

# Chapter 7

## Bicycle Parking, Intermodal Access and Support Facilities

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This chapter includes a description of and recommendations for bicycle parking, showers and locker facilities within Santa Clara County. While referred to as “support facilities,” these elements are essential components of bicycle travel. Without them, bike usage is hampered. With these support facilities, people are more likely to bicycle and the public’s awareness of bicycling for transportation is increased. The lack or presence of these facilities may be the determining factor in people’s choices to make a trip by bicycle or another mode.

With the widespread network of transit service in Santa Clara County, bicyclists can also expand the range of travel distances by using their bicycles in conjunction with transit. Accommodating bicycles on transit is now a standard feature offered by transit operators. The travel-times for trips made by bicycle-transit can be comparable with driving under certain conditions. The choice may depend on the frequency of the transit service, the flexibility of the transit-cyclist’s schedule, just as it is for non-cyclist transit users. However the capacity of the transit service to carry bicycles on board at during the travel period, and/or the availability of secure parking at transit stations directly affects a cyclist’s choice to use transit.

### The Necessity of Parking

If there is no convenient and secure bicycle parking available, determined bicyclists will make do with what they can find—street signs, parking meters, lampposts, even trees. These alternatives are undesirable for the bicyclist, because they may be substantially less secure; for pedestrians, because they may interfere with their circulation movement; and for the local jurisdiction, because they can damage street furniture or trees.

The lack of safe and convenient parking is the biggest problem facing many potential bicyclists. While security features are integrated into the design of a car itself, and car parking is provided nearly everywhere, bicycles are much more vulnerable. Left on the street for hours at a time, bicycles and bicycle accessories are easy targets for theft and vandalism, as well as being damaged by inclement weather. On-site, indoor bicycle parking provides the best solution. Unfortunately, not all building managers recognize the benefits of allowing employees to bring bicycles inside, and many buildings ban bicycles from their interior areas.

### Types of Bicycle Parking

Bicycle parking demand falls into three general categories:

- Short-term - 2 hours or less

- Long-term - 2 hours to full day
- Overnight - one night to two weeks or more

### **Short-term Parking**

Bicycle trips of approximately two hours or less require short-term parking. Typical sites are retail/commercial, office buildings for visitors, libraries and other similar sites to accommodate errands. Properly designed and located bicycle racks can accommodate short-term parking demand. Providing bicycle racks inside of buildings, space permitting, is an easy way to dramatically increase the security of the parked bicycles.

### **Long-term Parking**

Commuters and employees typically use long-term parking. Racks are notoriously inadequate because bicycles parked for long periods are subject to theft (especially of their components), vandalism, as well as wear and corrosion from inclement weather. Employee or commuter bicycle parking needs are best met by supplying Class I bike parking, which can be done in a variety of ways as described later in this chapter.

### **Overnight Parking**

The availability of overnight bicycle parking can make the difference in whether or not a trip is made by bicycle in many cases. For those passengers who are taking an overnight trip by air or rail, safe overnight parking is a must. But beyond that, there are potential commuters who may occasionally ride their bicycle to a transit station and leave their bicycle there for several days. For those commuters, a dedicated locker lease is not worth the effort to process the lease, especially since it would be used infrequently. Yet to expect bicyclists to leave their bicycles for days at a time at unsupervised bicycle racks outside the station is not viable. Bicycles are much easier to steal and vandalize than cars, and these differences must be taken into account when planning for the long-term parking of bicycles.










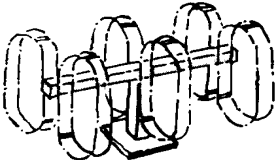

Provisions should be made to accommodate overnight bicycle parking at such locations. Combining the overnight bicycle parking facility with the long-term bicycle parking provided for employees may be possible. However, some of the proposals for long-term bike parking are appropriate only for employees and not for the public. While acceptable for employees, monthly rental lockers would not serve air/rail passengers' or occasional cyclists' needs for long-term or overnight parking. Short-term lockers should be provided for the occasional users. It is important to keep in mind all the potential users must be served when selecting the long-term and overnight parking strategies.

