

Appendix 4-4
Travel Demand Memo

Memorandum

To: Chris Mitchell, Transportation Consultant – Fehr & Peers
Erin Efner, Environmental Consultant – ICF International

From: José I. Farrán, P.E.

Date: June 30, 2015

FINAL

Re: The Mission Rock (Seawall Lot 337/Pier 48) Project
Estimation of Project Travel Demand – Updated Project Definition

Case No. 2013.0208!

This technical memorandum describes the assumptions and methodology used to determine the travel demand for the mixed-use development of Seawall Lot 337 and Pier 48 (Mission Rock Project) in San Francisco. The proposed project is located in the China Basin area of San Francisco and bounded by China Basin Channel, Third Street, Mission Rock Street, and San Francisco Bay, across from AT&T Park, and adjacent to the Mission Bay North and South Redevelopment Plan areas.

This document is being submitted by Adavant Consulting to the environmental consultant team of the Mission Rock Project and the SF Planning Department for review as part of the transportation analysis being performed for the proposed project.

PROJECT DESCRIPTION

The project site encompasses approximately 27 acres and includes Seawall Lot 337, Pier 48, China Basin Park, and adjacent streets and access areas. Seawall Lot 337 is an approximately 16-acre site currently occupied by a surface lot with parking stalls for approximately 2,400 vehicles used by AT&T Park patrons and daytime commuters. Pier 48 is a pile-supported facility which includes two one-story main sheds used for parking (730 spaces) and special events; the parking facilities at Pier 48 are open exclusively for AT&T Park events. Approximately 2.6 acres of the Project Site includes the existing China Basin Park and perimeter walkways, located in the northern portion of the site. The project site also includes approximately 3.5 acres of existing perimeter streets.

The Mission Rock project entails construction of a mixed-use multi-phase development on Port-owned Seawall Lot 337 containing 11 development parcels and the rehabilitation/reuse of Pier 48; one of the development parcels (Parcel D2) would include a 2,300-space parking structure. The project also includes a network of newly created streets and the expansion of the existing China Basin Park and two new park/open space areas within a central square and along the waterfront. The following describes in general terms the type of land uses proposed at the project site:

- **Housing.** The project would provide a mix of studio, one, two, and three bedroom apartments above ground floor retail/restaurant uses.
- **Commercial.** Office space would be developed above ground floor retail uses.
- **Retail/Restaurants.** The ground floor areas of residential and commercial buildings throughout the site would include a range of sit-down and quick service restaurants, cafes, stores, and other general retail uses.
- **Open Space.** New and expanded public open spaces would be included in the project such as China Basin Park, Mission Rock Square, Channel Plaza, and the Pier 48 apron.
- **Pier 48.** Pier 48 would be rehabilitated to accommodate a mix of uses, including light industrial/manufacturing, barging, ancillary office, storage, retail, restaurants, tours, exhibitions/museum, and events. The northern apron of Pier 48 would be prioritized for public access and would be accessible for maritime uses where feasible. The eastern and southern aprons would be prioritized for maritime uses and open to the public where feasible. It is currently anticipated that the Anchor Brewing Company would occupy all of the interior usable space of Pier 48 to construct production facilities for brewing, distilling, packaging, storing, and shipping product, meeting rooms, a retail area, and a restaurant. Anchor Brewing would also offer public tours of the brewing facilities and a museum.
- **Parking.** Approximately 2,300 spaces would be included in a parking structure at the southwest corner of Seawall Lot 337 for use by the project, for ballpark games and events, and other public parking. In addition to the garage structure, up to 700 parking stalls total would be located as accessory uses below Mission Rock Square. Furthermore, up to 10 spaces would be provided in each residential or commercial building. In total, the Mission Rock project would provide approximately 3,100 parking spaces, all of them off the street.

A key element of the Mission Rock project is the ability to respond to future market demands through flexible zoning. In order to capture the range of possible land use intensity variations within Seawall Lot 337, two land use scenarios have been identified (Scenario A-Low Residential/ High Commercial, and Scenario B-High Residential/ Low Commercial), which are quantitatively summarized in [Table 1](#) on the next page. As shown in the table, the proposed 837,230-gsf parking structure at Parcel D2, the 250,000-gsf parking garage under Mission Rock Square, the open space area, China Basin Park, and development of Pier 48 would be identical under both scenarios.

**Table 1
Mission Rock Project Proposed Development by Scenario**

	Scenario A Low Residential/ High Commercial		Scenario B High Residential/ Low Commercial	
Seawall Lot 337				
Residential	1,048 d.u. ^[a]	1,047,514 gsf	1,579 d.u. ^[a]	1,579,499 gsf
Office		1,361,181 gsf		972,175 gsf
General Retail		122,388 gsf		120,519 gsf
Quality Sit-down Restaurant		85,672 gsf		84,363 gsf
Quick Service Restaurant		36,717 gsf		36,156 gsf
Total Mixed-Use Area SWL 337		2,653,472 gsf		2,792,712 gsf
Parking Structure at Mission Rock St.	2,300 spaces	837,230 gsf	2,300 spaces	837,230 gsf
Parking under Mission Rock Sq. ^[b]	700 spaces	250,000 gsf	700 spaces	250,000 gsf
China Basin Park ^[c]		5.12 acres		5.12 acres
Pier 48				
Brewery/ Distillery	75 employees/ day	190,500 gsf	75 employees/ day	190,500 gsf
Brewery Retail / Exhibition	500 visitors/ day	11,000 gsf	500 visitors/ day	11,000 gsf
Brewery Restaurant		11,000 gsf		11,000 gsf
Mezzanine Retail		10,000 gsf		10,000 gsf
Mezzanine Office		7,875 gsf		7,875 gsf
Mezzanine Production	[d]	9,625 gsf	[d]	9,625 gsf
Total Pier 48		240,000 gsf		240,000 gsf

Note:

- [a] The exact number of dwelling units to be provided by the project has not been established at this time; for travel demand purposes only, it has been assumed that each dwelling unit would have approximately 1,000 gsf and would be analyzed as a two or more bedroom apartment.
- [b] Parking spaces to be provided below Mission Rock Square. In addition, up to 10 spaces would be provided in each commercial and residential building, for a total of 3,100 off-street parking spaces at the project site.
- [c] Mission Rock Square, Channel Plaza and the Pier 48 apron would provide approximately 2.9 additional acres of open space under both scenarios.
- [d] Employees in the mezzanine production area are assumed to be already included in the Brewery/Distillery category as this area is an integral part of the overall brewery/distillery facilities.

Source: ICF International, May 2015

TRAVEL DEMAND ANALYSIS METHODOLOGY

This section describes the travel demand analysis methodology developed specifically for the analysis of the Mission Rock project in order to account for its size, land use mix, and availability of transit.

OVERALL APPROACH

Estimating the proposed project travel demand involves forecasting the number of person and vehicle trips generated at project build-out. The methodology commonly used for estimating the travel demand of development projects in San Francisco is described in detail in the *SF Guidelines*¹ that have been prepared by the SF Planning Department. It is based on applying the appropriate person trip generation rates, mode of travel split ratios, trip distribution factors, and average vehicle occupancies to each of the land uses (residential, office, retail, etc.) of a proposed development.

The information presented in the *SF Guidelines* has been derived from a number of detailed travel behavior surveys conducted within San Francisco in the mid-1990s, and is generally accepted as more appropriate than using regional or nationally sourced data because of the relatively unique mix of uses, density, availability of transit, and cost of parking commonly found in San Francisco.

On the other hand, the methodology described in the *SF Guidelines* cannot be directly applied to some developments such as the Mission Rock project because of its large scale, unique location and distinctive mixed-use character. In addition, the *SF Guidelines* assume somewhat rigid geographical boundaries (defined by four San Francisco quadrants) to estimate mode of travel characteristics, which might have changed since the *SF Guidelines* were published, particularly in strong new development areas such as SoMa and Mission Bay. Thus, appropriate adjustments have been made to account for these factors, as described in the following sections.

PROJECT LOCATION

The project site is located within Superdistrict 3 in the Southeast quadrant of San Francisco. Superdistricts are travel analysis zones established by the Metropolitan Transportation Commission (MTC) that provide geographic subareas for planning purposes in San Francisco. A map showing the boundaries for the four planning Superdistricts within San Francisco is included in [Appendix A](#). In the vicinity of the project site, Superdistrict 3 is bounded on the north side by Townsend Street and on the east side by the San Francisco Bay.

The *SF Guidelines* identifies different mode split ratios, trip distribution factors, and average vehicle occupancies for work and visitor (e.g., shopping) trips depending on the San Francisco Superdistrict where a project site is located, so that factors that influence travel behavior such as transit accessibility, walkability, roadway and transit infrastructure, etc. are properly accounted for in the analysis. For example, [Table 2](#) provides a summary of the proposed project's modal split ratios for work trips based on the Superdistrict of employment. As shown in the table, Superdistrict 1 (outside of C-3/Downtown district) has the highest transit usage and Superdistrict 3 the lowest, while Superdistrict 3 has the highest automobile utilization and Superdistrict 1 the lowest.

¹ *Transportation Impact Analysis Guidelines for Environmental Review*, San Francisco Planning Department, October 2002.

Table 2
Average Mode of Travel Ratios for Work Trips in San Francisco

Mode of Travel	Work Location ^[a]			
	Superdistrict 1 NE Quadrant	Superdistrict 2 NW Quadrant	Superdistrict 3 SE Quadrant	Superdistrict 4 SW Quadrant
Auto	38.9%	52.8%	71.1%	69.7%
Transit	51.7%	31.7%	20.2%	23.0%
Walk	6.9%	12.6%	5.8%	4.9%
Other ^[b]	2.5%	2.9%	2.9%	2.4%
Total	100.0%	100.0%	100.0%	100.0%

Notes:

[a] A map showing the boundaries for the four planning Superdistricts within San Francisco is included in [Appendix A](#).

[b] "Other" includes bicycle, motorcycle, and additional modes such as taxis or limousines.

Source: SF Guidelines, Adavant Consulting – November 2013

As previously indicated, the information contained in the *SF Guidelines* has been derived from citywide surveys of employees, residents and visitors conducted in 1993 and 1995, as well as findings and assumptions from major environmental reports conducted in the 1990s. As such, the travel behavior characteristics for non-residential uses summarized in the *SF Guidelines* reflect the transportation infrastructure and transit services available to San Francisco residents and workers during that time period.

The transportation network at the time of the surveys is of particular importance in the analysis of the Mission Rock project, since the transportation infrastructure available near Seawall Lot 337 and Pier 48 in the 1990s was very different from current conditions, particularly in regard to public transit service and access. Specifically, the following major transportation projects have been implemented in the vicinity of the project site since the mid-1990s:

- **I-280 Replacement Project** – As a result of the decision taken in the early 1990s by the FHWA, Caltrans and City planners to formally eliminate the potential extension of the I-280 freeway beyond its terminus near Fourth and Berry Streets, The Embarcadero and King Street were reconfigured as an urban boulevard and the I-280 freeway was also reconfigured so that the connector would touch down at the newly widened King Street. The project opened for service sequentially between the spring and fall of 1997.
- **Muni Metro Service Extension along the Waterfront** – Starting in early 1998, Muni began operating light rail shuttle service (originally the E-Embarcadero line and currently the N-Judah line) from downtown San Francisco to the Caltrain Depot in the median of the newly reconstructed Embarcadero roadway and King Street.
- **Muni Third Street Light Rail Project** – In the fall of 2002 Muni initiated the construction of the Third Street Light Rail Extension Project from the Caltrain Depot and down Third Street to the vicinity of the Bayshore Caltrain Station; a transit stop is located at the intersection of Third and Mission Rock Streets. Full Metro service started in April 2007, initially as an extension of the J-Church line and was later modified to be an extension of the K-Ingleside line. The Central Subway extension from the Caltrain Depot to Union

Square, Chinatown and North Beach is currently being built, with service expected to start in 2018/19.

- **Caltrain Commuter Rail Service Improvements** – Caltrain has been steadily increasing commuter rail service between San Jose and San Francisco over the past 17 years. In 1996 Caltrain operated 66 daily trains each weekday; it currently operates 92 trains per day, 22 of which provide faster service with limited stops (baby bullet trains). Caltrain’s Peninsula Corridor Electrification Project currently under development will electrify the existing diesel locomotive service, allowing for an increase in the number of peak hour trains by 2019.

As previously discussed, the *SF Guidelines* presents a practical methodology to evaluate development projects in San Francisco, for which there is no current better alternative. Thus, for the transportation evaluation of this mixed-use project it is proposed to follow the *SF Guidelines* methodology to the extent reasonable, expanding where necessary based on information gathered from other recognized relevant sources. Similar approaches have been followed in the transportation evaluation of other unique projects in San Francisco (e.g., Candlestick Point-Hunters Point Shipyard, 34th America’s Cup, Moscone Center Expansion, Golden State Warriors Event Center). The SF Planning Department evaluates and approves any methodological expansion or changes to the *SF Guidelines* methodology on a case-by-case basis, depending on the nature and location of a proposed project.

Adavant Consulting discussed with SF Planning and Port planners the best approach to account for the potential changes in travel behavior in the vicinity of the Mission Rock project resulting from these and other related transportation improvements that have occurred in the area since the preparation of the *SF Guidelines*. As shown in the map on [Appendix A](#), the boundary between Superdistrict 1 (NE quadrant) and Superdistrict 3 (SE quadrant, where the project is located) runs along Townsend Street, which is in close proximity (less than ¼ of a mile from the north edge) of the project site. It was therefore thought reasonable to assume that by the time the proposed development is built and occupied, the travel behavior in the project vicinity would resemble the conditions that the SoMa, South Beach, or Rincon Hill neighborhoods had at the time of the preparation of the *SF Guidelines*.

Thus, the travel characteristics presented in the *SF Guidelines* for Superdistrict 1 were selected for the transportation analysis of the Mission Rock project. This includes lower auto travel and higher transit use, more walk trips, higher vehicle occupancy rates, and lower parking demand. [Table 3](#) provides a summary of major differences in modal split and vehicle occupancy in San Francisco Superdistricts 1 and 3.

**Table 3
Modal Split and Average Vehicle Occupancy Comparison
SF Superdistricts 1 and 3**

	SF Superdistrict 1 Northeast Quadrant ^[a]			SF Superdistrict 3 Southeast Quadrant ^[a]		
	Work Trips	Retail Visitor Trips	All Other Visitor Trips	Work Trips	Retail Visitor Trips	All Other Visitor Trips
Mode of Travel ^[b]						
Auto	39%	36%	36%	71%	64%	57%
Transit	52%	16%	25%	20%	12%	19%
Other ^[c]	9%	49%	39%	9%	24%	25%
Average persons per vehicle	1.54	2.43	2.37	1.28	1.90	2.26

Notes:

[a] A map of San Francisco Superdistrict boundaries is shown in [Appendix A](#).

[b] Numbers may not sum to 100% due to rounding.

[c] "Other" includes walk, bicycle, motorcycle, and additional modes such as taxis and limousines.

Source: *SF Guidelines*, SF Planning Department, October 2002.

METHODOLOGY FOR THE ASSESSMENT OF INTERNAL AND LINKED TRIPS

The *SF Guidelines* do not provide a specific methodology to assess the number of trips that could remain within a large project site and would, therefore, be "double counted". Similarly, the *SF Guidelines* do not provide for a methodology for estimating the number of "linked" trips, those trips that are made as intermediate stops on the way from an origin to a primary destination.² Therefore, appropriate refinements to the standard travel demand analysis approach had to be made to account for the size and land use mix of a project such as the Mission Rock project, with its large proposed mix of residential, retail, office uses would be expected that more than the typical proportion of project trips would be internal to the project area.

² For example, an individual who stops at a cafe or retail store on the trip from home to work, or vice versa.

To better estimate the trip-making patterns of the Mission Rock project, a modified trip generation model specific to the Mission Rock project was developed. This methodology was originally developed by Adavant Consulting staff for the analysis of the Presidio Trust Management Plan³ (a large mixed-use project in the NW corner of San Francisco under the jurisdiction of the Presidio Trust); a similar approach has also been proposed by the Institute of Transportation Engineers (ITE)⁴ and the Transportation Research Board (TRB).⁵ Furthermore, the transportation analysis conducted as part of the Mission Bay Area Plan SEIR used an earlier version of the same methodology to account for trips that would remain internal to the Mission Bay Area.⁶

The proposed methodology accounts for trips internal to the project that would still occur but would not be made by automobile or transit, instead they would remain within or in the vicinity of the project site and would occur by walking and bicycling, as well as for “linked” trips. A summary of the steps followed in the trip generation model for the Mission Rock project includes:

1. Determining the total number of person-trips generated during the daily, AM peak hour and PM peak hour periods by each individual land use being proposed by the project using the person trip generation rates presented in the *SF Guidelines*, or from other sources such as the ITE or project specific data, as necessary, for those uses not included in the *SF Guidelines* such as open space, brewery or exhibition uses;
2. Estimating the number of project person-trips by place of trip origin/destination and calculate their respective modal splits for each land use during the daily, AM peak hour and PM peak hour periods;
3. Identifying the number of person-trips generated during the daily, AM peak hour and PM peak hour periods with an origin or destination in Superdistricts 1 or 3;⁷ they represent the universe of trips from where the project-related internal trips will be calculated and shifted to non-motorized modes (walk, bicycle, etc.);

³ *Presidio Trust Management Plan-Background Transportation Report for the Final EIS*, prepared by Wilbur Smith Associates for the Presidio Trust, May 2002.

⁴ *Improved Estimation of Internal Trip Capture for Mixed-Use Development*, ITE Journal, August 2010; *Alternative Approaches to Estimating Internal Traffic Capture of Mixed-Use Projects*, ITE Journal, November 2011.

⁵ *Enhancing Internal Trip capture Estimation for Mixed-Use Development*, NCHRP Report 684, Transportation Research Board, Washington DC, 2011.

⁶ *Final Mission Bay Subsequent Environmental Impact Report*, Appendix D-Transportation, p. D.32, Case No. 96.771E, San Francisco Planning Department, Final Certification Date: September 17, 1998.

⁷ The Mission Rock project is located in Superdistrict 3, and Superdistrict 1 is within ¼ of a mile of the project site.

4. Grouping the auto and transit person-trips generated in Superdistricts 1 and 3 during the daily, AM peak hour and PM peak hour periods by each individual land use into two categories: trip productions, for those land uses where the trips typically originate at the beginning of the day, such as residential uses or hotel uses (if proposed); and trip attractions, for those land uses at which the trips typically arrive, such as office, retail, restaurant, etc.;
5. Applying an initial linked trip factors and internal capture rates to each individual land use within the production and attraction categories based on ITE, San Diego Association of Governments (SANDAG) or other similar sources, and engineering judgment. (A discussion about the selection of the most appropriate internal trip capture rates for each land use is presented in the next section of this document.);
6. Iteratively adjusting the linked trip factors and internal capture rates applied to each individual land use until the number of production trips equals the number of attraction trips for each study period (daily, AM peak hour and PM peak hour);
7. Shifting the resulting number of attraction and production trips calculated for each individual land use from the original auto and transit modes to non-motorized modes (walk and other); they represent the additional person-trips that would be considered internal to the project; and
8. Performing a reasonableness check of the resulting internal person trip capture rates by comparing the data obtained at the completion of the previous steps against similar results available from ITE, TRB, and other sources. (A discussion about the reasonableness of the results obtained is presented starting on [page 16](#) of this document, [Estimation of Internal Project Trips](#)).

ASSESSMENT OF INTERNAL TRIP CAPTURE RATES

[Table 4](#) on the next page summarizes typical maximum internal trip capture rates for the proposed mixed-use projects obtained from recognized transportation planning sources for the weekday daily, AM peak hour, and PM peak hour periods. The sources include the TRB and the ITE.

Using the information presented in the table as an initial point of analysis and through an iterative process, the actual internal trip capture rates to be used in the transportation analysis of the Mission Rock project were identified, which are also summarized in [Table 4](#).

Table 4
Maximum Internal Trip Capture Rates within a Mixed-Use Project from Various Sources

Land Use Type	Daily			AM Peak Hour			PM Peak Hour			
	NCHRP ^[a] & ITE ^[b]	Selected for Analysis ^[c]		ITE ^[d]	Selected for Analysis ^[c]		NCHRP ^[a] & ITE ^[b]	ITE ^[d]	Selected for Analysis ^[c]	
		Scen. A	Scen. B		Scen. A	Scen. B			Scen. A	Scen. B
Residential	38%	38%	35%	20%	20%	20%	53%	57%	45%	35%
Office ^[e]	22%	5%	10%	32%	9%	15%	31%	20%	20%	25%
General Retail	30%	10%	15%	50%	10%	22%	20%	46%	20%	25%
Sit-down Restaurant	30% ^[f]	10%	15%	31% ^[g]	7%	15%	20% ^[f]	50% ^[g]	12%	17%
Quick Service Restaurant	30% ^[f]	15%	17%	31% ^[g]	10%	20%	20% ^[f]	50% ^[g]	15%	25%
Open Space ^[h]		10%	10%		10%	10%			10%	10%
Brewery/ Distillery ^[i]		5%	5%		5%	5%			5%	5%
Brewery Retail / Exhibition ^[j]		0%	0%		0%	0%			0%	0%
Brewery Restaurant	30% ^[e]	10%	10%	31%	0%	0%	20% ^[e]	50%	10%	10%
Mezzanine Retail	30%	10%	10%	50%	0%	0%	20%	46%	10%	10%

Notes:

- [a] *Enhancing Internal Trip capture Estimation for Mixed-Use Development*, NCHRP Report 684, Table 3, p. 11; Transportation Research Board, Washington DC, 2011.
- [b] *Trip Generation Manual, 9th Edition, Volume 1: User's Guide and Handbook*, Tables 7.1 and 7.2 (pp. 93-94); Institute of Transportation Engineers, Washington DC, 2012 (based on a limited sample size of mixed-use projects).
- [c] The internal capture rates selected for the transportation analysis of the Mission Rock project are constrained by the need for each scenario to match trip origins with trip destinations (productions/attractions) within the project site.
- [d] *Improved Estimation of Internal Trip Capture for Mixed-Use Development*, Tables 2 and 3 (pp. 26-27), ITE Journal, August 2010.
- [e] Includes office use in the mezzanine of Pier 48.
- [f] Analyzed within retail by the ITE.
- [g] There is no distinction in the ITE analysis between sit-down and quick service restaurant uses.
- [h] No data available for open space uses; conservatively assumes that 90 percent of those visiting the China Basin park would come from outside the Mission Rock project.
- [i] No data is available for brewery/distillery workers; based on the daily capture rate for office use, it assumes that 5 percent of the trips would be internal to the project site for lunch, errands, etc. Includes employees in the mezzanine production area.
- [j] Conservatively assumes that 100 percent of those visiting or shopping at the brewery retail/exhibit uses would come from outside the Mission Rock project.

Source: Adavant Consulting from various sources, as noted – June 2015.

The internal trip capture rates obtained from various sources and summarized in the table represent highest possible values, that is, they result from the most favorable balance of land-uses as well as their relatively close proximity; as such these rates represent maximum values for internal trip rate capture. On the other hand, as explained in the previous section of this document, the internal trip capture rates selected for the analysis of the Mission Rock project are methodologically constrained by the need for the number of production trips to equal the number of attraction trips for each study period (daily, AM peak hour, and PM peak hour). Thus, as shown in the table, the selected internal trip capture rates have equal or lower values than those obtained from the standard unconstrained rates.

TRAVEL DEMAND FOR THE PROPOSED PROJECT

Travel demand refers to the vehicle, transit, pedestrian and bicycle trips generated by the Mission Rock project. This section presents the assumptions and results of the travel and parking demand estimation for the Mission Rock project. The detailed travel demand calculations for development scenarios A and B are presented in [Appendices C and D](#), respectively; [Appendix F](#) contains the parking demand calculations using the *SF Guidelines* methodology.

TRIP GENERATION

The trip generation estimates for the two project scenarios include residents, employees and visitors to the proposed development. The weekday daily and PM peak hour person-trip generation for the proposed uses in Seawall Lot 337 are based on the appropriate rates as provided by Table C-1 in the *SF Guidelines*. Trip generation has also been estimated for the weekday AM peak hour based on adjusted trip generation rates developed for this study using information obtained from the ITE;⁸ the detailed calculations are presented in [Appendix B](#).

Travel demand associated with the proposed China Basin Park on-site is based on data obtained from SANDAG⁹, a source from which travel demand information for open space uses is available. Due to the unique nature of the proposed brewery/distillery and brewery retail/exhibition land uses at Pier 48, development specific information provided by Seawall Lot 337 Associates, LLC, the project sponsor, was used instead of standard trip generation values. This information is provided in [Appendix B](#).

[Table 5](#) presents the weekday daily, AM peak hour, and PM peak hour person-trip generation rates for the proposed land uses. Similarly, [Table 6](#) presents the total number of weekday daily, AM peak hour, and PM peak hour person-trips (internal plus external) generated by the two scenarios of the Mission Rock project based on the rates previously summarized in [Table 5](#).

⁸ *Trip Generation Manual* (9th Edition), Institute of Transportation Engineers, Washington DC, 2012.

⁹ *Traffic Generators*, San Diego Association of Governments, April 2002.

**Table 5
Mission Rock Project Person-Trip Generation Rates by Land Use**

Land Use Type	Daily Rate	AM Peak Hour		PM Peak Hour	
		% of daily	Rate	% of daily	Rate
Seawall Lot 337					
Residential	10.0 per unit ^[a]	14.2% ^[g]	1.4 / unit	17.3%	1.7 / unit
Office	18.1 per 1,000 gsf	8.9% ^[g]	1.6 / 1,000 gsf	8.5%	1.5 / 1,000 gsf
General Retail	150 per 1,000 gsf	2.3% ^[g]	3.5 / 1,000 gsf	9.0%	13.5 / 1,000 gsf
Sit-down Restaurant	200 per 1,000 gsf	1.5% ^[g]	2.9 / 1,000 gsf	13.5%	27.0 / 1,000 gsf
Quick Service Restaurant	600 per 1,000 gsf ^[b]	14.8% ^[g]	88.9 / 1,000 gsf	13.5%	81.0 / 1,000 gsf
China Basin Park	20 per acre ^[c]	13.0% ^[c]	2.6 / acre	9.0% ^[c]	1.8 / acre
Pier 48					
Brewery/ Distillery	3 per employee ^[d]	12.4% ^[g]	0.4 / employee	12.4% ^[j]	0.4 / employee
	2 per truck	5.3% ^[h]	0.1 / truck	5.3% ^[h]	0.1 / truck
Brewery Retail / Exhibition	2 per visitor ^[e]	0.0% ^[i]	0.0 / visitor	15.0% ^[k]	0.3 / visitor
Brewery Restaurant	200 per 1,000 gsf ^[f]	1.5% ^[g]	2.9 / 1,000 gsf	13.5%	27.0 / 1,000 gsf
Mezzanine Retail	150 per 1,000 gsf	2.3% ^[g]	3.5 / 1,000 gsf	9.0%	13.5 / 1,000 gsf
Mezzanine Office	18.1 per 1,000 gsf	8.9% ^[g]	1.6 / 1,000 gsf	8.5%	1.5 / 1,000 gsf
Overall Project Average ^[l]					
Scenario A:					
Low Residential/ High Commercial	29.5 per 1,000 gsf	8.0%	2.37 / 1,000 gsf	10.7%	3.16 / 1,000 gsf
Scenario B:					
High Residential/ Low Commercial	25.9 per 1,000 gsf	8.1%	2.10 / 1,000 gsf	11.2%	2.90 / 1,000 gsf

Notes:

- [a] For travel demand purposes only, it has been assumed that each dwelling unit would have two or more bedrooms.
- [b] The "Restaurant Composite" trip generation rate from the *SF Guidelines* was used, as this type of restaurant is not envisioned as "fast food".
- [c] Regional park land use; *Traffic Generators*, San Diego Association of Governments, 2002.
- [d] Assumes that half of the employees would make four daily trips to/from the project site (e.g., for lunch, errands, etc.). Includes employees in the mezzanine production area.
- [e] Assumes that each visitor would make two daily trips, one trip to the project site, plus the return trip.
- [f] The "Restaurant Sit-down" trip generation rate from the *SF Guidelines* was used for brewery restaurant use, as this type of restaurant is not envisioned as a quick standing-up service.
- [g] Adapted from Institute of Transportation Engineers *Trip Generation Report*, 9th Edition, 2012 in combination with *SF Guidelines*; see [Appendix B](#).
- [h] Based on the total number of daily trucks (38) of which two trucks are assumed to arrive/depart during the AM and PM peak hours.
- [i] Assumes that visits/tours of the brewery would start after 9 AM.
- [j] "Industrial/Manufacturing" PM peak hour trip generation factor from the *SF Guidelines*.
- [k] One hour over a 10-hour exhibition day represents 10 percent of daily; increased by 50 percent for a more conservative analysis.
- [l] External trips only. The overall project average trip generation and percentage of trips during the AM and PM peak hours has been reverse-calculated by dividing the total number of trips generated by each scenario during the study periods (daily, AM, PM) by the amount of proposed gsf, excluding the 5.12 acres of China Basin Park from the gsf.

Source: Table C-1 of the *SF Guidelines* unless otherwise noted, Adavant Consulting – June 2015.

Table 6
Mission Rock Project Trip Generation by Land Use and Scenario
Internal + External Person-trips ^[a]

Scenario / Land Use Type	Land Use Intensity	Daily Person trips	AM Peak Hour Person trips	PM Peak Hour Person trips
SCENARIO A – Low Residential/ High Commercial				
Seawall Lot 337				
Residential	1,048 d.u. ^[b]	10,480	1,491	1,813
Office	1,361,181 gsf	24,637	2,193	2,094
General Retail	122,388 gsf	18,358	428	1,652
Sit-down Restaurant	85,672 gsf	17,134	250	2,313
Quick Service Restaurant	36,717 gsf	22,030	3,264	2,974
China Basin Park	5.12 acres	102	13	9
Subtotal Seawall Lot 337		92,743	7,639	10,856
Pier 48				
Brewery/ Distillery ^[d]	75 employees/ day & 38 trucks/ day ^[c]	301	32	32
Brewery Retail / Exhibition	500 visitors/ day ^[c]	1,000	0	150
Brewery Restaurant	11,000 gsf	2,200	32	297
Mezzanine Retail	10,000 gsf	1,500	35	135
Mezzanine Office	7,875 gsf	143	13	12
Subtotal Pier 48		5,144	112	626
TOTAL SCENARIO A (internal + external trips)		97,886	7,751	11,482
SCENARIO B – High Residential/ Low Commercial				
Seawall Lot 337				
Residential	1,579 d.u. ^[b]	15,790	2,247	2,732
Office	972,175 gsf	17,596	1,566	1,496
General Retail	120,519 gsf	18,078	421	1,627
Sit-down Restaurant	84,363 gsf	16,873	246	2,278
Quick Service Restaurant	36,156 gsf	21,694	3,214	2,929
China Basin Park	5.12 acres	102	13	9
Subtotal Seawall Lot 337		90,133	7,708	11,070
Pier 48				
Brewery/ Distillery	75 employees/ day & 38 trucks/ day ^[c]	301	32	32
Brewery Retail / Exhibition	500 visitors/ day ^[c]	1,000	0	150
Brewery Restaurant	11,000 gsf	2,200	32	297
Mezzanine Retail	10,000 gsf	1,500	35	135
Mezzanine Office	7,875 gsf	143	13	12
Subtotal Pier 48		5,144	112	626
TOTAL SCENARIO B (internal + external trips)		95,276	7,819	11,696

Notes:

- [a] Numbers may not sum to total due to rounding.
- [b] The exact number of dwelling units to be provided by the project has not been established at this time; for travel demand purposes only, it has been assumed that each dwelling unit would have approximately 1,000 gsf.
- [c] Based on information provided by Seawall Lot 337 Associates, LLC. (see [Appendix B, p. A-13](#))
- [d] Includes employees in the mezzanine production area.

Source: Adavant Consulting – June 2015.

Mission Rock Scenario A would generate 97,886 internal and external person-trips on a weekday daily basis, 7,751 person-trips during the AM peak hour, and 11,482 person-trips during the PM peak hour. Similarly, Scenario B would generate 95,276 internal and external person-trips on a weekday daily basis, 7,819 person-trips during the AM peak hour, and 11,696 person-trips during the PM peak hour.

MODE OF TRAVEL SPLIT

The project-generated person-trips summarized in [Table 6](#) were allocated among different travel modes in order to determine the number of auto, transit, walk, and other trips going to and from the site. The “Other” category includes walk, bicycle, motorcycle, and additional modes, such as taxis or limousines.

Mode split assumptions for the residential use were based on data obtained from a survey of South Beach/South Park/Rincon Hill Area residents conducted in 2008 by the San Francisco Planning Department.¹⁰ The SF Planning survey data was deemed more appropriate as it represents SF residents that can reasonably be expected to have similar travel patterns as those from the proposed project, rather than the U.S. Census data which represents an average for the entire city. Mode of travel assumptions for the office, retail, restaurant, brewery and open space uses have been based on information contained in the *SF Guidelines* for employee and visitor trips to Superdistrict 1.¹¹

[Table 7](#) summarizes the typical weekday daily, AM peak hour, and PM peak hour person-trips by mode of travel for Scenarios A and B. Approximately one third of all daily person-trips would be by auto, another third by transit, and another third by other modes (including walking). Similar modal split percentages would occur during the AM and PM peak hours. These modal split percentages represent a first approximation based on the direct implementation of the *SF Guidelines* methodology. As explained later in this report ([Estimation of Internal Project Trips, p. 16](#)), the estimation of the number of internal trips provides a shift from auto and transit usage to walk and other local modes.

¹⁰ *Resident Travel Behavior Survey – Final Report*, San Francisco Planning Department, 2008; a summary of relevant results is included in [Appendix B, p. A-9](#).

¹¹ See [Project Location \(p. 6 of this document\)](#) for a discussion about the selection of Superdistrict 1 as the basis for the project travel demand analysis.

Table 7
Mission Rock Project Trip Generation by Mode of Travel and Scenario ^[a]
Internal + External Person-trips ^[b]

		Daily		AM Peak Hour		PM Peak Hour		
SCENARIO A – Low Residential/ High Commercial								
SWL 337	Auto	32,617	35.2%	2,685	35.2%	3,789	34.9%	
	Transit	26,694	28.8%	2,890	37.8%	3,451	31.8%	
	Other ^[c]	33,432	36.0%	2,063	27.0%	3,616	33.3%	
Subtotal SWL 337		92,743	100.0%	7,639	100.0%	10,856	100.0%	
Pier 48	Auto	1,901	37.0%	46	41.0%	228	36.4%	
	Transit	1,057	20.5%	55	49.3%	133	21.2%	
	Other ^[c]	2,186	42.5%	11	9.6%	265	42.4%	
Subtotal Pier 48		5,144	100.0%	112	100.0%	626	100.0%	
		Auto	34,518	35.3%	2,731	35.2%	4,017	35.0%
		Transit	27,750	28.3%	2,945	38.0%	3,584	31.2%
		Other ^[c]	35,618	36.4%	2,074	26.8%	3,881	33.8%
TOTAL SCENARIO A		97,886	100.0%	7,751	100.0%	11,482	100.0%	
SCENARIO B – High Residential/ Low Commercial								
SWL 337	Auto	31,138	34.5%	2,627	34.1%	3,769	34.1%	
	Transit	26,243	29.1%	2,892	37.5%	3,528	31.9%	
	Other ^[c]	32,751	36.3%	2,188	28.4%	3,773	34.1%	
Subtotal SWL 337		90,133	100.0%	7,708	100.0%	11,070	100.0%	
Pier 48	Auto	1,901	37.0%	46	41.0%	228	36.4%	
	Transit	1,057	20.5%	55	49.3%	133	21.2%	
	Other ^[c]	2,186	42.5%	11	9.6%	265	42.4%	
Subtotal Pier 48		5,144	100.0%	112	100.0%	626	100.0%	
		Auto	33,039	34.7%	2,673	34.2%	3,998	34.2%
		Transit	27,300	28.7%	2,947	37.7%	3,661	31.3%
		Other ^[c]	34,937	36.7%	2,199	28.1%	4,038	34.5%
TOTAL SCENARIO B		95,276	100.0%	7,819	100.0%	11,696	100.0%	

Notes:

[a] Preliminary modal splits calculations, based on the direct implementation of the *SF Guidelines* methodology, prior to the calculation of the internal project trips.

[b] Numbers may not sum to total due to rounding.

[c] "Other" includes walk, bicycle, motorcycle, and additional modes such as taxis and limousines.

Source: Adavant Consulting – June 2015.

TRIPS ORIGIN/DESTINATION DISTRIBUTION

The distribution of trips for the land uses being proposed by the project was obtained from SF Planning Department residential survey data¹² and the *SF Guidelines* for land uses located within Superdistrict 1. The distribution is based on the origins and destinations of trips for each specific land use, which are assigned to the four quadrants of San Francisco (Superdistricts 1 through 4), East Bay, North Bay, South Bay and Out of Region. The results are summarized in [Table 8](#).

Table 8
Mission Rock Project Trip Distribution Patterns by Land Use

Place of Trip Origin	Residential Units	Office / Restaurant / Open Space / Brewery		Retail Uses		Brewery Trucks ^[e]
	Residents & Visitors ^[a]	Workers ^[b]	Visitors ^[c]	Workers ^[b]	Visitors ^[d]	
San Francisco						
Superdistrict 1	34.7%	12.8%	22.0%	12.8%	19.0%	10.0%
Superdistrict 2	3.5%	14.4%	14.0%	14.4%	7.0%	10.0%
Superdistrict 3	27.8%	17.0%	13.0%	17.0%	8.0%	3.0%
Superdistrict 4	3.5%	11.2%	7.0%	11.2%	3.0%	3.0%
East Bay	8.8%	22.4%	11.0%	22.4%	11.0%	4.0%
North Bay	0.8%	6.1%	5.0%	6.1%	5.0%	4.0%
South Bay	21.0%	14.3%	7.0%	14.3%	8.0%	4.0%
Out of Region	0.0%	1.8%	21.0%	1.8%	39.0%	62.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Notes:

- [a] 2008 residential survey of the South Beach, South Park, and Rincon Hill areas by the San Francisco Planning Department (see summary in [Appendix B, p. A-9](#)).
- [b] *SF Guidelines*, Appendix E - Table E-3 Work Trips to SD1 (All).
- [c] *SF Guidelines*, Appendix E - Table E-11 Visitor Trips to SD1 (All Other).
- [d] *SF Guidelines*, Appendix E - Table E-10 Visitor Trips to SD1 (Retail).
- [e] Truck origins and delivery data provided by the Seawall Lot 337 Associates, LLC. (see [Appendix B, p. A-13](#))

Sources: Adavant Consulting – June 2015.

ESTIMATION OF INTERNAL PROJECT TRIPS

As previously described on [page 7](#) of this document, a specific methodology was developed for the Mission Rock project in order to estimate the number of trips that would remain within or in close proximity to the project site. This analysis was based on the number of project person-trips that would originate or be destined to Superdistricts 1 and 3, as well as in the matching of trip productions and attractions within the project site. A summary of the results for the weekday daily, AM peak hour, and PM peak hour periods under Scenarios A and B is presented in [Table 9](#).

¹² *Resident Travel Behavior Survey – Final Report*, San Francisco Planning Department, 2008; a summary of relevant results is included in [Appendix B, p. A-9](#).

As shown in [Table 9](#), approximately 11 to 25 percent of the total project person-trips, depending on the period and development scenario, would be considered internal, which represents a corresponding reduction in the external trip generation for the Mission Rock project. This appears a reasonable outcome as similar results have been reported in other professional sources.¹³ Furthermore, other mixed-use projects in San Francisco, such as the Mission Bay Plan and the Treasure Island Redevelopment Project have used similar or even higher (depending on the specific location and land use combination) percentages of internal trips.¹⁴

Table 9
Mission Rock Project Trip Generation by Scenario
After Estimation of Internal Trips

	Number of Person-trips ^[a]					
	Daily		AM Peak Hour		PM Peak Hour	
SCENARIO A – Low Residential/ High Commercial						
Internal	12,470	12.7%	886	11.4%	2,337	20.4%
External	85,416	87.3%	6,864	88.6%	9,145	79.6%
Total Scenario A	97,886	100.0%	7,751	100.0%	11,482	100.0%
SCENARIO B – High Residential/ Low Commercial						
Internal	16,626	17.5%	1,462	18.7%	2,905	24.8%
External	78,650	82.5%	6,358	81.3%	8,791	75.2%
Total Scenario B	95,276	100.0%	7,819	100.0%	11,696	100.0%

Note:

[a] Numbers may not sum to total due to rounding.

Source: Adavant Consulting – June 2015.

The internal trips presented in [Table 9](#) would be expected to occur for the most part by walking and bicycling, as opposed to auto and transit. As a result, the preliminary modal split percentages previously presented in [Table 7](#) (p. 15) would change. [Table 10](#) provides a comparison of modal splits before and after the calculation of the internal trips for the weekday daily, AM peak hour, and PM peak hour periods for Scenarios A and B.

¹³ The average daily internal capture rate reported by NCHRP Report 684 is 36 percent. ITE research estimates internal capture rates between 11 percent (*Trip Sharing between Multiple Retail Developments*, ITE 2010 Annual Meeting), and 38 percent (*Trip Generation Examination of a Mixed-use Development in Texas*, ITE 2009 International Meeting).

¹⁴ The transportation analysis conducted for the Mission Bay North and South Area Plans estimated a 20 percent reduction for those trips that began or ended in Superdistricts 1 and 3. The travel demand analysis conducted for the Treasure Island Redevelopment Plan estimated a 41 percent reduction for internal trips for the majority of proposed project land uses.

