

## SFGH Employee Travel Survey: Opportunities for Sustainable Transportation

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### BACKGROUND

**SFGH Rebuild.** In response to the January 1994 Northridge earthquake, the California Legislature passed the Hospital Facilities Seismic Safety Act (SB 1953). The Northridge earthquake caused 23 hospitals to suspend some or all of their services and caused more than \$3 billion in hospital-related damages. SB 1953 served as an amendment to and furtherance of the Alfred E. Alquist Hospital Facilities Seismic Safety Act of 1983.<sup>1</sup> To meet seismic safety standards set forth by SB 1953, (and to avoid closure if not met) San Francisco General Hospital & Trauma Center (SFGH) required new facility construction to ensure that it remain open and operating in the event of an earthquake. SFGH currently serves approximately 1,500 patients per day (100,000 patients per year) and is the only Level One Trauma Center serving 1.5 million residents of San Francisco and northern San Mateo counties. When asked to support Proposition A to rebuild SFGH in November of 2008, 84% of San Francisco voters supported the proposition. With Proposition A's passage, an \$887.4 million general obligation bond was approved to build a new nine-story hospital with 284 acute-care beds. The 442, 350 square foot, state-of-the-art facility is to be located amid the hospital's historic brick buildings along Potrero Avenue.

The rebuild of the San Francisco General Hospital & Trauma Center (SFGH) highlights the need for and opportunity to manage employee parking and support sustainable transportation to the facility. During the facility rebuild, loss of parking spaces due to construction activities will create significant impacts upon parking and transportation patterns on and around campus. Each designated parking space may be viewed as an automobile trip generator. The loss of at least 100 parking spaces during the rebuild, though anticipated to create increased short-term congestion and parking demand, also serves as a critical opportunity for SFGH to support employees in the transition from driving alone to utilizing more sustainable modes of transportation. Given that some current SFGH auto commuters live in places reasonably well served by transit while others do not, a manageable parking solution will need to balance these realities so that people who need to drive are able to locate parking and those who do not need to drive are discouraged from doing so. Decreasing auto trips to the hospital and increasing walking, biking, carpooling/vanpooling, and transit use would comply with (a) Rebuild environmental mitigation measures, (b) San Francisco Department of Public Health's Climate Action Plan (CAP), (c) and San Francisco's Transit First Policy. Further, it would support local and regional public health initiatives by reducing traffic-related air pollutants, noise and hazards, and by supporting increases in physical activity via active commuting.<sup>2</sup>

As stated within the SFGH Seismic Compliance Hospital Replacement Program Environmental Impact Report (EIR), SFGH's transportation demand management (TDM) environmental mitigation responsibilities include a response to predicted impacts via an annual travel behavior survey which shall then inform transportation planning. The long term aims of this initial survey were to establish baseline data on travel behavior for the purposes of: (a) determining employee commute modes (e.g., proportion driving alone, taking transit, walking, etc.), and (b) developing transportation demand management strategies that support the goal of reducing single-occupant auto trips to and from campus. In support of this goal, the near term aims of this survey were to assess: (a) staff commute characteristics including proportion driving alone and vehicle miles traveled, (b) factors that influence driving alone to work, (c) factors that would encourage staff to not drive alone to work, (d) staff willingness to not drive alone during the rebuild of the facility, and (e) awareness and utilization of the City and County of San Francisco's

(CCSF) Commuter Benefits and Emergency Ride Home programs.<sup>3</sup>

### SIGNIFICANCE

**Transit First.** San Francisco's Transit First Policy (1973) was created to support public transit, including taxis and vanpools, as an economically and environmentally sound alternative to transportation by individual automobiles.<sup>4</sup> The policy is applicable to all public institutions. The Transit First policy states that within San Francisco, travel by public transit, by bicycle, or on foot must be an attractive alternative to travel by private automobile. This policy has served as a directive to promote mobility by not only collective public transit, but by all alternatives to single-occupancy vehicles. The guiding principle of the Transit First Policy is aimed at ensuring the quality of life and economic health in San Francisco, therefore, the primary objective of the transportation system is targeted toward the safe and efficient movement of goods and people.

**Health Impacts.** Driving adversely impacts the health of communities through both local and regional mechanisms. As distances between home and work increase, so do the miles people drive, along with the associated hazards from air and water pollutants, noise, and deaths and injuries from motor vehicle collisions.<sup>5,6</sup> Evidence has shown that heavy local traffic creates traffic "hotspots," which disproportionately impact those living near busy streets and highways by creating air pollution, noise, stress, and safety hazards.<sup>7,8,9,10</sup> Heavy traffic can also negatively impact surrounding environments for those who walk, bike, or use public transit services. These traffic-related exposures result in hospitalizations and emergency room visits to local healthcare institutions to treat the adverse pulmonary and cardiovascular health outcomes related to motor vehicle emissions as well as traumatic injuries related to traffic collisions.<sup>11,12</sup>

**Climate Change.** In the Bay Area, transportation emissions contribute to approximately 50% of all greenhouse gas emissions.<sup>13</sup> Global climate change is expected to a) increase the frequency, intensity and length of heat waves, floods, droughts, windstorms and wildfire which lead to increased mortality, illness, and mental health impacts, b) increase ground-level ozone and aeroallergens, exacerbating cardiovascular and pulmonary illness, and c) increase food and waterborne infectious diseases associated with shifts toward warmer temperatures. As a secondary and tertiary medical service provider and emergency response center, SFGH will respond to the emergent, acute and chronic health-related implications of global climate change. Therefore, SFGH is in a unique, influential position to forge a leadership role in the reduction of carbon emissions at the organizational level. TDM programs which support alternative modes of transportation and discourage driving alone are instrumental ways in which to do so.

