



Mobility

CHAPTER

4

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4.1 Mobility Strategy: Purpose and Intent

This chapter sets forth transportation policies and standards. The essential aim of these policies and standards is to establish and maintain in perpetuity the transportation system necessary to support a thriving district where most employees, and many residents, will meet their daily needs by walking, bicycling, taking transit, and ridesharing.

Walkability and 'Complete Streets'

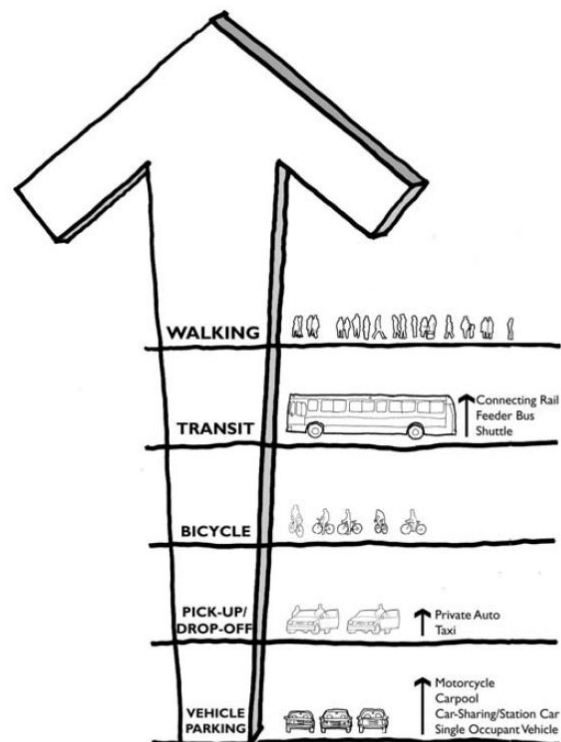
The future vision for the plan area is one in which users of the site, choose to meet their daily needs by walking, bicycling, taking transit, and ridesharing. Achieving this goal is fundamental to the task of creating a place of enduring value, achieving Cupertino's Climate Action Plan goals, and minimizing impacts on neighbors.

The public realm in the Plan Area includes a collection of different types of streets that play particular roles in circulation.

A common feature for all the streets is that they should be multimodal and accommodate the needs of all users. All streets in the Plan Area are to be designed as Complete Streets, the attributes of which are described on the facing page.

Figure 4.1. Streets are public spaces of limited width. To maximize their capacity to move people and goods, top priority must be given to space-efficient modes of transportation – to space for people on foot, on bicycles and in transit vehicles – when allocating space on streets. This is a matter of geometry, not ideology. The example shows BART's Station Access Policy.

Image source: Patrick Siegman and BART



Q TABLE 4.1. DESIGN FEATURES OF COMPLETE STREETS

Example of a Complete Street with features that create an appealing, context sensitive, pedestrian-oriented public realm.



A) Transit prioritization at intersections.

Design intersections to help public transit run on time.

B) Intelligent traffic signals.

Designed to control traffic flow, transit, and pedestrian crossing safely and efficiently.

C) Comfortable Bicycle lanes.

Design bicycle lanes to create space for bicycles and protect them from moving cars.

D) Minimum vehicular travel lanes.

Reduce the number of travel lanes to provide traffic calming and enable wider sidewalks.

E) Enhanced crosswalks.

Crosswalks are designed to make the pedestrian experience safer and easier.

F) Wide sidewalks.

Design sidewalks for a

comfortable pedestrian experience for all ages and sidewalk dining with the widest sidewalks on shopping streets.

G) Street Trees.

Select species that thrive in urban environments, provide shade and beauty, and reduce air pollution.

H) Smart Meters.

Over time, as parking becomes more valuable, consider electronic stations to manage parking spaces, and make paying for parking easy by basing price on use.

I) Green Infrastructure.

Adds visual interest while directing stormwater directly to the soil to allow groundwater recharge.

J) Ease of maintenance.

Reduce the cost of maintenance for streets through selection of durable materials.

‘Complete Streets’ in the Plan Area

Multi-Modal. Each street serves all users by balancing the needs of automobiles, buses, and trucks with those of pedestrians and cyclists. This is done in different ways and by using a different combination of strategies depending upon the use of the street and ultimately will provide many options for moving throughout the Plan Area and adjacent neighborhoods.

Context Sensitive. Each street is designed to accommodate the different users while working within the existing or intended physical context of the area.

Physical Appeal. Each street is designed integrally with the ultimate public realm in mind from the outset: shopping streetscapes, neighborhood streetscapes, or urban streetscapes.

