TRANSPORTATION AND PUBLIC SPACES

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TRANSPORTATION AND PUBLIC SPACES

This chapter provides guidance for future improvements to public streets, bicycle and pedestrian facilities, the public right-of-way, and public spaces within the Specific Plan Area. It describes the multimodal transportation network for the El Camino Real corridor, including the pedestrian, bicycle, transit, and vehicular networks. The network and design concepts are intended to improve connections within and around the Plan Area, provide a range of multimodal transportation options, and create a more comfortable and vibrant pedestrian environment. This chapter also encourages efficient parking strategies, proactive transportation demand management, and well-designed public frontages, sidewalks, and community spaces to increase the corridor’s overall functionality and livability. The transportation concepts are consistent with the framework concepts presented in Chapter 2, as well as the land use and building design guidance found throughout the Plan. This chapter is divided into the following topic areas:

- Mobility policy framework
- Circulation network
- Sidewalk and public realm
- Street and intersection design concepts
- Parking and curbside management
- Transportation Demand Management (TDM)
- Open space network

All design illustrations in this chapter are conceptual, and will require additional analysis and engineering, as well as coordination with local agencies and stakeholders to be implemented in the future.

What are Complete Streets?

A Complete Street is a transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit vehicles, truck drivers, and motorists, appropriate to the function and context of the facility. Every Complete Street looks different, according to the local context, community preferences, types of land uses and related road users, and the city’s needs.
5.1 Mobility Framework

El Camino Real presents an exciting opportunity to humanize a street that is currently very auto-oriented, uninviting for pedestrians and bicyclists, and lacking in public space. The auto-oriented character and extraordinary width that defines El Camino Real today emerged from its legacy as a State highway and regional connector. At its widest point, El Camino Real is about 100 feet wide curb-to-curb, with six travel lanes and turn lanes. The corridor serves important local, citywide, and regional mobility functions, and provides goods movement and emergency vehicle access. The mobility framework below is designed to balance El Camino Real’s many functions while improving mobility and safety for people of all ages, means, and abilities. The Plan Area’s circulation network consists of the roadways and sidewalks that serve vehicles, pedestrians, bicyclists, and transit vehicles, as well as off-street shared-use paths and pedestrian-only connections. While El Camino Real largely functions as a major vehicular thoroughfare, the Plan outlines implementation strategies to transform the corridor into a true Complete Street with quality pedestrian, bicycle, and transit facilities. The Plan also considers future proofing by addressing recent innovations in transportation – such as autonomous vehicles, ridesharing, and electric scooters – which will impact how people get around in the future.

Photo Credit: NACTO
The overall goal of the mobility framework is to make travel along El Camino Real safe, efficient, convenient, and accessible to pedestrians, bicyclists, and transit riders of all ages and abilities, while balancing the need to provide for vehicular access and through travel.

1. **Complete Streets.** Work with VTA and Caltrans to design and implement multimodal Complete Streets improvements along El Camino Real that accommodate the needs of all users. The design of El Camino Real should include narrower travel lanes, enhanced pedestrian facilities, including wider sidewalks, street trees, landscaped medians, and enhanced signage and lighting, as well as a continuous cycle track (separated/protected bikeway) and bus boarding islands without increasing overall right-of-way requirements.

2. **On-street parking.** To achieve the envisioned right-of-way improvements, at a minimum, remove on-street parking on El Camino Real as parcels redevelop.

3. **Multimodal connections.** Enhance north/south multimodal connections along major roadways from surrounding neighborhoods to the El Camino Real corridor.

4. **New streets and pathways.** As redevelopment occurs, particularly at Activity Centers, encourage the subdivision of large blocks to create new connections and more walkable blocks.

5. **Comfortable and safe pedestrian environment.** Design streets and pathways to be safe, comfortable, inviting, and include well-marked crossings, bulbouts, wide sidewalks, street furnishings, street trees, and pedestrian-scale lighting.
6. **Enhanced trail crossings.** Provide safe pedestrian and bicycle crossings for existing and planned trail connections across El Camino Real, including the San Tomas Aquino Creek Trail crossing.

7. **Complete and continuous bicycle network.** Expand and improve the bicycle network to provide safe, convenient, and continuous bicycle access along and across the corridor and to key destinations such as residential neighborhoods, commercial areas, schools, parks, and public facilities. Along El Camino Real, provide a continuous cycle track (separated/protected bikeway) by removing on-street parking.

8. **Prioritize transit.** Work in partnership with VTA to support an attractive, equitable, and efficient transit system. Support the success of transit by prioritizing transit over vehicles on El Camino Real, which provides high frequency service and the highest transit ridership levels in Santa Clara County. This includes speed improvements along the corridor to provide reliable transit service and encourage transit ridership.

9. **Improved transit stops.** Coordinate with VTA to improve transit stops and amenities. Bus boarding islands should be implemented with the cycle track and should be provided to give more space for riders to wait, board, and disembark, and to minimize potential conflicts between cyclists and buses. Along El Camino Real, bus stops should include high-quality amenities, including bus shelters, benches, and real-time travel information.

10. **New mobility technologies.** The design of streets, parking areas, and other public spaces should provide for flexibility for innovations in transportation technology such as autonomous vehicles, electric vehicles, scooters, and ridesharing services.
11. **TDM programs and reduced parking.** Require new development to reduce on-site parking and provide enhanced TDM amenities, such as ample bike parking and repair stations, transit fare subsidies, and/or showers consistent with the type of proposed land use(s).

12. **Wayfinding.** Establish a clear and comprehensive public wayfinding system to help all users find their way along and through the Plan Area.

13. **Green Streets.** Integrate “Green Streets” concepts into street design to minimize the impacts of stormwater runoff.