### EXISTING CONDITIONS

There are a number of transportation alternatives for reaching SFGH. The transit network surrounding the SFGH campus includes: seven MUNI lines in a four block radius;<sup>14</sup> two Sam Trans routes; the UCSF Shuttle system which operates two shuttles (the Blue and Gold) to and from UCSF's Mission Bay Campus, Mt Zion facility, and Parnassus campus; and the Yellow shuttle route connecting the campus with the 16<sup>th</sup> St BART station.<sup>15</sup> Additionally, SFGH provides a total of 92 bicycle parking spaces - 16 within a fenced, secured bike cage area as well as 20 individual bicycle lockers with key access.

There are four car share parking spaces on campus - two reserved for City Car Share and two for Zipcar. SFGH employees as well as Potrero Hill residents may reserve these vehicles online.<sup>16</sup> SFGH also has official vehicles available for employee business trips during the day. Campus parking consists of 17 surface lots, one parking garage, and three city streets designated for SFGH employee parking. The campus contains a total of 1,628 parking spaces, of which 842 (52%) are in the garage, 545 (33%) are distributed across the surface lots, and 241 (15%) are on the street. Hospital employees pay a fee for monthly parking. The fee structure encourages employee parking in the garage at a rate of \$100/month rather than on the campus parking lots (includes designated street parking) at \$120/month. Car/vanpoolers

with three or more passengers pay \$74/year for designated parking, and night shift employees receive a discounted rate of \$50/month. Staff can pay an additional \$35/month to reserve a designated space on a surface lot.

## METHODOLOGY

**Survey Development.** In response to both environmental mitigation measures for the SFGH Rebuild and to meet requirements of the SF Departmental Climate Planning process, SFGH's commute survey was devised to capture two baseline measures: a) vehicle miles traveled (VMT) based on employee residential zip code, and b) single occupancy vehicle rate (SOV). Additionally, the tool was developed to assess (a) staff commute characteristics, (b) factors that influence driving alone to work, (c) factors that would encourage staff to not drive alone to work, (d) staff willingness to not drive alone during the rebuild of the facility, and (e) awareness and utilization of CCSF Commuter Benefits, Rideshare, and Emergency Ride Home programs. Questions were informed by existing instruments,<sup>17,18,19</sup> and reviewed by expert reviewers in the transportation demand management field.

In November/December 2008, approximately 4,550 SFGH and UCSF staff members were surveyed via payroll<sup>20</sup> or via Survey Monkey<sup>21</sup>. In conjunction with the paper surveys, SFGH staff were provided with a pamphlet outlining CCSF Commuter Benefits and a sign up sheet for those interested in locating carpool and vanpool matches for the work commute<sup>22</sup>. Prizes donated by Webcor general contractors were offered as incentives toward the completion of the survey.<sup>23</sup> The survey could be completed anonymously or with one's name, phone number, and email to be entered into a prize raffle. Staff were encouraged to complete the survey via a series of email reminders from SFGH's CEO. The CEO's letter to staff was also posted on the SFDPH web homepage. Additionally, announcements were made via voicemail reminders and posted in the SFDPH's electronic Fast Facts newsletter. A two-week period was provided for completion. Surveys could be returned electronically, by interdepartmental mail, or via a drop-box in the Hospital Administration office.

## RESULTS

**Employee and Commute Characteristics.** Approximately 30% (n=1,302) of hospital staff completed the survey. Table I summarizes key characteristics of employees and their commutes.

**Employee Residence.** Map I illustrates the geographic concentration of respondents by zip code. Of respondents reporting a residential zip code (1,085), 48% live in the county of San Francisco, 19% in San Mateo, 16% in Alameda, 8% in Contra Costa, and 6% in Marin.

**Travel Mode.** Figure I illustrates usual travel mode on Wednesdays by county, the day when the greatest proportion of respondents normally work (92%). At least one day over the course of a typical week, 60% of respondents drove alone, 25% took transit, 14% carpooled and 1% vanpooled, 5% biked and another 5% walked. Of those taking public transit on weekdays, 54% took BART, 43% took MUNI, and 42% rode the UCSF shuttle. Less than 3% of employees who ever reported using transit took Caltrain, a ferry, AC Transit, Golden Gate Transit, or Sam Trans. As detailed in Figure I, there are notable differences between county commute travel modes – including the higher proportion of carpoolers in Solano (47%) and Contra Costa (24%) counties, the higher proportion of transit users coming from the East Bay in Alameda (39%) and Contra Costa (40%) counties, the higher proportion of people walking and biking to work in San Francisco

(8% and 9%, respectively), and the high number of drivers coming from the South Bay in San Mateo (75%) and Santa Clara counties (62%), as well as from San Francisco (50%) county.

