

# NETWORK

## THERE IS MORE TO WALK THAN WALKING

Walking is first and foremost a type of transportation, but it also provides an opportunity to spend time in the public realm. Walking can be about experiencing the city at a comfortable pace, looking at shop windows, beautiful buildings, interesting views and other people. Walking is also about stopping and engaging in recreational or social activities because you have planned them or because you were tempted to as you walked along.

At some point we are all pedestrians walking from public transport, the bike rack, a parking structure, a hotel or from home. As such streets should be welcoming to all of us.

A pedestrian who stops and starts to interact with his immediate surroundings becomes a part of the activities that create a vibrant public life. This public life is a city's and public space's main attraction; people seeing other people and people being seen.

A good city is like a good party, you stay longer than you planned.

Walking is the basis for a lively and attractive public realm



## WALKING TO THE WHARF

#### DESTINATIONS WITHIN WALKING DISTANCE

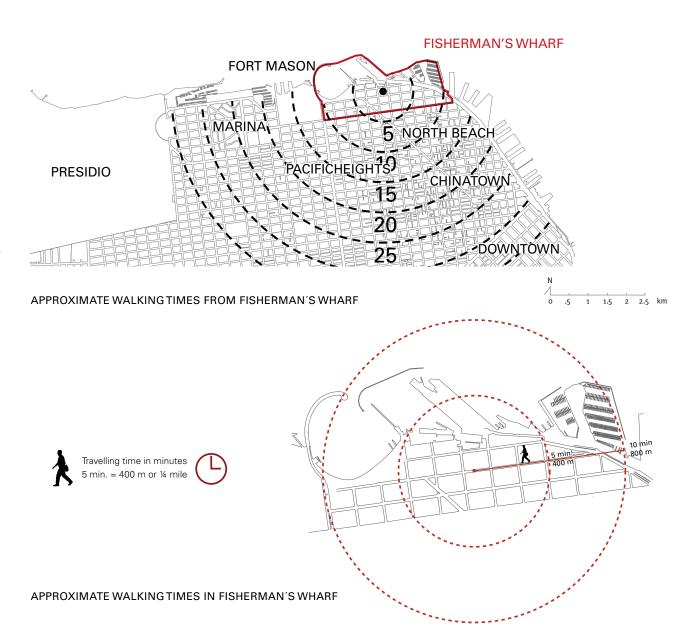
These approximate walking times show that many of the city's prime destinations are well reachable on foot from Fisherman's Wharf and visa versa. Popular areas such as the Italian North Beach, The Embarcadero and the cultural facilities at Fort Mason are reachable within 10 minutes walk from Fisherman's Wharf. The recreation centre in the Presidio and shopping districts on the way to Downtown are all reachable on foot in more or less a half an hour.

The visitor survey from 2006 also confirms that many of the visitors walk to Fisherman's Wharf. 20% of the visitors from other areas reach Fisherman's Wharf by foot.

When you are in the central part of Fisherman's Wharf you can reach any destination within the area in approximately 10 minutes by foot. Most city centres around the world have developed in a way where the main functions are within 10 minutes walking distances, making them accessible and convenient for pedestrians.

20% of all visitors from other areas walk to the Wharf Source: Visitor Survey 2006

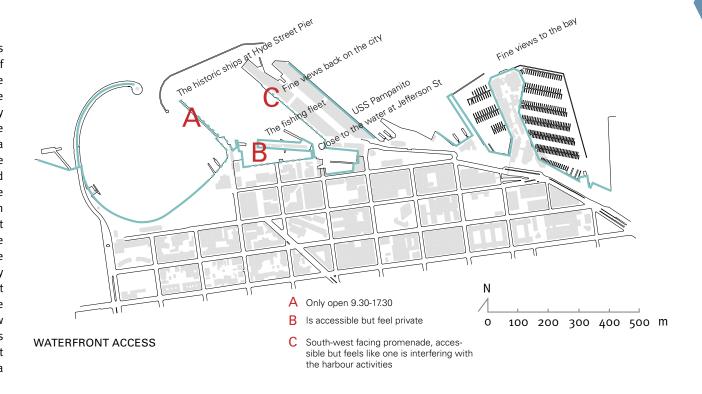
You can reach anything in the Wharf within 10 min but the pedestrian network is weak