Figure 5-1 illustrates the overarching modal priority framework for the corridor.

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**What are Green Streets?**

A Green Street is a street right-of-way that incorporates vegetation, soil, and engineered systems (e.g. permeable pavements) to slow, filter, and cleanse stormwater runoff while reducing urban heating, enhancing pedestrian safety, reducing carbon footprints, and beautifying neighborhoods. Common elements of a Green Street are trees, drought-tolerant landscaping, vegetated curb extensions, sidewalk planters, permeable paving, and other green infrastructure elements (such as rain gardens and bioswales).
Figure 5-1. Modal Priority Framework

Legend
- City Boundary
- Plan Boundary
- Parks
- Creeks
- Parcels
- Civic Center
- Plan Parcels
- Landmarks

Modal Priority
- El Camino Real - Multimodal Complete Street
- Vehicle Priority Access Corridor
- Bicycle Priority Access Corridor
- Transit Priority Access Corridor
- Priority Pedestrian Crossing Improvement
5.2 Circulation Network

Street Network

The street network within the Specific Plan Area is shown in Figure 5-2 and consists of existing roadways. While no new roadways are proposed, long-term redevelopment within the corridor, particularly within Activity Centers, provides an opportunity to add new public streets and off-street pathways to enhance overall circulation. See Chapter 4 Development Standards and Guidelines for more information and guidance on integrating new streets and pathways through new development sites.

The proposed street network and improvements shown in Figure 5-2 support a multimodal network that can accommodate future growth in the Plan Area. Overall, the Plan maintains the current roadway network capacity for El Camino Real while providing for pedestrian, bicycle, and transit access improvements to create a multimodal corridor. Improvements for other travel modes may impact some minor vehicle movements, such as dedicated right-turn lanes or on-street parking. Improvements and potential reconfigurations to the El Camino Real right-of-way are described in more detail in subsequent sections.
Figure 5-2. Street Network
Transit Network

The El Camino Real Specific Plan Area is served by both bus service and nearby passenger rail. El Camino Real is Santa Clara County’s highest ridership bus corridor. VTA operates frequent bus routes (running every 15 minutes or better), such as the local line 22, as well as the limited-stop rapid bus 522, with stops at Scott Boulevard, Bowers Avenue-Kiely Boulevard, and Lawrence Expressway. Line 57 provides north-south connection at Kiely-Bowers. Located less than a mile to the southeast of the El Camino Real Specific Plan Area is Santa Clara Station, which is a point of convergence for Caltrain commuter rail service between San Francisco and Gilroy; Amtrak’s Capitol Corridor, which links San Jose and Sacramento; the Altamont Commuter Express (ACE), which connects Stockton and San Jose; VTA county-wide bus service; and is a planned station for the Silicon Valley Bay Area Rapid Transit (BART) extension.

The El Camino Real Specific Plan envisions and accommodates improvements to transit service, including increased frequencies and better connections to Santa Clara Station. The transit network map shown in Figure 5-3 includes bus routes and stops along El Camino Real, as well as Santa Clara Station. The City does not control the selection of bus routes, bus frequency, and stops, but will work in partnership with VTA to promote equitable, attractive, and efficient transit that supports the El Camino Real Plan Area. Generally, changes and improvements to transit service can occur as transit-supportive development occurs. Transit-supportive development provides intensified development to financially support new service levels, managed (reduced) parking levels, and design elements that support walkability and intuitive transit access. This Plan includes street and intersection design concepts presented in Section 5.4 including enhancements that facilitate efficient bus service and improve comfort and convenience for bus riders. These include bus boarding islands that are extensions of the curb that provide an improved passenger waiting environment while minimizing potential conflicts between cyclists and buses. Bus boarding islands also increase the attractiveness

What are Bus Boarding Islands?

A bus boarding island is a dedicated waiting, boarding, and disembarking area for passengers that streamlines transit service by allowing in-lane stops for buses. Bus boarding islands are separated from the sidewalk by a bikeway, which minimizes potential conflicts between cyclists and buses at stops.
of bus service by allowing buses to stop in-lane, reducing/minimizing delay, and promoting faster travel times. Bus boarding islands should be designed to accommodate the proposed cycle track along El Camino Real and should incorporate VTA design standards.

VTA is currently addressing ways to improve travel speeds, especially along high frequency corridors like El Camino Real. Along with improved transit movement gained through bus boarding islands, additional opportunities will be evaluated to ensure optimized travel times so that transit can be truly time-competitive with cars. The City will continue to work with VTA to consider infrastructure changes to minimize transit delay including transit signal priority, queue jumps, leading bus lights, bulbouts, and other strategies.

**Bike Network**

Figure 5-4 shows the existing and proposed bicycle network along and across El Camino Real. The existing bicycle network currently lacks comfortable bicycle facilities. The majority of El Camino Real is designated only as a bike route with no on street bicycle facilities and few streets with bike lanes running adjacent to or across the corridor. The proposed bicycle network and improvements are intended to enhance bicycle safety and provide bicycle connections between El Camino Real and adjacent neighborhoods as well as to/from key destinations such as shopping centers, community facilities, the Old Quad, and Santa Clara Station.

A key element of the mobility framework is the provision of a Class IV cycle track along El Camino Real that includes a continuous separated and protected bikeway along the corridor. Installation of the cycle track will require the removal of on-street parking and consolidation or relocation of some driveways. The cycle track would be protected from the vehicular
Figure 5-4. Bike Network
travel lanes via a two-foot wide raised buffer (i.e., concrete median). As an interim solution before full implementation of the cycle track, a two-foot wide painted buffer could be provided. Ultimately, a raised buffer should be provided to truly enhance bicycle travel and safety along the corridor. The design of the cycle track should integrate VTA’s Bicycle Technical Guidelines (2012), National Association of City Transportation Officials’ (NACTO) Urban Bikeway Design Guide (2011), and best practices.

