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
• Adding the latest best practices
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)

08/04/2020 – 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

**PEDESTRIAN REALM**
- Sidewalk Zone
  - Walkway
  - Building Frontage
- Buffer Zone
  - Street Trees/Grass
  - Bioswales
  - Street Furniture
  - Driveways
- Curb Zone
  - Curb

**FLEXIBLE AREA**
- Curb Extensions
- Bioswales
- Parking/Loading
- Turn Lanes
- Bicycle Facilities
- Shared-Use Paths
- Bus Bulbs

**VEHICLE REALM**
- Bicycle Zone
  - Bicycle Facility Buffer
- Median
  - Landscaping
  - Bioswales
  - Shared-Use Paths
  - Pedestrian Crossing Refuge
  - Turn Lanes
- Vehicle Zone
  - Transit Lane
  - Auto Lane

**FLEXIBLE AREA**
- Curb Extensions
- Bioswales
- Parking/Loading
- Turn Lanes
- Bicycle Facilities
- Shared-Use Paths
- Bus Bulbs

**PEDESTRIAN REALM**
- Sidewalk Zone
  - Walkway
  - Building Frontage
- Buffer Zone
  - Street Trees/Grass
  - Bioswales
  - Street Furniture
  - Driveways
- Curb Zone
  - Curb
Table 1 Street Dimensions

<table>
<thead>
<tr>
<th></th>
<th>(Required) PEDESTRIAN REALM</th>
<th>(Recommended) FLEXIBLE AREA</th>
<th>(Required) VEHICLE REALM</th>
<th>(Recommended) MEDIAN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sidewalk Zone</td>
<td>Buffer Zone/</td>
<td>Curb Zone</td>
<td></td>
</tr>
<tr>
<td>Urban Principal Arterial</td>
<td>8</td>
<td>4</td>
<td>0.5</td>
<td>12</td>
</tr>
<tr>
<td>Urban Minor Arterial</td>
<td>8</td>
<td>4</td>
<td>0.5</td>
<td>12</td>
</tr>
<tr>
<td>Urban Major/Minor Collector</td>
<td>8</td>
<td>4</td>
<td>0.5</td>
<td>12</td>
</tr>
<tr>
<td>Urban Local Access</td>
<td>5</td>
<td>6</td>
<td>0.5</td>
<td>12</td>
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<tr>
<td>Center &amp; Cinder Block, CC2, CC3, CC4</td>
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<td></td>
<td></td>
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<tr>
<td>Urban Principal Arterial</td>
<td>7</td>
<td>5</td>
<td>0.5</td>
<td>12</td>
</tr>
<tr>
<td>Urban Minor Arterial</td>
<td>7</td>
<td>5</td>
<td>0.5</td>
<td>12</td>
</tr>
<tr>
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<td>7</td>
<td>5</td>
<td>0.5</td>
<td>12</td>
</tr>
<tr>
<td>Urban Local Access</td>
<td>5</td>
<td>6</td>
<td>0.5</td>
<td>12</td>
</tr>
<tr>
<td>Downtown DTC, DTU, DTU, Commercial G, OS, N2, NHL, CB, GC; and Ferm Based Code CA1, CA2, CA3, CA4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban Principal Arterial</td>
<td>6</td>
<td>6</td>
<td>0.5</td>
<td>12</td>
</tr>
<tr>
<td>Urban Minor Arterial</td>
<td>6</td>
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<td>0.5</td>
<td>12</td>
</tr>
<tr>
<td>Urban Local Access</td>
<td>5</td>
<td>6</td>
<td>0.5</td>
<td>12</td>
</tr>
<tr>
<td>Residential BA, BSD, BSD-C, BTV, BWH, BWD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban Principal Arterial</td>
<td>6</td>
<td>6</td>
<td>0.5</td>
<td>12</td>
</tr>
<tr>
<td>Urban Minor Arterial</td>
<td>6</td>
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<td>0.5</td>
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<td>Urban Major/Minor Collector</td>
<td>6</td>
<td>6</td>
<td>0.5</td>
<td>12</td>
</tr>
<tr>
<td>Urban Local Access</td>
<td>5</td>
<td>6</td>
<td>0.5</td>
<td>12</td>
</tr>
<tr>
<td>Industrial LL, LI, FI</td>
<td>6</td>
<td>6</td>
<td>0.5</td>
<td>12</td>
</tr>
</tbody>
</table>

