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CURBSIDE ELEMENTS

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CURBSIDE OCCUPANCY: PLATFORMS & PARKLETS

DESCRIPTION & INTENT

Curbside occupancy refers to non-parking or non-vehicle uses of a curbside zone. Typically, curbside occupancy occurs when a business or private entity utilizes the curbside zone for conducting outdoor commercial activity, such as additional outdoor dining or retail extending out from the pedestrian area. Curbside occupancy can also take the form of parklets, which are curbside areas designed as public space, often providing seating or other amenities open to the public.

Curbside occupancy is useful tool for further activating street environments, especially in denser urban commercial areas and/or where space to accommodate active street uses is constrained by narrow pedestrian areas. Curbside occupancy is flexible, and can allow areas to be used for activity during parts of the year (e.g. warmer months when outdoor space is in demand) and convert back to vehicle uses (e.g. parking) during colder months.

What are "Parklets?"

Parklets are curbside zone areas that are temporarily re-purposed as additional public space, often incorporating seating areas, planters, shade, public art, or other pedestrian-oriented amenities. These are typically built in conjunction with platforms (see above).



What are "Platforms?"

Platforms are structures built with decking and fencing (or other vertical barriers) in order to provide a flush extension of the pedestrian area into a curbside zone, in order to make that area usable for pedestrian-oriented uses, such as outdoor dining, retail, or seating areas.



Parklets provide an solution to narrow sidewalks and a lack of public space by using underutilized street parking. By extending the pedestrian space temporarily into the parking lane, parklets can play a role in fostering a sense of ownership within the public realm, enhancing the overall quality of life for residents and visitors. By activating the street and pedestrian walking zone, nearby businesses and commercial corridors benefit from an enhanced pedestrian experience.

Curbside occupancy typically requires the construction of platforms to provide a more usable and contained space for pedestrian activity when next to active roadways.

USE & APPLICATION

Location

- Curbside occupancy is only allowed where a curbside lane is present and on streets where the posted speed limit is 25 MPH or less in speed.
- Curbside occupancy should be limited to the curbside zone (e.g. parking spaces) directly in front of the business and/or property seeking curbside occupancy. Typically this will be one to two parking spaces in length (approximately 40-feet).
- If more than three on-street parking spaces are desired or use of spaces fully or partially in-front of adjacent properties, written permission from adjacent business and property owners must first be secured.
- Parklets, designed as open public seating or gathering areas, may only be installed by a private entity when they are sponsoring the parklet and agree to maintain and manage the space and any installed platforms.
- Curbside occupancy should not block major pedestrian movements, bus stops, building entries, loading zones or other essential street functions.
- May not be located in front of fire hydrants (must have a clear line from the fire hydrant to the travel lane).
 May not otherwise encroach to within 5-feet of a fire hydrant.

Related Design Elements

- Curbside occupancy is typically combined with sidewalk occupancy to provide maximum space for outdoor pedestrian uses where it is in greatest demand and/or where pedestrian area space is limited.
- Bumpouts should be installed, where feasible, on streets where curbside occupancy is most anticipated to provide protection and buffering at the ends of occupied curbside zone from intersections.
- Parklets should incorporate benches, tables and chairs, seat-walls, and landscape in order to create an inviting space that functions as an extension of the pedestrian area.

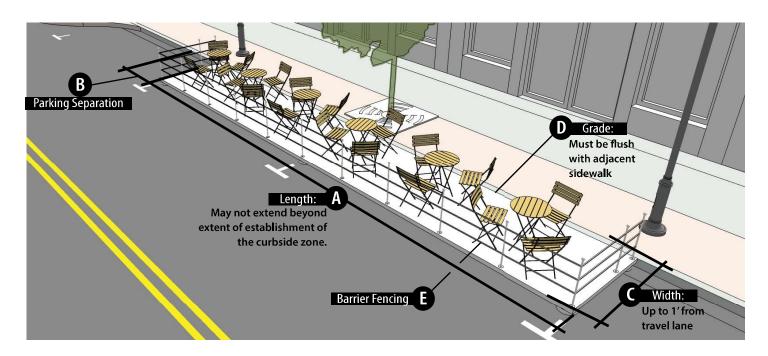
Reviews and Approvals

• The City of Kalamazoo Public Right-of-Way Permit provides detailed instructions for making an application for sidewalk occupancy as a "Temporary Encroachment" on the right-of-way.