Table 10
Mission Rock Project Modal Split Comparison by Scenario
Before and After Estimation of Internal Trips
Internal + External Person-trips ^[a]

Mode of Travel	Daily		AM Peak Hour		PM Peak Hour	
	Before ^[b]	After ^[c]	Before ^[b]	After ^[c]	Before ^[b]	After ^[c]
SCENARIO A – Low Residential/ High Commercial						
Auto	35.3%	32.5%	35.2%	32.6%	35.0%	30.4%
Transit	28.3%	24.7%	38.0%	34.0%	31.2%	24.7%
Other ^[d]	36.4%	42.9%	26.8%	33.4%	33.8%	44.9%
Total Scenario A	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
SCENARIO B – High Residential/ Low Commercial						
Auto	34.7%	30.8%	34.2%	29.8%	34.2%	28.6%
Transit	28.7%	23.6%	37.7%	31.3%	31.3%	23.7%
Other ^[d]	36.7%	45.6%	28.1%	38.8%	34.5%	47.7%
Total Scenario B	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Notes:

- [a] Numbers may not sum to total due to rounding.
- [b] Generally based on US Census and *SF Guidelines* data; treats all person-trips as external to the project site.
- [c] Calculates the proportion of person-trips that would be internal to the project and shifts them to generally use non-motorized modes of travel.
- [d] "Other" includes walk, bicycle, motorcycle, and additional modes such as taxis and limousines.

Source: Adavant Consulting – June 2015.

As shown in [Table 10](#), as a result of assuming internalization of 11 to 25 percent of all project trips within the project area, there would be a three to five percentage point drop in automobile use plus a four to eight percentage drop in transit use, and a corresponding seven to 13 percentage point increase in walking and trips by other modes, with the estimation of internal trips to the project area.

[Table 11](#) summarizes the typical weekday AM and PM peak hour external trip generation by mode of travel for Scenarios A and B. Under Scenario A during the weekday AM peak hour, the Mission Rock project would generate 2,524 external person-trips by automobile (37 percent), 2,635 person-trips by transit (38 percent), and 1,705 person-trips by other modes, including walking (25 percent). During the weekday PM peak hour, Scenario A would generate 3,488 external person-trips by automobile (38 percent), 2,841 person-trips by transit (31 percent), and 2,816 person-trips by other modes (31 percent). Overall, Scenario A would generate 33 percent more external person-trips in the PM peak hour than in the AM peak hour, driven by the higher trip generation rate for retail and restaurant uses during the weekday PM peak hour.

Table 11
Mission Rock Project Mode of Travel by Land Use and Scenario – External Person-trips Only ^[a]

Scenario / Land Use Type	AM Peak Hour				PM Peak Hour			
	Auto	Transit	Other ^[b]	Total	Auto	Transit	Other ^[b]	Total
SCENARIO A – Low Residential/ High Commercial								
SWL 337 Residential	343	511	340	1,193	325	446	227	997
Office	788	953	254	1,995	689	813	173	1,675
General Retail	154	201	30	385	519	223	580	1,322
Sit-down Restaurant	92	121	19	233	768	549	718	2,036
Quick Service Rest.	1,098	792	1,048	2,938	967	684	877	2,528
China Basin Park	4	3	4	12	3	2	3	8
Subtotal Seawall Lot 337	2,479	2,581	1,695	6,755	3,271	2,718	2,578	8,566
Pier 48 Brewery/ Distillery	14	14	2	30	14	14	2	30
Brewery Retail / Exhibition	0	0	0	0	54	39	58	150
Brewery Restaurant	12	17	3	32	100	45	122	267
Mezzanine Retail	14	18	3	35	45	21	55	122
Mezzanine Office	5	6	1	12	4	5	1	10
Subtotal Pier 48	45	54	10	109	217	123	238	579
TOTAL SCENARIO A	2,524 36.8%	2,635 38.4%	1,705 24.8%	6,864 100.0%	3,488 38.1%	2,841 31.1%	2,816 30.8%	9,145 100.0%
SCENARIO B – High Residential/ Low Commercial								
SWL 337 Residential	516	769	512	1,798	544	777	454	1,776
Office	537	641	153	1,331	472	549	101	1,122
General Retail	137	175	16	328	493	205	523	1,220
Sit-down Restaurant	85	110	14	209	730	512	648	1,891
Quick Service Rest.	1,008	699	864	2,571	886	600	711	2,196
China Basin Park	4	3	4	12	3	2	3	8
Subtotal Seawall Lot 337	2,289	2,397	1,564	6,250	3,128	2,646	2,439	8,213
Pier 48 Brewery/ Distillery	14	14	2	30	14	14	2	30
Brewery Retail / Exhibition	0	0	0	0	54	39	58	150
Brewery Restaurant	12	17	3	32	100	45	122	267
Mezzanine Retail	14	18	3	35	45	21	55	122
Mezzanine Office	4	5	1	11	4	4	1	9
Subtotal Pier 48	45	54	10	108	217	123	238	578
TOTAL SCENARIO B	2,333 36.7%	2,451 38.6%	1,574 24.7%	6,358 100.0%	3,345 38.1%	2,768 31.5%	2,677 30.4%	8,791 100.0%

Notes:

[a] Numbers may not sum to total due to rounding.

[b] "Other" includes walk, bicycle, motorcycle, and additional modes such as taxis and limousines.

Source: Adavant Consulting – June 2015.

Under Scenario B during the weekday AM peak hour, the Mission Rock project would generate 2,333 external person-trips by automobile (37 percent), 2,451 person-trips by transit (38 percent), and 1,574 person-trips by other modes, including walking (25 percent). During the weekday PM peak hour, Scenario B would generate 3,345 external person-trips by automobile (38 percent), 2,768 person-trips by transit (32 percent), and 2,677 person-trips by other modes (30 percent). Overall, Scenario B would generate 38 percent more external person-trips in the PM peak hour than in the AM peak hour.

As shown in [Table 11](#), the overall modal split for Scenarios A and B of the Mission Rock project during the AM and PM peak hours would be virtually identical. Scenario A would generate 506 (8 percent) additional external person-trips than Scenario B during the AM peak hour, and 354 (4 percent) additional external person-trips during the PM peak hour.

[Table 12](#) provides a comparison of the external project trips modal split with the estimates developed by the San Francisco County Transportation Authority (SFCTA) for the planned development of Seawall Lot 337.¹⁵ These trips are estimated using SFCTA’s travel demand forecasting model (SF-CHAMP) and are used in the development of future year 2040 cumulative traffic and transit conditions. As shown in the table, the estimated modal splits of AM and PM peak hour external trips generated by Scenarios A and B under the proposed methodology are very similar to those estimated by the SFCTA model.

Table 12
Modal Split Comparison of Mission Rock Project with SFCTA Estimates
External Person-trips ^[a]

Mode of Travel	AM Peak Hour			PM Peak Hour		
	Scenario A	Scenario B	SFCTA ^[b]	Scenario A	Scenario B	SFCTA ^[b]
Auto	36.8%	36.7%	35.3%	38.1%	38.1%	36.3%
Transit	38.4%	38.6%	38.9%	31.1%	31.5%	32.3%
Other ^[c]	24.8%	24.7%	25.8%	30.8%	30.4%	31.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Notes:

[a] Numbers may not sum to total due to rounding.

[b] SFCTA travel demand forecasting results for TAZ 655, which encompasses Seawall Lot 337 and Pier 48, plus Mission Bay Development Block 1 (see [Appendix E](#)).

[c] "Other" includes walk, bicycle, motorcycle, and additional modes such as taxis and limousines.

Source: Adavant Consulting – June 2015.

¹⁵ Data provided by the SFCTA (SF-CHAMP Master Run July 2013) for travel analysis zone (TAZ) 655 which encompasses Seawall Lot 337 and Pier 48, plus Mission Bay Development Block 1 (the triangular block across Third Street from Seawall Lot 337 bounded by Mission Creek, Third Street and Channel Street); the SFCTA travel demand model trip data for TAZ 655 is summarized in [Appendix E](#).

VEHICLE-TRIP DEMAND

Average vehicle trip occupancies were applied to the auto person-trip data presented in [Table 11](#) in order to obtain vehicle-trip estimates for the Mission Rock project. Average vehicle occupancy rates for the land uses being proposed by the project were obtained from U.S. Census Bureau¹⁶ and the *SF Guidelines* for land uses located within Superdistrict 1. The external vehicle-trip generation results for the daily, AM peak hour and PM peak hour periods are summarized in [Table 13](#); additional information is included in [Appendix C](#) (for Scenario A) and [Appendix D](#) (for Scenario B).

Scenario A would generate 15,230 external daily vehicle-trips on a typical weekday, 1,449 vehicle-trips (68 percent inbound / 32 percent outbound) during the AM peak hour, and 1,755 vehicle-trips (40 percent inbound / 60 percent outbound) during the PM peak hour. Scenario B would generate 14,483 external daily vehicle-trips on a weekday, 1,394 vehicle-trips (62 percent inbound / 38 percent outbound) during the AM peak hour, and 1,756 vehicle-trips (46 percent inbound / 54 percent outbound) during the PM peak hour. Scenario A would generate 747 (5 percent) additional daily external vehicle-trips than Scenario B and 55 (4 percent) additional external vehicle-trips during the AM peak hour. Scenario A and Scenario B would generate virtually the same number of external vehicle-trips during the PM peak hour.

¹⁶ *U.S. 2009-2013 American Community Survey 5-Year Estimates*. Vehicle occupancy data obtained from Tract 607 where the Mission Rock project is located; the tract includes portions of SoMa, and the Mission Bay North and South Plan areas.

Table 13
Mission Rock Project Vehicle Trip Generation by Land Use and Scenario

Scenario / Land Use Type	Daily Vehicle-trips ^[a]	AM Peak Hour Vehicle-trips ^[a]	PM Peak Hour Vehicle-trips ^[a]			
SCENARIO A – Low Residential/ High Commercial						
Seawall Lot 337						
Residential	1,828	309	293			
Office	4,452	476	409			
General Retail	2,538	98	207			
Sit-down Restaurant	2,490	59	331			
Quick Service Restaurant	3,091	474	417			
China Basin Park	15	2	1			
Subtotal Seawall Lot 337	14,414	1,419	1,660			
Pier 48						
Brewery/ Distillery ^[b]	128	11	11			
Brewery Retail / Exhibition	151	0	23			
Brewery Restaurant	304	8	41			
Mezzanine Retail	207	9	19			
Mezzanine Office	26	3	2			
Subtotal Pier 48	816	30	95			
TOTAL SCENARIO A	15,230	1,449	1,755			
Inbound	7,615	50%	991	68%	708	40%
Outbound	7,615	50%	458	32%	1,047	60%
SCENARIO B – High Residential/ Low Commercial						
Seawall Lot 337						
Residential	2,841	466	492			
Office	3,060	322	278			
General Retail	2,384	86	194			
Sit-down Restaurant	2,367	54	315			
Quick Service Restaurant	3,000	435	382			
China Basin Park	15	2	1			
Subtotal Seawall Lot 337	13,668	1,364	1,661			
Pier 48						
Brewery/ Distillery ^[b]	128	11	11			
Brewery Retail / Exhibition	151	0	23			
Brewery Restaurant	304	8	41			
Mezzanine Retail	207	9	19			
Mezzanine Office	25	3	2			
Subtotal Pier 48	815	30	95			
TOTAL SCENARIO B	14,483	1,394	1,756			
Inbound	7,242	50%	858	62%	802	46%
Outbound	7,242	50%	536	38%	954	54%

Note:

[a] Numbers may not sum to total due to rounding.

[b] Includes the mezzanine production area.

Source: Adavant Consulting – June 2015.

PARKING DEMAND

Parking demand for the two scenarios of the Mission Rock project was determined based on methodology presented in the *SF Guidelines*. Parking demand consists of both long-term demand (typically residents and employees) and short-term demand (typically visitors). A midday and evening peak demand percentage adjustment factor was then applied, based on information available from the *SF Guidelines* (for residential uses)¹⁷ and the Urban Land Institute (ULI)¹⁸ (for other land uses) in order to obtain the peak parking demand for those two study periods.

Long-term parking demand for the residential uses was estimated assuming 1.5 spaces for every residential unit. Long-term parking demand for the office, retail, restaurant, open space and brewery uses were estimated by applying the average mode split and the vehicle occupancy from the trip generation estimation to the number of employees for each of the proposed land uses. Short-term parking demand for these uses was estimated based on the total daily visitor trips and an average daily parking turnover rate (5.5 vehicles per space per day) obtained from the *SF Guidelines*. The results are summarized in [Table 14](#) on the next page; detailed calculations are presented in [Appendix F](#).

Scenario A would generate a total parking demand for 3,655 spaces (908 short-term and 2,747 long-term) during the midday peak demand period (noon to 2 PM), and 2,614 spaces (681 short-term and 1,933 long-term) in the evening (7 to 9 PM). Scenario B would generate a total parking demand for 3,846 spaces (814 short-term and 3,032 long-term) at midday and 3,344 spaces (649 short-term and 2,695 long-term) in the evening. The maximum parking demand would occur at midday under Scenario B (3,846 spaces). Scenario B would require 191 (5 percent) more parking spaces than Scenario A at midday and 730 (28 percent) more parking spaces than Scenario A in the evening.

¹⁷ Transportation Impact Analysis Guidelines for Environmental Review, Appendix G, p. G-2, San Francisco Planning Department, 2002.

¹⁸ Shared Parking, 2nd Edition, Table 2-5, p. 16, Urban Land Institute, Washington DC, 2005.

Table 14
Mission Rock Project Peak Parking Demand by Land Use, Scenario and Time Period

Scenario / Land Use Type	Number of Parking Spaces ^[a]					
	Midday Period (Noon to 2 PM)			Evening Period (7 to 9 PM)		
	Short-term ^[b]	Long-term ^[c]	Total	Short-term ^[b]	Long-term ^[c]	Total
SCENARIO A – Low Residential/ High Commercial						
Seawall Lot 337						
Residential	0	1,258	1,258	0	1,572	1,572
Office	210	1,250	1,460	10	125	135
General Retail	216	89	305	194	89	283
Sit-down Restaurant	159	56	215	212	62	274
Quick Service Restaurant	263	39	302	210	35	245
China Basin Park	1	0	1	1	0	1
Subtotal Seawall Lot 337	849	2,692	3,541	627	1,883	2,510
Pier 48						
Brewery/Distill/Retail/Exhib. ^[d]	14	34	48	12	34	46
Brewery Restaurant	26	7	33	26	8	34
Mezzanine Retail	18	7	25	16	7	23
Mezzanine Office	1	7	8	0	1	1
Subtotal Pier 48	59	55	114	54	50	104
TOTAL SCENARIO A	908	2,747	3,655	681	1,933	2,614
SCENARIO B – High Residential/ Low Commercial						
Seawall Lot 337						
Residential	0	1,895	1,895	0	2,369	2,369
Office	145	898	1,043	7	90	97
General Retail	203	89	292	182	89	271
Sit-down Restaurant	151	56	207	201	62	263
Quick Service Restaurant	255	39	294	204	35	239
China Basin Park	1	0	1	1	0	1
Subtotal Seawall Lot 337	755	2,977	3,732	595	2,645	3,240
Pier 48						
Brewery/Distill/Retail/Exhib. ^[d]	14	34	48	12	34	46
Brewery Restaurant	26	7	33	26	8	34
Mezzanine Retail	18	7	25	16	7	23
Mezzanine Office	1	7	8	0	1	1
Subtotal Pier 48	59	55	114	54	50	104
TOTAL SCENARIO B	814	3,032	3,846	649	2,695	3,344

Notes:

[a] Numbers may not sum to total due to rounding.

[b] Visitors and customers.

[c] Residents and employees.

[d] Includes the mezzanine production area.

Source: Adavant Consulting – June 2015.

APPENDIX A
SAN FRANCISCO SUPERDISTRICTS MAP

San Francisco Superdistrict Boundaries



The boundaries of the four San Francisco Superdistricts are based on the travel analysis zones established by the Metropolitan Transportation Commission (MTC). The four Superdistricts shown in this figure are aggregations of the MTC's 1454 Regional Travel Analysis Zones (May 2002) that encompasses the nine-county San Francisco Bay Area. MTC's 1454-zone system fits within the year 2000 U.S. Census tracts.

APPENDIX B
TRIP GENERATION RATES CALCULATIONS

WEEKDAY AM PEAK HOUR TRIP GENERATION RATES

Mission Rock Mixed-Use Project

CALCULATION OF WORK/NON-WORK PERCENTAGES AND TRIP GENERATION RATES FOR THE WEEKDAY AM PEAK HOUR

Land Use	Number	Vehicle trips	Weekday Daily Rate	AM Peak Hour		PM Peak Hour		AM to PM Rate Factor
				% of daily	Rate	% of daily	Rate	
Manufacturing	140	per 1000 gsf	3.82	19.1%	0.73	19.1%	0.73	1.00
Apartment	220	per unit	6.65	7.7%	0.51	9.3%	0.62	0.82
Condominium/Townhouse	230	per unit	5.81	7.6%	0.44	9.0%	0.52	0.85
Hotel	310	per room	8.17	6.5%	0.53	7.3%	0.60	0.88
County Park	412	per acre	2.28	0.9%	0.02	3.9%	0.09	0.22
General Office Building	710	per 1000 gsf	11.03	14.1%	1.56	13.5%	1.49	1.05
Shopping Center	820	per 1000 gsf	42.70	2.2%	0.96	8.7%	3.71	0.26
Quality Restaurant	931	per 1000 gsf	89.95	0.9%	0.81	8.3%	7.49	0.11
High-Turnover Sit-Down	932	per 1000 gsf	127.15	8.5%	10.81	7.7%	9.85	1.10

Source: Institute of Transportation Engineers, Trip Generation Report, 9th Edition, 2011

Land Use	Person trips	SF GUIDELINES						Estimated		Total Trips per Employees	Work Trips per Employees
		Weekday Daily Rate	Avg gsf per employee	Daily Work %	PM Peak Hr Work %	PM Peak Hour		AM Peak Hour from ITE	Rate		
Manufacturing/Industrial	per 1000 gsf	7.9	567	40%	67%	12.4%	0.98	12.4%	0.98	4	1.79
Residential with 2+ bedrooms	per unit	10.0		33%	50%	17.3%	1.73	14.2%	1.42		
General Office Building	per 1000 gsf	18.1	276	36%	83%	8.5%	1.54	8.9%	1.61	5	1.80
Retail	per 1000 gsf	150.0	350	4%	4%	9.0%	13.5	2.3%	3.5	53	2.10
Quality Restaurant	per 1000 gsf	200.0	350	4%	4%	13.5%	27.0	1.5%	2.9	70	2.80
Composite Restaurant Rate	per 1000 gsf	600.0	350	4%	4%	13.5%	81.0	14.8%	88.9	210	8.40
Residential (100% are 2+ bedrooms)	per unit	10.0		33%	50%	17.3%	1.73	14.2%	1.42		

Land Use	Vehicle trips	SAN DIEGO - SANDAG				
		Weekday Daily Rate	AM Peak Hour		PM Peak Hour	
Industrial Park (non-commercial)	per 1000 gsf	8.0	11.0%	0.88	12.0%	0.96
Apartment (> 20 d.u. per acre)	per unit	6.0	8.0%	0.48	9.0%	0.54
Standard Commercial Office	per 1000 gsf	20.0	14.0%	2.80	13.0%	2.60
Neighborhood Shopping Center	per 1000 gsf	120.0	4.0%	4.80	10.0%	12.00
Quality Restaurant	per 1000 gsf	100.0	1.0%	1.00	8.0%	8.00
Fast Food (w/out drive thru)	per 1000 gsf	700.0	5.0%	35.00	7.0%	49.00
Regional Park (developed)	per acre	20.0	13.0%	2.60	9.0%	1.80

Data Input for Travel Demand Model

2009-2013 AMERICAN COMMUNITY SURVEY DATA

2009-2013 American Community Survey 5-Year Estimate
San Francisco County, California

	Tract 607	Tract 615
Total:	6,184	7,580
Car, truck, or van:	1,792	2,618
Drove alone	1,489	2,346
Carpooled:	303	272
In 2-person carpool	229	216
In 3-person carpool	0	41
In 4-person carpool	45	15
In 5- or 6-person carpool	0	0
In 7-or-more-person carpool	29	0
Public transportation (excluding taxicab):	2,410	1,758
Bus or trolley bus	1,128	823
Streetcar or trolley car (publico in Puerto Rico)	210	78
Subway or elevated	316	615
Railroad	756	242
Ferryboat	0	0
Taxicab	0	58
Motorcycle	31	18
Bicycle	535	142
Walked	1,124	2,592
Other means	128	57
Worked at home	164	337

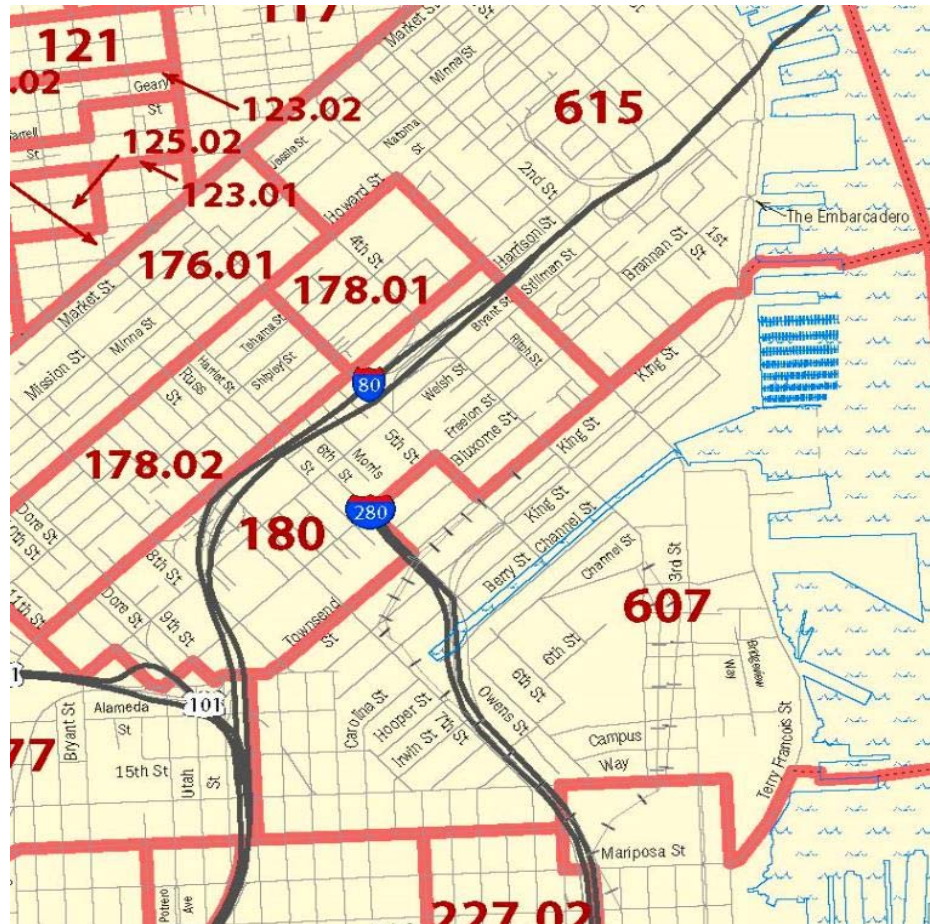
MODE OF TRAVEL SUMMARY

	Tract 607		Tract 615	
Auto	1,792	30%	2,618	36%
Transit	2,410	40%	1,758	24%
Walk	1,124	19%	2,592	36%
Other	694	12%	275	4%
TOTAL	6,020	100%	7,243	100%
Avg. Veh. Occ	1.11		1.06	

PLACE OF WORK

	Tract 607		Tract 615	
Total:	6,184	100.0%	7,580	100.0%
Worked in MSA of residence:	5,252	84.9%	6,843	90.3%
Worked in principal city	4,539	73.4%	5,674	74.9%
Worked outside any principal city	713	11.5%	1,169	15.4%
Worked in a different MSA:	932	15.1%	737	9.7%
Worked in principal city	905	14.6%	696	9.2%
Worked outside any principal city	27	0.4%	41	0.5%

	Tract 607			Tract 615		
Total:	6,020	100.0%	Time	7,243	100.0%	Time
Less than 5 minutes	158	2.6%	2	51	0.7%	2
5 to 9 minutes	380	6.3%	7	551	7.6%	7
10 to 14 minutes	715	11.9%	12	1,194	16.5%	12
15 to 19 minutes	940	15.6%	17	1,511	20.9%	17
20 to 24 minutes	596	9.9%	22	1,084	15.0%	22
25 to 29 minutes	272	4.5%	27	476	6.6%	27
30 to 34 minutes	1,215	20.2%	32	716	9.9%	32
35 to 39 minutes	144	2.4%	37	115	1.6%	37
40 to 44 minutes	245	4.1%	42	212	2.9%	42
45 to 59 minutes	450	7.5%	47	451	6.2%	47
60 to 89 minutes	723	12.0%	75	716	9.9%	75
90 or more minutes	182	3.0%	110	166	2.3%	110
Avg. Travel Time	32.9			29.0		



2008 RESIDENT TRAVEL BEHAVIOR SURVEY DATA



San Francisco Planning Department

Resident Travel Behavior Survey

Final Report

December 2008

Methodology Overview



- | | |
|-----------------------|---|
| ➤ Data Collection | Mail Survey |
| ➤ Universe/Study Area | 152,602 adult residents living in the target zip codes of 94104, 94105, 94107 and 94111, and neighboring zip codes of 94102, 94103, 94108, 94109 and 94133* |
| ➤ Fielding Dates | October 1 to 31, 2008 |
| ➤ Sample Size | 327 adult residents living in the study area |
| ➤ Margin of Error | ± 5.4% |

* Based on 2000 U.S. Census, the latest official population estimates at the zip code level. The 2006 ACS estimates are only available at the level of the entire City of San Francisco.

2008 Residents at Phase 1 Area

MODE OF TRAVEL BY TRIP ORIGIN/DESTINATION		
San Francisco		
- Auto	51	20.3%
- Transit	97	38.6%
- Walk	87	34.7%
- Other	16	6.4%
Subtotal	251	100.0%
East Bay		
- Auto	13	40.6%
- Transit	16	50.0%
- Walk	-	0.0%
- Other	3	9.4%
Subtotal	32	100.0%
Peninsula		
- Auto	21	45.7%
- Transit	22	47.8%
- Walk	-	0.0%
- Other	3	6.5%
Subtotal	46	100.0%
North Bay		
- Auto	2	66.7%
- Transit	1	33.3%
- Walk	-	0.0%
- Other	-	0.0%
Subtotal	3	100.0%
South Bay		
- Auto	11	36.7%
- Transit	16	53.3%
- Walk	1	3.3%
- Other	2	6.7%
Subtotal	30	100.0%
All Locations		
- Auto	98	27.1%
- Transit	152	42.0%
- Walk	88	24.3%
- Other	24	6.6%
Total	362	100.0%

	HOME OWNERSHIP					
	Own		Rent		Total	
NUMBER OF VEHICLES IN HOUSEHOLD						
Zero	25	13.2%	52	39.1%	77	23.8%
One	110	57.9%	60	45.1%	170	52.6%
Two	50	26.3%	19	14.3%	69	21.4%
Three	4	2.1%	2	1.5%	6	1.9%
Four or more	1	0.5%	-	0.0%	1	0.3%
Total	190	100.0%	133	100.0%	323	100.0%
Avg veh per household	1.19		0.78		1.02	
OFF-STREET PARKING AVAILABILITY						
Yes	177	93.7%	85	64.4%	262	81.6%
No	12	6.3%	47	35.6%	59	18.4%
Total	189	100.0%	132	100.0%	321	100.0%
MODE OF TRAVEL						
Drive Alone	70	36.8%	30	22.6%	100	31.0%
Muni	50	26.3%	47	35.3%	97	30.0%
Walk	59	31.1%	36	27.1%	95	29.4%
Other modes	11	5.8%	20	15.0%	31	9.6%
Total	190	100.0%	133	100.0%	323	100.0%

	NUMBER OF VEHICLES IN HOUSEHOLD									
	Zero		One		Two		Three or more		Total	
NUMBER OF PEOPLE IN HOUSEHOLD										
One	44	57.1%	84	50.0%	14	20.3%	-	0.0%	142	44.2%
Two	28	36.4%	75	44.6%	45	65.2%	5	71.4%	153	47.7%
Three or more	5	6.5%	9	5.4%	10	14.5%	2	28.6%	26	8.1%
Total	77	100.0%	168	100.0%	69	100.0%	7	100.0%	321	100.0%
Average people per household	24%		52%		21%		2%		100%	1.71
OFF-STREET PARKING AVAILABILITY										
Yes	44	57.9%	154	91.1%	57	82.6%	7	100.0%	262	81.6%
No	32	42.1%	15	8.9%	12	17.4%	-	0.0%	59	18.4%
Total	76	100.0%	169	100.0%	69	100.0%	7	100.0%	321	100.0%
	24%		53%		21%		2%		100%	
PLACE OF WORK										
Within Phase 1 Area	47	62%	88	54%	26	41%	1	14%	162	52%
Elsewhere in SF	3	4%	15	9%	3	5%	2	29%	23	7%
Outside San Francisco	26	34%	59	36%	35	55%	4	57%	124	40%
Total	76	100.0%	162	100.0%	64	100.0%	7	100.0%	309	100.0%
	25%		52%		21%		2%		100%	

BREWERY/DISTILLERY TRAVEL DEMAND DATA

From: Chapman, Kirsten
Sent: Wednesday, October 02, 2013 4:04 PM
To: 'José I. Farrán'
Cc: Efner, Erin
Subject: RE: Travel Demand - Land use assumptions and residential equivalencies

The table below is correct for weekdays, but weekends would employ only 30 people per day, as follows:

Shift	Hours	% workforce	employees
Day	6AM-2 PM	45%	14
Afternoon	2PM-10 PM	40%	12
Night	10PM-6AM	15%	4
Total		100%	30

Attached are the truck trip calculations that Anchor sent to us. Please look at the “high” end of the ranges and don’t worry about the second table with trucks and barges (this would result in less traffic, so this scenario won’t be analyzed). Let me know if this doesn’t answer your question.

Thanks,
Kirsten

Kirsten Chapman | Environmental Associate | 415.537.1702 | kirsten.chapman@icfi.com | icfi.com

ICF INTERNATIONAL | 620 Folsom Street, 2nd Floor, San Francisco, CA 94107 |

From: José I. Farrán
Sent: Wednesday, October 02, 2013 3:49 PM
To: Chapman, Kirsten; Efner, Erin
Subject: RE: Travel Demand - Land use assumptions and residential equivalencies

Kirsten, thanks for providing us with the responses to our brewery questions, can you confirm that I have interpreted the typical weekday employee data correctly as summarized in the table below?

Shift	Hours	% workforce	employees
Day	6AM-2 PM	45%	34
Afternoon	2PM-10 PM	40%	30
Night	10PM-6AM	15%	11
Total		100%	75

From: Chapman, Kirsten
Sent: Wednesday, October 02, 2013 1:13 PM
To: José I. Farrán; Efner, Erin
Subject: RE: Travel Demand - Land use assumptions and residential equivalencies

Hi Jose,

Here's email #3 regarding your data needs list. All of the information below is still correct, but Joshua asked some additional questions for Anchor, which could help with your analysis:

Shift staffing breakdown:

- Nights: 15%
- Days: 45%
- Afternoons: 40%

Truck Activity: With the potential of only having three loading dock spots, I think the truck activity is going to be fairly steady over the 24 hour period. Stacking issues are bound to occur because the dock will be scheduled fairly tightly and truck drivers are not very punctual.

Kirsten Chapman | Environmental Associate | 415.537.1702 | kirsten.chapman@icfi.com | icfi.com

ICF INTERNATIONAL | 620 Folsom Street, 2nd Floor, San Francisco, CA 94107 |

From: Chapman, Kirsten
Sent: Wednesday, October 02, 2013 8:18 AM
To: 'José I. Farrán'; Efner, Erin
Subject: RE: Travel Demand - Land use assumptions and residential equivalencies

Hi Jose,

Here is the answer to the **red** question below.

Day shift starts at 6 AM, afternoon shift at 2 PM and night shift 10 PM.

Any other data needs?

Thanks,
Kirsten

Kirsten Chapman | Environmental Associate | 415.537.1702 | kirsten.chapman@icfi.com | icfi.com

ICF INTERNATIONAL | 620 Folsom Street, 2nd Floor, San Francisco, CA 94107 |

From: Chapman, Kirsten
Sent: Tuesday, October 01, 2013 4:50 PM
To: 'José I. Farrán'; Efner, Erin
Subject: RE: Travel Demand - Land use assumptions and residential equivalencies

Hi Jose,

Sorry for the delayed response. I'm still waiting for one piece of information (in red, below), but thought that I would send this over to you as soon as possible.

- **Question:** 38 truck trips per day: one-way or round-trip?
 - **Answer:** 38 *total* trips. Approximately 18 trucks per day for deliveries and 20 trucks per day for export of finished goods. Note, this is the high end of the range, for conservative purposes.
- **Question:** What is the geographical distribution of truck trips by major areas?
 - **Answer:**
 - SF: 26%
 - Northern California (excluding SF): 22%
 - Southern California: 9%
 - Out of State and International: 43%
 - **Question:** What are the times of arrival and departure of the trucks? Are they spread over the day? Or do they have peak arrival/departure hours?
 - **Answer:** The hours will be spread across all 24 hours of the day.
- **Question:** Do the 75 employees work traditional hours? What are the work hours for each shift?
 - **Answer:** In total, the brewery would employ 200 people. There would be three shifts per weekday with approximately 75 employees per day. On weekends, there would be three shifts per day with approximately 30 employees total. The shifts would be eight hours per day (**NOTE: still waiting for exact times; will send as soon as I get**).

Please let me know if you need anything else!

Thanks,

Kirsten

Kirsten Chapman | Environmental Associate | 415.537.1702 | kirsten.chapman@icfi.com | icfi.com

ICF INTERNATIONAL | 620 Folsom Street, 2nd Floor, San Francisco, CA 94107 |

Anchor Deliveries/Export per Week

	Low	High	lbs/payload	Notes/Questions
Trucks Only - No Barges				
Raw Material Trucks - Deliveries	98	98	25,000 - 50,000	14 53-foot trucks per day
Malt Trucks - Deliveries	20	25	50,000	
Trucks - Finished Goods	84	140	50,000	12-20 trucks per day of finished goods
Total Truck Trips per Week	202	263		

Trucks + Barges

Raw Material Trucks - Deliveries	98	98	25,000 - 50,000	
Trucks - Finished Goods	64	130	50,000	Would only trucks be used for finished goods? If so, these numbers would be the same as above. If not, provide. These numbers have been adjusted based on the plan below regarding barging shipping containers.
Total Truck Trips per Week	162	228		
Malt Barges - Deliveries	0	1/month	3,000,000	Data needs response from Anchor states 12 barges per YEAR for malt. Confirm that 20-25 trucks per week for malt deliveries is equal to 12 barges per year. At full brewery capacity, the brewery could use one 1500 ton barge per month. At lower capacities in the initial phases, there is a possibility to load hoppers on a flat deck barge.
Barges - Finished Goods	1/week	2/week	500,000 (ten shipping containers on one barge)	Would barges be used for exports? If so, please provide. It is possible that 40' shipping containers could be placed on a flat deck barge and loaded from the end of the pier using a forklift. The forklift would drive onto the barge via a ramp. These shipping containers could then be brought to the Port of Oakland or Stockton for transloading onto Cargo Ships or Railroad
Total Barge Trips per Week/Year				

APPENDIX C
TRAVEL DEMAND FOR SCENARIO A

AGGREGATE TRAVEL DEMAND CALCULATIONS

Mission Rock Mixed-Use Project
SCENARIO A - (Low Residential/ High Commercial)

LAND USES	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT
	Residential 1,047,514 gsf 1,048 d.u.	Office 1,361,181 gsf	General Retail 122,388 gsf	Quality Restaurant 85,672 gsf	Quick Service Restaurant 36,717 gsf	Subtotal SWL 337 2,653,472 gsf	Brewery/ Distillery 190,500 gsf 75 empl.	Brewery Retail/ Exhibition 11,000 gsf 500 visitors	Brewery Quality Restaurant 11,000 gsf	Mezzanine Retail 10,000 gsf	Mezzanine Office 7,875 gsf	Mezzanine Production 9,625 gsf		

INTERNAL AND EXTERNAL TRIP GENERATION RATES	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT	
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production			Subtotal Pier 48
Daily Trip Rate (per 1,000 gsf)	10.0	18.1	150.0	200.0	600.0	34.9	1.6	90.9	200.0	150.0	18.1	0.0	21.4	0.5	33.8
AM Peak Hour as a % of daily	14.2%	8.9%	2.3%	1.5%	14.8%	8.2%	10.6%	0.0%	1.5%	2.3%	8.9%	0.0%	2.2%	13.0%	7.9%
AM Peak Hour Trip Rate (per 1,000 gs)	1.42	1.61	3.49	2.92	88.89	2.87	0.17	0.00	2.92	3.49	1.61	0.00	0.47	0.06	2.68
PM Peak Hour as a % of daily	17.3%	8.5%	9.0%	13.5%	13.5%	11.7%	10.6%	15.0%	13.5%	9.0%	8.5%	0.0%	12.2%	9.0%	11.7%
PM Peak Hour Trip Rate (per 1,000 gs)	1.73	1.54	13.50	27.00	81.00	4.09	0.17	13.64	27.00	13.50	1.54	0.00	2.61	0.04	3.97
% Modal Share															
Auto	27%	37%	36%	36%	36%	35%	54%	36%	36%	36%	37%	0%	37%	36%	35%
Transit	42%	35%	17%	27%	27%	29%	39%	26%	17%	17%	35%	0%	21%	27%	28%
Walk/Other	31%	28%	47%	37%	37%	36%	7%	38%	47%	47%	28%	0%	42%	37%	36%
Average Vehicle Occupancy Rate															
Weekday Daily	1.11	1.97	2.38	2.31	2.31	2.03	1.23	2.37	2.38	2.38	1.97	0.00	2.19	2.31	2.04
Weekday AM Peak Hour	1.11	1.63	1.54	1.54	2.31	1.72	1.35	0.00	1.54	1.54	1.63	0.00	1.48	2.31	1.72
Weekday PM Peak Hour	1.11	1.63	2.38	2.31	2.31	1.89	1.35	2.37	2.38	2.38	1.63	0.00	2.24	2.31	1.91

INTERNAL AND EXTERNAL TRIPS BY MODE	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT	
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production			Subtotal Pier 48
Weekday Daily															
Auto Person Trips	2,833	9,095	6,584	6,155	7,913	32,580	164	358	789	538	53		1,901	37	34,518
Transit Person Trips	4,397	8,643	3,141	4,588	5,899	26,666	116	257	376	257	50		1,057	27	27,750
Walk/Other Person trips	3,250	6,900	8,633	6,392	8,218	33,394	21	385	1,035	705	40		2,186	38	35,618
Total Person Trips	10,480	24,637	18,358	17,134	22,030	92,640	301	1,000	2,200	1,500	143	-	5,144	102	97,886
Total Vehicle Trips	2,558	4,620	2,772	2,661	3,421	16,032	133	151	332	226	27	-	869	16	16,918
Weekday AM Peak Hour															
Auto Person Trips	403	841	166	97	1,172	2,681	15	-	12	14	5		46	5	2,731
Transit Person Trips	626	1,037	221	129	874	2,886	14	-	17	18	6		55	4	2,945
Walk/Other Person trips	462	315	40	24	1,218	2,058	3	-	3	3	2		11	5	2,074
Total Person Trips	1,491	2,193	428	250	3,264	7,626	32	-	32	35	13	-	112	13	7,751
Total Vehicle Trips	364	515	108	63	507	1,557	11	-	8	9	3	-	31	2	1,590
Weekday PM Peak Hour															
Auto Person Trips	490	804	593	831	1,068	3,786	15	54	107	48	5		228	3	4,017
Transit Person Trips	761	990	283	619	796	3,449	14	39	51	23	6		133	2	3,584
Walk/Other Person trips	562	301	777	863	1,109	3,612	3	58	140	63	2		265	3	3,881
Total Person Trips	1,813	2,094	1,652	2,313	2,974	10,847	32	150	297	135	12	-	626	9	11,482
Total Vehicle Trips	443	492	249	359	462	2,005	11	23	45	20	3	-	102	1	2,108

Mission Rock Mixed-Use Project
SCENARIO A - (Low Residential/ High Commercial)

INTERNAL AND EXTERNAL TRIPS INBOUND/OUTBOUND SPLITS	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT	
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production			Subtotal Pier 48
Weekday AM Peak Hour															
Work															
Inbound	0%	100%	100%	100%	100%		80%		100%	100%	100%			100%	
Outbound	100%	0%	0%	0%	0%		20%		0%	0%	0%			0%	
Non Work															
Inbound	67%	50%	50%	50%	50%		50%	50%	50%	50%	50%			50%	
Outbound	33%	50%	50%	50%	50%		50%	50%	50%	50%	50%			50%	
All trip purposes combined															
Inbound	33%	92%	100%	100%	52%	64%	76%	0%	100%	100%	92%		92%	52%	64%
Outbound	67%	9%	0%	0%	48%	36%	24%	0%	0%	0%	9%		8%	48%	36%
Person Trips															
Inbound	497	2,006	428	250	1,697	4,878	24	-	32	35	12		103	7	4,988
Outbound	994	186	-	-	1,567	2,747	8	-	-	-	1		9	6	2,762
Total Person Trips	1,491	2,193	428	250	3,264	7,626	32	-	32	35	13		112	13	7,751
Vehicle Trips															
Inbound	121	487	108	63	270	1,049	8	-	8	9	3		27	1	1,077
Outbound	243	28	-	-	237	508	3	-	-	-	0		4	1	512
Total Vehicle Trips	364	515	108	63	507	1,557	11	-	8	9	3		31	2	1,590
Weekday PM Peak Hour															
Work															
Inbound	100%	0%	0%	0%	0%		20%		0%	0%	0%			0%	
Outbound	0%	100%	100%	100%	100%		80%		100%	100%	100%			100%	
Non Work															
Inbound	33%	50%	50%	50%	50%		50%	50%	50%	50%	50%			50%	
Outbound	67%	50%	50%	50%	50%		50%	50%	50%	50%	50%			50%	
All trip purposes combined															
Inbound	67%	9%	48%	48%	48%	43%	24%	50%	48%	48%	9%		46%	48%	44%
Outbound	33%	92%	52%	52%	52%	57%	76%	50%	52%	52%	92%		54%	52%	56%
Person Trips															
Inbound	1,209	178	793	1,110	1,428	4,718	8	75	143	65	1		291	4	5,013
Outbound	604	1,916	859	1,203	1,547	6,129	24	75	154	70	11		335	5	6,469
Total Person Trips	1,813	2,094	1,652	2,313	2,974	10,847	32	150	297	135	12		626	9	11,482
Vehicle Trips															
Inbound	295	27	116	168	216	822	3	11	21	10	0		45	1	868
Outbound	148	465	133	191	246	1,183	8	11	24	11	3		56	1	1,240
Total Vehicle Trips	443	492	249	359	462	2,005	11	23	45	20	3		102	1	2,108

