Chapter 2

ACCESS ALONG THE EAST BAY SHORELINE

Dexter Chan

Introduction

Access to the East Bay shoreline is critical for the future use and value of the area. Its role is intimately intertwined with any plan for the area, especially with regard to the proposed East Bay Shoreline Park with special attention to non-automotive forms of access. Properly planned and developed means of access will serve to enhance the usability of the shoreline.

Access serves as a way of encouraging people to visit an area, and as a means of controlling the number of people and their flow through an area. It can even serve as a way of preventing people from entering an area. All these factors must be taken into account when the potential uses of the shoreline are discussed.

The presence of U.S. Interstate Highway 80 along the entire length of the shoreline study area also requires any comprehensive report to include the possible effects of changes to the highway in relation to the shoreline proposals. Changes are especially crucial at this location since the shoreline's access points are directly related to the highway exits, and I-80 is the primary artery connecting San Francisco with the East Bay.

The California Department of Transportation (Caltrans) has several key goals for this corridor. One of their goals is to increase the capacity of the highway. Another major goal is to enlarge the highway physically as little as possible, to keep down acquisition and construction costs. Thirdly, Caltrans hopes to encourage more riders per vehicle, which would effectively increase the number of people using the highway, but not the number of vehicles (Larson, pers. comm., 1982). Caltrans proposes the use of High Occupancy Vehicle (HOV), or "Diamond" lanes, and the addition of auxiliary lanes to meet these goals. These should increase the flow rate on the highway, thereby increasing capacity over time (Forsen, pers. comm., 1982). Since construction and restructuring of the highway and its on- and off-ramps will be necessary, it is important that we also analyze these proposed changes and how they will affect key access points to the shoreline. Presently, the proposals are

in the draft Environmental Impact Report (EIR) stage and still subject to revisions.

One positive aspect of these proposed changes is that they are occurring at a time when other major changes are being considered along the shoreline by various groups. This permits cooperation between agencies to implement these proposals most efficiently.

The question of providing access, and what type, is critical to each area along the shoreline, especially if it is better not to permit access. This may be the case concerning ecologically sensitive sites such as the wetlands areas.

There are two ways to prevent problems due to access. One, do not allow access of any type in the area surrounding the sensitive areas. The alternative is to construct pathways controlling access. Both of these options will be discussed in more detail in the Powell Street section (and in Lisa Cohen's paper).

The main forms of access addressed in this paper are: automobile, public transit, bicycle, pedestrian, and handicapped; boat access is beyond the scope of this paper.

I would like to acknowledge the staff at Caltrans, especially Krieg Larson, Hilmer Forsen, and Lloyd Wood, for all the cooperation and time they gave me in their efforts to give me the most up-to-date information possible on their proposed designs. The accuracy and detail of the maps would not have been possible without the use of their geometrics. However, the maps in this report may already be out-of-date, since Caltrans has just started writing the draft EIR, and revisions on their plans are occurring constantly.

Present Access

Present access to the shoreline areas (see map, p. vi) was designed primarily with the automobile in mind. However, with the ever-increasing awareness of the price of gas and public transportation, alternative modes have since become very popular. Unfortunately, those people who wish to take advantage of these alternative modes are often discouraged from using the shoreline area due to the difficulty not only in getting there, but also in getting from one area to another.

Bicycles can now safely reach the shoreline only at Powell Street and Gilman Street. For pedestrians none of the access points are extremely safe. Powell Street and Gilman Street are the best available. The handicapped must rely on automobiles,

Dial-a-Ride, or on AC Transit. With AC Transit they are very limited in which areas they may visit. Also available, on a limited basis, is the Dial-a-Ride program; however, this is restricted by funds and the amount of people wishing to visit an area. TABLE 1 rates each access point in terms of variety and safety. Looking at this table, we can see that each access point is best used by cars. This is followed by public transportation, primarily AC Transit, and then bicycles. And lastly are the pedestrians. A brief description of each access point allows a better understanding of these ratings.

	Cars	Pedestrian	Public Transportation	Bicycles
Central	**	0	**	-
Marin	**	0	0	-
Gilman	**	*	*	*
University	**	-	**	-
Ashby	**	0	0	-
Powell	**	*	**	*

** = Best method for access point
* = Not the safest method, but usable
- = Highly unsafe
0 = None at this point

TABLE 1. Access Ratings for Individual Access points.

