Appendices

APPENDIX A. STREET TYPOLOGY

The following street types are adopted as part of the Final General Plan to replace the conventional use of an auto-based street classification system.

Figure A-1   Street Typology in General Plan

Street Type	Description
Transit Street	• Primary routes for fixed-route transit • Signal preemption for transit vehicles, with bus lanes or queue jump lanes, where possible • Increased investment in sidewalks, bus stops, lighting, maps, and other amenities for pedestrians and transit users
Bicycle Boulevard	• Through streets for bicycles connecting to regional bicycle route network • Traffic calming to slow and discourage automobile and truck through traffic may be appropriate
Connector Street	• Automobiles, bicycles, and trucks equally accommodated • Incidental transit use • Moderate to high volumes of through traffic
Local Street	• Automobiles, bicycles, and trucks equally accommodated • Incidental transit use • Low volumes of local traffic, primarily to provide access to adjacent land uses • Through traffic discouraged • Traffic calming techniques may be appropriate
Auto Dominant Highway	• Freeways and approach roads with high volumes of high speed vehicle traffic • Accommodation of express and transbay buses • Bicycles and pedestrians prohibited
Intercity Rail	• Mainline Union Pacific/Amtrak railroad line • Used by both freight and passenger trains
Major Transit Hub	• Transfer points at intersection of high volume transit lines
Bicycle Path	• Class I bicycle path as defined by Caltrans standards • No motor vehicle access
Bike Route	• Class II (bike lanes) or Class III (bike routes) as defined by Caltrans standards
Pedestrian Path	• Exclusive walkways for pedestrians • Bicycles and motor vehicles prohibited
Pedestrian Priority Zones	• High volumes of pedestrian traffic encouraged along sidewalk • Zones near neighborhood centers, regional retail areas, schools and other public facilities • Wide sidewalks, ample amenities for pedestrians especially at intersections

APPENDIX B. STAKEHOLDER CONTACTS AND INTERVIEW GUIDELINES

The following stakeholders were offered an interview to provide their perspective and insight for this Sustainable Transportation Plan.

Figure B-1 Stakeholders Contacted

Organization	Title	Name
ETMA	Executive Director	Wendy Silvani
	Board Members	All Board members
City Council	Mayor	Ken Bukowski
	Vice Mayor	Ruth Atkin
	Council Members	John Fricke
		Richard L. Kassis
		Nora Davis
Emery Unified School District	Director	Stephen J. Wesley
	Board President	Joshua Simon
Planning Commission	Chairperson	Gail Donaldson
	Vice Chairperson	Arthur Hoff
	Commissioners	Lawrence C. (Buzz) Cardoza
		Frank Flores
		Patricia Jeffery
		James A. Martin
		John Scheuerman
Pacific Park Plaza	General Manager	Steve Scarborough
AC Transit	Transportation Planner	Nathan Landau
		A.J. Martin
BART	Director representing MacArthur and West Oakland Stations	Lynette Sweet

Organization	Title	Name
Recreation, Senior, and Child Development Centers	Director of Community Services	Melinda Chin
Chamber of Commerce	Chairman	Jason Crouch
	Immediate Past Chair	John Gooding
	President and CEO	Bob Canter
The Hilton Garden Inn	General Manager	Bill Murray
	Sr. Vice President	Dan Evans
Courtyard by Marriott Hotel	Jeff Given	General Manager
Liquid Sugar (or Glashaus)	Broker/Owner	Jason Crouch
Emery Bay Village	Property Manager	Michelle New
Bicycle/Pedestrian Advisory Subcommittee	Chair	Scott Donahue

To guide the conversation, stakeholders were asked the following questions:

1. What do you think should be the primary goals of the Alternative Transportation Plan?

2. What do you think are the major strengths and weaknesses of the current transportation system in Emeryville? (What is working well and what areas need improvement? How it could best support various markets – residential, employment, regional retail, local retail, etc.)

3. What feedback have you received from your constituents (employees/ students/ residents of Emeryville…) about transportation in Emeryville? What are the most important needs for improved transportation in Emeryville?

4. What do think are the top three priorities in the short-term (1-2 years) and longer term (3-5 years) for improving alternative transportation services in Emeryville?

5. Since new strategies may require additional funding, do you have suggestions for potential new funding sources to help pay for enhancing services and or initiating new programs?

6. What key elements, strategies and/or programs should be included in the City's Alternative Transportation Plan for you to support it? What elements would you have concerns about?

7. What other programs and strategies do you think could be especially effective in Emeryville to provide more balanced transportation options? Potential services include bike sharing, discounted or free transit passes, charging for parking, streets designed to prioritize public transit, etc.

8. What changes to parking policies in Emeryville would you support? Potential options include charging for parking in high-demand areas, use of parking revenue for local improvements and maintenance of pedestrian areas, reduced parking requirements for new development or elimination of parking minimums, shared parking and unbundled parking, etc.

APPENDIX C. BUS STOP GUIDELINES

The purpose of this memorandum is to provide assistance with the planning and design of bus stop improvements within Emeryville. The information presented here represents general guidelines that Emeryville can use to continue upgrading stops on a systemwide, rather than stop-by-stop, basis.

This memo begins with an overview of bus stops in Emeryville (location and amenities) based on the recently completed inventory of current bus stop conditions. The second section presents general guidelines for bus stop improvements in order to make stops safer, more comfortable and more appealing to users. The final section presents a tiered approach which provides Emeryville with the basis for making system-wide changes in a rational manner.

Emeryville Bus Stop Overview

The Emery Go-Round (EGR) and AC Transit provide a high level of transit service in Emeryville. Most addresses in Emeryville are within ¼ mile of a bus stop. The Emery Go-Round is free to all passengers and provides local service throughout Emeryville, with stops at the Emeryville Amtrak Station, Bay Street Center, and major employers such as Pixar and Novartis. AC Transit is the public transit system providing fixed-route bus service throughout western Alameda and Contra Costa Counties, and transbay service to downtown San Francisco. Some level of service is available 24 hours a day seven days a week, ranging from ten minutes to one hour. The MacArthur BART Station in Oakland is a key transfer point for connections to regional transit, with all EGR routes having a stop at this BART station.