North/south bike connections along the El Camino Real corridor are provided via four key bicycle access corridors, including the crossings at Calabazas Creek, San Tomas Aquino Creek, Los Padres Boulevard, and Monroe Street. Bike facilities are provided parallel to Calabazas Creek on Calabazas Boulevard. The bike facilities include on-street left-hand side bike lanes with green bike lanes and bike boxes at the approaches to El Camino Real. The San Tomas Aquino Creek trail runs just west of and parallel to San Tomas Expressway and includes a Class I, fully separated multi-use bike path. The trail crosses El Camino Real on the west-leg of the signalized intersection at San Tomas Expressway via a standard crosswalk. The street and intersection design concepts presented in Section 5.4 include recommended enhancements for this trail crossing. The Los Padres Boulevard and Monroe Street bicycle access corridors have standard bike lanes, and vehicle volumes on these roadways are generally low to moderate. The City’s Bicycle Plan Update (2018) includes specific recommendations at the Monroe Street intersection to improve bicycle access including the provision of bicycle protection, installation of bike lane markings across El Camino Real, and tightening of curb radii. The Bicycle Plan also recommends a Class IV separated bikeway along El Camino Real. As the El Camino Real Specific Plan is implemented, improvements consistent with the City’s Bicycle Plan should be incorporated.
Bikeway Facility Types

**Shared-use Path (Class I)**
*Description:* A shared-use path may be either a paved path or trail closed to motor vehicles and exclusively used by pedestrians and cyclists. The typical width of a shared-use path is 12 to 14 feet.
*Purpose:* To provide a safe and comfortable environment to bike and walk that is completely separated from roadway traffic.

**Bike Lane (Class II)**
*Description:* A bike lane is a dedicated one-way striped travel lane for bicycles alongside vehicular traffic. The most common types of bike lanes include the conventional striped bike lane, buffered bike lanes, or protected bike lanes. The typical width of a bike lane is six to eight feet.
*Purpose:* To provide an exclusive space for bicyclists on the road.

**Bike Route (Class III)**
*Description:* A bike route is an on-street sign-posted facility where bicycles and automobiles share the travel lane, and is often painted with a shared lane arrow or “sharrow” to alert motorists that they may need to share the roadway. In cases where there is more than one travel lane, bicycles and automobiles typically share the outside lane.
*Purpose:* To provide a shared use with motor vehicle traffic, typically on lower volume roadways.

**Cycle Track/Separated Bikeway (Class IV)**
*Description:* A cycle track provides a right-of-way designated exclusively for bicycle travel within a roadway protected from vehicle traffic with devices, including, but not limited to, raised medians, flexible posts, or inflexible physical barriers. The typical width of a cycle track is five to seven feet, plus a minimum two-foot buffer.
*Purpose:* To provide a safe and comfortable environment to bike separated from roadway traffic.
Pedestrian Network

Due to its large roadway width, fast moving vehicles, and narrow sidewalks, El Camino Real currently lacks a comfortable, safe, and engaging pedestrian experience. The proposed pedestrian network and improvements are intended to expand the space and comfort for pedestrians and create a vibrant, attractive environment that encourages walking. The pedestrian network improvements throughout this chapter include increased sidewalk widths, buffers from fast-moving traffic and noise, more comfortable crossings, and more landscaping and tree canopy along El Camino Real. Pedestrian improvements will be particularly important and prioritized at centers of pedestrian and commercial activity, such as Regional Mixed Use Centers and other areas where concentrations of commercial activity are planned. Larger Activity Center parcels should be divided into smaller blocks over time as development or on-site improvements occur, creating new connections and more walkable blocks. All streets, paths, and other public rights-of-way in the Plan Area should be designed for safe and comfortable pedestrian movement, providing a well-connected pedestrian network to and from key destinations along the corridor. The El Camino Real of the future will function as a multimodal boulevard – a place where people feel comfortable walking rather than driving between shopping destinations. There are currently four existing HAWK (High-Intensity Activated crossWalk) signals along El Camino Real at Alpine Avenue, Buchanan Drive, Morse Lane, and Harrison Street, and additional pedestrian improvements are planned along the corridor as described in the City of Santa Clara Pedestrian Master Plan. Figure 5-5 shows priority improvement areas for the pedestrian network, including activity areas along El Camino Real and priority intersections for future pedestrian crossing enhancements.
Figure 5-5. Pedestrian Network

Legend
- City Boundary
- Plan Boundary
- Parcels
- Landmarks
- Parks
- Creeks
- Commercial Activity Center
- Civic Activity Center
- Priority Pedestrian Areas
- Priority Pedestrian Crossing Improvement
- New Street or Bike/Ped Connection (conceptual)
5.3 Sidewalk and Public Realm

The design of the streetscape – sidewalks, lighting, street trees, furnishings, and other elements of the public realm – play an important role in creating an inviting pedestrian environment, encouraging social gathering, and creating Complete Streets for all travel modes. The following design standards and guidelines provide direction on sidewalk and streetscape improvements throughout the Plan Area. For detailed design guidance along specific roadways or at key intersections, see Section 5.4 Street and Intersection Design Concepts.

Sidewalks

The following sidewalk guidelines will help create a wide and comfortable walking area for pedestrians, buffered from noise and fast-moving cars. They also create attractive transition areas between public and private spaces along the front of buildings.