A more detailed description of parking types and placement criteria is available in the *Bicycle Technical Guidelines: A Guide for Local Agencies in Santa Clara County*.

## **Classes of Bike Parking**

Bicycle parking facilities fall into three general categories. See Figure 7-1.

**Figure 7-1 Types of Bicycle Parking**

<p><b><i>Class I</i></b> Protects the entire bicycle and components from theft, vandalism, or inclement weather.</p>	<p><b><i>Class II</i></b> Secures both the frame and at least one wheel with a user-provided U-lock or lock + cable.</p>	<p><b><i>Class III</i></b> Secures only one wheel to the rack and not the frame.</p>
<p><b>Lockers: Standard</b> Fully enclosed lockers may be placed outside. Each locker has a separate bicycle space.</p> 	<p><b>Wave or Ribbon Rack</b></p> 	<p><b>Schoolyard "Comb"</b> Has top bar to which frame can be locked if bike is lifted</p> 
<p><b>Bike Lid</b> Fully enclosed lockers may be placed outside. Each locker has a separate bicycle space.</p> 	<p><b>Inverted U-shape or Horse Rail Rack</b></p> 	<p><b>Other Schoolyard Racks</b> - note no top bar</p> 
<p><b>Locked &amp; Fenced Corral</b> Fenced compound that is locked (keys are usually provided to the users).</p>	<p><b>Crank Case</b> Locks both wheels with metal bars or locks the bike rack with cable to secure wheels.</p> 	<p><b>Other Wheelbender Racks</b></p> 
<p><b>Attended or valet bike parking.</b> This facility is under constant surveillance.</p>	<p><b>Rack 3-</b> Old, obsolete three-pronged racks popular prior to the invention of U-locks.</p> 	<p><b>Other Wheelbender Racks</b></p> 
	<p><b>Coat Hanger Racks</b></p> 	

## **Class I**

Class I parking protects the entire bicycle and its components from theft, vandalism or inclement weather. Class I parking facilities are appropriate for long-term bicycle parking such as at employment centers or transit stations. Examples are bicycle lockers, supplying bicycle racks in a sheltered supervised location, such as a parking garage with an attendant, in a locked room or nook inside the building, rooms with key access for regular bike commuters, guarded parking areas, and valet or check-in parking. Each of these methods has advantages and disadvantages. For example, bicycle lockers are usually reserved in advance with a key deposit and a monthly fee. While many bike commuters are willing and able to reserve in advance and pay the fee to guarantee that they will have a safe and secure parking space, many are not able to do so. This rental system does not serve the occasional commuter or anyone who cannot, for whatever reason, pay to reserve in advance. A common variation of a simple Class I parking scheme is at schools where racks are placed within a fenced compound to provide more security to discourage thieves. The compound is either locked during the day or unofficially guarded by the activity within the school.

## **Class II**

Class II parking is usually a rack to which the frame and at least one wheel can be secured with a user-provided U-lock or padlock and cable. Racks should at a minimum be able to support the bicycle upright by its frame (not just its wheel). This type of parking is appropriate for short-term parking at locations such as shopping areas, libraries and other places where the typical parking duration is about two hours. Acceptable rack designs popular with bicyclists are the wave or ribbon racks and the inverted U-rack, or horse rail rack. Increasingly popular crank case racks are higher security Class II racks.

## **Class III**

Class III racks secure only one wheel to the rack and were (and are unfortunately) quite popular in schoolyards. They are never recommended except in guarded areas or locked rooms, where they are used in Class I situations.