The City of Emeryville has developed a database containing bus stop information for all stops within the city limits. This database has a record for every stop listing the location (cross streets), direction, lines, passenger amenities, sidewalk condition, signage, lighting and street condition. In the future, the database could be linked to a GIS based map of the route network showing the location and picture of each stop.

There are currently 58 bus stops in Emeryville; 17 of the stops are shared between EGR and AC Transit. AC Transit has 19 individual stops and EGR has 22 stops (one stop is shared with Berkeley Lab). The majority of the bus stops in Emeryville (46 stops) do not have bus shelters although 12 of the unsheltered bus stops provide benches for waiting riders. All of the bus stops (AC Transit and EGR) have signs that indicate the route at the location.[1]

The majority of bus stops contain some map/route information and/or timetables. An information board at MacArthur BART Station provides a list of schedules and bus maps (AC Transit, Emery Go-Round, and other shuttles) for transit riders who may be seeking information on any of these services. An electronic sign that provides real-time information would be highly desirable at this location and its installation could be coordinated with BART. Additional information kiosks with signs and real-time information could also be installed in local businesses and office buildings. For example, a computer monitor can inexpensively be installed in supermarkets or building lobbies to show NextBus data from the Internet.

The largest transit hub located in the City of Emeryville is near the intersection of 40th Street and San Pablo Avenue. 40th Street is a major east-west boulevard that connects the main business and residential areas of Emeryville with the MacArthur BART Station on 40th Street in Oakland. San Pablo is a major north-south boulevard that links Emeryville with Oakland and Berkeley.

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1   The consulting team found some stops that include information about routes that have changed or no longer serve them. Emery Go-Round staff is encouraged to update these signs and monitor them to ensure they are accurate.

The following services are available:

- AC Transit routes on 40th Street include: 26, 57, and TransBay C and F;

- AC Transit routes on San Pablo include: 72, 72M and 72R, and All-Nighter service route 802. There are many transfers between the local and regional AC Transit routes that require a block or more of walking.

- EGR routes stop on 40th Street at Emery Street one block west of San Pablo Avenue. In addition, the Hollis and Hollis South routes stops in the northbound direction on Park Avenue at San Pablo Avenue, one short block north of the San Pablo/40th Street intersection.

The intersection of 40th Street and San Pablo was evaluated as part of the *AC Transit Hub Review* in order to better understand how to improve connectivity.[2] Since this area is currently not formally designated as a transit center, there are no formal boundaries, identification or wayfinding signs to assist passengers with finding the bus stops and different boarding platforms. Currently, two of the four bus stops at 40th Street and San Pablo Avenue have shelters and benches and provide some transit information. The other two stops that are shared between EGR and AC Transit do not have benches or shelters. The AC Transit Hub Review recommended that the area should be identified as a transit hub in order to better connect the various bus stops and other available services.

Factors Affecting Access to Transit

A variety of factors impact the ability and choice to use transit, including the distance and time to make the trip, the condition of sidewalk or bicycle path for accessing transit, traffic volumes and speeds, and one's ability to navigate within the surrounding environment. For bicyclists, the presence of secure parking and/or the ability to bring a bicycle on the transit vehicle are important. People will want to know that they are physically safe, especially if it is after dark and/or they are alone. The provision of shelter from sun, wind, and precipitation both at the transit stop and along the way are important considerations.

The *perception* of time, distance and safety is also highly relevant, causing variations in the distance someone is willing to walk from a block or two, if at all, to more than a half mile (approximately a ten minute walk). These perceptions are influenced by comfort levels, familiarity with the path of travel and surrounding area, and knowledge of how long until the next transit vehicle arrives. Physical barriers can be a critical factor, especially for individuals with disabilities limiting their mobility.

These considerations will be critical in the development of guidelines for bus stop improvements.

Bus Stop Components

When assessing conditions and amenities at bus stops, it is important to differentiate between "street-side" and "curb-side" factors and functions. Street-side factors and functions are those that primarily impact bus operations, including pavement condition, travel lanes, speed limits, bus bays, curbs, and ramps. Curb-side factors are those things that primarily impact a bus rider's comfort, safety and convenience, including shelters, benches, lighting, schedules and maps. This memo focuses primarily on curb-side factors which are critical in the development of strategies to encourage the use of transit.

Curb-Side Factors

Improving curb-side amenities is important for transit systems because making stops safer, more comfortable and more appealing can have an immediate, positive impact on ridership. There are several categories of curb side amenities:

Signs

Every bus stop needs a visible and clearly readable sign marking the stop. Bus stop signs indicate to passengers and drivers where buses stop, as well as publicize the availability of the service. A sign should be at least 12" x 18" and should be mounted at least six feet above the ground and ideally within 4 feet of the edge of the street. The sign should be placed perpendicular to the street so that it is visible from both directions. Each transit operator that serves the stop should be listed on the sign. Space permitting, the sign should also indicate the bus stop ID #, route number(s), hours/days of operations and a telephone number to call for more information.

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2 AC Transit Hub Reviews. Prepared for AC Transit by Wilbur Smith Associates and Harley & Associates. May 29, 2009.

Here's an example of a sign with a reasonable amount of information:

BUS STOP

Stop # N01100

Emeryville Go Round – BART Shopper
   M-F 7:00 AM – 7:00 PM, approx every 15 minutes
   Sat 9:25 AM – 9:30 PM, approx every 30 minutes
   Sun 10:20 AM – 6:40 PM, approx every 40 minutes
For more information call (510) 817-1716

Here is an example of an AC Transit and EGR sign that is currently near 40th St. and San Pablo Ave. All of the bus stops in Emeryville have signs that indicate the route at the location.