**Notes:**
- A: In the case of on-street development, designed at low-density development and 10 feet per acres, streets are built with 5-foot sidewalks on both sides of the street plus a 0.5-foot to 2-foot buffer zone. On-street parking is considered on one side of the street. See SRC 0710010 for exceptions.
- B: The SRC 0710012 requires a 5-foot minimum width for commercial zones. For residential and industrial areas, the minimum increases to 6 feet. Alternatively, a narrower buffer may be used in select zones if the urbanism is implemented.
- C: Buffer in commercial areas may be planted or concrete. Where stormwater disposal is a governing concern, consideration should be given to use permeable surfaces.
- D: The flexible area includes a menu of options which are to be used based on what makes sense according to our geys, environmental expectations, and context. In some cases, one or two zones will be used within the project. Only in very rare circumstances will more than one be used. For instance, a parking lane plus the sidewalk zone.
- E: in phases designed for shared use paths, the path can take the place of the sidewalk zone.
- F: Consult table below for guidance on buffer types and locations. Locations include bike lanes, bike boxes, bicycle stops, and parking lot bike lanes (in orange). Bike facilities may operate in the flexible area or the flexible area. Bicycle stops, bicycles, and shared facilities are possible on the local access streets.
- H: In some cases, one or two zones will be used within the project. Only in very rare circumstances will more than one be used. For instance, a parking lane plus the sidewalk zone.
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## Arterial ROW Widths - SMC 17H

<table>
<thead>
<tr>
<th>ARTERIAL (all types)</th>
<th>Right-of-way Width</th>
<th>Street Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum¹</td>
<td>Typical</td>
<td>Curb to Curb</td>
</tr>
<tr>
<td><strong>2 lanes²</strong></td>
<td>60 ft</td>
<td>60 ft – 80 ft</td>
</tr>
<tr>
<td><strong>3 lanes²</strong></td>
<td>65 ft</td>
<td>65 ft – 80 ft</td>
</tr>
<tr>
<td><strong>4 lanes²</strong></td>
<td>75 ft</td>
<td>75 ft – 100 ft</td>
</tr>
<tr>
<td><strong>5 lanes²</strong></td>
<td>90 ft</td>
<td>80 ft – 100 ft</td>
</tr>
<tr>
<td><strong>6 lanes²</strong></td>
<td>100 ft</td>
<td>90 ft - 110 ft</td>
</tr>
<tr>
<td><strong>7 lanes²</strong></td>
<td>100 ft</td>
<td>90 ft – 125 ft</td>
</tr>
</tbody>
</table>

### Notes:

¹Additional 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.

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

³Curb-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

- Overly wide streets: 40 feet wide
- No home access on this side
- No sidewalk buffer
- Small front yards
# 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></td>
<td>Sidewalks in ROW</td>
<td>Sidewalks on Easements</td>
</tr>
<tr>
<td><strong>LOCAL ACCESS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>58 ft.</td>
<td>48 ft.</td>
</tr>
<tr>
<td>Residential Low Density&lt;sup&gt;2,3&lt;/sup&gt;</td>
<td>51 ft.</td>
<td>41 ft.</td>
</tr>
<tr>
<td>Hillside Development&lt;sup&gt;3,5&lt;/sup&gt;</td>
<td>40 ft.</td>
<td>35 ft.</td>
</tr>
<tr>
<td>Industrial&lt;sup&gt;5&lt;/sup&gt;</td>
<td>60 ft.</td>
<td>50 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;6&lt;/sup&gt;</td>
<td>20 ft.</td>
<td>20 ft.</td>
</tr>
</tbody>
</table>

**Notes:**

1. Additional right-of-way may be required if roadside swales are used to control storm drainage.
2. 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.
3. Parking is allowed on one side of the street only. Refer to SMC 17H.010.120 for on-street parking requirements.
4. Refer to SMC 17H.010.110 for more information.
5. Industrial is intended for use in areas with LI, HI or PI zoning per SMC 17C.130.020.
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 – Design Standards

Placing two ADA curb ramps per corner is recommended along arterial corridors, and on local streets in Pedestrian Priority Areas as defined in the Pedestrian Master Plan. 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.

Where redevelopment is concerned, the use of single curb ramps per corner may be appropriate when relocation of utilities would be required to accommodate dual ramps. When using a single curb ramp per corner, it is important to be consistent in the placement in association to the intersection. Visually impaired individuals practice aligning their crossings from the mid-point of curvature. Thus, it is best to align single curb ramps on the mid-point of the corner such that a user need only turn 45 degrees to the right or left of the ramp to align themselves with the crosswalk markings.
Curb Ramps – SMC edits

17H.010.200 Curb Ramps

A. At all intersections where new curbs, sidewalks or both are to be constructed, curb ramps are to be placed and constructed as shown on the standard plans. Where a ramp is built on one corner of an intersection, a ramp shall also be provided at a corresponding location on the opposite corner of the intersection.

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. Along arterial corridors, two curb ramps should be provided on each corner.
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>
Design Vehicles

Image: City of Seattle
## 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>Control Vehicle (Infrequent Largest User)</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.
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
SMC Updates

17A.010.070 Delegation of Administration (downloaded here)

17A.020 Definitions (downloaded here)

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

17H.010 Engineering Standards (downloaded here)
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