## WATERFRONT WALK

#### THE ACCESS TO THE WATER IN THE WHARF

Along the Embarcadero there are few places where the visitors can enjoy the activities on the waterfront. Fisherman's Wharf has a great potential for walks along the water, where fine views to the city and the bay can be enjoyed, but there are very few invitations to do so. From Pier 39, where the majority of the visitors start their walk, there is easy access to the waterfront at the leisure harbour and the area where the sea lions are, but it all seems dead and looks like the backside of the pier. Pier 39 has all of it's open, intense and varied frontages on the inside and shows mostly blank walls on the outside. From the outside there are fine views to the Golden Gate Bridge, Alcatraz and the Bay. Along Jefferson Street there is only one place where visitors can walk along the water and see boats. Except for Pier 39, visitors have to be very observant to find the other places where they can enjoy the ships and the water. There is access to the fishing fleet where one can get close to the water and there are very are fine views back towards the skyline of San Francisco but few visitors find it. The Hyde Street Pier is one of the few places where the visitor gets a clear invitation from Jefferson Street to take a walk and enjoy the view to the water. The pier is a museum so it is only open during the daytime.





The fishing boats - public access but not easy to find



Fine views back to the skyline of San Francisco



Hyde Street Pier with the historic boats



The only place along Jefferson where the water is close - but still far below

## PEDESTRIAN MOVEMENT

#### HOW MANY WALK ON A SUMMER WEEKDAY?

The counts show that the pedestrian traffic during the day is highest on Pier 39 - the primary destination and the only carfree promenade in Fisherman's Wharf. After Pier 39 come The Embarcadero and Jefferson Street, forming the pedestrian 'arteria' through the area. On Jefferson Street, the highest number of pedestrians are found near the Aquatic Park and the cable car 'turntable'. The pedestrian traffic on the other east-west orientated streets - Beach Street and North Point Street - are very limited (see also the diagram on opposite page).

Hyde Street, Jones Street and Taylor Street are the most busy streets going north-south (see the diagram on opposite page).

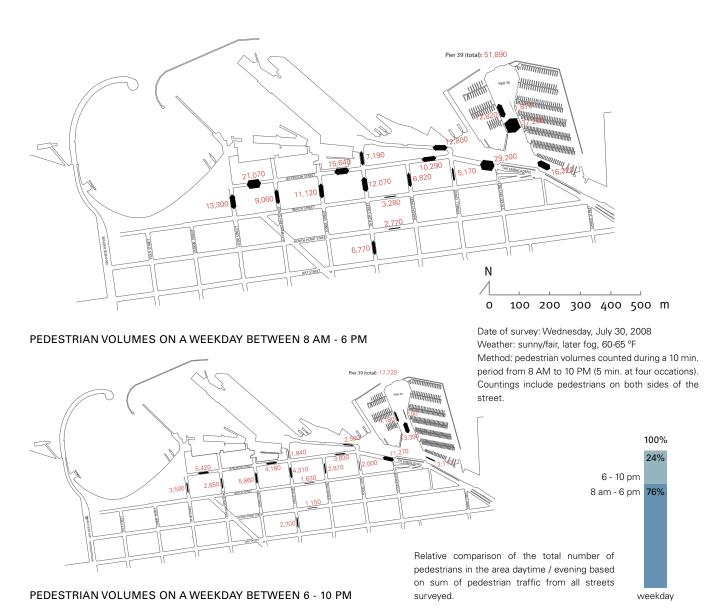
The 3 busiest streets:
Pier 39 app. 70,000 ped.
Embarcadero (near Pier 39)
app. 40,000 ped.

Jefferson St (between Leavenworth St and Hyde St)
app. 26,000 ped.

Jefferson St (between Taylor St and Jones St)
app 20,000 ped.

total sum of pedestrians

The evening traffic corresponds to the daytime pattern with the most pedestrians on Pier 39 and The Embarcadero, however Jones Street is used by more people than Jefferson Street in the evening (likely due to the street car terminus located on Jones Street), and also Taylor Street has a number of pedestrians similar to Jefferson Street - both streets link to the public transport system. In general the evening foot traffic forms 1/3 of the daytime foot traffic.