## **Bicycle Rack Placement Criteria**

The placement of bike racks should take the following into consideration:

1. Avoid adversely impacting pedestrian circulation
2. Ensure that the maximum design capacity can be utilized
3. Maximize bicycle visibility
4. Maximize convenience (minimize distance between parking and the entrance of the destination)

Recommended placement dimension and clear space requirements for selected Class I and II parking facilities are shown in Figures P-2, P-3 and P-4 of the *Bicycle Technical Guidelines: A Guide for Local Agencies in Santa Clara County*.

### Local Jurisdictions' Parking Policies

Figure 7-2 shows which cities have policies regarding providing bicycle parking. A few cities have adopted policies or ordinances encouraging or requiring developers to provide bicycle parking as part of their projects. Several cities' bicycle plans include parking assessments and recommendations.

**Figure 7-2 Local Jurisdiction Bicycle Parking Policies**

City	Policies
Campbell	
Cupertino	Requirements for multi-family and commercial
Gilroy	
Los Altos	TBD (Bicycle Plan in progress)
Los Altos Hills	
Los Gatos	
Milpitas	
Monte Sereno	
Morgan Hill	
Mountain View	Requirements for all new buildings
Palo Alto	Most new buildings or uses
San Jose	Some requirements depending on land use
Santa Clara	Large new developments for parking reductions
Saratoga	Requirements for new development
Sunnyvale	Some requirements depending on land use or floor-area ratio

Stanford has policies which stipulate the provision of bicycle parking for 100% residence hall occupancy, and on an as-needed basis for academic, research and medical buildings.

### Existing Parking Facilities

Existing bicycle parking facilities and needs at major bicycle destinations in Santa Clara County are described below and in detail in Appendix H. Most of the facilities that are openly accessible are Class II and Class III parking. Most of the Class I parking are lockers at employment centers, which require the user to be affiliated with the site.

In general, cities provide bicycle parking at their public buildings such as the library and city hall, and other high-use areas such as downtown, convention centers, transit stations (often in addition to the parking provided by the transit operators) and parks. A survey of existing bicycle parking facilities was conducted in summer 2000 by volunteers from local BACs. The local jurisdictions also provided inventory information. To some extent, these numbers vary depending on the inventory system. For example, the City of Palo Alto has a complete list in their Bicycle Plan that itemizes every parking facility in the city.

## **Recommended Bicycle Parking Locations**

Appendix H contains a detailed list of the main destinations in each city, with the type and quantity of existing bicycle parking, as well as recommendations for additional parking. In general, Class II racks should be placed at the following types of locations:

- Rail stations and major bus transit centers
- Schools and colleges
- Shopping centers, regional and neighborhood
- Major employment centers including office buildings and hospitals
- Libraries
- Civic and public buildings
- Restaurants and other food/beverage establishments
- Downtowns/central business districts
- Parks and other recreational facilities

## **Parking at Transit and Park & Ride Facilities**

Most major transit hubs in Santa Clara County have monthly rental lockers available for bicycle parking. Only three sites (California Avenue, Almaden and the Great America train stations) have waiting lists for their lockers. However, there are insufficient bicycle racks systemwide to serve the bicyclists who only need to park occasionally at the transit center and/or do not want to go through the process of renting a locker. Short-term lockers should be provided for the occasional cyclists.

There are 34 public park and ride lots in Santa Clara County. These lots are used to access transit or ridesharing opportunities. Although some park and ride lots serve only ridesharing, all of the lots listed in Appendix H are served by the VTA. Three of the lots serve Caltrain stations. Eighteen of these lots include some kind of bicycle facilities. With the exception of the Park and Ride Lot at Page Mill Road (which is managed by Caltrans), the lots are managed by VTA.

**Palo Alto Bikestation at the Palo Alto Caltrain Station**

The Bikestation at the Palo Alto Caltrain Station was established in 1999 jointly by the City of Palo Alto and Caltrain in the former baggage building to provide free, secure parking. It is a staffed operation seven days a week. Many commuters bicycle to the station, leave their bicycle at the Bikestation, and then board Caltrain or other transit to work. There are also a number of people who take Caltrain to Palo Alto, pick up their bicycle from the Bikestation, and pedal on to their final destination. In the evenings, their bicycles are left overnight in the Bikestation. The Bikestation also offers bicycle repair, rental and sales services.