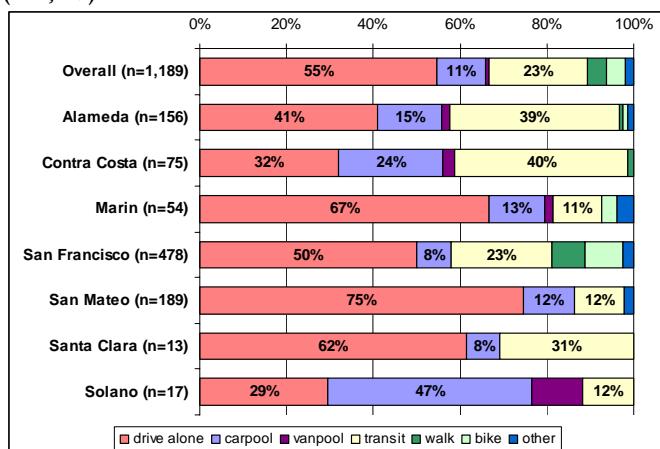
TABLE I. SFGH EMPLOYEE COMMUTE CHARACTERISTICS

Commute Characteristics (N, Respondents)		Percent
Hours Worked/Week (N = 1,276)	Work >35 hrs/wk	83%
	Work 20-35hrs/wk	12%
	Work <20hrs/wk	5%
Typical Work Schedule (N = 1,116)	Work Monday-Thursday	90%
	Work Friday	87%
	Weekends	20%
Employer (N = 1,302)	CCSF Employees	37%
	UCSF Employees	45%
	Both UCSF & CCSF	3%
	Did not disclose	15%
Arrival Time (N=1,255)	0600-1000 (Peak)	85%
Departure Time (N=1,264)	1500-1900 (Peak)	75%
	Leave by 2000	8%
Travel Distance (N = 1,111)	50 miles or more	3%
	40-50 miles	3%
	30-40 miles	7%
	20-30 miles	14%
	10-15 miles	26%
	5-10 miles	19%
	<5 miles	30%
Travel Time (N = 1,274)	Average, minutes	35
	<30 minutes	44%
	30-60 minutes	38%
	60-90 minutes	13%
	>90 minutes	4%

## KEY FINDINGS:

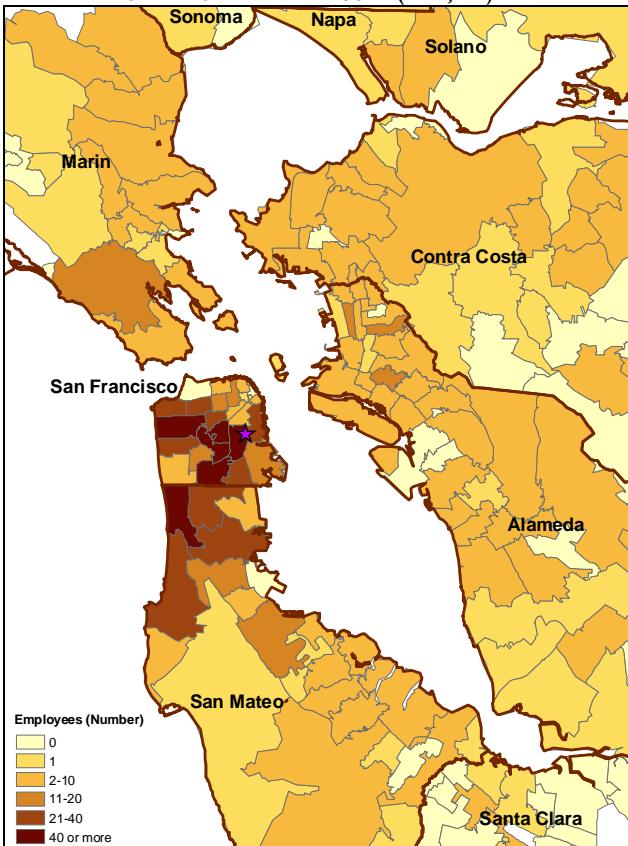
- Over half of employees (55%) drive alone to work on weekdays
- Almost one-quarter (23%) of employees commute via public transit on weekdays
- Carpooling is the weekday commute mode for 11% of employees
- Half of employees living in San Francisco drive alone to work on a typical weekday, a higher proportion than in nearby Alameda and Contra Costa counties
- 75% of employees residing in San Mateo county drive alone to work on a typical weekday
- Approximately 40% of employees residing in Alameda and Contra Costa counties commute via public transit on a typical weekday – the highest of all counties
- Commute times in carpools across counties on average added less than 10 minutes to a commute compared to driving alone

**FIGURE I. WEDNESDAY COMMUTE MODE: OVERALL AND BY COUNTY (N=1,189)\***



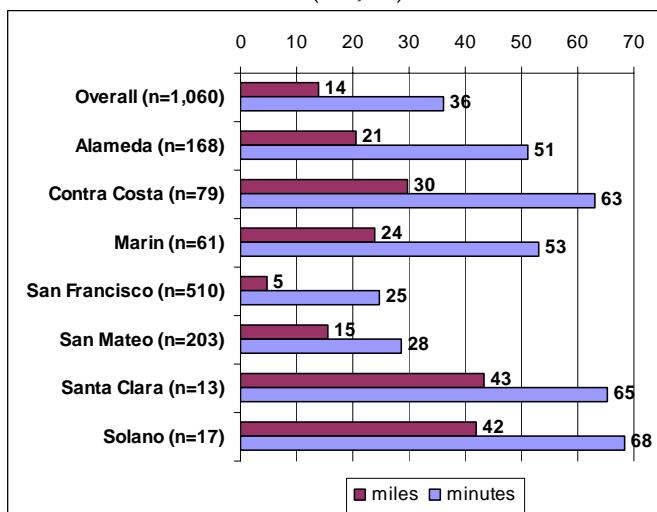
\* Figure I county-level results do not sum to the overall total of 1,189, which includes respondents who did not report a residential zip code