60,000

50,000 40,000

30,000

20.000

10,000

Pier 39

west promenade

central promenade

east promenade

## PEDESTRIAN MOVEMENT

#### WHERE DO PEOPLE WALK ON A WEEKDAY?



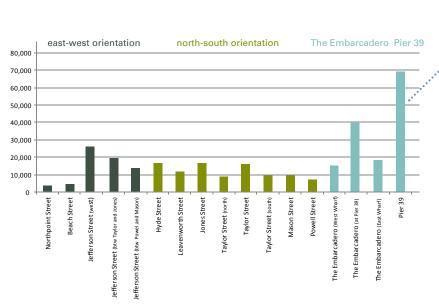
Jefferson Street carries the most pedestrians and links Pier 39 to The Aquatic Park. The number of pedestrians varie along the street, as shown in the diagram.

Hyde Street, Jones Street and Taylor Street experience the highest number of pedestrians of the north-south orientated streets. These streets all link to public transport and to the Aquatic Park, 'The Wheel' and restaurants at the waterfront. Many of the north-south running streets, particularly in the hotel district, are uninviting and lack activities.

The Embarcadero next to Pier 39 attracts the most pedestrians. On the pier itself people mostly walk along the central stretch. The number of people walking 'outside' close to the water are limited, however the sea lions do attract more people towards the west. This likely indicates a somewhat lower pedestrian quality here.

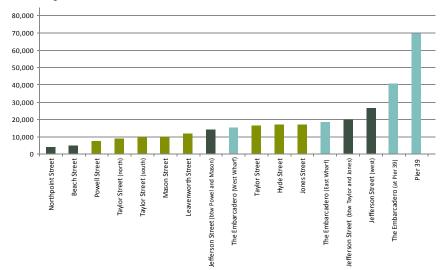
The diagram to the right shows a quantitative hierarchy of pedestrian movement through the area.

The Pier 39 and The Embacadero are by far the busiest part of the area just as Jefferson Street. The north-south orientated streets form basic feeders linking to the waterfront and Jefferson Street with Jones Street, Hyde Street and Taylor Street as the most important connectors to the public transport system. The East West orientated North Point and Beach Street are the least busy streets and constitute more local connections through the area.



#### PEDESTIAN VOLUMES - SUMMER WEEKDAY 8 AM-10 PM

Streets according to street orientation & location



PEDESTIAN VOLUMES: SUMMER WEEKDAY 8AM-10PM

Streets according to pedestrian volumes

## PEDESTRIAN MOVEMENT

#### HOW MANY WALK ON A SUMMER SATURDAY?

Like on a weekday the pedestrian traffic is highest on Pier 39, The Embarcadero and Jefferson Street.

The 3 busiest streets:
Pier 39 app. 114,000 ped.
The Embarcadero (near Pier 39)
app. 89,000 ped.

Jefferson St (between Taylor St and Jones St)
app. 65,000 ped.

Jefferson St (between Powel St and Mason St)
app. 56,000 ped.

total sum of pedestrians

Fisherman's Wharf as a popular visitors destination becomes more clear when comparing a Saturday to a weekday. Most of the streets become busier on a Saturday. The survey shows that the rise is experienced on most of the streets, primarily in the northern part close to the waterfront. The number of people walking in the area is almost doubled compared to a weekday.