Design Requirements

- **A** Length: Platform length tied to the length of curbside zone that is allowed to be occupied (typically one to two parking spaces in length, see *Location above*).
 - Parking Separation: Where parking is adjacent to the ends of a curbside occupancy area, there must be a 2-foot setback from the edge of parking and the occupied area. The end of the occupied area must have barrier fencing (see below).
 - » Intersection Separation: Where a occupied curbside zone is adjacent to an intersection, the occupied area must be a minimum of 8-feet back from the nearest edge of the crosswalk.
- **Width:** The width of the occupied area may not be closer than 1-foot from the edge of the adjacent travel lane.
- **D Grade Transitions:** The entire length of occupied curbside and platform must be level with the adjacent street curb and provide no more than 1/2-inch gap or lip when transitioning from the pedestrian area onto the platform.
 - » If site conditions (such as streetscape elements) prevent continuous access, the platform must ADA accessible and provide multiple points of entry that are at least 36 inches wide.

- **Barrier Fencing:** Any sides of the occupied curbside zone and/or platform that are exposed to on-street parking areas or adjacent travel lanes must utilize barrier fencing to provide additional protection.
 - » Barrier fencing must be 36 to 42 inches tall, measured from the top surface of the platform.
 - » Barrier fencing must be constructed with solid framed panels that are least 4 inches thick.
 - » Two continuous bands of reflective tape (one at the upper edge and one in the middle of the barrier) must extend fully around all perimeters of barrier fencing.
 - » Vehicle Path Protections: Any sides of the occupied curbside area that are directly exposed to on-coming vehicle paths (e.g. sides facing into an intersection), must be further protected by plastic.



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Additional Design Considerations

- Snow Sticks: If platforms are used during winter months or when snowfalls are expected, all corners of occupied area must include snow sticks to aid visibility and snow clearing operations.
- Drainage: Any platforms or other features in the curbside zone must not impede flow along the gutter line and access into inlet structures. Inlet structures must be accessible for maintenance.
- Platform Assembly: Platforms and other structures
 must be constructed in a manner that is self standing
 and self-supporting. Platforms may not be bolted or
 anchored down to existing surfaces. Platform must be
 able to be disassembled quickly in case of emergency.
- Parklet Public Uses: Parklets are intended for open public use. Signage must be included indicated that the parklet is open to all users and not restricted for use by any individual businesses or user group.

MAINTENANCE & MANAGEMENT

Seasonal Use and Maintenance

- Occupied curbside areas must be maintained in safe operating order per approved permits and guidelines.
- The period of curbside occupation should be contingent upon the occupiers desire and capability to manage and maintain their occupied space throughout the seasons. Historically, sidewalk occupancy for commercial uses would be from April into November, although yearround occupancy should be allowed when the applicant can demonstrate their ability to utilize and maintain the space year-round.



COMMERCIAL LOADING ZONES

DESCRIPTION & INTENT

A commercial loading zone is a dedicated space at the curbside intended for short duration use to directly service nearby businesses or properties. In this context, loading zone primarily refers to use of the curbside space for material deliveries. Zones for the loading and unloading of passengers are addressed in the "drop-off zone" section; however, loading zones may serve both purposes.

Loading zones help promote a strong economy and a vibrant retail environment. A sufficient number of loading zones, appropriately located and designed, can dramatically improve the safety, operation, and vitality of a street. Loading zones may reduce the incidence of truck double-parking and the cost of goods delivery borne by local businesses and their consumers. However, loading zones also take up space that could otherwise be used for parking, pedestrian, or transit space and therefore should be well managed to optimize use.

USE & APPLICATION

Location

- Loading zones are generally used by a number of businesses or properties on a block and are a shared resource. The need for new spaces should be reviewed in the context of a block or neighborhood.
- Loading zones can be located wherever curbsides are not used as travel lanes.
- Special caution should be used on pedestrian, bicycle and transit emphasis streets.

