

Draft Transportation Demand Management Plan



MISSION ROCK TRANSPORTATION DEMAND MANAGEMENT STRATEGY

DRAFT

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1 OVERVIEW

The development context and overall design profile of Mission Rock make it a prime candidate for robust and effective transportation demand management (TDM). Travel demand generated by Mission Rock will be affected by locational and land use factors, such as proximity to high quality transit, the presence of transit-supportive land use densities, and mixed land use patterns.

This TDM Plan describes strategies that will enable Mission Rock to actively manage travel demand through a variety of up-front infrastructure investments and ongoing programs, including unbundled parking, pedestrian- and bicycle-friendly design, transportation marketing, vehicle share facilities and memberships, and others. Ultimately, implementing a robust TDM program will reinforce the forward-thinking vision and brand of Mission Rock as an active and vibrant district that is inclusive and safe for all users.

DEVELOPMENT CONTEXT AND DESIGN PROFILE

Establishing new and enhanced links to and along San Francisco's waterfront, Mission Rock's mixed-used, multi-phase development will be a dynamic addition to the Mission Bay neighborhood. Encompassing approximately 27 acres, Mission Rock is slated to include 11 parcels of residential, office, and retail development as well as a refurbished and reactivated Pier 48, an expanded China Basin Park, and a variety of smaller open space areas. Including Pier 48, Mission Rock will include approximately 1,000 to 1,500 dwelling units, 1.4 to 1.8 million square feet of commercial development, and more than five acres of new open space, for a total of approximately 3.9 million gross square feet of development and eight acres of open space. The site plan calls for a tight and highly walkable urban street grid, with more than half a mile of complete streets. In addition, between 2,400 and 3,000 parking spaces could be provided in off-street facilities.

Mission Rock is located near a busy, increasingly congested part of San Francisco and is readily accessible via car, transit, walking, and bicycling. The site is accessible to I-280 and US-101/I-80 through SoMa's urban street grid, with bicycle connections to the north via the Embarcadero bike route as well as to the south via the Blue Greenway. More importantly, the project is well served by transit, both local and regional. Multiple lines of Muni bus and light rail are within a quarter-mile of the site, with moderate to high frequency of service for most of the day and late into the evening.

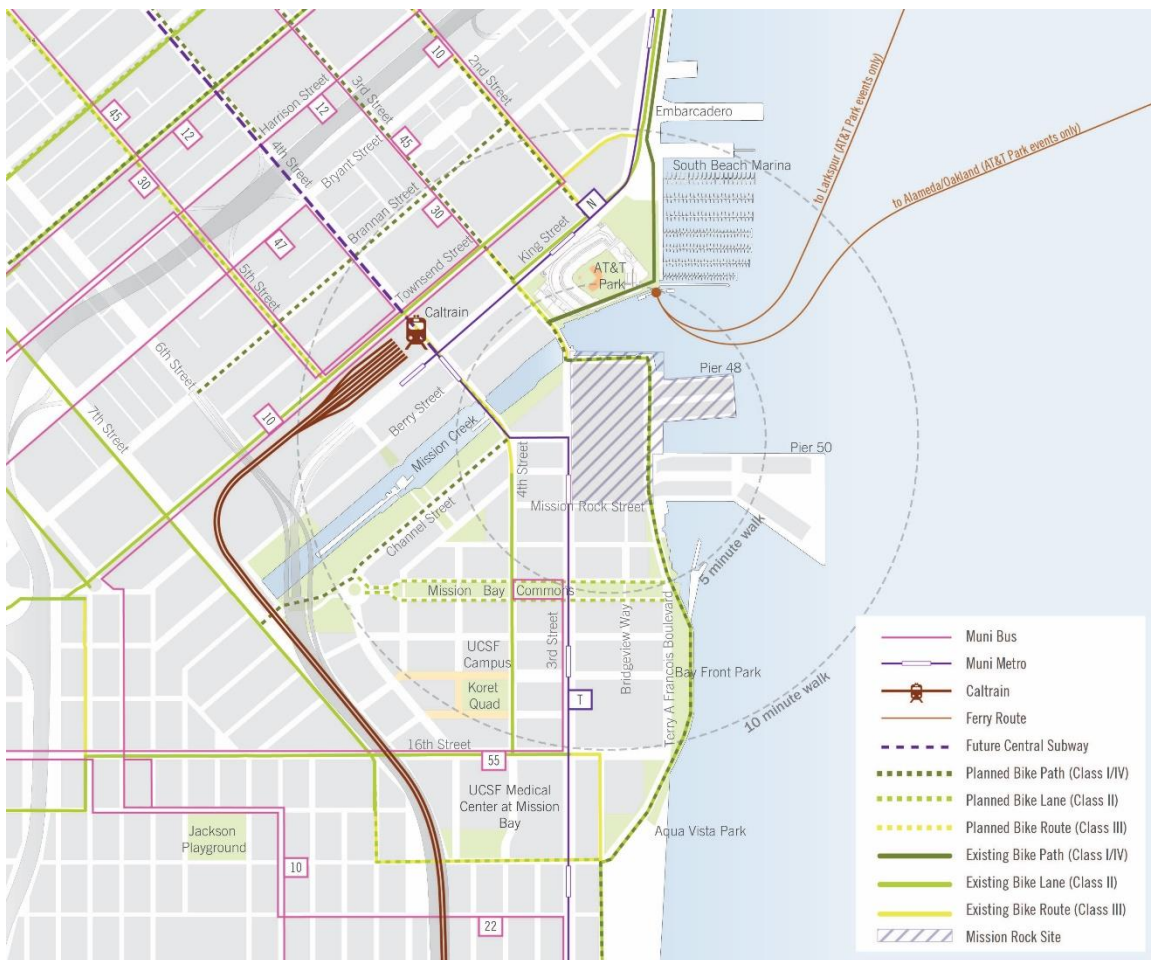
Although narrow sidewalks, missing crosswalks, long blocks, and the amount of on-going construction in the surrounding area all currently challenges for pedestrians and bicyclists, the Mission Rock development includes multiple street design improvements to create a safe and inviting environment, such as:

- A highly connective grid of internal streets;
- Sidewalks that are to be between 12 and 15 feet wide throughout the project site;

- High visibility sidewalks, bulb-outs, and raised pedestrian crossings;
- Completion of the portion of the Blue Greenway that runs through the site, with a 16-foot-wide shared bike and pedestrian right-of-way running along Terry Francois Boulevard and the northern edge of China Basin Park;
- Designated bicycle lanes or bicycle-friendly low-traffic blocks on all internal roadways; and
- Bicycle treatments at internal intersections.