Sidewalks are divided into three zones from the curb to the building face: 1.) the Planter Zone, 2.) the Pedestrian Zone, and 3.) the Frontage Zone. The Planter Zone is where street trees, traffic control devices, and lighting are located, and provides a buffer between where people walk and the street. The Pedestrian Zone is where movement of people is the priority. Sidewalks or other hardscape surfaces meant for foot traffic are its defining component. Last is the Frontage Zone, which is on private property and provides a transition or buffer between buildings and the public realm, and allows people to access buildings without interfering with pedestrian movement. These zones and the sidewalk design concept for El Camino Real are illustrated in Figure 5-6 Pedestrian Zones and Sidewalk Design.

Sidewalk Standards

1. **Wider sidewalks.** As sites are redeveloped over time, the City will work with property owners on a case-by-case basis to negotiate the appropriate dedication and/or public easement to meet the new requirement for 20-foot sidewalks along El Camino Real (includes the planter zone). In instances where a 20-foot wide sidewalk cannot be achieved (e.g. shallow parcels), new sidewalks along El Camino Real shall be no less than 15.5 feet in total width.

2. **Planter zone dimensions.** The planter zone shall be four and a half to five feet from the face of curb to the pedestrian zone. In bulbout locations, the planter zone should be widened to the new curb location.

3. **Pedestrian zone dimensions.** The pedestrian zone shall be a minimum of eight feet wide, remain completely clear of obstructions and encroachments, and meet all applicable ADA regulations. The pedestrian zone may take up a portion of the front setback area to meet pedestrian zone and planter zone requirements.

Sidewalk Guidelines

1. **Planter zone character (commercial).** In locations fronting ground floor commercial uses, planters should be no more than 10 feet long. The space between planters should be designed as an extension of the walk zone, though special materials may be used to differentiate the area. The curb zone should contain street furniture and installations such as bike racks, benches, refuse receptacles, street lighting, and street trees.
Older sidewalk conditions along El Camino Real

Newer sidewalk conditions along El Camino Real
Figure 5-6. Pedestrian Zones and Sidewalk Design for El Camino Real (Commercial Ground Floor)
Figure 5-6. Pedestrian Zones and Sidewalk Design for El Camino Real (Residential)
2. **Planter zone character (residential).** In locations fronting residential ground floor uses, the planter zone can contain primarily softscape with regular hardscape connections to the street. At building entries, the planter zone should include more hardscape to ease drop-off and pick-ups.

3. **Frontage zone character.** The frontage zone may be appropriate for outdoor display, seating, stoops, porches, accent landscaping, and trees to screen residential uses, among other functions. Additional standards and guidelines for this zone are located in Chapter 4 Private Development Standards and Guidelines.

4. **Priority pedestrian area.** Pedestrian improvements should be prioritized at priority pedestrian areas – Activity Centers and other areas of pedestrian and commercial activity (see Figure 5-5). Improvements should include wider sidewalks, additional crosswalk and corner design features, and enhanced landscaping and street furnishings.

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**Street Trees, Landscaping, and Stormwater Management**

Landscaping and street trees are an important way to beautify the El Camino Real corridor, while also providing benefits such as shading, water conservation, and stormwater management. Tree planting along the corridor is constrained by underground utility conflicts, as illustrated in Figure 5-7 Utility Conflicts and Street Trees. There are three utility conditions present along the corridor: A) electrical lines are located at the back of the sidewalk; B) electrical lines are located at the back of the sidewalk and storm drains and sanitary sewer lines are present near or under the gutter; C) multiple utilities are present underneath the sidewalk. The following guidelines outline appropriate locations and recommendations for street tree planting based on each unique condition, as well as additional guidance for greening the corridor.
Figure 5-7. Utility Conflicts and Street Trees

Legend

- City Boundary
- Plan Boundary
- Plan Parcels
- Parks
- Parcels
- Creeks
- Landmarks

Utility Conditions

- **Condition A**: Potential for trees/rain gardens from face of curb
  - 3 ft back
- **Condition A - Existing**: Planting strip with street trees recently installed
- **Condition B**: Storm drain and sanitary sewer lines would need to be relocated in these locations for street trees and landscaping to be planted in planter zone from face of curb approximately 3 ft back
- **Condition C**: Multiple utility conflicts - street trees/rain gardens not possible

Potential locations for permeable paving
Street Trees, Landscaping, and Stormwater Management Guidelines

1. Street trees. Street trees should be planted along the public right-of-way at an average of every 20 to 40 feet on center. See Table 5-1 below for street tree planting conditions and design specifications along El Camino Real. Street tree species should be selected in consultation with the City and/or from the preferred tree species list. Along commercial frontages, street tree canopies should be high enough (at maturity) to permit visibility of ground floor signs and storefronts.

Table 5-1. Street Tree Locations and Specifications along El Camino Real

<table>
<thead>
<tr>
<th>Condition/Location</th>
<th>Utility Conflict</th>
<th>Street Tree Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Electrical lines present at back of sidewalk</td>
<td>Street trees and landscaping may be planted in planter zone from face of curb approximately 3 feet back.</td>
</tr>
<tr>
<td>B</td>
<td>Electrical lines present at back of sidewalk; storm drain and sanitary sewer lines near or under gutter</td>
<td>Storm drain and sanitary sewer lines would need to be relocated in these locations for street trees and landscaping to be planted in planter zone from face of curb approximately 3 feet back.</td>
</tr>
<tr>
<td>C</td>
<td>Multiple utilities present underneath sidewalk</td>
<td>Street trees may not be planted along the sidewalk in these locations. Possibility for above-ground planters only.</td>
</tr>
</tbody>
</table>

See Figure 5-7 mapping locations of each condition along the corridor.
2. **Planter landscaping.** Planter areas should be planted with drought-tolerant and hardy plant species. Plantings should be no more than three feet high and, where parking, loading, or pick-up/drop-off spaces exist, should anticipate space needs for opening doors. Planters should be maintained by the fronting property.