- Loading zones are intended for short duration parking—typically 30 minutes or less. Loading zones are typically reserved for only a portion of the day and used for general parking or travel at other times. If loading zone installations impact on-street parking, parking removal may be subject to meter removal and loss revenue fees.
- Place loading zones near intersections, and preferable on the far side of intersections to facilitate access to and from the rear of trucks and to have close access to curb ramps for moving materials into buildings.
- Alleys should be used for loading whenever possible.
 Off-street loading facilities are generally required
 for new developments and should be designed and
 managed to facilitate their use. Despite the presence of
 alleys and/or off-street loading, on-street loading zones
 may still be required.

Related Design Elements

- **Sidewalks:** Sidewalks near loading zones should be wide enough to accommodate delivery people moving items from the vehicle to the business without disrupting pedestrian traffic.
- **Crosswalks:** Loading zones at all hours must not block crosswalks. Loading zones should not be located within 20-feet of the nearest edge of a crosswalk.
- **Bicycle Lanes:** Loading zones should not block any part of an adjacent bicycle lane.
 - » Adjacent travel lanes should be wide enough to permit passing a commercial vehicle parked at curbside.

- Bumpouts: On streets where a parking lane may no longer be warranted, consider bumpouts or flexible use of parking lane around the loading zone to expand pedestrian space.
- On-Street Parking: If loading zone installations impact on-street parking, parking removal may be subject to meter removal and loss revenue fees.
- Cafe Seating and Outdoor Retail: Cafe seating should not be placed near loading zones, as movement from deliveries may negatively impact dining activities.
- Bicycle racks should not be placed adjacent to loading zones, as deliveries may prevent cyclists from accessing their bicycles.
- Transit/Protected Bicycle Lanes: Do not use loading zones on curbsides where a transit lane or protected bicycle lane is present.

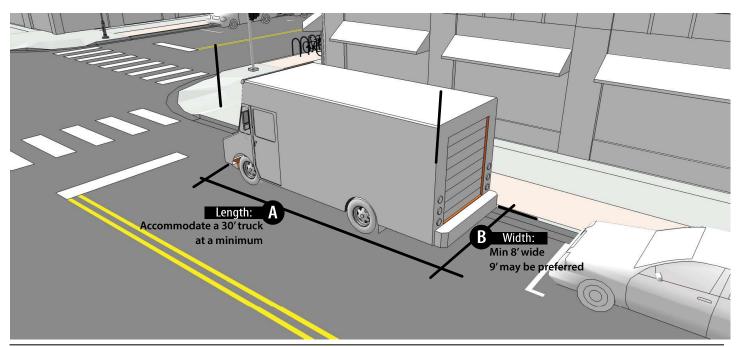
Design Requirements

A Length: Loading zones intended for material deliveries shall be designed to accommodate, at minimum, a single unit 30-foot delivery vehicle (SU-30). Typically leading zones should be 40-feet long (equivalent to two normal parallel parking spaces).

- **B** Width: Loading zones shall be a minimum of 8-feet wide; however, 9-feet is desirable. If 9-feet cannot be accommodated, travel lanes on streets with loading zones should anticipate potential affects from loading vehicles.
- Markings and Signage: Loading zones must be signed to clearly indicated the hours of enforcement and types of uses that are allowed within the commercial loading zone.
 - » Loading zones may be "boxed out" with a 6-inch wide white pavement marking band. They may also include marking legend symbols indicating the zone is reserved for commercial loading.
- **Street Trees:** Do not plant street trees adjacent to loading zones due to potential conflicts with delivery vehicles; unless adequate space is provided for the tree canopy to grow without contacting delivery trucks.

Additional Design Considerations

- Sidewalk Obstructions: Sidewalk space adjacent to loading zones should be reasonably clear of furnishings, landscaping, and other obstacles.
- Operations and Timing:
 - » Use Time Limit: Restrict deliveries in the loading zone to 30 minutes maximum to ensure turnover and prevent double-parking from other delivery vehicles. Consider metering loading zones to encourage turn over.