Mission Rock will also provide important neighborhood amenities – groceries, childcare, personal services – establishing destinations that are easily accessible by all modes of transportation. The existing and future transportation infrastructure in the area (see Figure 1) will further promote the use of all modes of active transportation.

Figure 1 Mission Rock Context Map



WHY TRANSPORTATION DEMAND MANAGEMENT

This TDM Plan reaffirms Mission Rock's commitment to sustainability and inclusivity. It encourages the site's residents, employees, and visitors to use the most environmentally friendly and spatially efficient mode possible for each trip, with an emphasis on cycling, walking, and shared rides.

The strategies outlined below are designed to work together to affect site users' travel habits. Targeted programs strengthen the benefits of investments in bicycle and pedestrian infrastructure and the site's proximity to major transit nodes by reinforcing awareness of these options, breaking down barriers to incorporating them in travel routines, and incentivizing habitual use.

The site plan and TDM program are consistent with several decades of City of San Francisco climate and sustainability policies that aim to encourage the use of transit and other non-auto modes of transportation. It is also consistent with the City's efforts to manage the transportation impacts of new development. The Plan was developed with an anticipated new TDM ordinance in mind, and the Mission Rock team used the proposed ordinance's framework to scale the site's programs appropriately.

Many campuses have implemented similar TDM programs to reduce single-occupancy vehicle (SOV) travel and find the optimal balance of transportation modes to accommodate growth. Genentech implemented an aggressive TDM strategy in 2006 that included programs such as shuttle service and parking cash-out accompanied by comprehensive marketing and communications through an online employee portal. Since implementation, drive-alone mode share has decreased by almost 30%, decreasing carbon emissions from 4.5 tons per employee to 1.9. Similarly, Stanford University's extensive TDM program, which has for years included meaningfully priced parking, transit subsidies, and incentive programs, has effected a substantial decrease in SOV commuting, from 72% in 2002 to 46% in 2011. Moreover, these programs serve campuses that grew rapidly during the periods noted, but this growth was not accompanied by substantial increases in parking.

In a similarly urban environment, the City of Cambridge implemented a parking and TDM ordinance in 1998, made permanent in 2006. In the Kendall Square area, which predominantly houses large biotechnology firms and research and academic institutions, such as the Massachusetts Institute of Technology, the ordinance has been particularly effective. Although the neighborhood has added 4.6 million square feet of commercial and institutional development over the past 10 years, automobile traffic has *decreased* on major streets, with vehicle counts decreasing as much as 14 percent.¹ In this way, citywide TDM measures in Cambridge have not deterred the development market while still having a positive impact on quality of life and the environment.

Given these successes, robust TDM programs are becoming expected aspects of new developments, in central cities and suburbs alike. San Francisco is no exception. The City has drafted a TDM ordinance that would require developers to establish TDM programs scaled to the amount of parking they plan to build on-site. This ordinance reinforces existing multimodal policies, such as the city's Transit First Policy, which was established in 1973 and amended to include pedestrians and bicyclists in 1999. New residents and office tenants increasingly demand convenient access to quality multimodal infrastructure, and in urban areas like San Francisco, they assume that parking will be treated as a limited commodity that will be priced based on occupancy levels and market rates. The Mission Rock TDM Plan reflects the values outlined in City policies by striving to maximize user satisfaction and foster travel choices that are sustainable in all senses of the word.

¹ Moskowitz, Eric. "Car-free commuting push pays off in Kendall Square." *The Boston Globe*. July 25, 2012. <https://www.bostonglobe.com/metro/2012/07/24/kendall-square-car-traffic-falls-even-workforce-soars/C4Fio7iKZnwEMAw7y4cJgN/story.html>

PLAN OVERVIEW

This Plan is comprised of the following chapters:

- Chapter 2 presents a slate of recommended TDM strategies for Mission Rock to reduce SOV trip and parking demand for the development.
- Chapter 3 presents the marketing and communications strategy for Mission Rock's TDM program, discussing the interplay between the primary communication mechanisms, the TDM strategies, and the various user groups of Mission Rock.

This TDM Plan will be incorporated into the Transportation Plan for Mission Rock, which will coordinate daily circulation of people, bicycles, and vehicles to, from, and around the site.

2 PLANNED STRATEGIES

The Mission Rock TDM Plan consists of a package of strategies that will work together to effect behavioral change in a way that is both cost effective and highly marketable. Strategies include incentives, programs, and infrastructure improvements, and they include many that have been successfully implemented in other mixed-use and urban environments; those case studies are cited as possible below each strategy.

The strategies balance the desire to provide innovative transportation amenities with the need to maintain a cost-effective program and an acknowledgement that Seawall Lot 337 Associates, LLC will not hold a primary relationship with site tenants over the long term – vertical developers or the management companies that take ownership of individual buildings once they are developed will ultimately play this role. As such, programs that necessitate ongoing operational expenditures are included but deemphasized in favor of one-time, up-front investments that give new tenants and visitors immediate experiences with and exposure to the array of non-auto transportation options available to them. These will form lifelong patterns of choosing sustainable transportation options. Figure 2 gives an overview of the strategies included in the Plan, and the text that follows provides further detail. As in the table's column headings, colors are used to differentiate infrastructural (❖) and operational (❖) strategies in the text below. A few of these recommendations have been directly integrated into the design of Mission Rock, as codified in the Design Controls and other design documents.

