3 The Parkway Zone

The Parkway Zone (also referred to as a parkway) typically encompasses the region of the right of way (ROW) between the property line and the curb. Its primary function is to provide a safe, accessible, and enjoyable means of travel for pedestrians, a public space between buildings and land uses; and separation from the Flex Zone where people park, bike, or embark/disembark from transit. The Parkway Zone can include a vibrant space with street furniture, street trees, wayfinding signage, and outdoor dining.

FIGURE 3-1 THE PARKWAY ZONE IN RELATION TO OTHER ROW ZONES

Who Are Pedestrians?

Pedestrian is used throughout these guidelines to include people who walk, push strollers or carts, stand or sit, access transit, or those who use a mobility assistive device or other mobility assisting device—be they children, teens, adults, elderly, persons with disabilities. Pedestrian-oriented design is accessible design for all people.

The principal issue in the design of a pedestrian-supportive street is how to allocate space. This can be how much space is required to satisfy the existing and future needs of pedestrians; how much space is required to create active public space or room for deliveries; or how much space is required to provide for street furniture, tree growth, and tree canopy.

The sections that follow discuss the pedestrian experience at street level, including:

- Creating a Parkway Zone
- New Development versus Retrofit
- Parkway Zone Guidelines and Standards

3.1. Creating a Parkway Zone

Land use and street design that benefit pedestrians also help promote use of alternatives to automobile travel and contribute to the overall quality, health, and community. Furthermore, policies designed to support walking and pedestrians also benefit overall accessibility. This approach to neighborhood design directly aligns with the City's General Plan and Climate Action Plan.

The Pedestrian Master Plan includes a comprehensive analysis of communities' existing pedestrian conditions and needs. The Plan identifies pedestrian routes to activity centers and infrastructure improvement projects along these routes. The plan is a key resource when considering pedestrian projects that promote pedestrian safety, walkability, mobility, and neighborhood quality.

The Parkway Zone is not merely a sidewalk or walking and rolling area for pedestrians. It is also an important social space where people interact and walk together, catch a bus, or dine at a café. Sidewalks within the Parkway Zone must be wide enough to accommodate movement in addition to amenities (such as seating and bike racks) making it more comfortable and appealing and encourage greater use.

Safe and direct sidewalk connections are of key importance to creating a pedestrian-friendly environment. Sidewalks should support activities that will occur in the area and provide a comfortable place for pedestrians to take part in various activities. However, creating a high-quality Parkway Zone that supports and encourages walking takes much more than simply providing sidewalks. The design of the sidewalk and buffer area, and the location of buildings are just some of the additional considerations of creating a pedestrian-supportive environment.

3.1.1 Design Considerations

The following are general design considerations when developing the Parkway Zone:

- Wider sidewalks and/or public gathering places should be provided when additional ROW is available.

- Wider sidewalks, bicycle facilities, or on-street parking can buffer uses and buildings from vehicular traffic.
- In pedestrian-oriented areas street design should prioritize pedestrians and incorporate lower speeds and narrower roadways to facilitate crossing and access.
- Sidewalk widths should be provided greater in areas with higher usage for both existing and future needs.
- Materials should be selected with consideration for maintenance and long-term appearance.
- Obstructions and conflict points should be minimized.
- Persons with disabilities must have equal access to all public facilities—primarily to public transit, public buildings and facilities, and along public rights-of-way.
- The space between buildings and traffic (including building setbacks) should encourage multimodal connectivity.
- Frequent driveways along a street create more conflict points between automobiles and pedestrians and impede the flow of traffic.

3.1.2 Relation to Transit

- The "footprint" of and access to transit facilities such as bus shelters must be considered in the design of sidewalks.
- Sidewalks must connect transit facilities with the adjacent uses and must be accessible for persons with disabilities.
- Incorporate MTS publication, "Designing for Transit" as well as these guidelines in relation to pedestrian access to transit facilities.
- All streets that are directly served by transit should also be designed or retrofitted to serve pedestrians to promote access to transit.
- Streets, sites, and buildings within an area that is walkable to transit stops should be designed or retrofitted to serve pedestrians.
- Transit stops must be served with curb ramps at both sides of the bus stops at the adjacent intersections as required by the ADA and California Title 24 regulations.

3.2. New Development versus Retrofit

These standards and guidelines outline the minimum improvements for the public ROW associated with new development. However, because the City is largely built out, and development is primarily infill, in many cases, tradeoffs between different needs and users may be necessary when retrofitting existing streets and developments.

The following considerations should be made for new or retrofitted ROW:

- Improvements to accessibility must be considered for both sides of the street.
- Neighborhoods evolve over time and the public ROW configuration influences future development and circulation.

The following considerations should be made for retrofitted ROW:

- As redevelopment occurs, dimensions of an existing parkway can be increased either through the acquisition of additional ROW, public easements to create additional pedestrian space, or through a reduction in curb-to-curb street width. Repurposing of existing on-street parking, or parking orientation, and lane reconfiguration to reduce speeding, can also create opportunities for an improved pedestrian environment.
- Utilities (e.g., lighting, electrical, and storm drains) should be identified and either incorporated into the design or relocated prior to improvements to existing streets.

The following considerations should be made for new ROW:

- New streets must consider the needs of all users in determining ROW width.
- For new road design, all rules, regulations, standards, and City policies apply.

3.3. Navigating the Parkway Zone

The Parkway Zone is typically located within the street ROW between the curb face and building face and/or property line. The Parkway Zone is composed of four distinct zones (see Figure 3-2 for illustration):

- Frontage Zone
- Throughway Zone
- Furnishings Zone
- Edge Zone

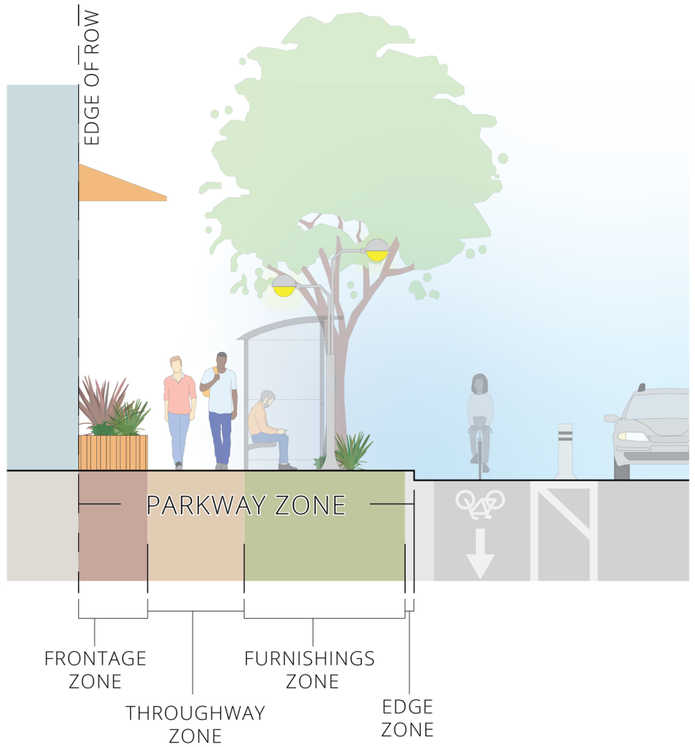

FIGURE 3-2 PARKWAY ZONES

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3.4. Parkway Zone Standards and Guidelines

3.4.1 Frontage Zone

The Frontage Zone is the area adjacent to the property line that may be defined by a building façade, surface material change, landscaping, or a fence. The minimum Frontage Zone should be 1 foot 6 inches in these situations. Commercial land uses may use this zone for outdoor displays, plantings, seating, dining, or other activities as permitted by City regulations. Architectural elements that encroach into the street (e.g., awnings, stairs, front stoops, artistic elements, planters, marquees, etc.) may also occupy this zone. Where no Furnishings Zone exists, elements that would normally be sited there (e.g., benches, light poles, signals, trash receptacles, etc.) may occupy the Frontage Zone to keep the Throughway Zone clear and maintain minimum ADA requirements. It is the property owners' responsibility to ensure that there is adequate space to accommodate these uses without impeding access.

The usage of the Frontage Zone for entrance enhancements should occur most commonly in pedestrian-oriented land uses where building frontages adjoin the sidewalk, especially with high pedestrian orientation commercial and mixed-use land uses. Property entry points (e.g. entry paths, gates, portals, or columns) can also be enhanced for land uses with lower densities where building are generally set back from the Parkway Zone.

Standards and Guidelines:

- A fully accessible route from the Throughway Zone to the building point of entry must be provided.
- Elements including landscaping planters and lighting must not encroach upon the minimum pedestrian access route (PAR).
- Planters must be visible, so they do not become hazards within the pedestrian circulation path.
- The minimum width should be 3 feet when directly fronting at grade off-street parking spaces and should include either landscaping, low wall or fencing to maintain the pedestrian environment and prevent vehicle encroaching into the Throughway Zone.
- Awnings may extend from buildings over the Throughway Zone; canopies with structural supports can be allowed when the supports are located outside of the Throughway Zone within the Frontage or Furnishings Zone and as long as the required vertical clearance of 7' min is required. Maintenance shall be assured by either an Encroachment Maintenance and Removal Agreement or by inclusion in a maintenance assessment district.
- Light fixtures should be oriented and directed to provide light only within the entrance area, keeping skyward and horizontal light pollution to a minimum.
- Pavement textures and/or materials within the ROW should meet ADA standards for accessible surfaces such as smooth, firm and slip resistance.
- Setbacks, facades, and projected elements (such as awnings) must conform to any applicable regulations in the Land Development Code and/or land use plan policies and guidelines.

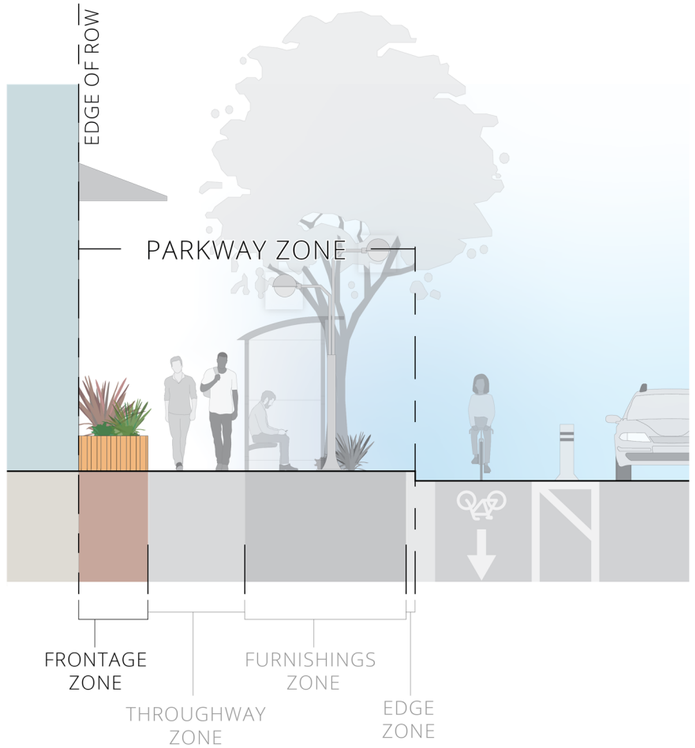

FIGURE 3-3 FRONTAGE ZONE

3.4.2 Throughway Zone

The Throughway Zone is intended for pedestrian travel only and should be entirely clear of obstacles, including driveway aprons. This zone must be at least 5 feet wide unless an exception is approved by the City Engineer. For high pedestrian volume areas, additional width should be provided. "Overhanging" elements such as awnings, store signage, bay windows, etc. may occupy this zone as long as there is a clear distance under them of at least 8 feet.

The Throughway Zone is a space where people interact and walk together which include accessing transit, shopping and outdoor dining. People traveling from transit or a vehicle or bike parked on the street rely on the Throughway Zone to get from their origin to their destination.

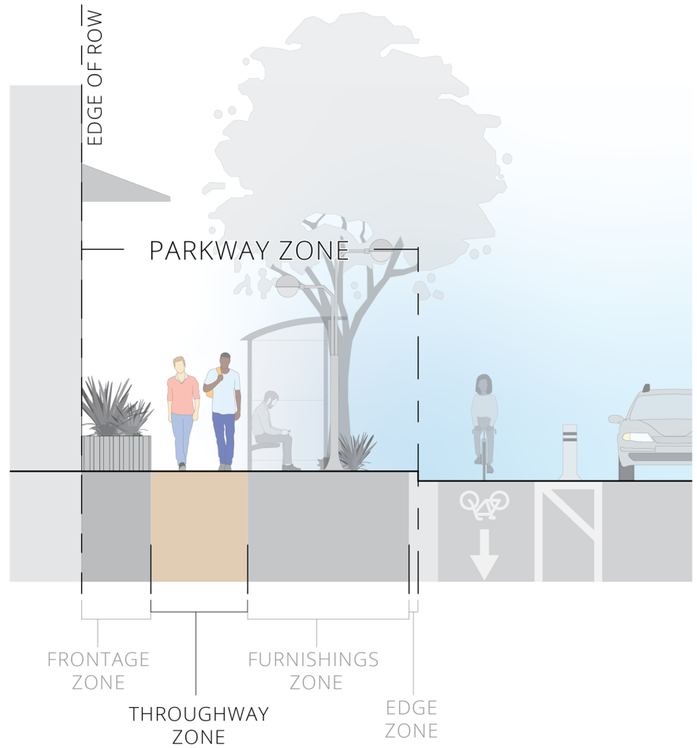

FIGURE 3-4 THROUGHWAY ZONE

3.4.2.1 Widths

For retrofitting or improving existing ROWs, sidewalks should be constructed. Where the existing ROW is too narrow to accommodate standard sidewalk construction, additional ROW or alternate public access must be provided.

The following design standards must be considered for sidewalk widths:

- Minimum widths are set forth in this chapter, Section 3.5 "Parkway Configurations," for various street classifications and the City's Standard Drawings.
- The width of a contiguous sidewalk is measured from the back of the curb.
- The Throughway Zone is intended to be continuous clear widths. Where fire hydrants, street furniture, or other above-ground appurtenances reduce such width, additional area for a Throughway Zone should be constructed around the obstacles.

3.4.2.2 Grade

The following considerations are to be made for grades:

- There should be enough sidewalk cross slope for adequate drainage. See the City's Standard Drawings.
- Along sidewalks, pedestrianways, and shared pedestrian/bikeway facilities, long, steep grades should have level areas every 400 feet for the pedestrian to stop and rest. See Section 3.4.2.3 "Accessibility" below for additional details.
- The portion of the right-of-way beyond curbs shall slope downwards towards the street at 1.5 percent grade.

3.4.2.3 Accessibility

The following sidewalk guidelines must be adhered to:

- Circulation paths contiguous to vehicular traffic shall be physically separated from vehicular traffic. Vehicular traffic includes travel through parking facilities, into and out of parking spaces, into and out of electric vehicle charging spaces, and along roadways, driveways and drive aisles. Physical separation shall be provided with circulation paths raised 4 inches (102 mm) minimum above the area where vehicular traffic occurs. See CA Building Code 11B-250 for more information.

Exceptions:

  - Curb ramps and blended transitions with detectable warning surfaces complying with CBC and PROWAG may be used to connect raised circulation paths and pedestrian crossings within areas of vehicular traffic. Blended transitions and cut-through medians with detectable warning surfaces complying with CBC and PROWAG may be used to connect circulation paths and pedestrian crossings at similar elevations within areas of vehicular traffic.
  - Where driveways are controlled with yield or stop control devices or traffic signals, detectable warning surfaces shall be provided on the pedestrian circulation path where the pedestrian circulation path meets the driveway.
  - At locations where circulation paths cross driveways or drive aisles, circulation paths shall not be required to comply with this section and detectable warning surfaces shall not be permitted. Beyond the crossing where continuation of the circulation path within a parking facility leads immediately to and does not continue beyond only parking spaces complying with CBC and PROWAG and passenger drop-off and loading zones complying with CBC and PROWAG, the circulation path shall not be required to be raised.

- The minimum unobstructed sidewalk width shall be 5 feet excluding 6-inch top of curb. Limited exceptions may be made by the City Engineer to reduce the sidewalk to a minimum of 3.5-feet because of right-of-way (ROW) restrictions, natural barriers, or other existing conditions on a case-by-case basis. The minimum width should be expanded when there is either a vertical barrier fronting the sidewalk or a vehicle travel lane.
- If the clear width of the sidewalk is less than 4 feet, passing spaces shall be provided at intervals of 200 feet maximum. Passing spaces shall be either:

  - A space 60 inches minimum x 60 inches minimum, or
  - An intersection of two walking surfaces providing a T-shaped* space, where the base and arms of the T-shaped space extend 48 inches minimum beyond the intersection. See Figure 3–5 for illustration of T-shaped space.

    - The turning space shall be a T-shaped space within a 60 inch square minimum with arms and base 36 inches wide minimum. Each arm of the T shall be clear of obstructions 12 inches minimum in each direction and the base shall be clear of obstructions 24 inches minimum. The space shall be permitted to include knee and toe clearance complying with accessibility regulations only at the end of either the base or one arm.

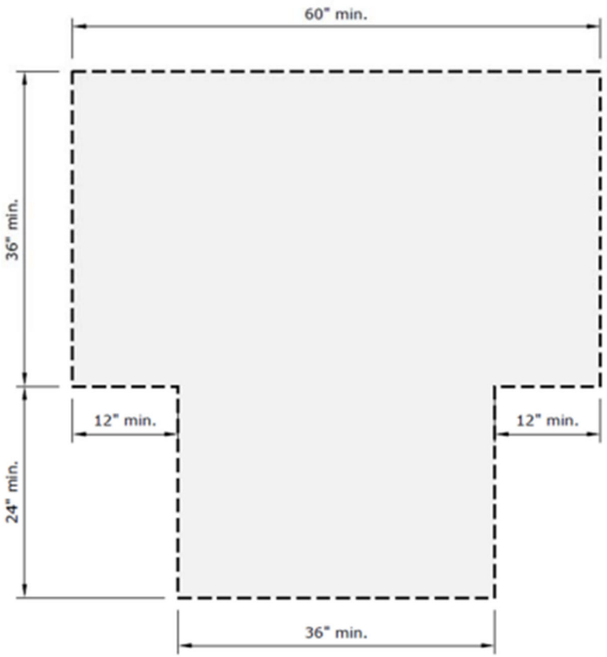

FIGURE 3-5 T-SHAPE TURN SPACE

- Warning Curbs: A 6-inch-high warning or concrete curb shall be provided along the sidewalk monolithic curb edge where there is an abrupt change in elevation exceeding 4 inches in a vertical dimension along adjacent surfaces. A warning curb is not required between a sidewalk and an

adjacent street or driveway or when a guardrail or handrail is provided with a guiderail centered 2 inches minimum and 4 inches maximum above the surface of the sidewalk.
- Curb ramps will be discussed on Chapter 6, "Intersection Design and Operations", Section 6.4.2, "Curb Ramps".

References:

- California Building Code, International Code Council, 2022
- PROWAG, US Access Board, 2023
- 2010 ADA Standards for Accessible Design, Department of Justice, 2010

3.4.2.4 Innovative Sidewalks

Innovative sidewalks may be considered for area enhancement and to accommodate existing features such as mature trees. They may be approved on an individual basis provided they are located within the street ROW and maintenance of the area between the sidewalk and curb is provided by special assessment district or other agreement with the City of San Diego. All other requirements shown in the City's Standard Drawings, including compliance with 1.5 percent grading. Sidewalks and the pedestrian path shall be parallel to the curb to the greatest extent possible.