- » Coordination: Encourage collaboration among businesses to coordinate and/or stagger delivery times to discourage double-parking if multiple businesses are sharing the loading zone.
- » Off-Peak Loading: Encourage loading during offpeak hours (typically early morning or late evening). Consider reserving zones for loading only during these preferred times.
- Non-Loading Uses: Non-commercial loading uses may be allowed during certain hours of operation and/ or concurrently with commercial loading zones, and must be clearly signed to indicate (see *Drop-Off Zones* section).

MAINTENANCE & MANAGEMENT

General Maintenance

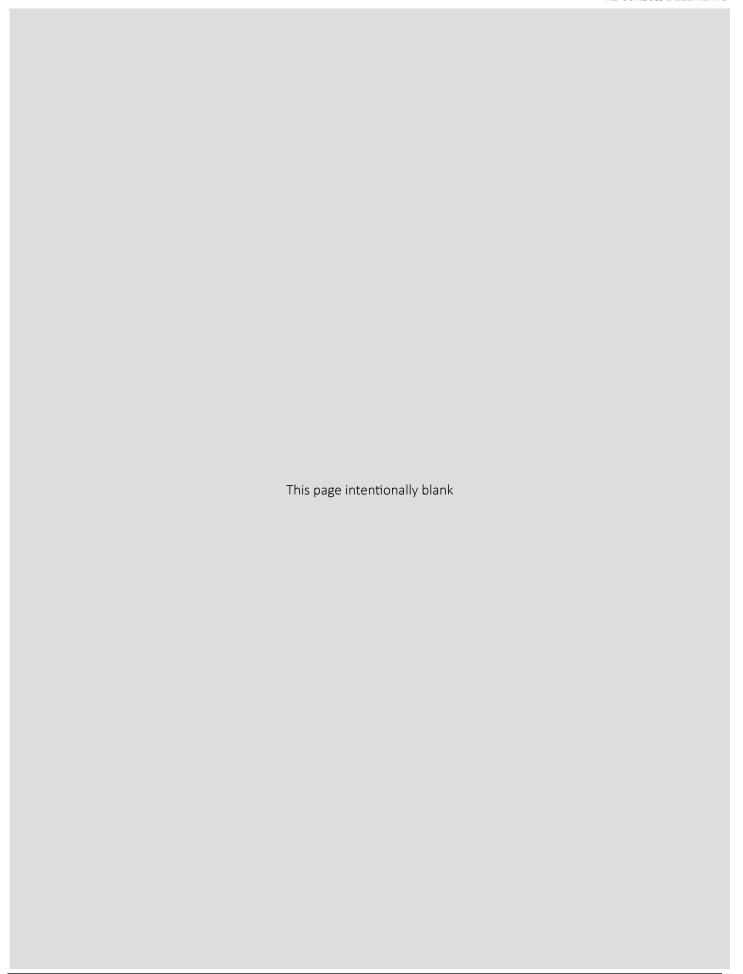
Enforcement: Enforcement can be a significant concern and challenge for loading zones. Clear signage is necessary, but reliable enforcement is also required to ensure loading zones are not used for auto parking or longer duration parking by commercial vehicles.

Seasonal Use and Maintenance

• **Snow Removal:** Clear loading zones of snow. Do not use for snow storage.









METERED PARKING

DESCRIPTION & INTENT

Metered parking is a form of on-street parking intended to support commercial activity along the street by providing close access to storefronts and businesses.

The availability and placement of metered parking can have a significant impact on the balance of uses within the roadway. While on-street metered parking is often present on most commercial streets—especially in the downtown area—consideration must be given to the highest and best use for public street space.

USE & APPLICATION

Location

- Main Streets: On-street parking is appropriate and beneficial to most Main Streets in the downtown, for providing relatively proximate access to destinations.
 Supply of on-street parking should be considered after addressing loading zone and drop-off zone needs.
- Urban Center and Event/Festival Street: On-street
 parking on urban center and event/festival streets
 should not generally be utilized, as higher turn over
 parking spaces (e.g. drop-off zones) can provide more
 benefit to the function of these pedestrian centered
 streets.
- Neighborhood Business/Commercial Business:
 Generally, these districts do not need to rely on
 metered parking, as they are outside of the downtown
 zones and often have adequate off-street parking
 resources.