For additional information on Complete Streets, visit www.smartgrowthamerica.org/complete-streets

4.2 Streetscapes: The Public Realm

The Plan Area's image is largely shaped by the highly interconnected street network with a variety of urban streetscapes that share common attributes to promote walkability.

A Walkable Streetscape

The quality of the public realm in the Plan Area will be determined by ensuring walkable streetscapes, combined with short blocks and public spaces. A walkable streetscape has the following attributes:

- is visually interesting and has strong spatial enclosure by the ground floor frontages and street-facing facades.
- is comfortable through short crossing distances, wide sidewalks with planting and seating, and street trees that provide a canopy effect for pedestrians.
- is safe through the visibility from and to the inside of the ground floor, and by the pedestrian activity on the sidewalk.

Types of Streets

The Plan Area has two general categories of streets, described further in Chapter Six: Development Standards.

'Active Ground Floor' Streets: To be used in environments where an active and typically non-residential ground floor use is required; such as retail, restaurant, entertainment, office and cultural.

Neighborhood Streets: Streets in residential neighborhoods, similar to Active Ground Floor streets but with typically residential ground floor uses.

Figure 4.2. "The design of cities begins with the design of streets. To make a good city, you need good streets, and that means streets where people want to be. Streets need to be safe and comfortable, they need to be interesting, and they need to be beautiful. They need to be places."

Image source: 'Street Design: The Secret to Great Cities and Towns' by Victor Dover and John Massengale



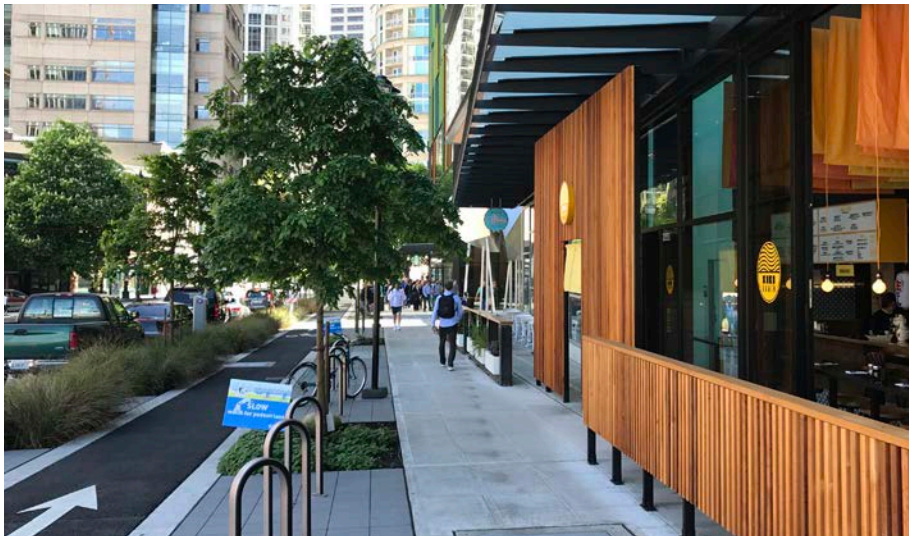


Figure 4.3 (top). Example of a street with an 'active ground floor'. Figures 4.4 (middle) and 4.5 (bottom). Examples of neighborhood streets.

TABLE 4.2. STREETSAPES: DESIRED QUALITIES

'Active Ground Floor' Streets

Refer to 'Active Ground Floor Streets' in Chapter Six: Development Standards for detailed information.

- Buildings have shopfront frontages with galleries, arcades, forecourts; and active ground floor uses. Umbrellas and awnings add shade and comfort.
- Wide sidewalks with space for trees, walking, outdoor dining and display of merchants' wares.
- Ground floor level generally flush with sidewalk.
- Small to no building setbacks.
- On-street parking.

Neighborhood Streets

Refer to 'Neighborhood Streets' in Chapter Six: Development Standards for detailed information.

- Buildings have stoop and dooryard frontages with forecourts and some shopfronts.
- Wide sidewalks with street trees.
- Small to medium building setbacks.
- On-street parking.

4.3 Thoroughfare Strategy



Figure 4.6. Walking and bicycling should feel safe for people of all ages.



Figure 4.7. Thoroughfares should be designed as both corridors for movement and as places to linger.



Figure 4.8. Raised cycle tracks eliminate conflicts between vehicles parking and loading and people on bikes.
Image source: "Sustainable Transportation in the Netherlands"

To support a thriving mixed-use district with minimal traffic congestion, thoroughfares must achieve two fundamental goals: creating beautiful streets, where people want to be; and creating streets that efficiently move many people, in space-efficient forms of transportation, from walking and bicycling to fast, frequent and reliable transit.