3.4.2.5 Surfaces

The following standards and guidelines apply for surfaces:

- All surfaces shall be stable, firm, and slip resistant with a minimum static coefficient of friction of 0.5.
- Surfaces along accessible routes shall be free of gratings whenever possible, including tree grates. Horizontal openings in gratings and joints shall not be more than 0.5 inch and elongated openings in gratings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.
- Vertical surface discontinuities shall be 0.5 inch maximum. Vertical surface discontinuities between 0.25 inch and 0.5 inch shall be beveled with a slope not steeper than 50 percent. The bevel shall be applied across the entire vertical surface discontinuity.
- Where feasible, porous pavement should be considered. Porous pavement must adhere to Chapter 12 "Green Infrastructure" of the City of San Diego's Drainage Design Manual.

3.4.2.6 Construction

The following design standards apply for sidewalk construction:

- Sidewalks shall be constructed in accordance with the City's Standard Drawings.
- Utility access panels within sidewalks shall be slip resistant and flush mounted, and they must not include holes greater than 0.25 inches.

- Throughout the city, contractors stamp the work with their names and the date of construction on the sidewalk. In addition to the contractors' stamp, the name of the street is often imprinted into the curb. In many of the city's older neighborhoods these street names may not be the current names of the streets. However, these markers are an indicator of the age of a particular neighborhood and provide a sense of continuity and history for the residents. When existing sidewalks are being repaired or replaced, existing sidewalk stamps and imprints shall be retained in place or placed into the new sidewalk work.

3.4.3 Furnishings Zone

The Furnishings Zone accommodates street trees and landscaping. It is the zone that provides the buffer between the active pedestrian walking area, the Throughway Zone, and street traffic. Street trees, tree grates, street furniture, utility poles, electrical transformers, utility pedestals, storm water green infrastructure, parking meters, fire hydrants, bicycle racks, and the like are consolidated in this zone to keep them from being obstacles in the Throughway Zone.

Planting in this zone must comply with the standards and guidelines in this manual and the landscape regulations in the Municipal Code, Landscape Standards, and the San Diego Tree Selection Guide, particularly in the case of street tree planting areas. The placement of the aforementioned elements must comply with the Land Development Code, San Diego Municipal Code, ADA, PROWAG, CBC regulations, and applicable Council policies. Generally, any landscaping installed within the right-of-way is to be maintained by the adjacent property owner or a Maintenance Assessment District.

Installing pedestrian pop-outs is an effective way to increase sidewalk space. The dimensions of the Furnishings Zone must consider the speed of traffic and whether street parking is provided.

Street furnishings add character and interest to the Parkway Zone. Transit stops with shelters can also be found in the Furnishing Zone. These are typically located on the curb side of the Parkway Zone and can include seating, lighting, street trees, signage and wayfinding, artwork, transit shelters or benches, and bicycle parking.

Considerations:

- Refer to the Land Development Manual Appendix T: Mobility Choices Regulations: Implementation Guidelines for additional information on how these elements can apply as VMT reduction measures.
- Partnerships between City agencies and business or neighborhood groups are a powerful tool for installing and maintaining abundant and varied furnishings throughout the City's diverse land uses and neighborhoods. Other creative financing opportunities include bench sponsorship programs and incentives to business owners for the installation and maintenance of public amenities outside their businesses. These methods can support broader streetscape improvements such as seating, trees, landscaping, wayfinding signage, and lighting.

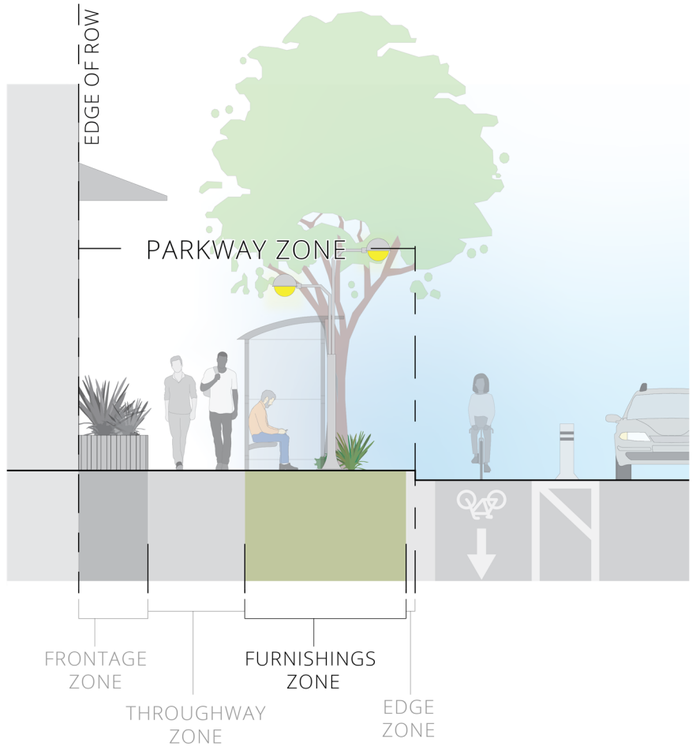

FIGURE 3-6 FURNISHINGS ZONE

Standards and Guidelines:

- Street furniture and above-ground appurtenances placed in the public ROW shall conform to the requirements set forth in the ADA, California Title 24 regulations, PROWAG, the San Diego Municipal Code and applicable policies, regulations, and standards.
- The selection of street furniture products, including seating, planters, bollards, and trash receptacles, must be durable, decorative and able to withstand inclement weather. Sustainable or recyclable materials are preferred.
- Maintenance shall be assured by either an Encroachment Maintenance and Removal Agreement or by inclusion in a maintenance assessment district.
- Street furniture and above-ground appurtenances shall be located in a fashion that preserves the safety, integrity, and layout of the pedestrian passageway and assures that public use of the sidewalk is not unreasonably restricted.
- Permanently affixed streetscape amenities must minimize impacts on water runoff.
- Where tree grates are located along sidewalks, they shall either:

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  - be covered by tree grates per current City Standards, or
  - the finish grade of the tree well shall not be lower than 4" as measured from the sidewalk surface otherwise, a 6" warning curb or planter wall shall be provided around the tree well.

- Streetscape design elements, including street furniture and artwork, should be selected to provide a cohesive environment and identifiable character. Color and material selection that enhances a unified street furniture "look" is encouraged.
- Transit-related standards and guidelines will be discussed in Section 3.7.2.

3.4.3.1 Public Seating

Public seating contributes to an active pedestrian environment by enhancing the role of the sidewalk as an enjoyable public space. Seating serves short-term needs to rest or wait, and it also fosters socialization and enjoyment of the urban environment. Examples of public seating include fixed benches, sitting rounds, seats built into other amenities like landscape planters, and even movable chairs and tables.

Benefits:

- Activates and enlivens the sidewalk environment.
- Forms active social spaces, especially when grouped in areas of higher pedestrian activity.
- Provides valuable places for pedestrians, especially those with limited mobility or caring for children, to rest along the path of travel.
- Contributes to economic vitality by creating a pedestrian-oriented environment that is attractive for shopping.

Considerations:

- Providing well-distributed seating furniture is especially important in areas with high concentrations of pedestrian activity and on streets with pedestrian-oriented destinations.
- Seating design should consider the characteristics of the surrounding neighborhood and contribute to a sense of place and neighborhood character.
- Seating is especially valuable in shaded areas, preferably under trees.
- Benches that provide full back support and armrests to assist in sitting and standing are more usable by persons with disabilities.

Standards and Guidelines:

- Seating must not impede ADA clear widths. This determination must account for the seated persons' utilization of space beyond the boundaries of the seating element such as stretching out legs or setting down shopping bags.
- Seating must not conflict with access to building entries, door maneuvering clearance, loading zones, parked vehicles, driveways, and fire hydrants.

- At least 50 percent, but no less than one, of benches at each location shall be accessible and provide clear space. The clear space shall be located either at one end of the bench or shall not overlap the area within 1.5 ft from the front edge of the bench. Benches at tables are not required to comply.
- Poorly located seating is often under-utilized seating; proper locational placement must be ensured so that seating fixtures are situated in areas where people would like to-or need to-be seated.
- Seating may be located anywhere within the Parkway Zone as long as the minimum ADA clear width is maintained. Benches and other seating areas are most commonly located in the Furnishings Zone; are a primary component of many curb extensions in the Flex Zone; and can also be located in the Frontage Zone, where users benefit from an added buffer from the roadway.
- Business and building owners, Business Improvement Districts, and neighborhood groups are encouraged to install and maintain public seating fixtures as a public benefit.
- Benches to accommodate transit users should be provided at all transit stops.

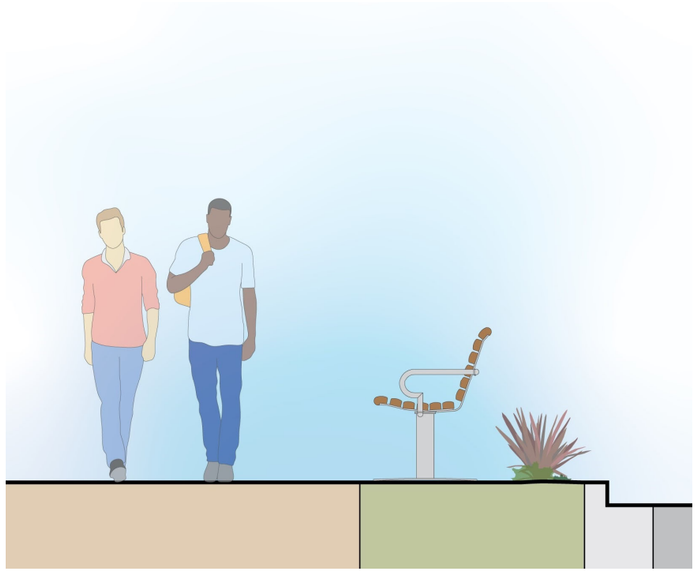

FIGURE 3-7 PUBLIC SEATING

3.4.3.2 Sidewalk Cafes

The City of San Diego Spaces as Places Design Manual defines outdoor dining within the Parkway Zone as Sidewalk Cafes. Sidewalk Cafes are outdoor dining spaces located within the Parkway area of the public right-of-way that are associated with adjacent eating and drinking establishments. Outdoor eating and drinking establishment areas located on private property are not subject to the Sidewalk Café regulations.

Refer to the *Spaces as Places Design Manual* and SDMC §141.0621 for location, design, accessibility, and fire code standards.

3.4.3.3 Recreation Areas

Exercise and recreation equipment may be incorporated into the Furnishings Zone. This provides an opportunity for people to engage in healthy outdoor activities within their communities.

Standards and Guidelines:

- Equipment must be installed such that while in use it is not impeding pedestrian flow or extending within two feet of the Edge Zone.
- Equipment should be accessible to as many people as possible and take into consideration a variety of abilities including those in wheelchairs or with limited mobility.

Refer to the ADA Standards and Section 2.13 of the *Consultant's Guide to Park Design and Development* for more information.

3.4.3.4 Signage/Wayfinding

Wayfinding is a tool that helps people navigate from place to place. In the context of a mobility hub, these places might include transit stations, civic and community buildings, parks, and more. Static and interactive signs can provide maps and directions to points of interest, transit schedules and routes, and other information on available mobility services and facilities. This mobility hub feature can exist throughout the five-minute walk, bike, and drive distance and be customized based on user type and travel mode. Additional discussion for interactive signage and wayfinding will be included in Section 3.4.3.5 "Parking Signage and Information".

Signage comes in various forms. Depending on the given circumstances, these signs may make drivers aware of their surroundings. Upon leaving a major arterial, many people do not recognize when they enter a residential (lower speed) neighborhood. Installing speed limit signs can notify drivers that they have entered a residential neighborhood.

Standards and Guidelines:

- Traffic signs must be coordinated with the Transportation Department and adhere to California Manual on Uniform Traffic Control Devices (CA MUTCD) standards.
- Break-away signposts must conform to standards in Standard Drawing SDM-104.
- The signage and wayfinding lettering and symbols must be scaled for the intended user and accessible for all users.
- Signage shall comply with the ADA, PROWAG and CBC Title 24 Standards.

- "School Zone" signs are installed at appropriate locations to remind drivers that there is a school and there are children in the vicinity. See Chapter 7B of the CA MUTCD for additional school signage discussion and requirements.
- Place wayfinding in visible and predictable locations, such as overhead or at eye-level. Placement should consider the growth of nearby trees when determining line of sight.
- Maps, routes, and other wayfinding should be prominent at transit stations and stops, especially high-volume, high-activity, or transfer stops.
- Wayfinding should either:
    - Utilize standard City signage per CA MUTCD Section 2D.50, or
    - Reflect the character of the community in which it is installed, to the satisfaction of the City Engineer.

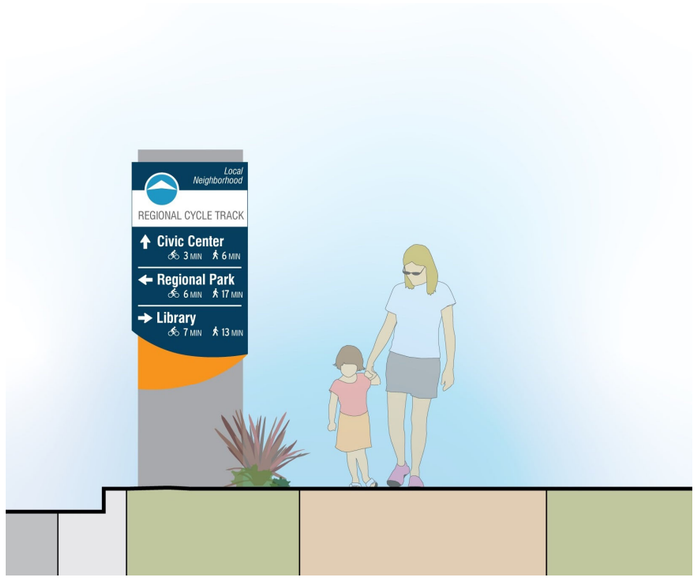

FIGURE 3-8 WAYFINDING SIGNAGE

References:

- 2010 ADA Standards for Accessible Design, Department of Justice, 2010
- CA MUTCD Rev. 8, Caltrans, 2018
- Mobility Hub Features Catalog, SANDAG, 2017
- PROWAG, US Access Board, 2023
- Standard Drawings for Public Works Construction, City of San Diego, 2021
- The "Whitebook", City of San Diego, 2021
- Title 24, International Code Council, 2022
- Traffic Calming Guidelines, City of San Diego, 2010

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3.4.3.5 Parking Signage and Information

Parking signage and wayfinding provides information on parking availability, location, and price.

Benefits:

- Providing information on parking availability, location, and price can help manage the parking supply by helping people understand their parking options.

Considerations:

- Digital signage can provide real-time updates on parking availability, particularly for off-street parking. This helps to manage parking supply and reduce VMT for people circling looking for parking.
- Variable metered parking information can be displayed on signage or coordinated with phone applications.

FIGURE 3-9 DIGITAL PARKING SIGNAGE

Location: City of Santa Monica
Source: Selbert Perkins Design

3.4.3.6 On-Street Electric Vehicle Charging Stations (EVCS)

An electric vehicle charging station (EVCS) gives people the opportunity to charge plug-in electric vehicles (EVs) while parking near their home or destination. Battery-powered electric vehicles, plug-in hybrid

electric vehicles, and electric vehicle conversions of hybrid or internal combustion engine vehicles are examples of EVs. Passenger cars, microtransit vehicles, shuttles, and large transit buses can all be EVs. They are critical to California's zero emission vehicle (ZEV) planning.

Benefits:

- On-street EVCS provide a convenient way to charge EVs while on the go.
- Reduces the need for individuals to install home ECVS thereby reducing some of the up-front costs which can be a deterrent to individual investment

Considerations:

- There are three levels of car chargers based on voltage. Level 1 chargers (120V) are the slowest and least expensive and provide 2-5 miles of charge per hour of charging time. Level 2 chargers (240V) add about 20 miles of range per hour of charging time. Level 3 chargers also referred to as DC Fast chargers (480V) are the fastest charging currently available and add 50 to 70 miles of range in approximately 30 minutes. It is recommended that for on-street EVCS, Level 2 or 3 chargers are installed unless long dwell times are anticipated.
- Minimizing the distance of the EV chargers from the point of power connection can keep the cost of installation low.
- Placing EV charging where employees/residents/guests are most likely to use it (e.g., near the building they work or live in) is preferable, particularly if the location also is close to the point of power connection.
- Running power to EV chargers in surface mounted conduit (often acceptable in parking garages) or through landscape areas, as opposed to asphalt and concrete, can keep the cost lower.
- All Level 2 EV charging equipment must be ENERGY STAR® certified to be eligible for CALeVIP rebates. All DC fast charger equipment must be Open Charge Point Protocol (OCPP) certified to be eligible for CALeVIP rebates.
- Cellular, Wi-Fi, or ethernet communication availability must be considered to enable any 'smart' features of electric vehicle charging stations, such as load management and station reporting.
- Driver confidence and vehicle utility relate directly to the ability to charge when needed. Jurisdictions can help ensure charging spaces are used for charging through signage and enforcement by installing tow-away signs at charging spaces along with clearly striping and marking the associated pavement.
- Consider implementing variable pricing based on time of day or other factors.
- Depending on locations, EVCS spaces may be provided with canopy solar panels. Refer to City policies, PROWAG, and CBC for requirements and guidelines.

Total Number of EVCS at a Facility[1]	Minimum Number (by type of EVCS Required to Comply with CBC, Title 24, and PROWAG)		
	Van Accessible	Standard Accessible	Ambulatory
1 to 4	1	0	0
5 to 25	1	1	0
26 to 50	1	1	1
51 to 75	1	2	2
76 to 100	1	3	3
101 and over	1 plus 1 each 300 or fraction thereof, over 100	3 plus 1 each 60 or fraction thereof, over 100	3 plus 1 each 50 or fraction thereof, over 100

TABLE 3-1 REQUIRED NUMBER AND TYPE OF ACCESSIBLE EVCS SPACES

1. *Where an EV charger can simultaneously charge more than one vehicle, the number of EVCS provided shall be considered equivalent to the number of electric vehicle that can be simultaneously charged.*

Source: 2019 California Building Code

Standards and Guidelines:

- Sites for installation locations should consider whether it will provide a safe customer experience, be easily accessible for drivers, contain sufficient space for charging stalls and supporting equipment, and whether it will be proximate to commute routes, amenities, and utility lines.
- Electric vehicle charging is a service provided by the facility owner or public entity, and therefore must be accessible to persons with disabilities.
- Refer to the accessibility provisions for the accessible route requirements serving accessible EVCS spaces. Check the PROWAG and CBC.
- An electric vehicle may not need to charge every time it is parked, so public and common use charging stations are charging spaces, not parking spaces.
- While an electric vehicle needs to be parked to charge, charging (not parking) is the primary purpose of a charging station.
- Accessible chargers must be installed according to any applicable PROWAG and CBC. In addition, at minimum, accessible routes require 30"x48" floor clearance adjacent to the charger face. The height of operable parts on accessible chargers shall not exceed 48". The horizontal reach depth to operable parts shall not exceed 10".
- EVCSs on a public street should be designated for the exclusive use of charging and parking a vehicle that is connected for electric charging. Signage should indicate which spaces are designated for EV charging only.
- Accessible spaces should be designated by appropriate signage. "Use last" signs may indicate that accessible charging spaces may be used by any driver but should be used last by non-disabled drivers. The U.S. Access Board has designed the examples below, which would not require the accessible charging spaces to be reserved exclusively for persons with disabilities with a parking placard or license plate.
- Installation of EVCSs should be coordinated with San Diego Gas & Electric (SDGE) and comply with the SDGE Electric Vehicle Supply Equipment Standards where applicable.