**MAP I. EMPLOYEE RESIDENTIAL ZIP CODE (N=1,085)**



**Commute Distance and Time.** Figure II describes average employee commute distances (miles travelled, each way) and time (minutes), by county. Approximately 80% of respondents provided information regarding their commute time and distance from home to work. As Figure II clearly illustrates, average commute distances are by definition impacted by where people live. Overall, the average commute distance was 14 miles, one-way, with almost half of employees commuting 10 miles or less and a range from <.5 mile to 200 miles. For an analysis of total vehicle miles traveled (VMT), see Appendix A. The average commute time was 36 minutes, ranging widely from three minutes to three hours and as would be expected by county of residence.

**FIGURE II. AVERAGE COMMUTE DISTANCE AND TIME, ONE-WAY TRIP: OVERALL AND BY COUNTY (N=1,060)\*\***



\*\* Figure II includes represents data for respondents providing data on both their commute distance and commute time.

Table II details commute travel time by the three most common travel modes to work overall and by county—driving alone, carpooling, and public transit, as a simple approach to adjusting for varying distances to work by county. Of those driving alone to work on Wednesdays, the average commute time was 30 minutes. Carpoolers had slightly longer average commutes of 38 minutes, while public transit had a longer average time of 55 minutes. Notably, in all counties, carpooling adds less than 10 minutes to the average commute time and often less.

**TABLE II. AVERAGE COMMUTE TIME BY COUNTY BY TRAVEL MODE (N=862)<sup>\$</sup>**

County	Driving Alone		Carpooling		Public Transit	
	mean	N	mean	N	mean	N
Alameda	42.0	62	42.6	23	63.3	61
Contra Costa	48.5	24	56.3	16	76.3	30
Marin	47.4	36	56.7	6	85.0	6
San Francisco	20.8	236	22.2	37	40.0	107
San Mateo	26.3	138	26.7	21	48.2	22
Santa Clara	53.8	8	45.0	1	93.8	4
Solano	65.0	5	70.4	8	92.5	2
Total	29.7	515	37.6	112	55.2	235

<sup>\$</sup> Table data reflects a subpopulation of Wednesday commuters who commuted by driving, carpooling or transit.

**Factors Influencing Driving Alone.** When employees who drove at least one day a week (60% of total respondents, n=785) were asked why they drove alone to work, the following reasons were cited (Table III; multiple reasons could be chosen).

TABLE III. REASONS WHY DRIVE ALONE (N=785)

Saves time	63%
Personal activities or errands before/after work	43%
Independence (not to rely on others)	36%
My schedule is unpredictable	36%
Too many transfers on public transit	32%
Comfort of my own vehicle	26%
Child's daycare schedule	24%
Public transit is unreliable	21%
Public transit is too infrequent	20%
Work-related errands, during work	18%
Public transit is too far from my home	18%
Walking or biking to work is too far	16%
Walking between transit & SFGH unsafe	14%
No carpool/vanpool match	13%
Biking to work is unsafe	10%

When asked what factors might encourage those who drove alone to take public transit, car/vanpool, bike or walk to work, respondents answered as follows (Table IV; multiple factors could be chosen). Responses illustrate the numerous trade-offs people consider in their commute mode choices in addition to time – including cost, reliability, convenience, comfort, and safety.

TABLE IV. FACTORS THAT WOULD ENCOURAGE EMPLOYEES TO NOT DRIVE ALONE (N=785)

Reduced commute time on public transit	36%
Improved reliability of transit	27%
Free transit passes	26%
Reduced cost transit passes	20%
Emergency Ride Home	18%
Shower/locker facilities at work	13%
Free, on-site coordination for Rideshare	12%
Reduced parking availability at work	12%
Improved transit stop safety near work	12%
Free, safe bike storage at work	12%
On-site registration for reduced transit passes	11%
Transit pass sales at work	11%
Bicycle lanes	9%
Preferential carpool parking	9%
Increased gas prices	9%
Transit schedules, maps at work	8%

**Willingness to Not Drive Alone.** We asked staff who ever drove alone how many days a week they would commit to not driving alone during the Rebuild of the SFGH facility. Thirteen percent of respondents said they would not drive one day a week, 14% would not drive two days, and another 16% percent of employees said they would not drive 3-5 days a week. Thirty eight percent would not commit to any days without driving and 19% did not respond (total n=785). Of the 43% of respondents who ever drive alone and who committed to not driving at least one day a week (n=341), we asked what mode they would consider as an alternative to driving. Public transit was the most popular (62%) followed by carpooling (43%) and then biking

(20%) and walking (11%), with <2% reporting other responses such as being dropped off.

**Commuter Benefits, Emergency Ride Home, and Rideshare Matching Program Awareness & Utilization.** We also asked CCSF/SFGH staff about their awareness and use of the Commuter Benefits, Emergency Ride Home, and Rideshare Matching programs.