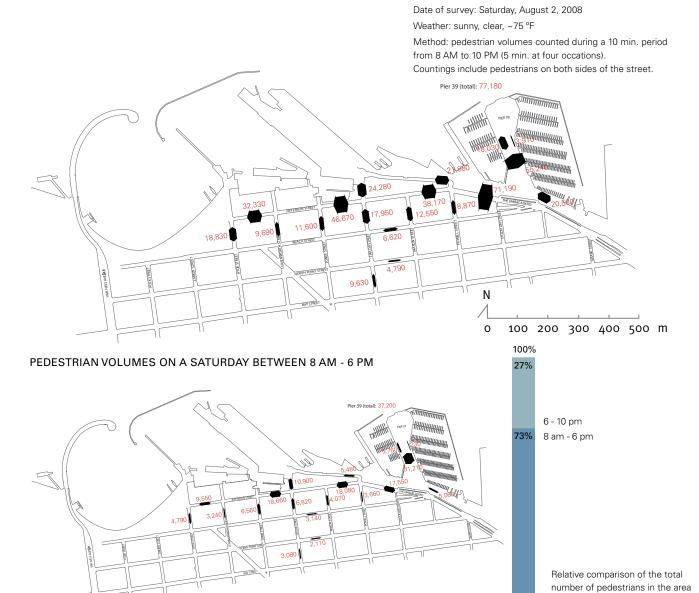
## Twice as many walk on a Saturday

Total number of ped. on a weekday: 310.340 Total number of ped. on a saturday: 592.680

Staturday evening is clearly busier than a weekday evening, with the number of pedestrians counted is more than doubled. On a saturday evening people are mostly likely walking in the northern part of the area close, to the waterfront - along Pier 39, The Embarcadero, and Jefferson Street.

In general, the evening foot traffic forms approximately 1/3 of the daytime traffic.

More than twice as many people walk on a Saturday evening compared to a weekday evening



PEDESTRIAN VOLUMES ON A SATURDAY BETWEEN 6 - 10 PM

daytime / evening based on sum of

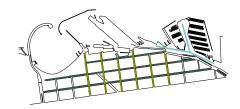
pedestrian traffic from all streets

saturday

surveyed

## PEDESTRIAN MOVEMENT

#### WHERE DO PEOPLE WALK ON A SATURDAY?

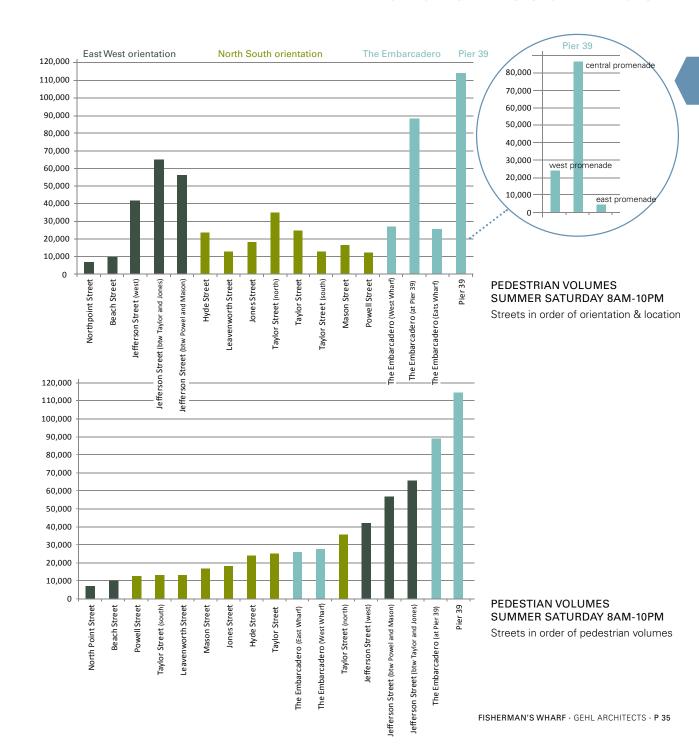


The diagram shows the pedestrian volumes according to orientation. The east-west pedestrian traffic on North Point and Beach Street are limited. Jefferson Street stands out as the most busy east-west street. The foot traffic varies along the street with the part between Jones Street and Taylor Street as the busies part.

Like on a weekday, Hyde Street, Jones Street, and Taylor Street are the busiest north-south streets. Taylor Street North of Jefferson experiences almost 4 times more pedestrian traffic on a Saturday in comparison to a weekday.

The Embarcadero near Pier 39 is by far the busiest part of The Embarcadero, and on a Saturday is it more busy than Pier 39's central promenade.

The diagram shows the intensity of pedestrian traffic through the area. The 'Top 10' streets are all to be found in the northern part of the area. The pedestrian numbers drop dramatically moving south of Beach street. The number of pedestrians on Beach Street, North Point and most of the north-south running streets, except the northern part of Taylor Street, is very limited.