FIGURE 3-10 ELECTRIC VEHICLE CHARGING SIGN

FIGURE 3-11 ELECTRIC VEHICLE ACCESSIBILITY CHARGING SIGN

Source: U.S. Access Board

References:

- California Building Code, International Code Council, 2022
- California Electric Vehicle Infrastructure Project (CALeVIP), California Energy Commission
- Electric Vehicle Charging Station Permitting Guidebook 2nd Ed, Office of Business and Economic Development, 2023
- PROWAG, US Access Board, 2023
- Vehicle Supply Equipment Standards, San Diego Gas & Electric (SDGE), 2023

3.4.3.7 Artwork in the ROW

Art in the right-of-way involves integrating artwork and other creative elements and cultural events and experiences within public spaces such as sidewalks, streets, and plazas. These activations aim to promote a sense of place within a community, foster engagement and connectivity, and promote cultural expression and animate the public realm. Artworks can be integrated into right-of-way infrastructure in a variety of forms such as street furnishings, lighting, performance, temporary installations, wayfinding, and paving materials and surfaces. The City's Public Art Program enables the design and implementation of public art in eligible active transportation infrastructure to create visible and community-centered spaces for users. Additional interdepartmental coordination and planning and inter-agency collaboration with SANDAG, MTS and CALTRANS can ensure the implementation of the City's Public Art Master Plan and

future citywide cultural plan to expand art activations, linkages with cultural amenities and creative placemaking within transportation and mobility projects.

Standards and Guidelines:

- Design, installation, maintenance, and removal must be coordinated with sponsoring agencies or groups.
- The artwork's placement must not compromise the clear Throughway Zone.
- Artwork should be considered during the planning and design phase of development in order to be more closely integrated with other streetscape elements.
- Artwork should be accessible to persons with disabilities.
- The siting of artwork should maintain all clearances and applicable ADA requirements on protruding objects and clearances per PROWAG.
- Artwork can be incorporated into utilitarian street elements (e.g., landscaping, light standards, benches, trash receptacles, bicycle parking facilities, and utility boxes). This is especially beneficial in areas with high pedestrian volumes such as commercial, civic, and cultural land uses.
- Artwork can also be interactive, encouraging play and recreation. The best art provides these benefits for people of all ages and abilities. Artwork can be situated in a variety of areas and locations, especially on streets and public spaces with high concentrations of pedestrians.
- Art can be located anywhere in the Parkway Zone (except the accessible path of travel) and on exterior building walls that are adjacent to or nearby the sidewalk area as long as it does not protrude into the ROW.
- Art that is publicly accessible or viewable is encouraged on private property.
- Non-commercial murals are encouraged for blank exterior walls that are visible from the roadway.
- Large-scale artwork (e.g., murals or "supergraphics") can be oriented toward roadway users as long as it does not pose a distraction hazard, satisfactory to the City Engineer.
- Artwork including murals proposed for City property or ROW require review and approval by the City prior to their permitting and installation through the approval process from the City of San Diego's Temporary Exhibit of Artwork Toolkit or Mural Toolkit.

References:

- Installation of Murals in Public Right-of-Way (ROW) Pavements and Sidewalks Memorandum, City of San Diego, 2018
- Information Bulletin 568: Placemaking, City of San Diego Development Services Dept, 2018
- Mural Toolkit, Department of Cultural Affairs
- Temporary Exhibit Toolkit, Department of Cultural Affairs

3.4.3.8 Waste and Recycling Receptacles

Well-designed and strategically located receptacles are an essential component of a clean, enjoyable pedestrian environment. Their effectiveness in keeping litter off the streets is largely dependent on their placement, functional design, and volume capacities.

Guidelines:

- Waste and recycling receptacles shall be accessible to persons with disabilities.
- The covers of Waste and recycling receptacles shall be designed to minimize contact of stormwater to the trash in order to prevent leaching pollutants, especially where composting is implemented.
- Waste receptacles, like all street furniture, should be considered a street design element. Their design should complement the design of surrounding street furnishings (including benches, streetlights, bike racks, etc.)
- Waste receptacles should be located near high activity generators such as major civic and commercial destinations, at transit stops, and near street corners.
- At least one waste/recycling receptacle should be located at all transit stops. At stops with higher usage, multiple receptacles may be necessary to ensure that trash is accommodated; these can be either adjoining or separated, depending on stop layout and function.
- Along streets in retail commercial land uses, there should be a maximum of one trash receptacle every 200 feet. Receptacles should be placed outside of corner areas to prevent encroachment into clear spaces and accessible routes required for traffic signals around curb ramps and along the area adjacent to accessible parking spaces. Additional trash receptacles should be provided only if a private sponsor provides continued maintenance.
- Receptacles should generally be located in the Furnishings Zone between the curb and the pedestrian throughway. Receptacles may also be located in the Frontage Zone as long as they do not impede the pedestrian movement. This can work well for businesses who agree to provide continued trash removal.
- Waste and recycling receptacles should be located near street corners but should not inhibit corner visibility. Organics receptacles should be considered in areas with food retail.
- Receptacles should be immovable and bolted to the pavement to ensure that their proper placement is maintained.
- Receptacles should be opaque not mesh or wire baskets and have a top. Attention must be paid to the receptacle's functional design so that there is a large opening to ensure usability while also effectively screening the trash. Trash receptacles should open from the side to allow easy access for removal/replacement of garbage bags.
- Durable, graffiti-resistant materials such as galvanized or stainless steel should be used.
- Solar receptacles (compactors) should be considered for use in high-volume locations. This means that fewer receptacles are necessary in high volume locations, lessening their negative aesthetic effects on the street environment.
- In some locations, trash receptacles are serviced by waste removal companies that do not practice mixed-waste processing (a process in which recyclables are sorted out). In these locations, waste receptacles should be paired with recycling receptacles, and they should be easily distinguishable from one another. Ideally, a single fixture that incorporates two receptacles – one for trash and one for recycling –should be used.
- In areas with high rates of food waste, composting receptacles must be considered.
- Where trash receptacles are provided along with recycling and/or composting receptacles, educational signage should be provided.

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3.4.4 Edge Zone

The Edge Zone (commonly referred to as the "Curb") is the interface between the roadway and the sidewalk. At a minimum, this zone includes the 6-inch-wide curb. In more active, mixed-use areas with on-street parking, this zone should be a minimum of 1 foot 6 inches to accommodate the door swing of a parked car to prevent conflict with elements within the Furnishings Zone. Water and sewer facilities require a minimum of 5 feet horizontal separation between outer diameter to face of curb to allow for trenching and a working area near the trench.

Curb utilization options and opportunities will be discussed in Section 5.3 Flex Zone.

3.5. Parkway Configurations

This section contains the illustrations for the urban (UP) and rural (RP) parkway configurations listed in Chapter 2 Street Types tables: Tables 2-4, 2-8, 2-12, 2-16, 2-20, 2-24, 2-28, 2-32, 2-36, 2-40, 2-44, 2-48, 2-52, 2-56, 2-60, 2-64.

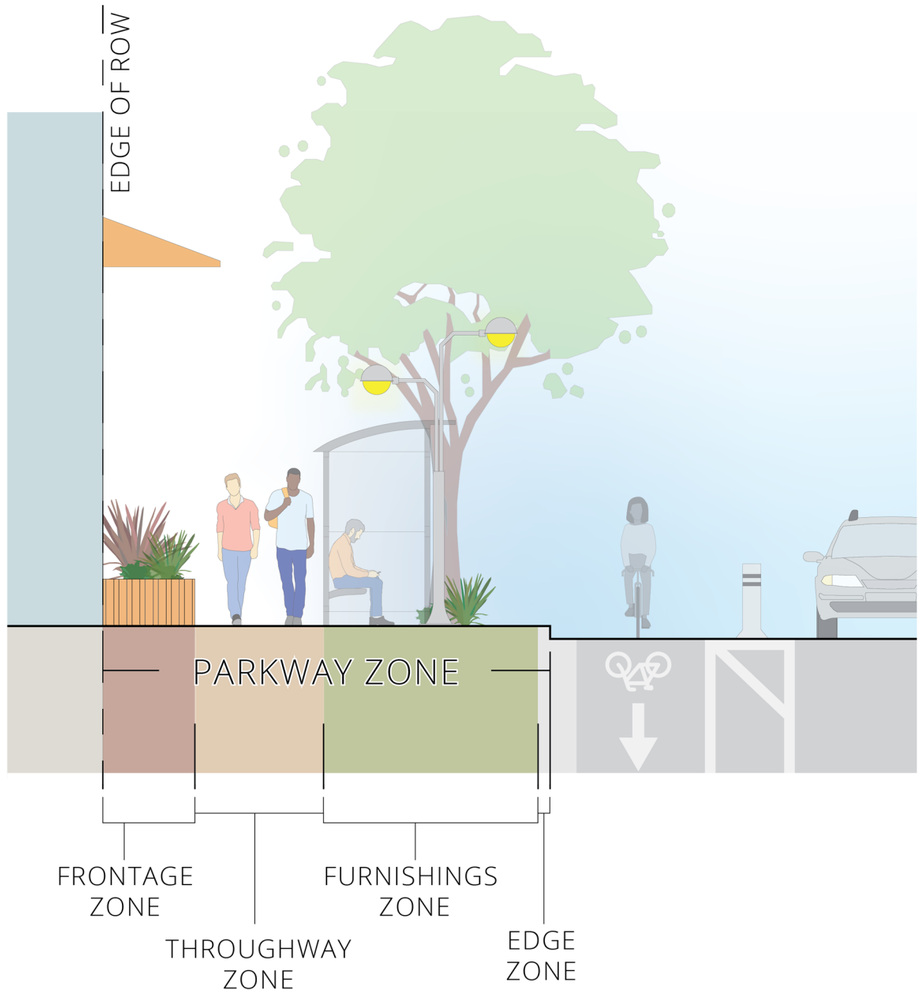


FIGURE 3-12 THE PARKWAY ZONES

3.5.1 Urban Parkway Configurations

Figures 3–13 through 3–23 illustrate relevant urban parkway configurations.

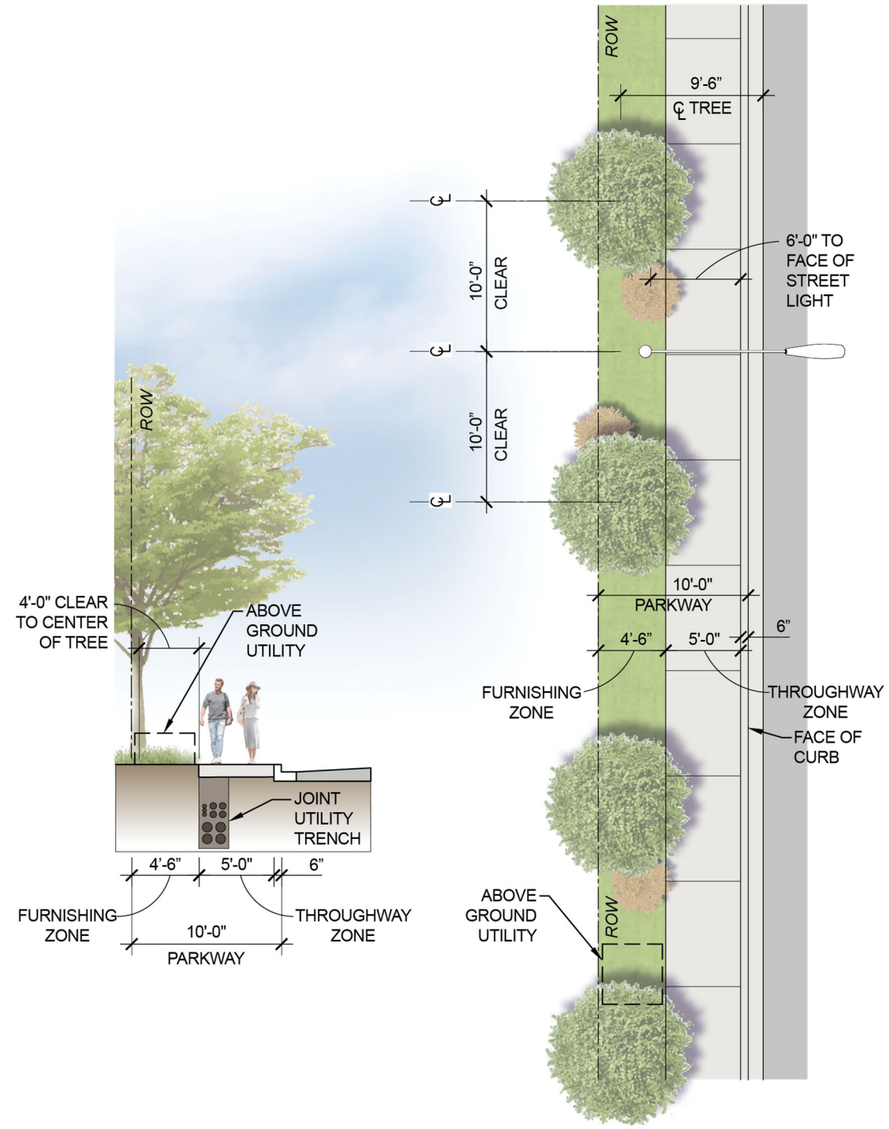


FIGURE 3-13 UP-1: 10’ PARKWAY – CONTIGUOUS SIDEWALK

Note:

1. *All street trees shall conform to SDMC Chapter 14, Article 2, Division 4.*
2. *Canopy trees must be a minimum distance of 4’ away from the building per SDMC 142.0403 (b) (5)*

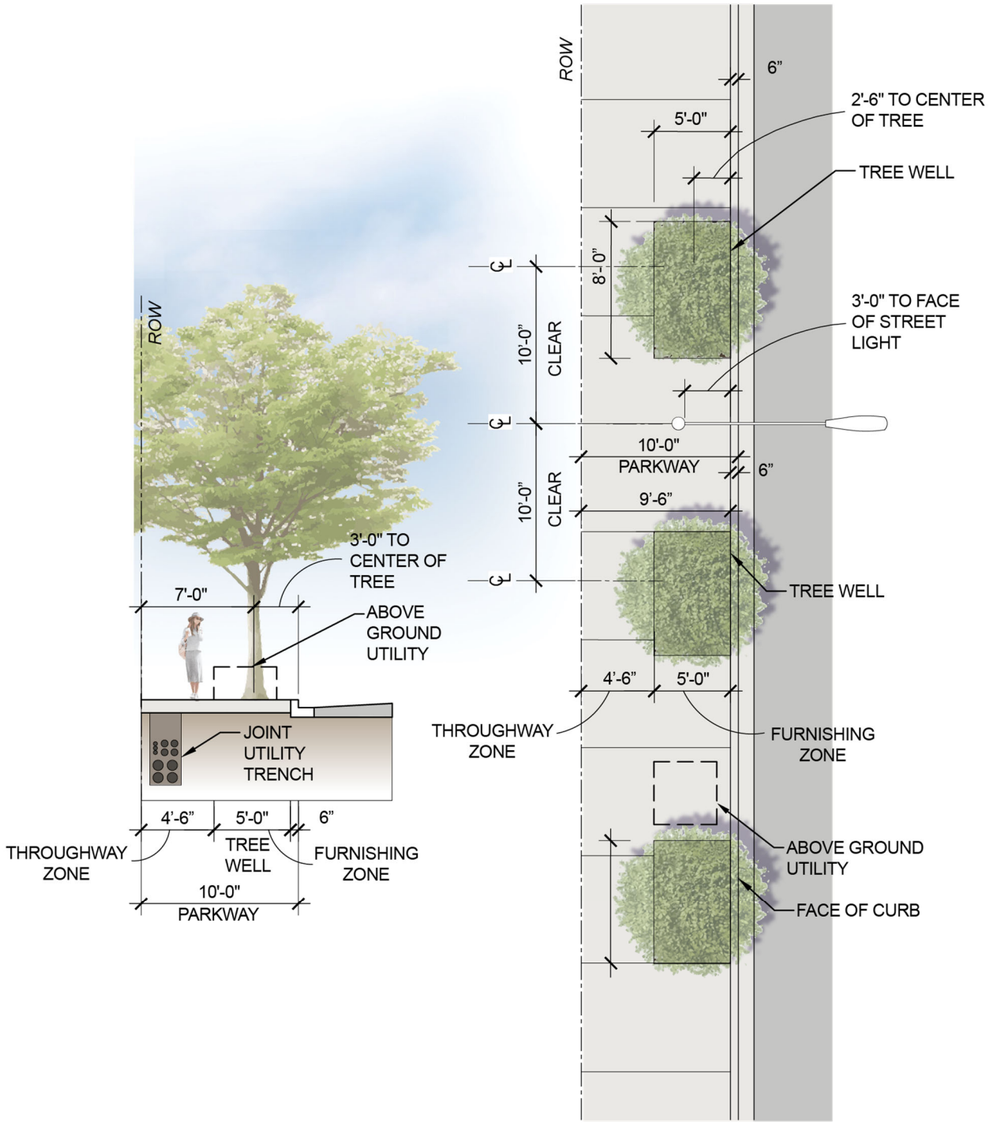


FIGURE 3-14 UP-2: 10’ PARKWAY WITH TREE WELLS

Note:

1. *All street trees shall conform to SDMC Chapter 14, Article 2, Division 4.*

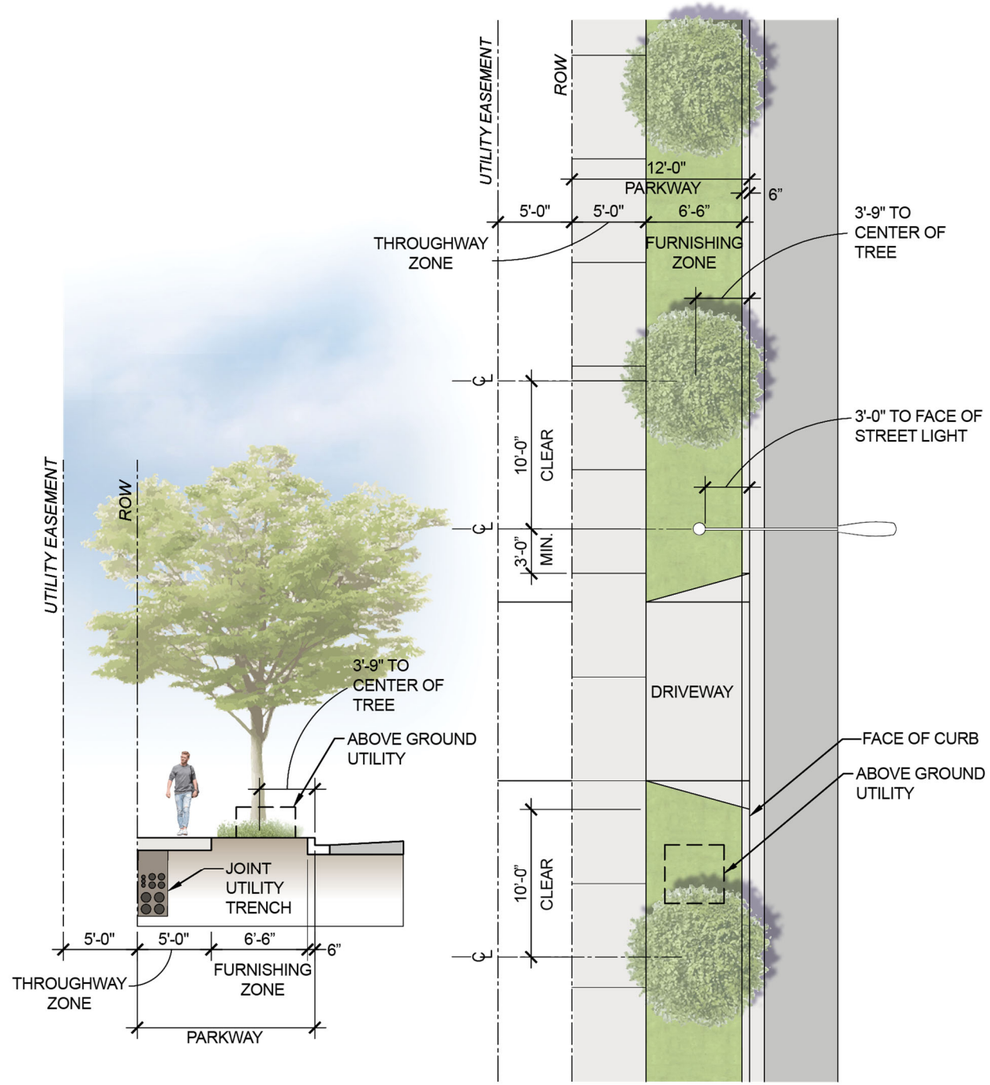


FIGURE 3-15 UP-3: 12’ PARKWAY NON-CONTIGUOUS SIDEWALK

Note:

1. *Reference SDG-164 for required clearance for obstructions near driveways.*
2. *All street trees shall conform to SDMC Chapter 14, Article 2, Division 4.*

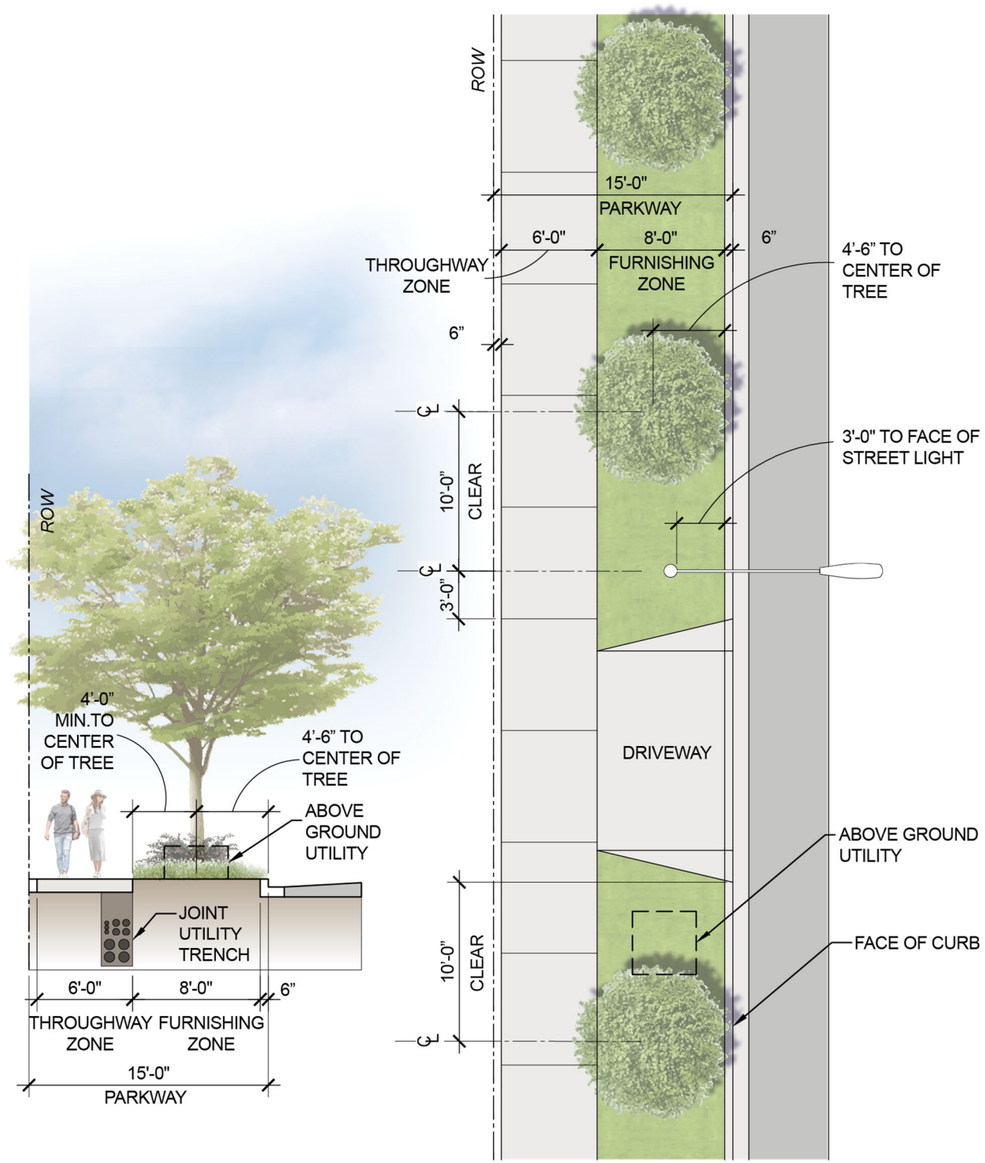


FIGURE 3-16 UP-4: 15' PARKWAY NON-CONTIGUOUS SIDEWALK

Note:

1. *All street trees shall conform to SDMC Chapter 14, Article 2, Division 4.*

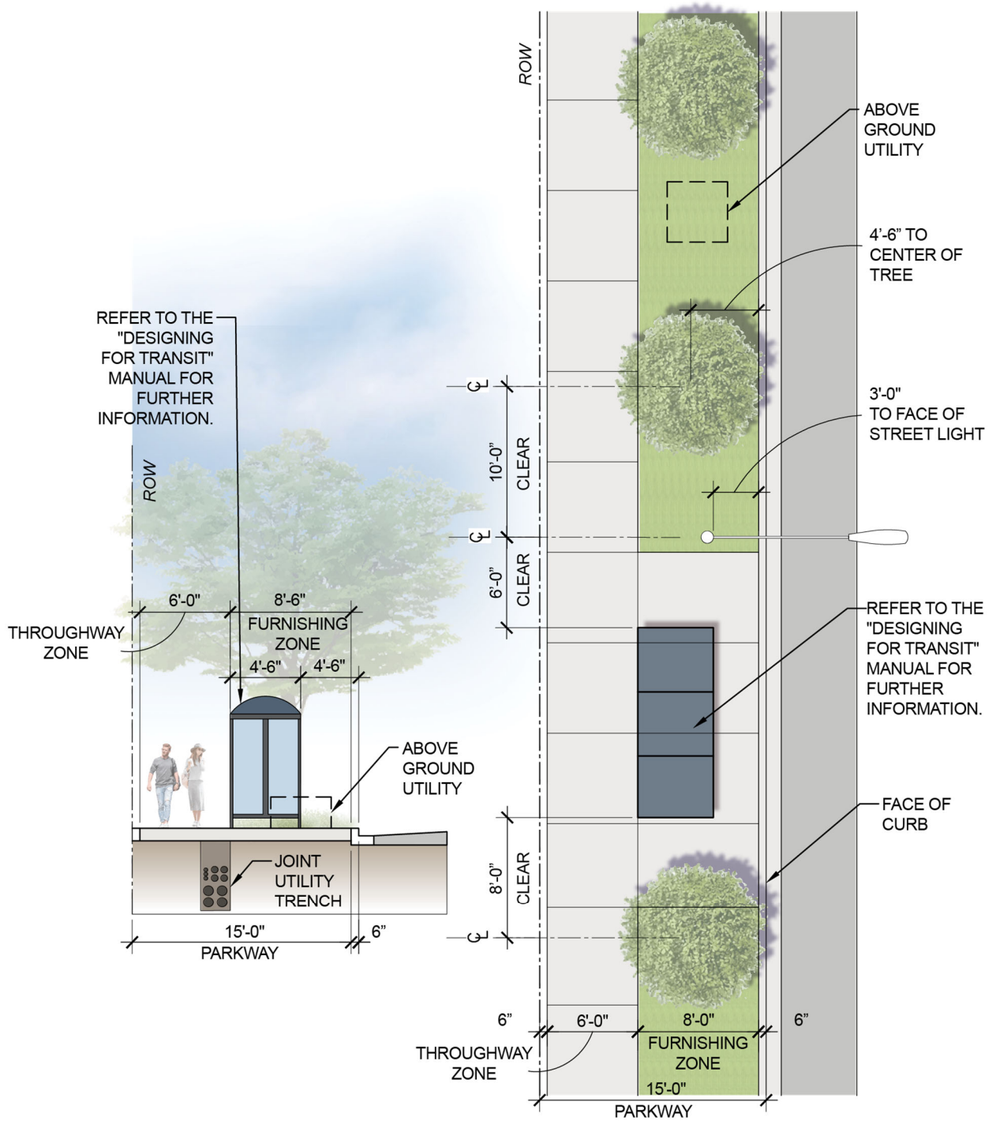


FIGURE 3-17 UP-4T: 15' PARKWAY NON-CONTIGUOUS SIDEWALK WITH TRANSIT AREA

Note:

1. *All street trees shall conform to SDMC Chapter 14, Article 2, Division 4.*

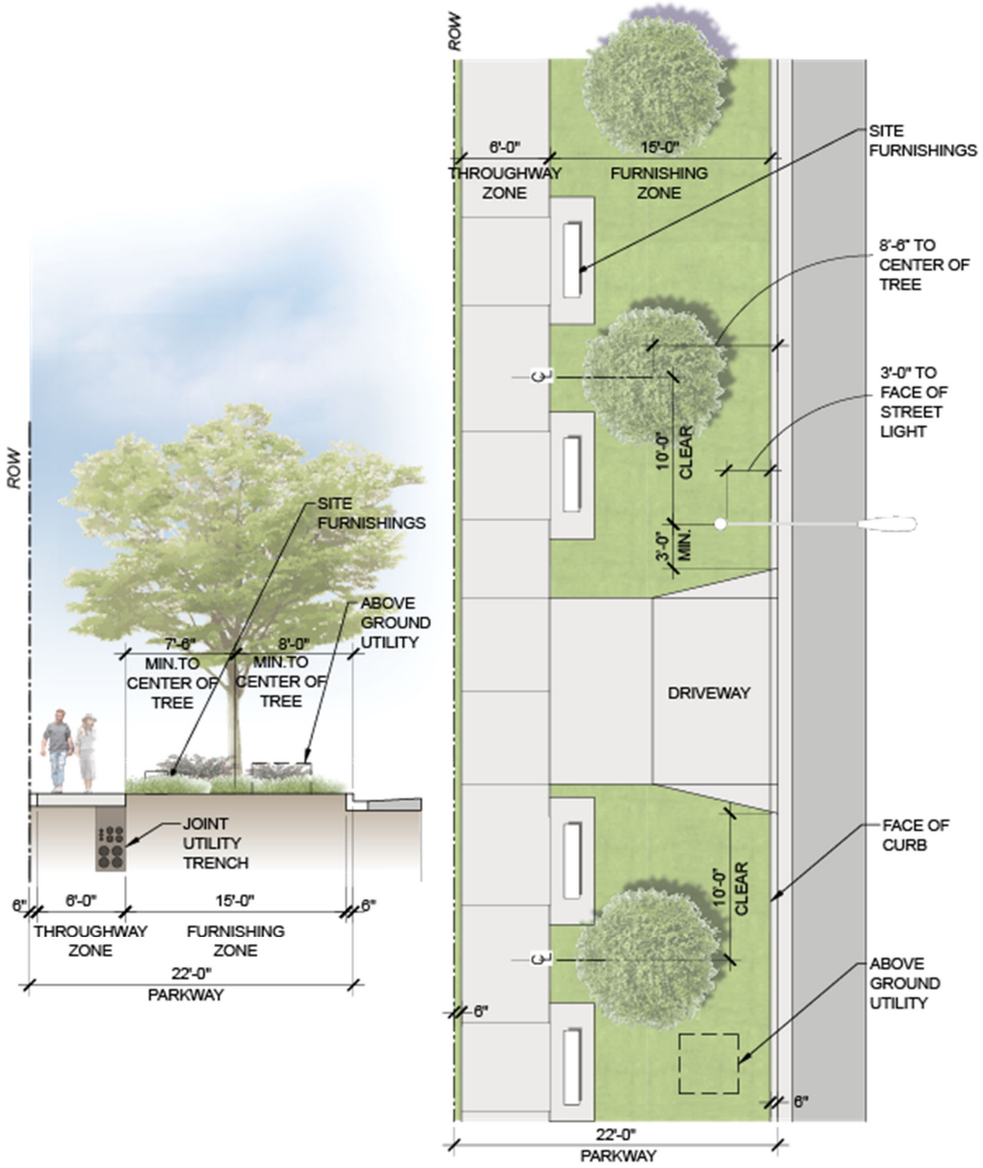


FIGURE 3-18 UP-5: 22' PARKWAY NON-CONTIGUOUS SIDEWALK

Note:

1. *Alternative configuration of sidewalk and landscape strip may be installed subject to approval of City Engineer.*
2. *All street trees shall conform to SDMC Chapter 14, Article 2, Division 4.*

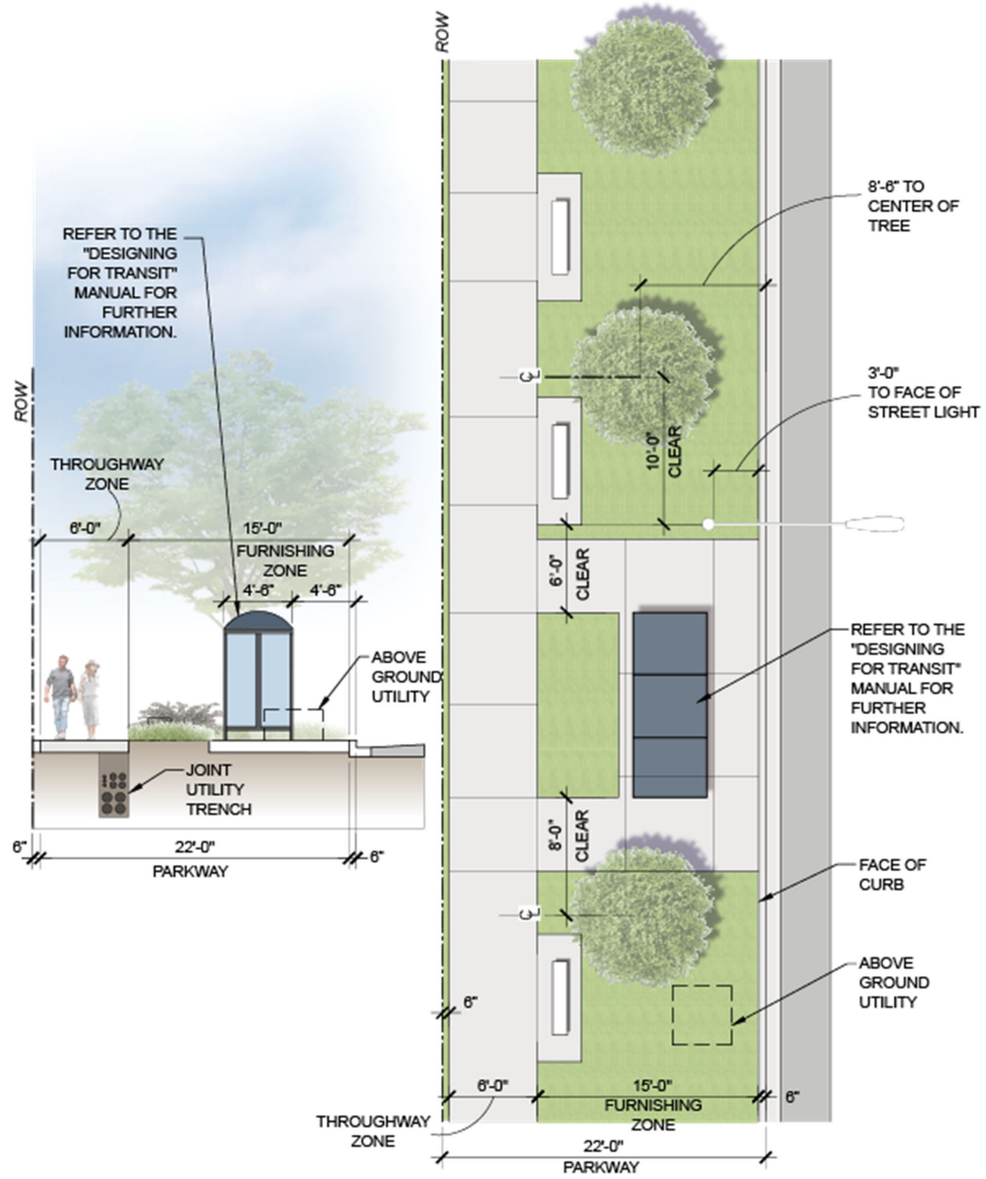


FIGURE 3-19 UP-5T: 22' PARKWAY NON-CONTIGUOUS SIDEWALK WITH TRANSIT AREA

Note:

1. *All street trees shall conform to SDMC Chapter 14, Article 2, Division 4.*

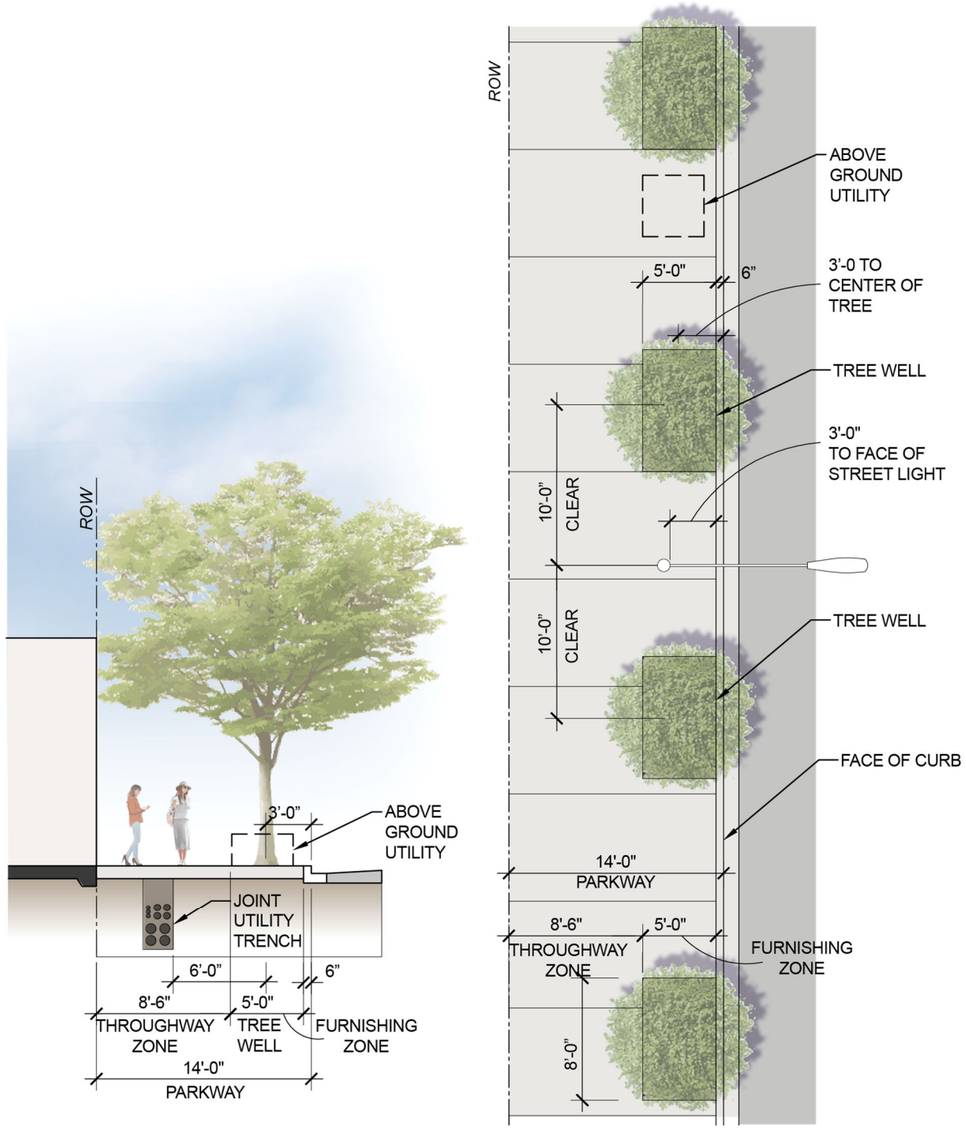


FIGURE 3-20 UP-6: 14' PARKWAY WITH TREE WELLS

Note:

1. *Where storefront furniture is provided, the clear pedestrian path shall not be less than 5'-0"*
2. *All street trees shall conform to SDMC Chapter 14, Article 2, Division 4.*

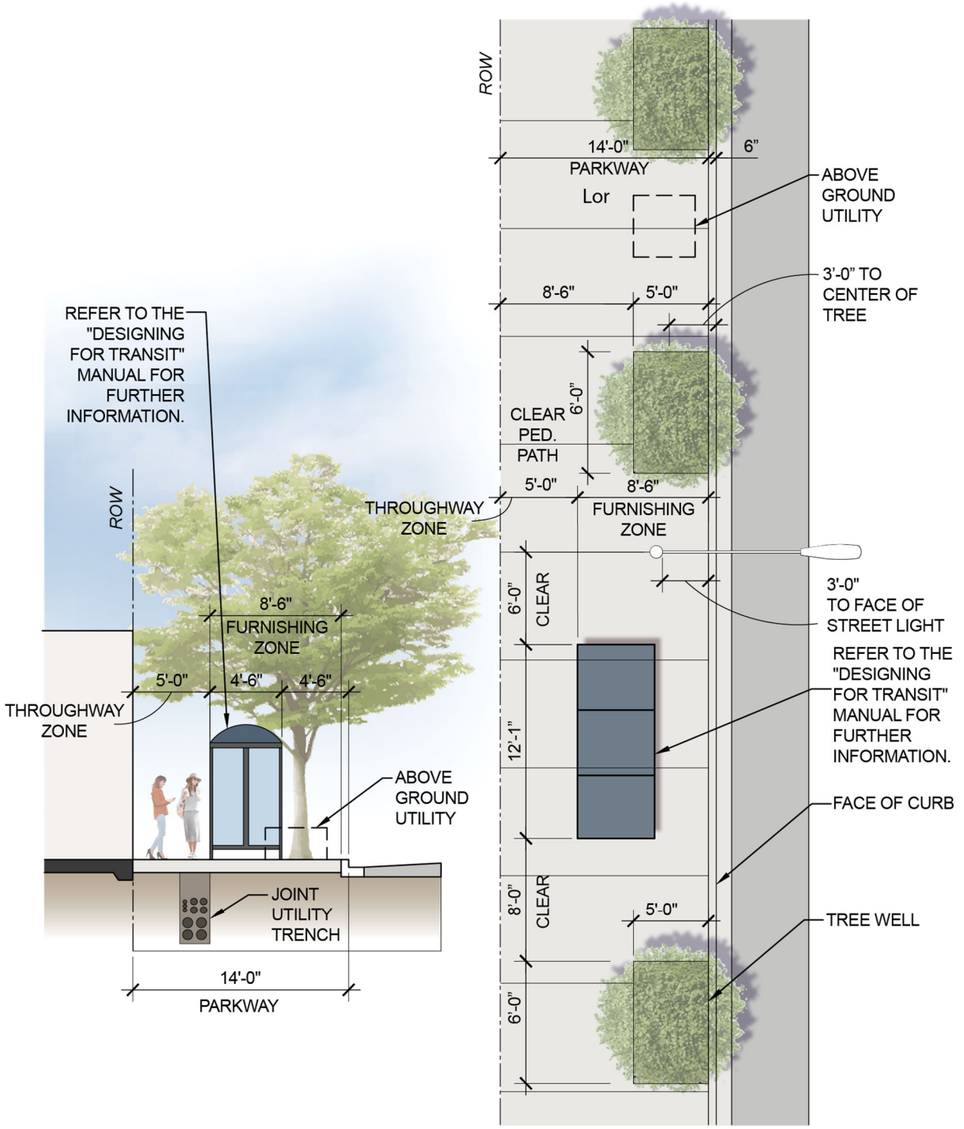


FIGURE 3-21 UP-6T: 14' PARKWAY WITH TREE WELLS AND TRANSIT AREA

Note:

1. *Where storefront furniture is provided, the clear pedestrian path shall not be less than 5'-0"*
2. *All street trees shall conform to SDMC Chapter 14, Article 2, Division 4.*

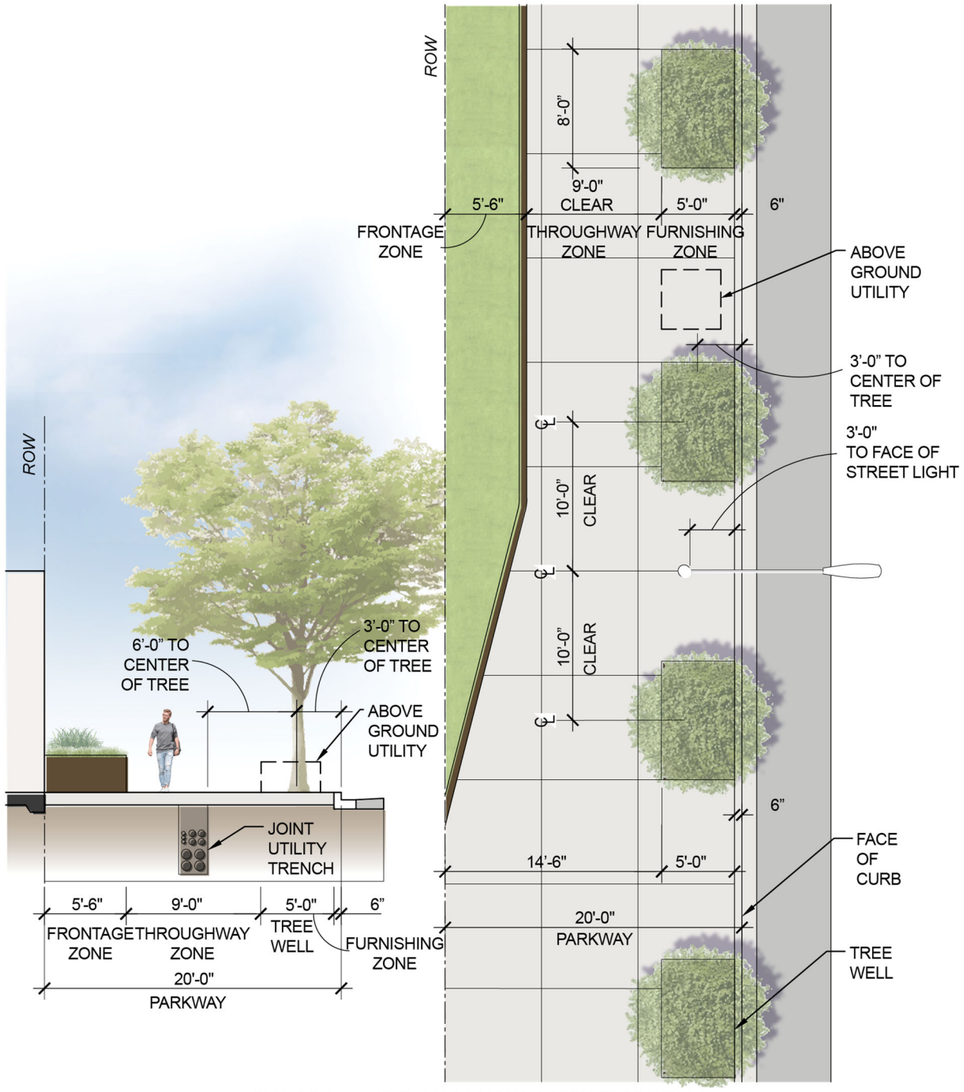


FIGURE 3-22 UP-7: 20' PARKWAY WITH TREE WELLS

Note:

1. *Where storefront furniture is provided, the clear pedestrian path shall not be less than 5'-0"*
2. *All street trees shall conform to SDMC Chapter 14, Article 2, Division 4.*

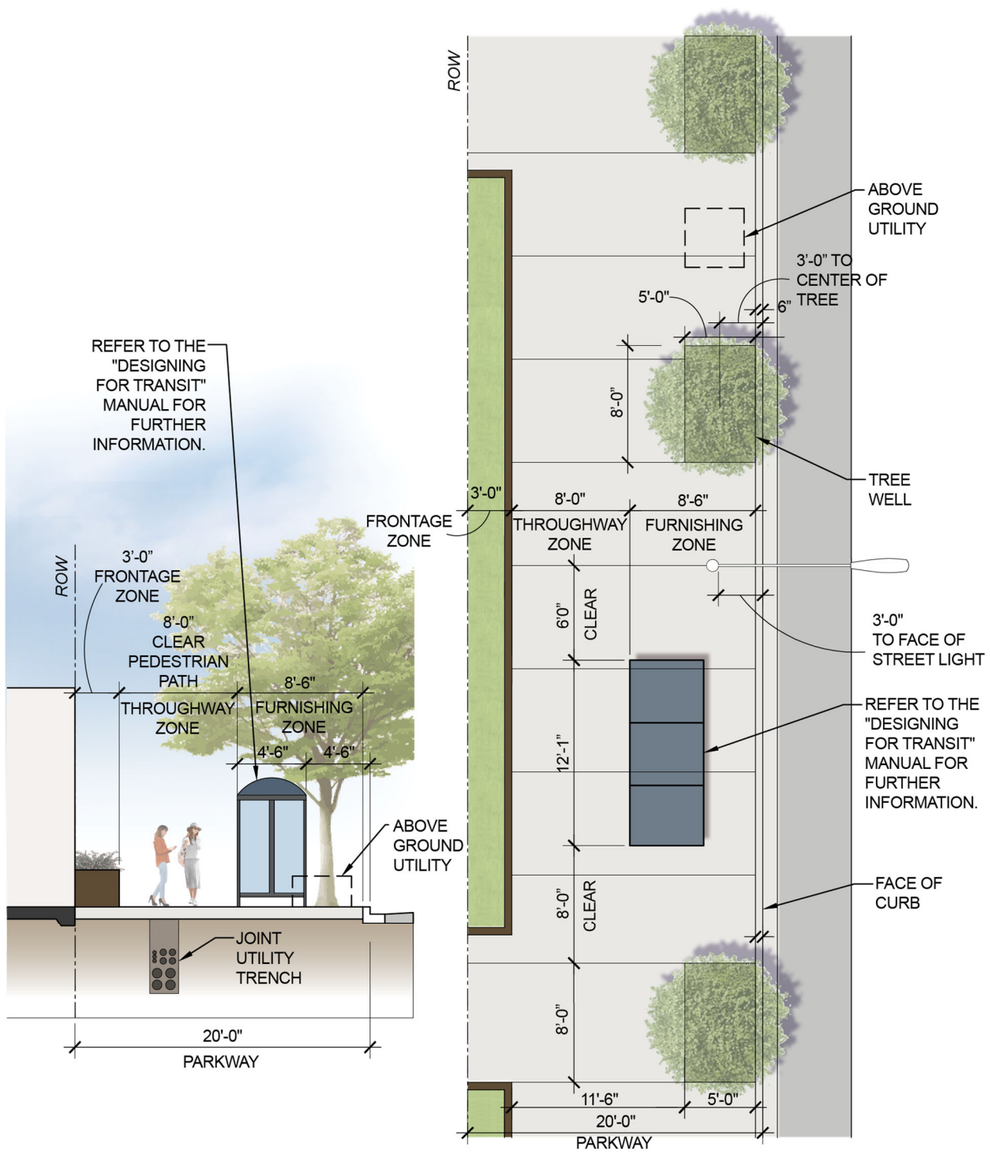


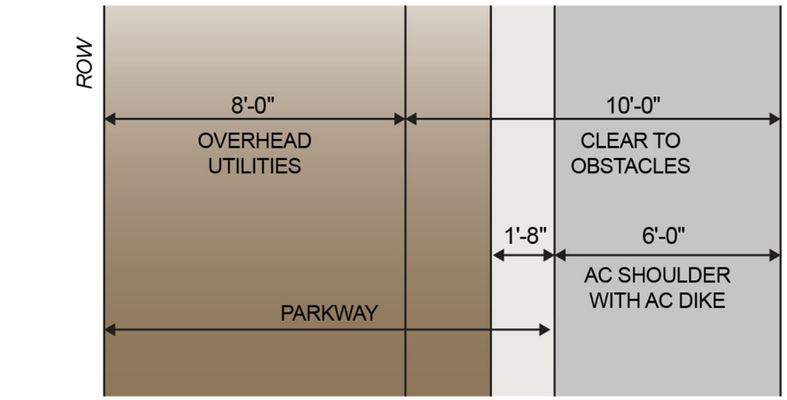
FIGURE 3-23 UP-7T: 20' PARKWAY WITH TREE WELLS AND TRANSIT AREA

Note:

1. *Where storefront furniture is provided, the clear pedestrian path shall not be less than 5'-0"*
2. *All street trees shall conform to SDMC Chapter 14, Article 2, Division 4.*

3.5.2 Rural Parkway Configurations

Figures 3–24 through 3–27 illustrate relevant rural parkway configurations.



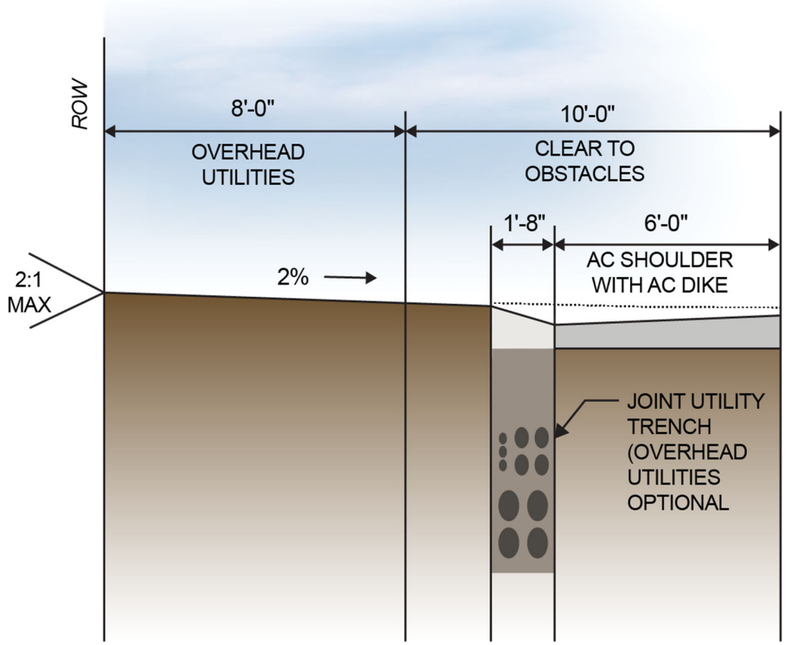
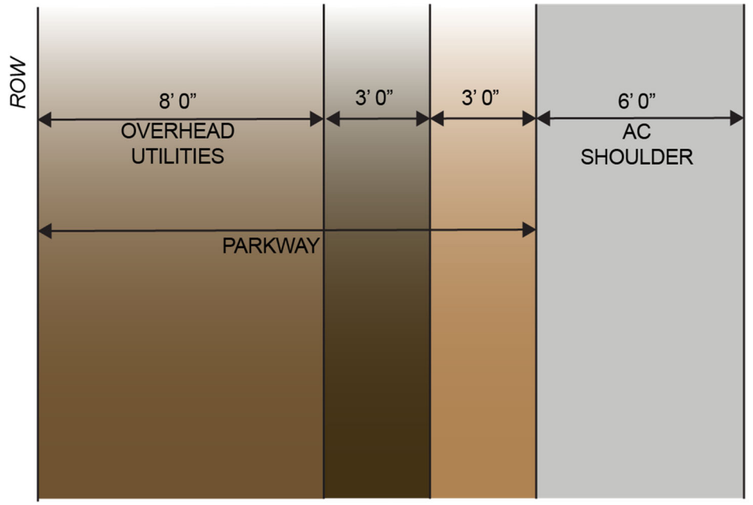


FIGURE 3-24 RP-1: 12’ RURAL PARKWAY

Note: Street trees are typically required at a rate of 1 tree for every 30 feet of frontage along the road.



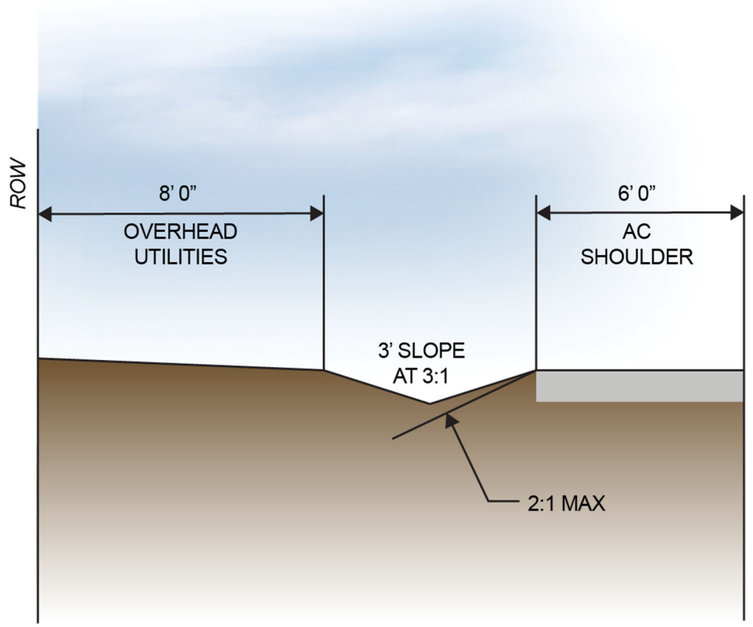


FIGURE 3-25 RP-2: 14’ RURAL PARKWAY

Note: Street trees are typically required at a rate of 1 tree for every 30 feet of frontage along the road.