Figure 2 Summary of Planned TDM Strategies by Mode

	Operations	Infrastructure
Transit	Dynamic transportation information	Screens in lobbies and key points with information and marketing
	Transit subsidies	
Bicycle	Bike share membership	Space for on-site bike sharing spaces
	Bike community programming with periodic giveaways	Bicycle resource center, including vending machine with parts and tools and fix-it station
	Bike valet	Secure bike parking in buildings and along desire lines
		Showers and lockers for employees
Personal Motorized Transport	Car share membership	On-site car sharing spaces
	Scooter share membership	On-site scooter sharing spaces
Parking	Market-based off-street parking pricing	Real-time parking pricing and availability information

	Operations	Infrastructure
	Unbundled parking	Low parking ratio
Buildings	Concierge services	Conveniently located delivery zones
	Delivery coordination for online personal services	Cold, dry storage space for grocery and package delivery
	Partnerships with CSAs	
	Childcare services	Childcare facilities
		Collaborative work space with business services
		Conveniently located service elevators for bicycles, strollers, wheelchairs, etc.
		Affordable housing
All Areas	Site-wide transportation staff	Intuitive signage and wayfinding for trip planning across all modes
	Mobile-friendly Mission Rock transportation website	Improved walking conditions to, from, and within Mission Rock
	Mission Bay Transportation Management Association	

Some TDM strategies like parking pricing have a more direct effect on travel behavior, while others like facilitating delivery services play a more supportive role. For another example, providing car share membership leverages the potential impact of providing easily accessible car share spaces. In other words, the effectiveness of these combined strategies is more than the sum of the parts.

The importance of monitoring cannot be overstated; regular monitoring enables management to effectively address and adjust these strategies over time in response to changing residential and employee needs.

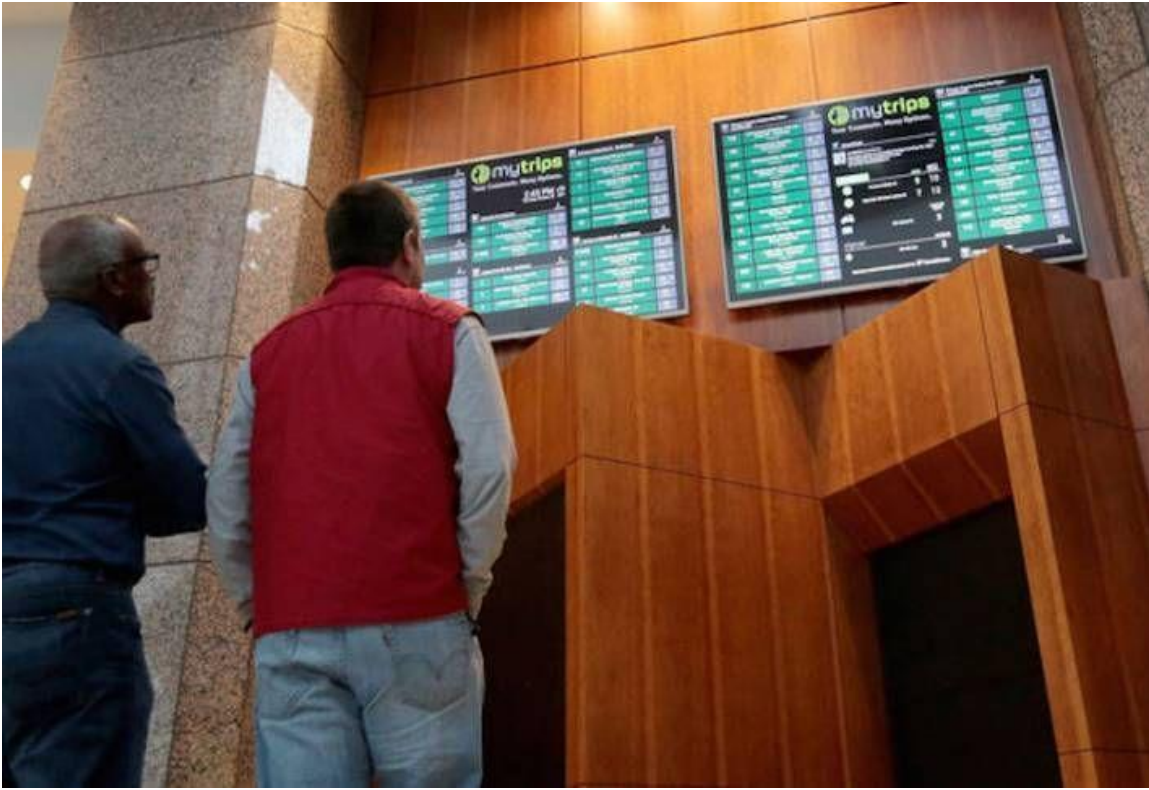
TRANSIT STRATEGIES

❖❖ Real-time Transit Information and Marketing Screens

This programmatic strategy consists of providing real-time transit information to Mission Rock residents, employees, and visitors. Information will be displayed on screens in lobbies (see Figure 3) and other high traffic areas, such as the collaborative work space or the childcare facilities. Making such information readily available increases residents' awareness of local transit options and facilitates efficient trip planning and use of other modes.

Mission Rock will display dynamic transit information and transportation marketing in building lobbies or use a similar approach based on state-of-the-practice technology at the time of occupancy.

Figure 3 TransitScreen Display in an Office Lobby



Implementation Examples

Parkmerced, the largest apartment community in San Francisco, began a partnership in 2014 with TransitScreen, a company that provides this service. TransitScreen is working with the Metropolitan Transportation Commission to modernize transit displays in over 46 locations throughout the San Francisco Bay Area.