Central Avenue

Travelling north to south, we have Central Avenue as the most northerly access point along the shoreline (see map, p. vi). Located at the western end of Central Avenue are the U.S. Bulk Mail Facilities, Point Isabel Regional Shoreline, the Albany mud flats, and Hoffman Marsh. There now exist two means of access to this fairly isolated area, private auto and AC Transit. Bicycle and pedestrian access is very difficult since crosing I-180 (now known as Highway 17) is required, and the only means to do so now at this point is on an overpass with no provisions for such use. Proposals by Caltrans do address this problem (FIGURE 1). It intends to construct a new overpass with a pedestrian walkway and a marked bike lane.

I-80/I-180 (Highway 17) Junction

This junction is approximately one-and-a-half miles south of Central Avenue, feeding cars from I-80 to I-180 (probably better known as Highway 17) and Hoffman

Avenue. Besides being a major junction for automobiles, this interchange, and the streets below it (Marin Avenue and Buchanan Street), serve the most prominent recreation area along the shoreline, Golden Gate Fields (see map, p.241). The congestion on the highway and the neighboring streets during the horse racing season has forced Caltrans to design a way to handle the traffic problems (FIGURE 2). Their present proposal involves:

(1) Eliminating merge lanes at the junction. By eliminating the merge lanes, traffic should flow from the on-ramps and highway lanes together much more easily, reducing the amount of rush hour congestion (Forsen, pers. comm., 1982).

(2) Reducing the amount of street travel necessary in getting to I-180). The reduction of street traffic is always desirable, but by doing this, Caltrans also encourages bikes and pedestrians to use the less congested streets.

(3) Adding auxiliary lanes westbound to Gilman Street. These lanes would run only from one on-ramp to the next. This effectively adds an extra lane for a short distance and allows extra time for drivers to enter and exit the highway (FIGURE 3).

(4) Adding a collector road eastbound. Collector roads are lanes separate from the main body of the highway. In this instance, such a collector road is used as an extra-long eastbound on-ramp from Gilman Street in the hope that it will allow drivers to by-pass the traffic on the highway from Golden Gate Fields during track season (FIGURE 3).

All of these techniques are designed to increase the flow of traffic with as little physical modification as possible. These changes should relieve the present congestion encountered at the end of the racing day and also should adequately handle the increase in traffic when the Albany Marina is constructed.

Marin Avenue/Buchanan Street

These two streets are directly below the I-80/I-180 interchange (FIGURE 2). The major problem at this location is Golden Gate Fields. The traffic problems presented by the track patrons, especially at the end of the racing day, not only