3. **Landscaping character.** The following guidance applies to landscaping in public frontage areas:
   - Drought-tolerant plant materials should be incorporated to reduce water use and irrigation requirements.
   - Whenever possible, use native and Bay-Friendly planting palettes.
   - Implement rainwater harvesting and other features that provide a stormwater retention co-benefit.
   - Preserve mature, existing trees whenever possible.
   - Select tree species and orient trees to maximize climate benefits and energy savings.

4. **Landscaped medians.** Center medians along El Camino Real should be planted with groundcover, shrubs, and/or trees to improve aesthetics and minimize stormwater runoff. Drought-tolerant and hardy plant and tree species are encouraged.

5. **Green Streets.** The City, working with Caltrans, should integrate “Green Street” concepts into street design to minimize impacts of polluted runoff from El Camino Real. Green Streets typically include draining runoff from the curb flowline into biotreatment areas, in the form of stormwater curb extensions, linear bioswales, stormwater flow-through planters, and stormwater tree system. However, other systems, such as pervious pavement, may also achieve this goal. Consider incorporating permeable paving and stormwater curb cuts into the design of sidewalks, medians, and bicycle facilities along El Camino Real. Trash capture devices should also be evaluated.
Public Streetscape

Streetscape furniture, lighting, and public wayfinding signage can improve safety, enhance the pedestrian experience, and contribute to a sense of community. The following guidelines are intended for public streetscape improvements along El Camino Real, as well as other streets and pathways in the Plan Area.

Streetscape Furnishings and Lighting Guidelines

1. **Street furnishings.** Street furniture including benches, bike parking, and refuse receptacles should be provided at regular intervals along El Camino Real, as well as other streets and pathways along the corridor. Furnishings should be privately maintained when on private property. Any furnishings proposed to be placed on public property are at the City’s discretion and subject to the issuance of an encroachment permit.

2. **Unified streetscape character.** Utilize a consistent and coordinated palette for streetscape furnishings along El Camino Real to create a clear identity for the corridor.

3. **Pedestrian-scaled lighting.** Light fixtures should be pedestrian-scaled (up to 15 feet tall) and spaced to provide continuous lighting along the sidewalk, particularly in and around Activity Centers. Existing auto-oriented streetlights along El Camino Real should be retrofitted to include a pedestrian-scaled lamp.

4. **Bus stops and amenities.** Coordinate with VTA to ensure that bus stop design is integrated with the pedestrian-oriented character and streetscape of El Camino Real. When possible, bus stops should be located closer to intersections at Activity Centers.
Signage and Wayfinding Guidelines

1. **Public wayfinding and signage program.** The City should implement a corridor-wide public wayfinding and signage program to highlight key destinations and amenities along the corridor. The public wayfinding and signage program should meet the following design objectives:

   - Identify key destinations and facilities, such as public parking, transit stations and routes, parks, civic destinations, shopping destinations, and bike routes in the Plan Area.

   - Be co-located with other streetscape furniture, such as streetlights and transit shelters, where possible to enhance visibility and reduce visual clutter.

   - Include creative elements such as landmark features that can serve as both wayfinding and public art.

   - Utilize banners installed on streetlight poles to highlight unique areas along the corridor and events.

5.4 Street and Intersection Design Concepts

Right-of-Way Street Design Concept for El Camino Real

Figures 5-8 and 5-9 present the existing street section and proposed roadway redesign concept for El Camino Real. This concept seeks to create a multimodal corridor that better serves pedestrians, bicyclists, and transit vehicles, while preserving vehicle capacity and throughput. The proposed right-of-way dimensions are intended to be standards, while allowing for flexibility in the implementation process for the precise design and allocation of space for each of the proposed street facilities. The right-of-way design recommendations for El Camino Real as follows:

   - No reduction to the number of travel lanes (3 vehicle lanes in each direction)

   - Retention of the landscaped center median

   - Setbacks with wider sidewalks (15.5 feet minimum) and increased landscaping

   - Additional street trees, street furnishings, and pedestrian-scaling lighting in the planter zone

   - A continuous cycle track in place of on-street parking

   - Bus boarding islands that would serve as an extension of the curb. The cycle track would pass behind bus boarding islands at bus stop locations to minimize potential conflicts between cyclists and buses.

Implementation of the street sections and designs described in this section will require further design, engineering, and coordination with existing streets and properties, as well as VTA and Caltrans.
Figure 5-8. Typical Existing Street Section for El Camino Real
Figure 5-9. Proposed El Camino Real Re-Design Concept (Street Section)
Figure 5-9. Proposed El Camino Real Re-Design Concept (Plan View)
Figure 5-9. Proposed El Camino Real Re-Design Concept (Plan View - Intersection)
Intersection Improvements

This section provides recommendations to improve key intersections by type/size along El Camino Real, particularly those identified as priority pedestrian crossings in Figure 5-1 at the beginning of this chapter. While this section recommends improvements for specific intersections, some of the same treatments could be applied to intersections of a similar type/size along the corridor. The goal of these improvements is to make crossing El Camino Real more comfortable for pedestrians and bicyclists. The improvements outlined below incorporate the draft recommendations from the City’s Pedestrian Master Plan; however, the details of the intersection improvements should refer to the City’s Pedestrian Master Plan and NATCO Urban Bikeway Design Guidelines for final concept design. These intersection concepts are illustrative only and will require further engineering and design work before construction.