Direction for Thoroughfare Design and Operations

Vision Zero

In the design and operation of thoroughfares, protecting human life and health is paramount, and shall take priority over mobility and other transportation system objectives. Thoroughfares should be designed and operated with the aim of eliminating traffic fatalities and reducing non-fatal injury collisions in the Plan Area.

Streets for 8 to 80-Year-Olds

Thoroughfares should be designed to make bicycling, walking, and taking transit safe and comfortable for everyone, whether they are age eight or eighty. Sidewalks shall be provided on all thoroughfares.

Placemaking

Thoroughfares should be designed as places for dining, shopping and social interaction, as well as corridors for movement.

Target speeds

Design speeds for all streets should be selected using the concept of target speed. Maximum target speeds shall be 35 mph for Stevens Creek Boulevard, Vallco Parkway and North Wolfe Road, and 20 mph for all other streets.

Transit & Emergency Response Priority

On Stevens Creek Boulevard and North Wolfe Road, the City of Cupertino (City) will continue to prioritize maintaining transit speed and schedule reliability, and emergency response times, over single occupant vehicle movement, and consider using measures such as signal prioritization, queue jumps, bus-only lanes and bus bulbs and in-lane transit stops.

Design Guides

The National Association of City Transportation Officials (NACTO) 'Urban Street Design Guide', 'Urban Bikeway Design Guide' and the 'California Manual on Uniform Traffic Control Devices' (CA-MUTCD) will continue to be used as the design standards for thoroughfares. In the event of a conflict the City will determine the most appropriate standard.

Performance Metrics

New development within the Plan Area should be evaluated using vehicle miles traveled per capita (VMT per capita) as the primary metric for evaluating transportation impacts.



Figure 4.9. Features such as dedicated bike lanes make biking safe for all ages.

Adjacent Thoroughfare Improvements

New development may be required to improve adjacent portions of existing thoroughfares, including Stevens Creek Boulevard, Vallco Parkway and North Wolfe Road to meet the standards of this plan.

Multimodal Transportation Impact Fee

The project shall contribute the City's transportation impact fee for new development for improving all modes of transportation, including projects identified in the City's Bicycle Master Plan and Pedestrian Master Plan.

Transit Assessment

Transit stops may be located in the Plan Area.



Figure 4.10. Bicycling is a social activity and bikeways should be wide enough to allow for riding side-by-side.

Image source: Streetsblog



Figure 4.11. Adding a low-speed side drive to North Wolfe Road can make it a fine setting for shopfronts.

4.4 Managing Curb Space

The following apply to existing and new thoroughfares within and immediately adjacent to the Plan Area.

Direction for On-Street Parking Design and Operations

Priorities for Use of Curb Space

In order to prioritize the use of scarce curb space, in general, the needs of the following uses should be addressed before examining long-term parking needs (shown in order from highest to lowest priority):

1. Bicyclists, pedestrians, and transit
2. Active freight and passenger loading
3. Placemaking uses, such as parklets and sidewalk dining
4. Short-term parking.

- Use prices rather than time limits to maintain curb parking availability.
- Net parking revenues may be used (i.e., after covering parking program expenses) to fund facilities and services that benefit the blocks where the parking revenue is generated.

Curb Parking That is Well-Used but Readily Available

The City may provide the applicant the option of setting curb parking prices with the aim of ensuring that on-street curb parking is well-used, but readily available. Where necessary to maintain availability, the following strategies may be considered:

- Implement performance-based parking pricing with rates that may vary by time of day, day of the week and by block.
- Charge for parking wherever and whenever necessary – including evenings and weekends – to achieve a target occupancy range of approximately 65 to 85 percent occupancy on each block.



Figure 4.12. Features such as parklets can add vibrancy and greatly enhance retail activity.

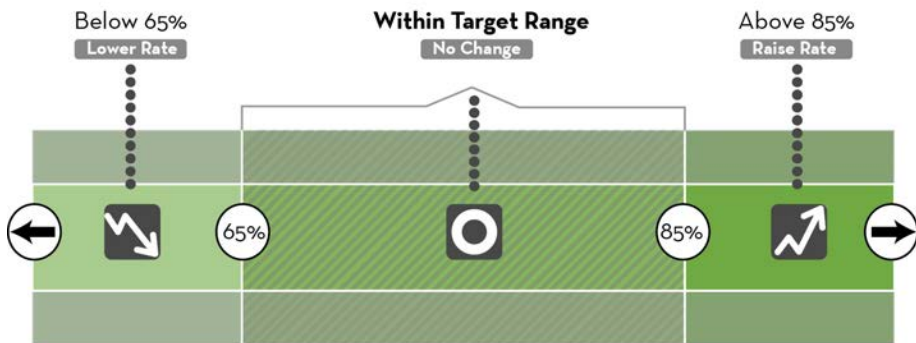


Figure 4.13. Performance-based curb parking pricing sets rates at the lowest price needed to make parking readily available on each block.