Mission Rock Mixed-Use Project
SCENARIO A - (Low Residential/ High Commercial)

INTERNAL AND LINKED PERSON TRIP ADJUSTMENT FACTORS	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT	
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production			Subtotal Pier 48
Weekday Daily															
Internal trip factor	38%	5%	10%	10%	15%		5%	0%	10%	10%	5%			10%	
Internal linked trip factor	15%	25%	50%	50%	80%		25%	0%	80%	80%	25%			80%	
Internal person trips	3,385	924	918	857	661	6,780	11	-	44	30	5	-	55	2	6,837
Total internal person trip productions															3,415
Total internal person trip attractions															3,417
Difference															2
% difference															0%
Internal and linked person trips (Walk)	3,982	1,232	1,836	1,713	3,305	12,225	15	-	220	150	7	-	235	10	12,470
Overall total trip reduction	38%	5%	10%	10%	15%	13%	5%	0%	10%	10%	5%	0%	5%	10%	13%
Weekday AM Peak Hour															
Internal trip factor	20%	9%	10%	7%	10%		5%	0%	0%	0%	9%			10%	
Internal linked trip factor	15%	20%	50%	50%	80%		25%	0%	80%	80%	20%			80%	
Internal person trips	254	158	21	9	65	508	1	-	-	-	1	-	1	0	509
Total internal person trip productions															254
Total internal person trip attractions															255
Difference															1
% difference															0%
Internal and linked person trips (Walk)	298	197	43	18	326	883	2	-	-	-	1	-	2	1	886
Overall total trip reduction	20%	9%	10%	7%	10%	12%	5%	0%	0%	0%	9%	0%	1%	10%	11%
Weekday PM Peak Hour															
Internal trip factor	45%	20%	20%	12%	15%		5%	0%	10%	10%	20%			10%	
Internal linked trip factor	15%	30%	50%	50%	80%		25%	0%	80%	80%	30%			80%	
Internal person trips	693	293	165	139	89	1,384	1	-	6	3	2	-	7	0	1,392
Total internal person trip productions															696
Total internal person trip attractions															694
Difference															(2)
% difference															0%
Internal and linked person trips (Walk)	816	419	330	278	446	2,305	2	-	30	14	2	-	31	1	2,337
Overall total trip reduction	45%	20%	20%	12%	15%	21%	5%	0%	10%	10%	20%	0%	5%	10%	20%
TRIP SUBTRACTION CHECK															
Weekday Daily	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Weekday AM Peak Hour	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Weekday PM Peak Hour	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
PEAK HOUR CHECK															
Auto Person Trips SD1+SD3															
Daily External Trips	520	1,694	699	965	991	4,937	23	79	84	57	10	-	186	6	5,129
AM+PM External Trips	107	44	20	46	112	333	1	4	7	3	0	-	13	0	346
Average Peak Hour Factor	10%	1%	1%	2%	6%	3%	3%	3%	4%	3%	1%	0%	3%	4%	3%
Transit Person Trips SD1+SD3															
Daily External Trips	989	2,188	568	1,069	1,098	5,971	25	85	68	46	13	-	179	6	6,156
AM+PM External Trips	204	102	26	66	153	554	2	6	7	4	1	-	15	1	570
Average Peak Hour Factor	10%	2%	2%	3%	7%	5%	4%	3%	5%	4%	2%	0%	4%	5%	5%
Walk/Other Person Trips SD1+SD3															
Daily External Trips	1,054	3,048	1,874	2,213	2,272	10,632	14	186	225	153	18	-	424	13	11,069
AM+PM External Trips	217	181	72	240	604	1,329	3	23	26	13	1	-	52	2	1,383
Average Peak Hour Factor	10%	3%	2%	5%	13%	6%	11%	6%	6%	4%	3%	0%	6%	9%	6%

Mission Rock Mixed-Use Project
SCENARIO A - (Low Residential/ High Commercial)

EXTERNAL ONLY TRIPS	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT	
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production			Subtotal 48
Weekday Daily															
Superdistrict 1															
Auto Person Trips	289	513	391	341	350	1,884	9	28	47	32	3	-	119	2	2,006
Transit Person Trips	550	851	332	463	476	2,672	8	38	40	27	5	-	118	3	2,792
Walk/Other Person trips	585	2,546	1,450	1,836	1,885	8,302	12	154	174	118	15	-	473	11	8,786
Total Person Trips	1,424	3,909	2,173	2,641	2,711	12,858	29	220	260	178	23	-	710	16	13,584
Vehicle Trips	261	270	243	152	156	1,081	9	12	29	20	2	-	71	1	1,154
Superdistrict 2															
Auto Person Trips	74	1,108	378	766	985	3,310	18	45	45	31	6	-	145	5	3,459
Transit Person Trips	140	1,613	472	871	1,120	4,216	21	49	57	39	9	-	175	5	4,396
Walk/Other Person trips	149	764	490	765	983	3,152	1	46	59	40	4	-	150	5	3,307
Total Person Trips	364	3,485	1,339	2,402	3,088	10,677	40	140	161	109	20	-	470	14	11,162
Vehicle Trips	67	668	235	380	489	1,839	16	22	28	19	4	-	89	2	1,930
Superdistrict 3															
Auto Person Trips	231	1,181	309	624	641	2,986	14	50	37	25	7	-	133	4	3,123
Transit Person Trips	440	1,337	236	606	622	3,240	17	48	28	19	8	-	120	4	3,364
Walk/Other Person trips	468	503	424	377	387	2,159	2	32	51	35	3	-	122	2	2,283
Total Person Trips	1,139	3,021	969	1,607	1,649	8,385	33	130	116	79	17	-	375	10	8,770
Vehicle Trips	209	675	158	273	280	1,594	11	21	19	13	4	-	68	2	1,663
Superdistrict 4															
Auto Person Trips	74	883	214	521	670	2,363	13	30	26	17	5	-	91	3	2,457
Transit Person Trips	140	902	225	418	538	2,224	14	23	27	18	5	-	87	3	2,313
Walk/Other Person trips	149	311	172	288	371	1,293	1	17	21	14	2	-	55	2	1,349
Total Person Trips	364	2,097	611	1,228	1,579	5,879	27	70	73	50	12	-	233	7	6,119
Vehicle Trips	67	514	141	274	353	1,349	9	15	17	12	3	-	56	2	1,407
East Bay															
Auto Person Trips	374	1,605	803	918	1,180	4,881	23	52	96	66	9	-	246	5	5,133
Transit Person Trips	461	1,564	544	538	692	3,799	29	27	65	44	9	-	175	3	3,977
Walk/Other Person trips	87	552	756	507	652	2,553	2	30	91	62	3	-	188	3	2,744
Total Person Trips	922	3,721	2,103	1,963	2,524	11,233	53	110	252	172	22	-	609	12	11,854
Vehicle Trips	338	573	334	371	477	2,093	9	21	40	27	3	-	101	2	2,197
North Bay															
Auto Person Trips	56	846	430	607	780	2,719	10	36	52	35	5	-	137	4	2,860
Transit Person Trips	28	321	175	98	126	748	6	5	21	14	2	-	48	1	797
Walk/Other Person trips	-	162	321	160	205	848	0	10	38	26	1	-	75	1	924
Total Person Trips	84	1,329	926	864	1,111	4,315	17	50	111	76	8	-	261	5	4,581
Vehicle Trips	50	462	193	319	410	1,434	7	19	23	16	3	-	67	2	1,504
South Bay															
Auto Person Trips	927	1,392	1,101	742	954	5,116	22	42	132	90	8	-	293	4	5,414
Transit Person Trips	1,100	788	242	323	415	2,868	13	17	29	20	5	-	84	2	2,954
Walk/Other Person trips	174	192	172	184	237	959	0	11	21	14	1	-	47	1	1,008
Total Person Trips	2,201	2,372	1,515	1,249	1,606	8,944	35	70	182	124	14	-	424	7	9,375
Vehicle Trips	837	865	416	325	417	2,860	18	17	50	34	5	-	124	2	2,986
Outside of Bay Area															
Auto Person Trips	-	1,265	2,549	1,246	1,602	6,662	49	75	306	208	7	-	646	7	7,316
Transit Person Trips	-	878	584	839	1,078	3,379	2	51	70	48	5	-	175	5	3,559
Walk/Other Person trips	-	1,328	3,753	1,382	1,777	8,240	0	84	450	307	8	-	848	8	9,096
Total Person Trips	-	3,471	6,887	3,467	4,457	18,281	51	210	825	563	20	-	1,669	21	19,971
Vehicle Trips	-	426	819	395	508	2,148	48	24	98	67	2	-	240	2	2,390
All Origins															
Auto Person Trips	2,025	8,794	6,175	5,765	7,162	29,922	158	358	740	505	51	-	1,811	34	31,767
Transit Person Trips	2,860	8,254	2,809	4,156	5,067	23,145	110	257	337	229	48	-	981	25	24,151
Walk/Other Person trips	1,613	6,358	7,538	5,499	6,497	27,505	18	385	903	616	37	-	1,959	33	29,497
Total Person Trips	6,498	23,406	16,522	15,421	18,726	80,572	286	1,000	1,980	1,350	135	-	4,751	92	85,416
Vehicle Trips	1,828	4,452	2,538	2,490	3,091	14,399	128	151	304	207	26	-	816	15	15,230
Total Internal Person Trips	3,982	1,232	1,836	1,713	3,305	12,068	15	-	220	150	7	-	392	10	12,470
Person-trip reduction	38%	5%	10%	10%	15%	13%	5%	0%	10%	10%	5%	0%	8%	10%	13%
Average Vehicle Occupancy	1.11	1.98	2.43	2.32	2.32	2.08	1.23	2.37	2.43	2.43	1.98	-	2.22	2.32	2.09

Mission Rock Mixed-Use Project
SCENARIO A - (Low Residential/ High Commercial)

EXTERNAL ONLY TRIPS	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT	
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production			Subtotal Pier 48
Weekday AM Peak Hour															
Superdistrict 1															
Auto Person Trips	71	30	5	3	65	175	1	-	1	1	0	-	2	0	177
Transit Person Trips	136	69	13	9	88	315	1	-	1	2	0	-	5	0	320
Walk/Other Person trips	145	123	18	12	350	648	1	-	2	2	1	-	6	1	656
Total Person Trips	352	223	36	24	503	1,138	3	-	4	4	1	-	13	2	1,154
Vehicle Trips	64	21	4	3	29	121	1	-	0	0	0	-	2	0	123
Superdistrict 2															
Auto Person Trips	11	99	19	11	146	287	2	-	1	2	1	-	5	1	293
Transit Person Trips	20	191	41	24	166	441	3	-	3	3	1	-	10	1	452
Walk/Other Person trips	21	24	2	1	146	194	0	-	0	0	0	-	0	1	195
Total Person Trips	52	314	62	36	457	921	4	-	5	5	2	-	16	2	939
Vehicle Trips	9	75	16	9	72	182	1	-	1	1	0	-	4	0	187
Superdistrict 3															
Auto Person Trips	57	100	19	13	119	308	2	-	2	2	1	-	7	0	315
Transit Person Trips	109	132	26	18	115	400	2	-	3	3	1	-	9	0	409
Walk/Other Person trips	116	22	3	2	72	214	0	-	0	0	0	-	1	0	215
Total Person Trips	281	253	48	33	306	921	4	-	5	6	1	-	17	1	939
Vehicle Trips	52	73	15	10	52	201	1	-	2	2	0	-	5	0	206
Superdistrict 4															
Auto Person Trips	11	96	20	12	99	238	1	-	2	2	1	-	5	0	243
Transit Person Trips	20	120	26	15	80	261	2	-	2	2	1	-	6	0	267
Walk/Other Person trips	21	14	2	1	55	93	0	-	0	0	0	-	0	0	94
Total Person Trips	52	230	48	28	234	592	3	-	4	4	1	-	12	1	605
Vehicle Trips	9	61	13	8	52	144	1	-	1	1	0	-	3	0	147
East Bay															
Auto Person Trips	53	180	38	22	175	468	3	-	3	3	1	-	10	1	478
Transit Person Trips	66	243	55	32	102	497	4	-	4	4	1	-	14	0	511
Walk/Other Person trips	12	26	3	2	97	140	0	-	0	0	0	-	1	0	142
Total Person Trips	131	449	96	56	374	1,106	6	-	7	8	3	-	24	2	1,131
Vehicle Trips	48	56	11	7	71	193	1	-	1	1	0	-	3	0	196
North Bay															
Auto Person Trips	8	72	14	8	116	217	1	-	1	1	0	-	4	0	221
Transit Person Trips	4	52	12	7	19	93	1	-	1	1	0	-	3	0	96
Walk/Other Person trips	-	6	0	0	30	37	0	-	0	0	0	-	0	0	37
Total Person Trips	12	130	26	15	165	348	2	-	2	2	1	-	7	1	355
Vehicle Trips	7	41	8	5	61	122	1	-	1	1	0	-	2	0	125
South Bay															
Auto Person Trips	132	166	35	21	141	496	2	-	3	3	1	-	9	1	505
Transit Person Trips	157	112	25	15	62	370	2	-	2	2	1	-	6	0	376
Walk/Other Person trips	25	8	1	0	35	69	0	-	0	0	0	-	0	0	69
Total Person Trips	313	286	61	36	238	934	4	-	5	5	2	-	15	1	951
Vehicle Trips	119	129	29	17	62	356	2	-	2	2	1	-	7	0	363
Outside of Bay Area															
Auto Person Trips	-	44	4	2	237	287	3	-	0	0	0	-	4	1	291
Transit Person Trips	-	35	4	2	160	201	0	-	0	0	0	-	1	1	203
Walk/Other Person trips	-	32	0	0	263	296	0	-	0	0	0	-	0	1	297
Total Person Trips	-	111	8	5	660	784	3	-	1	1	1	-	5	3	791
Vehicle Trips	-	19	2	1	75	98	3	-	0	0	0	-	3	0	102
All Origins															
Auto Person Trips	343	788	154	92	1,098	2,475	14	-	12	14	5	-	45	4	2,524
Transit Person Trips	511	953	201	121	792	2,578	14	-	17	18	6	-	54	3	2,635
Walk/Other Person trips	340	254	30	19	1,048	1,691	2	-	3	3	1	-	10	4	1,705
Total Person Trips	1,193	1,995	385	233	2,938	6,743	30	-	32	35	12	-	109	12	6,864
Vehicle Trips	309	476	98	59	474	1,417	11	-	8	9	3	-	30	2	1,449
Total Internal Person Trips	298	197	43	18	326	882	2	-	-	-	1	-	3	1	886
Person-trip reduction	20%	9%	10%	7%	10%	12%	5%	0%	0%	0%	9%	0%	2%	10%	11%
Average Vehicle Occupancy	1.11	1.65	1.57	1.56	2.32	1.75	1.35	-	1.54	1.54	1.65	-	1.49	2.32	1.74

Mission Rock Mixed-Use Project
SCENARIO A - (Low Residential/ High Commercial)

EXTERNAL ONLY TRIPS	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT	
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production			Subtotal Pier 48
Weekday PM Peak Hour															
Superdistrict 1															
Auto Person Trips	36	14	15	42	47	154	1	4	6	3	0	-	14	0	169
Transit Person Trips	68	33	12	58	64	235	1	6	5	2	0	-	15	0	250
Walk/Other Person trips	72	58	54	228	254	667	1	23	23	11	0	-	59	1	727
Total Person Trips	176	105	81	328	366	1,056	3	33	35	16	1	-	88	1	1,145
Vehicle Trips	32	10	9	19	21	91	1	2	4	2	0	-	8	0	99
Superdistrict 2															
Auto Person Trips	13	95	34	103	133	378	2	7	6	3	1	-	18	0	396
Transit Person Trips	24	182	42	118	151	518	3	7	8	3	1	-	22	0	540
Walk/Other Person trips	26	23	44	103	133	329	0	7	8	4	0	-	19	0	348
Total Person Trips	63	300	121	324	417	1,225	4	21	22	10	2	-	59	1	1,285
Vehicle Trips	12	72	21	51	66	222	1	3	4	2	0	-	11	0	233
Superdistrict 3															
Auto Person Trips	29	47	12	77	86	251	2	8	5	2	0	-	17	0	268
Transit Person Trips	54	62	9	75	84	284	2	7	4	2	0	-	15	0	300
Walk/Other Person trips	58	10	16	47	52	183	0	5	7	3	0	-	15	0	198
Total Person Trips	141	119	36	199	223	718	4	20	16	7	1	-	47	1	766
Vehicle Trips	26	34	6	34	38	137	1	3	3	1	0	-	8	0	146
Superdistrict 4															
Auto Person Trips	13	92	19	70	90	285	1	4	3	2	1	-	11	0	296
Transit Person Trips	24	114	20	56	73	288	2	3	4	2	1	-	11	0	299
Walk/Other Person trips	26	14	16	39	50	144	0	3	3	1	0	-	7	0	151
Total Person Trips	63	220	55	166	213	716	3	11	10	4	1	-	29	1	747
Vehicle Trips	12	59	13	37	48	168	1	2	2	1	0	-	7	0	175
East Bay															
Auto Person Trips	65	172	72	124	159	592	3	8	13	6	1	-	30	0	623
Transit Person Trips	80	232	49	73	93	526	4	4	9	4	1	-	22	0	548
Walk/Other Person trips	15	25	68	68	88	264	0	5	12	6	0	-	23	0	287
Total Person Trips	160	429	189	265	341	1,383	6	17	34	15	2	-	75	1	1,459
Vehicle Trips	58	54	30	50	64	257	1	3	5	2	0	-	12	0	269
North Bay															
Auto Person Trips	10	69	39	82	105	304	1	5	7	3	0	-	17	0	321
Transit Person Trips	5	50	16	13	17	101	1	1	3	1	0	-	6	0	107
Walk/Other Person trips	-	5	29	22	28	84	0	1	5	2	0	-	9	0	93
Total Person Trips	15	124	83	117	150	488	2	8	15	7	1	-	32	0	521
Vehicle Trips	9	40	17	43	55	164	1	3	3	1	0	-	8	0	173
South Bay															
Auto Person Trips	160	159	99	100	129	647	2	6	18	8	1	-	36	0	683
Transit Person Trips	190	107	22	44	56	419	2	3	4	2	1	-	11	0	430
Walk/Other Person trips	30	7	15	25	32	110	0	2	3	1	0	-	6	0	116
Total Person Trips	381	273	136	169	217	1,176	4	11	25	11	2	-	52	1	1,229
Vehicle Trips	145	123	37	44	56	406	2	3	7	3	1	-	15	0	421
Outside of Bay Area															
Auto Person Trips	-	42	229	168	216	656	3	11	41	19	0	-	74	1	731
Transit Person Trips	-	34	53	113	146	345	0	8	9	4	0	-	22	0	367
Walk/Other Person trips	-	31	338	187	240	795	0	13	61	28	0	-	101	1	897
Total Person Trips	-	106	620	468	602	1,796	3	32	111	51	1	-	197	2	1,995
Vehicle Trips	-	18	74	53	69	214	3	4	13	6	0	-	26	0	240
All Origins															
Auto Person Trips	325	689	519	768	967	3,268	14	54	100	45	4	-	217	3	3,488
Transit Person Trips	446	813	223	549	684	2,715	14	39	45	21	5	-	123	2	2,841
Walk/Other Person trips	227	173	580	718	877	2,575	2	58	122	55	1	-	238	3	2,816
Total Person Trips	997	1,675	1,322	2,036	2,528	8,558	30	150	267	122	10	-	579	8	9,145
Vehicle Trips	293	409	207	331	417	1,659	11	23	41	19	2	-	95	1	1,755
Total Internal Person Trips	816	419	330	278	446	2,289	2	-	30	14	2	-	47	1	2,337
Person-trip reduction	45%	20%	20%	12%	15%	21%	5%	0%	10%	10%	20%	0%	8%	10%	20%
Average Vehicle Occupancy	1.11	1.68	2.50	2.32	2.32	1.97	1.35	2.37	2.43	2.43	1.68	-	2.28	2.32	1.99

Mission Rock Mixed-Use Project
SCENARIO A - (Low Residential/ High Commercial)

MODAL SPLIT SUMMARY FOR INTERNAL AND EXTERNAL TRIPS	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT		
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production			Subtotal Pier 48	
Weekday Daily																
Internal + External Before Adjustment																
Auto Person Trips	27%	37%	36%	36%	36%	35%	54%	36%	36%	36%	37%	0%	37%	36%	35%	
Transit Person Trips	42%	35%	17%	27%	27%	29%	39%	26%	17%	17%	35%	0%	21%	27%	28%	
Walk/Other Person trips	31%	28%	47%	37%	37%	36%	7%	38%	47%	47%	28%	0%	42%	37%	36%	
Total Person Trips	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	100%	100%	100%	
Internal + External After Adjustment																
Auto Person Trips	19%	36%	34%	34%	33%	32%	52%	36%	34%	34%	36%	0%	35%	34%	32%	
Transit Person Trips	27%	34%	15%	24%	23%	25%	37%	26%	15%	15%	34%	0%	19%	24%	25%	
Walk/Other Person trips	53%	31%	51%	42%	44%	43%	11%	38%	51%	51%	31%	0%	46%	42%	43%	
Total Person Trips	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	100%	100%	100%	
External Only Trips																
Auto Person Trips	31%	38%	37%	37%	38%	37%	55%	36%	37%	37%	38%	0%	38%	37%	37%	
Transit Person Trips	44%	35%	17%	27%	27%	29%	39%	26%	17%	17%	35%	0%	21%	27%	28%	
Walk/Other Person trips	25%	27%	46%	36%	35%	34%	6%	38%	46%	46%	27%	0%	41%	36%	35%	
Total Person Trips	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	100%	100%	100%	
Weekday AM Peak Hour																
Internal + External Before Adjustment																
Auto Person Trips	27%	38%	39%	39%	36%	35%	47%	0%	39%	39%	38%	0%	41%	36%	35%	
Transit Person Trips	42%	47%	52%	52%	27%	38%	45%	0%	52%	52%	47%	0%	49%	27%	38%	
Walk/Other Person trips	31%	14%	9%	9%	37%	27%	8%	0%	9%	9%	14%	0%	10%	37%	27%	
Total Person Trips	100%	100%	100%	100%	100%	100%	100%	0%	100%	100%	100%	0%	100%	100%	100%	
Internal + External After Adjustment																
Auto Person Trips	23%	36%	36%	37%	34%	32%	45%	0%	39%	39%	36%	0%	40%	34%	33%	
Transit Person Trips	34%	43%	47%	48%	24%	34%	43%	0%	52%	52%	43%	0%	48%	24%	34%	
Walk/Other Person trips	43%	21%	17%	15%	42%	34%	12%	0%	9%	9%	21%	0%	11%	42%	33%	
Total Person Trips	100%	100%	100%	100%	100%	100%	100%	0%	100%	100%	100%	0%	100%	100%	100%	
External Only Trips																
Auto Person Trips	29%	39%	40%	40%	37%	37%	47%	0%	39%	39%	39%	0%	41%	37%	37%	
Transit Person Trips	43%	48%	52%	52%	27%	38%	45%	0%	52%	52%	48%	0%	49%	27%	38%	
Walk/Other Person trips	28%	13%	8%	8%	36%	25%	7%	0%	9%	9%	13%	0%	9%	36%	25%	
Total Person Trips	100%	100%	100%	100%	100%	100%	100%	0%	100%	100%	100%	0%	100%	100%	100%	
Weekday PM Peak Hour																
Internal + External Before Adjustment																
Auto Person Trips	27%	38%	36%	36%	36%	35%	47%	36%	36%	36%	38%	0%	36%	36%	35%	
Transit Person Trips	42%	47%	17%	27%	27%	32%	45%	26%	17%	17%	47%	0%	21%	27%	31%	
Walk/Other Person trips	31%	14%	47%	37%	37%	33%	8%	38%	47%	47%	14%	0%	42%	37%	34%	
Total Person Trips	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	100%	100%	100%	
Internal + External After Adjustment																
Auto Person Trips	18%	33%	31%	33%	33%	30%	45%	36%	34%	34%	33%	0%	35%	34%	30%	
Transit Person Trips	25%	39%	13%	24%	23%	25%	43%	26%	15%	15%	39%	0%	20%	24%	25%	
Walk/Other Person trips	58%	28%	55%	43%	44%	45%	12%	38%	51%	51%	28%	0%	46%	42%	45%	
Total Person Trips	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	100%	100%	100%	
External Only Trips																
Auto Person Trips	33%	41%	39%	38%	38%	38%	47%	36%	37%	37%	41%	0%	38%	37%	38%	
Transit Person Trips	45%	49%	17%	27%	27%	32%	45%	26%	17%	17%	49%	0%	21%	27%	31%	
Walk/Other Person trips	23%	10%	44%	35%	35%	30%	7%	38%	46%	46%	10%	0%	41%	36%	31%	
Total Person Trips	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	100%	100%	100%	

Mission Rock Mixed-Use Project
 SCENARIO A - (Low Residential/ High Commercial)

EXTERNAL ONLY TRIPS	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT	
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production			Subtotal Pier 48
Weekday AM Peak Hour															
Auto Person Trips: All origins	343	788	154	92	1,098	2,475	14	-	12	14	5	-	45	4	2,524
Inbound	114	721	154	92	571	1,652	11	-	12	14	4	-	41	2	1,696
Outbound	228	67	-	-	527	823	3	-	-	-	0	-	4	2	828
Transit Person Trips: All origins	511	953	201	121	792	2,578	14	-	17	18	6	-	54	3	2,635
Inbound	170	872	201	121	412	1,776	10	-	17	18	5	-	50	2	1,828
Outbound	340	81	-	-	380	801	3	-	-	-	0	-	4	2	807
Walk/Other Person Trips: All origins	340	254	30	19	1,048	1,691	2	-	3	3	1	-	10	4	1,705
Inbound	113	233	30	19	545	940	2	-	3	3	1	-	9	2	951
Outbound	227	22	-	-	503	751	1	-	-	-	0	-	1	2	754
Total Person Trips: All origins	1,193	1,995	385	233	2,938	6,743	30	-	32	35	12	-	109	12	6,864
Inbound	398	1,826	385	233	1,528	4,368	23	-	32	35	11	-	101	6	4,475
Outbound	795	170	-	-	1,410	2,375	7	-	-	-	1	-	8	6	2,389
Total Vehicle Trips: All origins	309	476	98	59	474	1,417	11	-	8	9	3	-	30	2	1,449
Inbound	103	450	98	59	253	963	7	-	8	9	3	-	27	1	991
Outbound	206	26	-	-	222	454	3	-	-	-	0	-	3	1	458
Weekday PM Peak Hour															
Auto Person Trips: All origins	325	689	519	768	967	3,268	14	54	100	45	4	-	217	3	3,488
Inbound	216	59	249	369	464	1,357	3	27	48	22	0	-	100	1	1,459
Outbound	108	631	270	399	503	1,911	11	27	52	24	4	-	117	2	2,029
Transit Person Trips: All origins	446	813	223	549	684	2,715	14	39	45	21	5	-	123	2	2,841
Inbound	297	69	107	264	328	1,065	3	19	22	10	0	-	55	1	1,121
Outbound	149	744	116	286	356	1,650	10	19	24	11	4	-	68	1	1,720
Walk/Other Person Trips: All origins	227	173	580	718	877	2,575	2	58	122	55	1	-	238	3	2,816
Inbound	151	15	278	345	421	1,210	1	29	59	27	0	-	115	1	1,326
Outbound	76	158	302	374	456	1,365	2	29	63	29	1	-	124	2	1,490
Total Person Trips: All origins	997	1,675	1,322	2,036	2,528	8,558	30	150	267	122	10	-	579	8	9,145
Inbound	665	142	634	977	1,213	3,632	7	75	128	58	1	-	270	4	3,906
Outbound	332	1,533	687	1,058	1,315	4,926	23	75	139	63	9	-	309	4	5,239
Total Vehicle Trips: All origins	293	409	207	331	417	1,659	11	23	41	19	2	-	95	1	1,755
Inbound	195	22	97	155	195	665	3	11	19	9	0	-	43	1	708
Outbound	98	387	111	176	222	994	7	11	22	10	2	-	53	1	1,047

Mission Rock Mixed-Use Project
SCENARIO A - (Low Residential/ High Commercial)

EXTERNAL ONLY TRIPS	SEAWALL LOT 337						PIER 48							China Basin Park Open Space	TOTAL DEVELOPMENT
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production	Subtotal Pier 48		
Weekday Daily															
Auto Person Trips															
Superdistrict 1	289	513	391	341	350	1,884	9	28	47	32	3	-	119	2	2,006
Superdistrict 2	74	1,108	378	766	985	3,310	18	45	45	31	6	-	145	5	3,459
Superdistrict 3	231	1,181	309	624	641	2,986	14	50	37	25	7	-	133	4	3,123
Superdistrict 4	74	883	214	521	670	2,363	13	30	26	17	5	-	91	3	2,457
East Bay	374	1,605	803	918	1,180	4,881	23	52	96	66	9	-	246	5	5,133
North Bay	56	846	430	607	780	2,719	10	36	52	35	5	-	137	4	2,860
South Bay	927	1,392	1,101	742	954	5,116	22	42	132	90	8	-	293	4	5,414
Outside of Bay Area	-	1,265	2,549	1,246	1,602	6,662	49	75	306	208	7	-	646	7	7,316
All Origins	2,025	8,794	6,175	5,765	7,162	29,922	158	358	740	505	51	-	1,811	34	31,767
Transit Person Trips															
Superdistrict 1	550	851	332	463	476	2,672	8	38	40	27	5	-	118	3	2,792
Superdistrict 2	140	1,613	472	871	1,120	4,216	21	49	57	39	9	-	175	5	4,396
Superdistrict 3	440	1,337	236	606	622	3,240	17	48	28	19	8	-	120	4	3,364
Superdistrict 4	140	902	225	418	538	2,224	14	23	27	18	5	-	87	3	2,313
East Bay	461	1,564	544	538	692	3,799	29	27	65	44	9	-	175	3	3,977
North Bay	28	321	175	98	126	748	6	5	21	14	2	-	48	1	797
South Bay	1,100	788	242	323	415	2,868	13	17	29	20	5	-	84	2	2,954
Outside of Bay Area	-	878	584	839	1,078	3,379	2	51	70	48	5	-	175	5	3,559
All Origins	2,860	8,254	2,809	4,156	5,067	23,145	110	257	337	229	48	-	981	25	24,151
Walk/Other Person trips															
Superdistrict 1	585	2,546	1,450	1,836	1,885	8,302	12	154	174	118	15	-	473	11	8,786
Superdistrict 2	149	764	490	765	983	3,152	1	46	59	40	4	-	150	5	3,307
Superdistrict 3	468	503	424	377	387	2,159	2	32	51	35	3	-	122	2	2,283
Superdistrict 4	149	311	172	288	371	1,293	1	17	21	14	2	-	55	2	1,349
East Bay	87	552	756	507	652	2,553	2	30	91	62	3	-	188	3	2,744
North Bay	-	162	321	160	205	848	0	10	38	26	1	-	75	1	924
South Bay	174	192	172	184	237	959	0	11	21	14	1	-	47	1	1,008
Outside of Bay Area	-	1,328	3,753	1,382	1,777	8,240	0	84	450	307	8	-	848	8	9,096
All Origins	1,613	6,358	7,538	5,499	6,497	27,505	18	385	903	616	37	-	1,959	33	29,497
Total Person trips															
Superdistrict 1	1,424	3,909	2,173	2,641	2,711	12,858	29	220	260	178	23	-	710	16	13,584
Superdistrict 2	364	3,485	1,339	2,402	3,088	10,677	40	140	161	109	20	-	470	14	11,162
Superdistrict 3	1,139	3,021	969	1,607	1,649	8,385	33	130	116	79	17	-	375	10	8,770
Superdistrict 4	364	2,097	611	1,228	1,579	5,879	27	70	73	50	12	-	233	7	6,119
East Bay	922	3,721	2,103	1,963	2,524	11,233	53	110	252	172	22	-	609	12	11,854
North Bay	84	1,329	926	864	1,111	4,315	17	50	111	76	8	-	261	5	4,581
South Bay	2,201	2,372	1,515	1,249	1,606	8,944	35	70	182	124	14	-	424	7	9,375
Outside of Bay Area	-	3,471	6,887	3,467	4,457	18,281	51	210	825	563	20	-	1,669	21	19,971
All Origins	6,498	23,406	16,522	15,421	18,726	80,572	286	1,000	1,980	1,350	135	-	4,751	92	85,416
Vehicle trips															
Superdistrict 1	261	270	243	152	156	1,081	9	12	29	20	2	-	71	1	1,154
Superdistrict 2	67	668	235	380	489	1,839	16	22	28	19	4	-	89	2	1,930
Superdistrict 3	209	675	158	273	280	1,594	11	21	19	13	4	-	68	2	1,663
Superdistrict 4	67	514	141	274	353	1,349	9	15	17	12	3	-	56	2	1,407
East Bay	338	573	334	371	477	2,093	9	21	40	27	3	-	101	2	2,197
North Bay	50	462	193	319	410	1,434	7	19	23	16	3	-	67	2	1,504
South Bay	837	865	416	325	417	2,860	18	17	50	34	5	-	124	2	2,986
Outside of Bay Area	-	426	819	395	508	2,148	48	24	98	67	2	-	240	2	2,390
All Origins	1,828	4,452	2,538	2,490	3,091	14,399	128	151	304	207	26	-	816	15	15,230

Mission Rock Mixed-Use Project
SCENARIO A - (Low Residential/ High Commercial)

EXTERNAL ONLY TRIPS	SEAWALL LOT 337						PIER 48							China Basin Park Open Space	TOTAL DEVELOPMENT
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production	Subtotal Pier 48		
Weekday AM Peak Hour															
Auto Person Trips															
Superdistrict 1	71	30	5	3	65	175	1	-	1	1	0	-	2	0	177
Superdistrict 2	11	99	19	11	146	287	2	-	1	2	1	-	5	1	293
Superdistrict 3	57	100	19	13	119	308	2	-	2	2	1	-	7	0	315
Superdistrict 4	11	96	20	12	99	238	1	-	2	2	1	-	5	0	243
East Bay	53	180	38	22	175	468	3	-	3	3	1	-	10	1	478
North Bay	8	72	14	8	116	217	1	-	1	1	0	-	4	0	221
South Bay	132	166	35	21	141	496	2	-	3	3	1	-	9	1	505
Outside of Bay Area	-	44	4	2	237	287	3	-	0	0	0	-	4	1	291
All Origins	343	788	154	92	1,098	2,475	14	-	12	14	5	-	45	4	2,524
Transit Person Trips															
Superdistrict 1	136	69	13	9	88	315	1	-	1	2	0	-	5	0	320
Superdistrict 2	20	191	41	24	166	441	3	-	3	3	1	-	10	1	452
Superdistrict 3	109	132	26	18	115	400	2	-	3	3	1	-	9	0	409
Superdistrict 4	20	120	26	15	80	261	2	-	2	2	1	-	6	0	267
East Bay	66	243	55	32	102	497	4	-	4	4	1	-	14	0	511
North Bay	4	52	12	7	19	93	1	-	1	1	0	-	3	0	96
South Bay	157	112	25	15	62	370	2	-	2	2	1	-	6	0	376
Outside of Bay Area	-	35	4	2	160	201	0	-	0	0	0	-	1	1	203
All Origins	511	953	201	121	792	2,578	14	-	17	18	6	-	54	3	2,635
Walk/Other Person trips															
Superdistrict 1	145	123	18	12	350	648	1	-	2	2	1	-	6	1	656
Superdistrict 2	21	24	2	1	146	194	0	-	0	0	0	-	0	1	195
Superdistrict 3	116	22	3	2	72	214	0	-	0	0	0	-	1	0	215
Superdistrict 4	21	14	2	1	55	93	0	-	0	0	0	-	0	0	94
East Bay	12	26	3	2	97	140	0	-	0	0	0	-	1	0	142
North Bay	-	6	0	0	30	37	0	-	0	0	0	-	0	0	37
South Bay	25	8	1	0	35	69	0	-	0	0	0	-	0	0	69
Outside of Bay Area	-	32	0	0	263	296	0	-	0	0	0	-	0	1	297
All Origins	340	254	30	19	1,048	1,691	2	-	3	3	1	-	10	4	1,705
Total Person trips															
Superdistrict 1	352	223	36	24	503	1,138	3	-	4	4	1	-	13	2	1,154
Superdistrict 2	52	314	62	36	457	921	4	-	5	5	2	-	16	2	939
Superdistrict 3	281	253	48	33	306	921	4	-	5	6	1	-	17	1	939
Superdistrict 4	52	230	48	28	234	592	3	-	4	4	1	-	12	1	605
East Bay	131	449	96	56	374	1,106	6	-	7	8	3	-	24	2	1,131
North Bay	12	130	26	15	165	348	2	-	2	2	1	-	7	1	355
South Bay	313	286	61	36	238	934	4	-	5	5	2	-	15	1	951
Outside of Bay Area	-	111	8	5	660	784	3	-	1	1	1	-	5	3	791
All Origins	1,193	1,995	385	233	2,938	6,743	30	-	32	35	12	-	109	12	6,864
Vehicle trips															
Superdistrict 1	64	21	4	3	29	121	1	-	0	0	0	-	2	0	123
Superdistrict 2	9	75	16	9	72	182	1	-	1	1	0	-	4	0	187
Superdistrict 3	52	73	15	10	52	201	1	-	2	2	0	-	5	0	206
Superdistrict 4	9	61	13	8	52	144	1	-	1	1	0	-	3	0	147
East Bay	48	56	11	7	71	193	1	-	1	1	0	-	3	0	196
North Bay	7	41	8	5	61	122	1	-	1	1	0	-	2	0	125
South Bay	119	129	29	17	62	356	2	-	2	2	1	-	7	0	363
Outside of Bay Area	-	19	2	1	75	98	3	-	0	0	0	-	3	0	102
All Origins	309	476	98	59	474	1,417	11	-	8	9	3	-	30	2	1,449

Mission Rock Mixed-Use Project
SCENARIO A - (Low Residential/ High Commercial)

EXTERNAL ONLY TRIPS	SEAWALL LOT 337						PIER 48							China Basin Park Open Space	TOTAL DEVELOPMENT
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production	Subtotal Pier 48		
Weekday PM Peak Hour															
Auto Person Trips															
Superdistrict 1	36	14	15	42	47	154	1	4	6	3	0	-	14	0	169
Superdistrict 2	13	95	34	103	133	378	2	7	6	3	1	-	18	0	396
Superdistrict 3	29	47	12	77	86	251	2	8	5	2	0	-	17	0	268
Superdistrict 4	13	92	19	70	90	285	1	4	3	2	1	-	11	0	296
East Bay	65	172	72	124	159	592	3	8	13	6	1	-	30	0	623
North Bay	10	69	39	82	105	304	1	5	7	3	0	-	17	0	321
South Bay	160	159	99	100	129	647	2	6	18	8	1	-	36	0	683
Outside of Bay Area	-	42	229	168	216	656	3	11	41	19	0	-	74	1	731
All Origins	325	689	519	768	967	3,268	14	54	100	45	4	-	217	3	3,488
Transit Person Trips															
Superdistrict 1	68	33	12	58	64	235	1	6	5	2	0	-	15	0	250
Superdistrict 2	24	182	42	118	151	518	3	7	8	3	1	-	22	0	540
Superdistrict 3	54	62	9	75	84	284	2	7	4	2	0	-	15	0	300
Superdistrict 4	24	114	20	56	73	288	2	3	4	2	1	-	11	0	299
East Bay	80	232	49	73	93	526	4	4	9	4	1	-	22	0	548
North Bay	5	50	16	13	17	101	1	1	3	1	0	-	6	0	107
South Bay	190	107	22	44	56	419	2	3	4	2	1	-	11	0	430
Outside of Bay Area	-	34	53	113	146	345	0	8	9	4	0	-	22	0	367
All Origins	446	813	223	549	684	2,715	14	39	45	21	5	-	123	2	2,841
Walk/Other Person trips															
Superdistrict 1	72	58	54	228	254	667	1	23	23	11	0	-	59	1	727
Superdistrict 2	26	23	44	103	133	329	0	7	8	4	0	-	19	0	348
Superdistrict 3	58	10	16	47	52	183	0	5	7	3	0	-	15	0	198
Superdistrict 4	26	14	16	39	50	144	0	3	3	1	0	-	7	0	151
East Bay	15	25	68	68	88	264	0	5	12	6	0	-	23	0	287
North Bay	-	5	29	22	28	84	0	1	5	2	0	-	9	0	93
South Bay	30	7	15	25	32	110	0	2	3	1	0	-	6	0	116
Outside of Bay Area	-	31	338	187	240	795	0	13	61	28	0	-	101	1	897
All Origins	227	173	580	718	877	2,575	2	58	122	55	1	-	238	3	2,816
Total Person trips															
Superdistrict 1	176	105	81	328	366	1,056	3	33	35	16	1	-	88	1	1,145
Superdistrict 2	63	300	121	324	417	1,225	4	21	22	10	2	-	59	1	1,285
Superdistrict 3	141	119	36	199	223	718	4	20	16	7	1	-	47	1	766
Superdistrict 4	63	220	55	166	213	716	3	11	10	4	1	-	29	1	747
East Bay	160	429	189	265	341	1,383	6	17	34	15	2	-	75	1	1,459
North Bay	15	124	83	117	150	488	2	8	15	7	1	-	32	0	521
South Bay	381	273	136	169	217	1,176	4	11	25	11	2	-	52	1	1,229
Outside of Bay Area	-	106	620	468	602	1,796	3	32	111	51	1	-	197	2	1,995
All Origins	997	1,675	1,322	2,036	2,528	8,558	30	150	267	122	10	-	579	8	9,145
Vehicle trips															
Superdistrict 1	32	10	9	19	21	91	1	2	4	2	0	-	8	0	99
Superdistrict 2	12	72	21	51	66	222	1	3	4	2	0	-	11	0	233
Superdistrict 3	26	34	6	34	38	137	1	3	3	1	0	-	8	0	146
Superdistrict 4	12	59	13	37	48	168	1	2	2	1	0	-	7	0	175
East Bay	58	54	30	50	64	257	1	3	5	2	0	-	12	0	269
North Bay	9	40	17	43	55	164	1	3	3	1	0	-	8	0	173
South Bay	145	123	37	44	56	406	2	3	7	3	1	-	15	0	421
Outside of Bay Area	-	18	74	53	69	214	3	4	13	6	0	-	26	0	240
All Origins	293	409	207	331	417	1,659	11	23	41	19	2	-	95	1	1,755