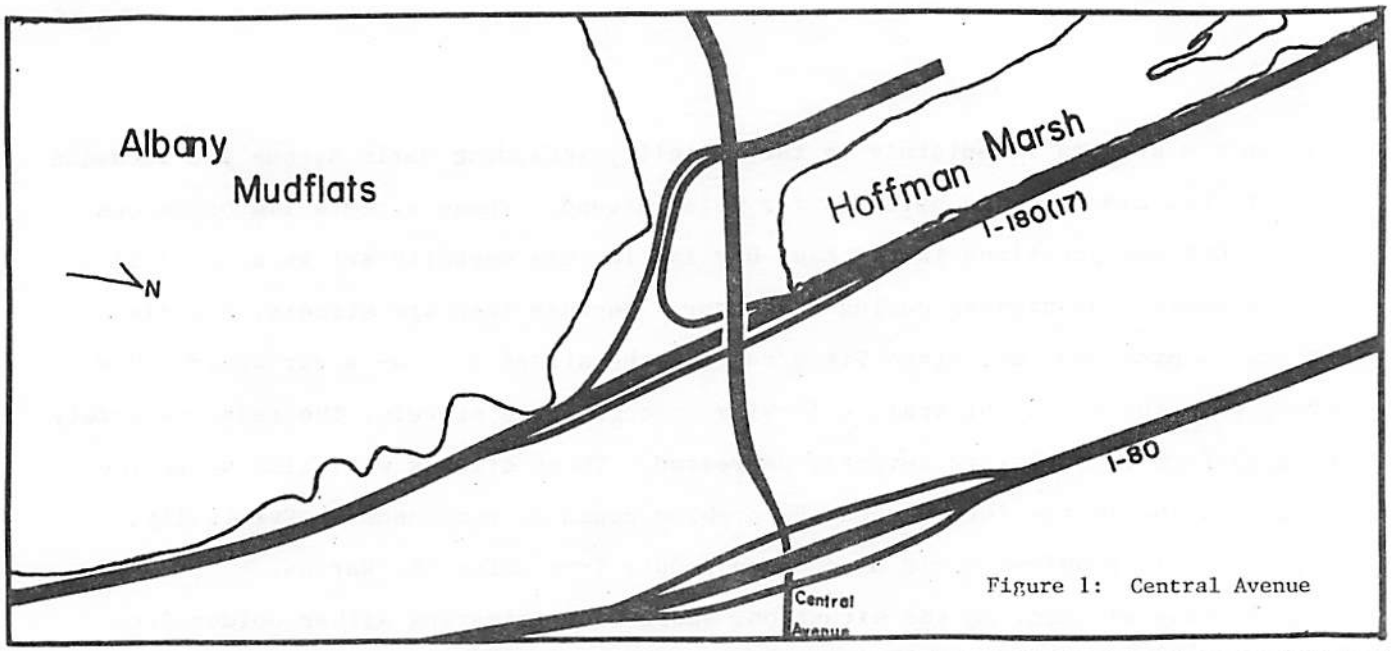

Figure 1: Central Avenue

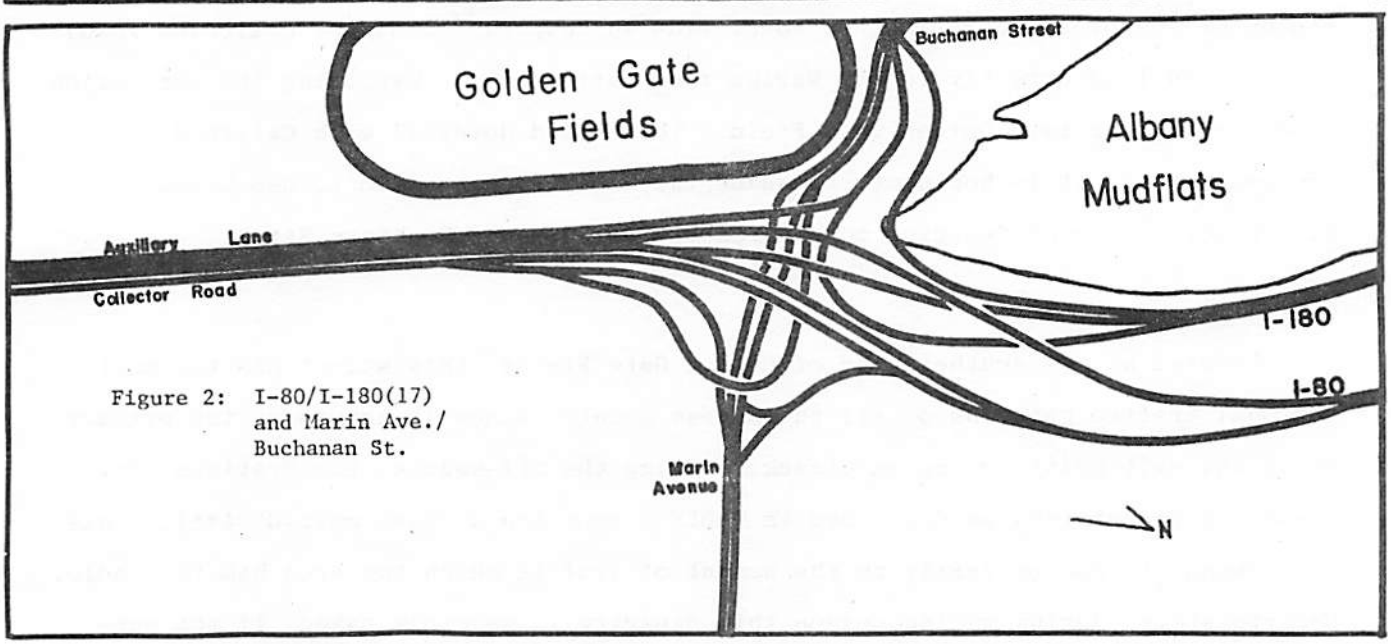

Figure 2: I-80/I-180(17) and Marin Ave./ Buchanan St.