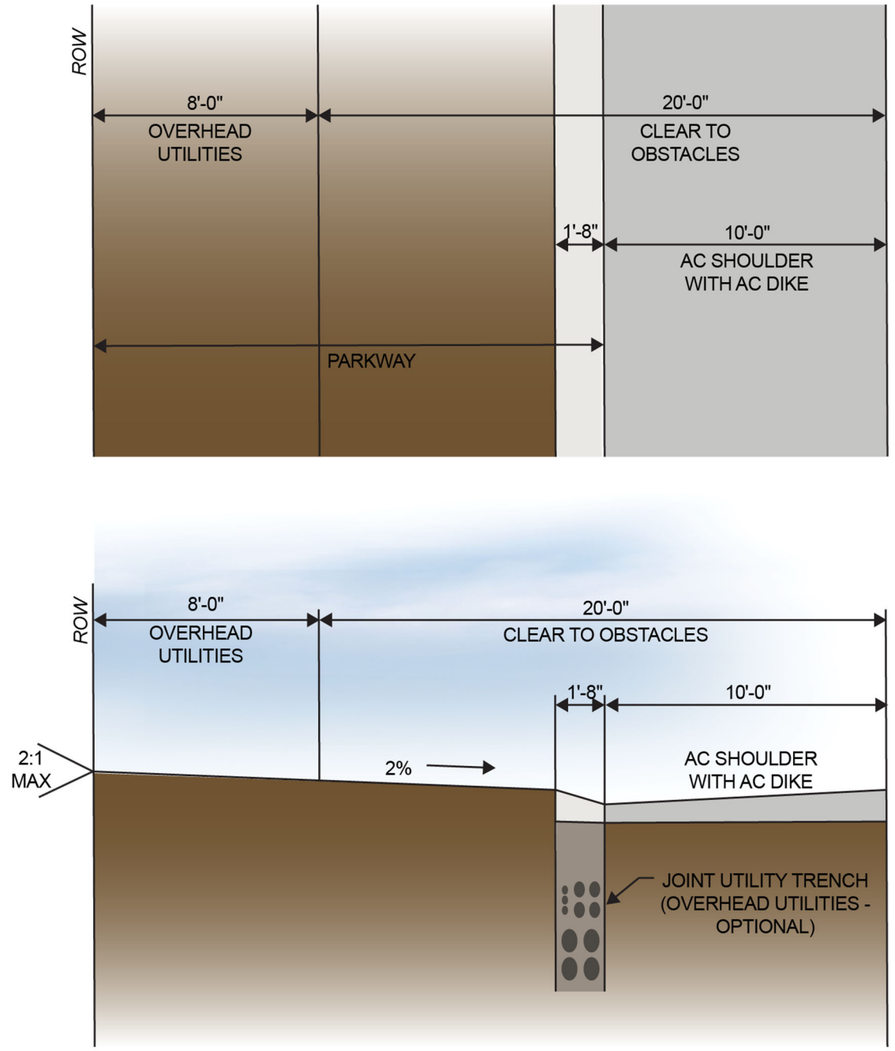


FIGURE 3-26 RP-3: 18' RURAL PARKWAY

Note: Street trees are typically required at a rate of 1 tree for every 30 feet of frontage along the road.

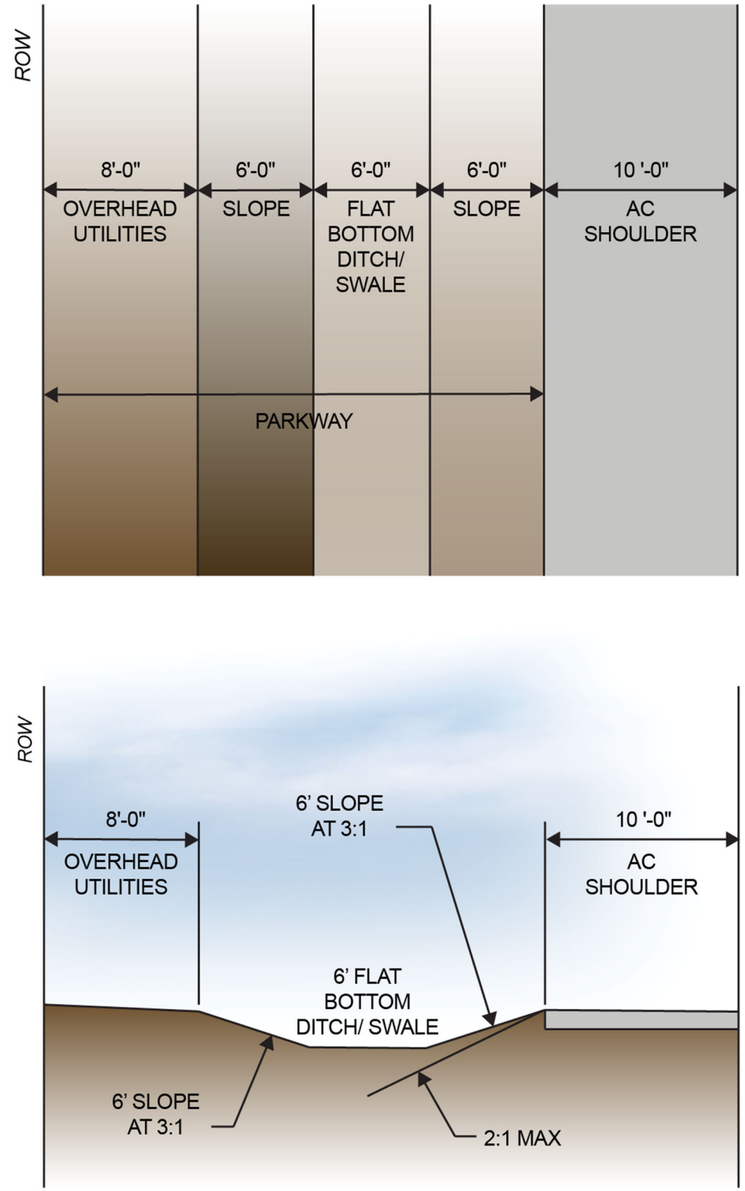


FIGURE 3-27 RP-4: 26' RURAL PARKWAY

Note: Street trees are typically required at a rate of 1 tree for every 30 feet of frontage along the road.

3.6. Parkway Lighting Standards and Guidelines

3.6.1 Mid-Block Street Lighting

Mid-block street lighting shall be installed as discussed in Council Policy 200-18 and as per the funding priorities below:

First Priority Locations:

- Intersection of public streets, highway-rail grade crossings
- Marked midblock crosswalks
- Tunnels, underpasses, and pedestrian bridges
- Crests or sharp curves in the roadway alignment
- Cul-de-sacs or dead ends more than 150 feet in length within 1320 feet of a transit stop or in a high-crime census tract, or more than 200 feet in length
- Midblock transit stops, school entrances, and entrances to high-pedestrian public facilities

Second Priority Locations – high-crime census tracts:

- Midblock locations in residential and commercial areas in high-crime census tracts within 1320 feet of a transit stop
- Midblock locations in residential and commercial areas in high-crime census tracts more than 1320 feet from a transit stop

Third Priority Locations – residential areas in non-high-crime-census tracts:

- Midblock locations in residential areas in non-high-crime census tracts within 1320 feet of a transit stop
- Midblock locations in residential areas in non-high-crime census tracts more than 1320 feet from a transit stop

Fourth Priority Locations – commercial areas in non-high-crime census tracts:

- Midblock locations in commercial areas in non-high-crime census tracts within 1320 feet of a transit stop
- Midblock locations in commercial areas in non-high-crime census tracts more than 1320 feet from a transit stop

Fifth Priority Locations – agricultural and open space:

- Midblock locations in agricultural-zoned and natural open space

Note: High-crime census tracts have 50% higher rate than the citywide average rate for violent crime.

Additional conditions:

- One light on each side of the street at a-grade railroad crossings to illuminate the side of the train facing the motorist.

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- Immediately adjacent to areas of high pedestrian activity, including schools, parks, transit centers, access to transit, and commercial and recreational facilities that draw large numbers of pedestrians.
- At other locations, such as at abrupt changes in horizontal or vertical alignment, as determined by the City Engineer.

3.6.1.1 Exempt Areas

Agriculture-zoned or natural open space land may be exempted from midblock street lighting provisions, at the direction of the City Engineer.

3.6.1.2 Luminaires

Mid-block street lighting shall use fully shielded (Type U0) luminaires and shall conform to the following:

- Type X, for alleys.
- Type Y-MID, for local residential streets (any width) and streets classified as collector or higher with curb-to-curb width up to and including 40 feet.
- Type Z-MID, for streets classified as collector or higher with curb-to-curb width greater than 40 feet.
- At the end of a cul-de-sac, use a Type Y-INT luminaire to minimize impact to houses adjacent to luminaire.

3.6.2 Pedestrian-Scale Lighting

Pedestrian-scale lighting serves to increase visibility for pedestrians in dark and twilight conditions creating a safer environment for those in the parkway zone whether traversing the sidewalk or approaching an intersection.

Lighting should be designed with consideration of day and nighttime activities in the area. Lighting must create a nighttime ambiance that complements the adjacent buildings and public realm and promotes a sense of safety. Where pedestrian-scale lighting is installed, sidewalk or walkway lighting shall be provided at regular intervals to prevent the creation of light and dark pockets, shall provide adequate lighting for pedestrians of all abilities, and shall conform to the following:

- Post top luminaires and poles have been standardized for use in the City. Refer to the City's Standard Drawings Section SDE, The "Whitebook" Section 700, and Approved Materials List. Pole shall match luminaire color.
- All new and replacement luminaires shall be LED. The latest technical and operational energy conservation concepts must be considered in lighting designs.
- In commercial areas, the average maintained horizontal illuminance (FC) on the sidewalk or walkway shall be as shown in the current version of IES-RP-8 for High Pedestrian Conflict areas (Pedestrian Only).

- In mixed-use areas, the average maintained horizontal illuminance on the sidewalk or walkway shall be as shown in the current version of IES-RP-8 for Medium Pedestrian Conflict areas.
- In residential areas, the average maintained horizontal illuminance on the sidewalk or walkway shall be as shown in the current version of IES-RP-8 for Low Pedestrian Conflict areas.
- In commercial areas, contributions from other nearby storefront lighting, private lighting, sign lighting, and/or reflections from structures on the private property should not be considered a reason for reducing the sidewalk or walkway illuminance levels indicated above. Sidewalk or walkway lights shall have shielded fixtures that keep light pollution, trespass, and glare to drivers to a minimum, as approved by the City Engineer. Manufacturer models for sidewalk and walkway lighting shall be approved by the City Engineer.
- Agriculture-zoned land or open space may be exempt, at the discretion of the City Engineer, from pedestrian scale lighting provisions.
- Further design guidelines can be found in the current version of RP-8 publication of the Illuminating Engineering Society of North America, "America National Standard Practice for Roadway Lighting."
- Energy code regulations for exterior lighting are in the current version of California's Title 24 regulations.
- All street lighting shall have shielding to cutoff illumination above an angle 90 degrees above the nadir.

3.6.2.1 Post Top Luminaires

Post top luminaires and poles have been standardized for use in the City. Refer to the City's Standard Drawings, The "Whitebook" Section 700, and Approved Materials List.

Poles shall match luminaire color. All new and replacement luminaires shall be LED.

3.6.2.2 Centre City Street Light Application Guidelines

Pedestrian street lights should be located approximately seventy-five (75) to ninety-five (95) feet apart; with three lights located on each 200-foot block frontage and four lights located on each 300-foot block frontage. Street lights should be staggered on opposite sides of the street (Figure 3-28). When installed near street trees using four (4) foot by six (6) foot tree grates, the street lights are to be installed two (2) feet from the back of curb, measured from the back of curb to center of the pole base. When installed near street trees using five (5) foot by five (5) foot tree grates, the street lights are to be installed two and a half (2½) feet from the back of curb, measured from the back of curb to center of the pole base.

3.6.2.3 Street Light Conformance

- Design of street lighting systems shall conform to Section 209 Electrical Components of the "Greenbook" Standard Specifications for Public Works Construction, National Electric Code, Standard Special Provisions for Street Lighting and Traffic Signal Systems for the City of San Diego, Caltrans Standard Plans, applicable amendments, and this Manual.
- All luminaires shall be LED.

- All luminaire designs shall minimize upward light were possible and shall conform to the 'U' ratings above.

3.6.2.4 Centre City Luminaires and Poles

The street lighting program for downtown includes Type C - Standard, Type CE - Enhanced Standard, Type A - Gateway, Type G - Gaslamp, Type AP - Asian Pacific, and Type T - Tear-Drop Lights. These light standards are designed primarily for mid-block lighting. All signalized intersections shall utilize cobra head style luminaires on Type 15 standards per City requirements.

3.6.2.5 Street Light Classifications

District	Street Light
Ballpark District, Columbia, Core, Cortez, East Village, Marina	TYPE C Standard Light (SDE-108)
Gaslamp Quarter	TYPE G Gaslamp Light (SDE-110)
Horton Plaza	TYPE A Gateway Light (SDE-105)
Little Italy	TYPE CL Little Italy Light (SDE-109)

TABLE 3-2 DISTRICT STREET LIGHTS

District	Street Light
4th Ave. (Broadway to C St.), 5th Ave. (Broadway to C St.), 6th Ave. (Broadway to C St.), Kettner Blvd. (Ash St. to Laurel St.)	TYPE CE Enhanced Standard Light (SDE-109)
3rd Ave. (Market St. to J St.), Island Ave. (2nd Ave. to 6th Ave.)	TYPE AP Asian Pacific Light (SDE-107)
C St. (west of Park Blvd.)	Special per MTS (Induction Shoebox Lights)
J St. (6th Ave. to 14th St.)	TYPE A Gateway Light (SDE-105)

TABLE 3-3 SPECIAL STREET LIGHTS

District	Street Light
1st Ave., 10th Ave. (south of Ash St.), 11th Ave., A St., Ash St., F St. (east of 6th Ave.), Front St., G St. (west of 4th Ave. and east of 6th Ave.), Grape St., Hawthorn St., Laurel St., Pacific Highway	TYPE A Gateway Light (SDE-105)

TABLE 3-4 GATEWAY STREET LIGHTS

District	Street Light
Broadway, Cedar St. (west of 1st Ave.), Imperial Ave., Market St. (west of 4th Ave. and east of 6th Ave.)	TYPE A Gateway Light (SDE-105)
Harbor Dr.	Under Port of San Diego jurisdiction
Park Blvd.	TYPE T Tear-Drop Light (SDE-111)

TABLE 3-5 CEREMONIAL STREET LIGHTS

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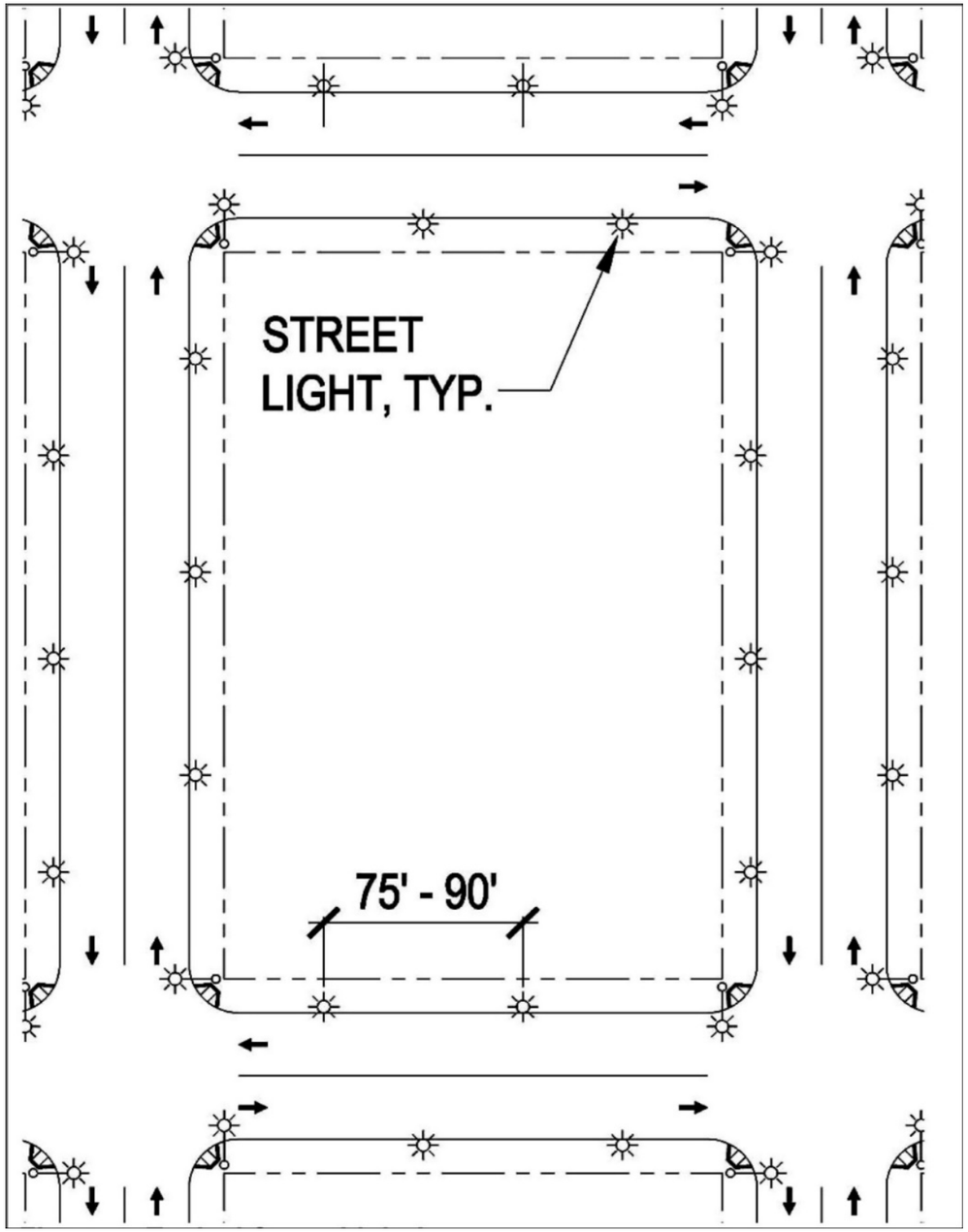