INDIVIDUAL LAND USE TRIP GENERATION CALCULATIONS

Mission Rock Mixed-Use Project
 SCENARIO A (Low Residential/ High Commercial)
 LAND USE: RESIDENTIAL (WORK TRIPS)

Proposed Size:		1,048 units					
DAILY				AM PEAK HOUR		PM PEAK HOUR	
Person-trip Generation Rate [1]:		10.0 trips/unit		Person-trip Gen Rate: 14.2% [5] 1.4		17.3% [1] 1.7	
Total Person-trips:		10,480 person-trips		Total Person-trips:		1,491 1,813	
Work Trips [2]: 33%		3,458 person-trips		Work Person-trips: 50% [6] 746		50% [2] 907	

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [4]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 34.7%	Auto	20.3%	1.11	244	220	53	47	64	58
	Transit	38.6%		463		100		121	
	Walk	34.7%		416		90		109	
	Other	6.4%		77		17		20	
	All Modes	100.0%		1,200	220	259	47	315	58
SF Superdistrict 2 3.5%	Auto	20.3%	1.11	24	22	5	5	6	6
	Transit	38.6%		46		10		12	
	Walk	34.7%		42		9		11	
	Other	6.4%		8		2		2	
	All Modes	100.0%		120	22	26	5	31	6
SF Superdistrict 3 27.8%	Auto	20.3%	1.11	195	176	42	38	51	46
	Transit	38.6%		371		80		97	
	Walk	34.7%		333		72		87	
	Other	6.4%		61		13		16	
	All Modes	100.0%		960	176	207	38	252	46
SF Superdistrict 4 3.5%	Auto	20.3%	1.11	24	22	5	5	6	6
	Transit	38.6%		46		10		12	
	Walk	34.7%		42		9		11	
	Other	6.4%		8		2		2	
	All Modes	100.0%		120	22	26	5	31	6
East Bay 8.8%	Auto	40.6%	1.11	124	112	27	24	32	29
	Transit	50.0%		152		33		40	
	Walk	0.0%		0		0		0	
	Other	9.4%		29		6		7	
	All Modes	100.0%		304	112	66	24	80	29
North Bay 0.8%	Auto	66.7%	1.11	18	17	4	4	5	4
	Transit	33.3%		9		2		2	
	Walk	0.0%		0		0		0	
	Other	0.0%		0		0		0	
	All Modes	100.0%		28	17	6	4	7	4
South Bay 21.0%	Auto	42.1%	1.11	306	276	66	60	80	72
	Transit	50.0%		363		78		95	
	Walk	0.0%		0		0		0	
	Other	7.9%		57		12		15	
	All Modes	100.0%		726	276	157	60	190	72
Outside of Bay Area 0.0%	Auto	0.0%	1.11	0	0	0	0	0	0
	Transit	0.0%		0		0		0	
	Walk	0.0%		0		0		0	
	Other	0.0%		0		0		0	
	All Modes	0.0%		0	0	0	0	0	0
All Origins 100.0%	Auto	27.0%	1.11	935	844	202	182	245	221
	Transit	42.0%		1,451		313		380	
	Walk	24.1%		833		180		218	
	Other	6.9%		240		52		63	
	All Modes	100.0%		3,458	844	746	182	907	221

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (Residential)
 [2] SF Guidelines, Appendix C - Table C-2 (Residential)
 [3] 2008 San Francisco Planning Department Travel Behavior Survey for South Beach/South Park/Rincon Hill Area
 [4] 2008-2012 American Community Survey 5-Year Estimate (Tract 607)
 [5] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [6] The AM Peak Hour % of work/non-work trips are assumed to be the same as the PM Peak Hour % shown in Table C-2 of the SF Guidelines

Mission Rock Mixed-Use Project
 SCENARIO A (Low Residential/ High Commercial)
 LAND USE: RESIDENTIAL (NON-WORK TRIPS)

Proposed Size:		1,048 units					
DAILY				AM PEAK HOUR		PM PEAK HOUR	
Person-trip Generation Rate [1]:		10.0 trips/unit		Person-trip Gen Rate: 14.2% [5] 1.4		17.3% [1] 1.7	
Total Person-trips:		10,480 person-trips		Total Person-trips:		1,491 1,813	
Non-Work Trips [2]: 67%		7,022 person-trips		Non-Work Person-trips: 50% [6] 746		50% [2] 907	

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [4]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 34.7%	Auto	20.3%	1.11	495	447	53	47	64	58
	Transit	38.6%		940		100		121	
	Walk	34.7%		845		90		109	
	Other	6.4%		156		17		20	
	All Modes	100.0%		2,436	447	259	47	315	58
SF Superdistrict 2 3.5%	Auto	20.3%	1.11	49	45	5	5	6	6
	Transit	38.6%		94		10		12	
	Walk	34.7%		85		9		11	
	Other	6.4%		16		2		2	
	All Modes	100.0%		244	45	26	5	31	6
SF Superdistrict 3 27.8%	Auto	20.3%	1.11	396	357	42	38	51	46
	Transit	38.6%		752		80		97	
	Walk	34.7%		676		72		87	
	Other	6.4%		125		13		16	
	All Modes	100.0%		1,949	357	207	38	252	46
SF Superdistrict 4 3.5%	Auto	20.3%	1.11	49	45	5	5	6	6
	Transit	38.6%		94		10		12	
	Walk	34.7%		85		9		11	
	Other	6.4%		16		2		2	
	All Modes	100.0%		244	45	26	5	31	6
East Bay 8.8%	Auto	40.6%	1.11	251	227	27	24	32	29
	Transit	50.0%		309		33		40	
	Walk	0.0%		0		0		0	
	Other	9.4%		58		6		7	
	All Modes	100.0%		618	227	66	24	80	29
North Bay 0.8%	Auto	66.7%	1.11	37	34	4	4	5	4
	Transit	33.3%		19		2		2	
	Walk	0.0%		0		0		0	
	Other	0.0%		0		0		0	
	All Modes	100.0%		56	34	6	4	7	4
South Bay 21.0%	Auto	42.1%	1.11	621	560	66	60	80	72
	Transit	50.0%		737		78		95	
	Walk	0.0%		0		0		0	
	Other	7.9%		116		12		15	
	All Modes	100.0%		1,475	560	157	60	190	72
Outside of Bay Area 0.0%	Auto	0.0%	1.11	0	0	0	0	0	0
	Transit	0.0%		0		0		0	
	Walk	0.0%		0		0		0	
	Other	0.0%		0		0		0	
	All Modes	0.0%		0	0	0	0	0	0
All Origins 100.0%	Auto	27.0%	1.11	1,898	1,714	202	182	245	221
	Transit	42.0%		2,946		313		380	
	Walk	24.1%		1,691		180		218	
	Other	6.9%		486		52		63	
	All Modes	100.0%		7,022	1,714	746	182	907	221

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (Residential)
 [2] SF Guidelines, Appendix C - Table C-2 (Residential)
 [3] 2008 San Francisco Planning Department Travel Behavior Survey for South Beach/South Park/Rincon Hill Area
 [4] 2008-2012 American Community Survey 5-Year Estimate (Tract 607)
 [5] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [6] The AM Peak Hour % of work/non-work trips are assumed to be the same as the PM Peak Hour % shown in Table C-2 of the SF Guidelines

Mission Rock Mixed-Use Project

SCENARIO A (Low Residential/ High Commercial)

LAND USE: GENERAL OFFICE (WORK TRIPS)

Proposed Size: 1,361,181 sq.ft.					
DAILY					
Person-trip Generation Rate [1]:	18.1 trips/1,000 gsf	Person-trip Gen Rate:	AM PEAK HOUR 8.9% [4] 1.6	PM PEAK HOUR 8.5% [1] 1.5	
Total Person-trips:	24,637 person-trips	Total Person-trips:	2,193	2,094	
Work Trips [2]: 36%	8,869 person-trips	Work Person-trips:	83% [5] 1,820	83% [2] 1,738	

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 12.8%	Auto	13.8%	1.28	157	122	32	25	31	24
	Transit	36.0%		409		84		80	
	Walk	47.5%		539		111		106	
	Other	2.7%		31		6		6	
	All Modes	100.0%		1,135	122	233	25	222	24
SF Superdistrict 2 14.4%	Auto	31.6%	1.23	404	328	83	67	79	64
	Transit	65.8%		840		172		165	
	Walk	1.3%		17		3		3	
	Other	1.3%		17		3		3	
	All Modes	100.0%		1,277	328	262	67	250	64
SF Superdistrict 3 17.0%	Auto	39.5%	1.29	596	462	122	95	117	90
	Transit	54.4%		820		168		161	
	Walk	3.8%		57		12		11	
	Other	2.3%		35		7		7	
	All Modes	100.0%		1,508	462	309	95	295	90
SF Superdistrict 4 11.2%	Auto	41.7%	1.53	414	271	85	56	81	53
	Transit	54.5%		541		111		106	
	Walk	0.0%		0		0		0	
	Other	3.8%		38		8		7	
	All Modes	100.0%		993	271	204	56	195	53
East Bay 22.4%	Auto	39.4%	3.33	783	235	161	48	153	46
	Transit	57.0%		1,132		232		222	
	Walk	0.0%		0		0		0	
	Other	3.6%		72		15		14	
	All Modes	100.0%		1,987	235	408	48	389	46
North Bay 6.1%	Auto	52.8%	1.70	286	168	59	34	56	33
	Transit	45.3%		245		50		48	
	Walk	0.0%		0		0		0	
	Other	1.9%		10		2		2	
	All Modes	100.0%		541	168	111	34	106	33
South Bay 14.3%	Auto	58.0%	1.23	736	598	151	123	144	117
	Transit	40.7%		516		106		101	
	Walk	0.0%		0		0		0	
	Other	1.3%		16		3		3	
	All Modes	100.0%		1,268	598	260	123	249	117
Outside of Bay Area 1.8%	Auto	47.8%	1.50	76	51	16	10	15	10
	Transit	50.0%		80		16		16	
	Walk	0.0%		0		0		0	
	Other	2.2%		4		1		1	
	All Modes	100.0%		160	51	33	10	31	10
All Origins 100.0%	Auto	38.9%	1.54	3,450	2,235	708	459	676	438
	Transit	51.7%		4,584		941		898	
	Walk	6.9%		613		126		120	
	Other	2.5%		221		45		43	
	All Modes	100.0%		8,869	2,235	1,820	459	1,738	438

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (General Office)
 [2] SF Guidelines, Appendix C - Table C-2 (General Office)
 [3] SF Guidelines, Appendix E - Table E-3 Work Trips to SD1 (All)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] The AM Peak Hour % of work/non-work trips are assumed to be the same as the PM Peak Hour % shown in Table C-2 of the SF Guidelines

Mission Rock Mixed-Use Project

SCENARIO A (Low Residential/ High Commercial)

LAND USE: GENERAL OFFICE (NON-WORK TRIPS)

Proposed Size: 1,361,181 sq.ft.					
DAILY					
Person-trip Generation Rate [1]:	18.1 trips/1,000 gsf	Person-trip Gen Rate:	AM PEAK HOUR 8.9% [4] 1.6	PM PEAK HOUR 8.5% [1] 1.5	
Total Person-trips:	24,637 person-trips	Total Person-trips:	2,193	2,094	
Non-Work Trips [2]: 64%	15,768 person-trips	Non-Work Person-trips:	17% [5] 373	17% [2] 356	

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 22.0%	Auto	12.9%	2.29	447	195	11	5	10	4
	Transit	17.1%		593		14		13	
	Walk	65.3%		2,265		54		51	
	Other	4.7%		163		4		4	
	All Modes	100.0%		3,469	195	82	5	78	4
SF Superdistrict 2 14.0%	Auto	31.9%	2.07	704	340	17	8	16	8
	Transit	35.0%		773		18		17	
	Walk	26.7%		589		14		13	
	Other	6.4%		141		3		3	
	All Modes	100.0%		2,208	340	52	8	50	8
SF Superdistrict 3 13.0%	Auto	38.8%	2.39	795	333	19	8	18	8
	Transit	36.8%		754		18		17	
	Walk	17.4%		357		8		8	
	Other	7.0%		143		3		3	
	All Modes	100.0%		2,050	333	48	8	46	8
SF Superdistrict 4 7.0%	Auto	42.5%	1.93	469	243	11	6	11	5
	Transit	32.7%		361		9		8	
	Walk	17.7%		195		5		4	
	Other	7.1%		78		2		2	
	All Modes	100.0%		1,104	243	26	6	25	5
East Bay 11.0%	Auto	47.4%	2.43	822	338	19	8	19	8
	Transit	24.9%		432		10		10	
	Walk	25.4%		441		10		10	
	Other	2.3%		40		1		1	
	All Modes	100.0%		1,734	338	41	8	39	8
North Bay 5.0%	Auto	71.1%	1.91	561	293	13	7	13	7
	Transit	9.6%		76		2		2	
	Walk	15.8%		125		3		3	
	Other	3.5%		28		1		1	
	All Modes	100.0%		788	293	19	7	18	7
South Bay 7.0%	Auto	59.5%	2.46	657	267	16	6	15	6
	Transit	24.6%		272		6		6	
	Walk	13.5%		149		4		3	
	Other	2.4%		26		1		1	
	All Modes	100.0%		1,104	267	26	6	25	6
Outside of Bay Area 21.0%	Auto	35.9%	3.17	1,189	375	28	9	27	8
	Transit	24.1%		798		19		18	
	Walk	27.7%		917		22		21	
	Other	12.3%		407		10		9	
	All Modes	100.0%		3,311	375	78	9	75	8
All Origins 100.0%	Auto	35.8%	2.37	5,644	2,385	133	56	127	54
	Transit	25.7%		4,058		96		92	
	Walk	32.0%		5,038		119		114	
	Other	6.5%		1,027		24		23	
	All Modes	100.0%		15,768	2,385	373	56	356	54

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (General Office)
 [2] SF Guidelines, Appendix C - Table C-2 (General Office)
 [3] SF Guidelines, Appendix E - Table E-11 Visitor Trips to SD1 (All Other)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] The AM Peak Hour % of work/non-work trips are assumed to be the same as the PM Peak Hour % shown in Table C-2 of the SF Guidelines

Mission Rock Mixed-Use Project

SCENARIO A (Low Residential/ High Commercial)

LAND USE: GENERAL RETAIL (WORK TRIPS)

Proposed Size: 122,388 sq.ft.						
DAILY		AM PEAK HOUR		PM PEAK HOUR		
Person-trip Generation Rate [1]:	150.0 trips/1,000 gsf	Person-trip Gen Rate:	2.3% [4]	3.5	9.0% [1]	13.5
Total Person-trips:	18,358 person-trips	Total Person-trips:	428	428	1,652	1,652
Work Trips [2]: 4%	734 person-trips	Work Person-trips:	100% [5]	428	4% [2]	66

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 12.8%	Auto	13.8%	1.28	13	10	8	6	1	1
	Transit	36.0%		34	20	3	3		
	Walk	47.5%		45	26	4	4		
	Other	2.7%		3	1	0	0		
	All Modes	100.0%		94	10	55	6	8	1
SF Superdistrict 2 14.4%	Auto	31.6%	1.23	33	27	19	16	3	2
	Transit	65.8%		70	41	6	6		
	Walk	1.3%		1	1	0	0		
	Other	1.3%		1	1	0	0		
	All Modes	100.0%		106	27	62	16	10	2
SF Superdistrict 3 17.0%	Auto	39.5%	1.29	49	38	29	22	4	3
	Transit	54.4%		68	40	6	6		
	Walk	3.8%		5	3	0	0		
	Other	2.3%		3	2	0	0		
	All Modes	100.0%		125	38	73	22	11	3
SF Superdistrict 4 11.2%	Auto	41.7%	1.53	34	22	20	13	3	2
	Transit	54.5%		45	26	4	4		
	Walk	0.0%		0	0	0	0		
	Other	3.8%		3	2	0	0		
	All Modes	100.0%		82	22	48	13	7	2
East Bay 22.4%	Auto	39.4%	3.33	65	19	38	11	6	2
	Transit	57.0%		94	55	8	8		
	Walk	0.0%		0	0	0	0		
	Other	3.6%		6	3	1	1		
	All Modes	100.0%		164	19	96	11	15	2
North Bay 6.1%	Auto	52.8%	1.70	24	14	14	8	2	1
	Transit	45.3%		20	12	2	2		
	Walk	0.0%		0	0	0	0		
	Other	1.9%		1	0	0	0		
	All Modes	100.0%		45	14	26	8	4	1
South Bay 14.3%	Auto	58.0%	1.23	61	50	35	29	5	4
	Transit	40.7%		43	25	4	4		
	Walk	0.0%		0	0	0	0		
	Other	1.3%		1	1	0	0		
	All Modes	100.0%		105	50	61	29	9	4
Outside of Bay Area 1.8%	Auto	47.8%	1.50	6	4	4	2	1	0
	Transit	50.0%		7	4	1	1		
	Walk	0.0%		0	0	0	0		
	Other	2.2%		0	0	0	0		
	All Modes	100.0%		13	4	8	2	1	0
All Origins 100.0%	Auto	38.9%	1.54	286	185	166	108	26	17
	Transit	51.7%		380	221	34	34		
	Walk	6.9%		51	30	5	5		
	Other	2.5%		18	11	2	2		
	All Modes	100.0%		734	185	428	108	66	17

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (General Retail)
 [2] SF Guidelines, Appendix C - Table C-2 (Retail)
 [3] SF Guidelines, Appendix E - Table E-3 Work Trips to SD1 (All)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] All retail trips occurring before 9 AM are assumed to be work trips

Mission Rock Mixed-Use Project

SCENARIO A (Low Residential/ High Commercial)

LAND USE: GENERAL RETAIL (NON-WORK TRIPS)

Proposed Size: 122,388 sq.ft.						
DAILY		AM PEAK HOUR		PM PEAK HOUR		
Person-trip Generation Rate [1]:	150.0 trips/1,000 gsf	Person-trip Gen Rate:	2.3% [4]	3.5	9.0% [1]	13.5
Total Person-trips:	18,358 person-trips	Total Person-trips:	428	428	1,652	1,652
Non-Work Trips [2]: 96%	17,624 person-trips	Non-Work Person-trips:	0% [5]	0	96% [2]	1,586

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 19.0%	Auto	18.1%	1.62	606	374	0	0	55	34
	Transit	14.7%		492	0	0	44		
	Walk	63.0%		2,110	0	0	190		
	Other	4.2%		141	0	0	13		
	All Modes	100.0%		3,349	374	0	0	301	34
SF Superdistrict 2 7.0%	Auto	27.9%	1.66	344	207	0	0	31	19
	Transit	32.6%		402	0	0	36		
	Walk	34.1%		421	0	0	38		
	Other	5.4%		67	0	0	6		
	All Modes	100.0%		1,234	207	0	0	111	19
SF Superdistrict 3 8.0%	Auto	31.2%	2.08	440	211	0	0	40	19
	Transit	21.7%		306	0	0	28		
	Walk	41.3%		582	0	0	52		
	Other	5.8%		82	0	0	7		
	All Modes	100.0%		1,410	211	0	0	127	19
SF Superdistrict 4 3.0%	Auto	34.0%	1.51	180	119	0	0	16	11
	Transit	34.0%		180	0	0	16		
	Walk	28.0%		148	0	0	13		
	Other	4.0%		21	0	0	2		
	All Modes	100.0%		529	119	0	0	48	11
East Bay 11.0%	Auto	38.1%	2.35	739	314	0	0	66	28
	Transit	23.2%		450	0	0	40		
	Walk	36.6%		710	0	0	64		
	Other	2.1%		41	0	0	4		
	All Modes	100.0%		1,939	314	0	0	174	28
North Bay 5.0%	Auto	46.1%	2.27	406	179	0	0	37	16
	Transit	17.6%		155	0	0	14		
	Walk	34.1%		300	0	0	27		
	Other	2.2%		19	0	0	2		
	All Modes	100.0%		881	179	0	0	79	16
South Bay 8.0%	Auto	73.8%	2.84	1,041	366	0	0	94	33
	Transit	14.1%		199	0	0	18		
	Walk	10.1%		142	0	0	13		
	Other	2.0%		28	0	0	3		
	All Modes	100.0%		1,410	366	0	0	127	33
Outside of Bay Area 39.0%	Auto	37.0%	3.12	2,543	815	0	0	229	73
	Transit	8.4%		577	0	0	52		
	Walk	28.3%		1,945	0	0	175		
	Other	26.3%		1,808	0	0	163		
	All Modes	100.0%		6,873	815	0	0	619	73
All Origins 100.0%	Auto	35.7%	2.43	6,298	2,587	0	0	567	233
	Transit	15.7%		2,761	0	0	249		
	Walk	36.1%		6,358	0	0	572		
	Other	12.5%		2,206	0	0	199		
	All Modes	100.0%		17,624	2,587	0	0	1,586	233

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (General Retail)
 [2] SF Guidelines, Appendix C - Table C-2 (Retail)
 [3] SF Guidelines, Appendix E - Table E-10 Visitor Trips to SD1 (Retail)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] All retail trips occurring before 9 AM are assumed to be work trips

Mission Rock Mixed-Use Project

SCENARIO A (Low Residential/ High Commercial)

LAND USE: QUALITY RESTAURANT (WORK TRIPS)

Proposed Size: 85,672 sq.ft.						
DAILY		AM PEAK HOUR		PM PEAK HOUR		
Person-trip Generation Rate [1]:	200.0 trips/1,000 gsf	Person-trip Gen Rate:	1.5% [4]	2.9	13.5% [1]	27.0
Total Person-trips:	17,134 person-trips	Total Person-trips:		250		2,313
Work Trips [2]: 4%	685 person-trips	Work Person-trips:	100% [5]	250	4% [2]	93

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 12.8%	Auto	13.8%	1.28	12	9	4	3	2	1
	Transit	36.0%		32		12		4	
	Walk	47.5%		42		15		6	
	Other	2.7%		2		1		0	
	All Modes	100.0%		88	9	32	3	12	1
SF Superdistrict 2 14.4%	Auto	31.6%	1.23	31	25	11	9	4	3
	Transit	65.8%		65		24		9	
	Walk	1.3%		1		0		0	
	Other	1.3%		1		0		0	
	All Modes	100.0%		99	25	36	9	13	3
SF Superdistrict 3 17.0%	Auto	39.5%	1.29	46	36	17	13	6	5
	Transit	54.4%		63		23		9	
	Walk	3.8%		4		2		1	
	Other	2.3%		3		1		0	
	All Modes	100.0%		117	36	43	13	16	5
SF Superdistrict 4 11.2%	Auto	41.7%	1.53	32	21	12	8	4	3
	Transit	54.5%		42		15		6	
	Walk	0.0%		0		0		0	
	Other	3.8%		3		1		0	
	All Modes	100.0%		77	21	28	8	10	3
East Bay 22.4%	Auto	39.4%	3.33	60	18	22	7	8	2
	Transit	57.0%		88		32		12	
	Walk	0.0%		0		0		0	
	Other	3.6%		6		2		1	
	All Modes	100.0%		154	18	56	7	21	2
North Bay 6.1%	Auto	52.8%	1.70	22	13	8	5	3	2
	Transit	45.3%		19		7		3	
	Walk	0.0%		0		0		0	
	Other	1.9%		1		0		0	
	All Modes	100.0%		42	13	15	5	6	2
South Bay 14.3%	Auto	58.0%	1.23	57	46	21	17	8	6
	Transit	40.7%		40		15		5	
	Walk	0.0%		0		0		0	
	Other	1.3%		1		0		0	
	All Modes	100.0%		98	46	36	17	13	6
Outside of Bay Area 1.8%	Auto	47.8%	1.50	6	4	2	1	1	1
	Transit	50.0%		6		2		1	
	Walk	0.0%		0		0		0	
	Other	2.2%		0		0		0	
	All Modes	100.0%		12	4	5	1	2	1
All Origins 100.0%	Auto	38.9%	1.54	267	173	97	63	36	23
	Transit	51.7%		354		129		48	
	Walk	6.9%		47		17		6	
	Other	2.5%		17		6		2	
	All Modes	100.0%		685	173	250	63	93	23

Notes:

- [1] SF Guidelines, Appendix C - Table C-1 (Quality Sit-down Restaurant)
- [2] SF Guidelines, Appendix C - Table C-2 (Retail)
- [3] SF Guidelines, Appendix E - Table E-3 Work Trips to SD1 (All)
- [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
- [5] All quality restaurant trips occurring before 9 AM are assumed to be work trips

Mission Rock Mixed-Use Project

SCENARIO A (Low Residential/ High Commercial)

LAND USE: QUALITY RESTAURANT (NON-WORK TRIPS)

Proposed Size: 85,672 sq.ft.						
DAILY		AM PEAK HOUR		PM PEAK HOUR		
Person-trip Generation Rate [1]:	200.0 trips/1,000 gsf	Person-trip Gen Rate:	1.5% [4]	2.9	13.5% [1]	27.0
Total Person-trips:	17,134 person-trips	Total Person-trips:		250		2,313
Non-Work Trips [2]: 96%	16,449 person-trips	Non-Work Person-trips:	0% [5]	0	96% [2]	2,221

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 22.0%	Auto	12.9%	2.29	467	204	0	0	63	28
	Transit	17.1%		619		0		84	
	Walk	65.3%		2,363		0		319	
	Other	4.7%		170		0		23	
	All Modes	100.0%		3,619	204	0	0	489	28
SF Superdistrict 2 14.0%	Auto	31.9%	2.07	735	355	0	0	99	48
	Transit	35.0%		806		0		109	
	Walk	26.7%		615		0		83	
	Other	6.4%		147		0		20	
	All Modes	100.0%		2,303	355	0	0	311	48
SF Superdistrict 3 13.0%	Auto	38.8%	2.39	830	347	0	0	112	47
	Transit	36.8%		787		0		106	
	Walk	17.4%		372		0		50	
	Other	7.0%		150		0		20	
	All Modes	100.0%		2,138	347	0	0	289	47
SF Superdistrict 4 7.0%	Auto	42.5%	1.93	489	254	0	0	66	34
	Transit	32.7%		377		0		51	
	Walk	17.7%		204		0		28	
	Other	7.1%		82		0		11	
	All Modes	100.0%		1,151	254	0	0	155	34
East Bay 11.0%	Auto	47.4%	2.43	858	353	0	0	116	48
	Transit	24.9%		451		0		61	
	Walk	25.4%		460		0		62	
	Other	2.3%		42		0		6	
	All Modes	100.0%		1,809	353	0	0	244	48
North Bay 5.0%	Auto	71.1%	1.91	585	306	0	0	79	41
	Transit	9.6%		79		0		11	
	Walk	15.8%		130		0		18	
	Other	3.5%		29		0		4	
	All Modes	100.0%		822	306	0	0	111	41
South Bay 7.0%	Auto	59.5%	2.46	685	278	0	0	92	38
	Transit	24.6%		283		0		38	
	Walk	13.5%		155		0		21	
	Other	2.4%		28		0		4	
	All Modes	100.0%		1,151	278	0	0	155	38
Outside of Bay Area 21.0%	Auto	35.9%	3.17	1,240	391	0	0	167	53
	Transit	24.1%		832		0		112	
	Walk	27.7%		957		0		129	
	Other	12.3%		425		0		57	
	All Modes	100.0%		3,454	391	0	0	466	53
All Origins 100.0%	Auto	35.8%	2.37	5,888	2,488	0	0	795	336
	Transit	25.7%		4,233		0		572	
	Walk	32.0%		5,256		0		710	
	Other	6.5%		1,072		0		145	
	All Modes	100.0%		16,449	2,488	0	0	2,221	336

Notes:

- [1] SF Guidelines, Appendix C - Table C-1 (Quality Sit-down Restaurant)
- [2] SF Guidelines, Appendix C - Table C-2 (Retail)
- [3] SF Guidelines, Appendix E - Table E-11 Visitor Trips to SD1 (All Other)
- [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
- [5] All quality restaurant trips occurring before 9 AM are assumed to be work trips

Mission Rock Mixed-Use Project
 SCENARIO A (Low Residential/ High Commercial)
 LAND USE: QUICK SERVICE RESTAURANT (WORK TRIPS)

Proposed Size: 36,717 sq.ft.					
DAILY		AM PEAK HOUR		PM PEAK HOUR	
Person-trip Generation Rate [1]:	600.0 trips/1,000 gsf	Person-trip Gen Rate:	14.8% [4] 88.9	13.5% [1]	81.0
Total Person-trips:	22,030 person-trips	Total Person-trips:	3,264		2,974
Work Trips [2]: 4%	881 person-trips	Work Person-trips:	4% [5] 131	4% [2]	119

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 12.8%	Auto	13.8%	1.28	16	12	2	2	2	2
	Transit	36.0%		41		6		5	
	Walk	47.5%		54		8		7	
	Other	2.7%		3		0		0	
	All Modes	100.0%		113	12	17	2	15	2
SF Superdistrict 2 14.4%	Auto	31.6%	1.23	40	33	6	5	5	4
	Transit	65.8%		83		12		11	
	Walk	1.3%		2		0		0	
	Other	1.3%		2		0		0	
	All Modes	100.0%		127	33	19	5	17	4
SF Superdistrict 3 17.0%	Auto	39.5%	1.29	59	46	9	7	8	6
	Transit	54.4%		81		12		11	
	Walk	3.8%		6		1		1	
	Other	2.3%		3		1		0	
	All Modes	100.0%		150	46	22	7	20	6
SF Superdistrict 4 11.2%	Auto	41.7%	1.53	41	27	6	4	6	4
	Transit	54.5%		54		8		7	
	Walk	0.0%		0		0		0	
	Other	3.8%		4		1		1	
	All Modes	100.0%		99	27	15	4	13	4
East Bay 22.4%	Auto	39.4%	3.33	78	23	12	3	10	3
	Transit	57.0%		113		17		15	
	Walk	0.0%		0		0		0	
	Other	3.6%		7		1		1	
	All Modes	100.0%		197	23	29	3	27	3
North Bay 6.1%	Auto	52.8%	1.70	28	17	4	2	4	2
	Transit	45.3%		24		4		3	
	Walk	0.0%		0		0		0	
	Other	1.9%		1		0		0	
	All Modes	100.0%		54	17	8	2	7	2
South Bay 14.3%	Auto	58.0%	1.23	73	59	11	9	10	8
	Transit	40.7%		51		8		7	
	Walk	0.0%		0		0		0	
	Other	1.3%		2		0		0	
	All Modes	100.0%		126	59	19	9	17	8
Outside of Bay Area 1.8%	Auto	47.8%	1.50	8	5	1	1	1	1
	Transit	50.0%		8		1		1	
	Walk	0.0%		0		0		0	
	Other	2.2%		0		0		0	
	All Modes	100.0%		16	5	2	1	2	1
All Origins 100.0%	Auto	38.9%	1.54	343	222	51	33	46	30
	Transit	51.7%		455		67		61	
	Walk	6.9%		61		9		8	
	Other	2.5%		22		3		3	
	All Modes	100.0%		881	222	131	33	119	30

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (Fast food restaurant)
 [2] SF Guidelines, Appendix C - Table C-2 (Retail)
 [3] SF Guidelines, Appendix E - Table E-3 Work Trips to SD1 (All)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] All retail trips occurring before 9 AM are assumed to be work trips

Mission Rock Mixed-Use Project
 SCENARIO A (Low Residential/ High Commercial)
 LAND USE: QUICK SERVICE REST. (NON-WORK TRIPS)

Proposed Size: 36,717 sq.ft.					
DAILY		AM PEAK HOUR		PM PEAK HOUR	
Person-trip Generation Rate [1]:	600.0 trips/1,000 gsf	Person-trip Gen Rate:	14.8% [4] 88.9	13.5% [1]	81.0
Total Person-trips:	22,030 person-trips	Total Person-trips:	3,264		2,974
Non-Work Trips [2]: 96%	21,149 person-trips	Non-Work Person-trips:	96% [5] 3,133	96% [2]	2,855

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 22.0%	Auto	12.9%	2.29	600	262	89	39	81	35
	Transit	17.1%		796		118		107	
	Walk	65.3%		3,038		450		410	
	Other	4.7%		219		32		30	
	All Modes	100.0%		4,653	262	689	39	628	35
SF Superdistrict 2 14.0%	Auto	31.9%	2.07	945	456	140	68	128	62
	Transit	35.0%		1,036		154		140	
	Walk	26.7%		791		117		107	
	Other	6.4%		189		28		26	
	All Modes	100.0%		2,961	456	439	68	400	62
SF Superdistrict 3 13.0%	Auto	38.8%	2.39	1,067	446	158	66	144	60
	Transit	36.8%		1,012		150		137	
	Walk	17.4%		478		71		65	
	Other	7.0%		192		29		26	
	All Modes	100.0%		2,749	446	407	66	371	60
SF Superdistrict 4 7.0%	Auto	42.5%	1.93	629	326	93	48	85	44
	Transit	32.7%		484		72		65	
	Walk	17.7%		262		39		35	
	Other	7.1%		105		16		14	
	All Modes	100.0%		1,480	326	219	48	200	44
East Bay 11.0%	Auto	47.4%	2.43	1,103	454	163	67	149	61
	Transit	24.9%		579		86		78	
	Walk	25.4%		591		88		80	
	Other	2.3%		54		8		7	
	All Modes	100.0%		2,326	454	345	67	314	61
North Bay 5.0%	Auto	71.1%	1.91	752	394	111	58	101	53
	Transit	9.6%		102		15		14	
	Walk	15.8%		167		25		23	
	Other	3.5%		37		5		5	
	All Modes	100.0%		1,057	394	157	58	143	53
South Bay 7.0%	Auto	59.5%	2.46	881	358	131	53	119	48
	Transit	24.6%		364		54		49	
	Walk	13.5%		200		30		27	
	Other	2.4%		36		5		5	
	All Modes	100.0%		1,480	358	219	53	200	48
Outside of Bay Area 21.0%	Auto	35.9%	3.17	1,594	503	236	75	215	68
	Transit	24.1%		1,070		159		144	
	Walk	27.7%		1,230		182		166	
	Other	12.3%		546		81		74	
	All Modes	100.0%		4,441	503	658	75	600	68
All Origins 100.0%	Auto	35.8%	2.37	7,570	3,199	1,122	474	1,022	432
	Transit	25.7%		5,443		806		735	
	Walk	32.0%		6,757		1,001		912	
	Other	6.5%		1,378		204		186	
	All Modes	100.0%		21,149	3,199	3,133	474	2,855	432

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (Fast food restaurant)
 [2] SF Guidelines, Appendix C - Table C-2 (Retail)
 [3] SF Guidelines, Appendix E - Table E-11 Visitor Trips to SD1 (All Other)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] All retail trips occurring before 9 AM are assumed to be work trips

Mission Rock Mixed-Use Project

LAND USE: PIER 48 BREWERY (WORK TRIPS)

Proposed Size:		75 employees	
DAILY			
Person-trip Generation Rate [1]:	3.0 trips/employee	Person-trip Gen Rate:	AM PEAK HOUR 12.4% [4] 0.4 12.4% [5] 0.4
Total Person-trips:	225 person-trips	Total Person-trips:	28 28
Work Trips [2]:	100%	Work Person-trips:	100% [2] 28 100% [2] 28

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 12.8%	Auto	13.8%	1.28	4	3	0	0	0	0
	Transit	36.0%		10	1	1	1	1	1
	Walk	47.5%		14	2	2	2	2	2
	Other	2.7%		1	0	0	0	0	0
	All Modes	100.0%		29	3	4	0	4	0
SF Superdistrict 2 14.4%	Auto	31.6%	1.23	10	8	1	1	1	1
	Transit	65.8%		21	3	3	3	3	3
	Walk	1.3%		0	0	0	0	0	0
	Other	1.3%		0	0	0	0	0	0
	All Modes	100.0%		32	8	4	1	4	1
SF Superdistrict 3 17.0%	Auto	39.5%	1.29	15	12	2	1	2	1
	Transit	54.4%		21	3	3	3	3	3
	Walk	3.8%		1	0	0	0	0	0
	Other	2.3%		1	0	0	0	0	0
	All Modes	100.0%		38	12	5	1	5	1
SF Superdistrict 4 11.2%	Auto	41.7%	1.53	11	7	1	1	1	1
	Transit	54.5%		14	2	2	2	2	2
	Walk	0.0%		0	0	0	0	0	0
	Other	3.8%		1	0	0	0	0	0
	All Modes	100.0%		25	7	3	1	3	1
East Bay 22.4%	Auto	39.4%	3.33	20	6	2	1	2	1
	Transit	57.0%		29	4	4	4	4	4
	Walk	0.0%		0	0	0	0	0	0
	Other	3.6%		2	0	0	0	0	0
	All Modes	100.0%		50	6	6	1	6	1
North Bay 6.1%	Auto	52.8%	1.70	7	4	1	1	1	1
	Transit	45.3%		6	1	1	1	1	1
	Walk	0.0%		0	0	0	0	0	0
	Other	1.9%		0	0	0	0	0	0
	All Modes	100.0%		14	4	2	1	2	1
South Bay 14.3%	Auto	58.0%	1.23	19	15	2	2	2	2
	Transit	40.7%		13	2	2	2	2	2
	Walk	0.0%		0	0	0	0	0	0
	Other	1.3%		0	0	0	0	0	0
	All Modes	100.0%		32	15	4	2	4	2
Outside of Bay Area 1.8%	Auto	47.8%	1.50	2	1	0	0	0	0
	Transit	50.0%		2	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	2.2%		0	0	0	0	0	0
	All Modes	100.0%		4	1	1	0	1	0
All Origins 100.0%	Auto	38.9%	1.54	88	57	11	7	11	7
	Transit	51.7%		116	14	14	14	14	14
	Walk	6.9%		16	2	2	2	2	2
	Other	2.5%		6	1	1	1	1	1
	All Modes	100.0%		225	57	28	7	28	7

- Notes:
 [1] Assumes that half of the employees will make four daily trips to/from the project site (e.g., for lunch, errands, etc.).
 [2] All employee trips are accounted for as work trips
 [3] SF Guidelines, Appendix E - Table E-3 Work Trips to SD1 (All)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] SF Guidelines, Appendix C - Table C-1 (Industrial/Manufacturing)

Mission Rock Mixed-Use Project

LAND USE: PIER 48 BREWERY (TRUCK TRIPS)

Proposed Size:		38 trucks per day	
DAILY			
Person-trip Generation Rate [1]:	2.0 trips/truck	Truck-trip Gen Rate:	AM PEAK HOUR 5.3% [4] 0.1 5.3% [4] 0.1
Total truck-trips:	76 truck-trips	Total Truck-trips:	4 4
Work Trips [2]:	100%	Work Truck-trips:	100% [2] 4 100% [2] 4

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution	Average Vehicle Occupancy	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 10.0%	Auto	100.0%	1.00	8	8	0	0	0	0
	Transit	0.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	0.0%		0	0	0	0	0	0
	All Modes	100.0%		8	8	0	0	0	0
SF Superdistrict 2 10.0%	Auto	100.0%	1.00	8	8	0	0	0	0
	Transit	0.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	0.0%		0	0	0	0	0	0
	All Modes	100.0%		8	8	0	0	0	0
SF Superdistrict 3 3.0%	Auto	100.0%	1.00	2	2	0	0	0	0
	Transit	0.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	0.0%		0	0	0	0	0	0
	All Modes	100.0%		2	2	0	0	0	0
SF Superdistrict 4 3.0%	Auto	100.0%	1.00	2	2	0	0	0	0
	Transit	0.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	0.0%		0	0	0	0	0	0
	All Modes	100.0%		2	2	0	0	0	0
East Bay 4.0%	Auto	100.0%	1.00	3	3	0	0	0	0
	Transit	0.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	0.0%		0	0	0	0	0	0
	All Modes	100.0%		3	3	0	0	0	0
North Bay 4.0%	Auto	100.0%	1.00	3	3	0	0	0	0
	Transit	0.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	0.0%		0	0	0	0	0	0
	All Modes	100.0%		3	3	0	0	0	0
South Bay 4.0%	Auto	100.0%	1.00	3	3	0	0	0	0
	Transit	0.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	0.0%		0	0	0	0	0	0
	All Modes	100.0%		3	3	0	0	0	0
Outside of Bay Area 62.0%	Auto	100.0%	1.00	47	47	2	2	2	2
	Transit	0.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	0.0%		0	0	0	0	0	0
	All Modes	100.0%		47	47	2	2	2	2
All Origins 100.0%	Auto	100.0%	1.00	76	76	4	4	4	4
	Transit	0.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	0.0%		0	0	0	0	0	0
	All Modes	100.0%		76	76	4	4	4	4

- Notes:
 [1] Each truck makes two one-way truck-trips to the brewery (one empty, one full)
 [2] All truck trips are considered work trips
 [3] SF 26%, Northern Calif (excluding SF) 22%, Southern Calif 9%, Out of State and International 43%
 [4] Based on two trucks arriving/departing during the peak hour.