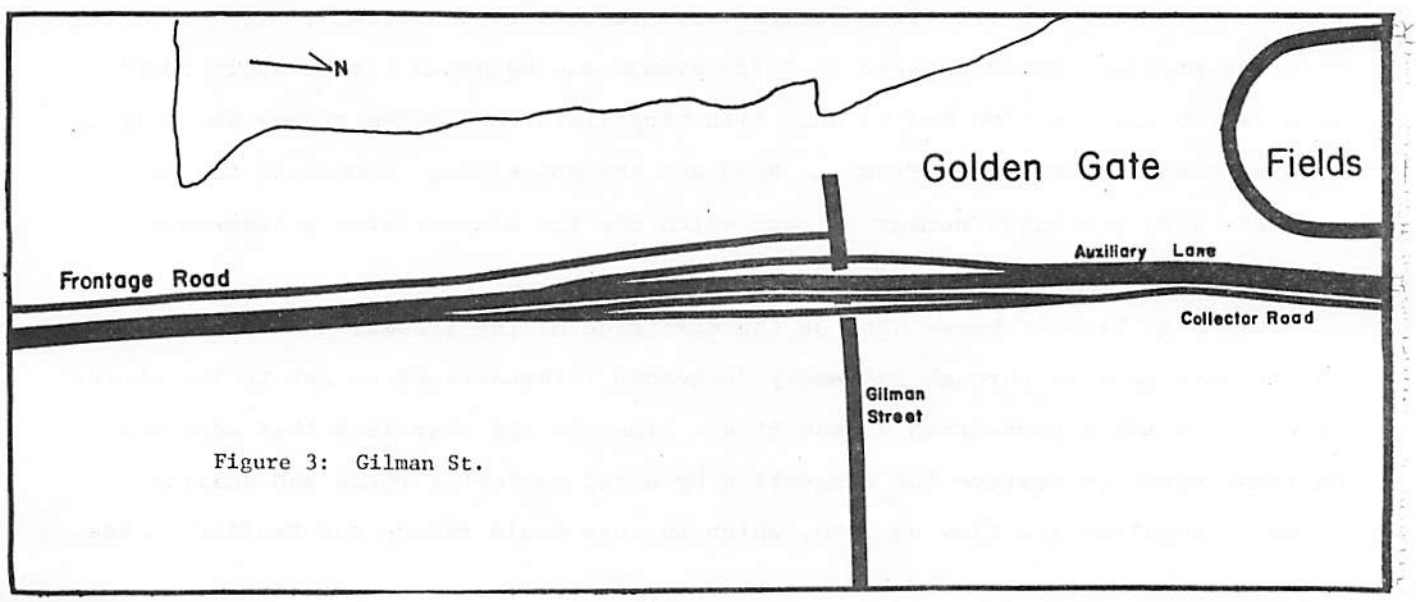

Figure 3: Gilman St.

Source: Base Map: CHMNB; Changes: Preliminary Geometrics from Caltrans

tie up the streets immediately in the vicinity, including Marin Avenue and Buchanan Street, but also highway patterns for miles around. These streets lie below one of the busiest junctions in the East Bay and in this capacity act as a means of supplementing the highway during rush hour. Because they are streets, bicycle access is provided for, since bikes can use the street just as a car would. However, with the amount of traffic flowing through these streets, the relative safety of this form of travel is severely decreased. These streets will also serve the Albany Marina in the future, and the problem could be compounded. Eventually, these traffic problems could discourage people from using the Marina.

A means of handling the situation, short of eliminating either Golden Gate Fields or the proposed Marina, is to provide an "express" lane (or collector road) which would lead directly to the Marina from Marin Avenue, bypassing the congestion from the traffic into Golden Gate Field. This would dovetail with Caltrans' proposal, since it is hoping to persuade the race track traffic to use Gilman Street more, thereby reducing congestion on Marin Avenue/Buchanan Street.

Gilman Street

Located at the southern end of Golden Gate Fields, this street has the most seasonal traffic patterns of all the access points, since it serves as the primary entry and exit point to the racetrack. During the off-season, the "ratings" for bikes and pedestrians as described in TABLE 1 approach a "best method" (**). This improvement is due primarily to the amount of traffic which the area has to handle. Unfortunately, during racing season this capacity is severely taxed, if not surpassed, with only two traffic officers there to control the flow.

The problems which applied to Marin Avenue and Buchanan Street apply doubly here, since now one also has to deal with bicyclists (and pedestrians) who rely on this access point to reach Frontage Road and the shoreline. Combining the bicyclists with the large number of cars which use the area creates a dangerous situation.

Since AC Transit buses stop on the east side of the freeway underpass, passengers have to walk through extremely dangerous intersections to get to the shoreline. This makes pedestrian access at all times of the year less than adequate. Caltrans hopes to relieve the congestion by using collector roads and auxiliary lanes to regulate the flow on I-80, which in turn would reduce the traffic on the

street level (FIGURE 3).

The simplest solution to increase the overall safety of this intersection would be to replace the occasional traffic officers with permanent traffic lights. Also, this hazardous intersection could be avoided by creating other points of access for bicyclists and pedestrians along the shoreline. In the future, Gilman Street will most likely be the northern-most access point to the largest area of the proposed East Bay Shoreline park. Therefore, the question of safety should be dealt with now since modifications are going to be made regardless.