❖ Transit Subsidies

The Clipper Card is the Bay Area's transit fare payment card and can be used on more than 20 of the region's transit agencies, including BART, Muni, and the ferries. Providing Clipper Cards upon move-in can increase residents' awareness of nearby transit options and increases the ease with which they can start using it. Clipper Cards through a bulk purchase through the Metropolitan Transportation Commission, the regional public agency that manages Clipper. A custom-designed Clipper Card can help tie the Mission Rock brand more closely to lifestyles that incorporate frequent transit use.

Providing Clipper Cards increases the ease of using transit for employees and residents who currently do not have Clipper. For individuals who already have cards, the one-time financial subsidy could help lower one barrier to increased transit use.

Mission Rock will provide a Clipper Card pre-loaded with \$50 cash value to all residents upon move-in, and will require that business tenants offer employees the same.

Implementation Examples

Although other residential developments in the Bay Area have provided free/discounted monthly transit passes to residents, providing a Clipper Card with a set value pre-loaded would be a new strategy.

BICYCLE STRATEGIES

Figure 4 Bay Area Bike Share Dock



❖ On-site Bike Share

This strategy would involve partnering with Bay Area Bike Share (BABS) to locate one or more bike share docks in Mission Rock. The system is currently focused around the downtown area, but in May 2015 the system announced that it will be expanding from 700 bicycles in downtown to 7,000 bikes spread throughout the Bay Area, starting in Spring 2017 with the intention of

completion by 2018. As bike share placement is most effective every 1,000 feet, Mission Rock should examine where Bay Area Bike Share is already planning to establish bike docks near the development and consider sponsoring at least one dock within the site itself. Prominently located bike share docks can increase awareness of bike share as a viable transportation option while also facilitating convenient use. Each bicycle dock would be provided and maintained by Bay Area Bike Share, but sponsoring a bicycle dock would allow control over the specific siting and design of the dock, including incorporation of developer-specific branding on the bikes, docks, and other materials.

Mission Rock will establish a high visibility space for a Bay Area Bike Share dock, with the possibility of additional docks depending on Bay Area Bike Share's intended Mission Bay expansion.

Implementation Examples

In Boston, the Ink Block complex has sponsored a Hubway bike share station to locate it nearby; several real estate developers, including Skanska and Gerding Edlen, have also entered sponsorship agreements to locate stations near their properties.

❖ Bike Share Memberships

Members of BABS can take free, unlimited 30-minute one-way bike rides between bike share stations. Once the system's expansion is complete (planned for November 2016 through 2018), annual memberships will cost \$149 per year. Providing residents and employees with bike share memberships could help tenants with minimal experience bicycling in San Francisco a low-cost and low-obligation opportunity to try cycling, and it would provide residents with a quick and easy way to get to the Transbay Transit Center and Market Street, for BART connections and a variety of other transit options and recreational activities.

Mission Rock will offer annual memberships for all residents.

Implementation Examples

While many property owners partner with bike share services to locate bike share docks nearby, offering a bike share membership to residents would be a new strategy.

❖ Bike Event Programming

Bike-oriented programs and events encourage bicycling by raising public acceptance and support for non-motorized transportation and building connections between residents who regularly bike, making biking a fun, social activity. These events could include evening bike parties, bike-oriented happy hours, periodic bike gear giveaways, and bicycle campaigns that involve contests and prizes. Integrating bicycling into the social fabric of the Mission Rock community will raise the profile of bicycling as a viable mode of transportation and encourage people to try biking for a portion of trips.

Through the site transportation staff, Mission Rock will host regular bike parties or happy hours for the bicycling community, potentially paired with gear giveaways.

Implementation Examples

Although private and non-profit organizations such as the San Francisco Bike Coalition often host these types of events, bike event programming led by a mixed-use development would be a new strategy. Some Bay Area employers, such as LinkedIn and Google, sponsor special events around Bike to Work Day paired with regular giveaways and bike valet.

❖ Bicycle Resource Center

A bicycle resource center can provide a dedicated space for residents and employees to get information about bicycling as well as tools and parts for bike repairs and maintenance. A dedicated space contributes to social acceptance of bicycling and reduces one key barrier associated with owning a bike – concern about complications related to ongoing maintenance – by providing tools and parts through a vending machine at low prices. This strategy will also include working to incorporate a bicycle store in the site retail plan and establishing a resource center containing a vending machine for bicycle parts, a “fix-it” work station with basic tools, and bicycle pumps somewhere else within the site at an easily accessible location.

Mission Rock will establish bicycle maintenance space near a major secure bike parking area with resources like a bike stand, a workbench, tools, and a basic repair kit. This space will be available over the life of the project. The team will work to include a bike store as part of the site retail plan.

Implementation Examples

In Seattle, Via6 is a 654-unit mixed-use apartment complex that provides a bike wash station for residents, as well as a bike shop on the ground floor that is owned and operated separately from the development. The Velo Room at Solera (Denver) provides tools, bike stands, work benches, air pumps, tubes, and other supplies, as well as gel packs, energy bars, and bike trail maps. Several university campuses, including Ponce Health Science University in Portland and the University of California-Davis, have bicycle repair stations in key facilities.

Figure 5 Bike Center, Millenium Park, Chicago



Source: Flickr, Brian Kusler

❖ Bike Parking

Following San Francisco Zoning Code Section 155, Table 155.2, the Mission Rock project is required to provide at least 710 secure bike parking spaces (Class I), in addition to at least 371 spaces for bikes in publicly-accessible locations (Class II), under the Maximum Commercial Scenario. Under the Maximum Residential Scenario, the Mission Rock project is required to provide at least 765 Class I spaces, and 388 Class II spaces.