A Bikestation has also been established at the Berkeley BART station, and are being proposed in for other rail stations in the Bay Area.



## Intermodal Access

Combining bicycling and transit is an effective way to travel longer distances and in less time than by bicycle alone. Transit agencies have realized that accommodating bicycles on board the transit vehicle, as well as providing secure bicycle parking at the transit stations is a great way to promote transit ridership, without the need to provide additional automobile parking.

### Altamont Commuter Express

Patrons may bring their bicycle on board the ACE train or ride their bicycle to the station and leave it in one of the bicycle lockers provided at each of the platforms. The #01 and #04 trains have a total of 26 bicycle spaces available, and the #02 and #03 trains have a total of 40 bicycle spaces available. These spaces are available on a first come, first serve basis.

### Caltrain

All trains have at least one 24-capacity bicycle car; at least 18 trains have two bicycle cars (48 bicycle total capacity). However, the second bicycle car is not guaranteed due to equipment maintenance and other conditions. Collapsible bicycles are not subject to the 24- or 48- capacity limit when folded.

### Capitol Corridor

Except for the food service car, each passenger car on the Capitol Corridor trains has three securement units for bicycles, available on a first-come, first-serve basis.



## **VTA**

VTA buses and light rail have the following rules for bicycle access:

- Maximum bicycle size is 80 inches long by 48 inches high
- Only human powered and sealed dry cell electric assisted bicycles are allowed
- Bicycles must not block doorways and stairwells while on board
- Cyclists should allow other passengers to board and deboard before loading or unloading bike
- Avoid transferring chain and sprocket grease on VTA vehicles and other passengers
- Bicyclists are responsible for securing their bicycles in the racks provided.
- Bicycles inside the bus must be attended to by the bicyclist
- Cyclists are responsible for loading and unloading their bicycles
- Bicycles must not be secured to wheelchair clamps
- Bicycles must not be chained to poles, pillars, etc., at transit centers or light rail station platforms

VTA has produced a brochure entitled “Bikes on VTA” that provides more detailed information on the use of bicycles in conjunction with VTA.

### ***VTA Light Rail***

All VTA light rail vehicles are equipped with interior racks. The maximum number of bicycles allowed inside a light rail vehicle is six. Up to four bicycles can be accommodated in the racks provided, and two additional bicycles are allowed to stand on the floor in the center section (turntable area) of the vehicle. Bicycles must board through the center doors of each car clearly marked with a white bicycle icon and are restricted to the designated area in the center section (turntable area) of the vehicle.



### ***VTA Buses***

All VTA buses are equipped with exterior bike racks for up to two bicycles. When the rack is filled to capacity, up to two bicycles are allowed inside the bus at the bus operator's discretion. The buses on the Highway 17 Express and the Dumbarton Express are also equipped with bike racks which can accommodate up to two bicycles. Bicycles are not allowed inside the bus on the Highway 17 Express and Dumbarton Express.



### **Showers and Lockers**

Showers and storage for clothing encourage bicycle commuting and, depending on the length of the commute, may make the difference as to whether biking to work is feasible. Showers and lockers also provide benefits to all employees as those who run, walk, or cycle during lunch breaks can use them. Showers are increasingly common in new office buildings and employment centers along with full fitness centers, as they can attract tenants and employees. Clothes storage facilities can be individual lockers or a closet shared by all employees. An alternative to the provision of private office facilities is employer subsidies of employees' use of a nearby gym or fitness center that has showers.

Several jurisdictions (Morgan Hill, Mountain View and Palo Alto) require lockers and showers as components of new office and retail construction or renovations. Through its Development Review program, VTA regularly requests showers and lockers as part of new development.