The four types of intersections are:

- Expressway
- Arterial
- Collector
- Side-Street T-Intersection

San Tomas Expressway Intersection (Expressway Intersection)

The San Tomas Expressway intersection is a large at-grade intersection with crossing distances between 130 and 150 feet, which can be difficult for pedestrians and bicyclists to navigate. Currently, the northeast and southwest corners include bulbouts to reduce pedestrian crossing distances and to slow turning vehicles. These measures should be included on the northwest and southeast corners, in addition to implementing measures consistent with the City’s Pedestrian Master Plan such as pedestrian crosswalk motion sensors, “Yield Here to Peds” signs, waiting area improvements, and decorative crosswalks (see Figure 5-10). Additional improvements that should be considered to improve the San Tomas Aquino Trail crossing include a bicycle signal across the west leg of the intersection and right-turn-on-red restrictions for the southbound and eastbound vehicle right-turn movements. Future improvements should be coordinated with Caltrans and the County of Santa Clara.

Scott Boulevard Intersection (Arterial Intersection)

The Scott Boulevard intersection is a typical example of an arterial road intersection along El Camino Real. The intersection is designated as a priority pedestrian crossing since it provides access to one of the key Regional Commercial Mixed Use Centers – Santa Clara Town Center. Specific improvements for this intersection include curb radius reductions, upgraded curb ramps, pedestrian crosswalk motion sensors, possible decorative crosswalks, straightened/shortened crosswalks, and right-turn slip-lane removal (see Figure 5-11).
Figure 5-10. Design Concept for El Camino Real/ San Thomas Expressway Intersection
Figure 5-11. Design Concept for El Camino Real/Scott Boulevard Intersection
Los Padres Boulevard Intersection (Collector Intersection)

The Los Padres Boulevard intersection is an example of a collector road intersection along El Camino Real. Recommended improvements for these types of intersections include curb ramp upgrades, pedestrian crosswalk motion sensors, and decorative crosswalks (see Figure 5-11 as an example).

Alpine Avenue Intersection (Side-Street Stop Controlled T-Intersection)

Along the corridor there are several T-intersections that are unsignalized and provide pedestrian crossings across El Camino Real. Currently, several of these locations have High Intensity Activated Crosswalk (HAWK) signals. A HAWK signal is a traffic control device used to stop road traffic and allow for protected crossing of pedestrians and cyclists when needed. Additional improvements that should be taken into consideration include curb radius reductions, pedestrian crosswalk motion sensors, and a decorative crosswalk across El Camino Real (see Figure 5-12).
Figure 5-12. Design Concept for El Camino Real/Alpine Avenue Intersection
5.5 Parking and Curbside Management

Parking and curbside management are interrelated and essential in achieving the desired outcome of the Specific Plan to provide the “right” amount of parking while acknowledging competing uses for the curb space including passenger loading and temporary parking for delivery vehicles. The increased densities and greater land use mix envisioned for new development in the Plan Area create opportunities to manage vehicle parking and curb space activity while balancing goals for enhanced pedestrian, bicycle, and transit use. The following guidelines provide direction on parking and curbside management throughout the Plan Area.

Parking

Parking provision and management play an integral role in achieving the mobility goals of the Specific Plan. The City of Santa Clara’s General Plan recommends flexibility in the supply of parking to encourage the use of alternate transportation modes such as transit, biking, and walking, reduce the costs associated with an oversupply of parking, and minimize the negative visual impacts of parking facilities. This Plan proposes a balanced approach to parking that aims for adequate supply for employees, residents, and visitors without oversupplying parking. In identifying the appropriate supply, changing transportation modes and services should be taken into account; for example, ride sharing services such as Uber and Lyft and future autonomous vehicle deployment may dramatically change the demand for short- and long-term parking. In addition, the Plan Area is well served by transit, including several VTA bus routes along El Camino Real and regional transit networks (Caltrain, Amtrak’s Capitol Corridor train, and the Altamont Commuter Express (ACE)) located at Santa Clara Transit Station.

Private Off-Street Parking

The City’s General Plan encourages parking standards that support higher intensity land use development and allows reduced minimum standards based on transportation demand management (TDM) strategies, shared parking, and transit availability. Given the increased densities and land use mix envisioned for new development, and the transit-oriented nature of the Plan Area, the provision of off-street parking on new development parcels within the Plan Area shall comply with the reduced parking requirements summarized in Table 5-2. Private parking facilities should also be consistent with the parking and loading standards and guidelines in Chapter 4.

Private Parking Standards

1. Private parking requirements. Private off-street parking for development projects in the Plan Area shall be provided in accordance with Table 5-2 below. For all other uses not listed, private off-street parking shall be provided consistent with the parking standards in the Santa Clara Zoning Ordinance.

Table 5-2. Off-Street Parking Requirements

<table>
<thead>
<tr>
<th>Use</th>
<th>Parking Standard</th>
<th>Further Reductions Possible with TDM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single Family Homes</td>
<td>2 spaces per unit</td>
<td>Yes</td>
</tr>
<tr>
<td>Multi-Family Residential:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Studios/1 Bedroom</td>
<td>1 space per unit</td>
<td>Yes</td>
</tr>
<tr>
<td>2 or more Bedrooms</td>
<td>2 spaces per unit</td>
<td>Yes</td>
</tr>
<tr>
<td>Retail &amp; Services</td>
<td>4 spaces per 1,000 sq. ft.</td>
<td>Yes</td>
</tr>
</tbody>
</table>
2. **Reductions in private parking requirements.** Further parking reductions may be possible through implementation of TDM measures, consistent with the provisions outlined in the Santa Clara Zoning Ordinance and Climate Action Plan.