- Other street types are generally not suitable for metered parking due to a lack of commercial centered parking needs.
- On-street parking can be designated or managed to provide curbside access for persons with disabilities.
 In the State of Michigan, people who need handicap parking can apply for a Free Parking Application. This placard allows them to park for free.

Related Design Elements

- **Bicycle Lanes:** Curbside parking conflict with cyclists within the first 2- to 3-feet of a parked car. This is known as the "dooring zone," the area where vehicle drivers or passengers may inadvertently open their door into a passing cyclist. Parking lanes and adjacent facilities should be designed with adequate space, such as a 2- to 3-feet wide buffer zone between the parking lane and the bicycle lane, to minimize this risk.
- Curbside Occupancy: Access into and out of vehicles parked at the curbside may conflict with curbside occupancy in the amenity zone of the sidewalk.
 Similarly bicycle racks, parking meters, street light poles, and other fixtures in the amenity zone should provide sufficient space to enable access and egress from vehicles parked curbside. Typically 18 to 24 inches is sufficient clearance between parked vehicles and amenity zone elements.
- Curbside Zone Uses: On-street parking may be combined with bumpouts, parklets, platform dining, bicycle corrals or other curbside zone uses to enhance the pedestrian experience, safety and multi-modal access.

Design Requirements

- **Limits of Parking:** Restrict curbside parking within 20-feet of intersections to maintain clear site lines.
- Parking Angle: On-street parking should be aligned parallel to the curb.
 - » Perpendicular or angled parking (preferably back-inangled parking) may be utilized on roadways where right-of-way width allows while not compromising the desired widths of pedestrian areas or the roadway zone.
- **Parking Space Size:** Parallel curbside parking spaces shall be a minimum of 7-feet of width (measured from the face of curb and including the gutter) and 20-feet of length. The overall width of the parking space and adjacent travel lane should be at least 18-feet.
- ADA Accessibility: Parking spaces designated for use by persons with disabilities should be located adjacent to curb ramps to facilitate access to and from the sidewalk.
- Meters and Pay Stations: Parking meters should clearly indicate the hours of operation and provide multiple methods of payment, including coins and credit cards.

Additional Design Considerations

- **Pavement Markings:** Individual parking spaces may be marked with "T" pavement markings at their outside edge.
 - » Alternatively, a row of parking may be defined with a solid white line going around each space. This approach should be used when parking is adjacent to a bicycle lane to encourage better parking positioning.

Design References

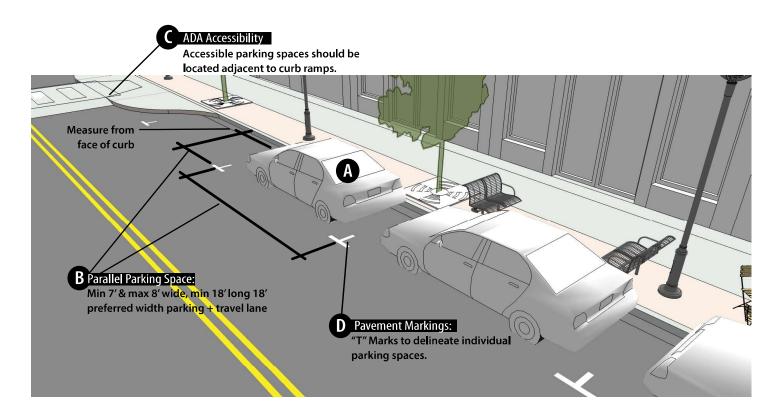
• The U.S. Access Board Draft PROWAG provides guidance for on-street accessible parking spaces.

Sustainability Considerations

 Alternative uses of on-street parking, such as bicycle corrals, can encourage other modes of transit and reduce vehicle emissions and fuel consumption.

Utility Considerations

 Ensure that curbside parking elements (meters, stall markets, and pay stations) do not obstruct access to underground utilities or electrical transformer vaults.





DROP-OFF ZONE

DESCRIPTION & INTENT

A drop-off zone is a dedicated space at the curbside for passenger-sized vehicles to drop-off or receive passengers. Drop-off zones can receive taxicabs or private vehicles, and increase the accessibility of a pedestrian-oriented district, accommodating visitors with limited mobility who may not be able to walk long distances. Drop-off zones are generally open to the public and are sometimes used for quick commercial loading uses.