Figure 4.14. Redwood City uses performance-based parking prices: no time limits needed.



Figure 4.15. Good curb space management keeps spaces available for shoppers.

4.5 Traffic Reduction and Parking



Figures 4.16 (top) and 4.17 (bottom). Employer shuttles give employees a stress-free commute, while bikeshare fleets provide a new option for workday errands and that last-mile connection to public transit hubs.

Image sources: Genentech (above), Ford GoBike (below).

The primary purpose of the policies in this section is to improve transportation choices and reduce motor vehicle traffic, pollution, and traffic-related fatalities and injuries.

The goal of the Specific Plan is to create a mixed-use environment that provides a place for people live, work and play and also encourages residents, employees and visitors on the site to use alternate modes of transportation. This is not only reflected throughout the Specific Plan but also in the mitigation measures of the adopted Environmental Impact Report (EIR) document.

Project-level Transportation Demand Management Plans

Developments within the Specific Plan will be required to participate in the Project Transportation Management Association (TMA) to create a Transportation Demand Management (TDM) Plan designed to achieve the mode share target for the office component and collectively reduce traffic for the entire project.

Parking Standards

The TDM Plan establishes maximum parking requirements to make alternate modes more attractive for residents and employees. In addition, the TDM Plan will be required to consider mode-share and trip cap targets through strategies including:

1. Unbundling the cost of parking from the cost of rents and/or sale price for residential and non-residential uses.
2. Optimizing the amount of parking provided, to meet the project's needs

while encouraging alternate means of transportation. Refer to Chapter Six: Development Standards for parking requirements.

3. Providing carshare and preferential carpool spaces.
4. Providing a concierge service to users of the site to encourage alternative transportation.

Additional TDM measures may be applied per the EIR's mitigation measures, MSDP conditions of approval and/or a development agreement approved by City Council.

Parking Cash Out

Each employer who provides a parking subsidy to employees could offer a parking cash-out program that gives employees who do not drive a cash benefit equivalent to the value of the parking subsidy.

Free Transit for Employees and Residents

Developments could provide passes for local transit service (for example, a deep-discount group pass such as the VTA SmartPass) to the development's residents and employees free of charge.

Shuttle Services

Shuttle service should be provided to employees, hotel guests, users and/or residents of the developments in the

Plan Area. A community shuttle for users and visitors to the site that connects to other key shopping areas, high schools and to transit stations such as Caltrain is encouraged as part of a Community Benefits program.

Shared Parking

Projects may propose shared parking facilities, with the goal of an efficient use of spaces, between land uses, based on different times of peak parking demand.

Parking Wayfinding

Projects shall be required to develop an integrated way-finding system for parking facilities, including both static and dynamic (changeable electronic display)

signage to provide guidance and real-time parking availability information.

Mobility hub/ Transit hub

A Mobility and/or Transit hub(s) may be located in flexible locations to accommodate future transit connections to allow for transportation choices.

4.6 Improving Transportation Choices



A Transportation Management Association can efficiently provide services like bikesharing (Figure 4.18, above), including electric bikes (Figure 4.19, below).

Large projects can successfully minimize traffic congestion, carbon dioxide emissions and air pollution by providing resources that play a crucial role to provide project employees and residents, as well as visitors and the community, with better transportation options.

Transportation Management Association (TMA)

The Project shall establish a Transportation Management Association (TMA) to serve employers and residents within the project. All tenants and property owners shall be required to join the TMA. The key purpose of the TMA will be to help office users of the project improve transportation choices and achieve the mode-share targets and keep within the trip cap.

Key functions of the Project TMA shall include:

- Developing transportation services and demand management strategies, which may include but are not limited to carshare and bike share programs, providing commuter and resident incentives to use alternatives to driving, and securing funding from TMA members to support these strategies.
- Assisting TMA members in traffic reduction goals.
- Creating and managing a coordinated shuttle service.



A key function of a TMA is providing shuttle services including, potentially, autonomous shuttles like the ones pictured in Figure 4.20 (above) in Sion, Switzerland, and in Figure 4.21 (below) at the University of Michigan.