University Avenue

This interchange is perhaps the most critical one along the shoreline, since it serves the Berkeley Marina and will serve the major park area, according to the State proposal. As TABLE 1 shows, access by cars and buses right now is excellent. The problem comes in dealing with bicycle and pedestrian access.

Although Caltrans has provided a stairway and walkway on the south side of the overpass, no controlled access is provided across the off-ramp intersection, through which cars often travel in excess of 30 mph. In addition, no access is provided by either Caltrans or the City of Berkeley across the Southern Pacific Railroad tracks on the east, the Frontage Road-University Avenue intersection to the west of the stairway, and the westbound lane to the Marina.

In a survey conducted for this collection of papers (see Grant Edelstone's paper) comments were made concerning this problem. A biker stated: "It's a pain to get over the bridge (University Avenue Overpass). Maybe there could be a bike lane over the bridge." In response to this, Caltrans has included in its proposed plan, bike lanes with stoplights at each intersection on the overpass and a separate bike trail which detours around the eastern end of the overpass, allowing safe passage for bicyclists across the Southern Pacific railroad tracks (FIGURE 4). Along with the addition of bike lanes and restructuring of the overpass, major revisions are planned for the westbound ramps, especially the off-ramp.

Presently, before reaching the cloverleaf, south-bound exiting traffic must merge with entering traffic. Caltrans plans to relieve the dangerous situation by eliminating the need for this merger. By moving the off-ramp north so that the exit is made directly to University Avenue, the cars need not merge and the cloverleaf ramp in that direction may be eliminated (FIGURE 4).

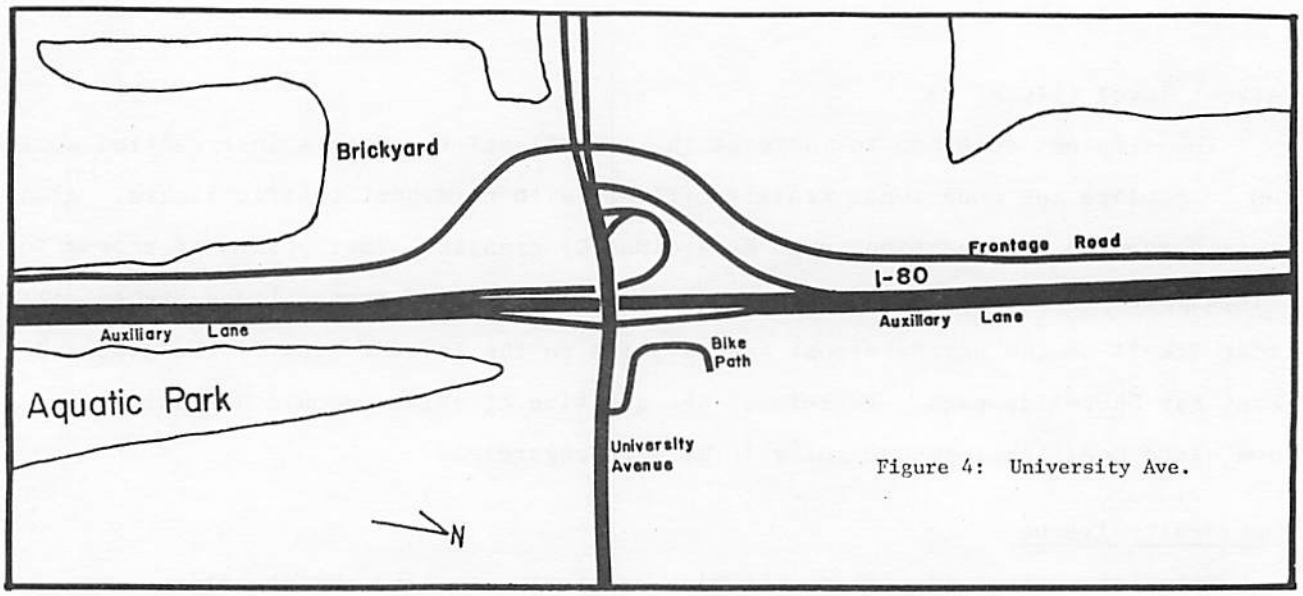

Figure 4: University Ave.