## PEDESTRIAN VOLUMES

#### DATTIME PEDESTRIAN TRAFFIC ON A SUMMER SATURDAY COMPARED TO OTHER STREETS AROUND THE WORLD

#### FISHERMAN'S WHARF



Jefferson Street (2008) Main street - tourist destination traffic street

44,170 ped. btw. 10 AM - 6 PM



The Embarcadero near Pier 39 (2008) Main street - tourist destination - traffic street

66,140 ped. btw. 10 AM - 6 PM

#### INTERNATIONAL MAIN STREETS



New York, Broadway (2007) Main street - traffic street

46,640 ped. btw. 10 AM - 6 PM



Rotterdam, Lijnbaan (2006) Main shopping street - pedestrian street

38,700 ped. btw. 10 AM - 6 PM



Sydney, George Street (2007) Main shopping street - traffic street

22,945 ped. btw. 10 AM - 6 PM



Copenhagen, Strøget (2005) Main shopping street - pedestrian street

51,040 ped. btw .10 AM - 6 PM



Melbourne, Swanston Street (2004) Main shopping street - trams, taxis and bicycles

34,560 ped. btw. 10 AM - 6 PM



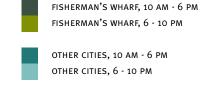
London, Regent Street (2003) Main shopping street - traffic street

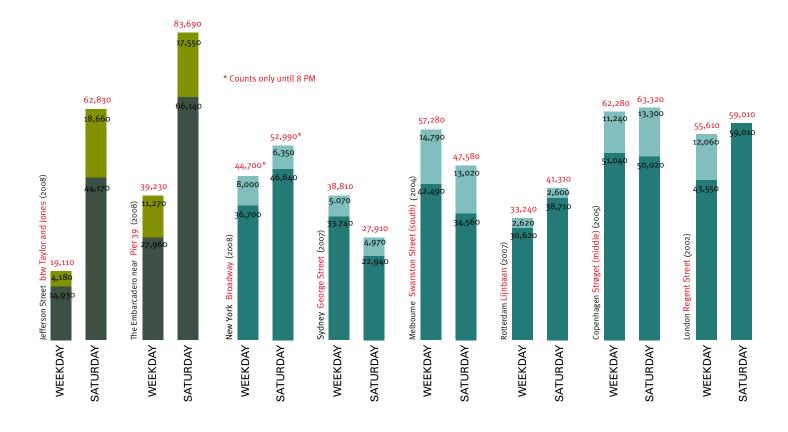
**59,010** ped. btw. 10 AM - 6 PM

## PEDESTRIAN VOLUMES

## COMPARING OTHER STREETS AROUND THE WORLD

In comparing key Fisherman's Wharf streets with other main streets around the world, it is striking how high the numbers of pedestrians are on a Saturday in Fisherman's Wharf. In most of the other cities, the amount of pedestrians decreases on a Saturday. On a weekday, however the pedestrian traffic in Fisherman's Wharf is lower than most of the other cities. Jefferson Street stands out as the most lively street on a Saturday evening in comparison with the other city streets.





## AGE AND GENDER

#### WHO VISITS THE WHARF ON A WEEKDAY?

The age and gender survey shows that elderly are underrepresented in the streets compared to the demographic situation in the San Francisco County (source: American Community Survey 2005-2007). Fisherman's Wharf and its major destinations are obviously not inviting this group. The reason could be the lack of interesting destinations and/or due to the lack of a coherent pedestrian and public space network that needs to include attractive and safe sidewalks, pedestrian streets and proximity between a variation of public spaces for rest and play that invite everybody.

On weekdays, the balance between young adults (15-30) and adults (31-64) more or less reflects the demographic situation, but on the weekends in Fisherman's Wharf, the young adults are tremendously overrepresented.

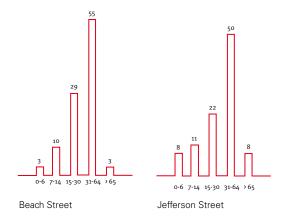
The Fisherman's Wharf Visitor Survey from 2006 shows that many of the visitors in to Fisherman's Wharf come from the Bay Area and many of the visitors return several times a year. The young adults that come on weekends could be part of the group that comes from the surrounding region again and again.