3. **Electric vehicle (EV) parking and infrastructure.** Electric vehicle spaces and pre-wiring shall be provided for residential and nonresidential land uses according to the provisions in the Santa Clara Zoning Ordinance.

### Private Parking Guidelines

1. **Creative parking solutions.** Encourage creative parking solutions like mechanical parking stackers/lifts, tandem parking configurations, and parking spaces designed for future conversion.

2. **Short-term parking.** Designate short-term parking on-site for ride share pick-up/drop-off and delivery service.

3. **Valet parking.** Allow for valet parking service that would utilize parking aisles to maximize on-site parking capacity while not exceeding parking requirements.

### Public Parking

The provision of parking facilities open to the public is an important element in reducing the area’s overall parking supply and allowing for development patterns supportive of walking, biking, and transit use. Public parking facilities should be provided in accordance with the guidelines below.

#### Public Parking Standards

**Public electric vehicle (EV) parking.** EV parking shall be provided to meet the significant increase in statewide EV usage. On lower parking floors, a large empty conduit should be run to locations where future electrical breaker panels could be located; or exposed conduit could be installed for future charging locations. The actual installation of electrical wiring, chargers, and billing methods would be carried out by an independent operator where the energy used for vehicle charging is paid for by the user.

#### Public Parking Guidelines

1. **Publicly-accessible parking structures.** Shared and publicly-accessible parking facilities are encouraged in the Plan Area, especially for larger projects that incorporate multiple uses and buildings. This Plan specifically encourages private property owners to allow public parking within their private parking structures, rather than limiting parking solely to tenants. This type of shared parking arrangement can reduce the demand for individual parking structures on each property as customers “park once and walk.” This can be managed, and can generate revenue, by charging for parking. A validation system can be provided to offer free or reduced cost parking for customers of on-site tenants.
2. **Public parking location and distribution.** Public parking areas should be located near Activity Centers and key arterial and collector streets, and should be distributed with the goal that all development within the Plan Area is within three blocks of a parking facility that is open to the public.

3. **Placement within blocks.** Parking areas should be oriented internally to blocks and screened from the street, with primary access points oriented away from pedestrian areas and public gathering spaces if possible.

**Shared Parking**

Shared parking recognizes that parking spaces can serve two or more individual land uses without conflict or encroachment. For example, retail parking reaches its peak demand during the daytime whereas residential parking is most frequently needed in the evening and at night. Rather than providing distinct parking supplies to meet these complementary uses, the same parking supply can be used by customers during the day and residents in the evenings, significantly reducing parking requirements for both land uses and making developments more affordable. The mix of residential and retail uses anticipated in the Plan Area provides a good opportunity for the implementation of a shared parking scheme that can help reduce parking requirements.
**Shared Parking Standards**

**Shared parking.** Regional Commercial Mixed Use Centers shall include shared parking between uses with different peak periods to encourage the efficient use of parking resources (see also Standards and Guidelines for Regional Commercial Mixed Use in Chapter 4). For all mixed-use development, sharing of spaces between residential visitor parking and retail customer parking is highly encouraged. Shared parking facilities may qualify for reduced parking requirements. The total number of spaces and their distribution through the site shall be substantiated through a parking study and a parking management plan.

**Unbundled Parking**

Unbundling can also be applied to commercial tenants as well as residential tenants and buyers. In an unbundled parking scheme, parking spaces are rented (in the case of apartments) or sold (in the case of condominiums) separately from the dwelling unit. Unbundling parking from property costs provides transparency to the cost of parking so that people can make more informed decisions about car ownership and operating costs. It also makes better use of the parking supply by allowing parking spaces allocated to car-less households to be used by households with additional cars. Lastly, unbundling is complementary to shared parking since any excess spaces can be leased or rented to outside entities.

**Unbundled Parking Guidelines**

**Unbundled parking.** Unbundled parking is encouraged for residential and mixed-use residential projects.
Bicycle Parking

The Plan supports an increase in bicycle parking requirements consistent with the City’s Zoning Ordinance. Bicycle parking will be required for all land uses in the Specific Plan Area, with provisions for both short- and long-term parking according to the bicycle parking design guidelines in the VTA Bicycle Technical Guidelines and the standards below. Bicycle parking facilities should be provided in well-lit, visible locations on private property near primary building entrances and pedestrian pathways, consistent with the site design standards and guidelines in Chapter 4.

Bicycle Parking Standards

1. **Bicycle parking requirements.** New development shall provide, at a minimum, short and long-term bicycle parking as follows:

   - Residential development: One Class I bicycle parking space per two units and one Class II space per 15 units.
   - Commercial developments: One Class I space per 30 employees and one Class II space for every 6,000 square feet.
   - Office developments: One space per 6,000 square feet with 75 percent as Class I and 25 percent as Class II spaces.

2. **Priority bicycle parking areas.** Activity Centers and public plazas are priority locations for additional bicycle parking facilities, particularly near high-activity destinations and designated cross street bicycle routes. Bike racks shall be placed in visible and well-lit areas.

3. **Electric bicycle parking.** Provide electrical charging outlets for bicycle rooms.

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Long and Short-Term Bike Parking

**Long-Term Bicycle Parking (Class I)** – Long-Term Bicycle Parking is a type of bicycle parking that protects the entire bicycle and its components from theft, vandalism, or inclement weather. Class I bicycle parking is appropriate for long-term (two hours to all day) bicycle parking at locations such as employment sites, schools, and transit stations/stops. It is also important at sites where bicycles are left overnight for several days such as airports, train stations, and multi-family residential units.