Given the importance of non-motorized transportation to the site's overall design concept, this strategy goes above that requirement to provide one Class I space per dwelling unit, one Class I space per 2,500 square feet of commercial development, one Class I space per 3,750 square feet of retail, and one Class I space per 5,000 square feet of open space, in addition to around 700 Class II spaces. Class I parking consists of secure long-term bicycle parking, including bicycle lockers, bike cages, and bike rooms. Class II bike parking refers to more short-term bicycle parking, including on-street bike racks. The site's location on a Class I north-south bicycle facility and in a flat part of San Francisco implies a strong potential for very high rates of bicycle usage, and this should be encouraged through easy access to ample, convenient bicycle parking. Bike parking facilities should also be available to accommodate various types of bicycles including those with cargo and trailer attachments.

There are several methods of providing secure (Class I) bicycle parking spaces for residents and employees. Bike cages can be placed at convenient locations within buildings or on sidewalks in the area, and bike owners who qualify can receive a key or access card to use the cages. This space

will serve as a common, secure bike room, where those who are permitted access can use a key or access card (often the same card used to access an elevator or parking garage). Moreover, public bike parking is often considered secure when it is situated in well-lit, highly visible areas.

Exceeding the bike parking required by City code, Mission Rock will construct 1 Class I bike parking space per dwelling unit, an additional 511 (under the High Residential Scenario) or 667 (under the High Commercial Scenario) Class I spaces for commercial development, and 675 (under the High Commercial Scenario) or 692 (under the High Residential Scenario) Class II bike parking spaces and will work with vertical developers to set aside necessary square footage for secure bike parking in the ground floor or another convenient area of each building.

Implementation Examples

As it is required by San Francisco zoning code, any new construction, including the addition of new units or an increase of off-street vehicle parking capacity, must include bicycle parking spaces. For residential development, one Class I (secure) space per unit is required; for buildings with more than 100 units, 100 spaces plus one space per every four units over 100 are required. The requirements for commercial development vary; retail development must provide one Class I (secure) space for every 7,500 square feet of occupied floor area, and office developments must provide one space for every 5,000 square feet.

❖ Showers and Lockers

Following San Francisco Zoning Code Section 155.4, specific land uses exceeding a certain square footage threshold are required to provide shower and clothes locker facilities for tenants and employees. Offices (including childcare, business services, and light manufacturing) that exceed 10,000 square feet must provide at least one shower and six clothes lockers; for facilities between 20,000 and 50,000 square feet, the building must provide two shower and 12 lockers. Those exceeding 50,000 square feet must provide four showers and 24 lockers. Retail sales and restaurants exceeding 25,000 square feet must provide one shower and six clothes lockers; those exceeding 50,000 square feet must provide at least two showers and 12 lockers.

Mission Rock will work with the vertical developers to meet this requirement.

Implementation Examples

San Francisco first implemented this requirement in 1998, and amended it to include office land uses in 2013.

❖ Bike Valet

Complementing the bike parking available on a daily basis, bike valet services during special events can encourage people to travel to and from events by bicycle by eliminating the challenge of finding safe and convenient bike parking in an area crowded with event attendees. These services also raise public acceptance and support for non-motorized transportation by building connections with visitors.

Mission Rock will provide free bike valet services for on-site events.

Implementation Examples

Currently, the San Francisco Bicycle Coalition provides these services for many events, including those at AT&T Park.

PERSONAL MOTORIZED VEHICLE STRATEGIES

❖ On-site Shared Scooters

Electric scooters are highly convenient in a dense urban environment and may have additional marketing value, given the cache scooters carry among certain population segments. The main company providing scooter share services is called Scoot, providing access to both single-rider scooters and quad vehicles, which have four wheels and can carry up to two people. One of the benefits of Scoot's network is the ability to travel point-to-point, instead of needing to return scooters to their point of origin. Scoot already has pods within about a half-mile of Mission Rock. Providing scooter share access to residents on-site will magnify the effectiveness of offering Scoot memberships. The parking garage would accommodate space for a scooter dock, which the scooter share vendor would provide and maintain.

Mission Rock will reserve off-street parking space for 20 scooters (approximately six car parking spaces), and will pursue a potential marketing partnership opportunity with Scoot.

Implementation Examples

This would be a new strategy.

Figure 6 Scoot Networks



Source: Flickr, Marcin Wichary

❖ Electric Scooter Memberships

Like a bike share membership, a scooter share membership for Mission Rock residents can help establish new travel behavior patterns upon move-in. This strategy would entail partnering with Scoot or another electric scooter share vendor to provide free memberships in exchange to reserving space for electric scooter parking on-site.

Mission Rock will offer a one-year Scoot membership to all new residents and offer on-site scooter orientation (provided by Scoot Networks).

Implementation Examples

Offering scooter share memberships would be a new strategy.

❖ On-site Car Share Parking Spaces

According to San Francisco Zoning Code², Mission Rock is required to provide 31 to 38 car share spaces. Research indicates that a single car-share vehicle can remove as many as 20 private cars from the transportation network. Spaces will be located in high-visibility parking spots within the publicly-accessible parking garage, with clear exterior signage to increase visibility and emphasize the convenience of car share. City Car Share offers electric vehicles which appear to be equally popular, though others have found barriers to adoption as people are still becoming comfortable with using the technology; this may not be the case in five years. Depending on the car share vendor provided, additional partnerships with ChargePoint may be required to provide infrastructure for electric vehicle charging.

Exceeding this code requirement, Mission Rock will negotiate an agreement with one or more local car share vendors to provide 50 designated car share spaces in initial design with flexibility to increase over time in response to demand. Mission Rock will also consider partnering with ChargePoint to provide electrical hookups adjacent to spaces to allow for the potential for electric shared vehicles, with the ability to increase over time in response to demand.

Case Studies

Fox Plaza (San Francisco) has 443 units with a 0.77 parking ratio and provides 14 car share vehicles on site, with 12 additional spaces located within 1/4 mile. Madera Apartments (Mountain View) has 203 units with a 1.37 parking ratio and provides two car share vehicles on site, with two additional Zipcar locations within 1/4 mile. The Uptown (Oakland) has 665 units with a 0.80 parking ratio and provides one car share vehicle on site, with an additional four car share locations within a 1/4 mile.

