

Chapter 6

Bicycle Parking, Intermodal Access and Support Facilities

This chapter describes 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 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 making the 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. However the capacity of the transit service to carry bicycles on board during the travel period, and/or the availability of secure parking at transit stations directly affects the transit-cyclist. Accommodating bicycles on transit is now a standard feature offered by transit operators including VTA, BART, Caltrain, and Amtrak. The travel times for trips made by bicycle-transit can be comparable with driving under certain conditions. Just as for many transit users, the decision to use transit may depend on the frequency of the transit service and the flexibility of the transit-cyclist’s schedule.

BICYCLE PARKING

The Necessity of Parking

If convenient and secure bicycle parking is not 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 circulation; and for the municipal agency, 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 such as Class I office buildings ban bicycles from their interior areas.

Bicycle Parking – Demand Type

Bicycle parking demand falls into three general categories:

- Short-term - 2 hours or less
- Long-term - 4 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 require 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 (secure 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 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 are 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. For example, 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 of the various potential users who would 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*.

Bicycle Parking – Facility Type

Bicycle parking facilities fall into three general categories:

Class I – Secure Bike Parking

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. 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. 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.

Class II – Bike Racks

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. These and other acceptable bike racks are illustrated in VTA's *Bicycle Technical Guidelines*.

Class III – Inadequate Bike Racks

Class III racks secure only one wheel to the rack and were (and unfortunately still are) quite popular in school yards. 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)

More detailed location criteria and illustrations on recommended dimension and clear space requirements are presented in VTA's *Bicycle Technical Guidelines*.

Local Jurisdictions' Parking Policies

A few cities in Santa Clara County have adopted policies or ordinances encouraging or requiring developers to provide bicycle parking as part of their projects. These are listed below in Table 6-1. In addition, several cities' bicycle plans include parking assessments and recommendations.

Table 6-1: City Bicycle Parking Policies

City	Policies for Bike Parking in New Development Projects
Cupertino	Requirements for multi-family and commercial
Los Altos	To Be Determined (Bicycle Plan update in progress)
Mountain View	Requirements based on VTA's Bicycle Technical Guidelines
Palo Alto	Requirements for most new buildings or change in uses
San Jose	Requirements for new development (based on land use and square footage)
Santa Clara	Large new developments for parking reductions
Saratoga	Requirements for new development
Sunnyvale	Requirements based on VTA's Bicycle Technical Guidelines

VTA Parking Programs and Policies

VTA's bike parking policies are contained in the BTG. The following is a brief summary of these policies and VTA bike parking programs.

VTA Bike Parking Policy for Transit Users

VTA policy is to provide bike racks at each light-rail transit (LRT) station and major bus stops. In practice, bike racks are currently provided at many LRT stations with Park & Ride lots, and at some of the remaining LRT stations and at a few bus stops. VTA intends to expand its bike racks program until all LRT stations have at least a minimum number of bike racks. VTA will also work with cities to provide bike racks at bus stops.

Bike lockers are provided at all VTA Transit Centers and Park & Ride lots. Current VTA practice uses mechanical bike lockers which are assigned in advance to the user who leaves a key deposit. However, VTA's new policy is to switch to Smart-Card technology to make bike lockers more efficient and accessible. Any user with a smart card can use any empty locker on a first-come first-served basis, instead of the current practice of one locker per person at one site. There would be a nominal fee. Any new lockers purchased will use Smart-Card technology. VTA will begin to retrofit its existing bike lockers to use Smart Cards in 2008.

VTA Bicycle Rack Giveaway Program

VTA has received a grant from the Bay Area Air Quality Management District (BAAQMD) through their Transportation Funds for Clean Air (TFCA) program to fund bike racks in public places. VTA purchases the Class II racks and provides them to property owners or managers who install them at their sites. This program is targeting the following types of uses. (New development is not eligible for this program since they should be supplying racks and lockers as part of their condition of approval):

- Shopping centers, regional and neighborhood
- Major employment centers including office buildings and hospitals
- Libraries
- Churches
- Civic and public buildings
- Restaurants and other food/beverage establishments
- Downtowns / central business districts
- Parks and other recreational facilities

Existing Parking Facilities at Major Destinations

Existing bicycle parking facilities and needs at major bicycle destinations in Santa Clara County are described below. 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, and parks. A survey of existing bicycle parking facilities was conducted in summer 2000 by volunteers from local BACs. The local jurisdictions also provided information if available. For example, the City of Palo Alto's Bicycle Plan lists every bike parking facility in the city. A detailed list of the main destinations in each city, with the type and quantity of existing bicycle parking are presented in Appendix F.