ADA Accessibility

It is important to properly design and integrate bus stops into their surrounding environment so that they are accessible to as many individuals as possible. Bus stops designed to be ADA accessible allow riders with disabilities, including those that are wheelchair bound, to ride fixed-route transit which in turn limits dependency on more costly paratransit services. Though most wheelchairs require only 3' of space for comfortable circulation around a bus stop, 4' has become the accepted standard. A bus stop design should also facilitate easy wheelchair ramp deployment from either the front or rear of a bus.

System Map

In theory, every bus stop should have a system map so that riders can be certain they are boarding the correct bus for their trip. System maps can help riders plan their trip efficiently, especially if it involves a transfer between two or more routes. The majority of bus stops in Emeryville contain some map/route information. Only eight stops do not have any map/route information posted.

Placing a full size system map at every stop may not be practical, usually because there isn't space to mount the map. Providing that space often requires installation of another piece of equipment and that can get expensive. In addition, installing maps at every site can place a tremendous burden on staff whenever those maps need to be changed.

Schedules

The absence of schedules at bus stops can leave riders guessing as to when a bus might arrive to take them towards their destination. The uncertainty of not knowing when a bus will arrive can be a major disincentive to using public transit. To that end it is recommended that every stop have a printed schedule for every route serving that stop. If the stop has a shelter then the schedules can be mounted on the wall. If there's no shelter then the schedules can be placed in a tube that attaches to the sign/pole.

The primary disadvantage to placing printed schedules at each stop is that somebody has to go into the field and change the schedules whenever they are updated, and this can require a good deal of staff effort.

At the very least the bus stop sign should list the days, hours and frequency of every route (see above). Most bus stops in Emeryville contain a posted timetable. Only eight stops do not have any schedule information posted. Real time arrival information for all EGR routes is provided by NextBus.

Sidewalks

Sidewalks are an important interface between transit riders and transit operations. The sidewalk must properly accommodate riders waiting for and boarding the bus, as well as passing pedestrians. At a minimum, 3' of uninterrupted sidewalk should be maintained to ensure proper circulation and wheelchair accessibility around a bus stop. Although shelters and benches may contribute to a safe, comfortable and accessible bus stop, their presence should not minimize accessible and uninterrupted sidewalk width to less than 3' (preferably 4').

Benches and Shelters

Benches and shelters represent two of the most frequently requested improvements listed by current and potential transit riders.[3] Ideally passengers would like to have them installed at every stop, but this can be prohibitively expensive for most transit systems. For example - the purchase and installation of an "off-the-shelf" bus shelter for a single bus stop can cost a transit system as much as $7,000. Most small-city transit systems simply don't have that much money available to spend on a shelter program, and thus must develop a policy for prioritizing shelter improvements.

Currently, 16 bus stops in Emeryville contain benches and ten bus stops have shelters. Many transit systems determine where to put shelters and benches by looking at the passenger boarding activity for each stop. This approach ensures that the greatest number of passengers will use the improvements, which in turn maximizes the cost - efficiency of the capital investment.

Every system needs to develop its own boarding activity parameters. The TCRP Report[4] recommends the following general boarding guidelines for determining whether a shelter is needed at a bus stop:

- Rural Areas   10 or more boardings per day
- Suburban Areas   25 or more boardings per day
- Urban Areas   50 or more boardings per day

Sometimes benches and shelters are installed at a stop for reasons other than boarding activity. For example, a transit board might instruct staff to install a bench and shelter at a location adjacent to a senior activity center, even though the stop only generates a minimal level of boarding activity. The Board may decide it wants to do this so that the seniors who use the stop won't have to stand while they wait for the bus. In another example, staff might be instructed to install a shelter next to a day care center so that parents picking up or dropping off children won't be exposed to the elements while they wait for a bus. The important thing to remember is that while the level of boarding activity is a good way to determine where shelters and benches should be installed, it's not the only method.

Shelters come in variety of shapes, sizes and price ranges. Many firms sell off-the-shelf, utilitarian models that can be installed in just a few hours. In some cases though, jurisdictions along a route may not want a utilitarian shelter design and may opt instead for something more unique that fits in better with the surrounding land uses or street themes. In these situations the jurisdiction and transit operator may wish to contact an architectural/design firm that specializes in street treatments to sketch out some ideas for a more unique looking shelter. The downside to using a unique shelter is that it could raise the cost of bus stop improvements by as much as 50%.

It's a good idea to put a distinct name on the shelter whenever possible. This could be something as simple as listing the adjacent cross streets (e.g., San Pablo Ave./ 40th St.). Giving a name to a shelter helps passengers to start thinking of the bus stop as a place, rather than just a "stop." Giving it a name also helps to convey a sense of "permanence" that is often critical to attracting long-term riders.

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3   This observation is based on Nelson\Nygaard's experience with passenger surveys over the last ten years.

4   Transportation Cooperative Research Program's (TCRP) Report 19 - *Guidelines for the Location and Design of Bus Stops* (1996).

Lighting

Transit operators that run buses during early morning and late evening hours should consider how lighting at a bus stop might affect ridership during those hours. Lighting can enhance both actual and perceived safety by increasing overall visibility. A rider will be most comfortable and likely to use a bus stop when lighting is sufficient to indicate where they are relative to their surroundings. A well-lit bus stop will also help prevent conflicts between buses approaching the stop and riders waiting at the stop. Lighting will also increase a bus driver's vision, ensuring that riders will not be passed by without being picked up.

Lighting can be either direct (installed at the bus stop) or indirect (lighting from an adjacent overhead street lamp). The majority of bus stops in Emeryville have adequate lighting from overhead street lamps and nearby buildings.

The issue of lighting also covers "stop request" identification lights. These are flashing lights that are placed on top of the bus stop sign or the shelter. A passenger pushes the button and the light flashes for 30 seconds to signal the approaching bus to stop. These stop request lights can help reduce the incidents of "pass-bys" that can often occur at stops where visibility and lighting are poor.