**Short-Term Bicycle Parking (Class II)** – Short-Term Bicycle Parking consists of a bicycle rack to which the frame and at least one wheel can be secured with a user-provided U-lock or padlock and cable. Racks that provide two points of contact prevent bikes from pivoting and falling over. Bike racks are appropriate for short-term parking where the typical parking duration is less than two hours. They can be thought of as serving the customer or visitor parking demand for locations such as retail stores, libraries, dental and medical offices, office buildings, and at apartments/condominiums.

*Source: VTA Bicycle Technical Guidelines December 13, 2007*
Curbside Management

Demand for curbside passenger and delivery loading zones is growing dramatically as a result of the growth of transportation network companies (TNCs), like Uber and Lyft, as well as online shopping and associated deliveries, and a future autonomous vehicle deployment. With the implementation of the cycle track along the corridor, curb space along El Camino Real will be limited to transit stops and emergency services and curbspace usage will primarily be focused on side streets within the Plan Area. Potential uses of curb space along side streets in the Plan Area would include:

- Passenger loading zones, including private vehicles and TNCs
- Parked vehicles and electric vehicle (EV) charging
- Bicycle infrastructure
- Pedestrian infrastructure
- Delivery and truck loading zones
- Mobile vendors, including food trucks
- Transit infrastructure, including shuttle stops
- ADA access
- Emergency services

The Specific Plan anticipates and accommodates the need for flexibility in the use of curb space through the following curbside management standards.

Curbside Management Standards

1. **Curbside space.** Curb space along El Camino Real shall be limited to transit stops and emergency services. Curbside space for short-term passenger and delivery loading should be provided on-site or on side streets, whenever possible.

2. **Curbside Management Strategy.** The City shall develop a Curbside Management Strategy that identifies priorities for specific areas, establishes centralized loading zones, and assists with decision-making pertaining to curb space allocation. The strategy should include a flexible approach to curb space design and allocation to accommodate changes over time as competing demands for curb space evolve.

3. **Flex Zones.** Rather than designating fixed uses for all portions of the curb, flexible areas, known as “Flex Zones,” accommodate different demands along segments of curb space. Flex Zones shall be provided whenever possible to serve different purposes and improve efficiency through implementation of the following:
   - Multiple functions served simultaneously in the same space, such as in combined commercial and passenger loading zones.
   - Different functions served at different times in the same space through time-of-day restrictions, such as a peak-period travel lane which is used for off-peak loading or parking.
   - Multiple functions served simultaneously in different spaces along the road, such as the conversion of some on-street parking to provide designated loading zones, and curb extensions along the curb on the same block face.
CHAPTER 5: Transportation and Public Spaces

5.6 Transportation Demand Management (TDM)

Transportation Demand Management (TDM) consists of a combination of programmatic measures, policies, and infrastructure designed to reduce overall vehicle trips and associated parking demand by providing better incentives and opportunities to choose alternative modes such as walking, bicycling, transit, or ridesharing. The implementation of TDM measures in the Plan Area should be consistent with the requirements outlined in the City of Santa Clara’s Climate Action Plan (December 3, 2013), which currently requires a vehicle miles traveled (VMT) reduction between five and ten percent through TDM measures depending on land use. Listed below are some example TDM strategies for reducing vehicle trips and parking demand for those living and working within the Plan Area. Specific TDM strategies are appropriate for either residential uses, employment-intensive uses, or both; and should be designed to meet the City’s TDM reduction goals per the Climate Action Plan.

Transportation Demand Management (TDM) Strategies

Transportation Management Agency (TMA)

A Transportation Management Agency (TMA) within the Plan Area should be established to coordinate TDM efforts of multiple employers.

Information Boards/Kiosks

Employers could display transit routes and schedules, carpooling and vanpooling information, and bicycle lanes, routes, paths, and facility information on information boards/kiosks or direct employees to web resources.
Transit Passes

Providing residents/employees within the Plan Area with free/low cost transit passes could increase the transit mode share and reduce VMT, emissions and congestion, and on-site parking demand. This strategy can be subsidized by building managers, employers, or public agencies.

Carpool/Vanpool

Employers could offer carpool and vanpool matching services, subsidies, and priority accommodation to all employees. Designated and convenient spaces in parking facilities could be provided free to vanpools and carpools as a further incentive.

Bicycle Amenities

Bicycle amenities include building bicycle centers on-site, providing bicycle rental and repair service, storage, and changing facilities to employees.

Car Sharing

Car sharing programs provide on-demand access to a shared fleet of vehicles on an as-needed basis. Car sharing has been shown to significantly reduce vehicle ownership and vehicle miles traveled (VMT). Access to these vehicles increases the vehicle availability for non-car owners and reduces the number of cars per household.

Developers, property owners, and employers could provide car share spaces at a rate of at least 1 per 400 units, up to 2 spaces per development, at no cost to car share companies. Parking spaces reserved for car share vehicles should be conveniently placed next to building entrances to promote the use of these vehicles. These vehicles should be reserved for residents/employees and the general public.

Guaranteed Ride Home Program

These programs allow transit riders to use a complimentary or reduced-price “taxi” service to get home in case of an emergency or when transit service is not available.

Compressed Work Weeks, Flex Time, and Telecommuting

Through these strategies, employees would adjust their work schedule to reduce vehicle trips to the worksite on certain days and during peak periods.

Annual Employee Surveys

Administered by the employers or by the TMA, an annual employee survey will provide key information on how employees are currently traveling to and from work, as well as provide insight into which existing TDM strategies are working, and how they can be modified to continue to reduce vehicle trips and parking demand. Driveway counts should be included as a monitoring requirement to determine the effectiveness of TDM measures.

The City may consider implementing an auto mode share target for large Plan Area employers, which could be monitored via annual employee surveys. The City could use the survey results to target highly effective alternative mode strategies and share the information with residents, employers, and potential new project developers.