Of all respondents (n=1,302), only 13% were enrolled in Commuter Benefits and receiving paycheck deductions and pre-tax savings, with 45% aware of the program and 37% interested in learning more. Among those who drive alone to work at least once a week (n=785), only 8% of respondents were currently enrolled, 42% were aware of the program, and about 1/3 were interested in learning more. Employees who ever drive alone ranked “reduced cost transit passes” high among factors that would encourage them to not drive alone (Table IV, 20% of respondents), which is a main feature of the Commuter Benefits program. Further, of the respondents who drive alone to work and stated they would be willing to not drive at least one day per week during the Rebuild, 62% stated they consider public transit as an alternative to driving alone.

Of all respondents, only 12% knew about the Emergency Ride Home program and only 11 people had ever used it. Twenty nine percent wanted to know more about the program. Results among employees who normally drive to work at least one day a week (n=785) were similar, with only 11% knowing about the program, only 3 people ever using it, and 26% wanting to learn more about the program. Among those who drive alone weekly, independence and unpredictable schedules were top reasons identified for driving to work (Table III, both 36%). That subgroup of employees also identified Emergency Ride Home (ERH) programs as a factor that would encourage them to not drive alone (Table IV, 18%). Twenty three percent of employees who ever drive alone expressed wanting to learn more about the Rideshare Program and benefits. Notably, in Table II, for all counties carpooling added less than 10 minutes to the average commute time and often less.

## RECOMMENDATIONS

Our recommendations are based upon the findings above with the goal of addressing key employee commute concerns, as summarized below:

- *Reduce time and transfers on/increase reliability of commutes via public transit*
- *Reduce commute costs and increase financial and other incentives for taking sustainable transportation*
- *Increase employee knowledge, access and utilization of existing commuter benefits programs which support sustainable transportation*

In the following sections, our specific programmatic and policy recommendations aim to achieve the stated goals above.

### PROVIDE SHUTTLE SERVICE BETWEEN MAJOR SAN FRANCISCO TRANSIT HUBS AND SFGH

As part of compliance with TDM mitigation measures, SFGH is currently seeking funds for shuttle service to connect SFGH to major transit hubs (22<sup>nd</sup> St Caltrain, 4<sup>th</sup> and King Caltrain Station, Transbay Terminal). Though a limited number of employees currently take Caltrain, a ferry, AC Transit, Golden Gate transit or Sam Trans, an explanation for such low utilization rates supported by the survey findings is the lack of expedient transit service from the termination

points of these service lines. This is in contrast to comparably high BART ridership among SFGH employees, who also benefit from shuttle service at the 24<sup>th</sup> Street BART station. There is currently a lack of direct MUNI services to SFGH from major SF transit hubs meaning transfers and extra time in transit are required. Additionally, UCSF Shuttle service from 4<sup>th</sup> and King requires a transfer at Mission Bay campus. According to the survey data, 27% percent of employees (who normally drive alone) stated that improved reliability of transit would be a factor influencing them to not drive alone. Improved access to SFGH from major transit hubs could address this concern as well as concerns stated regarding “too many transfers” (32% of employees stated this factor as one of the reasons why they drive alone).

Notably, a number of MUNI transit service improvements are planned as part of SFMTA's Transit Effectiveness Project (TEP). These changes in service are anticipated to provide long-term improvements in commuter patterns to the SFGH campus<sup>24</sup> and reduce the need for shuttle services to and from major transit hubs and UCSF. The anticipated improvements are summarized in Appendix B.<sup>25</sup> Prior to implementation of the changes, shuttle service could provide a needed bridge to new and more efficient MUNI services. Based on the survey findings regarding residential zip code of employees who drive alone to work (Map 2), including a shuttle connection from MUNI connections for Western San Francisco commuters also has tremendous potential given the high number of drivers from that region. In the near term, SFGH will apply for local and regional Transportation Fund for Clean Air grants to cover the cost of shuttle service.

#### NEXT STEPS:

- Apply for TFCA local and regional funding to supplement operational shuttle costs
- When appropriate, increase awareness about shuttle services or TEP changes in service through Management Forum emails and meetings, and in monthly Fast Facts newsletters
- Promote shuttle or TEP improvements in new hire orientation materials
- Provide educational materials/flyers about shuttle or TEP improvements at a centrally located transportation kiosk

#### MODIFY PARKING PERMIT POLICIES TO INCENTIVIZE AN EMPLOYEE SHIFT FROM DRIVING ALONE TO TAKING PUBLIC TRANSIT

While an encouraging percentage of respondents who ever drive indicated: a) willingness to use public transit at least one day per week, and b) interest in learning more about the Commuter Benefits program, the current Parking Permit Policies act as an institutional barrier to shifting employee transportation behavior from driving alone to use of public transit. Specifically, for those who wish to retain the flexibility of driving some days, the cost of a monthly parking permit is fixed – and therefore their commute costs only increase with the increased costs they incur for public transit. The monthly flat Parking Permit Fee is therefore a financial disincentive to changing commute patterns to taking transit on some days. Similarly, if an employee were willing to use transit only during the Rebuild period, discontinuation of a Parking Permit and its related fees during that period would put them at the end of the line for Parking Permits

should they ever want to reinstate their permit. Again, a deterrent for employees considering transitioning to transit or other alternative transportation modes, which would alleviate Rebuild parking impacts on the community.

A comprehensive TDM plan to incentivize the transition from driving alone to using public transit would encompass Parking Permit policy changes which could: a) allow employees to discontinue their Parking Permits on a temporary basis during the Rebuild, or b) provide a funding mechanism (e.g., a portion of Commuter Benefits) to subsidize a portion of the monthly cost of employees' unused parking spaces (once, temporarily or permanently) for those employees willing to transition from driving alone to public transit on one or more weekdays. Furthermore, Parking Permit policy changes might encompass introducing a permit-sharing or partnering system for the duration of the Rebuild of the facility and into the future for more efficient parking management.