Trash Receptacles

Customers often judge the quality, safety, and convenience of transit service solely on the appearance of bus stops. Scattered trash may indicate to a potential rider that a bus stop is so inactive that it is unworthy of maintenance. Trash receptacles are an inexpensive way of keeping bus stops tidy.

However, trash receptacles that are not emptied or maintained on a regular basis can become as much of an eyesore as trash found on the ground at those stops without a trash can. Keeping the receptacles clean usually requires an agreement between the transit operator and the local municipality to determine who'll be responsible for trash pick-up. In this case, the City of Emeryville and the ETMA and AC Transit would need to determine which entity is responsible for this function.

Nearly half (25) of the bus stops in Emeryville contain trash receptacles in close proximity to the bus stop.

Advanced Passenger Information Devices

More and more transit agencies are introducing advanced passenger information devices at high traffic bus stops (especially transfer centers). These systems include:

- NextBus™ – A digital overhead display that indicates the arrival time, route # and destination of the next bus approaching the stop

- Information Kiosks – These electronic kiosks, similar in size to a small Automated Teller Machine, have touch screens and can be used by passengers to call up information about schedules, transfers, fares and route maps.

These systems can be expensive to purchase, install and maintain and thus it is currently cost prohibitive to place them at more than a handful of locations in any given system. These systems frequently also require that the transit agency install GIS-based AVL systems. This can add yet another layer of cost to the equation.

Bus Stop Improvement Program

In a perfect world every bus stop would always be in perfect condition, would have every desired amenity, would be located in a manner which positively impacts bus operations, would have great linkages to adjacent bike facilities and would never negatively impact surrounding landowners. In the real world, however, Emeryville must balance the needs of passengers, adjacent landowners, emergency services, pedestrians and other motorists with the realities of available funding.

Instead of approaching bus stop improvements "one stop at a time" in the hope of bringing every stop up to the level of an "ideal stop", Nelson\Nygaard is proposing a tiered approach for the City's Capital Improvement Program (CIP) that will provide Emeryville with the basis for making system-wide changes in a rational manner. Nelson\Nygaard recommends four tiers of "improvements":

Tier 1 – Information, Accessibility and Operational Feasibility

Tier 2 – Lighting

Tier 3 – Shelters and Benches

Tier 4 – Advanced Passenger Systems and Specialized Services

Tier 1 – Information, Accessibility and Operational Feasibility

Tier 1 bus stops provide the minimum level of amenities necessary to make them useful for any passenger. A Tier 1 stop also meets all of the necessary operational requirements needed to safely accommodate EGR and AC Transit buses. This tier has three components:

Signage

Every stop must be signed. To a certain extent it doesn't really matter if the sign is mounted on pole or an adjacent structure (e.g., street lamp), as long as it is visible to both pedestrians and motorists approaching from either direction.

Signs should be at least 12" x18" in size. They should be double-sided and coated with reflective material.

At a minimum, each sign should include the following information:

- Bus Stop
- Stop ID #
- Routes Served (Route # and Destination)
- Days/Hours of service
- Approximate frequency
- Telephone # for information

It is also recommended that a route map be included in a pole tube-sleeve at every stop that has a pole.

Curb areas at each stop should be painted with the words "Bus Stop" in red, yellow, white or green (depending upon the requirements of the local jurisdiction).

Accessibility

Each bus stop, to the extent feasible and practical, should conform to the minimum accessibility guidelines outlined by the ADA. This means that every stop should have a level boarding/waiting area with a flat surface covered with a non-slip material, and an unobstructed, level travel path leading to a curb cut. Whenever feasible, there should also be an unobstructed and level path connecting the bus stop to any adjacent bicycle paths.

Operational Feasibility

This category is really more about what is unacceptable rather than acceptable. In terms of stop location, far-side stops should be the preference, but any location will be acceptable as long as it doesn't negatively impact operations.

A bus stop should never be placed in a location where buses might:

- Block traffic intersections
- Block high volume commercial driveways
- Block emergency service access
- Extend into multiple traffic lanes
- Block a crosswalk

In addition, stops should not be placed in locations that compromise a bus driver's visibility in either direction.

The use of right-side "Queue Jumper Lanes" is encouraged in those areas where it will save running time by allowing buses to avoid excessive peak period delays at traffic signals. However, the placement of bus stops in right-side turn lanes is not encouraged because of potential conflicts between buses as they merge back into traffic and vehicles that try to cut in front of them to access the turn lane. This might not always be possible, but it should be considered the preferred approach.

Tier 2 – Lighting

Once every stop has been brought up to the Tier 1 level Emeryville can turn its attention to implementing Tier 2 improvements. The focus of this second tier is security; more specifically lighting/visibility.

Safety and security is always an important issue for public transit. The typical passenger probably feels fairly safe once he/she is on-board a bus. The challenge is in helping people to feel safe while they are waiting for a bus. In some areas passengers might be standing at a bus stop up to 30 minutes. Safety becomes an issue when you're standing outside for this long, especially if it's early in the morning or late at evening and dark.

One way to improve the sense of safety and security at bus stops is to make sure that every stop is illuminated. This can be accomplished through the use of direct or indirect lighting. Direct lighting refers to lights installed directly at a stop for the express purpose of illuminating the stop. Indirect lighting can come from sources like overhead streetlamps or lights from an adjacent building.

Each Emeryville stop should be evaluated at night to determine whether it has a sufficient amount of lighting (this is a subjective, not an objective, process). In some cases simply moving the stop closer to an existing indirect source of light might solve the problem. For all other cases Emeryville should consider adding some source of direct lighting. This can be achieved by "hard-wiring" a new light source to an adjacent power supply, or by installing a solar powered light.