Mission Rock Mixed-Use Project

LAND USE: PIER 48 BREWERY (VISITOR TRIPS)

Proposed Size:		500 daily visitors			
DAILY		AM PEAK HOUR		PM PEAK HOUR	
Person-trip Generation Rate [1]:	2.0 trips/visitor	Person-trip Gen Rate:	0.0% [4]	0.0	15.0% [5]
Total Person-trips:	1,000 person-trips	Total Person-trips:	0	0	150
Non-Work Trips [2]: 100%	1,000 person-trips	Non-Work Person-trips:	100% [2]	0	100% [2]

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 22.0%	Auto	12.9%	2.29	28	12	0	0	4	2
	Transit	17.1%		38		0		6	
	Walk	65.3%		144		0		22	
	Other	4.7%		10		0		2	
	All Modes	100.0%		220	12	0	0	33	2
SF Superdistrict 2 14.0%	Auto	31.9%	2.07	45	22	0	0	7	3
	Transit	35.0%		49		0		7	
	Walk	26.7%		37		0		6	
	Other	6.4%		9		0		1	
	All Modes	100.0%		140	22	0	0	21	3
SF Superdistrict 3 13.0%	Auto	38.8%	2.39	50	21	0	0	8	3
	Transit	36.8%		48		0		7	
	Walk	17.4%		23		0		3	
	Other	7.0%		9		0		1	
	All Modes	100.0%		130	21	0	0	20	3
SF Superdistrict 4 7.0%	Auto	42.5%	1.93	30	15	0	0	4	2
	Transit	32.7%		23		0		3	
	Walk	17.7%		12		0		2	
	Other	7.1%		5		0		1	
	All Modes	100.0%		70	15	0	0	11	2
East Bay 11.0%	Auto	47.4%	2.43	52	21	0	0	8	3
	Transit	24.9%		27		0		4	
	Walk	25.4%		28		0		4	
	Other	2.3%		3		0		0	
	All Modes	100.0%		110	21	0	0	17	3
North Bay 5.0%	Auto	71.1%	1.91	36	19	0	0	5	3
	Transit	9.6%		5		0		1	
	Walk	15.8%		8		0		1	
	Other	3.5%		2		0		0	
	All Modes	100.0%		50	19	0	0	8	3
South Bay 7.0%	Auto	59.5%	2.46	42	17	0	0	6	3
	Transit	24.6%		17		0		3	
	Walk	13.5%		9		0		1	
	Other	2.4%		2		0		0	
	All Modes	100.0%		70	17	0	0	11	3
Outside of Bay Area 21.0%	Auto	35.9%	3.17	75	24	0	0	11	4
	Transit	24.1%		51		0		8	
	Walk	27.7%		58		0		9	
	Other	12.3%		26		0		4	
	All Modes	100.0%		210	24	0	0	32	4
All Origins 100.0%	Auto	35.8%	2.37	358	151	0	0	54	23
	Transit	25.7%		257		0		39	
	Walk	32.0%		320		0		48	
	Other	6.5%		65		0		10	
	All Modes	100.0%		1,000	151	0	0	150	23

Notes:

- [1] Assumes that each visitor will make two daily trips to/from the project site.
- [2] All visitor trips are accounted for as non-work trips
- [3] SF Guidelines, Appendix E - Table E-11 Visitor Trips to SD1 (All Other)
- [4] Assumes that visits/tours of the brewery will start after 9 AM
- [5] One hour over a 10-hour day = 10%; increase by 50% for a more conservative analysis

Mission Rock Mixed-Use Project

LAND USE: PIER 48 RESTAURANT (WORK TRIPS)

Proposed Size: 11,000 sq.ft.						
DAILY		AM PEAK HOUR		PM PEAK HOUR		
Person-trip Generation Rate [1]:	200.0 trips/1,000 gsf	Person-trip Gen Rate:	1.5% [4]	2.9	13.5% [1]	27.0
Total Person-trips:	2,200 person-trips	Total Person-trips:		32		297
Work Trips [2]: 4%	88 person-trips	Work Person-trips:	100% [5]	32	4% [2]	12

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 12.8%	Auto	13.8%	1.28	2	1	1	0	0	0
	Transit	36.0%		4	1	1	1	1	1
	Walk	47.5%		5	2	2	1	1	1
	Other	2.7%		0	0	0	0	0	0
	All Modes	100.0%		11	1	4	0	2	0
SF Superdistrict 2 14.4%	Auto	31.6%	1.23	4	3	1	1	1	0
	Transit	65.8%		8	3	3	1	1	1
	Walk	1.3%		0	0	0	0	0	0
	Other	1.3%		0	0	0	0	0	0
	All Modes	100.0%		13	3	5	1	2	0
SF Superdistrict 3 17.0%	Auto	39.5%	1.29	6	5	2	2	1	1
	Transit	54.4%		8	3	3	1	1	1
	Walk	3.8%		1	0	0	0	0	0
	Other	2.3%		0	0	0	0	0	0
	All Modes	100.0%		15	5	5	2	2	1
SF Superdistrict 4 11.2%	Auto	41.7%	1.53	4	3	2	1	1	0
	Transit	54.5%		5	2	2	1	1	1
	Walk	0.0%		0	0	0	0	0	0
	Other	3.8%		0	0	0	0	0	0
	All Modes	100.0%		10	3	4	1	1	0
East Bay 22.4%	Auto	39.4%	3.33	8	2	3	1	1	0
	Transit	57.0%		11	4	4	2	2	2
	Walk	0.0%		0	0	0	0	0	0
	Other	3.6%		1	0	0	0	0	0
	All Modes	100.0%		20	2	7	1	3	0
North Bay 6.1%	Auto	52.8%	1.70	3	2	1	1	0	0
	Transit	45.3%		2	1	1	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	1.9%		0	0	0	0	0	0
	All Modes	100.0%		5	2	2	1	1	0
South Bay 14.3%	Auto	58.0%	1.23	7	6	3	2	1	1
	Transit	40.7%		5	2	2	1	1	1
	Walk	0.0%		0	0	0	0	0	0
	Other	1.3%		0	0	0	0	0	0
	All Modes	100.0%		13	6	5	2	2	1
Outside of Bay Area 1.8%	Auto	47.8%	1.50	1	1	0	0	0	0
	Transit	50.0%		1	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	2.2%		0	0	0	0	0	0
	All Modes	100.0%		2	1	1	0	0	0
All Origins 100.0%	Auto	38.9%	1.54	34	22	12	8	5	3
	Transit	51.7%		45	17	17	6	6	6
	Walk	6.9%		6	2	2	1	1	1
	Other	2.5%		2	1	1	0	0	0
	All Modes	100.0%		88	22	32	8	12	3

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (Quality Sit-down Restaurant)
 [2] SF Guidelines, Appendix C - Table C-2 (Retail)
 [3] SF Guidelines, Appendix E - Table E-3 Work Trips to SD1 (All)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] All quality restaurant trips occurring before 9 AM are assumed to be work trips

Mission Rock Mixed-Use Project

LAND USE: PIER 48 RESTAURANT (NON-WORK TRIPS)

Proposed Size: 11,000 sq.ft.						
DAILY		AM PEAK HOUR		PM PEAK HOUR		
Person-trip Generation Rate [1]:	200.0 trips/1,000 gsf	Person-trip Gen Rate:	1.5% [4]	2.9	13.5% [1]	27.0
Total Person-trips:	2,200 person-trips	Total Person-trips:		32		297
Non-Work Trips [2]: 96%	2,112 person-trips	Non-Work Person-trips:	0% [5]	0	96% [2]	285

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 19.0%	Auto	18.1%	1.62	73	45	0	0	10	6
	Transit	14.7%		59	0	0	8	8	
	Walk	63.0%		253	0	0	34	34	
	Other	4.2%		17	0	0	2	2	
	All Modes	100.0%		401	45	0	0	54	6
SF Superdistrict 2 7.0%	Auto	27.9%	1.66	41	25	0	0	6	3
	Transit	32.6%		48	0	0	7	7	
	Walk	34.1%		50	0	0	7	7	
	Other	5.4%		8	0	0	1	1	
	All Modes	100.0%		148	25	0	0	20	3
SF Superdistrict 3 8.0%	Auto	31.2%	2.08	53	25	0	0	7	3
	Transit	21.7%		37	0	0	5	5	
	Walk	41.3%		70	0	0	9	9	
	Other	5.8%		10	0	0	1	1	
	All Modes	100.0%		169	25	0	0	23	3
SF Superdistrict 4 3.0%	Auto	34.0%	1.51	22	14	0	0	3	2
	Transit	34.0%		22	0	0	3	3	
	Walk	28.0%		18	0	0	2	2	
	Other	4.0%		3	0	0	0	0	
	All Modes	100.0%		63	14	0	0	9	2
East Bay 11.0%	Auto	38.1%	2.35	89	38	0	0	12	5
	Transit	23.2%		54	0	0	7	7	
	Walk	36.6%		85	0	0	11	11	
	Other	2.1%		5	0	0	1	1	
	All Modes	100.0%		232	38	0	0	31	5
North Bay 5.0%	Auto	46.1%	2.27	49	21	0	0	7	3
	Transit	17.6%		19	0	0	3	3	
	Walk	34.1%		36	0	0	5	5	
	Other	2.2%		2	0	0	0	0	
	All Modes	100.0%		106	21	0	0	14	3
South Bay 8.0%	Auto	73.8%	2.84	125	44	0	0	17	6
	Transit	14.1%		24	0	0	3	3	
	Walk	10.1%		17	0	0	2	2	
	Other	2.0%		3	0	0	0	0	
	All Modes	100.0%		169	44	0	0	23	6
Outside of Bay Area 39.0%	Auto	37.0%	3.12	305	98	0	0	41	13
	Transit	8.4%		69	0	0	9	9	
	Walk	28.3%		233	0	0	31	31	
	Other	26.3%		217	0	0	29	29	
	All Modes	100.0%		824	98	0	0	111	13
All Origins 100.0%	Auto	35.7%	2.43	755	310	0	0	102	42
	Transit	15.7%		331	0	0	45	45	
	Walk	36.1%		762	0	0	103	103	
	Other	12.5%		264	0	0	36	36	
	All Modes	100.0%		2,112	310	0	0	285	42

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (Quality Sit-down Restaurant)
 [2] SF Guidelines, Appendix C - Table C-2 (Retail)
 [3] SF Guidelines, Appendix E - Table E-11 Visitor Trips to SD1 (All Other)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] All quality restaurant trips occurring before 9 AM are assumed to be work trips

Mission Rock Mixed-Use Project

LAND USE: PIER 48 MEZZANINE RETAIL (WORK TRIPS)

Proposed Size: 10,000 sq.ft.						
DAILY		AM PEAK HOUR		PM PEAK HOUR		
Person-trip Generation Rate [1]:	150.0 trips/1,000 gsf	Person-trip Gen Rate:	2.3% [4]	3.5	9.0% [1]	13.5
Total Person-trips:	1,500 person-trips	Total Person-trips:		35		135
Work Trips [2]: 4%	60 person-trips	Work Person-trips:	100% [5]	35	4% [2]	5

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 12.8%	Auto	13.8%	1.28	1	1	1	0	0	0
	Transit	36.0%		3	2	2	0	0	0
	Walk	47.5%		4	2	0	0	0	0
	Other	2.7%		0	0	0	0	0	0
	All Modes	100.0%		8	1	4	0	1	0
SF Superdistrict 2 14.4%	Auto	31.6%	1.23	3	2	2	1	0	0
	Transit	65.8%		6	3	3	1	0	0
	Walk	1.3%		0	0	0	0	0	0
	Other	1.3%		0	0	0	0	0	0
	All Modes	100.0%		9	2	5	1	1	0
SF Superdistrict 3 17.0%	Auto	39.5%	1.29	4	3	2	2	0	0
	Transit	54.4%		6	3	3	0	0	0
	Walk	3.8%		0	0	0	0	0	0
	Other	2.3%		0	0	0	0	0	0
	All Modes	100.0%		10	3	6	2	1	0
SF Superdistrict 4 11.2%	Auto	41.7%	1.53	3	2	2	1	0	0
	Transit	54.5%		4	2	2	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	3.8%		0	0	0	0	0	0
	All Modes	100.0%		7	2	4	1	1	0
East Bay 22.4%	Auto	39.4%	3.33	5	2	3	1	0	0
	Transit	57.0%		8	4	4	1	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	3.6%		0	0	0	0	0	0
	All Modes	100.0%		13	2	8	1	1	0
North Bay 6.1%	Auto	52.8%	1.70	2	1	1	1	0	0
	Transit	45.3%		2	1	1	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	1.9%		0	0	0	0	0	0
	All Modes	100.0%		4	1	2	1	0	0
South Bay 14.3%	Auto	58.0%	1.23	5	4	3	2	0	0
	Transit	40.7%		3	2	2	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	1.3%		0	0	0	0	0	0
	All Modes	100.0%		9	4	5	2	1	0
Outside of Bay Area 1.8%	Auto	47.8%	1.50	1	0	0	0	0	0
	Transit	50.0%		1	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	2.2%		0	0	0	0	0	0
	All Modes	100.0%		1	0	1	0	0	0
All Origins 100.0%	Auto	38.9%	1.54	23	15	14	9	2	1
	Transit	51.7%		31	18	18	3	0	0
	Walk	6.9%		4	2	2	0	0	0
	Other	2.5%		1	1	1	0	0	0
	All Modes	100.0%		60	15	35	9	5	1

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (General Retail)
 [2] SF Guidelines, Appendix C - Table C-2 (Retail)
 [3] SF Guidelines, Appendix E - Table E-3 Work Trips to SD1 (All)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] All retail trips occurring before 9 AM are assumed to be work trips

Mission Rock Mixed-Use Project

LAND USE: PIER 48 MEZZANINE RETAIL (NON-WORK TRIPS)

Proposed Size: 10,000 sq.ft.						
DAILY		AM PEAK HOUR		PM PEAK HOUR		
Person-trip Generation Rate [1]:	150.0 trips/1,000 gsf	Person-trip Gen Rate:	2.3% [4]	3.5	9.0% [1]	13.5
Total Person-trips:	1,500 person-trips	Total Person-trips:		35		135
Non-Work Trips [2]: 96%	1,440 person-trips	Non-Work Person-trips:	0% [5]	0	96% [2]	130

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 19.0%	Auto	18.1%	1.62	50	31	0	0	4	3
	Transit	14.7%		40	0	0	4	4	0
	Walk	63.0%		172	0	0	16	0	0
	Other	4.2%		11	0	0	1	0	0
	All Modes	100.0%		274	31	0	0	25	3
SF Superdistrict 2 7.0%	Auto	27.9%	1.66	28	17	0	0	3	2
	Transit	32.6%		33	0	0	3	0	0
	Walk	34.1%		34	0	0	3	0	0
	Other	5.4%		5	0	0	0	0	0
	All Modes	100.0%		101	17	0	0	9	2
SF Superdistrict 3 8.0%	Auto	31.2%	2.08	36	17	0	0	3	2
	Transit	21.7%		25	0	0	2	0	0
	Walk	41.3%		48	0	0	4	0	0
	Other	5.8%		7	0	0	1	0	0
	All Modes	100.0%		115	17	0	0	10	2
SF Superdistrict 4 3.0%	Auto	34.0%	1.51	15	10	0	0	1	1
	Transit	34.0%		15	0	0	1	0	0
	Walk	28.0%		12	0	0	1	0	0
	Other	4.0%		2	0	0	0	0	0
	All Modes	100.0%		43	10	0	0	4	1
East Bay 11.0%	Auto	38.1%	2.35	60	26	0	0	5	2
	Transit	23.2%		37	0	0	3	0	0
	Walk	36.6%		58	0	0	5	0	0
	Other	2.1%		3	0	0	0	0	0
	All Modes	100.0%		158	26	0	0	14	2
North Bay 5.0%	Auto	46.1%	2.27	33	15	0	0	3	1
	Transit	17.6%		13	0	0	1	0	0
	Walk	34.1%		25	0	0	2	0	0
	Other	2.2%		2	0	0	0	0	0
	All Modes	100.0%		72	15	0	0	6	1
South Bay 8.0%	Auto	73.8%	2.84	85	30	0	0	8	3
	Transit	14.1%		16	0	0	1	0	0
	Walk	10.1%		12	0	0	1	0	0
	Other	2.0%		2	0	0	0	0	0
	All Modes	100.0%		115	30	0	0	10	3
Outside of Bay Area 39.0%	Auto	37.0%	3.12	208	67	0	0	19	6
	Transit	8.4%		47	0	0	4	0	0
	Walk	28.3%		159	0	0	14	0	0
	Other	26.3%		148	0	0	13	0	0
	All Modes	100.0%		562	67	0	0	51	6
All Origins 100.0%	Auto	35.7%	2.43	515	211	0	0	46	19
	Transit	15.7%		226	0	0	20	0	0
	Walk	36.1%		520	0	0	47	0	0
	Other	12.5%		180	0	0	16	0	0
	All Modes	100.0%		1,440	211	0	0	130	19

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (General Retail)
 [2] SF Guidelines, Appendix C - Table C-2 (Retail)
 [3] SF Guidelines, Appendix E - Table E-10 Visitor Trips to SD1 (Retail)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] All retail trips occurring before 9 AM are assumed to be work trips

Mission Rock Mixed-Use Project

LAND USE: PIER 48 MEZZANINE OFFICE (WORK TRIPS)

Proposed Size: 7,875 sq.ft.					
DAILY		AM PEAK HOUR		PM PEAK HOUR	
Person-trip Generation Rate [1]:	18.1 trips/1,000 gsf	Person-trip Gen Rate:	8.9% [4] 1.6	8.5% [1] 1.5	
Total Person-trips:	143 person-trips	Total Person-trips:	13	12	
Work Trips [2]: 36%	51 person-trips	Work Person-trips:	83% [5] 11	83% [2] 10	

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 12.8%	Auto	13.8%	1.28	1	1	0	0	0	0
	Transit	36.0%		2	0	0	0	0	0
	Walk	47.5%		3	1	1	1	1	1
	Other	2.7%		0	0	0	0	0	0
	All Modes	100.0%		7	1	1	0	1	0
SF Superdistrict 2 14.4%	Auto	31.6%	1.23	2	2	0	0	0	0
	Transit	65.8%		5	1	1	1	1	1
	Walk	1.3%		0	0	0	0	0	0
	Other	1.3%		0	0	0	0	0	0
	All Modes	100.0%		7	2	2	0	1	0
SF Superdistrict 3 17.0%	Auto	39.5%	1.29	3	3	1	1	1	1
	Transit	54.4%		5	1	1	1	1	1
	Walk	3.8%		0	0	0	0	0	0
	Other	2.3%		0	0	0	0	0	0
	All Modes	100.0%		9	3	2	1	2	1
SF Superdistrict 4 11.2%	Auto	41.7%	1.53	2	2	0	0	0	0
	Transit	54.5%		3	1	1	1	1	1
	Walk	0.0%		0	0	0	0	0	0
	Other	3.8%		0	0	0	0	0	0
	All Modes	100.0%		6	2	1	0	1	0
East Bay 22.4%	Auto	39.4%	3.33	5	1	1	0	1	0
	Transit	57.0%		7	1	1	1	1	1
	Walk	0.0%		0	0	0	0	0	0
	Other	3.6%		0	0	0	0	0	0
	All Modes	100.0%		11	1	2	0	2	0
North Bay 6.1%	Auto	52.8%	1.70	2	1	0	0	0	0
	Transit	45.3%		1	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	1.9%		0	0	0	0	0	0
	All Modes	100.0%		3	1	1	0	1	0
South Bay 14.3%	Auto	58.0%	1.23	4	3	1	1	1	1
	Transit	40.7%		3	1	1	1	1	1
	Walk	0.0%		0	0	0	0	0	0
	Other	1.3%		0	0	0	0	0	0
	All Modes	100.0%		7	3	2	1	1	1
Outside of Bay Area 1.8%	Auto	47.8%	1.50	0	0	0	0	0	0
	Transit	50.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	2.2%		0	0	0	0	0	0
	All Modes	100.0%		1	0	0	0	0	0
All Origins 100.0%	Auto	38.9%	1.54	20	13	4	3	4	3
	Transit	51.7%		27	5	5	5	5	5
	Walk	6.9%		4	1	1	1	1	1
	Other	2.5%		1	0	0	0	0	0
	All Modes	100.0%		51	13	11	3	10	3

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (General Office)
 [2] SF Guidelines, Appendix C - Table C-2 (General Office)
 [3] SF Guidelines, Appendix E - Table E-3 Work Trips to SD1 (All)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] The AM Peak Hour % of work/non-work trips are assumed to be the same as the PM Peak Hour % shown in Table C-2 of the SF Guidelines

Mission Rock Mixed-Use Project

LAND USE: PIER 48 MEZZANINE OFFICE (WORK TRIPS)

Proposed Size: 7,875 sq.ft.					
DAILY		AM PEAK HOUR		PM PEAK HOUR	
Person-trip Generation Rate [1]:	18.1 trips/attendee	Person-trip Gen Rate:	8.9% [4] 1.6	8.5% [1] 1.5	
Total Person-trips:	143 person-trips	Total Person-trips:	13	12	
Non-Work Trips [2]: 64%	91 person-trips	Non-Work Person-trips:	17% [5] 2	17% [2] 2	

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 22.0%	Auto	12.9%	2.29	3	1	0	0	0	0
	Transit	17.1%		3	0	0	0	0	0
	Walk	65.3%		13	0	0	0	0	0
	Other	4.7%		1	0	0	0	0	0
	All Modes	100.0%		20	1	0	0	0	0
SF Superdistrict 2 14.0%	Auto	31.9%	2.07	4	2	0	0	0	0
	Transit	35.0%		4	0	0	0	0	0
	Walk	26.7%		3	0	0	0	0	0
	Other	6.4%		1	0	0	0	0	0
	All Modes	100.0%		13	2	0	0	0	0
SF Superdistrict 3 13.0%	Auto	38.8%	2.39	5	2	0	0	0	0
	Transit	36.8%		4	0	0	0	0	0
	Walk	17.4%		2	0	0	0	0	0
	Other	7.0%		1	0	0	0	0	0
	All Modes	100.0%		12	2	0	0	0	0
SF Superdistrict 4 7.0%	Auto	42.5%	1.93	3	1	0	0	0	0
	Transit	32.7%		2	0	0	0	0	0
	Walk	17.7%		1	0	0	0	0	0
	Other	7.1%		0	0	0	0	0	0
	All Modes	100.0%		6	1	0	0	0	0
East Bay 11.0%	Auto	47.4%	2.43	5	2	0	0	0	0
	Transit	24.9%		2	0	0	0	0	0
	Walk	25.4%		3	0	0	0	0	0
	Other	2.3%		0	0	0	0	0	0
	All Modes	100.0%		10	2	0	0	0	0
North Bay 5.0%	Auto	71.1%	1.91	3	2	0	0	0	0
	Transit	9.6%		0	0	0	0	0	0
	Walk	15.8%		1	0	0	0	0	0
	Other	3.5%		0	0	0	0	0	0
	All Modes	100.0%		5	2	0	0	0	0
South Bay 7.0%	Auto	59.5%	2.46	4	2	0	0	0	0
	Transit	24.6%		2	0	0	0	0	0
	Walk	13.5%		1	0	0	0	0	0
	Other	2.4%		0	0	0	0	0	0
	All Modes	100.0%		6	2	0	0	0	0
Outside of Bay Area 21.0%	Auto	35.9%	3.17	7	2	0	0	0	0
	Transit	24.1%		5	0	0	0	0	0
	Walk	27.7%		5	0	0	0	0	0
	Other	12.3%		2	0	0	0	0	0
	All Modes	100.0%		19	2	0	0	0	0
All Origins 100.0%	Auto	35.8%	2.37	33	14	1	0	1	0
	Transit	25.7%		23	1	1	1	1	1
	Walk	32.0%		29	1	1	1	1	1
	Other	6.5%		6	0	0	0	0	0
	All Modes	100.0%		91	14	2	0	2	0

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (General Office)
 [2] SF Guidelines, Appendix C - Table C-2 (General Office)
 [3] SF Guidelines, Appendix E - Table E-11 Visitor Trips to SD1 (All Other)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] The AM Peak Hour % of work/non-work trips are assumed to be the same as the PM Peak Hour % shown in Table C-2 of the SF Guidelines

Mission Rock Mixed-Use Project

LAND USE: CHINA BASIN PARK (WORK TRIPS)

Proposed Size: 5.12 acres					
DAILY		AM PEAK HOUR		PM PEAK HOUR	
Person-trip Generation Rate [1]:	20.0 trips/acre	Person-trip Gen Rate:	13.0% [1] 2.6	9.0% [1] 1.8	
Total Person-trips:	102 person-trips	Total Person-trips:	13	9	
Work Trips [2]: 4%	4 person-trips	Work Person-trips:	4% [2] 1	4% [2] 0	

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 12.8%	Auto	13.8%	1.28	0	0	0	0	0	0
	Transit	36.0%		0	0	0	0	0	0
	Walk	47.5%		0	0	0	0	0	0
	Other	2.7%		0	0	0	0	0	0
	All Modes	100.0%		1	0	0	0	0	0
SF Superdistrict 2 14.4%	Auto	31.6%	1.23	0	0	0	0	0	0
	Transit	65.8%		0	0	0	0	0	0
	Walk	1.3%		0	0	0	0	0	0
	Other	1.3%		0	0	0	0	0	0
	All Modes	100.0%		1	0	0	0	0	0
SF Superdistrict 3 17.0%	Auto	39.5%	1.29	0	0	0	0	0	0
	Transit	54.4%		0	0	0	0	0	0
	Walk	3.8%		0	0	0	0	0	0
	Other	2.3%		0	0	0	0	0	0
	All Modes	100.0%		1	0	0	0	0	0
SF Superdistrict 4 11.2%	Auto	41.7%	1.53	0	0	0	0	0	0
	Transit	54.5%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	3.8%		0	0	0	0	0	0
	All Modes	100.0%		0	0	0	0	0	0
East Bay 22.4%	Auto	39.4%	3.33	0	0	0	0	0	0
	Transit	57.0%		1	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	3.6%		0	0	0	0	0	0
	All Modes	100.0%		1	0	0	0	0	0
North Bay 6.1%	Auto	52.8%	1.70	0	0	0	0	0	0
	Transit	45.3%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	1.9%		0	0	0	0	0	0
	All Modes	100.0%		0	0	0	0	0	0
South Bay 14.3%	Auto	58.0%	1.23	0	0	0	0	0	0
	Transit	40.7%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	1.3%		0	0	0	0	0	0
	All Modes	100.0%		1	0	0	0	0	0
Outside of Bay Area 1.8%	Auto	47.8%	1.50	0	0	0	0	0	0
	Transit	50.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	2.2%		0	0	0	0	0	0
	All Modes	100.0%		0	0	0	0	0	0
All Origins 100.0%	Auto	38.9%	1.54	2	1	0	0	0	0
	Transit	51.7%		2	0	0	0	0	0
	Walk	6.9%		0	0	0	0	0	0
	Other	2.5%		0	0	0	0	0	0
	All Modes	100.0%		4	1	1	0	0	0

Notes:
 [1] Traffic Generators, San Diego Association of Governments, 2002 (Regional Park)
 [2] Mission Bay FSEIR estimated 0.1 employee per acre; assuming 2 daily trips per employee it means 4% work trips (0.1 x 2 / 5 = 0.04)
 [3] SF Guidelines, Appendix E - Table E-3 Work Trips to SD1 (All)

Mission Rock Mixed-Use Project

LAND USE: CHINA BASIN PARK (NON-WORK TRIPS)

Proposed Size: 5.12 acres					
DAILY		AM PEAK HOUR		PM PEAK HOUR	
Person-trip Generation Rate [1]:	20.0 trips/acre	Person-trip Gen Rate:	13.0% [1] 2.6	9.0% [1] 1.8	
Total Person-trips:	102 person-trips	Total Person-trips:	13	9	
Non-Work Trips [2]: 96%	98 person-trips	Non-Work Person-trips:	96% [2] 13	96% [2] 9	

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 22.0%	Auto	12.9%	2.29	3	1	0	0	0	0
	Transit	17.1%		4	0	0	0	0	0
	Walk	65.3%		14	2	1	0	0	
	Other	4.7%		1	0	0	0	0	
	All Modes	100.0%		22	1	3	0	2	0
SF Superdistrict 2 14.0%	Auto	31.9%	2.07	4	2	1	0	0	0
	Transit	35.0%		5	1	1	0	0	
	Walk	26.7%		4	0	0	0	0	
	Other	6.4%		1	0	0	0	0	
	All Modes	100.0%		14	2	2	0	1	0
SF Superdistrict 3 13.0%	Auto	38.8%	2.39	5	2	1	0	0	0
	Transit	36.8%		5	1	1	0	0	
	Walk	17.4%		2	0	0	0	0	
	Other	7.0%		1	0	0	0	0	
	All Modes	100.0%		13	2	2	0	1	0
SF Superdistrict 4 7.0%	Auto	42.5%	1.93	3	2	0	0	0	0
	Transit	32.7%		2	0	0	0	0	
	Walk	17.7%		1	0	0	0	0	
	Other	7.1%		0	0	0	0	0	
	All Modes	100.0%		7	2	1	0	1	0
East Bay 11.0%	Auto	47.4%	2.43	5	2	1	0	0	0
	Transit	24.9%		3	0	0	0	0	
	Walk	25.4%		3	0	0	0	0	
	Other	2.3%		0	0	0	0	0	
	All Modes	100.0%		11	2	1	0	1	0
North Bay 5.0%	Auto	71.1%	1.91	3	2	0	0	0	0
	Transit	9.6%		0	0	0	0	0	
	Walk	15.8%		1	0	0	0	0	
	Other	3.5%		0	0	0	0	0	
	All Modes	100.0%		5	2	1	0	0	0
South Bay 7.0%	Auto	59.5%	2.46	4	2	1	0	0	0
	Transit	24.6%		2	0	0	0	0	
	Walk	13.5%		1	0	0	0	0	
	Other	2.4%		0	0	0	0	0	
	All Modes	100.0%		7	2	1	0	1	0
Outside of Bay Area 21.0%	Auto	35.9%	3.17	7	2	1	0	1	0
	Transit	24.1%		5	1	1	0	0	
	Walk	27.7%		6	1	1	0	0	
	Other	12.3%		3	0	0	0	0	
	All Modes	100.0%		21	2	3	0	2	0
All Origins 100.0%	Auto	35.8%	2.37	35	15	5	2	3	1
	Transit	25.7%		25	3	2	0	0	
	Walk	32.0%		31	4	3	0	0	
	Other	6.5%		6	1	1	0	0	
	All Modes	100.0%		98	15	13	2	9	1

Notes:
 [1] Traffic Generators, San Diego Association of Governments, 2002 (Regional Park)
 [2] Mission Bay FSEIR estimated 0.1 employee per acre; assuming 2 daily trips per employee it means 4% work trips (0.1 x 2 / 5 = 0.04)
 [3] SF Guidelines, Appendix E - Table E-11 Visitor Trips to SD1 (All Other)

APPENDIX D
TRAVEL DEMAND FOR SCENARIO B

AGGREGATE TRAVEL DEMAND CALCULATIONS

Mission Rock Mixed-Use Project
SCENARIO B - (High Residential/ Low Commercial)

LAND USES	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT
	Residential 1,579,499 gsf 1,579 d.u.	Office 972,175 gsf	General Retail 120,519 gsf	Quality Restaurant 84,363 gsf	Quick Service Restaurant 36,156 gsf	Subtotal SWL 337 2,792,712 gsf	Brewery/ Distillery 190,500 gsf 75 empl.	Brewery Retail/ Exhibition 11,000 gsf 500 visitors	Brewery Quality Restaurant 11,000 gsf	Mezzanine Retail 10,000 gsf	Mezzanine Office 7,875 gsf	Mezzanine Production 9,625 gsf		

INTERNAL AND EXTERNAL TRIP GENERATION RATES	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT	
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production			Subtotal Pier 48
Daily Trip Rate (per 1,000 gsf)	10.0	18.1	150.0	200.0	600.0	32.2	1.6	90.9	200.0	150.0	18.1	0.0	21.4	0.5	31.4
AM Peak Hour as a % of daily	14.2%	8.9%	2.3%	1.5%	14.8%	8.5%	10.6%	0.0%	1.5%	2.3%	8.9%	0.0%	2.2%	13.0%	8.2%
AM Peak Hour Trip Rate (per 1,000 gs)	1.42	1.61	3.49	2.92	88.89	2.76	0.17	0.00	2.92	3.49	1.61	0.00	0.47	0.06	2.58
PM Peak Hour as a % of daily	17.3%	8.5%	9.0%	13.5%	13.5%	12.3%	10.6%	15.0%	13.5%	9.0%	8.5%	0.0%	12.2%	9.0%	12.3%
PM Peak Hour Trip Rate (per 1,000 gs)	1.73	1.54	13.50	27.00	81.00	3.96	0.17	13.64	27.00	13.50	1.54	0.00	2.61	0.04	3.86
% Modal Share															
Auto	27%	37%	36%	36%	36%	35%	54%	36%	36%	36%	37%	0%	37%	36%	35%
Transit	42%	35%	17%	27%	27%	29%	39%	26%	17%	17%	35%	0%	21%	27%	29%
Walk/Other	31%	28%	47%	37%	37%	36%	7%	38%	47%	47%	28%	0%	42%	37%	37%
Average Vehicle Occupancy Rate															
Weekday Daily	1.11	1.97	2.38	2.31	2.31	1.96	1.23	2.37	2.38	2.38	1.97	0.00	2.19	2.31	1.97
Weekday AM Peak Hour	1.11	1.63	1.54	1.54	2.31	1.66	1.35	0.00	1.54	1.54	1.63	0.00	1.48	2.31	1.65
Weekday PM Peak Hour	1.11	1.63	2.38	2.31	2.31	1.82	1.35	2.37	2.38	2.38	1.63	0.00	2.24	2.31	1.84

INTERNAL AND EXTERNAL TRIPS BY MODE	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT	
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production			Subtotal Pier 48
Weekday Daily															
Auto Person Trips	4,269	6,496	6,484	6,061	7,792	31,101	164	358	789	538	53	-	1,901	37	33,039
Transit Person Trips	6,625	6,173	3,093	4,518	5,808	26,216	116	257	376	257	50	-	1,057	27	27,300
Walk/Other Person trips	4,896	4,928	8,502	6,294	8,093	32,713	21	385	1,035	705	40	-	2,186	38	34,937
Total Person Trips	15,790	17,596	18,078	16,873	21,694	90,030	301	1,000	2,200	1,500	143	-	5,144	102	95,276
Total Vehicle Trips	3,854	3,300	2,729	2,620	3,369	15,873	133	151	332	226	27	-	869	16	16,758
Weekday AM Peak Hour															
Auto Person Trips	607	601	164	96	1,155	2,623	15	-	12	14	5	-	46	5	2,673
Transit Person Trips	943	740	218	127	861	2,889	14	-	17	18	6	-	55	4	2,947
Walk/Other Person trips	697	225	40	23	1,199	2,183	3	-	3	3	2	-	11	5	2,199
Total Person Trips	2,247	1,566	421	246	3,214	7,694	32	-	32	35	13	-	112	13	7,819
Total Vehicle Trips	548	368	106	62	499	1,584	11	-	8	9	3	-	31	2	1,617
Weekday PM Peak Hour															
Auto Person Trips	739	574	584	818	1,052	3,766	15	54	107	48	5	-	228	3	3,998
Transit Person Trips	1,146	707	278	610	784	3,526	14	39	51	23	6	-	133	2	3,661
Walk/Other Person trips	847	215	765	850	1,093	3,769	3	58	140	63	2	-	265	3	4,038
Total Person Trips	2,732	1,496	1,627	2,278	2,929	11,061	32	150	297	135	12	-	626	9	11,696
Total Vehicle Trips	667	351	246	354	455	2,072	11	23	45	20	3	-	102	1	2,176

Mission Rock Mixed-Use Project
SCENARIO B - (High Residential/ Low Commercial)

INTERNAL AND EXTERNAL TRIPS INBOUND/OUTBOUND SPLITS	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production		
Weekday AM Peak Hour														
Work														
Inbound	0%	100%	100%	100%	100%		80%		100%	100%	100%			100%
Outbound	100%	0%	0%	0%	0%		20%		0%	0%	0%			0%
Non Work														
Inbound	67%	50%	50%	50%	50%		50%	50%	50%	50%	50%			50%
Outbound	33%	50%	50%	50%	50%		50%	50%	50%	50%	50%			50%
All trip purposes combined														
Inbound	33%	92%	100%	100%	52%	59%	76%	0%	100%	100%	92%	92%	52%	59%
Outbound	67%	9%	0%	0%	48%	41%	24%	0%	0%	0%	9%	8%	48%	41%
Person Trips														
Inbound	749	1,433	421	246	1,671	4,521	24	-	32	35	12	103	7	4,630
Outbound	1,498	133	-	-	1,543	3,174	8	-	-	-	1	9	6	3,189
Total Person Trips	2,247	1,566	421	246	3,214	7,694	32	-	32	35	13	-	13	7,819
Vehicle Trips														
Inbound	183	348	106	62	266	964	8	-	8	9	3	27	1	993
Outbound	366	20	-	-	233	619	3	-	-	-	0	4	1	624
Total Vehicle Trips	548	368	106	62	499	1,584	11	-	8	9	3	-	2	1,617
Weekday PM Peak Hour														
Work														
Inbound	100%	0%	0%	0%	0%		20%		0%	0%	0%			0%
Outbound	0%	100%	100%	100%	100%		80%		100%	100%	100%			100%
Non Work														
Inbound	33%	50%	50%	50%	50%		50%	50%	50%	50%	50%			50%
Outbound	67%	50%	50%	50%	50%		50%	50%	50%	50%	50%			50%
All trip purposes combined														
Inbound	67%	9%	48%	48%	48%	47%	24%	50%	48%	48%	9%	46%	48%	47%
Outbound	33%	92%	52%	52%	52%	53%	76%	50%	52%	52%	92%	54%	52%	53%
Person Trips														
Inbound	1,821	127	781	1,093	1,406	5,228	8	75	143	65	1	291	4	5,524
Outbound	911	1,369	846	1,184	1,523	5,833	24	75	154	70	11	335	5	6,172
Total Person Trips	2,732	1,496	1,627	2,278	2,929	11,061	32	150	297	135	12	-	9	11,696
Vehicle Trips														
Inbound	445	19	115	165	213	956	3	11	21	10	0	45	1	1,002
Outbound	222	332	131	188	242	1,116	8	11	24	11	3	56	1	1,173
Total Vehicle Trips	667	351	246	354	455	2,072	11	23	45	20	3	-	1	2,176

Mission Rock Mixed-Use Project
SCENARIO B - (High Residential/ Low Commercial)

INTERNAL AND LINKED PERSON TRIP ADJUSTMENT FACTORS	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT	
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production			Subtotal Pier 48
Weekday Daily															
Internal trip factor	35%	10%	15%	15%	17%		5%	0%	10%	10%	10%			10%	
Internal linked trip factor	15%	25%	50%	50%	80%		25%	0%	80%	80%	25%			80%	
Internal person trips	4,698	1,320	1,356	1,265	738	9,417	11	-	44	30	11	-	55	2	9,474
Total internal person trip productions															4,728
Total internal person trip attractions															4,736
Difference															8
% difference															0%
Internal and linked person trips (Walk)	5,527	1,760	2,712	2,531	3,688	16,381	15	-	220	150	14	-	235	10	16,626
Overall total trip reduction	35%	10%	15%	15%	17%	18%	5%	0%	10%	10%	10%	0%	5%	10%	17%
Weekday AM Peak Hour															
Internal trip factor	20%	15%	22%	15%	20%		5%	0%	0%	0%	15%			10%	
Internal linked trip factor	15%	20%	50%	50%	80%		25%	0%	80%	80%	20%			80%	
Internal person trips	382	188	46	18	129	765	1	-	-	-	2	-	1	0	766
Total internal person trip productions															382
Total internal person trip attractions															383
Difference															1
% difference															0%
Internal and linked person trips (Walk)	449	235	93	37	643	1,459	2	-	-	-	2	-	2	1	1,462
Overall total trip reduction	20%	15%	22%	15%	20%	19%	5%	0%	0%	0%	15%	0%	1%	10%	19%
Weekday PM Peak Hour															
Internal trip factor	35%	25%	25%	17%	25%		5%	0%	10%	10%	25%			10%	
Internal linked trip factor	15%	30%	50%	50%	80%		25%	0%	80%	80%	30%			80%	
Internal person trips	813	262	203	194	146	1,623	1	-	6	3	2	-	7	0	1,630
Total internal person trip productions															815
Total internal person trip attractions															812
Difference															(3)
% difference															0%
Internal and linked person trips (Walk)	956	374	407	387	1,019	2,873	2	-	30	14	3	-	31	1	2,905
Overall total trip reduction	35%	25%	25%	17%	25%	26%	5%	0%	10%	10%	25%	0%	5%	10%	25%
TRIP SUBTRACTION CHECK															
Weekday Daily	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Weekday AM Peak Hour	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Weekday PM Peak Hour	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
PEAK HOUR CHECK															
Auto Person Trips SD1+SD3															
Daily External Trips	880	995	488	759	877	4,064	23	79	84	57	8	-	186	6	4,255
AM+PM External Trips	192	21	6	35	61	319	1	4	7	3	0	-	13	0	332
Average Peak Hour Factor	11%	1%	1%	2%	3%	4%	3%	3%	4%	3%	1%	0%	3%	4%	4%
Transit Person Trips SD1+SD3															
Daily External Trips	1,674	1,285	396	841	972	5,223	25	85	68	46	10	-	179	6	5,408
AM+PM External Trips	365	48	9	50	83	560	2	6	7	4	0	-	15	1	575
Average Peak Hour Factor	11%	2%	1%	3%	4%	5%	4%	3%	5%	4%	2%	0%	4%	5%	5%
Walk/Other Person Trips SD1+SD3															
Daily External Trips	1,782	1,790	1,306	1,740	2,011	8,797	14	186	225	153	15	-	424	13	9,234
AM+PM External Trips	389	86	23	183	330	1,024	3	23	26	13	1	-	52	2	1,078
Average Peak Hour Factor	11%	2%	1%	5%	8%	6%	11%	6%	6%	4%	2%	0%	6%	9%	6%