#### NEXT STEPS:

- Partner with SFMTA and Pacific Park Management Group (PPM) to consider alternatives to the flat rate permitting structure for staff who are willing to decrease the number of days they drive to the SFGH campus
- Partner with SFMTA and PPM to explore a parking permit/space sharing program
- Partner with SFMTA and PPM to consider allowing those who are willing to give up parking permits altogether during the Rebuild to retain a priority position over waitlist staff.

#### INCENTIVIZE COMMUTING BY BIKE BY OFFERING SAFE BIKE STORAGE AND ONSITE SHOWERS

**Bike Lanes, Storage & Shower Facilities.** Twenty percent of respondents who drove alone and were willing to not drive at least once a week stated they would be willing to bike as an alternative to driving alone, with 12% of all employees driving alone identifying free, safe bike storage at work as an incentive to not drive. As part of SFGH's environmental mitigation measure responsibilities, SFGH is to increase capacity for bike storage by January 1, 2010. At this time, SFGH is securing partial funding from the Bay Area Air Quality Management District for this purpose and will move forward on this project in the coming months. SFGH is working in partnership with SFMTA to complete this project in the 24<sup>th</sup> St. garage. The estimated number of bike parking spaces provided through this project is 85. Furthermore, SFGH has agreed to provide a shower facility for employees upon the completion of the rebuild. Nine percent of employees also identified bike lanes as a factor that would encourage them not to drive to work. On Friday, June 26<sup>th</sup>, 2009, the SFMTA Board adopted the 2009 San Francisco Bike Plan – which will add a bicycle lane in the eastbound direction and the addition of sharrows to the existing bicycle route in the westbound direction on 23<sup>rd</sup> Street from Kansas to Potrero Avenue adjacent to SFGH.

#### NEXT STEPS:

- Partner with SFMTA to complete the construction of a bike facility in the 24<sup>th</sup> Street Parking garage by January 1<sup>st</sup>, 2010
- Provide shower facilities for bikers (and walkers/runners) at the completion of the new facility.

- Increase awareness of these bike projects and TEP changes via Management Forum emails and meetings, and in monthly Fast Facts newsletters
- Promote bike projects and TEP changes in new hire orientation materials
- Provide educational materials/fliers about bike changes and TEP changes at a centrally located transportation kiosk

#### **INCREASE EMPLOYEE AWARENESS OF & ENROLLMENT IN THE COMMUTER BENEFITS PROGRAM**

The Commuter Benefits paycheck deduction program allows employees to deduct up to \$230 per month for transit and vanpool expenses, with pre-tax employee potential savings up to 40%.

#### **NEXT STEPS:**

- Promote the Commuter Benefits program on the SFGH Transportation Services website, within Management Forum emails and meetings, in monthly Fast Facts newsletters, and through materials at a centrally located transportation kiosk
- Promote the Commuter Benefits program in new hire orientation materials
- Promote the Commuter Benefits program through onsite sign-up
- Promote the Commuter Benefits program and provide onsite sign up during annual Transportation Fairs

#### **INCREASE EMPLOYEE AWARENESS OF THE EMERGENCY RIDE HOME PROGRAM**

The Emergency Ride Home Program provides employees a ride home in the event of an emergency. An Emergency Ride Home is available to all UCSF and CCSF employees. To be eligible, employees must commute to campus via an alternative modality such as transit, vanpool, carpool, bicycling or walking. Valid reasons for using the ERH program include a) illness or crisis of an employee or immediate family member, b) an employee is unexpectedly required to work late (supervisor authorization required), c) a carpool or vanpool ride is not available due to unexpected changes in the driver's schedule or vehicular mechanical problems, d) bicycle problems such as mechanical problems, theft, or inclement weather.

#### **NEXT STEPS**

- Promote the Emergency Ride Home program on the SFGH Transportation Services website, within Management Forum emails and meetings, and in monthly Fast Facts newsletters
- Promote the Emergency Ride Home program in new hire orientation materials
- Provide educational materials/fliers at a centrally located transportation kiosk
- Promote the Emergency Ride Home program during annual Transportation Fairs

#### **INCREASE EMPLOYEE AWARENESS OF AND ENROLLMENT IN RIDESHARE MATCHING**

The Rideshare Program includes a CCSF partnership with 511.org to assist employees with finding carpool partners or setting up a vanpool system. Carpoolers don't pay bridge toll fees, ride in the diamond lane, and share gas and parking expenses. Carpools and vanpools can also receive a substantially lower rate for parking permits in San Francisco of \$74 annually. Furthermore, pre-tax dollars from the Commuter Benefits Program can be used to pay for vanpool expenses.

The data on employee residential zip codes reveal potential opportunities for "location efficient" vanpools - coordinated in areas near where a number of employees live while also addressing commute time concerns.