Tier 3 - Seating and Shelters

Once the Tier 2 improvements are in place Emeryville can move on to Tier 3. Tier 3 improvements are expensive to install and to maintain, and thus it's important that they be located at stops where they will be used on a regular basis. This helps ensure that Emeryville maximizes the use of its limited capital resources.

Nelson\Nygaard recommends that Emeryville consider installing shelters at locations which have an average of 25 or more boardings per day. Benches should be placed at stops with an average of 15 or more boardings per day.[5]

Transit shelter in San Francisco
Source: Lundberg Design

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5   Transportation Cooperative Research Program's (TCRP) Report 19 - *Guidelines for the Location and Design of Bus Stops* (1996).

Tier 4 – Advanced Information Systems

Tier 4 represents the highest level of amenities at a bus stop. All EGR stops already have NextBus advanced passenger information systems which provides real time arrival information. Emeryville should consider whether there are opportunities to install NextBus display panels.

An example of SFMTA's new bus shelter design, now being rolled out at select locations around the city, is shown on the previous page. In this case, the cost of the shelter itself may be covered through San Francisco's advertising contract with Clear Channel Communications.[6] Emeryville may wish to provide its own distinctive shelter design that reflects community taste and values. High level unit cost estimates for each bus stop are provided in Table 1.

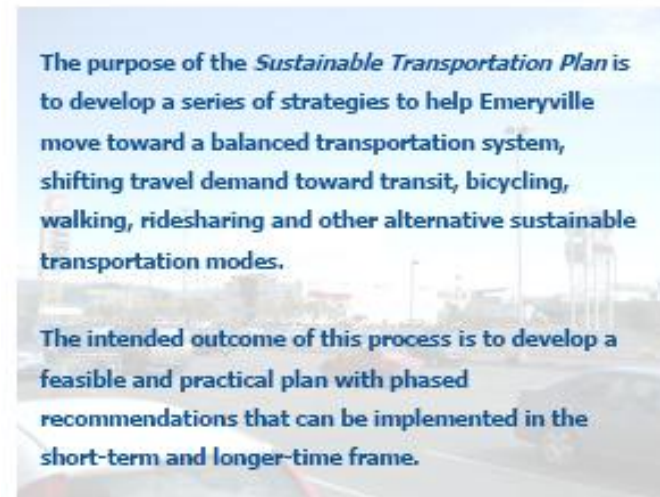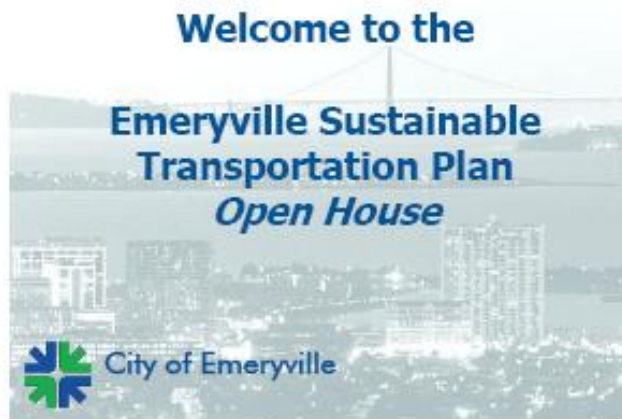### Figure C-1   Unit Cost Estimates for Bus Stop Amenities

Transit Amenities	Approximate Cost
Transit Shelter[1]	$ 7,000
Transit Signage	$ 400
NextBus Display	$ 1,200
Subtotal	$ 8,600
Pedestrian Amenities Costs	
Pedestrian-scale Lighting	$ 8,400
Street-scale Lighting	$ 3,500
Trash Receptacles	$ 2,000
Enhanced Crosswalk Treatment[2]	$ 5,500
Street Trees[3]	$ 4,000
Utility / Conduit Allowance	$ 2,500
Subtotal	$ 25,900
TOTAL	**$ 34,500**

Sources: SFDPW, SFMTA, SFCTA 19th Ave Corridor Study, SF Underground Utility Task Force Report, CD+A, Nelson\Nygaard. As developed for the SFCTA Bayview Neighborhood Transportation Plan.

1   Shelter costs could be covered by a contractual agreement with Clear Channel Communications.

2   Cost includes one crosswalk.

3   Street trees include costs of tree grate and tree.

6   Clear Channel-provided shelters are to be maintained by Clear Channel staff: an agreement effective December, 2007, and to be in effect for fifteen years. Clear Channel will be required to inspect each shelter and kiosk at least twice per week, and those on Market Street at least three times per week. The agreement requires Clear Channel to make daily inspections of all platforms and pick-up trash, remove graffiti, clean and wash each boarding platform, inspect LED signs and lighting fixtures, and replace defective lights. http://www.sfmta.com/cms/apress/AdvertisingAgreementApprovedbyBoardofSupervisors.htm

APPENDIX D. OPEN HOUSE PRESENTATION

Welcome to the

Emeryville Sustainable Transportation Plan
Open House

City of Emeryville

We then invite you to browse the stations around the room to gain further information about the proposed strategies.

Emeryville Sustainable Transportation Plan Open House — **Nelson|Nygaard**

This brief slideshow will highlight preliminary findings from the first phase of the study.

Emeryville Sustainable Transportation Plan Open House — **Nelson|Nygaard**

The purpose of the *Sustainable Transportation Plan* is to develop a series of strategies to help Emeryville move toward a balanced transportation system, shifting travel demand toward transit, bicycling, walking, ridesharing and other alternative sustainable transportation modes.

The intended outcome of this process is to develop a feasible and practical plan with phased recommendations that can be implemented in the short-term and longer-time frame.