Mission Rock Mixed-Use Project
SCENARIO B - (High Residential/ Low Commercial)

EXTERNAL ONLY TRIPS	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT	
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production			Subtotal Pier 48
Weekday Daily															
Superdistrict 1															
Auto Person Trips	489	301	272	268	310	1,641	9	28	47	32	2	-	119	2	1,762
Transit Person Trips	930	500	231	364	421	2,446	8	38	40	27	4	-	117	3	2,566
Walk/Other Person trips	990	1,495	1,011	1,444	1,669	6,608	12	154	174	118	12	-	470	11	7,089
Total Person Trips	2,409	2,296	1,514	2,076	2,400	10,695	29	220	260	178	19	-	706	16	11,417
Vehicle Trips	442	158	169	119	138	1,027	9	12	29	20	1	-	71	1	1,099
Superdistrict 2															
Auto Person Trips	111	791	372	754	970	2,998	18	45	45	31	6	-	145	5	3,148
Transit Person Trips	211	1,152	465	858	1,103	3,788	21	49	57	39	9	-	175	5	3,968
Walk/Other Person trips	225	546	483	753	968	2,975	1	46	59	40	4	-	150	5	3,130
Total Person Trips	548	2,489	1,319	2,365	3,041	9,761	40	140	161	109	20	-	470	14	10,246
Vehicle Trips	100	477	231	374	481	1,665	16	22	28	19	4	-	89	2	1,755
Superdistrict 3															
Auto Person Trips	391	694	215	491	567	2,357	14	50	37	25	6	-	132	4	2,493
Transit Person Trips	744	785	164	476	551	2,720	17	48	28	19	6	-	118	4	2,842
Walk/Other Person trips	792	295	295	296	342	2,021	2	32	51	35	2	-	121	2	2,145
Total Person Trips	1,927	1,774	675	1,263	1,460	7,099	33	130	116	79	14	-	372	10	7,481
Vehicle Trips	353	396	110	214	248	1,322	11	21	19	13	3	-	67	2	1,390
Superdistrict 4															
Auto Person Trips	111	631	211	513	660	2,126	13	30	26	17	5	-	91	3	2,220
Transit Person Trips	211	644	221	412	530	2,019	14	23	27	18	5	-	87	3	2,108
Walk/Other Person trips	225	222	170	284	365	1,267	1	17	21	14	2	-	55	2	1,323
Total Person Trips	548	1,498	602	1,209	1,555	5,412	27	70	73	50	12	-	233	7	5,652
Vehicle Trips	100	367	139	270	348	1,224	9	15	17	12	3	-	56	2	1,282
East Bay															
Auto Person Trips	564	1,146	791	904	1,162	4,568	23	52	96	66	9	-	246	5	4,820
Transit Person Trips	695	1,117	535	530	681	3,558	29	27	65	44	9	-	175	3	3,736
Walk/Other Person trips	131	394	745	499	642	2,410	2	30	91	62	3	-	188	3	2,601
Total Person Trips	1,390	2,658	2,071	1,933	2,485	10,536	53	110	252	172	22	-	609	12	11,157
Vehicle Trips	509	410	329	365	470	2,083	9	21	40	27	3	-	101	2	2,186
North Bay															
Auto Person Trips	84	604	423	598	768	2,478	10	36	52	35	5	-	137	4	2,619
Transit Person Trips	42	229	173	96	124	664	6	5	21	14	2	-	48	1	713
Walk/Other Person trips	-	116	316	157	202	791	0	10	38	26	1	-	75	1	867
Total Person Trips	126	949	912	851	1,094	3,933	17	50	111	76	8	-	261	5	4,199
Vehicle Trips	76	330	190	314	404	1,314	7	19	23	16	3	-	67	2	1,383
South Bay															
Auto Person Trips	1,396	994	1,085	731	939	5,145	22	42	132	90	8	-	293	4	5,443
Transit Person Trips	1,658	563	238	318	409	3,186	13	17	29	20	5	-	84	2	3,271
Walk/Other Person trips	262	137	169	182	233	983	0	11	21	14	1	-	47	1	1,032
Total Person Trips	3,316	1,694	1,492	1,230	1,582	9,314	35	70	182	124	14	-	424	7	9,746
Vehicle Trips	1,260	618	410	320	411	3,019	18	17	50	34	5	-	124	2	3,145
Outside of Bay Area															
Auto Person Trips	-	904	2,511	1,227	1,578	6,219	49	75	306	208	7	-	646	7	6,872
Transit Person Trips	-	627	575	826	1,062	3,090	2	51	70	48	5	-	175	5	3,270
Walk/Other Person trips	-	948	3,696	1,361	1,750	7,755	0	84	450	307	8	-	848	8	8,611
Total Person Trips	-	2,479	6,781	3,414	4,389	17,063	51	210	825	563	20	-	1,669	21	18,753
Vehicle Trips	-	304	807	389	500	2,000	48	24	98	67	2	-	240	2	2,242
All Origins															
Auto Person Trips	3,147	6,065	5,880	5,486	6,954	27,532	158	358	740	505	49	-	1,810	34	29,376
Transit Person Trips	4,491	5,617	2,602	3,881	4,880	21,472	110	257	337	229	46	-	979	25	22,476
Walk/Other Person trips	2,625	4,154	6,884	4,976	6,171	24,810	18	385	903	616	34	-	1,956	33	26,798
Total Person Trips	10,264	15,837	15,366	14,342	18,006	73,814	286	1,000	1,980	1,350	128	-	4,744	92	78,650
Vehicle Trips	2,841	3,060	2,384	2,367	3,000	13,653	128	151	304	207	25	-	815	15	14,483
Total Internal Person Trips	5,527	1,760	2,712	2,531	3,688	16,217	15	-	220	150	14	-	399	10	16,626
Person-trip reduction	35%	10%	15%	15%	17%	18%	5%	0%	10%	10%	10%	0%	8%	10%	17%
Average Vehicle Occupancy	1.11	1.98	2.47	2.32	2.32	2.02	1.23	2.37	2.43	2.43	1.98	-	2.22	2.32	2.03

Mission Rock Mixed-Use Project
 SCENARIO B - (High Residential/ Low Commercial)

EXTERNAL ONLY TRIPS	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT	
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production			Subtotal Pier 48
Weekday AM Peak Hour															
Superdistrict 1															
Auto Person Trips	108	16	2	2	38	165	1	-	1	1	0	-	2	0	168
Transit Person Trips	205	36	5	6	52	303	1	-	1	2	0	-	4	0	308
Walk/Other Person trips	218	64	7	8	206	502	1	-	2	2	1	-	6	1	510
Total Person Trips	530	115	14	16	296	970	3	-	4	4	1	-	13	2	985
Vehicle Trips	97	11	2	2	17	128	1	-	0	0	0	-	2	0	130
Superdistrict 2															
Auto Person Trips	16	71	19	11	144	261	2	-	1	2	1	-	5	1	267
Transit Person Trips	30	136	40	23	163	393	3	-	3	3	1	-	10	1	404
Walk/Other Person trips	32	17	2	1	143	195	0	-	0	0	0	-	0	1	196
Total Person Trips	78	224	61	35	450	849	4	-	5	5	2	-	16	2	867
Vehicle Trips	14	54	16	9	71	164	1	-	1	1	0	-	4	0	169
Superdistrict 3															
Auto Person Trips	86	51	7	8	70	223	2	-	2	2	0	-	7	0	230
Transit Person Trips	164	68	10	11	68	321	2	-	3	3	1	-	9	0	330
Walk/Other Person trips	174	11	1	1	42	230	0	-	0	0	0	-	1	0	231
Total Person Trips	424	131	19	21	180	774	4	-	5	6	1	-	16	1	792
Vehicle Trips	78	37	6	6	31	158	1	-	2	2	0	-	5	0	163
Superdistrict 4															
Auto Person Trips	16	69	20	12	98	213	1	-	2	2	1	-	5	0	219
Transit Person Trips	30	85	26	15	78	235	2	-	2	2	1	-	6	0	242
Walk/Other Person trips	32	10	2	1	54	99	0	-	0	0	0	-	0	0	100
Total Person Trips	78	164	47	28	230	547	3	-	4	4	1	-	12	1	560
Vehicle Trips	14	44	13	8	51	130	1	-	1	1	0	-	3	0	134
East Bay															
Auto Person Trips	80	129	37	22	172	440	3	-	3	3	1	-	10	1	450
Transit Person Trips	99	173	54	31	101	458	4	-	4	4	1	-	14	0	472
Walk/Other Person trips	19	19	3	2	95	138	0	-	0	0	0	-	1	0	139
Total Person Trips	198	320	94	55	368	1,036	6	-	7	8	3	-	24	2	1,061
Vehicle Trips	72	40	11	7	70	200	1	-	1	1	0	-	3	0	203
North Bay															
Auto Person Trips	12	51	14	8	114	199	1	-	1	1	0	-	4	0	203
Transit Person Trips	6	37	12	7	18	80	1	-	1	1	0	-	3	0	83
Walk/Other Person trips	-	4	0	0	30	35	0	-	0	0	0	-	0	0	35
Total Person Trips	18	93	26	15	162	313	2	-	2	2	1	-	7	1	321
Vehicle Trips	11	30	8	5	60	113	1	-	1	1	0	-	2	0	115
South Bay															
Auto Person Trips	199	119	35	20	139	512	2	-	3	3	1	-	9	1	522
Transit Person Trips	236	80	25	14	61	416	2	-	2	2	1	-	6	0	422
Walk/Other Person trips	37	5	1	0	35	78	0	-	0	0	0	-	0	0	79
Total Person Trips	472	204	60	35	234	1,006	4	-	5	5	2	-	15	1	1,023
Vehicle Trips	179	92	28	17	61	377	2	-	2	2	1	-	7	0	385
Outside of Bay Area															
Auto Person Trips	-	31	4	2	234	271	3	-	0	0	0	-	4	1	275
Transit Person Trips	-	25	4	2	157	188	0	-	0	0	0	-	1	1	190
Walk/Other Person trips	-	23	0	0	259	282	0	-	0	0	0	-	0	1	284
Total Person Trips	-	79	8	4	650	742	3	-	1	1	1	-	5	3	749
Vehicle Trips	-	14	2	1	74	92	3	-	0	0	0	-	3	0	95
All Origins															
Auto Person Trips	516	537	137	85	1,008	2,284	14	-	12	14	4	-	45	4	2,333
Transit Person Trips	769	641	175	110	699	2,394	14	-	17	18	5	-	54	3	2,451
Walk/Other Person trips	512	153	16	14	864	1,560	2	-	3	3	1	-	10	4	1,574
Total Person Trips	1,798	1,331	328	209	2,571	6,238	30	-	32	35	11	-	108	12	6,358
Vehicle Trips	466	322	86	54	435	1,362	11	-	8	9	3	-	30	2	1,394
Total Internal Person Trips	449	235	93	37	643	1,457	2	-	-	-	2	-	3	1	1,462
Person-trip reduction	20%	15%	22%	15%	20%	19%	5%	0%	0%	0%	15%	0%	3%	10%	19%
Average Vehicle Occupancy	1.11	1.67	1.61	1.58	2.32	1.68	1.35	-	1.54	1.54	1.67	-	1.49	2.32	1.67

Mission Rock Mixed-Use Project
SCENARIO B - (High Residential/ Low Commercial)

EXTERNAL ONLY TRIPS	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT	
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production			Subtotal Pier 48
Weekday PM Peak Hour															
Superdistrict 1															
Auto Person Trips	85	5	4	33	23	150	1	4	6	3	0	-	14	0	164
Transit Person Trips	161	12	4	44	31	252	1	6	5	2	0	-	15	0	267
Walk/Other Person trips	171	22	16	175	124	508	1	23	23	11	0	-	59	1	568
Total Person Trips	417	40	24	252	178	911	3	33	35	16	0	-	88	1	1,000
Vehicle Trips	76	4	3	15	10	108	1	2	4	2	0	-	8	0	116
Superdistrict 2															
Auto Person Trips	19	68	33	102	131	353	2	7	6	3	1	-	18	0	371
Transit Person Trips	37	130	42	116	149	473	3	7	8	3	1	-	22	0	496
Walk/Other Person trips	39	16	43	102	131	331	0	7	8	4	0	-	19	0	350
Total Person Trips	95	214	119	319	410	1,158	4	21	22	10	2	-	59	1	1,218
Vehicle Trips	17	51	21	51	65	205	1	3	4	2	0	-	11	0	216
Superdistrict 3															
Auto Person Trips	68	18	3	60	42	191	2	8	5	2	0	-	17	0	207
Transit Person Trips	129	24	3	58	41	253	2	7	4	2	0	-	15	0	269
Walk/Other Person trips	137	4	5	36	25	207	0	5	7	3	0	-	15	0	222
Total Person Trips	333	45	11	153	108	651	4	20	16	7	0	-	47	1	698
Vehicle Trips	61	13	2	26	18	120	1	3	3	1	0	-	8	0	129
Superdistrict 4															
Auto Person Trips	19	66	19	69	89	262	1	4	3	2	1	-	11	0	274
Transit Person Trips	37	82	20	56	72	265	2	3	4	2	1	-	11	0	277
Walk/Other Person trips	39	10	15	38	49	152	0	3	3	1	0	-	7	0	159
Total Person Trips	95	157	54	163	210	679	3	11	10	4	1	-	29	1	709
Vehicle Trips	17	42	13	36	47	155	1	2	2	1	0	-	7	0	162
East Bay															
Auto Person Trips	98	123	71	122	157	571	3	8	13	6	1	-	30	0	601
Transit Person Trips	120	165	48	72	92	497	4	4	9	4	1	-	22	0	519
Walk/Other Person trips	23	18	67	67	87	261	0	5	12	6	0	-	23	0	284
Total Person Trips	240	306	186	261	336	1,329	6	17	34	15	2	-	75	1	1,405
Vehicle Trips	88	38	30	49	63	269	1	3	5	2	0	-	12	0	281
North Bay															
Auto Person Trips	15	49	38	81	104	286	1	5	7	3	0	-	17	0	303
Transit Person Trips	7	36	16	13	17	88	1	1	3	1	0	-	6	0	94
Walk/Other Person trips	-	4	28	21	27	81	0	1	5	2	0	-	9	0	90
Total Person Trips	22	88	82	115	148	455	2	8	15	7	1	-	32	0	487
Vehicle Trips	13	28	17	42	55	155	1	3	3	1	0	-	8	0	164
South Bay															
Auto Person Trips	242	114	98	99	127	678	2	6	18	8	1	-	36	0	714
Transit Person Trips	287	77	21	43	55	483	2	3	4	2	1	-	11	0	494
Walk/Other Person trips	45	5	15	25	32	122	0	2	3	1	0	-	6	0	128
Total Person Trips	574	195	134	166	214	1,283	4	11	25	11	2	-	52	1	1,335
Vehicle Trips	218	88	37	43	56	442	2	3	7	3	1	-	15	0	457
Outside of Bay Area															
Auto Person Trips	-	30	226	166	213	634	3	11	41	19	0	-	74	1	709
Transit Person Trips	-	24	52	111	143	331	0	8	9	4	0	-	22	0	353
Walk/Other Person trips	-	22	333	184	236	774	0	13	61	28	0	-	101	1	876
Total Person Trips	-	76	610	461	593	1,739	3	32	111	51	1	-	197	2	1,938
Vehicle Trips	-	13	73	53	68	206	3	4	13	6	0	-	26	0	232
All Origins															
Auto Person Trips	544	472	493	730	886	3,125	14	54	100	45	4	-	217	3	3,345
Transit Person Trips	777	549	205	512	600	2,643	14	39	45	21	4	-	123	2	2,768
Walk/Other Person trips	454	101	523	648	711	2,436	2	58	122	55	1	-	238	3	2,677
Total Person Trips	1,776	1,122	1,220	1,891	2,196	8,205	30	150	267	122	9	-	578	8	8,791
Vehicle Trips	492	278	194	315	382	1,660	11	23	41	19	2	-	95	1	1,756
Total Internal Person Trips	956	374	407	387	732	2,856	2	-	30	14	3	-	48	1	2,905
Person-trip reduction	35%	25%	25%	17%	25%	26%	5%	0%	10%	10%	25%	0%	8%	10%	25%
Average Vehicle Occupancy	1.11	1.70	2.54	2.32	2.32	1.88	1.35	2.37	2.43	2.43	1.70	-	2.28	2.32	1.90

Mission Rock Mixed-Use Project
SCENARIO B - (High Residential/ Low Commercial)

MODAL SPLIT SUMMARY FOR INTERNAL AND EXTERNAL TRIPS	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT		
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production			Subtotal Pier 48	
Weekday Daily																
Internal + External Before Adjustment																
Auto Person Trips	27%	37%	36%	36%	36%	35%	54%	36%	36%	36%	37%	0%	37%	36%	35%	
Transit Person Trips	42%	35%	17%	27%	27%	29%	39%	26%	17%	17%	35%	0%	21%	27%	29%	
Walk/Other Person trips	31%	28%	47%	37%	37%	36%	7%	38%	47%	47%	28%	0%	42%	37%	37%	
Total Person Trips	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	100%	100%	100%	
Internal + External After Adjustment																
Auto Person Trips	20%	34%	33%	33%	32%	31%	52%	36%	34%	34%	34%	0%	35%	34%	31%	
Transit Person Trips	28%	32%	14%	23%	22%	24%	37%	26%	15%	15%	32%	0%	19%	24%	24%	
Walk/Other Person trips	52%	34%	53%	44%	45%	46%	11%	38%	51%	51%	34%	0%	46%	42%	46%	
Total Person Trips	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	100%	100%	100%	
External Only Trips																
Auto Person Trips	31%	38%	38%	38%	39%	37%	55%	36%	37%	37%	38%	0%	38%	37%	37%	
Transit Person Trips	44%	35%	17%	27%	27%	29%	39%	26%	17%	17%	35%	0%	21%	27%	29%	
Walk/Other Person trips	26%	26%	45%	35%	34%	34%	6%	38%	46%	46%	26%	0%	41%	36%	34%	
Total Person Trips	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	100%	100%	100%	
Weekday AM Peak Hour																
Internal + External Before Adjustment																
Auto Person Trips	27%	38%	39%	39%	36%	34%	47%	0%	39%	39%	38%	0%	41%	36%	34%	
Transit Person Trips	42%	47%	52%	52%	27%	38%	45%	0%	52%	52%	47%	0%	49%	27%	38%	
Walk/Other Person trips	31%	14%	9%	9%	37%	28%	8%	0%	9%	9%	14%	0%	10%	37%	28%	
Total Person Trips	100%	100%	100%	100%	100%	100%	100%	0%	100%	100%	100%	0%	100%	100%	100%	
Internal + External After Adjustment																
Auto Person Trips	23%	34%	33%	35%	31%	30%	45%	0%	39%	39%	34%	0%	40%	34%	30%	
Transit Person Trips	34%	41%	41%	45%	22%	31%	43%	0%	52%	52%	41%	0%	48%	24%	31%	
Walk/Other Person trips	43%	25%	26%	21%	47%	39%	12%	0%	9%	9%	25%	0%	12%	42%	39%	
Total Person Trips	100%	100%	100%	100%	100%	100%	100%	0%	100%	100%	100%	0%	100%	100%	100%	
External Only Trips																
Auto Person Trips	29%	40%	42%	41%	39%	37%	47%	0%	39%	39%	40%	0%	41%	37%	37%	
Transit Person Trips	43%	48%	53%	53%	27%	38%	45%	0%	52%	52%	48%	0%	50%	27%	39%	
Walk/Other Person trips	28%	12%	5%	7%	34%	25%	7%	0%	9%	9%	12%	0%	9%	36%	25%	
Total Person Trips	100%	100%	100%	100%	100%	100%	100%	0%	100%	100%	100%	0%	100%	100%	100%	
Weekday PM Peak Hour																
Internal + External Before Adjustment																
Auto Person Trips	27%	38%	36%	36%	36%	34%	47%	36%	36%	36%	38%	0%	36%	36%	34%	
Transit Person Trips	42%	47%	17%	27%	27%	32%	45%	26%	17%	17%	47%	0%	21%	27%	31%	
Walk/Other Person trips	31%	14%	47%	37%	37%	34%	8%	38%	47%	47%	14%	0%	42%	37%	35%	
Total Person Trips	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	100%	100%	100%	
Internal + External After Adjustment																
Auto Person Trips	20%	32%	30%	32%	30%	28%	45%	36%	34%	34%	32%	0%	35%	34%	29%	
Transit Person Trips	28%	37%	13%	22%	20%	24%	43%	26%	15%	15%	37%	0%	20%	24%	24%	
Walk/Other Person trips	52%	32%	57%	45%	49%	48%	12%	38%	51%	51%	32%	0%	46%	42%	48%	
Total Person Trips	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	100%	100%	100%	
External Only Trips																
Auto Person Trips	31%	42%	40%	39%	40%	38%	47%	36%	37%	37%	42%	0%	38%	37%	38%	
Transit Person Trips	44%	49%	17%	27%	27%	32%	45%	26%	17%	17%	49%	0%	21%	27%	31%	
Walk/Other Person trips	26%	9%	43%	34%	32%	30%	7%	38%	46%	46%	9%	0%	41%	36%	30%	
Total Person Trips	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	100%	100%	100%	

Mission Rock Mixed-Use Project
 SCENARIO B - (High Residential/ Low Commercial)

EXTERNAL ONLY TRIPS	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT	
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production			Subtotal Pier 48
Weekday AM Peak Hour															
Auto Person Trips: All origins	516	537	137	85	1,008	2,284	14	-	12	14	4	-	45	4	2,333
Inbound	172	491	137	85	524	1,410	11	-	12	14	4	-	41	2	1,454
Outbound	344	46	-	-	484	874	3	-	-	-	0	-	4	2	880
Transit Person Trips: All origins	769	641	175	110	699	2,394	14	-	17	18	5	-	54	3	2,451
Inbound	256	587	175	110	363	1,491	10	-	17	18	5	-	50	2	1,543
Outbound	513	54	-	-	335	903	3	-	-	-	0	-	4	2	908
Walk/Other Person Trips: All origins	512	153	16	14	864	1,560	2	-	3	3	1	-	10	4	1,574
Inbound	171	140	16	14	449	790	2	-	3	3	1	-	9	2	802
Outbound	341	13	-	-	415	769	1	-	-	-	0	-	1	2	772
Total Person Trips: All origins	1,798	1,331	328	209	2,571	6,238	30	-	32	35	11	-	108	12	6,358
Inbound	599	1,218	328	209	1,337	3,692	23	-	32	35	10	-	100	6	3,798
Outbound	1,198	113	-	-	1,234	2,546	7	-	-	-	1	-	8	6	2,560
Total Vehicle Trips: All origins	466	322	86	54	435	1,362	11	-	8	9	3	-	30	2	1,394
Inbound	155	304	86	54	232	830	7	-	8	9	2	-	27	1	858
Outbound	311	18	-	-	203	532	3	-	-	-	0	-	3	1	536
Weekday PM Peak Hour															
Auto Person Trips: All origins	544	472	493	730	886	3,125	14	54	100	45	4	-	217	3	3,345
Inbound	363	40	237	350	425	1,415	3	27	48	22	0	-	100	1	1,517
Outbound	181	432	256	380	461	1,710	11	27	52	24	3	-	117	2	1,828
Transit Person Trips: All origins	777	549	205	512	600	2,643	14	39	45	21	4	-	123	2	2,768
Inbound	518	47	98	246	288	1,197	3	19	22	10	0	-	55	1	1,253
Outbound	259	503	106	266	312	1,446	10	19	24	11	4	-	68	1	1,516
Walk/Other Person Trips: All origins	454	101	523	648	711	2,436	2	58	122	55	1	-	238	3	2,677
Inbound	303	9	251	311	341	1,214	1	29	59	27	0	-	115	1	1,330
Outbound	151	92	272	337	370	1,222	2	29	63	29	1	-	124	2	1,347
Total Person Trips: All origins	1,776	1,122	1,220	1,891	2,196	8,205	30	150	267	122	9	-	578	8	8,791
Inbound	1,184	95	586	907	1,054	3,827	7	75	128	58	1	-	270	4	4,100
Outbound	592	1,026	635	983	1,142	4,378	23	75	139	63	8	-	309	4	4,691
Total Vehicle Trips: All origins	492	278	194	315	382	1,660	11	23	41	19	2	-	95	1	1,756
Inbound	328	15	90	147	178	759	3	11	19	9	0	-	43	1	802
Outbound	164	263	103	168	203	901	7	11	22	10	2	-	53	1	954

Mission Rock Mixed-Use Project
SCENARIO B - (High Residential/ Low Commercial)

EXTERNAL ONLY TRIPS	SEAWALL LOT 337						PIER 48							China Basin Park Open Space	TOTAL DEVELOPMENT
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production	Subtotal Pier 48		
Weekday Daily															
Auto Person Trips															
Superdistrict 1	489	301	272	268	310	1,641	9	28	47	32	2	-	119	2	1,762
Superdistrict 2	111	791	372	754	970	2,998	18	45	45	31	6	-	145	5	3,148
Superdistrict 3	391	694	215	491	567	2,357	14	50	37	25	6	-	132	4	2,493
Superdistrict 4	111	631	211	513	660	2,126	13	30	26	17	5	-	91	3	2,220
East Bay	564	1,146	791	904	1,162	4,568	23	52	96	66	9	-	246	5	4,820
North Bay	84	604	423	598	768	2,478	10	36	52	35	5	-	137	4	2,619
South Bay	1,396	994	1,085	731	939	5,145	22	42	132	90	8	-	293	4	5,443
Outside of Bay Area	-	904	2,511	1,227	1,578	6,219	49	75	306	208	7	-	646	7	6,872
All Origins	3,147	6,065	5,880	5,486	6,954	27,532	158	358	740	505	49	-	1,810	34	29,376
Transit Person Trips															
Superdistrict 1	930	500	231	364	421	2,446	8	38	40	27	4	-	117	3	2,566
Superdistrict 2	211	1,152	465	858	1,103	3,788	21	49	57	39	9	-	175	5	3,968
Superdistrict 3	744	785	164	476	551	2,720	17	48	28	19	6	-	118	4	2,842
Superdistrict 4	211	644	221	412	530	2,019	14	23	27	18	5	-	87	3	2,108
East Bay	695	1,117	535	530	681	3,558	29	27	65	44	9	-	175	3	3,736
North Bay	42	229	173	96	124	664	6	5	21	14	2	-	48	1	713
South Bay	1,658	563	238	318	409	3,186	13	17	29	20	5	-	84	2	3,271
Outside of Bay Area	-	627	575	826	1,062	3,090	2	51	70	48	5	-	175	5	3,270
All Origins	4,491	5,617	2,602	3,881	4,880	21,472	110	257	337	229	46	-	979	25	22,476
Walk/Other Person trips															
Superdistrict 1	990	1,495	1,011	1,444	1,669	6,608	12	154	174	118	12	-	470	11	7,089
Superdistrict 2	225	546	483	753	968	2,975	1	46	59	40	4	-	150	5	3,130
Superdistrict 3	792	295	295	296	342	2,021	2	32	51	35	2	-	121	2	2,145
Superdistrict 4	225	222	170	284	365	1,267	1	17	21	14	2	-	55	2	1,323
East Bay	131	394	745	499	642	2,410	2	30	91	62	3	-	188	3	2,601
North Bay	-	116	316	157	202	791	0	10	38	26	1	-	75	1	867
South Bay	262	137	169	182	233	983	0	11	21	14	1	-	47	1	1,032
Outside of Bay Area	-	948	3,696	1,361	1,750	7,755	0	84	450	307	8	-	848	8	8,611
All Origins	2,625	4,154	6,884	4,976	6,171	24,810	18	385	903	616	34	-	1,956	33	26,798
Total Person trips															
Superdistrict 1	2,409	2,296	1,514	2,076	2,400	10,695	29	220	260	178	19	-	706	16	11,417
Superdistrict 2	548	2,489	1,319	2,365	3,041	9,761	40	140	161	109	20	-	470	14	10,246
Superdistrict 3	1,927	1,774	675	1,263	1,460	7,099	33	130	116	79	14	-	372	10	7,481
Superdistrict 4	548	1,498	602	1,209	1,555	5,412	27	70	73	50	12	-	233	7	5,652
East Bay	1,390	2,658	2,071	1,933	2,485	10,536	53	110	252	172	22	-	609	12	11,157
North Bay	126	949	912	851	1,094	3,933	17	50	111	76	8	-	261	5	4,199
South Bay	3,316	1,694	1,492	1,230	1,582	9,314	35	70	182	124	14	-	424	7	9,746
Outside of Bay Area	-	2,479	6,781	3,414	4,389	17,063	51	210	825	563	20	-	1,669	21	18,753
All Origins	10,264	15,837	15,366	14,342	18,006	73,814	286	1,000	1,980	1,350	128	-	4,744	92	78,650
Vehicle trips															
Superdistrict 1	442	158	169	119	138	1,027	9	12	29	20	1	-	71	1	1,099
Superdistrict 2	100	477	231	374	481	1,665	16	22	28	19	4	-	89	2	1,755
Superdistrict 3	353	396	110	214	248	1,322	11	21	19	13	3	-	67	2	1,390
Superdistrict 4	100	367	139	270	348	1,224	9	15	17	12	3	-	56	2	1,282
East Bay	509	410	329	365	470	2,083	9	21	40	27	3	-	101	2	2,186
North Bay	76	330	190	314	404	1,314	7	19	23	16	3	-	67	2	1,383
South Bay	1,260	618	410	320	411	3,019	18	17	50	34	5	-	124	2	3,145
Outside of Bay Area	-	304	807	389	500	2,000	48	24	98	67	2	-	240	2	2,242
All Origins	2,841	3,060	2,384	2,367	3,000	13,653	128	151	304	207	25	-	815	15	14,483

Mission Rock Mixed-Use Project
SCENARIO B - (High Residential/ Low Commercial)

EXTERNAL ONLY TRIPS	SEAWALL LOT 337						PIER 48							China Basin Park Open Space	TOTAL DEVELOPMENT
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production	Subtotal Pier 48		
Weekday AM Peak Hour															
Auto Person Trips															
Superdistrict 1	108	16	2	2	38	165	1	-	1	1	0	-	2	0	168
Superdistrict 2	16	71	19	11	144	261	2	-	1	2	1	-	5	1	267
Superdistrict 3	86	51	7	8	70	223	2	-	2	2	0	-	7	0	230
Superdistrict 4	16	69	20	12	98	213	1	-	2	2	1	-	5	0	219
East Bay	80	129	37	22	172	440	3	-	3	3	1	-	10	1	450
North Bay	12	51	14	8	114	199	1	-	1	1	0	-	4	0	203
South Bay	199	119	35	20	139	512	2	-	3	3	1	-	9	1	522
Outside of Bay Area	-	31	4	2	234	271	3	-	0	0	0	-	4	1	275
All Origins	516	537	137	85	1,008	2,284	14	-	12	14	4	-	45	4	2,333
Transit Person Trips															
Superdistrict 1	205	36	5	6	52	303	1	-	1	2	0	-	4	0	308
Superdistrict 2	30	136	40	23	163	393	3	-	3	3	1	-	10	1	404
Superdistrict 3	164	68	10	11	68	321	2	-	3	3	1	-	9	0	330
Superdistrict 4	30	85	26	15	78	235	2	-	2	2	1	-	6	0	242
East Bay	99	173	54	31	101	458	4	-	4	4	1	-	14	0	472
North Bay	6	37	12	7	18	80	1	-	1	1	0	-	3	0	83
South Bay	236	80	25	14	61	416	2	-	2	2	1	-	6	0	422
Outside of Bay Area	-	25	4	2	157	188	0	-	0	0	0	-	1	1	190
All Origins	769	641	175	110	699	2,394	14	-	17	18	5	-	54	3	2,451
Walk/Other Person trips															
Superdistrict 1	218	64	7	8	206	502	1	-	2	2	1	-	6	1	510
Superdistrict 2	32	17	2	1	143	195	0	-	0	0	0	-	0	1	196
Superdistrict 3	174	11	1	1	42	230	0	-	0	0	0	-	1	0	231
Superdistrict 4	32	10	2	1	54	99	0	-	0	0	0	-	0	0	100
East Bay	19	19	3	2	95	138	0	-	0	0	0	-	1	0	139
North Bay	-	4	0	0	30	35	0	-	0	0	0	-	0	0	35
South Bay	37	5	1	0	35	78	0	-	0	0	0	-	0	0	79
Outside of Bay Area	-	23	0	0	259	282	0	-	0	0	0	-	0	1	284
All Origins	512	153	16	14	864	1,560	2	-	3	3	1	-	10	4	1,574
Total Person trips															
Superdistrict 1	530	115	14	16	296	970	3	-	4	4	1	-	13	2	985
Superdistrict 2	78	224	61	35	450	849	4	-	5	5	2	-	16	2	867
Superdistrict 3	424	131	19	21	180	774	4	-	5	6	1	-	16	1	792
Superdistrict 4	78	164	47	28	230	547	3	-	4	4	1	-	12	1	560
East Bay	198	320	94	55	368	1,036	6	-	7	8	3	-	24	2	1,061
North Bay	18	93	26	15	162	313	2	-	2	2	1	-	7	1	321
South Bay	472	204	60	35	234	1,006	4	-	5	5	2	-	15	1	1,023
Outside of Bay Area	-	79	8	4	650	742	3	-	1	1	1	-	5	3	749
All Origins	1,798	1,331	328	209	2,571	6,238	30	-	32	35	11	-	108	12	6,358
Vehicle trips															
Superdistrict 1	97	11	2	2	17	128	1	-	0	0	0	-	2	0	130
Superdistrict 2	14	54	16	9	71	164	1	-	1	1	0	-	4	0	169
Superdistrict 3	78	37	6	6	31	158	1	-	2	2	0	-	5	0	163
Superdistrict 4	14	44	13	8	51	130	1	-	1	1	0	-	3	0	134
East Bay	72	40	11	7	70	200	1	-	1	1	0	-	3	0	203
North Bay	11	30	8	5	60	113	1	-	1	1	0	-	2	0	115
South Bay	179	92	28	17	61	377	2	-	2	2	1	-	7	0	385
Outside of Bay Area	-	14	2	1	74	92	3	-	0	0	0	-	3	0	95
All Origins	466	322	86	54	435	1,362	11	-	8	9	3	-	30	2	1,394

Mission Rock Mixed-Use Project
SCENARIO B - (High Residential/ Low Commercial)

EXTERNAL ONLY TRIPS	SEAWALL LOT 337						PIER 48							China Basin Park Open Space	TOTAL DEVELOPMENT
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production	Subtotal Pier 48		
Weekday PM Peak Hour															
Auto Person Trips															
Superdistrict 1	85	5	4	33	23	150	1	4	6	3	0	-	14	0	164
Superdistrict 2	19	68	33	102	131	353	2	7	6	3	1	-	18	0	371
Superdistrict 3	68	18	3	60	42	191	2	8	5	2	0	-	17	0	207
Superdistrict 4	19	66	19	69	89	262	1	4	3	2	1	-	11	0	274
East Bay	98	123	71	122	157	571	3	8	13	6	1	-	30	0	601
North Bay	15	49	38	81	104	286	1	5	7	3	0	-	17	0	303
South Bay	242	114	98	99	127	678	2	6	18	8	1	-	36	0	714
Outside of Bay Area	-	30	226	166	213	634	3	11	41	19	0	-	74	1	709
All Origins	544	472	493	730	886	3,125	14	54	100	45	4	-	217	3	3,345
Transit Person Trips															
Superdistrict 1	161	12	4	44	31	252	1	6	5	2	0	-	15	0	267
Superdistrict 2	37	130	42	116	149	473	3	7	8	3	1	-	22	0	496
Superdistrict 3	129	24	3	58	41	253	2	7	4	2	0	-	15	0	269
Superdistrict 4	37	82	20	56	72	265	2	3	4	2	1	-	11	0	277
East Bay	120	165	48	72	92	497	4	4	9	4	1	-	22	0	519
North Bay	7	36	16	13	17	88	1	1	3	1	0	-	6	0	94
South Bay	287	77	21	43	55	483	2	3	4	2	1	-	11	0	494
Outside of Bay Area	-	24	52	111	143	331	0	8	9	4	0	-	22	0	353
All Origins	777	549	205	512	600	2,643	14	39	45	21	4	-	123	2	2,768
Walk/Other Person trips															
Superdistrict 1	171	22	16	175	124	508	1	23	23	11	0	-	59	1	568
Superdistrict 2	39	16	43	102	131	331	0	7	8	4	0	-	19	0	350
Superdistrict 3	137	4	5	36	25	207	0	5	7	3	0	-	15	0	222
Superdistrict 4	39	10	15	38	49	152	0	3	3	1	0	-	7	0	159
East Bay	23	18	67	67	87	261	0	5	12	6	0	-	23	0	284
North Bay	-	4	28	21	27	81	0	1	5	2	0	-	9	0	90
South Bay	45	5	15	25	32	122	0	2	3	1	0	-	6	0	128
Outside of Bay Area	-	22	333	184	236	774	0	13	61	28	0	-	101	1	876
All Origins	454	101	523	648	711	2,436	2	58	122	55	1	-	238	3	2,677
Total Person trips															
Superdistrict 1	417	40	24	252	178	911	3	33	35	16	0	-	88	1	1,000
Superdistrict 2	95	214	119	319	410	1,158	4	21	22	10	2	-	59	1	1,218
Superdistrict 3	333	45	11	153	108	651	4	20	16	7	0	-	47	1	698
Superdistrict 4	95	157	54	163	210	679	3	11	10	4	1	-	29	1	709
East Bay	240	306	186	261	336	1,329	6	17	34	15	2	-	75	1	1,405
North Bay	22	88	82	115	148	455	2	8	15	7	1	-	32	0	487
South Bay	574	195	134	166	214	1,283	4	11	25	11	2	-	52	1	1,335
Outside of Bay Area	-	76	610	461	593	1,739	3	32	111	51	1	-	197	2	1,938
All Origins	1,776	1,122	1,220	1,891	2,196	8,205	30	150	267	122	9	-	578	8	8,791
Vehicle trips															
Superdistrict 1	76	4	3	15	10	108	1	2	4	2	0	-	8	0	116
Superdistrict 2	17	51	21	51	65	205	1	3	4	2	0	-	11	0	216
Superdistrict 3	61	13	2	26	18	120	1	3	3	1	0	-	8	0	129
Superdistrict 4	17	42	13	36	47	155	1	2	2	1	0	-	7	0	162
East Bay	88	38	30	49	63	269	1	3	5	2	0	-	12	0	281
North Bay	13	28	17	42	55	155	1	3	3	1	0	-	8	0	164
South Bay	218	88	37	43	56	442	2	3	7	3	1	-	15	0	457
Outside of Bay Area	-	13	73	53	68	206	3	4	13	6	0	-	26	0	232
All Origins	492	278	194	315	382	1,660	11	23	41	19	2	-	95	1	1,756

INDIVIDUAL LAND USE TRIP GENERATION CALCULATIONS

Mission Rock Mixed-Use Project
 SCENARIO B (High Residential/ Low Commercial)
 LAND USE: RESIDENTIAL (WORK TRIPS)

Proposed Size:		1,579 units					
DAILY				AM PEAK HOUR		PM PEAK HOUR	
Person-trip Generation Rate [1]:		10.0 trips/unit		Person-trip Gen Rate: 14.2% [5]		1.4 17.3% [1] 1.7	
Total Person-trips:		15,790 person-trips		Total Person-trips:		2,247 2,732	
Work Trips [2]: 33%		5,211 person-trips		Work Person-trips: 50% [6]		1,124 50% [2] 1,366	

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [4]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 34.7%	Auto	20.3%	1.11	367	331	79	71	96	87
	Transit	38.6%		698		150		183	
	Walk	34.7%		627		135		164	
	Other	6.4%		116		25		30	
	All Modes	100.0%		1,808	331	390	71	474	87
SF Superdistrict 2 3.5%	Auto	20.3%	1.11	37	33	8	7	10	9
	Transit	38.6%		70		15		18	
	Walk	34.7%		63		14		16	
	Other	6.4%		12		2		3	
	All Modes	100.0%		181	33	39	7	47	9
SF Superdistrict 3 27.8%	Auto	20.3%	1.11	294	265	63	57	77	69
	Transit	38.6%		558		120		146	
	Walk	34.7%		502		108		132	
	Other	6.4%		93		20		24	
	All Modes	100.0%		1,446	265	312	57	379	69
SF Superdistrict 4 3.5%	Auto	20.3%	1.11	37	33	8	7	10	9
	Transit	38.6%		70		15		18	
	Walk	34.7%		63		14		16	
	Other	6.4%		12		2		3	
	All Modes	100.0%		181	33	39	7	47	9
East Bay 8.8%	Auto	40.6%	1.11	186	168	40	36	49	44
	Transit	50.0%		229		49		60	
	Walk	0.0%		0		0		0	
	Other	9.4%		43		9		11	
	All Modes	100.0%		459	168	99	36	120	44
North Bay 0.8%	Auto	66.7%	1.11	28	25	6	5	7	7
	Transit	33.3%		14		3		4	
	Walk	0.0%		0		0		0	
	Other	0.0%		0		0		0	
	All Modes	100.0%		42	25	9	5	11	7
South Bay 21.0%	Auto	42.1%	1.11	461	416	99	90	121	109
	Transit	50.0%		547		118		143	
	Walk	0.0%		0		0		0	
	Other	7.9%		86		19		23	
	All Modes	100.0%		1,094	416	236	90	287	109
Outside of Bay Area 0.0%	Auto	0.0%	1.11	0	0	0	0	0	0
	Transit	0.0%		0		0		0	
	Walk	0.0%		0		0		0	
	Other	0.0%		0		0		0	
	All Modes	0.0%		0	0	0	0	0	0
All Origins 100.0%	Auto	27.0%	1.11	1,409	1,272	304	274	369	333
	Transit	42.0%		2,186		471		573	
	Walk	24.1%		1,255		271		329	
	Other	6.9%		361		78		95	
	All Modes	100.0%		5,211	1,272	1,124	274	1,366	333