Drop-off zones may also accommodate short-term parking, usually less than 10 minutes, allowing people to pick up goods (e.g. carry-out orders) without having to park in a more remote location or search extensively for an open parking space.

USE & APPLICATION

Location

- Drop-off spaces are located in the curbside zone of the street. On streets where drop-off zones are recommended, at a minimum one on-street parking space per block should be designated as a drop-off zone.
- Drop-off zones established to exclusively serve a particular property will be subject to fees and/or revenue replacement.
- Drop-off zones are appropriate near buildings that may receive a large number of visitors, particularly visitors with limited mobility, or a high number of short-term trips (i.e. medical or institutional buildings, hotels or large residential buildings).

- Drop-off zones and the vehicles entering and exiting them must not degrade safe and efficient operation of the adjacent travel lanes, including bicycle facilities and walking zones.
- The curb should be reserved for drop-off for the shortest duration possible. Drop-off zones may be used for other purposes during the balance of the day. Common uses include commercial loading, taxi stands, and metered parking.

Related Design Elements

- **Street trees** should not be planted in passenger dropoff zones.
- Cafe seating should not be placed near drop-off zones due to conflicts between diners and passenger loading.
- Bicycle racks should not be placed adjacent to drop-off zones due to conflicts between bicycle access and passenger loading.
- **Drop-off zones** should not be placed on curbsides where a transit lane or protected bicycle lane is present.

Design Requirements

- **Length:** Drop-off zones shall be at least 25-feet long and located in front of the building entrance where the zone is requested. If multiple buildings on a block request a drop-off zone, consider a single, common loading area.
- Width: The width of drop-off zones, plus the adjacent travel lane, should be a minimum of 18-feet. Typically this means a 10-foot travel lane and a 8-foot wide drop-off zone. Under constrained conditions, drop-off zones may be reduced to 7-feet. Widths are measured from the face of the curb and include the width of any gutters as part of the overall width.
- Sidewalk Clearance: Maintain an 8-foot wide clearance zone on the sidewalk adjacent to loading zones, restricting site furnishings to allow passengers to enter and exit vehicles. Exceptions can be made for benches, which allow passengers to sit and wait for their ride.
- Location: Passenger drop-offs should generally be located at the curb line. Exceptions may be made where the curb lane is used for travel.
- **Time Limits:** Limit drop-offs to 15 minutes to encourage turnover and discourage double parking.
- Markings and Signage: Drop-off zones should be well-marked to indicate to drivers that they cannot park there.

MAINTENANCE & MANAGEMENT

Seasonal Use and Maintenance

• **Snow Removal:** Loading zones do not require any special equipment for snow removal. The adjacent property owner is responsible for snow removal in the walking zone. Drop-off zones should not be used for snow storage.





NEIGHBORHOOD PARKING

DESCRIPTION & INTENT

In Kalamazoo, neighborhood parking refers to curbside zones where on-street parking is permitted, typically on local and other neighborhood streets. Such parking is intended to provide parking spaces primarily for use by adjacent or nearby residences. Depending on the location and proximity to other land uses, such as the downtown area or higher intensity commercial areas, neighborhood parking may have additional requirements or restrictions on its use and application.

Neighborhood parking can play an important role not only for providing space for vehicles to park, but also in changing how drivers traverse down neighborhood streets. Higher volumes of on-street parking have the effect of narrowing the perceived width of the roadway, which prompts drivers to travel more slowly and cautiously. On narrower roads without centerline markings, on-street marking may cause the center of the roadway to function as a bidirectional shared-lane, which can considerably slow down travel speeds.

The following types of neighborhood parking are considered in this section:

- Open Parking: These are parking areas that available to any users at any time of day or night during posted operating hours.
 - » Operating hours may be up to a 24-hour period, allowing people to remain parked overnight.
 - » During non-operating hours, no cars may be parked in the zone.