Recently Completed/Ongoing Planning Efforts

- General Plan (adopted 2009, amended 2010)
- Bicycle and Pedestrian Master Plan (currently undergoing update)
- Shellmound Streetscape Design Guidelines (draft October 2007)
- Parking Policy and Management Implementation Plan (North Hollis Parking Study) (May 2008)
- Climate Action Plan (November 2008)
- Powell and Christie Streetscape Design Plan

Emeryville Sustainable Transportation Plan Open House   **Nelson|Nygaard**

Existing Transit Services

How Emeryville Commutes

Emeryville Residents	Drive alone	Carpool	Transit	Bicycle	Walk	Other	Work at home
Working in Emeryville	37%	5.3%	n/a	3.8%	28%	1.1%	25%
Working Elsewhere	60%	10%	28%	0.7%	0.1%	2.0%	0%
Emeryville Workers							
Living Elsewhere	77%	13%	6.4%	1.3%	1.4%	0.7%	n/a

Source: 2000 US Census Transportation Planning Package

Emeryville Sustainable Transportation Plan Open House   **Nelson|Nygaard**

Emeryville is served by many transit services

Paratransit Services

- East Bay Paratransit
  - ADA demand responsive service for people unable to use AC Transit buses or BART

- Door-to-Door Shuttle Service -- 8 To Go
  - Door-to-door, shared ride transportation for residents of the 94608 zip code area to destinations in the 94608 zip code area.

Emeryville Sustainable Transportation Plan Open House **Nelson|Nygaard**

TDM is a general term for strategies that increase overall system efficiency by encouraging a shift from single-occupant vehicle (SOV) trips to other modes of travel such as transit, walking, or bicycling.

Existing Transportation Demand Management Programs and Services

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Emeryville Transportation Management Association (TMA)

The Emeryville TMA is non-profit organization whose primary purpose is to increase access and mobility to, from and within Emeryville. The TMA is funded through a citywide Property based Business Improvement District (PBID).

Emeryville Sustainable Transportation Plan Open House **Nelson|Nygaard**

Emeryville Transportation Management Association (TMA)

The TMA administers the following services within Emeryville:
- Emery Go-Round
- Alameda County Guaranteed Ride Home (GRH) Program
- Zipcar Carsharing

Emeryville Sustainable Transportation Plan Open House — Nelson|Nygaard consulting associates

The content of this section represents input from over 30 stakeholders who were selected to represent a diversity of perspectives. Stakeholders were asked about their perspectives on current transportation conditions in Emeryville, priority issues and potential opportunities for improvement.

Key Issues and Themes

Stakeholder Key Issues and Themes

Improve Ease of Walking in Emeryville

- Lack of sidewalk connectivity was frequently cited
- Many intersections were noted for their unfriendly pedestrian design (long crossing distances, wide vehicle turning radii)

Emeryville Sustainable Transportation Plan Open House — Nelson|Nygaard consulting associates

Stakeholder Key Issues and Themes

Targeted Improvements to Transit Services

- Extend Emery-Go Round Hours
- Speed up Service and enhance passenger amenities
- Better Access to Intermodal Hubs and Transit Hubs
- Enhanced service to residential areas

Emeryville Sustainable Transportation Plan Open House

Nelson Nygaard

Stakeholder Key Issues and Themes

Promote a Balanced Transportation System

While the need to provide for non-auto modes of travel was supported, many stakeholders noted that private auto travel will remain an integral element of the Emeryville transportation network.

- A significant number of stakeholders noted that ease of automobile access to regional retail destinations in Emeryville is important.
- Emeryville should make a significant shift to other modes to achieve social, economic and environment goals.

Emeryville Sustainable Transportation Plan Open House

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Stakeholder Key Issues and Themes

Support Bicycling at an Appropriate Level of Investment

- Most stakeholders support bicycling improvements
- No clear consensus about appropriate level of investment.

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Stakeholder Key Issues and Themes

Differing Positions on Parking Policies

No clear consensus on how parking revenue should be used (additional parking vs. promoting other modes)
- Desire to protect on-street residential parking
- Ensuring residential supply is important; unsure about "unbundling parking"

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Emeryville Wayfinding

Wayfinding refers to how people orient themselves and navigate from place to place,
and the types of information they use to do so. For locals and visitors alike, finding one's direction and orientation around Emeryville can be a daunting challenge. A combination of one-way streets with high traffic volumes, a complex street layout, and several significant connectivity barriers make it difficult to find one's destination. Given Emeryville's small footprint and close connections with Berkeley and Oakland as well as being a regional destination, it could serve as a model for a highly legible and effective wayfinding system.

The challenges of wayfinding are not limited to automobile traffic; they are distributed across all modes of travel. This is particularly true in Emeryville as the city is moving towards a more balanced and sustainable transportation system

Components of a Wayfinding Plan

A comprehensive wayfinding plan in Emeryville should have the following components:

- Bicycle wayfinding should be consistent with Berkeley's existing program and Oakland's planned program, including destination-oriented signage, special color treatments of street signs along major bicycle routes, sharrows and other techniques.

- Transit users could better orient themselves through high quality bus shelters complete with system maps, a detailed local walking map and real-time bus arrival displays. Los Angeles' Metro Rapid program is a good model, and the City of Santa Monica is developing an improved transit wayfinding program for its Big Blue Bus service.

- Collaborate with the City of Berkeley to better mark Emeryville's only northern gateway, at 7th and Folger. Ideally, work to acquire property in Berkeley in order to extend Hollis directly to Ashby.

- Consider reducing some street names. For example, Bolivar Street in Berkeley turns into Bay Street in Emeryville, then becomes Shellmound, which runs parallel with two additional streets called Bay Street within the Bay Street Shops and Residences, before turning into 40th Street.

- The City's official map already identifies its major retail centers, including Emery Bay Public Market, Powell Street Plaza, Bay Street, East Bay Bridge and the Promenade Shops. Continue to build the image of these places through strong landscape, public art, lighting, materials and other tools.

- For pedestrians, consider neighborhood walking maps highlighting all the goods and services available within walking distance, much as the City of Seattle has done. See http://feetfirst.info/mapping.