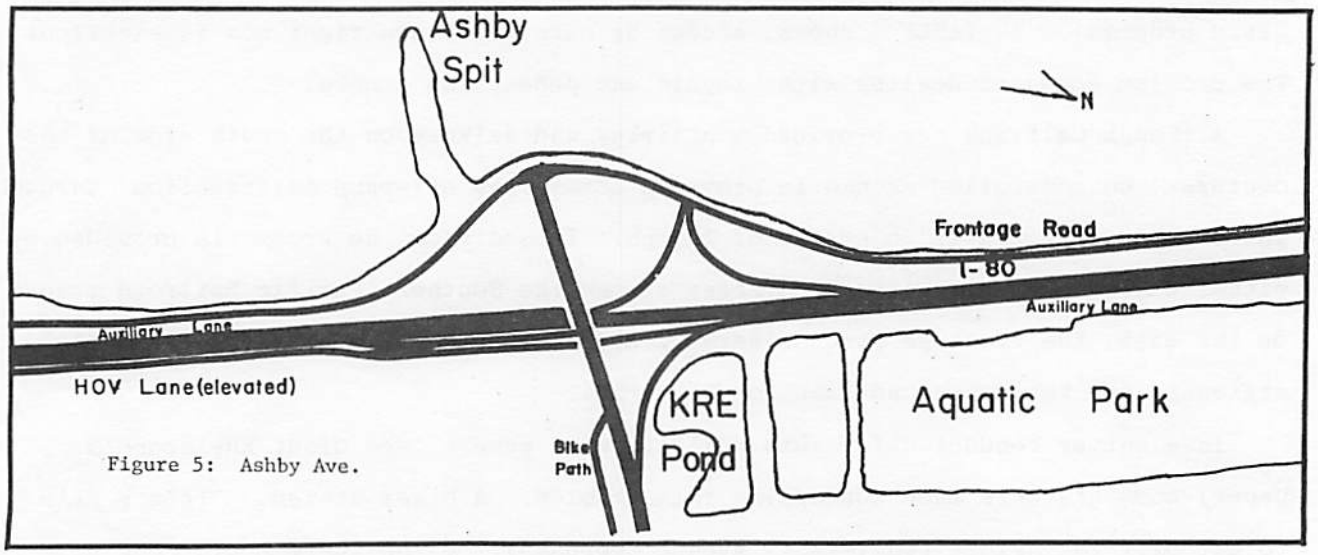

Figure 5: Ashby Ave.

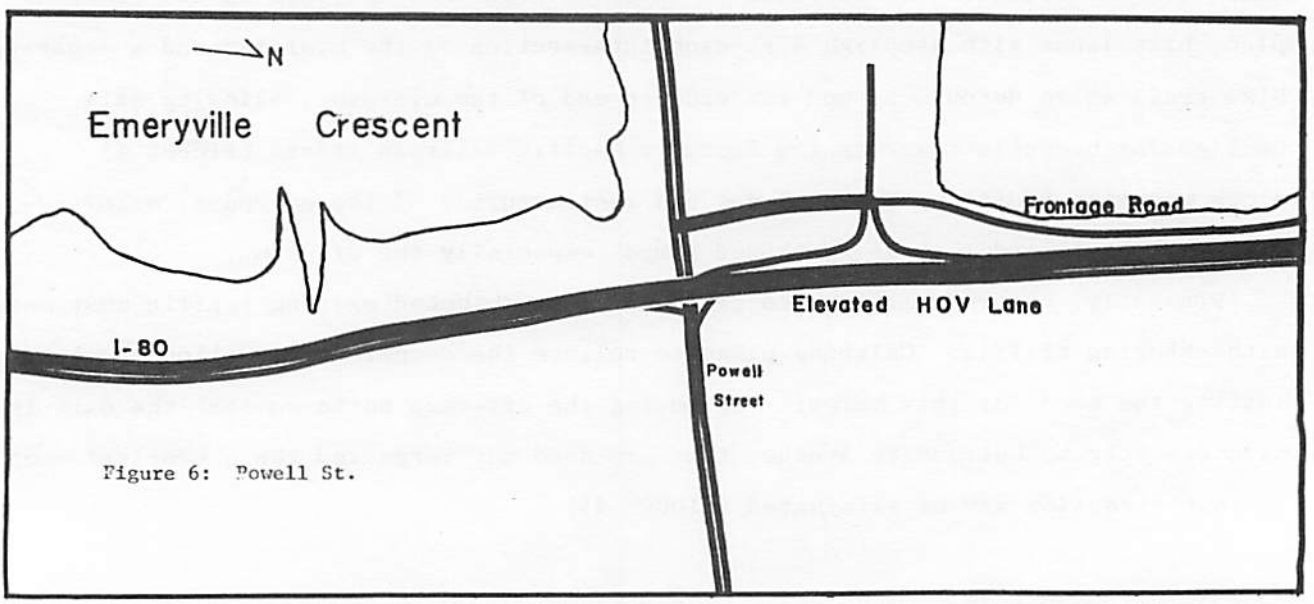

Figure 6: Powell St.