FIGURE 3-28 TYPICAL CENTER CITY STREET LIGHT LAYOUT

Source: Centre City Streetscape Manual

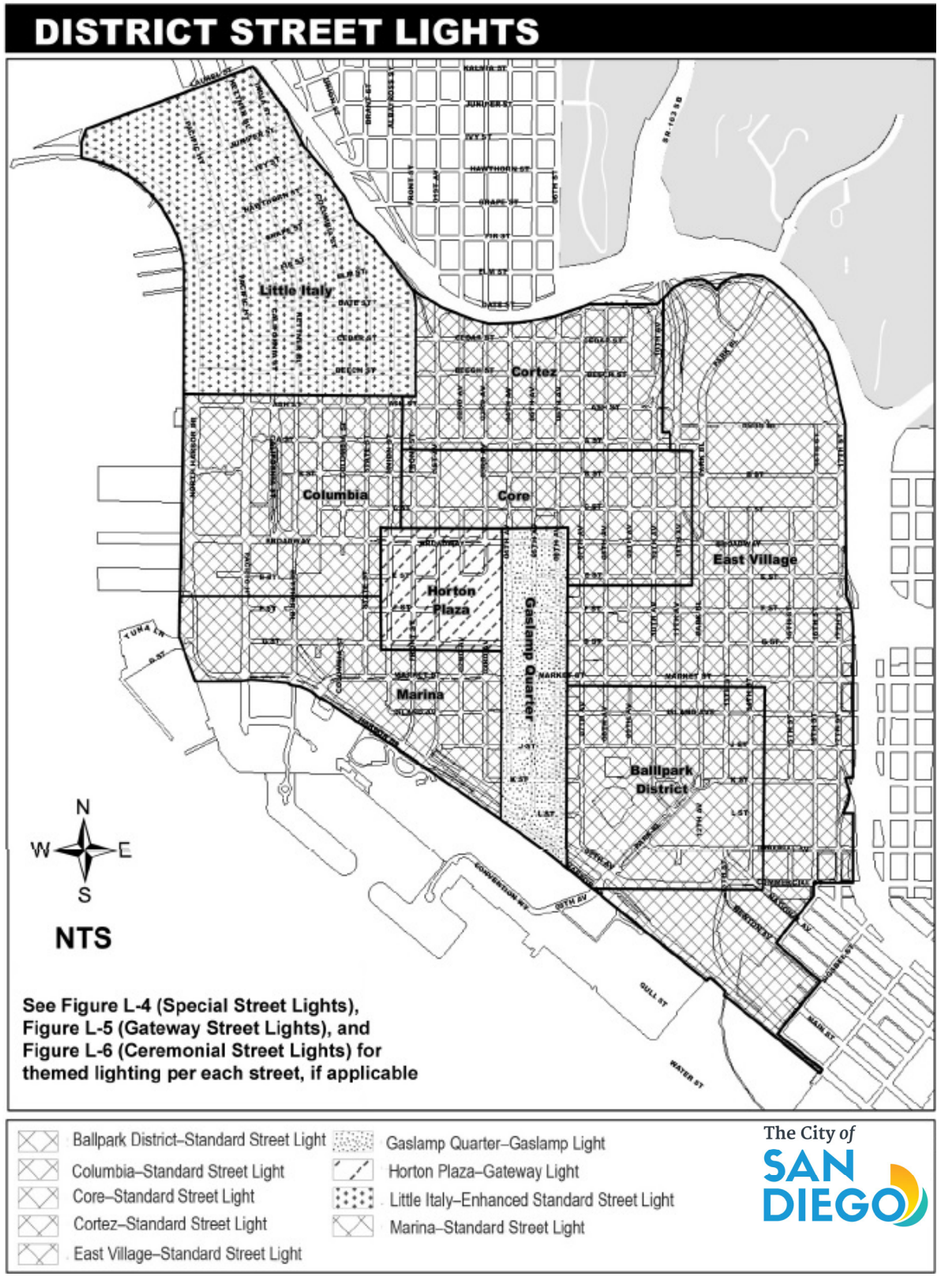

FIGURE 3-29 DISTRICT STREET LIGHTS

Source: Centre City Streetscape Manual

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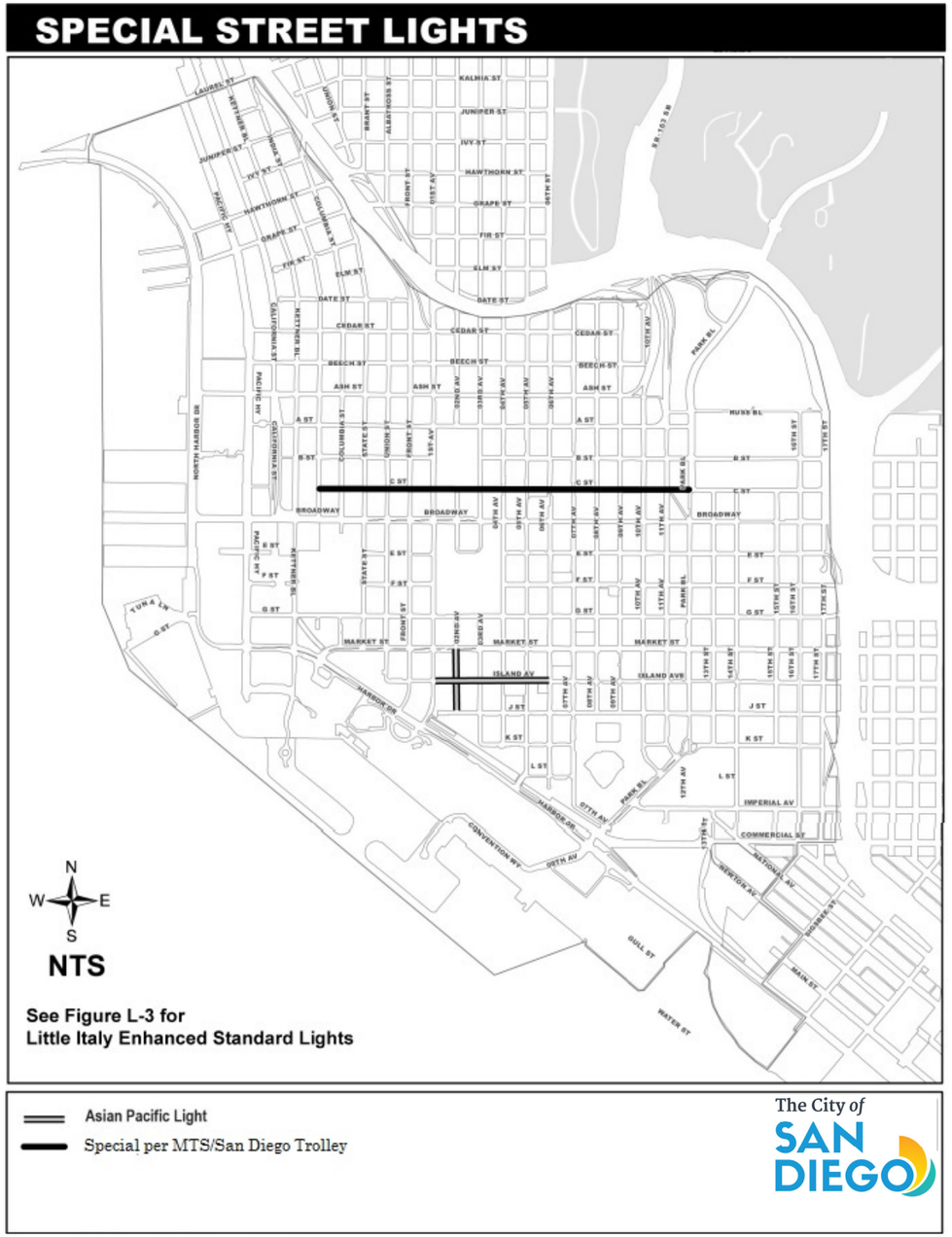

FIGURE 3-30 SPECIAL STREET LIGHTS

Source: Centre City Streetscape Manual

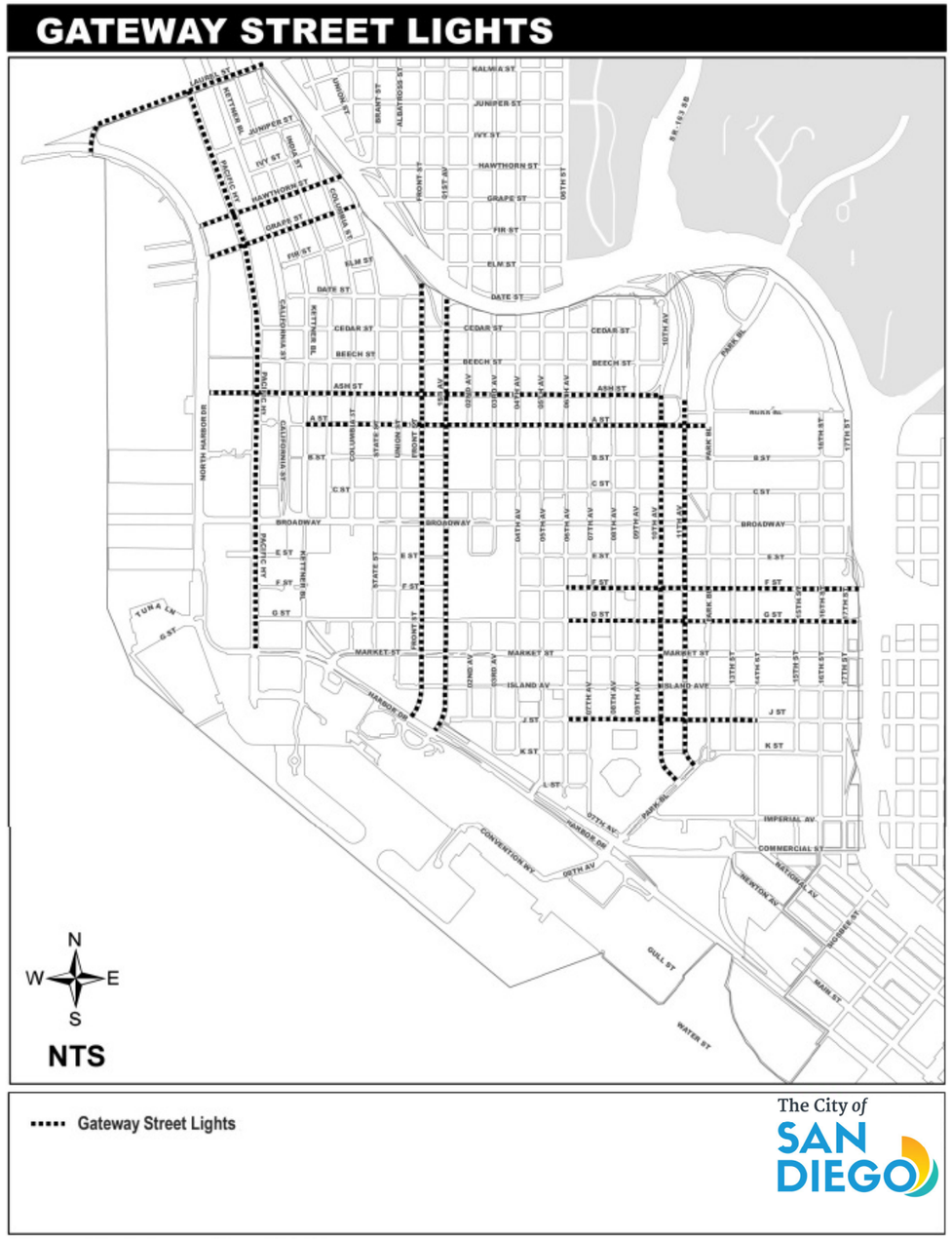

FIGURE 3-31 GATEWAY STREET LIGHTS

Source: Centre City Streetscape Manual

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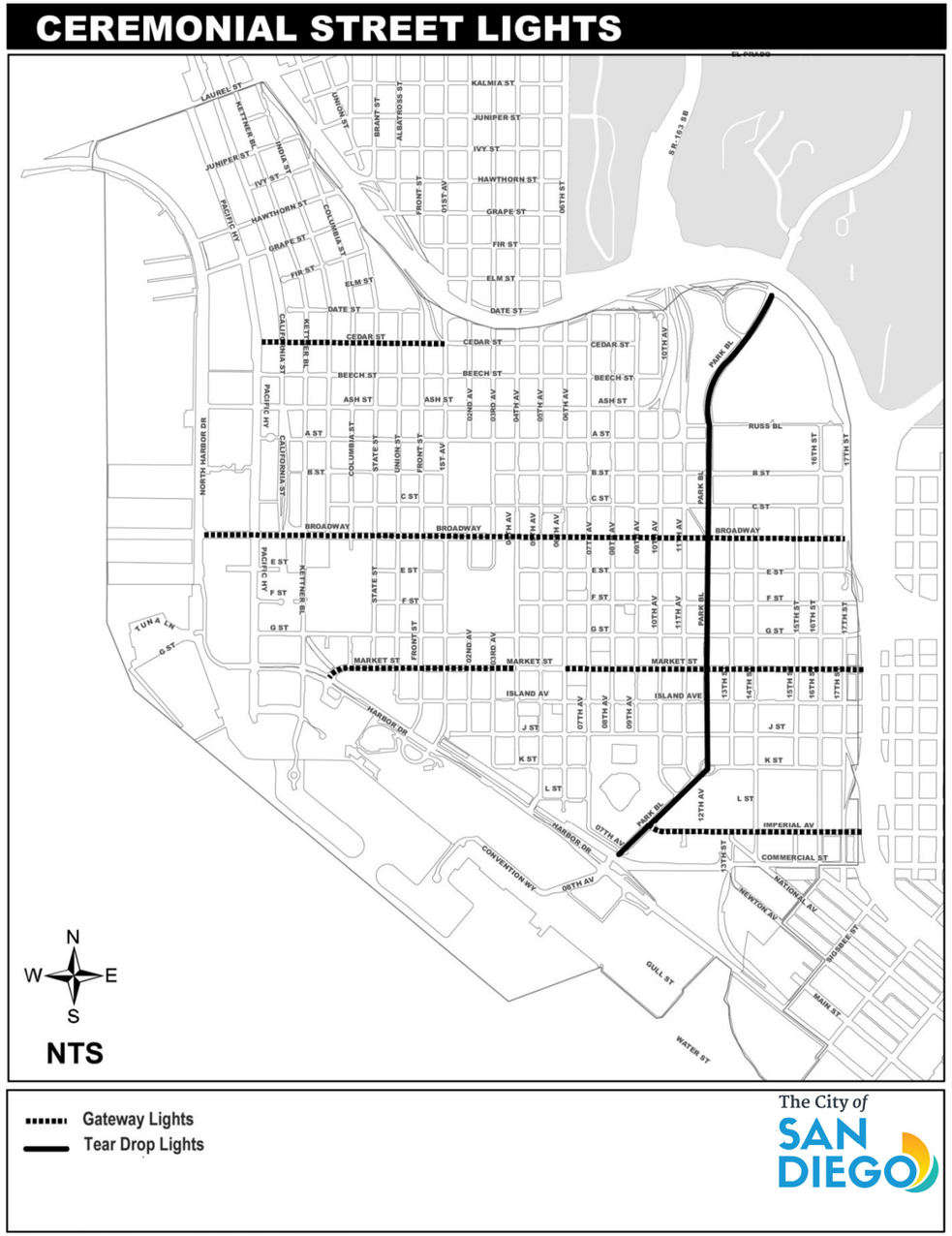

FIGURE 3-32 CEREMONIAL STREET LIGHTS

Source: Centre City Streetscape Manual

3.7. Other Parkway Features

3.7.1 Vehicular Features

3.7.1.1 Driveways

Driveways provide vehicular access to off-street destinations. This can create a potential conflict for pedestrians and bicyclists when drivers cross the sidewalk or enter the roadway. Too many driveways can disrupt pedestrian flows and degrade the pedestrian environment.

Standards and Guidelines:

- Driveways shall be designed per the City's Standard Drawings and San Diego Municipal Code.
- Clear lines of sight, which may be disrupted by parked vehicles or vegetation, must be considered when siting driveways and surrounding infrastructure.
- Access to private property from public and private streets shall be by standard concrete driveways. Curb returns with curb ramps are required at signalized driveways. Driveway width shall be consistent with the Land Development Code. Driveways shall be designed such that access can be provided without backing onto streets that are classified as collector or higher classification. Driveways shall be designed and constructed per the City's Standard Drawings and San Diego Municipal Code.
- Access Control Plans should be developed for new and existing streets that consolidate access points to adjacent properties, either through local access lanes, shared easements, or establishment of access via less-busy cross streets.
- Where applicable, multiple types of driveway users should be considered including personal vehicles, freight, buses, bikes, and maintenance/construction vehicles.
- Driveways with entry gates should ensure that the gate is appropriately placed (at least 20' from property line) so that vehicles do not obstruct the path of travel for pedestrians on the sidewalk.
- Driveway access is not typically permitted onto a primary arterial. Should a lot have frontage only on a primary arterial, driveway access limited only to right turns in and out will be permitted at locations and under conditions specified by the City Engineer and may require a dedicated lane.
- Where applicable, site access should be designed from the alley. See Land Development Code requirements.
- Median breaks for driveway access to major streets will not typically be permitted unless all of the following conditions exist:
    - Driveway access must comply with ADA access requirements, California's Title 24, and City Standards.
    - The property to be served is a major traffic generator and has a continuous frontage of 1,200 feet or more along the major street and is situated between streets that intersect the major street from the side occupied by the property.
    - The median opening is not less than 600 feet from an intersection with a major or collector street.

    - The median opening is not less than 400 feet from an intersection with a local street. The need for left-turn storage may require a greater distance.
    - The median opening is greater than 600 feet from any other existing or proposed mid-block median opening.
    - All costs (e.g., base material, surfacing, traffic safety street lighting, traffic signals, reconstruction or utility relocation) required by a mid-block opening will be borne by the requesting party.

3.7.2 Transit Features

3.7.2.1 Bus Stops & Bus Shelters

Waiting areas provide a safe and comfortable place for passengers to wait for their transit. Area enhancements may include seating, landscaping, lighting, shade and rain cover, trash receptacles, complimentary WiFi, real-time transit arrival alerts, and daily schedule information. These amenities support a passenger's overall transit riding experience, encouraging new riders to try transit, and increasing a passenger's sense of security.

Considerations:

- In constrained conditions, transit shelters are available with partially open sides, allowing the Furnishings Zone to be reduced.
- Providing a pop-out for the entire length of the transit stop is also an effective way to increase Furnishings Zone width.

Standards and Guidelines:

- Bus boarding and alighting areas shall provide a clear length of 96 inches, measured perpendicular to the curb or vehicle roadway edge, and a clear width of 60 inches, measured parallel to the vehicle roadway.
- Where feasible, the location of transit stops and shelters in the Furnishings Zone shall be a minimum of 10 feet where shelters are existing and proposed. Where there is no bus shelter, other bus stop locations shall provide a minimum of 8 feet. The Furnishings Zone width for bus shelters shall extend for 25 feet parallel to the curb measured from the bus stop sign. This will provide adequate clearance to accommodate bus lifts for persons with disabilities. Refer to MTS Designing for Transit and Urban Parkway Configurations in this Chapter for additional information.
- Bus stops and shelters must be compliant with ADA access requirements, California's Title 24, and City accessibility standards.
- Bus route identification signs shall comply with California's Title 24.
- Stops shall not be designed or constructed to require persons with disabilities to board or alight from a bus at a location other than one used by the general public.

- Bus stop boarding and alighting areas shall have a firm, stable surface.
- The Furnishings Zone should be a minimum of 8 feet 6 inches to provide wheelchair access to the shelter.
- Bus stops should not obstruct driveways or pedestrian paths wherever possible. For the location of bus shelters and clear widths, refer Section 3.5.1, "Urban Parkway Configurations."
- The design of bus stations and bus stops should be conducted in consultation with Metropolitan Transit System (MTS).
- Where feasible, bus stop bulbs can be installed at bus stop locations to help improve on-time performance while also improving the waiting area for passengers. The shelter or stop may be located on a bus bulb; refer to Section 5.3.4.2, "Bus Bulb Outs."
- Bus stops and shelters should be connected by an accessible route to the boarding and alighting area and adjacent sidewalks.
- Seating design should take into consideration passenger age, expected duration of wait times, and volume of boardings at the location.
- Hardscaping should be designed such that water drains away from waiting and boarding/alighting areas.
- Real-time wayfinding signs and prominent bus stop signs are essential elements for passengers and should be included at all new stops. Signage should provide relevant information on the transportation network and surrounding area. Audible push to talk real time signage should be included at high use stops.

References:

- 2010 ADA Standards for Accessible Design, Department of Justice, 2010
- California Building Code, (Chapter 11B-810), International Code Council, 2022
- Designing for Transit, MTS, 2018
- Mobility Hub Features Catalog, SANDAG, 2018
- Transit Street Design Guide, NACTO, 2016

3.7.3 Bicycle and Micromobility Infrastructure

Bicycle and micromobility infrastructure for parking, access, and repair often occurs within the parkway zone or the adjacent Flex Zone.

3.7.3.1 Bike Parking and Corral

Bike parking and end-of-trip facilities are essential components of a bicycle system. Facilities such as bike parking racks improve safety and convenience for bicyclists. Bicyclists need secure, well-located bicycle parking to support utilitarian and recreational bicycle trips. Lack of parking can be a major obstacle to using a bicycle. A robust bicycle parking program can improve the bicycling environment and increase the visibility of bicycling in a relatively short time.

Standards and Guidelines:

- Bicycle parking may be implemented by the City of San Diego within the street right of way.
- Bicycle parking includes the City's standard inverted-U bike racks, lockers, and high-capacity bike parking such as corrals with approved process as detailed https://www.sandiego.gov/bicycling/racks-and-lockers.
- Bicycle racks, where placed in the public ROW, should be sited in a well-lit area as close to building entrances and regular foot traffic as possible without restricting or encroaching onto pedestrian-accessible routes. The rack must be positioned to provide 2 feet by 6 feet of space per bicycle.
- Bicycle rack requests and bike corrals must be evaluated and supported by the abutting property owner/business owner.
- Bicycle racks must support the bicycle frame (not the wheel) at two points of contact and permit the use of a U-shaped lock to secure the frame and one wheel.
- Bicycle lockers should be provided in a secure, weather-protected manner and location.
- Bicycle Corrals (also known as "in-street" bicycle parking) consist of bicycle racks grouped together in a common area within the public right-of-way traditionally used for automobile parking. Bicycle Corrals are reserved exclusively for bicycle parking and other micromobility devices and provide a relatively inexpensive solution to providing high-volume bicycle parking. Bicycle Corrals can be implemented by converting one or two on-street motor vehicle parking spaces into on-street bicycle parking.
- Bicycle Corrals do not block sightlines (as large motor vehicles would do), therefore, it may be possible to locate bicycle parking in 'no-parking' zones near intersections and crosswalks. The Bicycle Corral location and design specifications are subject to the City of San Diego Transportation Department approval.
- If a Business Improvement District (BID) requests the installation of bicycle parking, the BID shall purchase the racks or corrals and is responsible for maintenance and cleaning.