The unbalanced demographic profile of visitors indicates that there needs to be efforts made to invite a broader range of people and for everybody to feel welcome and invited.

Fisherman's Wharf is more or less as attractive to females as male visitors. The age and gender survey shows that on weekdays and in weekends 52% of the adults are male and 48% females.

Children and elderly are underrepresented in the public realm of Fisherman's Wharf

#### AGE SURVEY WEEKDAY



#### AGE SURVEY WEEKEND





One of the few invitations for children.



Private initiative to entertain the children.



Children looking at ships.



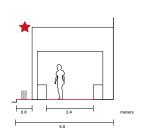
## WALKING ALONG

#### **OBSTACLES AND CONGESTION ON SIDEWALKS**

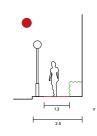
Walking demands space in which you can walk freely without being obstructed by physical elements, vehicular traffic or other people. When walking in Fisherman's Wharf, pedestrians are frequently forced to navigate in a crowded and cluttered landscape with:

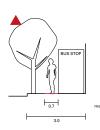
- narrow and uninviting sidewalks
- congested sidewalks obstructed by e.g. street furniture, signs, and commercial displays
- sidewalks where the effective width is reduced by building structures inexpediently added to the frontages
- crowding at crossings caused by long signal phases
- heavy vehicular traffic causing insecurity, noise and pollution

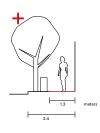
The effective width of sidewalks are reduced by various elements











#### SIDEWALK OBSTACLE



Buildings on the sidewalk force people to walk in the street.

Jefferson Street at Jones.

#### COMMERCIAL DISPLAYS



An abundance of signs and display stands reduce the effective width of the sidewalk to half. Beach Street between Polk and Hyde.

#### **CONGESTION AT CROSSINGS**



Quite long signal phases create crowding and congestion at crossings. This creates apedestrian 'platoon' effect.

Along Jefferson Street.

#### NARROW SIDEWALKS AND MANY CARS

100 200 300 400 500 m



Narrow, built-over sidewalks and quite heavy traffic create a poor walking environment. Taylor Street, North of Jefferson.

## CROSSING THE STREETS

#### STREET DESIGN CREATE UNSAFETY

In Fisherman's Wharf, pedestrians experience several challenges when crossing streets:

- crossings are created in split levels e.g. as footbridges
- crossings are not easy accessible
- crossings are not located along natural pedestrian routes and desire lines
- design and timing of pedestrian signals create confusion, insecurity and congestion

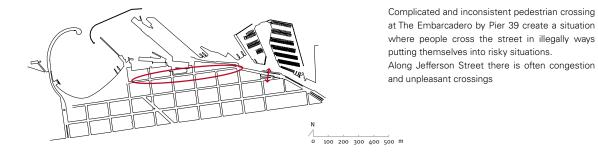
People are careful with their use of personal energy and generally we do not enjoy taking detours when destinations can be reached within a straight line.

Jaywalking is a natural consequence of a street design not catering for the needs of pedestrians.

Conflicts between street design and pedestrian desire lines generate excessive jaywalking



Congestion at intersections along Jefferson Street.



JAYWALKING AT PIER 39 AND CONGESTION ALONG JEFFERSON STREET

More than 15% of people crossing The Embarcadero at Pier 39 jaywalk (spot survey during 30 minutes)







People crossing The Embarcadero at odd locations and in irregular ways to get to Pier 39.

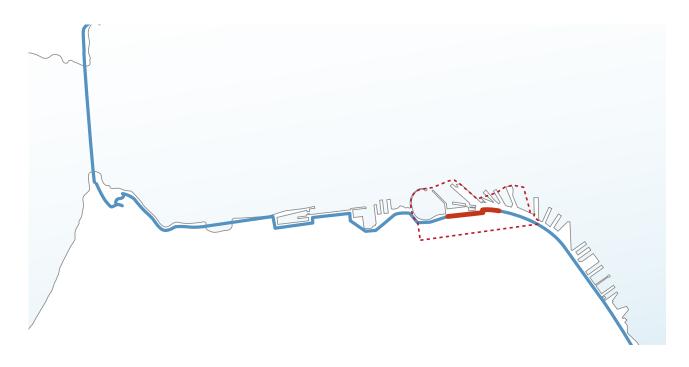
## LACK OF CYCLING NETWORK

#### UNCOHERENT CYCLING ENVIRONMENT

The San Francisco Bay Trail is a 400 mile-long recreation path that runs around the entire San Francisco Bay. When it comes to Fisherman's Wharf, there is a six block wide gap in the trail.