Source: Base Map: CHMNB; Changes: Preliminary Geometrics from Caltrans

Caltrans also plans to reduce the congestion which now takes place at the intersection of University Avenue, Frontage Road, and the interchange. Its proposal is to move Frontage Road west at that point, increasing the distance between that intersection and the highway entrance.

Since Berkeley is the major city along this stretch of I-80 and the shoreline area could become a showcase to visitors and for the community, providing adequate access across the highway at University Avenue is critical for any future development, commercial or recreational. With the continued joint effort by Caltrans and the City of Berkeley, this may be realized.

Ashby Avenue

The Ashby Avenue interchange is located between University Avenue (to the north) and Powell Street (to the south). Originally, this interchange was to have been a major connector between I-80 and I-13 (Ashby Avenue) (Forsen, pers. comm., 1982). However, this plan fell through, making the elaborate cloverleaf ramps unnecessary. Access is not an important issue now, but may be later if one of the proposals, that of a Berkeley Beach or a regiona trail, is implemented.

Presently, provision for access to this location is not one of the larger issues along the shoreline, since only Ashby Spit is there. Fishermen do use this area for fishing, but rely on cars to reach this site. A beach, piers, or buildings may be constructed in the future, which would make having access by bikes and pedestrians an issue. Furthermore, the possibility of making the shoreline accessible from Aquatic Park makes it even more worthy of consideration now. The only access now is by auto and other motor vehicle. A pedestrian walkway doesn't go anywhere; it just ends. Therefore, Caltrans has designed a new ramp that will eliminate the clover-leaf and increase the uses of the ramp.

The proposed plan is to build a single overpass in place of the two curving ones (FIGURE 5). This would simplify the intersection with Frontage Road and allow the inclusion of a pedestrian walkway and bike lane, permitting access to a point where none is now offered.

Bicycles can only reach Ashby Spit, located at this spot on the shoreline, if they travel in a very round-about fashion from either Powell Street or Gilman Street along Frontage Road which, presently, has no bike lane.

Caltrans has taken into consideration the need for improved bicycle and pedestrian access. A bike lane is included in the proposal, but the bicyclist still

would be forced to ride on the roadway with the automobiles with only a painted line separating him or her from the cars. When funds are available, a separate pedestrian/bike overpass should be considered as a safer alternative.

Powell Street

Powell Street is approximately a mile south of Ashby Avenue. This access point is basically a street under a freeway overpass. It provides access to the shoreline (primarily the Emeryville Crescent) and the Emeryville Marina. Because of this, large flows of traffic often occur which, as in the case of Gilman Street, decrease pedestrian and bicyclist safety. Powell Street also serves as a major on-ramp area to I-80 during rush hours, with traffic often backing up quite a distance along Frontage Road.

However, when traffic is not a problem, Powell Street is a very good way for bicyclists and pedestrians to reach the shoreline. This is mainly due to the stoplights, which control the traffic, and the walkways provided. However, the ability to get to the intersection from the east needs to be improved, since bicyclists now have to share the roadway on the overpass above the Southern Pacific railroad tracks with cars.

A key ecologically-sensitive shoreline area, the Emeryville Crescent, is reached primarily through this access point. Questions have arisen over the amount of access which should be permitted to this fragile zone. In many respects, the ability of Powell Street to provide the best access along the shoreline in the greatest diversity of forms can, in this case, be a curse rather than a blessing, since the prevalent feeling is to reduce the amount of uncontrolled access to the Crescent, rather than encourage it. The present ease of accessibility at this location certainly doesn't discourage people from visiting the Crescent. Unfortunately, there is presently no means of excluding access to the Crescent, and a great deal of damage is occurring because of this (see papers by Doyle, Olson, and Cohen).

There are three possible solutions to this problem. One is to do nothing and leave it the way it is. The second one is to exclude access to the area totally, most likely with fences. And thirdly, access could be controlled in some fashion. This could be accomplished by having a person staff an information office. Or it could be by constructing pathways with physical barriers separating visitors from

the marsh. This last method would also serve to reduce the adverse impact from dogs, although excluding them from the area completely would be the best solution.

It is my personal belief that the third solution may be the best. It is virtually impossible to exclude access totally to an area. Sometimes this even backfires and encourages more people to use it. It is also impossible to leave the situation the way it is if we want to see the Crescent preserved as important wildlife habitat.

Caltrans' proposed plan is to shift the westbound highway on- and off-ramp interchange north so that cars will be entering the highway before actually reaching Powell Street (FIGURE 6). This requires shifting Frontage Road westward at the point where the new off-ramp occurs. The eastbound on- and off-ramps will be unchanged. The function of this shift is to allow more time for cars to change lanes to Highways 17 or 580.