Palo Alto Bikestation at the Palo Alto Caltrain/Transit Center

The Bikestation at the Palo Alto Caltrain /Transit Center was established in 1999 jointly by the City of Palo Alto and Caltrain in the former baggage building to provide free, secure attended parking. The original Bikestation was a staffed operation seven days a week that also offered bicycle repair, rental and sales services. However, it was not open past 7 pm which limited its availability to some cyclists.



Palo Alto Bikestation

In 2007, the Bikestation was revamped and reopened as a 24-hour bicycle parking facility. The facility is equipped with a double-tier bicycle rack that can accommodate up to 96 bicycles and provides its users electronic key access by way of “smart” card technology. Bicyclists are able to park and retrieve their bicycles at any time, even during non-staff hours by using their electronic key cards.

The 24-hour operation not only allows commuters to bike to the transit center, leave their bicycle at the Bikestation, and then board Caltrain or the bus, but it also enables the opposite, i.e. it allows people to take Caltrain or a bus *to* Palo Alto, pick up their bicycle from the Bikestation, and pedal onto their final destination. Their bicycles are left overnight in the Bikestation.

Bike Shelter at the Mountain View Caltrain/Transit Center

The City of Mountain View administers a shared-use bicycle shed in the station building, located about 200 feet from the Caltrain platforms. It holds 52 bikes, and is accessed by registered users with individual number codes.

Summary of Recommended Bike Parking Projects

- Bike racks at all VTA Light rail stations and major bus stops
- eLockers at all Park & Ride lots and Transit Centers
- Bike stations at all transit stations with demand exceeding 70 bikes per day
- Update bike parking inventory in Appendix F

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.

Caltrain

Caltrain runs 98 trains on weekdays, all of which have bicycle cars. Gallery train bike cars have a 32-bike capacity; Bombardier train bike cars can carry 16 bikes. Occasionally, a second bike car is available on some trains. Collapsible bikes are permitted on board in any car when folded, and are not subject to the bike cars' capacity limits. Boarding of bicycles is on a first-come first served basis only. If a bicyclist boards the train and the bike car is full, the bicyclist may have to get off and wait for the next train.

VTA

VTA Light Rail

The maximum number of bicycles allowed inside a light rail vehicle is eight. All VTA light rail vehicles are equipped with interior racks holding 4 bikes. Up to four additional bicycles can be accommodated in the turntable areas of the vehicle; the rider must stand and hold onto the bike. Bicycles must board through the center doors of each car clearly marked with a white bicycle icon. During the peak hours, VTA typically runs two or three car trains, yielding a capacity of 16 to 24 bikes per train.

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 equipped with bike racks which can accommodate up to three bicycles. However, bicycles are not allowed inside these buses, due to the interior configuration of the buses.

The following applies to both buses and LRT; the complete list of rules is found on the VTA website and in the brochure "Bike and Ride on VTA":

- Maximum bicycle size is 80 inches long by 48 inches high
- Only human powered and sealed dry cell electric assisted bicycles are allowed

VTA recognizes that the two bike racks per bus does not provide enough capacity to meet the demand, particularly on Line 522 and the express buses and will be investigating ways to expand capacity.

Summary of Recommended Intermodal Bike Projects

- **Bikes on VTA Buses:** Increase capacity or otherwise relieve limited capacity of bike racks on buses; consider:
 - Bike racks with 3 bikes per rack.
 - Special bike bus/shuttle with capacity for about 20 passengers with bikes.
 - Secure parking at origins combined with bike sharing at high demand destination locations so that riders can use the bike share and do not have to bring their bikes with them, see below.
 - Encourage use of folding bikes which can be brought aboard at all times.
- **Bikes On Board Caltrain:** Work with Caltrain to implement their bike master Plan to relieve the chronic overcrowding of bikes on board Caltrain trains.
- **Bike Sharing:** Work with member agencies and employers to develop a bike sharing program that would be available for VTA passengers to ride to and from VTA stations and stops.

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 retrofit an office building with showers is for employers to subsidize local gym or fitness center memberships for its employees (provided that it has shower facilities).

Several jurisdictions (Morgan Hill, Mountain View, San Jose and Palo Alto) require clothes lockers and showers as components of new office and retail construction or renovations. Through its Development Review Program, VTA regularly requests showers and clothes lockers as part of conditions of approval and mitigations.