# 3.7D Curb Extensions

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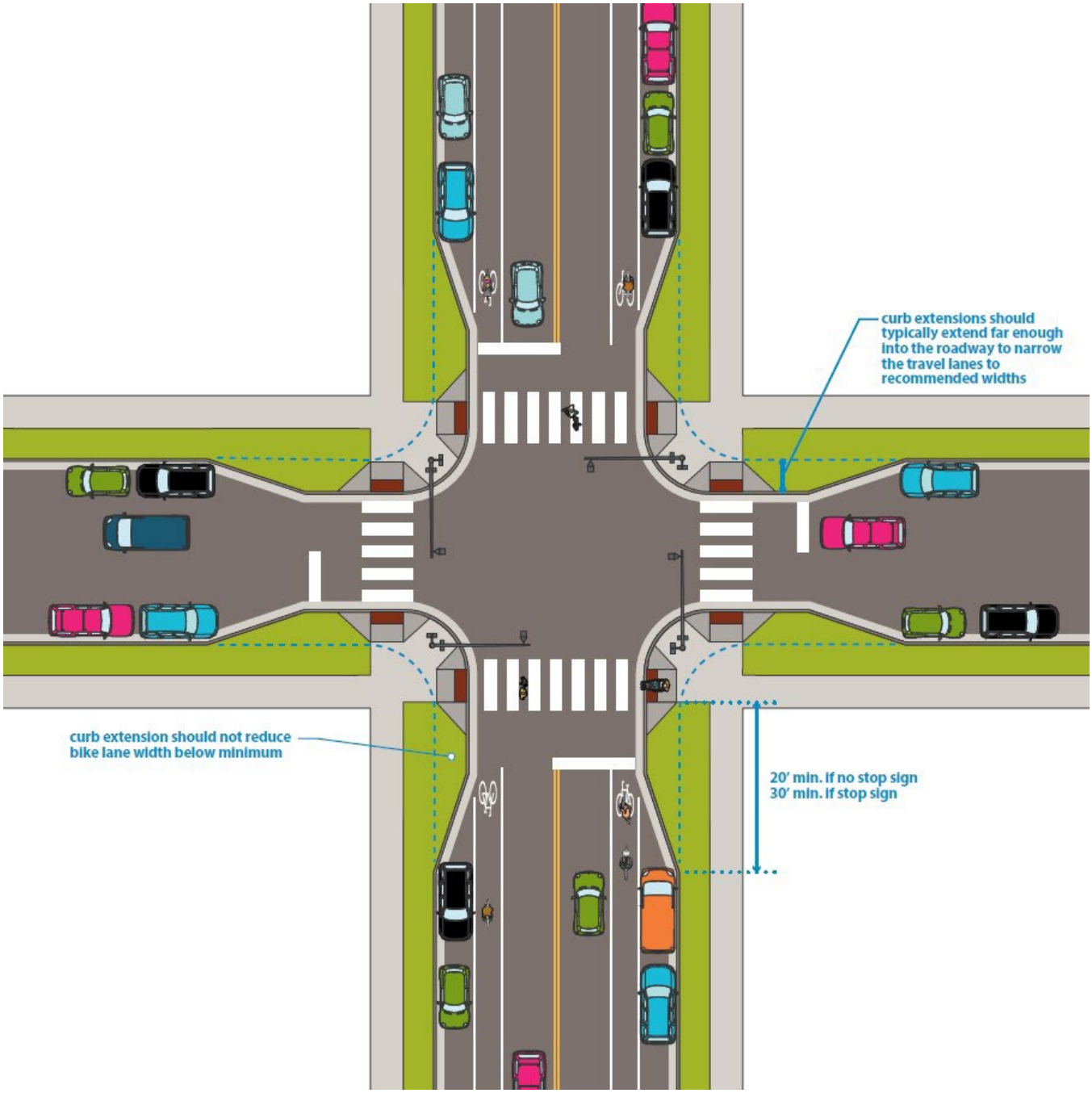
## INTRODUCTION

Curb extensions, also known as bump outs, are an extension of the sidewalk zone or curb line into the roadway zone at intersections or mid-block locations. Curb extensions are intended to increase safety, calm motorized traffic, and create additional space for pedestrians and the boulevard and furnishing zone.