Discussion

In regard to the East Bay shoreline access problems, several questions require very careful consideration: who will provide access? how much access should be allowed? and what type of access should be encouraged and/or discouraged? A solution to these problems involves a process which demands that the different "actors" work on the answers together. Fortunately, the timing of various shoreline projects is going to encourage this, and in some instances, actually force it to occur. All to often local agencies have no idea what the state departments, such as Caltrans, have planned. This could lead to work on an area by a city which would soon be rendered useless by a Caltrans proposal which the city knew nothing about. The time, money, and manpower from the wasted project could be better put to use elsewhere. It is hoped that this can be avoided for the majority of the proposed shoreline projects.

The Coastal Conservancy has acted as a means of providing some coordination, at least in terms of identifying what needs to be addressed and in keeping other state agencies informed. This has helped in the development of an overall draft proposal for the East Bay shoreline. Fortunately, the majority of the access issues mentioned in the proposal are also being addressed by Caltrans. Access within and to each location, however, is still primarily up to the cities. Unfortunately, how

they approach the access issue may not be based on what is needed, but on what is the most economical. If the shoreline hopes to have a bright future independent of what physical development occurs, though, access by pedestrians and bicycles will have to be improved. Caltrans has already taken the initial steps in insuring that this will be the case. It is hoped that the cities will follow suit.

The one critical factor that each of the planning and permit-granting agencies have to consider concerns the encouragement or discouragement of cars at the shoreline. If the use of cars along the shoreline is to be encouraged, then adequate parking facilities will need to be constructed, adding further costs to any project.

Discouraging cars is not always desirable, since it means that alternative forms of access will need to be readily available (or planned for). These alternatives can be just as difficult to provide as parking. However, since the local and state agencies are communicating with each other, the decrease of problems in coordination makes this option of discouraging cars more inviting. This is a good sign and shows that positive results are emerging from this project.

Another important aspect of access was brought up in an earlier seminar report by Kin Yee (Yee, 1978, p. 18). Public awareness and information on the available recreational areas along the shoreline and associated ways to get there are very important to the overall "health" of the shoreline. This is especially true at University Avenue with the proposed bike lane modifications. Not only do people need to know that they can reach the shoreline by bike, they also need to know how.

Summary

It would appear that access to the East Bay shoreline will be improved, primarily due to Caltrans. It has addressed the key access issues under its jurisdiction and appears very sensitive to the many problems raised concerning the present and future use of the shoreline. However, the dilemma of whether or not to provide access is still a subject of debate. Careful handling of this problem in ecologically-sensitive areas is mandatory.

I feel the proposed plans by Caltrans for the shoreline are aimed at alleviating the congestion on the highway and the adjacent shoreline areas. A good example of this is the I-80/I-180 junction, where the modifications at the entrances and exits to the highway will greatly improve the safety of the nearby streets, as well as the highway. These changes, in turn, should enhance the overall appeal of the shoreline and encourage people to visit the shoreline.

An interesting question arises of what to do with the land freed by Caltrans through its changes. In the case of University Avenue, a small parking area in the centrally-located Berkeley Marina area may be the best option. A small parcel of land, such as land freed by the elimination of the westbound off-ramp could be used. This would then discourage cars from parking in areas which are not suited for them. But cooperation between the various cities would definitely be necessary to realize this use.

The trail along this stretch of shoreline could easily be made safe by the closure of the westernmost lane on Frontage Road between University and Ashby Avenues, but this solution does not apply to the remainder of the shoreline. Although it may be possible to convince BCDC to allow the addition of enough landfill to make a safe bike path along the other areas of the shoreline adjacent to Frontage Road, another alternative is available. This would be to run a shuttle bus between the three major shoreline areas: Gilman Street, University Avenue and Powell Street. Further to discourage cars at the shoreline while promoting pedestrian use, the shuttle also could have stops on the east side of the highway at those points. At University Avenue this might serve as a connection between the shoreline and Aquatic Park. It also could be used as part of a handicapped access system with a Dial-a-Ride program which would bring the handicapped to the shuttle stops, making more efficient use of each system.

At Powell Street a similar area of land is freed by the modification of the on- and off-ramps. Although it could easily be converted to a parking lot, that probably would not be in the best interest of the Crescent. More likely, the land could be the staging area for a short self-guided tour of the Crescent, similar to what is seen at the Hayward shoreline.

It is clear that no matter what changes do take place along the shoreline, access to it will play a major role in its ultimate development.

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