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (Residential)
 [2] SF Guidelines, Appendix C - Table C-2 (Residential)
 [3] 2008 San Francisco Planning Department Travel Behavior Survey for South Beach/South Park/Rincon Hill Area
 [4] 2008-2012 American Community Survey 5-Year Estimate (Tract 607)
 [5] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [6] The AM Peak Hour % of work/non-work trips are assumed to be the same as the PM Peak Hour % shown in Table C-2 of the SF Guidelines

Mission Rock Mixed-Use Project
 SCENARIO B (High Residential/ Low Commercial)
 LAND USE: RESIDENTIAL (NON-WORK TRIPS)

Proposed Size:		1,579 units					
DAILY				AM PEAK HOUR		PM PEAK HOUR	
Person-trip Generation Rate [1]:		10.0 trips/unit		Person-trip Gen Rate: 14.2% [5]		1.4 17.3% [1] 1.7	
Total Person-trips:		15,790 person-trips		Total Person-trips:		2,247 2,732	
Non-Work Trips [2]: 67%		10,579 person-trips		Non-Work Person-trips: 50% [6]		1,124 50% [2] 1,366	

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [4]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 34.7%	Auto	20.3%	1.11	745	673	79	71	96	87
	Transit	38.6%		1,417		150		183	
	Walk	34.7%		1,274		135		164	
	Other	6.4%		235		25		30	
	All Modes	100.0%		3,671	673	390	71	474	87
SF Superdistrict 2 3.5%	Auto	20.3%	1.11	75	67	8	7	10	9
	Transit	38.6%		142		15		18	
	Walk	34.7%		127		14		16	
	Other	6.4%		23		2		3	
	All Modes	100.0%		367	67	39	7	47	9
SF Superdistrict 3 27.8%	Auto	20.3%	1.11	596	538	63	57	77	69
	Transit	38.6%		1,134		120		146	
	Walk	34.7%		1,019		108		132	
	Other	6.4%		188		20		24	
	All Modes	100.0%		2,937	538	312	57	379	69
SF Superdistrict 4 3.5%	Auto	20.3%	1.11	75	67	8	7	10	9
	Transit	38.6%		142		15		18	
	Walk	34.7%		127		14		16	
	Other	6.4%		23		2		3	
	All Modes	100.0%		367	67	39	7	47	9
East Bay 8.8%	Auto	40.6%	1.11	378	341	40	36	49	44
	Transit	50.0%		465		49		60	
	Walk	0.0%		0		0		0	
	Other	9.4%		88		9		11	
	All Modes	100.0%		931	341	99	36	120	44
North Bay 0.8%	Auto	66.7%	1.11	56	51	6	5	7	7
	Transit	33.3%		28		3		4	
	Walk	0.0%		0		0		0	
	Other	0.0%		0		0		0	
	All Modes	100.0%		85	51	9	5	11	7
South Bay 21.0%	Auto	42.1%	1.11	935	844	99	90	121	109
	Transit	50.0%		1,111		118		143	
	Walk	0.0%		0		0		0	
	Other	7.9%		176		19		23	
	All Modes	100.0%		2,222	844	236	90	287	109
Outside of Bay Area 0.0%	Auto	0.0%	1.11	0	0	0	0	0	0
	Transit	0.0%		0		0		0	
	Walk	0.0%		0		0		0	
	Other	0.0%		0		0		0	
	All Modes	0.0%		0	0	0	0	0	0
All Origins 100.0%	Auto	27.0%	1.11	2,860	2,582	304	274	369	333
	Transit	42.0%		4,439		471		573	
	Walk	24.1%		2,548		271		329	
	Other	6.9%		733		78		95	
	All Modes	100.0%		10,579	2,582	1,124	274	1,366	333

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (Residential)
 [2] SF Guidelines, Appendix C - Table C-2 (Residential)
 [3] 2008 San Francisco Planning Department Travel Behavior Survey for South Beach/South Park/Rincon Hill Area
 [4] 2008-2012 American Community Survey 5-Year Estimate (Tract 607)
 [5] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [6] The AM Peak Hour % of work/non-work trips are assumed to be the same as the PM Peak Hour % shown in Table C-2 of the SF Guidelines

Mission Rock Mixed-Use Project

SCENARIO B (High Residential/ Low Commercial)
 LAND USE: GENERAL OFFICE (WORK TRIPS)

Proposed Size: 972,175 sq.ft.						
DAILY		AM PEAK HOUR		PM PEAK HOUR		
Person-trip Generation Rate [1]:	18.1 trips/1,000 gsf	Person-trip Gen Rate:	8.9% [4]	1.6	8.5% [1]	1.5
Total Person-trips:	17,596 person-trips	Total Person-trips:		1,566		1,496
Work Trips [2]:	36%	Work Person-trips:	83% [5]	1,300	83% [2]	1,241

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 12.8%	Auto	13.8%	1.28	112	87	23	18	22	17
	Transit	36.0%		292		60		57	
	Walk	47.5%		385		79		75	
	Other	2.7%		22		4		4	
	All Modes	100.0%		811	87	166	18	159	17
SF Superdistrict 2 14.4%	Auto	31.6%	1.23	288	234	59	48	56	46
	Transit	65.8%		600		123		118	
	Walk	1.3%		12		2		2	
	Other	1.3%		12		2		2	
	All Modes	100.0%		912	234	187	48	179	46
SF Superdistrict 3 17.0%	Auto	39.5%	1.29	425	330	87	68	83	65
	Transit	54.4%		586		120		115	
	Walk	3.8%		41		8		8	
	Other	2.3%		25		5		5	
	All Modes	100.0%		1,077	330	221	68	211	65
SF Superdistrict 4 11.2%	Auto	41.7%	1.53	296	193	61	40	58	38
	Transit	54.5%		387		79		76	
	Walk	0.0%		0		0		0	
	Other	3.8%		27		6		5	
	All Modes	100.0%		709	193	146	40	139	38
East Bay 22.4%	Auto	39.4%	3.33	559	168	115	34	110	33
	Transit	57.0%		809		166		159	
	Walk	0.0%		0		0		0	
	Other	3.6%		51		10		10	
	All Modes	100.0%		1,419	168	291	34	278	33
North Bay 6.1%	Auto	52.8%	1.70	204	120	42	25	40	24
	Transit	45.3%		175		36		34	
	Walk	0.0%		0		0		0	
	Other	1.9%		7		2		1	
	All Modes	100.0%		386	120	79	25	76	24
South Bay 14.3%	Auto	58.0%	1.23	525	427	108	88	103	84
	Transit	40.7%		369		76		72	
	Walk	0.0%		0		0		0	
	Other	1.3%		12		2		2	
	All Modes	100.0%		906	427	186	88	178	84
Outside of Bay Area 1.8%	Auto	47.8%	1.50	55	36	11	7	11	7
	Transit	50.0%		57		12		11	
	Walk	0.0%		0		0		0	
	Other	2.2%		3		1		0	
	All Modes	100.0%		114	36	23	7	22	7
All Origins 100.0%	Auto	38.9%	1.54	2,464	1,596	506	328	483	313
	Transit	51.7%		3,274		672		642	
	Walk	6.9%		438		90		86	
	Other	2.5%		158		32		31	
	All Modes	100.0%		6,335	1,596	1,300	328	1,241	313

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (General Office)
 [2] SF Guidelines, Appendix C - Table C-2 (General Office)
 [3] SF Guidelines, Appendix E - Table E-3 Work Trips to SD1 (All)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] The AM Peak Hour % of work/non-work trips are assumed to be the same as the PM Peak Hour % shown in Table C-2 of the SF Guidelines

Mission Rock Mixed-Use Project

SCENARIO B (High Residential/ Low Commercial)
 LAND USE: GENERAL OFFICE (NON-WORK TRIPS)

Proposed Size: 972,175 sq.ft.						
DAILY		AM PEAK HOUR		PM PEAK HOUR		
Person-trip Generation Rate [1]:	18.1 trips/1,000 gsf	Person-trip Gen Rate:	8.9% [4]	1.6	8.5% [1]	1.5
Total Person-trips:	17,596 person-trips	Total Person-trips:		1,566		1,496
Non-Work Trips [2]:	64%	Non-Work Person-trips:	17% [5]	266	17% [2]	254

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 22.0%	Auto	12.9%	2.29	320	140	8	3	7	3
	Transit	17.1%		424		10		10	
	Walk	65.3%		1,618		38		37	
	Other	4.7%		116		3		3	
	All Modes	100.0%		2,478	140	59	3	56	3
SF Superdistrict 2 14.0%	Auto	31.9%	2.07	503	243	12	6	11	5
	Transit	35.0%		552		13		12	
	Walk	26.7%		421		10		10	
	Other	6.4%		101		2		2	
	All Modes	100.0%		1,577	243	37	6	36	5
SF Superdistrict 3 13.0%	Auto	38.8%	2.39	568	238	13	6	13	5
	Transit	36.8%		539		13		12	
	Walk	17.4%		255		6		6	
	Other	7.0%		102		2		2	
	All Modes	100.0%		1,464	238	35	6	33	5
SF Superdistrict 4 7.0%	Auto	42.5%	1.93	335	174	8	4	8	4
	Transit	32.7%		258		6		6	
	Walk	17.7%		140		3		3	
	Other	7.1%		56		1		1	
	All Modes	100.0%		788	174	19	4	18	4
East Bay 11.0%	Auto	47.4%	2.43	587	242	14	6	13	5
	Transit	24.9%		308		7		7	
	Walk	25.4%		315		7		7	
	Other	2.3%		28		1		1	
	All Modes	100.0%		1,239	242	29	6	28	5
North Bay 5.0%	Auto	71.1%	1.91	400	210	9	5	9	5
	Transit	9.6%		54		1		1	
	Walk	15.8%		89		2		2	
	Other	3.5%		20		0		0	
	All Modes	100.0%		563	210	13	5	13	5
South Bay 7.0%	Auto	59.5%	2.46	469	191	11	5	11	4
	Transit	24.6%		194		5		4	
	Walk	13.5%		106		3		2	
	Other	2.4%		19		0		0	
	All Modes	100.0%		788	191	19	5	18	4
Outside of Bay Area 21.0%	Auto	35.9%	3.17	849	268	20	6	19	6
	Transit	24.1%		570		13		13	
	Walk	27.7%		655		15		15	
	Other	12.3%		291		7		7	
	All Modes	100.0%		2,365	268	56	6	53	6
All Origins 100.0%	Auto	35.8%	2.37	4,031	1,704	95	40	91	38
	Transit	25.7%		2,898		69		65	
	Walk	32.0%		3,598		85		81	
	Other	6.5%		734		17		17	
	All Modes	100.0%		11,262	1,704	266	40	254	38

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (General Office)
 [2] SF Guidelines, Appendix C - Table C-2 (General Office)
 [3] SF Guidelines, Appendix E - Table E-11 Visitor Trips to SD1 (All Other)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] The AM Peak Hour % of work/non-work trips are assumed to be the same as the PM Peak Hour % shown in Table C-2 of the SF Guidelines

Mission Rock Mixed-Use Project

SCENARIO B (High Residential/ Low Commercial)
 LAND USE: GENERAL RETAIL (WORK TRIPS)

Proposed Size: 120,519 sq.ft.						
DAILY		AM PEAK HOUR		PM PEAK HOUR		
Person-trip Generation Rate [1]:	150.0 trips/1,000 gsf	Person-trip Gen Rate:	2.3% [4]	3.5	9.0% [1]	13.5
Total Person-trips:	18,078 person-trips	Total Person-trips:	421	421	1,627	1,627
Work Trips [2]: 4%	723 person-trips	Work Person-trips:	100% [5]	421	4%	65

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 12.8%	Auto	13.8%	1.28	13	10	7	6	1	1
	Transit	36.0%		33	19	19	3	3	
	Walk	47.5%		44	26	26	4	4	
	Other	2.7%		2	1	1	0	0	
	All Modes	100.0%		93	10	54	6	8	1
SF Superdistrict 2 14.4%	Auto	31.6%	1.23	33	27	19	16	3	2
	Transit	65.8%		69	40	40	6	6	
	Walk	1.3%		1	1	1	0	0	
	Other	1.3%		1	1	1	0	0	
	All Modes	100.0%		104	27	61	16	9	2
SF Superdistrict 3 17.0%	Auto	39.5%	1.29	49	38	28	22	4	3
	Transit	54.4%		67	38	39	6	6	
	Walk	3.8%		5	3	3	0	0	
	Other	2.3%		3	2	2	0	0	
	All Modes	100.0%		123	38	72	22	11	3
SF Superdistrict 4 11.2%	Auto	41.7%	1.53	34	22	20	13	3	2
	Transit	54.5%		44	22	26	4	4	
	Walk	0.0%		0	0	0	0	0	
	Other	3.8%		3	2	2	0	0	
	All Modes	100.0%		81	22	47	13	7	2
East Bay 22.4%	Auto	39.4%	3.33	64	19	37	11	6	2
	Transit	57.0%		92	54	54	8	8	
	Walk	0.0%		0	0	0	0	0	
	Other	3.6%		6	3	3	1	1	
	All Modes	100.0%		162	19	94	11	15	2
North Bay 6.1%	Auto	52.8%	1.70	23	14	14	8	2	1
	Transit	45.3%		20	12	12	2	2	
	Walk	0.0%		0	0	0	0	0	
	Other	1.9%		1	0	0	0	0	
	All Modes	100.0%		44	14	26	8	4	1
South Bay 14.3%	Auto	58.0%	1.23	60	49	35	28	5	4
	Transit	40.7%		42	25	25	4	4	
	Walk	0.0%		0	0	0	0	0	
	Other	1.3%		1	1	1	0	0	
	All Modes	100.0%		103	49	60	28	9	4
Outside of Bay Area 1.8%	Auto	47.8%	1.50	6	4	4	2	1	0
	Transit	50.0%		7	4	4	1	1	
	Walk	0.0%		0	0	0	0	0	
	Other	2.2%		0	0	0	0	0	
	All Modes	100.0%		13	4	8	2	1	0
All Origins 100.0%	Auto	38.9%	1.54	281	182	164	106	25	16
	Transit	51.7%		374	218	218	34	34	
	Walk	6.9%		50	29	29	4	4	
	Other	2.5%		18	11	11	2	2	
	All Modes	100.0%		723	182	421	106	65	16

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (General Retail)
 [2] SF Guidelines, Appendix C - Table C-2 (Retail)
 [3] SF Guidelines, Appendix E - Table E-3 Work Trips to SD1 (All)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] All retail trips occurring before 9 AM are assumed to be work trips

Mission Rock Mixed-Use Project

SCENARIO B (High Residential/ Low Commercial)
 LAND USE: GENERAL RETAIL (NON-WORK TRIPS)

Proposed Size: 120,519 sq.ft.						
DAILY		AM PEAK HOUR		PM PEAK HOUR		
Person-trip Generation Rate [1]:	150.0 trips/1,000 gsf	Person-trip Gen Rate:	2.3% [4]	3.5	9.0% [1]	13.5
Total Person-trips:	18,078 person-trips	Total Person-trips:	421	421	1,627	1,627
Non-Work Trips [2]: 96%	17,355 person-trips	Non-Work Person-trips:	0% [5]	0	96% [2]	1,562

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 19.0%	Auto	18.1%	1.62	597	368	0	0	54	33
	Transit	14.7%		485	0	0	44	44	
	Walk	63.0%		2,077	0	0	187	187	
	Other	4.2%		138	0	0	12	12	
	All Modes	100.0%		3,297	368	0	0	297	33
SF Superdistrict 2 7.0%	Auto	27.9%	1.66	339	204	0	0	31	18
	Transit	32.6%		396	0	0	36	36	
	Walk	34.1%		414	0	0	37	37	
	Other	5.4%		66	0	0	6	6	
	All Modes	100.0%		1,215	204	0	0	109	18
SF Superdistrict 3 8.0%	Auto	31.2%	2.08	433	208	0	0	39	19
	Transit	21.7%		301	0	0	27	27	
	Walk	41.3%		573	0	0	52	52	
	Other	5.8%		81	0	0	7	7	
	All Modes	100.0%		1,388	208	0	0	125	19
SF Superdistrict 4 3.0%	Auto	34.0%	1.51	177	117	0	0	16	11
	Transit	34.0%		177	0	0	16	16	
	Walk	28.0%		146	0	0	13	13	
	Other	4.0%		21	0	0	2	2	
	All Modes	100.0%		521	117	0	0	47	11
East Bay 11.0%	Auto	38.1%	2.35	727	310	0	0	65	28
	Transit	23.2%		443	0	0	40	40	
	Walk	36.6%		699	0	0	63	63	
	Other	2.1%		40	0	0	4	4	
	All Modes	100.0%		1,909	310	0	0	172	28
North Bay 5.0%	Auto	46.1%	2.27	400	176	0	0	36	16
	Transit	17.6%		153	0	0	14	14	
	Walk	34.1%		296	0	0	27	27	
	Other	2.2%		19	0	0	2	2	
	All Modes	100.0%		868	176	0	0	78	16
South Bay 8.0%	Auto	73.8%	2.84	1,025	361	0	0	92	32
	Transit	14.1%		196	0	0	18	18	
	Walk	10.1%		140	0	0	13	13	
	Other	2.0%		28	0	0	2	2	
	All Modes	100.0%		1,388	361	0	0	125	32
Outside of Bay Area 39.0%	Auto	37.0%	3.12	2,504	803	0	0	225	72
	Transit	8.4%		569	0	0	51	51	
	Walk	28.3%		1,915	0	0	172	172	
	Other	26.3%		1,780	0	0	160	160	
	All Modes	100.0%		6,768	803	0	0	609	72
All Origins 100.0%	Auto	35.7%	2.43	6,202	2,547	0	0	558	229
	Transit	15.7%		2,719	0	0	245	245	
	Walk	36.1%		6,261	0	0	563	563	
	Other	12.5%		2,172	0	0	196	196	
	All Modes	100.0%		17,355	2,547	0	0	1,562	229

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (General Retail)
 [2] SF Guidelines, Appendix C - Table C-2 (Retail)
 [3] SF Guidelines, Appendix E - Table E-10 Visitor Trips to SD1 (Retail)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] All retail trips occurring before 9 AM are assumed to be work trips

Mission Rock Mixed-Use Project

SCENARIO B (High Residential/ Low Commercial)

LAND USE: QUALITY RESTAURANT (WORK TRIPS)

Proposed Size: 84,363 sq.ft.					
DAILY		AM PEAK HOUR		PM PEAK HOUR	
Person-trip Generation Rate [1]:	200.0 trips/1,000 gsf	Person-trip Gen Rate:	1.5% [4]	2.9	13.5% [1]
Total Person-trips:	16,873 person-trips	Total Person-trips:	246	246	2,278
Work Trips [2]: 4%	675 person-trips	Work Person-trips:	100% [5]	246	4% [2]
				91	

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 12.8%	Auto	13.8%	1.28	12	9	4	3	2	1
	Transit	36.0%		31		11		4	
	Walk	47.5%		41		15		6	
	Other	2.7%		2		1		0	
	All Modes	100.0%		86	9	32	3	12	1
SF Superdistrict 2 14.4%	Auto	31.6%	1.23	31	25	11	9	4	3
	Transit	65.8%		64		23		9	
	Walk	1.3%		1		0		0	
	Other	1.3%		1		0		0	
	All Modes	100.0%		97	25	35	9	13	3
SF Superdistrict 3 17.0%	Auto	39.5%	1.29	45	35	17	13	6	5
	Transit	54.4%		62		23		8	
	Walk	3.8%		4		2		1	
	Other	2.3%		3		1		0	
	All Modes	100.0%		115	35	42	13	15	5
SF Superdistrict 4 11.2%	Auto	41.7%	1.53	32	21	12	8	4	3
	Transit	54.5%		41		15		6	
	Walk	0.0%		0		0		0	
	Other	3.8%		3		1		0	
	All Modes	100.0%		76	21	28	8	10	3
East Bay 22.4%	Auto	39.4%	3.33	60	18	22	7	8	2
	Transit	57.0%		86		31		12	
	Walk	0.0%		0		0		0	
	Other	3.6%		5		2		1	
	All Modes	100.0%		151	18	55	7	20	2
North Bay 6.1%	Auto	52.8%	1.70	22	13	8	5	3	2
	Transit	45.3%		19		7		3	
	Walk	0.0%		0		0		0	
	Other	1.9%		1		0		0	
	All Modes	100.0%		41	13	15	5	6	2
South Bay 14.3%	Auto	58.0%	1.23	56	46	20	17	8	6
	Transit	40.7%		39		14		5	
	Walk	0.0%		0		0		0	
	Other	1.3%		1		0		0	
	All Modes	100.0%		97	46	35	17	13	6
Outside of Bay Area 1.8%	Auto	47.8%	1.50	6	4	2	1	1	1
	Transit	50.0%		6		2		1	
	Walk	0.0%		0		0		0	
	Other	2.2%		0		0		0	
	All Modes	100.0%		12	4	4	1	2	1
All Origins 100.0%	Auto	38.9%	1.54	263	170	96	62	35	23
	Transit	51.7%		349		127		47	
	Walk	6.9%		47		17		6	
	Other	2.5%		17		6		2	
	All Modes	100.0%		675	170	246	62	91	23

Notes:

- [1] SF Guidelines, Appendix C - Table C-1 (Quality Sit-down Restaurant)
- [2] SF Guidelines, Appendix C - Table C-2 (Retail)
- [3] SF Guidelines, Appendix E - Table E-3 Work Trips to SD1 (All)
- [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
- [5] All quality restaurant trips occurring before 9 AM are assumed to be work trips

Mission Rock Mixed-Use Project

SCENARIO B (High Residential/ Low Commercial)

LAND USE: QUALITY RESTAURANT (NON-WORK TRIPS)

Proposed Size: 84,363 sq.ft.					
DAILY		AM PEAK HOUR		PM PEAK HOUR	
Person-trip Generation Rate [1]:	200.0 trips/1,000 gsf	Person-trip Gen Rate:	1.5% [4]	2.9	13.5% [1]
Total Person-trips:	16,873 person-trips	Total Person-trips:	246	246	2,278
Non-Work Trips [2]: 96%	16,198 person-trips	Non-Work Person-trips:	0% [5]	0	96% [2]
				2,187	

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 22.0%	Auto	12.9%	2.29	460	201	0	0	62	27
	Transit	17.1%		609		0		82	
	Walk	65.3%		2,327		0		314	
	Other	4.7%		167		0		23	
	All Modes	100.0%		3,563	201	0	0	481	27
SF Superdistrict 2 14.0%	Auto	31.9%	2.07	723	349	0	0	98	47
	Transit	35.0%		794		0		107	
	Walk	26.7%		605		0		82	
	Other	6.4%		145		0		20	
	All Modes	100.0%		2,268	349	0	0	306	47
SF Superdistrict 3 13.0%	Auto	38.8%	2.39	817	342	0	0	110	46
	Transit	36.8%		775		0		105	
	Walk	17.4%		366		0		49	
	Other	7.0%		147		0		20	
	All Modes	100.0%		2,106	342	0	0	284	46
SF Superdistrict 4 7.0%	Auto	42.5%	1.93	482	250	0	0	65	34
	Transit	32.7%		371		0		50	
	Walk	17.7%		201		0		27	
	Other	7.1%		81		0		11	
	All Modes	100.0%		1,134	250	0	0	153	34
East Bay 11.0%	Auto	47.4%	2.43	845	348	0	0	114	47
	Transit	24.9%		444		0		60	
	Walk	25.4%		453		0		61	
	Other	2.3%		41		0		6	
	All Modes	100.0%		1,782	348	0	0	241	47
North Bay 5.0%	Auto	71.1%	1.91	576	301	0	0	78	41
	Transit	9.6%		78		0		10	
	Walk	15.8%		128		0		17	
	Other	3.5%		28		0		4	
	All Modes	100.0%		810	301	0	0	109	41
South Bay 7.0%	Auto	59.5%	2.46	675	274	0	0	91	37
	Transit	24.6%		279		0		38	
	Walk	13.5%		153		0		21	
	Other	2.4%		27		0		4	
	All Modes	100.0%		1,134	274	0	0	153	37
Outside of Bay Area 21.0%	Auto	35.9%	3.17	1,221	385	0	0	165	52
	Transit	24.1%		820		0		111	
	Walk	27.7%		942		0		127	
	Other	12.3%		418		0		56	
	All Modes	100.0%		3,402	385	0	0	459	52
All Origins 100.0%	Auto	35.8%	2.37	5,798	2,450	0	0	783	331
	Transit	25.7%		4,169		0		563	
	Walk	32.0%		5,175		0		699	
	Other	6.5%		1,055		0		142	
	All Modes	100.0%		16,198	2,450	0	0	2,187	331

Notes:

- [1] SF Guidelines, Appendix C - Table C-1 (Quality Sit-down Restaurant)
- [2] SF Guidelines, Appendix C - Table C-2 (Retail)
- [3] SF Guidelines, Appendix E - Table E-11 Visitor Trips to SD1 (All Other)
- [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
- [5] All quality restaurant trips occurring before 9 AM are assumed to be work trips

Mission Rock Mixed-Use Project
 SCENARIO B (High Residential/ Low Commercial)
 LAND USE: QUICK SERVICE RESTAURANT (WORK TRIPS)

Proposed Size: 36,156 sq.ft.					
DAILY		AM PEAK HOUR		PM PEAK HOUR	
Person-trip Generation Rate [1]:	600.0 trips/1,000 gsf	Person-trip Gen Rate:	14.8% [4] 88.9	13.5% [1] 81.0	
Total Person-trips:	21,694 person-trips	Total Person-trips:	3,214	2,929	
Work Trips [2]: 4%	868 person-trips	Work Person-trips:	4% [5] 129	4% [2] 117	

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 12.8%	Auto	13.8%	1.28	15	12	2	2	2	2
	Transit	36.0%		40		6		5	
	Walk	47.5%		53		8		7	
	Other	2.7%		3		0		0	
	All Modes	100.0%		111	12	16	2	15	2
SF Superdistrict 2 14.4%	Auto	31.6%	1.23	39	32	6	5	5	4
	Transit	65.8%		82		12		11	
	Walk	1.3%		2		0		0	
	Other	1.3%		2		0		0	
	All Modes	100.0%		125	32	19	5	17	4
SF Superdistrict 3 17.0%	Auto	39.5%	1.29	58	45	9	7	8	6
	Transit	54.4%		80		12		11	
	Walk	3.8%		6		1		1	
	Other	2.3%		3		1		0	
	All Modes	100.0%		148	45	22	7	20	6
SF Superdistrict 4 11.2%	Auto	41.7%	1.53	41	26	6	4	5	4
	Transit	54.5%		53		8		7	
	Walk	0.0%		0		0		0	
	Other	3.8%		4		1		0	
	All Modes	100.0%		97	26	14	4	13	4
East Bay 22.4%	Auto	39.4%	3.33	77	23	11	3	10	3
	Transit	57.0%		111		16		15	
	Walk	0.0%		0		0		0	
	Other	3.6%		7		1		1	
	All Modes	100.0%		194	23	29	3	26	3
North Bay 6.1%	Auto	52.8%	1.70	28	16	4	2	4	2
	Transit	45.3%		24		4		3	
	Walk	0.0%		0		0		0	
	Other	1.9%		1		0		0	
	All Modes	100.0%		53	16	8	2	7	2
South Bay 14.3%	Auto	58.0%	1.23	72	59	11	9	10	8
	Transit	40.7%		51		7		7	
	Walk	0.0%		0		0		0	
	Other	1.3%		2		0		0	
	All Modes	100.0%		124	59	18	9	17	8
Outside of Bay Area 1.8%	Auto	47.8%	1.50	7	5	1	1	1	1
	Transit	50.0%		8		1		1	
	Walk	0.0%		0		0		0	
	Other	2.2%		0		0		0	
	All Modes	100.0%		16	5	2	1	2	1
All Origins 100.0%	Auto	38.9%	1.54	338	219	50	32	46	30
	Transit	51.7%		449		66		61	
	Walk	6.9%		60		9		8	
	Other	2.5%		22		3		3	
	All Modes	100.0%		868	219	129	32	117	30

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (Fast food restaurant)
 [2] SF Guidelines, Appendix C - Table C-2 (Retail)
 [3] SF Guidelines, Appendix E - Table E-3 Work Trips to SD1 (All)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] All retail trips occurring before 9 AM are assumed to be work trips

Mission Rock Mixed-Use Project
 SCENARIO B (High Residential/ Low Commercial)
 LAND USE: QUICK SERVICE REST. (NON-WORK TRIPS)

Proposed Size: 36,156 sq.ft.					
DAILY		AM PEAK HOUR		PM PEAK HOUR	
Person-trip Generation Rate [1]:	600.0 trips/1,000 gsf	Person-trip Gen Rate:	14.8% [4] 88.9	13.5% [1] 81.0	
Total Person-trips:	21,694 person-trips	Total Person-trips:	3,214	2,929	
Non-Work Trips [2]: 96%	20,826 person-trips	Non-Work Person-trips:	96% [5] 3,086	96% [2] 2,811	

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 22.0%	Auto	12.9%	2.29	591	258	88	38	80	35
	Transit	17.1%		783		116		106	
	Walk	65.3%		2,992		443		404	
	Other	4.7%		215		32		29	
	All Modes	100.0%		4,582	258	679	38	619	35
SF Superdistrict 2 14.0%	Auto	31.9%	2.07	930	449	138	67	126	61
	Transit	35.0%		1,020		151		138	
	Walk	26.7%		778		115		105	
	Other	6.4%		187		28		25	
	All Modes	100.0%		2,916	449	432	67	394	61
SF Superdistrict 3 13.0%	Auto	38.8%	2.39	1,050	440	156	65	142	59
	Transit	36.8%		996		148		135	
	Walk	17.4%		471		70		64	
	Other	7.0%		190		28		26	
	All Modes	100.0%		2,707	440	401	65	365	59
SF Superdistrict 4 7.0%	Auto	42.5%	1.93	620	321	92	48	84	43
	Transit	32.7%		477		71		64	
	Walk	17.7%		258		38		35	
	Other	7.1%		104		15		14	
	All Modes	100.0%		1,458	321	216	48	197	43
East Bay 11.0%	Auto	47.4%	2.43	1,086	447	161	66	147	60
	Transit	24.9%		570		85		77	
	Walk	25.4%		582		86		79	
	Other	2.3%		53		8		7	
	All Modes	100.0%		2,291	447	339	66	309	60
North Bay 5.0%	Auto	71.1%	1.91	740	388	110	57	100	52
	Transit	9.6%		100		15		13	
	Walk	15.8%		165		24		22	
	Other	3.5%		36		5		5	
	All Modes	100.0%		1,041	388	154	57	141	52
South Bay 7.0%	Auto	59.5%	2.46	867	353	129	52	117	48
	Transit	24.6%		359		53		48	
	Walk	13.5%		197		29		27	
	Other	2.4%		35		5		5	
	All Modes	100.0%		1,458	353	216	52	197	48
Outside of Bay Area 21.0%	Auto	35.9%	3.17	1,570	495	233	73	212	67
	Transit	24.1%		1,054		156		142	
	Walk	27.7%		1,211		179		164	
	Other	12.3%		538		80		73	
	All Modes	100.0%		4,373	495	648	73	590	67
All Origins 100.0%	Auto	35.8%	2.37	7,455	3,150	1,104	467	1,006	425
	Transit	25.7%		5,360		794		724	
	Walk	32.0%		6,654		986		898	
	Other	6.5%		1,357		201		183	
	All Modes	100.0%		20,826	3,150	3,086	467	2,811	425

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (Fast food restaurant)
 [2] SF Guidelines, Appendix C - Table C-2 (Retail)
 [3] SF Guidelines, Appendix E - Table E-11 Visitor Trips to SD1 (All Other)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] All retail trips occurring before 9 AM are assumed to be work trips

Mission Rock Mixed-Use Project

LAND USE: PIER 48 BREWERY (WORK TRIPS)

Proposed Size:		75 employees	
DAILY			
Person-trip Generation Rate [1]:	3.0 trips/employee	Person-trip Gen Rate:	AM PEAK HOUR 12.4% [4] 0.4 12.4% [5] 0.4
Total Person-trips:	225 person-trips	Total Person-trips:	28 28
Work Trips [2]:	100%	Work Person-trips:	100% [2] 28 100% [2] 28

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 12.8%	Auto	13.8%	1.28	4	3	0	0	0	0
	Transit	36.0%		10	1	1	1	1	1
	Walk	47.5%		14	2	2	2	2	2
	Other	2.7%		1	0	0	0	0	0
	All Modes	100.0%		29	3	4	0	4	0
SF Superdistrict 2 14.4%	Auto	31.6%	1.23	10	8	1	1	1	1
	Transit	65.8%		21	3	3	3	3	3
	Walk	1.3%		0	0	0	0	0	0
	Other	1.3%		0	0	0	0	0	0
	All Modes	100.0%		32	8	4	1	4	1
SF Superdistrict 3 17.0%	Auto	39.5%	1.29	15	12	2	1	2	1
	Transit	54.4%		21	3	3	3	3	3
	Walk	3.8%		1	0	0	0	0	0
	Other	2.3%		1	0	0	0	0	0
	All Modes	100.0%		38	12	5	1	5	1
SF Superdistrict 4 11.2%	Auto	41.7%	1.53	11	7	1	1	1	1
	Transit	54.5%		14	2	2	2	2	2
	Walk	0.0%		0	0	0	0	0	0
	Other	3.8%		1	0	0	0	0	0
	All Modes	100.0%		25	7	3	1	3	1
East Bay 22.4%	Auto	39.4%	3.33	20	6	2	1	2	1
	Transit	57.0%		29	4	4	4	4	4
	Walk	0.0%		0	0	0	0	0	0
	Other	3.6%		2	0	0	0	0	0
	All Modes	100.0%		50	6	6	1	6	1
North Bay 6.1%	Auto	52.8%	1.70	7	4	1	1	1	1
	Transit	45.3%		6	1	1	1	1	1
	Walk	0.0%		0	0	0	0	0	0
	Other	1.9%		0	0	0	0	0	0
	All Modes	100.0%		14	4	2	1	2	1
South Bay 14.3%	Auto	58.0%	1.23	19	15	2	2	2	2
	Transit	40.7%		13	2	2	2	2	2
	Walk	0.0%		0	0	0	0	0	0
	Other	1.3%		0	0	0	0	0	0
	All Modes	100.0%		32	15	4	2	4	2
Outside of Bay Area 1.8%	Auto	47.8%	1.50	2	1	0	0	0	0
	Transit	50.0%		2	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	2.2%		0	0	0	0	0	0
	All Modes	100.0%		4	1	1	0	1	0
All Origins 100.0%	Auto	38.9%	1.54	88	57	11	7	11	7
	Transit	51.7%		116	14	14	14	14	14
	Walk	6.9%		16	2	2	2	2	2
	Other	2.5%		6	1	1	1	1	1
	All Modes	100.0%		225	57	28	7	28	7

- Notes:
 [1] Assumes that half of the employees will make four daily trips to/from the project site (e.g., for lunch, errands, etc.).
 [2] All employee trips are accounted for as work trips
 [3] SF Guidelines, Appendix E - Table E-3 Work Trips to SD1 (All)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] SF Guidelines, Appendix C - Table C-1 (Industrial/Manufacturing)

Mission Rock Mixed-Use Project

LAND USE: PIER 48 BREWERY (TRUCK TRIPS)

Proposed Size:		38 trucks per day	
DAILY			
Person-trip Generation Rate [1]:	2.0 trips/truck	Truck-trip Gen Rate:	AM PEAK HOUR 5.3% [4] 0.1 5.3% [4] 0.1
Total truck-trips:	76 truck-trips	Total Truck-trips:	4 4
Work Trips [2]:	100%	Work Truck-trips:	100% [2] 4 100% [2] 4

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution	Average Vehicle Occupancy	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 10.0%	Auto	100.0%	1.00	8	8	0	0	0	0
	Transit	0.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	0.0%		0	0	0	0	0	0
	All Modes	100.0%		8	8	0	0	0	0
SF Superdistrict 2 10.0%	Auto	100.0%	1.00	8	8	0	0	0	0
	Transit	0.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	0.0%		0	0	0	0	0	0
	All Modes	100.0%		8	8	0	0	0	0
SF Superdistrict 3 3.0%	Auto	100.0%	1.00	2	2	0	0	0	0
	Transit	0.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	0.0%		0	0	0	0	0	0
	All Modes	100.0%		2	2	0	0	0	0
SF Superdistrict 4 3.0%	Auto	100.0%	1.00	2	2	0	0	0	0
	Transit	0.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	0.0%		0	0	0	0	0	0
	All Modes	100.0%		2	2	0	0	0	0
East Bay 4.0%	Auto	100.0%	1.00	3	3	0	0	0	0
	Transit	0.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	0.0%		0	0	0	0	0	0
	All Modes	100.0%		3	3	0	0	0	0
North Bay 4.0%	Auto	100.0%	1.00	3	3	0	0	0	0
	Transit	0.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	0.0%		0	0	0	0	0	0
	All Modes	100.0%		3	3	0	0	0	0
South Bay 4.0%	Auto	100.0%	1.00	3	3	0	0	0	0
	Transit	0.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	0.0%		0	0	0	0	0	0
	All Modes	100.0%		3	3	0	0	0	0
Outside of Bay Area 62.0%	Auto	100.0%	1.00	47	47	2	2	2	2
	Transit	0.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	0.0%		0	0	0	0	0	0
	All Modes	100.0%		47	47	2	2	2	2
All Origins 100.0%	Auto	100.0%	1.00	76	76	4	4	4	4
	Transit	0.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	0.0%		0	0	0	0	0	0
	All Modes	100.0%		76	76	4	4	4	4

- Notes:
 [1] Each truck makes two one-way truck-trips to the brewery (one empty, one full)
 [2] All truck trips are considered work trips
 [3] SF 26%, Northern Calif (excluding SF) 22%, Southern Calif 9%, Out of State and International 43%
 [4] Based on two trucks arriving/departing during the peak hour.