Most of the trail is off-street and with either separate path for cyclists and pedestrians or both sharing the surface as it runs around the Bay. At Fisherman's Wharf, it becomes undefined and the cyclists have to continue through the streets where they are mixed with all the complex traffic that runs through Fisherman's Wharf: Double decker buses with tourists, street cars, amphibious vehicles, trucks, three wheeled scooters on fun trips, horse and wagons, private cars, segways, and pedestrians in a mixed situation close to chaos.

The Wharf creates a break in the Bay area cycle trail





Bay bike trail at the beach on a seperate track shared with pedestrians.



Unclear where to continue on Jefferson Street.



Bike trail on The Embarcadero with cycle lanes.

## CYCLING ENVIRONMENT

#### **FACILITIES & SAFETY**

Jefferson Street has a confusing mix of traffic and no clear place for the bicycles. The Bay Area Trail runs through but under very poor conditions. The undefined character forces cyclists to improvise and do a lot of 'creative' cycling, which frequently creates dangerous situations.

Cycling both as a recreational activity as well as part of daily activity has a lot of benefits in an urban environment.

First, it is slower and softer than other modes of traffic, so it works quite well in a pedestrian landscape. There is no noise and no pollution and it is in human scale. It brings people on the streets - not just traffic with people hidden inside vehicles. It is healthy too, and it takes up much less space than cars. All in all there are both individual and collective benefits of inviting more people to bicycle through the Wharf, as well as through San Francisco as a whole. Providing routes that are attractive to a broad spectrum of society is the very best way to invite more cycling by more people.



Cyclists getting trapped between street car and curb.



Cyclists going both directions on one-way street.

Copenhagen has doubled the number of cyclists in the last 10 years time by improving and dramatically expanding the network of cycle tracks and closing gabs in the network 36% of the Copenhageners now comute to work on cycles



Cars dominate the street, leaving little space for cyclists.



Cyclists using the street car track to escape the cardominated street.

## **PUBLIC TRANSPORT**

#### TRANSIT MODES & ACCESS

Fisherman's Wharf is well connected with public transport modes; buses, streetcars, cable cars and ferry boats and they are well used. 42% of those who visit the area take public transport.

But the public transport is quite time consuming. It's faster to ride a bike to Downtown than take the cable car. You can almost walk as fast as it takes you to go by streetcar, especially if you include that you usually have to wait a couple of minutes before it arrives.

Conflicts occur with the flow of pedestrians on the congested sidewalks when people are waiting for public transport. The ramps to streetcar stops also create hazards in the streetscape

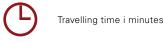
It's faster to ride a bike to Downtown than to take public transport



Conflict by stops on congested sidewalks

24% walks and 42 % take public transport when they visit FW Source: Visitor Survey 2006

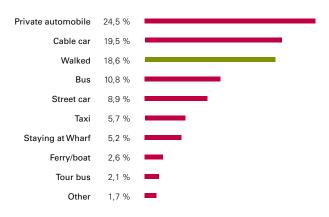




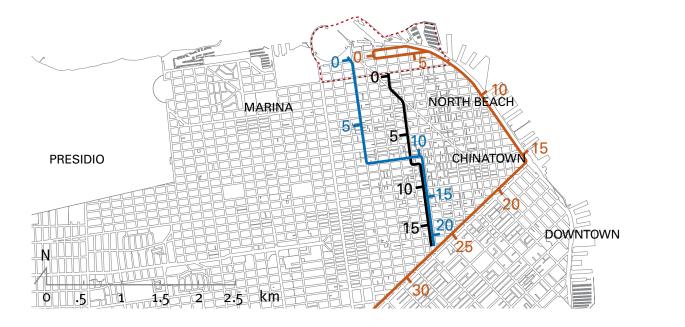
Powell/Hyde cable car
Powell/Mason cable car

F-line streetcar

#### HOW DO PEOPLE GET TO THE WHARF?



Source: Fisherman's Wharf Visitor Survey 2006, Destination Analysts



## **PARKING**

#### A SPACE DEMANDING NECESSITY

The parking in Fisherman's Wharf has a big negative impact on the urban environment. There is of course a need for parking spaces for visitors at such a popular location, but the question is if the demand is as big as the access is today.