#### **NEXT STEPS:**

- Increase staff awareness of reduced carpool and vanpool parking permit pricing
- Increase staff awareness of the Commuter Benefits contribution to vanpool costs.
- Promote Rideshare Matching on the SFGH Transportation Services website, within Management Forum emails and meetings, and in monthly Fast Facts newsletters
- Promote Rideshare Matching in new hire orientation materials
- Provide educational materials/fliers at a centrally located transportation kiosk
- Promote Rideshare Matching through onsite sign-up
- Promote Rideshare Matching and provide onsite sign up during annual Transportation Fairs
- Work in partnership with SFMTA to increase the number of preferential, designated carpool parking spaces
- Identify areas for location efficient vanpools and partner with San Francisco Department of the Environment and Bay Area vanpool service providers for outreach and utilization

#### **CONCLUSION**

The SFGH Rebuild Project presents both challenges and opportunities for transportation demand management on and around campus. By taking a comprehensive approach to programs aimed at reducing single occupant auto trips to campus and increasing access and use of alternative, sustainable modes of transportation, SFGH shall comply with the stated goals of EIR mitigation measures and the aims of the SFDPH Climate Action Plan. Furthermore, by assisting employees in the transition from driving alone to utilizing more sustainable forms of transportation, SFGH shall support local and regional public health initiatives that aim to reduce traffic-related air pollutants, noise and safety hazards, as well as support physical activity via active commuting.

While SFGH and Webcor general contractors are partnering to provide satellite parking near campus to absorb some of the effects of near-term parking loss, reducing the number of single-auto occupant trips to campus is critical to the long term success of a SFGH TDM program. According to CHS Consulting group, staffing patterns are expected to increase by an estimated 800 new positions on the SFGH campus by the year 2021. Implementing measures such as those recommended above will assist SFGH in facilitating an employee shift from the single-occupant vehicle, thereby proactively addressing the long-term realities of current and future parking and transportation conditions on campus and their local and regional health impacts.

#### **REFERENCES**

<sup>1</sup> For more information, please visit:  
<http://www.oshpd.ca.gov/fdd/sb1953/index.html>

<sup>2</sup> Frank L, Andersen, M, Schmid, T. 2004. Obesity relationships with community design, physical activity, and time spent in cars. American Journal of Preventative Medicine 27, 87-96.

<sup>3</sup> More information about Commuter Benefits, the Emergency Ride Home program, and Rideshare Matching for CCSF employees can be found at [www.sfevironment.org](http://www.sfevironment.org)

<sup>4</sup> For full list of Transit First Policy principles, please visit [www.municode.com/Resources/gateway.asp?pid=14130&sid=5](http://www.municode.com/Resources/gateway.asp?pid=14130&sid=5)

<sup>5</sup> US EPA. 2001. Vehicle travel: Recent trends and environmental impacts. Our Built and Natural Environments: A Technical Review of the Interactions Between Land Use, Transportation, and Environmental Quality. Chapter 4. US EPA. Available at [www.epa.gov/smartgrowth/pdf/built\\_chapter3.pdf](http://www.epa.gov/smartgrowth/pdf/built_chapter3.pdf).

<sup>6</sup> Ewing R, Frank L, Kreutzer R. 2006. Understanding the Relationship between Public Health and the Built Environment: A Report to the LEED-ND Core Committee.

<sup>7</sup> Bhatia R, Rivard T. 2007. Assessment and Mitigation of Air Pollutant Health Effects from Intra-urban Roadways: Guidance for Land Use Planning and Environmental Review. San Francisco Department of Public Health. Accessed at: [www.sfdph.org/dph/EH/Air/MitRoadway111907.pdf](http://www.sfdph.org/dph/EH/Air/MitRoadway111907.pdf)

<sup>8</sup> Wier M, Weintraub J, Humphreys E, Seto E, Bhatia R. 2009. An area-level model of vehicle-pedestrian injury collisions with implications for land use and transportation planning. *Accident Analysis & Prevention* 41:137-145.

<sup>9</sup> California Air Resources Board. 2005. Air Quality and Land Use Handbook: a Community Health Perspective. California Air Resources Board.

<sup>10</sup> Seto, EYW, Holt A, Rivard T, Bhatia R. 2007. Spatial distribution of traffic induced noise exposures in a US city: an analytic tool for assessing the health impacts of urban planning decisions. *International Journal of Health Geographics*. 6:24. Available at: [www.ijhgeographics.com/content/6/1/24](http://www.ijhgeographics.com/content/6/1/24).

<sup>11</sup> CARB. 2004. Recent research findings: Health effects of particulate matter and ozone air pollution, January 2004. California Air Resources Board. American Lung Association. Available at [www.arb.ca.gov/research/health/fs/PM-03fs.pdf](http://www.arb.ca.gov/research/health/fs/PM-03fs.pdf).

<sup>12</sup> U.S. Department of Transportation, Federal Highway Administration. 1994. Motor Vehicle Accident Costs. Technical Advisory T 7570.2. Accessed at: <http://www.fhwa.dot.gov/legsregs/directives/techadvs/t75702.htm>.

<sup>13</sup> Environmental Defense Fund, National Association of City and County Health Officers, George Mason University. 2007. Are We Ready? Preparing for the Public Health Challenges of Climate Change. Available at: [www.cdf.org/documents/7846\\_AreWeReady\\_April2008.pdf](http://www.cdf.org/documents/7846_AreWeReady_April2008.pdf).