❖ Car Share Memberships

New residents will receive a car share membership for their first year of residency to help establish new behavioral patterns upon moving in (opt-out allowed, but default to providing for all). Pairing access to car sharing vehicles with car sharing memberships is also shown to be more effective than implementing one or the other on its own.

² San Francisco Planning Code Section 166, Table 166.

Mission Rock will offer memberships to all households. Depending on the agreement with the on-site car share vendor, membership fees will likely be reduced or waived and some rental credit may be provided.

Implementation Examples

Several Bay Area residential projects cover the full price of car share memberships for residents (New Californian - Berkeley; Madera Apartments - Mountain View; Fruitvale Transit Village - Oakland; Fox Plaza - San Francisco; The Uptown - Oakland). Many of these developments have parking ratios of less than one per unit, and all of them have seen parking utilization rates of well below capacity.

PARKING STRATEGIES

❖ Parking Pricing

The price of parking has been shown to be a highly effective mechanism in changing parking and travel behavior. Demand-responsive pricing involves altering the cost of parking according to the level of demand. During times of higher demand, parking has a higher price and thus encourages both a higher rate of turnover and the use of other modes; during times of lower demand, parking has a lower price. Prices generally do not change in real time based on current occupancy, but instead might automatically increase by a pre-set amount during peak periods, based on typical demand patterns, or for scheduled events. Prices might be adjusted overall a few times a year based on recent occupancy data. By refining the price of parking periodically, it is possible to keep parking occupancy rates relatively close to the optimal level, typically around 90% for off-street parking. Researchers have found that parking facilities function efficiently (i.e. without requiring excessive parking-search time) up to roughly this level of occupancy.³

At the time when the site is fully built out, Mission Rock's parking facilities will be priced to keep demand below a threshold occupancy rate and to encourage site users to avoid parking during AT&T Park events. Non-event rates will be comparable to off-street parking prices at other facilities in SoMa and Northern Mission Bay.

Implementation Examples

Demand-based parking pricing has been implemented to various degrees in multiple cities. The *SFPark* program in San Francisco regulates parking prices for off-street as well as on-street parking facilities, adjusting hourly parking rates every three months based on the parking demand at each garage during five different time bands throughout the day. When occupancy exceeds 80%, hourly rates for the following three-month period are increased by 50 cents. Unlike approach planned for Mission Rock, *SFPark* also decreases prices when occupancy falls below a low-end threshold of 40%. When it was first implemented, the program also adjusted early bird parker time requirements and added off-peak discounts to discourage commuting at peak hours,

³ See: Levy, Nadav, Karel Martens, and Itzhak Benenson. Exploring Cruising Using Agent-Based and Analytical Models of Parking. *Transportmetrica*, DOI: 10.1080/18128602.2012.664575, 2012. AND Millard-Ball, Adam, Rachel Weinberger, and Robert Hampshire. Is the curb 80% full or 20% empty? Assessing the impacts of San Francisco's parking pricing experiment. *Transportation Research Part A: Policy and Practice*, No 63, 2014, pp. 76-92.

reducing congestion around the garages. Since implementation, San Francisco has seen higher garage occupancy at lower prices overall, resulting in a marginal increase in revenue.

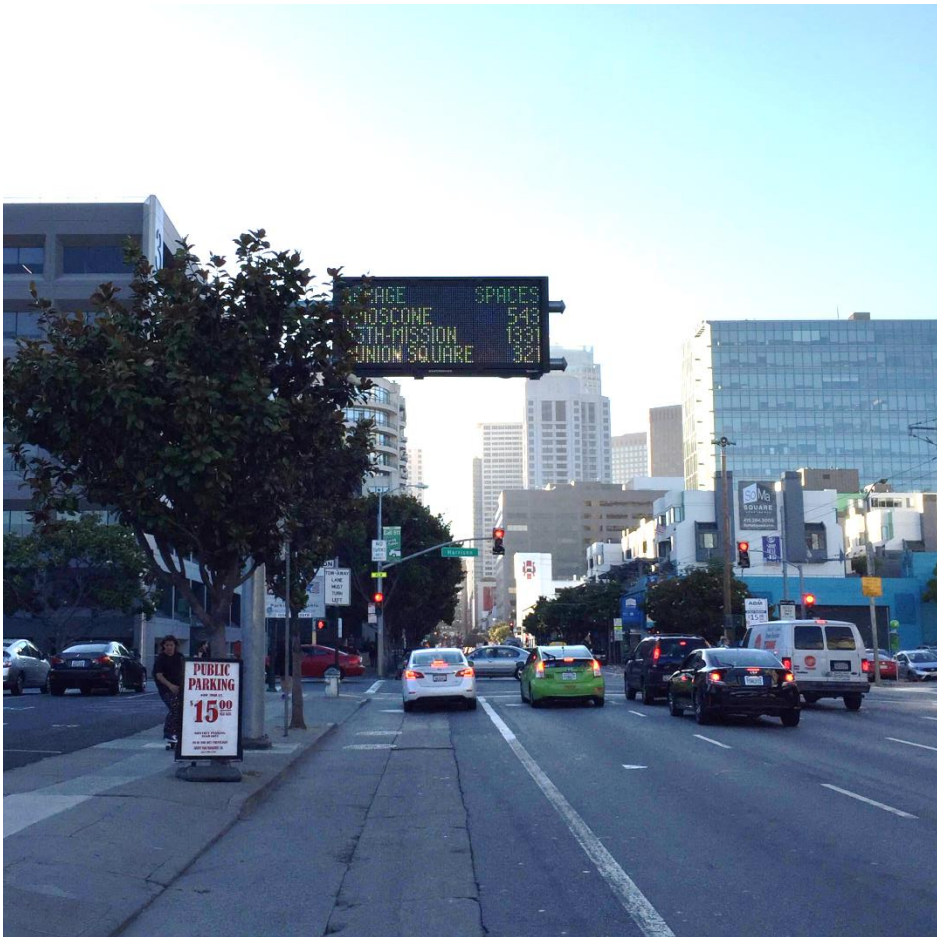
❖ **Real-time Parking Pricing and Availability Information**

This programmatic strategy consists of providing real-time parking pricing and availability information to Mission Rock residents, employees, and visitors who utilize the off-street parking facilities on-site. Information could be displayed on signs outside of the parking garage, and could also be accessible on the mobile-friendly Mission Rock website. For market-based parking pricing to be truly effective, the dynamic between price and availability must be clearly communicated to drivers. Making such information readily available to potential drivers, particularly at parking garage entrances, decreases the likelihood of drivers' circling for parking or potentially increases the possibility of choosing other modes.