Mission Rock Mixed-Use Project

LAND USE: PIER 48 BREWERY (VISITOR TRIPS)

Proposed Size:		500 daily visitors			
DAILY					
Person-trip Generation Rate [1]:	2.0 trips/visitor	Person-trip Gen Rate:	0.0% [4]	0.0	15.0% [5]
Total Person-trips:	1,000 person-trips	Total Person-trips:	0	0	150
Non-Work Trips [2]: 100%	1,000 person-trips	Non-Work Person-trips:	100% [2]	0	100% [2]
				0	150

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 22.0%	Auto	12.9%	2.29	28	12	0	0	4	2
	Transit	17.1%		38		0		6	
	Walk	65.3%		144		0		22	
	Other	4.7%		10		0		2	
	All Modes	100.0%		220	12	0	0	33	2
SF Superdistrict 2 14.0%	Auto	31.9%	2.07	45	22	0	0	7	3
	Transit	35.0%		49		0		7	
	Walk	26.7%		37		0		6	
	Other	6.4%		9		0		1	
	All Modes	100.0%		140	22	0	0	21	3
SF Superdistrict 3 13.0%	Auto	38.8%	2.39	50	21	0	0	8	3
	Transit	36.8%		48		0		7	
	Walk	17.4%		23		0		3	
	Other	7.0%		9		0		1	
	All Modes	100.0%		130	21	0	0	20	3
SF Superdistrict 4 7.0%	Auto	42.5%	1.93	30	15	0	0	4	2
	Transit	32.7%		23		0		3	
	Walk	17.7%		12		0		2	
	Other	7.1%		5		0		1	
	All Modes	100.0%		70	15	0	0	11	2
East Bay 11.0%	Auto	47.4%	2.43	52	21	0	0	8	3
	Transit	24.9%		27		0		4	
	Walk	25.4%		28		0		4	
	Other	2.3%		3		0		0	
	All Modes	100.0%		110	21	0	0	17	3
North Bay 5.0%	Auto	71.1%	1.91	36	19	0	0	5	3
	Transit	9.6%		5		0		1	
	Walk	15.8%		8		0		1	
	Other	3.5%		2		0		0	
	All Modes	100.0%		50	19	0	0	8	3
South Bay 7.0%	Auto	59.5%	2.46	42	17	0	0	6	3
	Transit	24.6%		17		0		3	
	Walk	13.5%		9		0		1	
	Other	2.4%		2		0		0	
	All Modes	100.0%		70	17	0	0	11	3
Outside of Bay Area 21.0%	Auto	35.9%	3.17	75	24	0	0	11	4
	Transit	24.1%		51		0		8	
	Walk	27.7%		58		0		9	
	Other	12.3%		26		0		4	
	All Modes	100.0%		210	24	0	0	32	4
All Origins 100.0%	Auto	35.8%	2.37	358	151	0	0	54	23
	Transit	25.7%		257		0		39	
	Walk	32.0%		320		0		48	
	Other	6.5%		65		0		10	
	All Modes	100.0%		1,000	151	0	0	150	23

Notes:

- [1] Assumes that each visitor will make two daily trips to/from the project site.
- [2] All visitor trips are accounted for as non-work trips
- [3] SF Guidelines, Appendix E - Table E-11 Visitor Trips to SD1 (All Other)
- [4] Assumes that visits/tours of the brewery will start after 9 AM
- [5] One hour over a 10-hour day = 10%; increase by 50% for a more conservative analysis

Mission Rock Mixed-Use Project

LAND USE: PIER 48 RESTAURANT (WORK TRIPS)

Proposed Size: 11,000 sq.ft.		AM PEAK HOUR		PM PEAK HOUR	
DAILY					
Person-trip Generation Rate [1]:	200.0 trips/1,000 gsf	Person-trip Gen Rate:	1.5% [4] 2.9	13.5% [1] 27.0	
Total Person-trips:	2,200 person-trips	Total Person-trips:	32	297	
Work Trips [2]: 4%	88 person-trips	Work Person-trips:	100% [5] 32	4% [2] 12	

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 12.8%	Auto	13.8%	1.28	2	1	1	0	0	0
	Transit	36.0%		4	1	1	1	1	1
	Walk	47.5%		5	2	2	1	1	1
	Other	2.7%		0	0	0	0	0	0
	All Modes	100.0%		11	1	4	0	2	0
SF Superdistrict 2 14.4%	Auto	31.6%	1.23	4	3	1	1	1	0
	Transit	65.8%		8	3	3	1	1	1
	Walk	1.3%		0	0	0	0	0	0
	Other	1.3%		0	0	0	0	0	0
	All Modes	100.0%		13	3	5	1	2	0
SF Superdistrict 3 17.0%	Auto	39.5%	1.29	6	5	2	2	1	1
	Transit	54.4%		8	3	3	1	1	1
	Walk	3.8%		1	0	0	0	0	0
	Other	2.3%		0	0	0	0	0	0
	All Modes	100.0%		15	5	5	2	2	1
SF Superdistrict 4 11.2%	Auto	41.7%	1.53	4	3	2	1	1	0
	Transit	54.5%		5	2	2	1	1	1
	Walk	0.0%		0	0	0	0	0	0
	Other	3.8%		0	0	0	0	0	0
	All Modes	100.0%		10	3	4	1	1	0
East Bay 22.4%	Auto	39.4%	3.33	8	2	3	1	1	0
	Transit	57.0%		11	4	4	2	2	2
	Walk	0.0%		0	0	0	0	0	0
	Other	3.6%		1	0	0	0	0	0
	All Modes	100.0%		20	2	7	1	3	0
North Bay 6.1%	Auto	52.8%	1.70	3	2	1	1	0	0
	Transit	45.3%		2	1	1	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	1.9%		0	0	0	0	0	0
	All Modes	100.0%		5	2	2	1	1	0
South Bay 14.3%	Auto	58.0%	1.23	7	6	3	2	1	1
	Transit	40.7%		5	2	2	1	1	1
	Walk	0.0%		0	0	0	0	0	0
	Other	1.3%		0	0	0	0	0	0
	All Modes	100.0%		13	6	5	2	2	1
Outside of Bay Area 1.8%	Auto	47.8%	1.50	1	1	0	0	0	0
	Transit	50.0%		1	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	2.2%		0	0	0	0	0	0
	All Modes	100.0%		2	1	1	0	0	0
All Origins 100.0%	Auto	38.9%	1.54	34	22	12	8	5	3
	Transit	51.7%		45	17	17	6	6	6
	Walk	6.9%		6	2	2	1	1	1
	Other	2.5%		2	1	1	0	0	0
	All Modes	100.0%		88	22	32	8	12	3

Notes:

- [1] SF Guidelines, Appendix C - Table C-1 (Quality Sit-down Restaurant)
- [2] SF Guidelines, Appendix C - Table C-2 (Retail)
- [3] SF Guidelines, Appendix E - Table E-3 Work Trips to SD1 (All)
- [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
- [5] All quality restaurant trips occurring before 9 AM are assumed to be work trips

Mission Rock Mixed-Use Project

LAND USE: PIER 48 RESTAURANT (NON-WORK TRIPS)

Proposed Size: 11,000 sq.ft.		AM PEAK HOUR		PM PEAK HOUR	
DAILY					
Person-trip Generation Rate [1]:	200.0 trips/1,000 gsf	Person-trip Gen Rate:	1.5% [4] 2.9	13.5% [1] 27.0	
Total Person-trips:	2,200 person-trips	Total Person-trips:	32	297	
Non-Work Trips [2]: 96%	2,112 person-trips	Non-Work Person-trips:	0% [5] 0	96% [2] 285	

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 19.0%	Auto	18.1%	1.62	73	45	0	0	10	6
	Transit	14.7%		59	0	0	8	8	8
	Walk	63.0%		253	0	0	34	34	34
	Other	4.2%		17	0	0	2	2	2
	All Modes	100.0%		401	45	0	0	54	6
SF Superdistrict 2 7.0%	Auto	27.9%	1.66	41	25	0	0	6	3
	Transit	32.6%		48	0	0	7	7	7
	Walk	34.1%		50	0	0	7	7	7
	Other	5.4%		8	0	0	1	1	1
	All Modes	100.0%		148	25	0	0	20	3
SF Superdistrict 3 8.0%	Auto	31.2%	2.08	53	25	0	0	7	3
	Transit	21.7%		37	0	0	5	5	5
	Walk	41.3%		70	0	0	9	9	9
	Other	5.8%		10	0	0	1	1	1
	All Modes	100.0%		169	25	0	0	23	3
SF Superdistrict 4 3.0%	Auto	34.0%	1.51	22	14	0	0	3	2
	Transit	34.0%		22	0	0	3	3	3
	Walk	28.0%		18	0	0	2	2	2
	Other	4.0%		3	0	0	0	0	0
	All Modes	100.0%		63	14	0	0	9	2
East Bay 11.0%	Auto	38.1%	2.35	89	38	0	0	12	5
	Transit	23.2%		54	0	0	7	7	7
	Walk	36.6%		85	0	0	11	11	11
	Other	2.1%		5	0	0	1	1	1
	All Modes	100.0%		232	38	0	0	31	5
North Bay 5.0%	Auto	46.1%	2.27	49	21	0	0	7	3
	Transit	17.6%		19	0	0	3	3	3
	Walk	34.1%		36	0	0	5	5	5
	Other	2.2%		2	0	0	0	0	0
	All Modes	100.0%		106	21	0	0	14	3
South Bay 8.0%	Auto	73.8%	2.84	125	44	0	0	17	6
	Transit	14.1%		24	0	0	3	3	3
	Walk	10.1%		17	0	0	2	2	2
	Other	2.0%		3	0	0	0	0	0
	All Modes	100.0%		169	44	0	0	23	6
Outside of Bay Area 39.0%	Auto	37.0%	3.12	305	98	0	0	41	13
	Transit	8.4%		69	0	0	9	9	9
	Walk	28.3%		233	0	0	31	31	31
	Other	26.3%		217	0	0	29	29	29
	All Modes	100.0%		824	98	0	0	111	13
All Origins 100.0%	Auto	35.7%	2.43	755	310	0	0	102	42
	Transit	15.7%		331	0	0	45	45	45
	Walk	36.1%		762	0	0	103	103	103
	Other	12.5%		264	0	0	36	36	36
	All Modes	100.0%		2,112	310	0	0	285	42

Notes:

- [1] SF Guidelines, Appendix C - Table C-1 (Quality Sit-down Restaurant)
- [2] SF Guidelines, Appendix C - Table C-2 (Retail)
- [3] SF Guidelines, Appendix E - Table E-11 Visitor Trips to SD1 (All Other)
- [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
- [5] All quality restaurant trips occurring before 9 AM are assumed to be work trips

Mission Rock Mixed-Use Project

LAND USE: PIER 48 MEZZANINE RETAIL (WORK TRIPS)

Proposed Size: 10,000 sq.ft.						
DAILY		AM PEAK HOUR		PM PEAK HOUR		
Person-trip Generation Rate [1]:	150.0 trips/1,000 gsf	Person-trip Gen Rate:	2.3% [4]	3.5	9.0% [1]	13.5
Total Person-trips:	1,500 person-trips	Total Person-trips:		35		135
Work Trips [2]: 4%	60 person-trips	Work Person-trips:	100% [5]	35	4% [2]	5

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 12.8%	Auto	13.8%	1.28	1	1	1	0	0	0
	Transit	36.0%		3	2	2	0	0	0
	Walk	47.5%		4	2	2	0	0	0
	Other	2.7%		0	0	0	0	0	0
	All Modes	100.0%		8	1	4	0	1	0
SF Superdistrict 2 14.4%	Auto	31.6%	1.23	3	2	2	1	0	0
	Transit	65.8%		6	3	3	1	0	0
	Walk	1.3%		0	0	0	0	0	0
	Other	1.3%		0	0	0	0	0	0
	All Modes	100.0%		9	2	5	1	1	0
SF Superdistrict 3 17.0%	Auto	39.5%	1.29	4	3	2	2	0	0
	Transit	54.4%		6	3	3	0	0	0
	Walk	3.8%		0	0	0	0	0	0
	Other	2.3%		0	0	0	0	0	0
	All Modes	100.0%		10	3	6	2	1	0
SF Superdistrict 4 11.2%	Auto	41.7%	1.53	3	2	2	1	0	0
	Transit	54.5%		4	2	2	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	3.8%		0	0	0	0	0	0
	All Modes	100.0%		7	2	4	1	1	0
East Bay 22.4%	Auto	39.4%	3.33	5	2	3	1	0	0
	Transit	57.0%		8	4	4	1	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	3.6%		0	0	0	0	0	0
	All Modes	100.0%		13	2	8	1	1	0
North Bay 6.1%	Auto	52.8%	1.70	2	1	1	1	0	0
	Transit	45.3%		2	1	1	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	1.9%		0	0	0	0	0	0
	All Modes	100.0%		4	1	2	1	0	0
South Bay 14.3%	Auto	58.0%	1.23	5	4	3	2	0	0
	Transit	40.7%		3	2	2	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	1.3%		0	0	0	0	0	0
	All Modes	100.0%		9	4	5	2	1	0
Outside of Bay Area 1.8%	Auto	47.8%	1.50	1	0	0	0	0	0
	Transit	50.0%		1	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	2.2%		0	0	0	0	0	0
	All Modes	100.0%		1	0	1	0	0	0
All Origins 100.0%	Auto	38.9%	1.54	23	15	14	9	2	1
	Transit	51.7%		31	18	18	3	3	0
	Walk	6.9%		4	2	2	0	0	0
	Other	2.5%		1	1	1	0	0	0
	All Modes	100.0%		60	15	35	9	5	1

Notes:

- [1] SF Guidelines, Appendix C - Table C-1 (General Retail)
- [2] SF Guidelines, Appendix C - Table C-2 (Retail)
- [3] SF Guidelines, Appendix E - Table E-3 Work Trips to SD1 (All)
- [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
- [5] All retail trips occurring before 9 AM are assumed to be work trips

Mission Rock Mixed-Use Project

LAND USE: PIER 48 MEZZANINE RETAIL (NON-WORK TRIPS)

Proposed Size: 10,000 sq.ft.						
DAILY		AM PEAK HOUR		PM PEAK HOUR		
Person-trip Generation Rate [1]:	150.0 trips/1,000 gsf	Person-trip Gen Rate:	2.3% [4]	3.5	9.0% [1]	13.5
Total Person-trips:	1,500 person-trips	Total Person-trips:		35		135
Non-Work Trips [2]: 96%	1,440 person-trips	Non-Work Person-trips:	0% [5]	0	96% [2]	130

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 19.0%	Auto	18.1%	1.62	50	31	0	0	4	3
	Transit	14.7%		40	0	0	4	4	0
	Walk	63.0%		172	0	0	16	16	0
	Other	4.2%		11	0	0	1	1	0
	All Modes	100.0%		274	31	0	0	25	3
SF Superdistrict 2 7.0%	Auto	27.9%	1.66	28	17	0	0	3	2
	Transit	32.6%		33	0	0	3	3	0
	Walk	34.1%		34	0	0	3	3	0
	Other	5.4%		5	0	0	0	0	0
	All Modes	100.0%		101	17	0	0	9	2
SF Superdistrict 3 8.0%	Auto	31.2%	2.08	36	17	0	0	3	2
	Transit	21.7%		25	0	0	2	2	0
	Walk	41.3%		48	0	0	4	4	0
	Other	5.8%		7	0	0	1	1	0
	All Modes	100.0%		115	17	0	0	10	2
SF Superdistrict 4 3.0%	Auto	34.0%	1.51	15	10	0	0	1	1
	Transit	34.0%		15	0	0	1	1	0
	Walk	28.0%		12	0	0	1	1	0
	Other	4.0%		2	0	0	0	0	0
	All Modes	100.0%		43	10	0	0	4	1
East Bay 11.0%	Auto	38.1%	2.35	60	26	0	0	5	2
	Transit	23.2%		37	0	0	3	3	0
	Walk	36.6%		58	0	0	5	5	0
	Other	2.1%		3	0	0	0	0	0
	All Modes	100.0%		158	26	0	0	14	2
North Bay 5.0%	Auto	46.1%	2.27	33	15	0	0	3	1
	Transit	17.6%		13	0	0	1	1	0
	Walk	34.1%		25	0	0	2	2	0
	Other	2.2%		2	0	0	0	0	0
	All Modes	100.0%		72	15	0	0	6	1
South Bay 8.0%	Auto	73.8%	2.84	85	30	0	0	8	3
	Transit	14.1%		16	0	0	1	1	0
	Walk	10.1%		12	0	0	1	1	0
	Other	2.0%		2	0	0	0	0	0
	All Modes	100.0%		115	30	0	0	10	3
Outside of Bay Area 39.0%	Auto	37.0%	3.12	208	67	0	0	19	6
	Transit	8.4%		47	0	0	4	4	0
	Walk	28.3%		159	0	0	14	14	0
	Other	26.3%		148	0	0	13	13	0
	All Modes	100.0%		562	67	0	0	51	6
All Origins 100.0%	Auto	35.7%	2.43	515	211	0	0	46	19
	Transit	15.7%		226	0	0	20	20	0
	Walk	36.1%		520	0	0	47	47	0
	Other	12.5%		180	0	0	16	16	0
	All Modes	100.0%		1,440	211	0	0	130	19

Notes:

- [1] SF Guidelines, Appendix C - Table C-1 (General Retail)
- [2] SF Guidelines, Appendix C - Table C-2 (Retail)
- [3] SF Guidelines, Appendix E - Table E-10 Visitor Trips to SD1 (Retail)
- [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
- [5] All retail trips occurring before 9 AM are assumed to be work trips

Mission Rock Mixed-Use Project

LAND USE: PIER 48 MEZZANINE OFFICE (WORK TRIPS)

Proposed Size: 7,875 sq.ft.					
DAILY		AM PEAK HOUR		PM PEAK HOUR	
Person-trip Generation Rate [1]:	18.1 trips/1,000 gsf	Person-trip Gen Rate:	8.9% [4] 1.6	8.5% [1] 1.5	
Total Person-trips:	143 person-trips	Total Person-trips:	13	12	
Work Trips [2]: 36%	51 person-trips	Work Person-trips:	83% [5] 11	83% [2] 10	

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 12.8%	Auto	13.8%	1.28	1	1	0	0	0	0
	Transit	36.0%		2	0	0	0	0	0
	Walk	47.5%		3	1	1	1	1	1
	Other	2.7%		0	0	0	0	0	0
	All Modes	100.0%		7	1	1	0	1	0
SF Superdistrict 2 14.4%	Auto	31.6%	1.23	2	2	0	0	0	0
	Transit	65.8%		5	1	1	1	1	1
	Walk	1.3%		0	0	0	0	0	0
	Other	1.3%		0	0	0	0	0	0
	All Modes	100.0%		7	2	2	0	1	0
SF Superdistrict 3 17.0%	Auto	39.5%	1.29	3	3	1	1	1	1
	Transit	54.4%		5	1	1	1	1	1
	Walk	3.8%		0	0	0	0	0	0
	Other	2.3%		0	0	0	0	0	0
	All Modes	100.0%		9	3	2	1	2	1
SF Superdistrict 4 11.2%	Auto	41.7%	1.53	2	2	0	0	0	0
	Transit	54.5%		3	1	1	1	1	1
	Walk	0.0%		0	0	0	0	0	0
	Other	3.8%		0	0	0	0	0	0
	All Modes	100.0%		6	2	1	0	1	0
East Bay 22.4%	Auto	39.4%	3.33	5	1	1	0	1	0
	Transit	57.0%		7	1	1	1	1	1
	Walk	0.0%		0	0	0	0	0	0
	Other	3.6%		0	0	0	0	0	0
	All Modes	100.0%		11	1	2	0	2	0
North Bay 6.1%	Auto	52.8%	1.70	2	1	0	0	0	0
	Transit	45.3%		1	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	1.9%		0	0	0	0	0	0
	All Modes	100.0%		3	1	1	0	1	0
South Bay 14.3%	Auto	58.0%	1.23	4	3	1	1	1	1
	Transit	40.7%		3	1	1	1	1	1
	Walk	0.0%		0	0	0	0	0	0
	Other	1.3%		0	0	0	0	0	0
	All Modes	100.0%		7	3	2	1	1	1
Outside of Bay Area 1.8%	Auto	47.8%	1.50	0	0	0	0	0	0
	Transit	50.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	2.2%		0	0	0	0	0	0
	All Modes	100.0%		1	0	0	0	0	0
All Origins 100.0%	Auto	38.9%	1.54	20	13	4	3	4	3
	Transit	51.7%		27	5	5	5	5	5
	Walk	6.9%		4	1	1	1	1	1
	Other	2.5%		1	0	0	0	0	0
	All Modes	100.0%		51	13	11	3	10	3

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (General Office)
 [2] SF Guidelines, Appendix C - Table C-2 (General Office)
 [3] SF Guidelines, Appendix E - Table E-3 Work Trips to SD1 (All)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] The AM Peak Hour % of work/non-work trips are assumed to be the same as the PM Peak Hour % shown in Table C-2 of the SF Guidelines

Mission Rock Mixed-Use Project

LAND USE: PIER 48 MEZZANINE OFFICE (WORK TRIPS)

Proposed Size: 7,875 sq.ft.					
DAILY		AM PEAK HOUR		PM PEAK HOUR	
Person-trip Generation Rate [1]:	18.1 trips/attendee	Person-trip Gen Rate:	8.9% [4] 1.6	8.5% [1] 1.5	
Total Person-trips:	143 person-trips	Total Person-trips:	13	12	
Non-Work Trips [2]: 64%	91 person-trips	Non-Work Person-trips:	17% [5] 2	17% [2] 2	

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 22.0%	Auto	12.9%	2.29	3	1	0	0	0	0
	Transit	17.1%		3	0	0	0	0	0
	Walk	65.3%		13	0	0	0	0	0
	Other	4.7%		1	0	0	0	0	0
	All Modes	100.0%		20	1	0	0	0	0
SF Superdistrict 2 14.0%	Auto	31.9%	2.07	4	2	0	0	0	0
	Transit	35.0%		4	0	0	0	0	0
	Walk	26.7%		3	0	0	0	0	0
	Other	6.4%		1	0	0	0	0	0
	All Modes	100.0%		13	2	0	0	0	0
SF Superdistrict 3 13.0%	Auto	38.8%	2.39	5	2	0	0	0	0
	Transit	36.8%		4	0	0	0	0	0
	Walk	17.4%		2	0	0	0	0	0
	Other	7.0%		1	0	0	0	0	0
	All Modes	100.0%		12	2	0	0	0	0
SF Superdistrict 4 7.0%	Auto	42.5%	1.93	3	1	0	0	0	0
	Transit	32.7%		2	0	0	0	0	0
	Walk	17.7%		1	0	0	0	0	0
	Other	7.1%		0	0	0	0	0	0
	All Modes	100.0%		6	1	0	0	0	0
East Bay 11.0%	Auto	47.4%	2.43	5	2	0	0	0	0
	Transit	24.9%		2	0	0	0	0	0
	Walk	25.4%		3	0	0	0	0	0
	Other	2.3%		0	0	0	0	0	0
	All Modes	100.0%		10	2	0	0	0	0
North Bay 5.0%	Auto	71.1%	1.91	3	2	0	0	0	0
	Transit	9.6%		0	0	0	0	0	0
	Walk	15.8%		1	0	0	0	0	0
	Other	3.5%		0	0	0	0	0	0
	All Modes	100.0%		5	2	0	0	0	0
South Bay 7.0%	Auto	59.5%	2.46	4	2	0	0	0	0
	Transit	24.6%		2	0	0	0	0	0
	Walk	13.5%		1	0	0	0	0	0
	Other	2.4%		0	0	0	0	0	0
	All Modes	100.0%		6	2	0	0	0	0
Outside of Bay Area 21.0%	Auto	35.9%	3.17	7	2	0	0	0	0
	Transit	24.1%		5	0	0	0	0	0
	Walk	27.7%		5	0	0	0	0	0
	Other	12.3%		2	0	0	0	0	0
	All Modes	100.0%		19	2	0	0	0	0
All Origins 100.0%	Auto	35.8%	2.37	33	14	1	0	1	0
	Transit	25.7%		23	1	1	1	1	1
	Walk	32.0%		29	1	1	1	1	1
	Other	6.5%		6	0	0	0	0	0
	All Modes	100.0%		91	14	2	0	2	0

- Notes:
 [1] SF Guidelines, Appendix C - Table C-1 (General Office)
 [2] SF Guidelines, Appendix C - Table C-2 (General Office)
 [3] SF Guidelines, Appendix E - Table E-11 Visitor Trips to SD1 (All Other)
 [4] Adapted from ITE Trip Generation Report, 9th Edition, 2012 in combination with SF Guidelines
 [5] The AM Peak Hour % of work/non-work trips are assumed to be the same as the PM Peak Hour % shown in Table C-2 of the SF Guidelines

Mission Rock Mixed-Use Project

LAND USE: CHINA BASIN PARK (WORK TRIPS)

Proposed Size: 5.12 acres					
DAILY		AM PEAK HOUR		PM PEAK HOUR	
Person-trip Generation Rate [1]:	20.0 trips/acre	Person-trip Gen Rate:	13.0% [1] 2.6	9.0% [1] 1.8	
Total Person-trips:	102 person-trips	Total Person-trips:	13	9	
Work Trips [2]: 4%	4 person-trips	Work Person-trips:	4% [2] 1	4% [2] 0	

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 12.8%	Auto	13.8%	1.28	0	0	0	0	0	0
	Transit	36.0%		0	0	0	0	0	0
	Walk	47.5%		0	0	0	0	0	0
	Other	2.7%		0	0	0	0	0	0
	All Modes	100.0%		1	0	0	0	0	0
SF Superdistrict 2 14.4%	Auto	31.6%	1.23	0	0	0	0	0	0
	Transit	65.8%		0	0	0	0	0	0
	Walk	1.3%		0	0	0	0	0	0
	Other	1.3%		0	0	0	0	0	0
	All Modes	100.0%		1	0	0	0	0	0
SF Superdistrict 3 17.0%	Auto	39.5%	1.29	0	0	0	0	0	0
	Transit	54.4%		0	0	0	0	0	0
	Walk	3.8%		0	0	0	0	0	0
	Other	2.3%		0	0	0	0	0	0
	All Modes	100.0%		1	0	0	0	0	0
SF Superdistrict 4 11.2%	Auto	41.7%	1.53	0	0	0	0	0	0
	Transit	54.5%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	3.8%		0	0	0	0	0	0
	All Modes	100.0%		0	0	0	0	0	0
East Bay 22.4%	Auto	39.4%	3.33	0	0	0	0	0	0
	Transit	57.0%		1	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	3.6%		0	0	0	0	0	0
	All Modes	100.0%		1	0	0	0	0	0
North Bay 6.1%	Auto	52.8%	1.70	0	0	0	0	0	0
	Transit	45.3%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	1.9%		0	0	0	0	0	0
	All Modes	100.0%		0	0	0	0	0	0
South Bay 14.3%	Auto	58.0%	1.23	0	0	0	0	0	0
	Transit	40.7%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	1.3%		0	0	0	0	0	0
	All Modes	100.0%		1	0	0	0	0	0
Outside of Bay Area 1.8%	Auto	47.8%	1.50	0	0	0	0	0	0
	Transit	50.0%		0	0	0	0	0	0
	Walk	0.0%		0	0	0	0	0	0
	Other	2.2%		0	0	0	0	0	0
	All Modes	100.0%		0	0	0	0	0	0
All Origins 100.0%	Auto	38.9%	1.54	2	1	0	0	0	0
	Transit	51.7%		2	0	0	0	0	0
	Walk	6.9%		0	0	0	0	0	0
	Other	2.5%		0	0	0	0	0	0
	All Modes	100.0%		4	1	1	0	0	0

Notes:
 [1] Traffic Generators, San Diego Association of Governments, 2002 (Regional Park)
 [2] Mission Bay FSEIR estimated 0.1 employee per acre; assuming 2 daily trips per employee it means 4% work trips (0.1 x 2 / 5 = 0.04)
 [3] SF Guidelines, Appendix E - Table E-3 Work Trips to SD1 (All)

Mission Rock Mixed-Use Project

LAND USE: CHINA BASIN PARK (NON-WORK TRIPS)

Proposed Size: 5.12 acres					
DAILY		AM PEAK HOUR		PM PEAK HOUR	
Person-trip Generation Rate [1]:	20.0 trips/acre	Person-trip Gen Rate:	13.0% [1] 2.6	9.0% [1] 1.8	
Total Person-trips:	102 person-trips	Total Person-trips:	13	9	
Non-Work Trips [2]: 96%	98 person-trips	Non-Work Person-trips:	96% [2] 13	96% [2] 9	

Place of Origin Distribution [3]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [3]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 22.0%	Auto	12.9%	2.29	3	1	0	0	0	0
	Transit	17.1%		4	0	0	0	0	0
	Walk	65.3%		14	2	1	0	0	
	Other	4.7%		1	0	0	0	0	
	All Modes	100.0%		22	1	3	0	2	0
SF Superdistrict 2 14.0%	Auto	31.9%	2.07	4	2	1	0	0	0
	Transit	35.0%		5	1	1	0	0	
	Walk	26.7%		4	0	0	0	0	
	Other	6.4%		1	0	0	0	0	
	All Modes	100.0%		14	2	2	0	1	0
SF Superdistrict 3 13.0%	Auto	38.8%	2.39	5	2	1	0	0	0
	Transit	36.8%		5	1	1	0	0	
	Walk	17.4%		2	0	0	0	0	
	Other	7.0%		1	0	0	0	0	
	All Modes	100.0%		13	2	2	0	1	0
SF Superdistrict 4 7.0%	Auto	42.5%	1.93	3	2	0	0	0	0
	Transit	32.7%		2	0	0	0	0	
	Walk	17.7%		1	0	0	0	0	
	Other	7.1%		0	0	0	0	0	
	All Modes	100.0%		7	2	1	0	1	0
East Bay 11.0%	Auto	47.4%	2.43	5	2	1	0	0	0
	Transit	24.9%		3	0	0	0	0	
	Walk	25.4%		3	0	0	0	0	
	Other	2.3%		0	0	0	0	0	
	All Modes	100.0%		11	2	1	0	1	0
North Bay 5.0%	Auto	71.1%	1.91	3	2	0	0	0	0
	Transit	9.6%		0	0	0	0	0	
	Walk	15.8%		1	0	0	0	0	
	Other	3.5%		0	0	0	0	0	
	All Modes	100.0%		5	2	1	0	0	0
South Bay 7.0%	Auto	59.5%	2.46	4	2	1	0	0	0
	Transit	24.6%		2	0	0	0	0	
	Walk	13.5%		1	0	0	0	0	
	Other	2.4%		0	0	0	0	0	
	All Modes	100.0%		7	2	1	0	1	0
Outside of Bay Area 21.0%	Auto	35.9%	3.17	7	2	1	0	1	0
	Transit	24.1%		5	1	1	0	0	
	Walk	27.7%		6	1	1	0	0	
	Other	12.3%		3	0	0	0	0	
	All Modes	100.0%		21	2	3	0	2	0
All Origins 100.0%	Auto	35.8%	2.37	35	15	5	2	3	1
	Transit	25.7%		25	3	3	2	2	
	Walk	32.0%		31	4	3	3	3	
	Other	6.5%		6	1	1	1	1	
	All Modes	100.0%		98	15	13	2	9	1

Notes:
 [1] Traffic Generators, San Diego Association of Governments, 2002 (Regional Park)
 [2] Mission Bay FSEIR estimated 0.1 employee per acre; assuming 2 daily trips per employee it means 4% work trips (0.1 x 2 / 5 = 0.04)
 [3] SF Guidelines, Appendix E - Table E-11 Visitor Trips to SD1 (All Other)

APPENDIX E
SFCTA TRIP DATA FOR TAZ 655

SFCTA Travel Demand Model
2040 Master Run - July 2013
External Person Trips for TAZ 655

ORIGIN/DESTINATION	AM PEAK HOUR											
	Auto Person Trips			Transit Trips			Other Trips			Total Person Trips		
	Out	In	Total	Out	In	Total	Out	In	Total	Out	In	Total
Superdistrict 1	35	42	77	65	104	169	128	167	295	228	313	541
Superdistrict 2	18	44	62	17	102	119	6	34	40	41	180	221
Superdistrict 3	36	111	147	25	129	154	48	90	138	109	330	439
Superdistrict 4	8	42	50	4	44	48	0	2	2	12	88	100
East Bay	19	121	140	7	151	158	0	5	5	26	277	303
North Bay	4	41	45	0	13	13	0	4	4	4	58	62
South Bay	16	127	143	3	69	72	0	2	2	19	198	217
Outside of Bay Area	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	136	528	664	121	612	733	182	304	486	439	1,444	1,883
			35%			39%			26%			100%
Superdistrict 1			11.6%			23.1%			60.7%			28.7%
Superdistrict 2			9.3%			16.2%			8.2%			11.7%
Superdistrict 3			22.1%			21.0%			28.4%			23.3%
Superdistrict 4			7.5%			6.5%			0.4%			5.3%
East Bay			21.1%			21.6%			1.0%			16.1%
North Bay			6.8%			1.8%			0.8%			3.3%
South Bay			21.5%			9.8%			0.4%			11.5%
Outside of Bay Area			0.0%			0.0%			0.0%			0.0%
TOTAL			100.0%			100.0%			100.0%			100.0%

SFCTA Travel Demand Model
2040 Master Run - July 2013
External Person Trips for TAZ 655

ORIGIN/DESTINATION	PM PEAK HOUR											
	Auto Person Trips			Transit Trips			Other Trips			Total Person Trips		
	Out	In	Total	Out	In	Total	Out	In	Total	Out	In	Total
Superdistrict 1	92	77	169	152	99	251	277	237	514	521	413	934
Superdistrict 2	68	37	105	108	34	142	38	17	55	214	88	302
Superdistrict 3	147	93	240	138	55	193	131	103	234	416	251	667
Superdistrict 4	42	19	61	40	10	50	2	0	2	84	29	113
East Bay	128	45	173	114	21	135	4	2	6	246	68	314
North Bay	35	9	44	8	1	9	3	1	4	46	11	57
South Bay	116	39	155	54	9	63	1	0	1	171	48	219
Outside of Bay Area	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	628	319	947	614	229	843	456	360	816	1,698	908	2,606
			36%			32%			31%			100%
Superdistrict 1			17.8%			29.8%			63.0%			35.8%
Superdistrict 2			11.1%			16.8%			6.7%			11.6%
Superdistrict 3			25.3%			22.9%			28.7%			25.6%
Superdistrict 4			6.4%			5.9%			0.2%			4.3%
East Bay			18.3%			16.0%			0.7%			12.0%
North Bay			4.6%			1.1%			0.5%			2.2%
South Bay			16.4%			7.5%			0.1%			8.4%
Outside of Bay Area			0.0%			0.0%			0.0%			0.0%
TOTAL			100.0%			100.0%			100.0%			100.0%

APPENDIX F

PARKING DEMAND

MISSION ROCK PROJECT – SCENARIO A

Mission Rock Mixed-Use Project
SCENARIO A - (Low Residential/ High Commercial)

	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT	
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production			Subtotal Pier 48
Midday Period (Noon to 2 PM) Peak Parking Demand															
SHORT-TERM DEMAND															
Daily visitors vehicle trips		2,305	2,371	2,330	2,894	9,900		151	284	194	13		642	14	10,556
Turnover rate (vehicles per space)		5.5	5.5	5.5	5.5	5.5		5.5	5.5	5.5	5.5		5.5	5.5	5.5
Peak short-term demand (spaces)		210	216	212	263	900		14	26	18	1		58	1	960
% of peak demand during period		100%	100%	75%	100%	94%		100%	100%	100%	100%		101%	100%	95%
Total short-term demand (spaces)		210	216	159	263	848		14	26	18	1		59	1	908
LONG-TERM DEMAND															
Residential Demand															
Peak parking demand (spaces per unit)	1.50														
Peak parking demand (spaces)	1,572					1,572							-		1,572
% of peak demand during period	80%					80%							0%		80%
<i>Subtotal long-term demand (spaces)</i>	<i>1,258</i>					<i>1,258</i>							<i>-</i>		<i>1,258</i>
Employee Demand															
Avg. gsf or acres per employee		276	350	350	240			350	350	276				10	
Number of daytime employees		4,932	350	245	153	5,679	75	31	29	29			164	1	5,843
% of employees who drive		39%	40%	40%	40%	39%	55%	40%	40%	39%			47%	40%	40%
Number of employees who drive		1,943	141	98	62	2,243	41	13	11	11			77	0	2,320
Avg employee vehicle occupancy		1.55	1.57	1.56	1.58	1.56	1.23	1.57	1.57	1.55			1.37	1.56	1.55
Peak parking demand (spaces)		1,250	89	62	39	1,441	34	8	7	7			56	0	1,497
% of peak demand during period		100%	100%	90%	100%	100%	100%	90%	100%	100%			98%	100%	99%
<i>Subtotal long-term demand (spaces)</i>		<i>1,250</i>	<i>89</i>	<i>56</i>	<i>39</i>	<i>1,434</i>	<i>34</i>	<i>7</i>	<i>7</i>	<i>7</i>			<i>55</i>	<i>-</i>	<i>1,489</i>
Total long-term demand (spaces)	1,258	1,250	89	56	39	2,692	34	7	7	7			55	-	2,747
TOTAL PARKING DEMAND (spaces)	1,258	1,460	305	215	302	3,540	34	14	33	25	8		114	1	3,655
Evening Period (7 PM to 9 PM) Peak Parking Demand - NO SF GIANTS GAME															
SHORT-TERM DEMAND															
Daily visitors vehicle trips		2,305	2,371	2,330	2,894	9,900		151	284	194	13		642	14	10,556
Turnover rate (vehicles per space)		5.5	5.5	5.5	5.5	5.5		5.5	5.5	5.5	5.5		5.5	5.5	5.5
Peak short-term demand (spaces)		210	216	212	263	900		14	26	18	1		58	1	960
% of peak demand during period		5%	90%	100%	80%	70%		90%	100%	90%	5%		92%	50%	71%
Total short-term demand (spaces)		10	194	212	210	626		12	26	16	-		54	1	681
LONG-TERM DEMAND															
Residential Demand															
Peak parking demand (spaces per unit)	1.50														
Peak parking demand (spaces)	1,572					1,572							-		1,572
% of peak demand during period	100%					100%							0%		100%
<i>Subtotal long-term demand (spaces)</i>	<i>1,572</i>					<i>1,572</i>							<i>-</i>		<i>1,572</i>
Employee Demand															
Avg. gsf or acres per employee		276	350	350	240			350	350	276				10	
Number of daytime employees		4,932	350	245	153	5,679	75	31	29	29			164	1	5,843
% of employees who drive		39%	40%	40%	40%	39%	55%	40%	40%	39%			47%	40%	40%
Number of employees who drive		1,943	141	98	62	2,243	41	13	11	11			77	0	2,320
Avg employee vehicle occupancy		1.55	1.57	1.56	1.58	1.56	1.23	1.57	1.57	1.55			1.37	1.56	1.55
Peak parking demand (spaces)		1,250	89	62	39	1,441	34	8	7	7			56	0	1,497
% of peak demand during period		10%	100%	100%	90%	22%	100%	100%	100%	10%			89%	100%	24%
<i>Subtotal long-term demand (spaces)</i>		<i>125</i>	<i>89</i>	<i>62</i>	<i>35</i>	<i>311</i>	<i>34</i>	<i>8</i>	<i>7</i>	<i>7</i>			<i>50</i>	<i>-</i>	<i>361</i>
Total long-term demand (spaces)	1,572	125	89	62	35	1,883	34	8	7	1			50	-	1,933
TOTAL PARKING DEMAND (spaces)	1,572	135	283	274	245	2,509	34	12	34	23	1		104	1	2,614

MISSION ROCK PROJECT – SCENARIO B

Mission Rock Mixed-Use Project
SCENARIO B - (High Residential/ Low Commercial)

	SEAWALL LOT 337						PIER 48						China Basin Park Open Space	TOTAL DEVELOPMENT	
	Residential	Office	General Retail	Quality Restaurant	Quick Service Restaurant	Subtotal SWL 337	Brewery/ Distillery	Brewery Retail/ Exhibition	Brewery Quality Restaurant	Mezzanine Retail	Mezzanine Office	Mezzanine Production			Subtotal 48
Midday Period (Noon to 2 PM) Peak Parking Demand															
SHORT-TERM DEMAND															
Daily visitors vehicle trips		1,590	2,228	2,216	2,809	8,844		151	284	194	13		642	14	9,500
Turnover rate (vehicles per space)		5.5	5.5	5.5	5.5	5.5		5.5	5.5	5.5	5.5		5.5	5.5	5.5
Peak short-term demand (spaces)		145	203	201	255	804		14	26	18	1		58	1	864
% of peak demand during period		100%	100%	75%	100%	94%		100%	100%	100%	100%		101%	100%	94%
Total short-term demand (spaces)		145	203	151	255	754		14	26	18	1		59	1	814
LONG-TERM DEMAND															
Residential Demand															
Peak parking demand (spaces per unit)	1.50														
Peak parking demand (spaces)	2,369					2,369							-		2,369
% of peak demand during period	80%					80%							0%		80%
<i>Subtotal long-term demand (spaces)</i>	<i>1,895</i>					<i>1,895</i>							<i>-</i>		<i>1,895</i>
Employee Demand															
Avg. gsf or acres per employee		276	350	350	240			350	350	276				10	
Number of daytime employees		3,522	344	241	151	4,258	75	31	29	29			164	1	4,422
% of employees who drive		40%	41%	40%	41%	40%	55%	40%	40%	40%			47%	40%	40%
Number of employees who drive		1,407	141	97	61	1,706	41	13	11	11			77	0	1,784
Avg employee vehicle occupancy		1.57	1.59	1.58	1.58	1.57	1.23	1.57	1.57	1.57			1.37	1.56	1.56
Peak parking demand (spaces)		898	89	62	39	1,088	34	8	7	7			56	0	1,144
% of peak demand during period		100%	100%	90%	100%	99%	100%	90%	100%	100%			98%	100%	99%
<i>Subtotal long-term demand (spaces)</i>		<i>898</i>	<i>89</i>	<i>56</i>	<i>39</i>	<i>1,082</i>	<i>34</i>	<i>7</i>	<i>7</i>	<i>7</i>			<i>55</i>	<i>-</i>	<i>1,137</i>
Total long-term demand (spaces)	1,895	898	89	56	39	2,977	34	7	7	7			55	-	3,032
TOTAL PARKING DEMAND (spaces)	1,895	1,043	292	207	294	3,731	34	14	33	25	8		114	1	3,846
Evening Period (7 PM to 9 PM) Peak Parking Demand - NO SF GIANTS GAME															
SHORT-TERM DEMAND															
Daily visitors vehicle trips		1,590	2,228	2,216	2,809	8,844		151	284	194	13		642	14	9,500
Turnover rate (vehicles per space)		5.5	5.5	5.5	5.5	5.5		5.5	5.5	5.5	5.5		5.5	5.5	5.5
Peak short-term demand (spaces)		145	203	201	255	804		14	26	18	1		58	1	864
% of peak demand during period		5%	90%	100%	80%	74%		90%	100%	90%	5%		93%	50%	75%
Total short-term demand (spaces)		7	182	201	204	594		12	26	16	-		54	1	649
LONG-TERM DEMAND															
Residential Demand															
Peak parking demand (spaces per unit)	1.50														
Peak parking demand (spaces)	2,369					2,369							-		2,369
% of peak demand during period	100%					100%							0%		100%
<i>Subtotal long-term demand (spaces)</i>	<i>2,369</i>					<i>2,369</i>							<i>-</i>		<i>2,369</i>
Employee Demand															
Avg. gsf or acres per employee		276	350	350	240			350	350	276				10	
Number of daytime employees		3,522	344	241	151	4,258	75	31	29	29			164	1	4,422
% of employees who drive		40%	41%	40%	41%	40%	55%	40%	40%	40%			47%	40%	40%
Number of employees who drive		1,407	141	97	61	1,706	41	13	11	11			77	0	1,784
Avg employee vehicle occupancy		1.57	1.59	1.58	1.58	1.57	1.23	1.57	1.57	1.57			1.37	1.56	1.56
Peak parking demand (spaces)		898	89	62	39	1,088	34	8	7	7			56	0	1,144
% of peak demand during period		10%	100%	100%	90%	25%	100%	100%	100%	10%			89%	100%	28%
<i>Subtotal long-term demand (spaces)</i>		<i>90</i>	<i>89</i>	<i>62</i>	<i>35</i>	<i>276</i>	<i>34</i>	<i>8</i>	<i>7</i>	<i>7</i>			<i>50</i>	<i>-</i>	<i>326</i>
Total long-term demand (spaces)	2,369	90	89	62	35	2,645	34	8	7	1			50	-	2,695
TOTAL PARKING DEMAND (spaces)	2,369	97	271	263	239	3,239	34	12	34	23	1		104	1	3,344