- Neighborhood Permit Parking: These are parking areas
 that are only allowed to be used during enforcement
 hours by vehicles with permits indicating that it belongs
 to a nearby resident. This is an approach to allowing
 neighborhood parking in areas where there is a high
 likelihood of non-neighborhood users competing for
 demand.
 - » Typically,neighborhood permit parking would allow permit holders to leave their vehicles parked overnight in such zones.
- Time Limited Neighborhood Parking: These are parking areas that are un-metered but time limited (e.g. 2-hour parking) during certain peak hours but may allow for longer parking periods during off-peak hours.
 - » Exceptions may be granted for neighborhood residents to park at all times, even over night.

USE & APPLICATION

Location

- Neighborhood parking is highly recommended and encouraged on all local neighborhood and enhanced neighborhood streets, in order to provide additional parking to benefit residents, as well as function as a traffic calming devise.
- On neighborhood business and network neighborhood streets, on-street parking may also be desired, in particular where it aligns with adjacent commercial businesses and provides potential customer parking.

- » On-street parking in these areas can also function as a buffer between pedestrian areas and the active travel lanes, creating a calmer pedestrian environment.
- » On-street parking fronting business or commercial areas should generally be time limited in order encourage regular turnover in parking spaces.

Related Design Elements

- **Bicycle Lanes:** Neighborhood parking, as with other curbside parking uses pose a risk to people cycling, especially when bicycle lanes as located tight against parking zones. Wherever possible, bicycle lanes adjacent to parking should be widened by at least 2-feet (3-feet preferred) in order to provide a buffer against door swing. This buffer can be periodically striped with diagonal lines.
- Curbside Zone Uses: On-street parking may be combined with bumpouts, parklets, platform dining, bicycle corrals, or other curbside zone uses to enhance the pedestrian experience, safety and multi-modal access.
- Waste Collection: Solid waste collection (trash, recycling, etc.) must be considered as part of determining which type of neighborhood parking is appropriate for a given area.
 - » Typically, waste bins can be positioned within the curbside zone directly adjacent to curb cuts/ driveways and before the on-street parking zone begins. Larger multi-family properties may require limiting on-street spaces in front of the property in order to provide space for waste collection.



DESIGN & OPERATIONS

Design Requirements

- Size of Parking Spaces:
 - » Parallel curbside parking spaces shall be a minimum of 7-feet wide and 18-feet of length. 20-feet long is a preferred length.
 - » On roads with centerline markings, the total width of the parking area and adjacent travel lane should be 18-feet. 7-foot parking and 11-foot lanes encourages parking closer to the curb where larger vehicles (e.g. buses) are anticipated. Wider parking lanes (8-feet) and narrower travel lanes (10-feet) conversely encourages slower travel speeds.
- **Limits of Parking:** Curbside parking may not occur within 30-feet of the nearest edge of crosswalks (including mid-block crossings) in order to maintain sight lines at intersections.
- **Curb Cuts and Driveways:** On-street parking should not occur within 5-feet of the edge line of a driveway or curb cut, in order to provide clearance for vehicles.
- Parking Angle: On-street parking shall be parallel to the curb.
- ADA Accessibility: Parking spaces designated for use by persons with disabilities should be located adjacent to curb ramps or driveways to facilitate access to and from the sidewalk space.

Additional Design Considerations

- Pavement Markings: Individual parking spaces may be marked with "T" pavement markings at their outside edge.
 - » Alternatively a row of parking may be defined with a solid white line going around each space. This approach should be used when parking is adjacent to a bicycle lane to encourage better parking positioning.
- **Signage:** Neighborhood parking must utilize clear signage to indicate what type of parking exists (e.g. open, neighborhood permit only, time limited) as well as indicate the operating hours for enforcement.

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Sustainability Considerations

 On-street parking can also provide spaces for locating bicycle corrals, applicable near business areas, schools, or other concentrated land uses.

Utility Considerations

• On-street parking cannot be located within 15-feet of a fire hydrant.

MAINTENANCE & MANAGEMENT

Seasonal Use and Maintenance

• Snow Removal: During snow events, on-street parking may be prohibited in order to provide maintenance crews opportunities to clear snow from the roadway. Parking signage can indicate restrictions on on-street following snow events.