- In all wayfinding programs, work to maintain and build upon existing color schemes and design templates, supplementing existing signage rather than creating new systems.
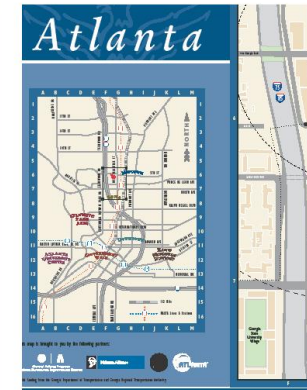
Emery Go-Round

The Emery Go-Round is a free fixed-route shuttle service administered by the Emeryville Transportation Management Association (TMA).

Emery Go-Round service is highly visible - vehicles are uniquely identified and there is good public information available to users. NextBus offers riders real-time arrival and departure information. In April 2010, several minor improvements were made to further improve this well utilized service including publication of a new Schedule and Route Guide. Emery Go-Round has five routes: North and South and Hollis, Powell, Watergate Express and the BART shopper. The MacArthur BART Station in Oakland is a key transfer point for connections to regional transit, with all routes serving this BART station.

In 2008, the Emery Go-Round carried about 1.3 million riders. The majority of riders during peak hours are going to or from work. Mid-day service carries workers as well as riders traveling for other trip purposes.

Emery Go-Round Strategies

The following are potential modifications of the Hollis Route to serve the Emeryville Senior Center
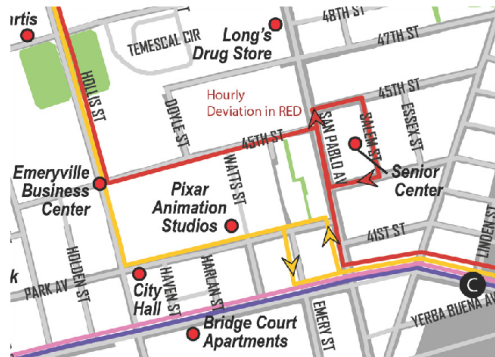
Consolidation of Hollis Street Routes

Consider eliminating the North and South Hollis Routes and operate a single route along Hollis during all service hours.

Route Simplification

To gain minor time savings and maintain simplicity of the Powell and Watergate Routes consider eliminating the loop into the Watergate Office Towers and potentially add a passenger shelter opposite the drive.

Through-Routing of Hollis and BART Shopper Routes

To eliminate transferring along 40th Street or the BART station, consider operating a single Hollis Route outbound that continues as a BART Shopper Route inbound. The BART Shopper Route could travel northbound on Shellmound and inbound as a Hollis Route.

Other Considerations

Access at MacArthur BART Station

Work with AC Transit and BART to improve pedestrian crossings and reduce vehicle conflicts. Consider shifting stops to an on-street location so vehicles would not need to enter the traffic lane at the MacArthur BART station.

Delay and Signal Priority

Plan for Transit Signal Prioritization (TSP) at major intersections and consider other improvements to speed operations such as transit-only lanes.

Bicycle Connectivity/Convenience

Bicycling is a critical component for a sustainable future in Emeryville.
A parallel effort is underway to update the City's Bicycle and Pedestrian Master Plan.

Although the Sustainable Transportation Plan does not intend to duplicate the efforts of the forthcoming Plan, some strategies are recommended to support the city goal of creating a safe, comprehensive, and integrated bicycle system.

Strategies

Install Bicycle Boxes & Advanced Stop Bars
Bicycle boxes and advanced stop bars are pavement markings that provide a dedicated and visible place to stop and wait in front of traffic at traffic signals. These enable cyclists to proceed visibly and safely once lights turn green. This type of facility reduces collisions, especially those on right hand turns. The bike box at left was recently implemented in San Francisco.

Develop Bicycle Parking Requirements
In most cities, vehicular parking requirements are issued to new developments depending on the land use. Similarly, bicycle parking should be required of new development to ensure bicyclists have access to ample safe and convenient parking facilities.

Install Bicycle-Only Signal Phases/Actuators
In areas with high levels of bicycle activity, and/or high volumes of cross-traffic, cyclists may require their own signal phasing to ensure safe crossing of streets. This type of signal can be actuated either on a timed basis like some traffic signals or special bicycle actuators can be installed that react to the presence of a bicycle. A bicycle-only signal was recently installed at Golden Gate Park to reduce collisions.

Use Diverters and Other Traffic Calming Devices
Berkeley's Bicycle Boulevards are largely successful due to the use of traffic calming devices to reduce vehicle speeds and ensure bicycle safety. Similarly, appropriate streets in Emeryville could install traffic diverters and other traffic calming devices in corridors identified for bicycle priority.

Expand Public and Private Bicycle Parking
Bicycle parking should be provided at all destinations either publicly or privately. Parking can be designed and implemented based on the type of demand which could include long-term (work, residential developments) or short-term (shoppers, recreational users or visitors).

Ensure Bicycle Priority Streets are Safe
The network of signed bike routes and bicycle boulevards in the General Plan should be further examined to ensure all portions of those streets provide the "as advertised" benefits for bicycles. Segments of those streets that may need to share priority with other modes such as transit or commercial loading, should provide adequate warning to cyclists.

Parking

Parking Reform is Key to Improving Access and Reducing Traffic

The supply, utilization, and management of on and off-street parking in Emeryville are key factors that influence:

- Multimodal access to and mobility within Emeryville
- The affordability and choices of housing and commercial space
- The potential for the city to grow and develop as planned

Parking supply and occupancy were surveyed for the North Hollis Area in 2008, where on-street parking occupancy peaks in late morning at almost 90% near Hollis and at 71% in adjacent residential neighborhoods.

Parking supply and occupancy surveys are needed to identify auto access issues and sites with underutilized parking in the South Hollis, Park Avenue and Bayfront Districts.