Real-time availability information for an overall facility can be derived from the access control of the parking garage, calculated based on the number of entries and exits at any given time. To provide garage floor-specific information on where spaces are available, each parking space needs a sensor (typically embedded in the floor) that communicates wirelessly with a central system to sense when the space is occupied.

Mission Rock will install dynamic displays (or use another state-of-the-practice price-information sharing strategy) to show real-time parking price and availability information, and will endeavor to make this information available through other channels like a Mission Rock transportation website; this will require installing technology and associated information systems to automatically monitor parking usage.

Figure 7 Dynamic Parking Signage, SoMa



Implementation Examples

All City-owned garages that participate in the demand-based parking pricing pilot, *SFpark*, provide real-time pricing and availability information on the *SFpark* website; there are several dynamic message signs at key intersections in SoMa that indicate the number of parking spaces available and general wayfinding to those garages.

❖ Unbundled Parking

“Unbundling” parking means that the cost for parking is separate from the cost of residential and commercial units. It is an increasingly common practice in urban areas. Thirty percent of San Francisco households do not own a vehicle⁴ and unbundled parking makes housing more affordable those who do not need a parking space. This approach provides a financial reward to households who decide to dispense with one of their cars, and it can help attract households who wish to live in a transit-oriented neighborhood where it is possible to live well with only one car, or even no car, per household. Unbundling parking costs changes parking from a required

⁴ U.S. Census, American Community Survey 2013, 5-year estimates

purchase to an optional amenity, so that households can freely choose how many spaces they wish to lease.

Unbundling parking tends to reduce demand for parking by specifically calling out and making optional the previously hidden cost of “free” parking. This in turn allows developers to provide less parking, which increases the developable area for more lucrative land uses such as additional housing units. For this strategy to work optimally for office users, the users of parking – not their employers – must be the ones who ultimately pay daily or monthly costs.

Mission Rock will unbundle parking costs from all residential, commercial, and retail leases and ensure that the users of parking are the ones who ultimately pay for it.

BUILDING STRATEGIES

❖ In-Building Concierge Services

In-building concierge services and/or multi-purpose front-desk staff can facilitate valet parking, farm-to-table produce delivery, cold and dry storage for grocery or produce delivery, and secure package delivery. Concierge staff could also provide information about the nearest stores and services like dry cleaning and laundry service, as well as pickup/delivery services from local merchants. Residents would pay for all services.

This concierge will be supported by the site-wide transportation staff who would provide centralized transportation support to the in-building concierges (see section on the site-wide transportation staff below). The combination of these services will consolidate or eliminate the need for additional trips and could be a resource for residents, providing targeted travel information.

Mission Rock will encourage vertical developers to appoint an in-building concierge to provide information about local merchants and coordinate/facilitate delivery services for residents.

Implementation Examples

Though many residential buildings provide a concierge, explicitly pairing in-building concierge staff with a transportation specialist would be a new strategy for reducing trips and demand for parking. Crafting and marketing the concierge's role as such may increase the program's effectiveness.

❖ Coordinated Delivery Services

Mission Rock will aim to partner with online personal service providers (i.e. Instacart, Postmates, Taskrabbit) or facilitate other ways of making ordering in, instead of making separate trips off the property for daily needs, more appealing and reduce vehicle trips in the process. One potential way to do this would be to offer direct ordering through the Mission Rock website. Each building would manage these services individually as needed.

Mission Rock will aim to establish site-wide partnerships with internet delivery services companies, along with a centralized staging location for parcel delivery and distribution system that relies on non-motorized transportation to deliver packages

to the various buildings within the development. This will be documented in a loading management plan, which will be developed in a future phase of project development, in coordination with the City.

Implementation Examples

NEMA on Market Street facilitates local organic produce and wine delivery, which is part of its overall suite of concierge services. This type of amenity could be coupled with an app-based ordering system, such as Instacart or Postmates, or Mission Rock may want to develop one specific to its services.

❖ CSA Partnerships

Partnering with local community-supported agriculture (CSA) organizations has the potential to reduce greenhouse gas emission and vehicle-trips by providing project residents convenient access to locally sourced food, reducing the number of trips and vehicle miles traveled by both vendors and consumers. This strategy could also have marketing benefits and reinforce the site's overall message about sustainability. Initial conversations about bringing a farmers' market to Mission Rock have yielded a cost estimate of approximately \$75,000 to \$100,000 annually for Mission Rock to manage it in-house. Alternatively, hiring a farmers market management company could reduce costs to as low as \$15,000. However, providing a farmers market may result in generating more trips rather than it offsets; as such, a partnership with a local CSA might be more cost-effective.

Mission Rock will coordinate with local CSAs to provide group deliveries, and continue exploring the possibility of hosting regular farmers' markets on the premises.

Implementation Examples

This would be a new strategy; although there are multiple farmers' markets throughout San Francisco, they are not specific to a certain development or community, nor were they started with a specific development's needs in mind.

❖ Cold and Dry Delivery Storage Space

Providing storage space for groceries, laundry, and other packages can have a direct effect on reducing trips by encouraging and facilitating online ordering. A centralized storage facility within each building can also consolidate delivery trips by enabling delivery vehicles to only make one stop for multiple recipients instead of several. Storage should be family-friendly, with room to store strollers and other family-related equipment. Where this type of strategy has been implemented without direct staff monitoring at all times, building residents typically access deliveries through a locker system with unique pick-up codes that include the locker number and access times for the delivery recipient.

