apply to right-of-way and pavement width.

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One “local” type for all zoning

Increase from 27’ to 28’ for fire consistency

Allow 28’ (one-sided parking) for all low density residential
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 tactile texture “points” to the opposing ramp across the street. The use of two ramps per corner is most effective where sidewalks are separated from the roadway by a buffer.

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, where adjacent sidewalks exist, topographic constraints, right-of-way constraints or intersections with small curb radii.
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.
Design Vehicles

Image: City of Seattle

Control Vehicle
"Accommodate"

Design Vehicle
"Design For"

Suggestion to look at slower turning speeds.
## Design Vehicles

<table>
<thead>
<tr>
<th>Street Type</th>
<th>RESIDENTIAL, INDUSTRIAL(^1), CB AND GC</th>
<th>CC, DOWNTOWN, FORM BASED CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design Vehicle (10% or more of ADT)</td>
<td>WB-40</td>
<td>SU-30 &amp; STA 40' bus</td>
</tr>
<tr>
<td>Design Vehicle</td>
<td>SU-30 &amp; STA 40' bus</td>
<td>SU-30</td>
</tr>
<tr>
<td>Control Vehicle (Infrequent Largest User)</td>
<td>WB-50</td>
<td>Ladder truck</td>
</tr>
<tr>
<td>Control Vehicle</td>
<td>WB-50</td>
<td>Ladder truck</td>
</tr>
</tbody>
</table>

\(^1\) Urban streets zoned for industrial uses may require larger design and control vehicles.

\(^2\) Intersections of arterials with a local street should use the local street design vehicle unless nearby land uses dictate the need to accommodate a larger vehicle.

Design Vehicle

Control Vehicle (infrequent)
# Design Speeds

<table>
<thead>
<tr>
<th>Street Type</th>
<th>RESIDENTIAL, INDUSTRIAL, CB AND GC</th>
<th>CC, DOWNTOWN, FORM BASED CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Principal Arterial</td>
<td>Minor Arterial</td>
</tr>
<tr>
<td>Design Speed = Posted Speed = Target Speed (mph)</td>
<td>30-35</td>
<td>30-35</td>
</tr>
</tbody>
</table>

Need to update this to cover 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, street trees, planter boxes, transit shelters, bollards, benches, kiosks.
• 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

Added new section
SMC Updates

17A.010.070 Delegation of Administration (downloaded here)

17A.020 Definitions (downloaded here) Added new definitions

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
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