Parking Strategies

Revise parking standards to meet city goals

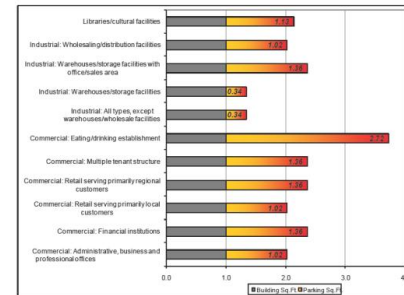**Eliminate minimum off-street parking requirements**

- This does not necessarily mean that no parking will be built; instead property-owners will provide parking as necessary to meet market demand.
- Allows existing property-owners and developers to lease or sell their excess parking to other users, satisfying additional parking demand, at low cost.
- Managing public on-street and off-street parking – these are better tools for maintaining on-street parking availability.
- Using valuable land to satisfy minimum parking requirements represents a hidden subsidy for driving that can worsen traffic congestion.

Alternative: Incentivize or mandate shared parking and payment of in-lieu fees

Manage public parking to ensure availability

- Adopt vacancy goals for public on-street and off-street parking (Recommended 15% and 10% respectively).
- Where paid parking is necessary, install smart meters that allow adjustable rates, or sell permits.
- Grant staff administrative authority to establish and adjust parking rates and/or time limits as necessary to meet these vacancy goals.
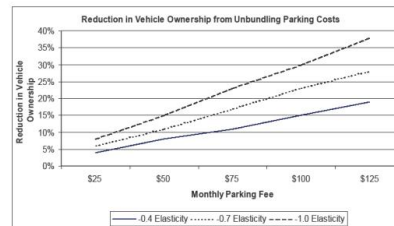- Monitor parking occupancy and adjust rates accordingly.

Establish Parking Benefit Districts

- Establish Parking Benefit Districts with Permit Parking Areas.
- Dedicate all parking meter/permit revenue to improvements in the District in which it was collected.
- Limit the number of permits issued to guarantee peak hour occupancy of 85% or less.
- If occupancy is less than 85%, sell permits for any surplus parking capacity to non-resident commuters at fair market rates.

Require Parking to be "Unbundled" from commercial and residential leases and sale agreements

- Require new office and residential development to separate, or "unbundle" the full cost of parking. Create a separate parking charge for employee and resident spaces.

Require compliance with state parking cash-out law

- Adopt a local ordinance requiring proof of compliance with the state parking cash-out law upon renewal of local business license (this requirement may be extended to businesses with 10-50 employees).
- Reduces parking demand and associated traffic.
- Provides an equal transportation subsidy to employees who ride transit, carpool, vanpool, walk or bicycle to work.
- Provides a low-cost fringe benefit that can help businesses recruit and retain employees.
- Simple to administer and enforce (1-2 minutes per employee per month).

SPACE REQUIRED FOR PARKING FOR EACH SQUARE FOOT OF LAND USE

IMPACT OF UNBUNDLED PARKING ON VEHICLE OWNERSHIP

EFFECTS OF PARKING CASH-OUT ON PARKING DEMAND
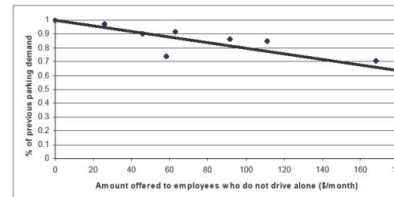
✳ Transportation Demand Management

Transportation Demand Management, or TDM, is a general term for strategies that increase overall system efficiency by encouraging a shift from single-occupant vehicle (SOV) trips to other modes of travel such as transit, walking, or bicycling. TDM emphasizes the movement of people and goods, rather than motor vehicles, and gives priority to more efficient modes such as walking, cycling, ridesharing, public and private transit and telecommuting.

The intent of TDM programs are to reduce the demand for automobile trips. This ensures that investments in transportation capacity are utilized efficiently and reduces the need for continual roadway expansion.

TDM strategies
are those that focus on better utilizing existing transportation investments and infrastructure in Emeryville by reducing the demand for vehicle trips.

TDM Strategies

Expand Casual Carpooling Pick-up Locations
Although casual carpooling locations are created through a grassroots "organic" process, the city can incentivize casual carpooling through a number of efforts:
- Provide locations and amenities such as lighting, benches, and signage indicating a carpool location.
- Enforce appropriate curb restrictions and ensure public transportation is nearby.
- Ensure casual carpool locations are appropriately promoted through city media and online transportation portals.

Implement a Pilot Employer-Based Bicycle Share Program
An employer based bicycle sharing program may be an initial first step for bike sharing in Emeryville. It would help reduce the need for vehicles for short trips to nearby amenities and services. The City could be the first to initiate a bicycle sharing program, as a proof-of-concept and to encourage healthy practices among city employees.

Expand and Further Incentivize Carsharing Programs
The TMA and Zipcar have led the way by providing six Zipcar carsharing pods throughout Emeryville. Potential strategies:
- Extend discounted membership fees to all Emeryville residents and employees.
- Increase the number of carsharing pods (Zipcar and CityCarShare).
- Assist carsharing marketing with city support.
- Consider replacing city fleet and utilize carsharing.
- Establish carsharing pods at new developments.

Encourage Employers and Homeowners Associations to Participate in EasyPass Program
The EasyPass Program is a way of reducing the cost of using AC Transit services by sharing the cost among a large group. Encourage large developments or employers to participate in the EasyPass program and subsequently, offer low-cost transit passes to their employees or residents.

Consider expanding the Role of the Emeryville TMA
The existing TMA's primary function is planning and operation of the city's Emery Go-Round service. Potential additional roles include:
- Online Ride Matching Efforts to supplement 511.org.
- Online commute information portal for Emeryville residents and employers.

Establish Consolidated Home Delivery for High-Volume Retailers
An innovative concept to reduce vehicle trips would be a consolidated home delivery service that would cater to customers shopping at one of Emeryville's many large retailers. A similar program has been operating in Manhattan's Home Depot stores. That service delivers customer goods within a specified radius of Manhattan for a nominal fee.