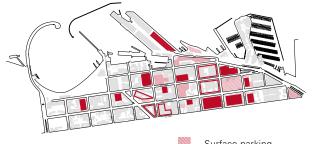
The organization with big surface parking lots and parking structures with blank walls significantly degrade the visual environment.

Even the waterfront, the biggest asset of the area, has surface parking and parking structures that take up a lot of space that could be used for much more attractive purposes. The fact that there is parking by the waterfront also means that a lot of car traffic is lead into the waterfront area.

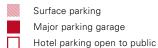
The design of the parking structures with inactive and dull frontages discourage public life and make the urban realm perceived as less safe.

Besides being space demanding and ugly, parking on the surface also makes the urban realm undefined. It discourages public life by making the urban realm too wide and contributes too few edges that can activate the public realm.

Undefined urban realm.



PARKING ORGANIZATION



Parking solutions in the wharf downgrade the biggest asset, the waterfront

Parking lots make the urban realm undefined and discourage the public life



Parking is obscuring the view.



Parking structures with inactive frontages.



Surfaces parking take valuable space.

## STREETS IN THE WHARF

## A CACOPHONY OF VEHICULAR MODES

The streets of Fisherman's Wharf are filled with all kinds of different vehicular traffic. Ordinary things like cars, buses, trams, trucks and bicycles, but also some more unusual vehicles. It can be entertaining but occasionally it becomes disturbing. The street organization is not clear enough to handle the different vehicles that have different speeds and different purposes to travel, which creates unnecessary congestion. Many of the vehicles are quite loud and produce a lot of fumes, which creates a stressful environment. The stop and parking culture also creates a cluttered streetscape and obstructs what could be fantastic views.









All the different traffic modes create a cluttered streetscape with fumes, noise, and visual disturbance

The streets in Fisherman's Wharf are wide, and street layout prioritize the vehicular traffic



**FUN DRIVING VEHICLES** 





## JEFFERSONS STREET

#### UNBALANCED TRAFFIC MIX

Jefferson Street is the main street for pedestrians in Fisherman's Wharf, but cars dominate the streetscape. Many modes of traffic are sharing the limited space: pedestrians, bicycles, cars, street cars, trucks, tour vehicles and Segways. The space for traffic is fairly generous but the pedestrians are cramped on the narrow sidewalks. At peak hour, there is 4,5 times as many people on the sidewalks as people in cars on Jefferson Street, but they get the same amount of space.

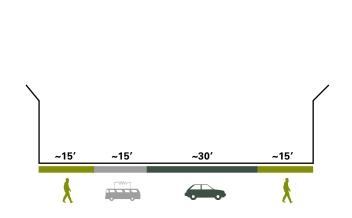
Street parking along Jefferson Street creates a disturbance that is hard to justify, given all the parking that is offered in Fisherman's Wharf.

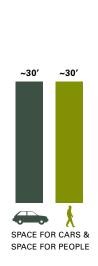
Big signs and advertisements make sidewalks visually stressful environments and take space from the already congested sidewalks. There is almost no space left over that can invite staying activities. Places with benches and outdoor seating could do a lot, as well as smaller spaces where children could play.

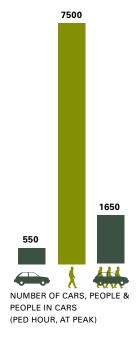
The question to be asked is who does Fisherman's Wharf want to invite, the cars or the pedestrians? All visitors eventually become pedestrians and they create a vibrant and attractive atmosphere where businesses can flourish and places where people will like to return to.

Is it the pedestrians or the cars that the Wharf want to invite?

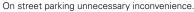
People in cars on Jefferson Street are only 20% of the pedestrians\*, but they get the same amount of space! \*at peak time













Generous of space for cars.



Crowded for the pedestrians.