<sup>14</sup> For MUNI line routes and schedules please see the SFGH Seismic Compliance Hospital Replacement Program EIR which can be found at: [www.sfgov.org/site/planning\\_index.asp?id=80504](http://www.sfgov.org/site/planning_index.asp?id=80504)

<sup>15</sup> For shuttle maps and time tables, please visit: [www.parking.ucsf.edu/transportation/shuttles](http://www.parking.ucsf.edu/transportation/shuttles)

<sup>16</sup> For more information about carshare on the SFGH campus, please visit: [www.sfdph.org/dph/comupg/oservices/medSvs/SFGH/TransportSvcs/4employees.asp](http://www.sfdph.org/dph/comupg/oservices/medSvs/SFGH/TransportSvcs/4employees.asp)

<sup>17</sup> Washington State Department of Transportation (WSDOT). 2002. Commute Trip Reduction Guide to Employee Surveys. Olympia, WA.

<sup>18</sup> San Francisco Department of Environment. 2008. Employee Transportation Survey. San Francisco, CA.

<sup>19</sup> Stanford University Parking & Transportation Services. 2008. Commute Survey. Stanford, CA.

<sup>20</sup> This method was chosen in order that all employees of SFGH could be reached, including those without email accounts.

<sup>21</sup> UCSF employees working at the SFGH do not receive payment from CCSF, therefore were reached via an email distribution list. The Survey Monkey link was administered to staff via the UCSF Office of the Dean.

<sup>22</sup> SF Department of the Environment's online matching program was not yet in place.

## APPENDIX A.

**Vehicle Miles Travelled.** Transportation planners commonly summarize commute distance as “vehicle miles travelled” or VMT. The 1,111 employees completing the survey and providing information on their trip distance in a normal week took 10,466 one-way trips to and from work – contributing to 146,550 miles travelled. Of that distance travelled:

- 81,576 miles (56%) were to people driving alone
- 36,592 miles (25%) were to people taking transit
- 20,792 miles (14%) were to people carpooling
- 2,722 miles (2%) were to people vanpooling
- 790 miles (1%) were to people walking

- 1984 miles (1%) were to people biking
- 896 miles (1%) were to people on motorcycles
- and the other 1,198 miles were to taxis and other modes.

**CO<sub>2</sub> emissions.** In order to translate the weekly impact of employees who completed the survey and reported driving alone into greenhouse gas emissions, we used a simple estimate of 20 miles per gallon for the average vehicle and 20 pounds of CO<sub>2</sub> emissions per gallon of gas. The assumptions of this calculation result in a direct correspondence between the estimated miles traveled and pounds of carbon emissions – with employees who drive alone emitting over 80,000 pounds of CO<sub>2</sub> each week or 3,840,000 lb CO<sub>2</sub>/year. Approximately 437 acres of pine forests would be required to sequester the annual emissions of those driving alone [www.epa.gov/solar/energy-resources/calculator]. Notably, more complex equations exist to calculate GHG emissions.

## APPENDIX B.

**SFMTA TEP.** A number of MUNI transit service improvements are planned as part of SFMTA’s Transit Effectiveness Project (TEP). These changes in service are anticipated to provide long-term improvements in commuter patterns to the SFGH campus and reduce the need for shuttle services to and from major transit hubs and UCSF. These improvements are outlined below.

**58- 24<sup>th</sup> Street.** Though the 48 Quintara/24<sup>th</sup> St line can currently be taken between SFGH and the Caltrain Station, modifications made to this line will deem it a complimentary route to a more effective, newly proposed 58 route. The newly proposed 58 line would operate between Diamond Street and 3<sup>rd</sup> Street to provide needed capacity on 24<sup>th</sup> Street and provide connection between 24<sup>th</sup> Street BART and 22<sup>nd</sup> Street Caltrain Station. The proposed frequency of this line is every 15 minutes during the daytime and every 20 minutes during the evening (evening times combined with the 48 line). [http://www.sfmta.com/cms/mtep/documents/rte\\_058.pdf](http://www.sfmta.com/cms/mtep/documents/rte_058.pdf)

**9-San Bruno/9L San Bruno Limited:** Two types of services are proposed for daytime service on Potrero Avenue. The long-line “9L” would make local stops south of 24<sup>th</sup> Street and limited stops between 24<sup>th</sup> and Market Street. The short-line “9” that runs from 24<sup>th</sup> Street to Downtown would make all local stops and provide additional service. Evening services would make all local stops from Visticon Valley to Downtown. The 9/9L can currently be taken to multiple BART stations along Market Street as well as the Transbay Terminal on the north end. TEP recommendations would increase the frequency north of 24<sup>th</sup> Street to every 5 minutes during the day and every 15 minutes in the evening. South of 24<sup>th</sup> Street, proposed frequency would be every 10 minutes in the daytime and every 15 minutes in the evening. [http://www.sfmta.com/cms/mtep/documents/rte\\_009-009L.pdf](http://www.sfmta.com/cms/mtep/documents/rte_009-009L.pdf)

**19-Polk.** The 19-Polk would operate between Van Ness/North Point and SFGH and modify the route near Civic Center to simplify the route structure and reduce travel time. The segment south of 24<sup>th</sup> Street would be served by the revised 48 line, providing direct connection to the Mission, rather than Civic Center. The 19 may be taken to Civic Center BART station with proposed frequencies of every 10 minutes during peak hours. The 19 may also be taken and from the 4<sup>th</sup> & King Caltrain Station (stops at 7<sup>th</sup> and Townsend). [http://www.sfmta.com/cms/mtep/documents/rte\\_019.pdf](http://www.sfmta.com/cms/mtep/documents/rte_019.pdf)