3.7.3.2 Micromobility Parking

Micromobility devices, inclusive of scooters, operate and park within public right-of-way. Designating parking locations provide more control over the start and end location of vehicles, increases predictability for users and non-users alike, and reduces encroachment in the public right-of-way. Standards and guidelines are discussed in Section 5.3.3.9 under the Flex Zone.

3.7.3.3 Bikeshare Stations

Bikeshare stations are the most visible components of a bike share system. As a result, station placement is one of the most public and challenging aspects of the bike share planning process. Good station placement can attract riders, serve as a permanent promotion for the system itself, create value for sponsors, contribute to larger road safety designs, and add activity to the parkway zone.

Standards and Guidelines:

- Refer to the latest City of San Diego Municipal Code for Shared Mobility Devices on the standards and guidelines.
- Placing stations in the roadbed, at the same level as vehicle traffic, is a common siting choice. On-street stations are most frequently used where sidewalks are narrow or pedestrian space is at a premium. Much like linear "parklets" or bike parking corrals, bike share stations can be placed in standard (8' or 9') parking lanes, in offset/floating parking lanes, and in painted and concrete medians.
- An on-street bike share station can generally be placed anywhere where parked cars would go. The typical bike share station—with bikes at a 90 degree angle—is narrower than a parked car; riders pull bikes out into the "door zone" just as a driver would open a car door.
- Sidewalk stations should not impede pedestrian flow. Keeping stations in the same line as street furniture and other sidewalk features may help to maintain a pedestrian clear path.
- The payment kiosk should be oriented so that users can access the kiosk while standing on the sidewalk.

References:

- NACTO Bike Share Station Siting, 2019
- Mobility Hub Features Catalog, SANDAG, 2018
- Municipal Code Chapter 8, Article 3, Division 3, City of San Diego, n.d.

3.7.3.4 Bike Repair Stations

Bicycle Repair Stations create a helpful environment for people on bikes, enhancing a neighborhood's accessibility and convenience. Making these available to the public is an effort by the City to encourage knowledge of bicycle repair and to make it a little easier for people on bicycles to get around and stay on the road.

Bicycle Repair Stations provide a basic bicycle repair resource in business land uses and corridors that have high bicycle traffic or to support more bicycle activity. Repair Stations feature a stand to mount a bicycle and contain the basic tools needed to perform do-it-yourself bicycle repair including screwdrivers, wrenches, and hex tools. Repair stations should feature a heavy-duty bicycle pump with a pump head for both schrader and presta valves.

3.7.3.5 Bicycle Access Ramps or Channels

Bicycle access ramps and channels, also known as bicycle runnels, provide a raised or recessed surface to roll bikes going up or downstairs.

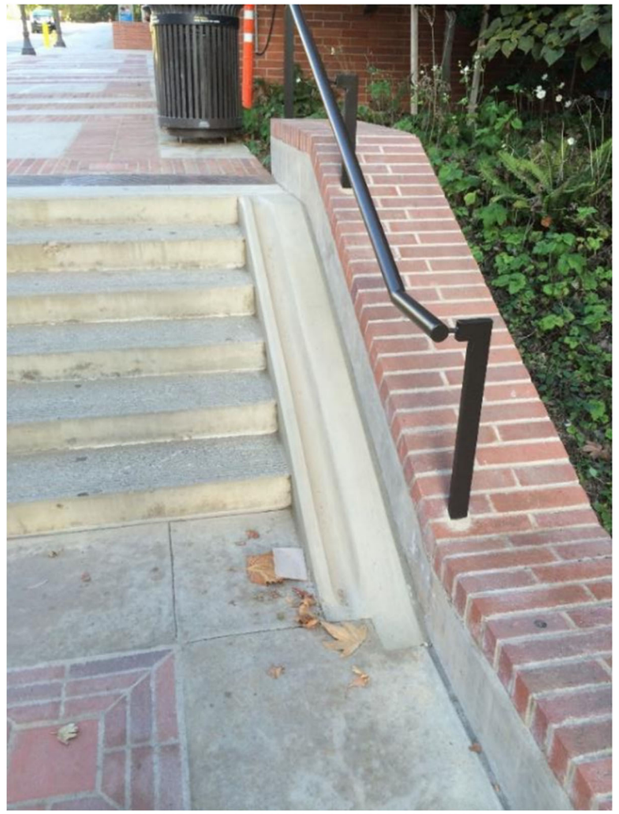

FIGURE 3-33 BICYCLE ACCESS CHANNEL

Location: UCLA Portola Plaza
Source: ITE

Standards and Guidelines:

- Bicycle access ramps must not obstruct the path of travel.
- Bicycle access ramps or channels must be sited such that handrails remain accessible. If handrails are only installed on one side, the bicycle access ramp should be placed on the opposite side of the stairs.
- Ramp assemblies must be adequately anchored to existing and new stairs.
- A spacing of 6" from the edge of the adjacent wall is recommended.
- Educational signage at the top and bottom of stairs is recommended.
- Signage on the ramp or channel is recommended.

References:

- Quick Bites: Bike Runnels – Improving Access for Cyclists and All Users at Stairways, ITE, 2023

3.7.4 Landscaping and Stormwater Management

Street trees are urban infrastructure whose value is recognized in many of the City's land use policy documents. These documents call for street tree plantings to achieve various goals, including:

- Establishing and preserving neighborhood character.
- Encouraging commercial revitalization.
- Creating a comfortable pedestrian environment to improve mental health and wellbeing.
- Reducing the urban heat island effect.
- Capturing and reducing storm water runoff.
- Sequestering carbon and reducing pollution.

Considerations:

- To ensure the preservation and protection of existing mature trees within the Parkway Zone, protective measures such as protective barriers, mulching, permeable materials, etc., should be considered.
- Tree removals are typically not allowed. The City of San Diego may approve of permitted tree removal under rare and unavoidable circumstances with a required tree replacement plan.

Standards and Guidelines:

- For requirements for street trees and other landscaping in the ROW, refer to the citywide Landscape Regulations (San Diego Municipal Code Section 142, Chapter 14, Article 2, Division 4) and the associated Land Development Manual-Landscape Standards.
- The citywide Landscape Regulations address requirements such as the quantity, distribution, size, selection, and approval of plant material, including street trees. The Landscape Standards establish standards, guidelines, and criteria for all landscaping in the public ROW such as locational criteria (distance of trees from the face of curb for certain street classifications and speeds, and from traffic signals, signs, and underground facilities), plant selection, maintenance, median landscaping, irrigation, and electrical services.
    - Per Sewer Design Guide and Water Facility Design Guide, no trees shall be allowed within 10 feet of sewer or water mains and services
- For all street trees and landscape plantings in roadway islands, watering and maintenance will be assured through an agreement with the City, such as a street tree permit, encroachment removal and maintenance agreement, or maintenance assessment district.
- Tree grates must be a minimum size of 40 square feet per SDMC 142.0403 (b) (6). Knockouts must be provided to enlarge the inside diameter for supporting a larger tree trunk as the tree grows. Entire tree grate removal may be necessary to allow for future, undamaged tree growth or to address lifted grates that may affect pedestrian safety. Alternations to the tree roots or root flare are prohibited to accommodate tree grates. Tree grates must adhere to standards in the City's Standard Drawings SDL-104. If tree grates occur within pedestrian access routes, they shall comply with the ADA, CBC and PROWAG standards. Landscaping and irrigation, including maintenance and trimming, must adhere to the City standards in the "Whitebook".
    - Tree grates are maintained through EMRAs, MADS, HOAs and other private property owners.
- Palm trees, which provide limited shade and need increased levels of periodic maintenance for health and safety of the tree, are prohibited from being planted in the right of way without special permission from the City to do so.
- MS4 Permit requires all development projects to implement source control and site design practices that will minimize the generation of pollutants.
    - Development projects are defined by the MS4 Permit as "construction, rehabilitation, redevelopment, or reconstruction of any public or private projects".
    - Refer to the City of San Diego Stormwater Standards Manual.
- For drainage standards, refer to the City of San Diego Drainage Design Manual.
- For landscape standards, refer to the City of San Diego Land Development Code, Landscape Standards.

References:

- Drainage Design Manual, City of San Diego Stormwater Dept, 2017
- Municipal Code, Chapter 14, City of San Diego, n.d.
- Sewer Design Guide, City of San Diego Public Utilities Dept, 2015
- Standard Drawings for Public Works Construction, City of San Diego, 2021
- Stormwater Standards Manual, City of San Diego Stormwater Dept, 2024
- The "Whitebook", City of San Diego Engineering and Capital Dept, 2021
- Water Facility Design Guide, City of San Diego Public Utilities Dept, 2021

3.7.4.2 Infiltration Planters and Bioswales

Sidewalk planters are structural landscaped reservoirs that capture, manage, and treat roadway runoff. Typically, stormwater is collected and temporarily stored to allow for even rates of filtration and infiltration through the facility. Pollutants are filtered out as water percolates through the vegetation, soil media, and gravel layer. Sidewalk planters can allow for infiltration into surrounding subsoils, or they can simply allow water to flow through the facility to be discharged elsewhere (typically the storm drain system).

A bioswale is similar in function to infiltration planters in that it captures stormwater runoff from nearby streets, sidewalks, and driveways. Bioswales can be installed as an alternative to planters in the parkway area, especially when sidewalk widths are inadequate or when curb extensions for traffic calming are desired. Bioswales should not be installed over water and sewer facilities.

Considerations:

- Consider soil volume minimums achieved through employment of suspended pavement systems or structural soil.

Standards and Guidelines:

- Both planters and bioswales must be designed to accommodate and grow street trees as trees and their root systems help capture stormwater runoff. They are typically located adjacent to the curb either in the Furnishings Zone or in a curb extension.
- Bioswales and other stormwater treatment facilities placed alongside pedestrian circulation paths and on street parking spaces shall comply with the provisions of the access law.
- Roadway runoff enters a facility directly from the street through curb cuts. Where there is curbside parking, a paved convenience strip of at least 24" must allow access to parked vehicles.
- Treating street runoff requires multiple installations in a row; this ensures their effectiveness at managing the sometimes heavy amounts of runoff by dispersing it over many facilities. Street design should consider the holistic system of multiple installations.
- Infiltration planters are placed where site conditions are appropriate for allowing water to infiltrate surrounding native soils. Infiltration planters have impermeable sides to keep water from saturating nearby top soil, while the bottom is open to allow for water to percolate the surrounding subsoil.
- Infiltration planters may have negative effects on existing and new utility installation. Utility boxes may require waterproofing or watertight installation. Many utility boxes have opened undersides (no bottom slab) and water can get in from below. Designers should ensure that utility boxes or vaults are protected from water coming into the vault.
- Infiltration planters should generally not be constructed closer than 10 feet to building footprints.
- The feasibility of infiltration planters requires geotechnical investigation and soil feasibility studies. Infiltration planters are not suitable where the seasonal high groundwater table is within 10 feet of the bottom of the facility.
- Design criteria can be found in the Stormwater Standards Manual.

References:

- Stormwater Standards Manual, City of San Diego Stormwater Dept, 2024

3.7.5 Public Utilities and Utility Features

3.7.5.1 Utilities and Other Infrastructure

Effective management of utility placement on, above, and below the parkway area ensures a safer and more enjoyable street environment. The placement of other amenities can potentially reduce maintenance access to utilities, highlighting the need for interdepartmental coordination.

Standards and Guidelines:

- Above ground utilities or infrastructure, such as parking meters and pay stations, fire hydrants, drinking fountains, signal boxes, and water meters must be placed in such a way that minimum clear sidewalk widths are maintained.
- Future Utilities Undergrounding Program projects must find space in the parkway for transformers, switch boxes, pedestals, vaults and handholes to accommodate the conversion of overhead lines to underground.
- Horizontal or flush utility access covers must not create a tripping hazard.

References:

- Standard Drawings for Public Works Construction, City of San Diego, 2021
- The "Whitebook", City of San Diego Engineering and Capital Dept, 2021

3.7.5.2 Guy Braces/Wire

Guy braces, also known as guy wires, is a tensioned cable used to stabilize utility poles within the Furnishings Zone.

Considerations:

- There are 3 situations that a guy wire are typically installed:
  - Parallel to the Throughway Zone
  - Perpendicular to the Throughway Zone, or
  - Diagonally crossing the Throughway Zone.

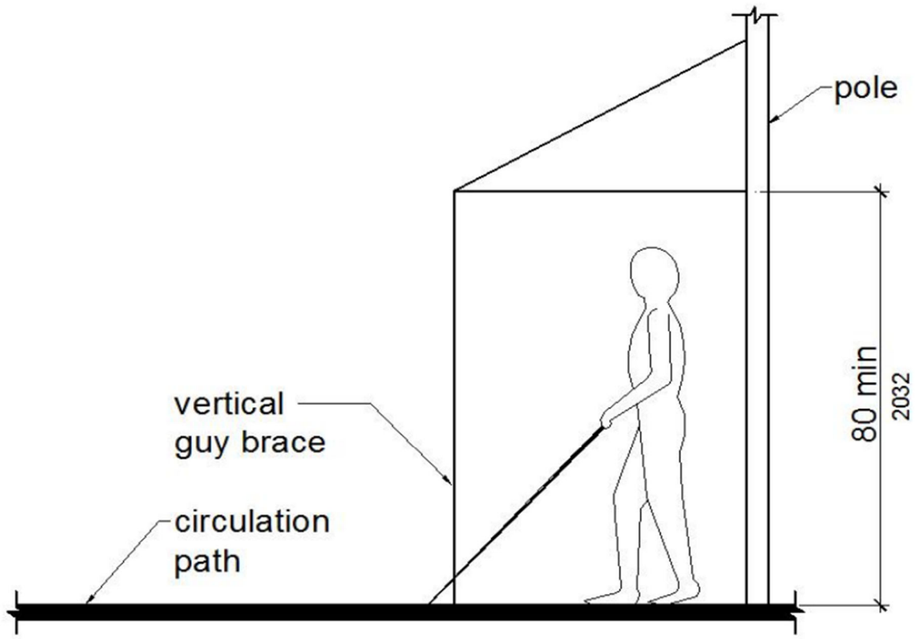

FIGURE 3-34 GUY BRACES

Source: 2022 California Building Code, Chapter 11B

Standards and Guidelines:

- Minimum vertical clearances shall be 80 inches.
- Minimum clearance from the vertical guy wire to the circulation path shall be 2 feet.
- Minimum distance of the anchor location to the face of the curb shall be 1.5 feet.
- Vertical and horizontal elements should be taped with yellow reflector covers to the guy wire.

References:

- California Building Code (Chapter 11B-307.4), International Code Council, 2022

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3.8. Mobility Hubs

Mobility hubs provide a focal point in the transportation network that seamlessly integrates different modes of transportation, multimodal supportive infrastructure, and placemaking strategies to create activity centers that maximize first–mile last mile connectivity.

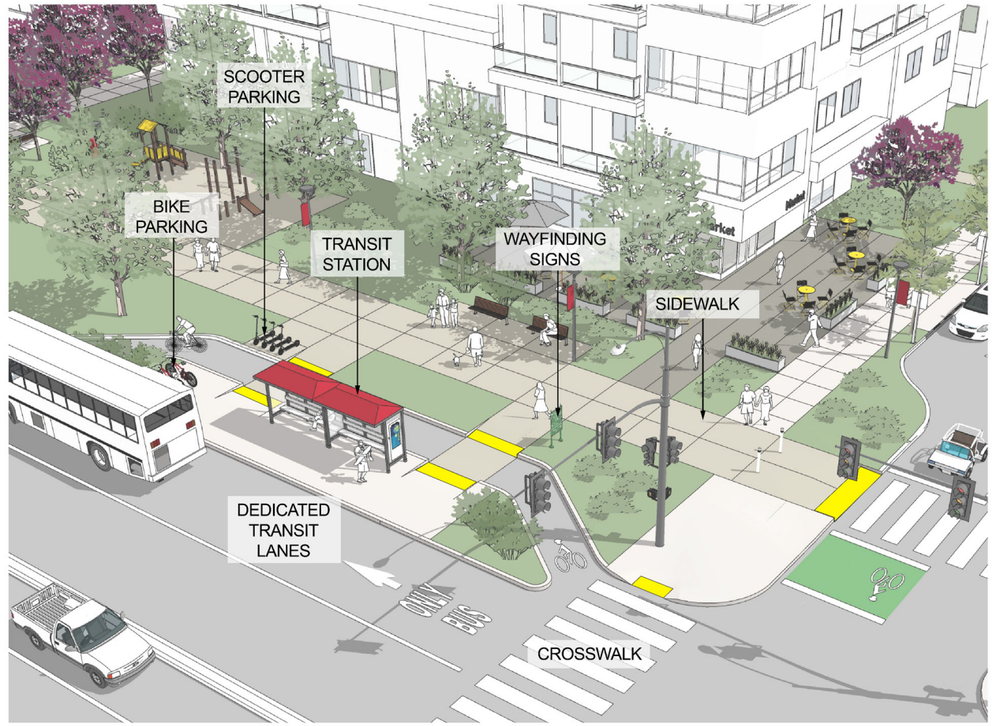

FIGURE 3-35 MOBILITY HUB

Benefits:

- Supports first–last mile solutions by providing multimodal transportation services and activities around transit stations to maximize connectivity and access for transit riders.
- Flexibility for change serves to accommodate possible future growth, expansion, and changes as new technologies evolve.

Considerations:

- Invest in mobility hub demonstration projects and supportive policies that improve access for all, ensure equity, and promote safety across modes. Encourage and prioritize projects (e.g., transportation system management and demand management, pedestrian, bicycle, and smart

growth efforts) that support mobility hub implementation to promote integration with public transit and seamlessly connect people between shared modes.
- It is important to ensure that the hub is sited in the correct location rather than simply installing it in the most convenient space available.

Guidelines:

- Each mobility hub can be designed specifically for the surrounding community it serves, ultimately making it easier for residents, employees, and visitors to use transit to travel from home to work and a wide variety of destinations in between.
- A mobility hub area includes not just the transit station itself but all those services and destinations that are accessible within a 5-min walk, bike, or drive to/from high-frequency transit.
- SANDAG Mobility Hub Features Catalog identifies the following types of services and amenities that may be found within the access zones. Some features may be concentrated within a short walk to transit, while others may serve people better who have to bike or use a motorized service to reach a transit stop:
- Transit Amenities: These are features located in the immediate transit station area to help riders plan their trips and make connections while offering them a safe and comfortable place to wait for their ride.
- Pedestrian Amenities: These features are located within a five-minute walk to transit and include safe and convenient walkways and crossings.
- Bike Amenities: These features are located within a five-minute bike ride to transit and include a connected network of bikeways, secure options for parking a bike, and conveniently located options for bikeshare.
- Motorized Services Amenities: These features are located within a five-minute drive to transit and may include on-demand, motorized shared services and infrastructure improvements that support their efficient operation.
- Support Services & Amenities: These features may exist within all mobility hub access zones and can include wayfinding, mobile retail services, and integrated trip planning and payment options.

References:

- Designing for Transit, MTS, 2018
- Mobility Hub Features Catalog, SANDAG, 2018

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