Curb extensions provide the following benefits:

- Improved sightlines between vehicles and pedestrians.
- Reduced pedestrian crossing distance, thereby reducing pedestrian exposure to potential vehicle conflicts.
- Additional pedestrian queuing space before crossing.
- Can slow vehicle turning speeds by decreasing turning radii and visually narrowing the roadway.
- Additional corner space to fit two perpendicular curb ramps per corner, utilities and traffic control, furnishings, greening, transit facilities, bicycle parking, and sidewalk cafes.
- Additional pervious space for green stormwater infrastructure.
- Restrict cars from parking too close to the intersection and inhibiting sightlines.

**Figure 3.7D.3:**
Curb extensions



# DESIGN CONSIDERATIONS

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| **A. Location** | 1. Curb extensions should generally be used at all intersections where full-time parking lanes are present or excess travel lane width is present.<br>    - Exceptions include Urban Neighborhood streets where a traffic circle is preferred and Production and Processing where they should be considered but may not be appropriate given the frequency of large trucks.<br>2. Curb extensions may extend into one or multiple legs of an intersection depending on the configuration of parking lanes.<br>3. Curb extensions can also be used midblock to support additional greening and traffic calming or for midblock pedestrian crossings. |
| **B. Width** | 1. Curb extensions should typically extend far enough into the roadway to narrow the travel lanes to recommended widths (see lane widths guidance).<br>2. The gutter of the curb extensions should be outside of the vehicular travel lane and should not reduce bike lane width below the constrained minimum (see bike lane width guidance).<br>3. With a typical 8' parking lane on a street with recommended lane widths, the curb extension would be 6' wide.<br>4. Curb extensions should not reduce the curb-to-curb width to less than 13' to ensure emergency vehicle and winter maintenance vehicle access. Coordinate with Fire Department if narrowing curb-to-curb width to 14' or narrower. |
| **C. Length** | 1. Curb extensions (including the taper) should be at least 20' in length when there is not a stop sign and at least 30' in length if there is a stop sign. This minimum is based on typical crosswalk dimensions and ordinances requiring no parking within 20' of a crosswalk or 30' of a stop sign.<br>2. Longer curb extensions may be desired, depending on needs for greening, transit stops, sidewalk cafes, other furnishings, or snow storage. Designers should balance those needs with right-sizing the amount of on-street parking when determining the length of curb extensions. |
| **D. Turning Movements** | The turning movements of design and control vehicles should be considered when designing new curb extensions; see design and control vehicle guidance for additional information.<br>1. When curb extension locations conflict with necessary turning movements, consider reducing curb extension dimensions before eliminating. |
| **E. Curb Ramps** | Where possible, design curb extensions to fit two perpendicular curb ramps aligned with the sidewalk and crosswalk. |

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| **F. Bikeway considerations** | 1. Curb extensions may complicate the installation of future bike facilities and should be designed and implemented with consideration for the existing and proposed AAA bike network.<br>2. Curb extensions may be constructed or retrofitted to transition on-street bikeways from street to sidewalk-level behind the curb by employing bicycle-specific slip ramps up and down stream of the intersection. This should be prioritized when rebuilding signalized intersections or quadrants along AAA bike routes with existing on-street bike lanes.<br>On neighborhood greenways: bicycle boulevards where bikes travel in mixed flow with vehicles, curb extensions should not force cyclists to merge unexpectedly with cars at the end of the block. |
| **G. Sightlines and pedestrian clear zone** | Street furniture, trees, plantings, or other amenities included in the curb extension area should not impede sightlines or redirect the pedestrian clear zone at intersections. See sidewalk visibility guidance for more details. |
| **H. Maintenance** | Curb extensions need to be carefully designed to drain properly and to avoid ice, leaf, and road debris buildup. |
| **I. Drainage** | Curb extensions may impact existing catch basin locations, underground utilities, and curbside uses. These impacts should be evaluated during the scoping process as they may increase costs significantly. |
| **J. Transit** | For transit related curb extension design considerations, please reference transit stops. |
| **K. Delineator curb extensions** | Low-cost curb extensions can be implemented using delineators in street retrofit project |