Mission Rock will work with the vertical developers to provide storage space near the concierge and elevators to store packages, perishables, laundry, and other deliveries.

Implementation Examples

Presidio Landmark has a wine cellar with climate controlled lockers; separate storage lockers are also provided.

❖ Convenient Loading Zones

While the site does not contain on-street parking, Mission Rock is planning to dedicate a portion of the site's curb space for loading and deliveries of goods and people to reduce the need to make personal vehicle trips. Curb designations will be consistent with City of San Francisco regulations. Under those regulations, taxis, transportation network companies, and private vehicles may drop off along any curb space not designated by a red curb or marked otherwise. Vehicles may not idle in these locations as per San Francisco Transportation Code Section 7.2.86. As noted earlier, the project team will work with the City to develop a loading management plan during a future phase of project development.

Drop-off locations for seniors and people with disabilities will be located near building entrances, elevators, and at corners with curb ramps. The location of loading zones will also take into consideration the moving needs of residents and businesses. See the Mission Rock Transportation Plan and the Design Controls for more detail on the planned location of loading and delivery zones and for more information on Americans with Disabilities Act (ADA) accessibility on the site.

Mission Rock is integrating loading zones into the site's overall street design.

❖ ❖ Childcare Facilities and Services

Providing childcare services on site at Mission Rock would break down a key barrier for parents to taking non-auto modes to work by bringing such services within walking distance and near the many commute options around the Mission Rock site. Mission Rock will aim to attract a childcare provider, likely on the ground floor of a northern parcel, near China Basin Park.

Mission Rock will aim to attract a provider of on-site childcare services and facilities to ensure easy access for Mission Rock residents and employees.

Implementation Examples

Many residential developments in major cities provide childcare services as part of their amenities; NEMA on Market Street provides childcare, and North Beach Place provides day care and children's play areas. A housing development at 8th and Market instituted unbundled parking to free up space for an on-site childcare center. Parkmerced includes a Montessori School on its premises, with full daycare and after-school care.

❖ Collaborative Work Space

A business services room can help encourage and facilitate working from home, which can have a direct impact on reducing trips to and from the site. Such an amenity is a typical part of large rental buildings, though the size and specific services included vary.

At Mission Rock, work spaces could include rentable work rooms that can be reserved in advance, equipped with video conferencing equipment, high-speed internet connections, projectors, white boards, basic office supplies, and printing, scanning, and faxing services. For residents interested in using this work space long term, dedicated mailboxes for businesses could be set aside and

located nearby. Vertical developers will ultimately be responsible for developing and maintaining these business services rooms and ensuring that they are equipped with appropriate equipment.

Mission Rock will work with vertical developers to implement this strategy.

Implementation Examples

NEMA (Market Street, San Francisco) has a business lounge with Apple computers, printers, fax machines, and scanners, and a board room with phone, touch screen monitor, and computer hook-ups. Many newer residences also offer Wi-Fi throughout all common areas.

Figure 8 Co-Working Space



Source: Wikimedia, Chris Gallegos

❖ Elevator Design

By designing elevators that easily accommodate bicycles, strollers, and wheelchairs, Mission Rock will be able to increase the visibility and communicate the importance of bicycling and improve the family friendliness and accessibility of the project. Building codes already require elevators to be large enough to accommodate a variety of users, but the project will also aim to provide appropriate wayfinding and signage for elevators to educate residents about using the appropriate elevators to transport bicycles and other wheeled conveyances.

Mission Rock will work with vertical developers to implement this strategy and meet building code requirements.

Implementation Examples

Many residential developments have gone to great lengths to design their facilities as bicycle friendly, but none have specifically called out adaptations to their elevations as an accommodation or amenity.

❖ Affordable Housing

Residents living in affordable housing typically own fewer cars per household than residents of market-priced units. They are more likely to use transit and are less likely to require parking, reducing overall vehicle trip generation.

Mission Rock will restrict 40% of on-site units to inclusionary affordable housing, to be provided in a balanced manner throughout the phasing of the development.

ALL-REALM STRATEGIES

❖ Signage and Wayfinding across Modes

Signage and wayfinding to indicate points of connection between different modes, as well as estimated travel times and directions by mode, can help increase people's understanding of travel options. Clear signage is also important for ensuring safety for all types of users, differentiating spaces for different users within shared public spaces. Signage will also indicate the nature and location of nearby bicycle routes. Mission Rock will coordinate with the City on the project's overall signage and wayfinding program to ensure the project conforms to City standards.

Mission Rock will design and install signage and wayfinding at key points throughout the development, including signage for safety along the shared streets.

Implementation Examples

Interactive signage and wayfinding has been instituted in a variety of cities, academic institutions, and transportation hubs.

❖ Mobile-Friendly Mission Rock Transportation Website

A mobile-friendly website oriented toward all residents, employees, and visitors providing online access to concierge services and transportation programs can help raise awareness and visibility of transportation options and facilitates connections among transportation modes. The transportation information on the Mission Rock site will likely include but not be limited to real-time transit information and a transportation tab with all nearby options (e.g. Muni, car share, scooter share, ride-sourcing apps) showing locations and availability.

Mission Rock will create a site-wide website with a dynamic and engaging section dedicated to transportation information and services, with specific portals for each user type (or the state-of-the-practice equivalent to this strategy, per changes in technology by the time of first occupancy).

Implementation Examples

NEMA (Market Street, San Francisco) has a "resident portal" where residents can submit work orders, track packages, pay rent, alert the valet, and communicate with management regarding car charging, car share, bike share, and bike repair.

❖ On-Site Transportation Staff

The Mission Rock team aims to hire at least one on-site transportation staff person proficient in the planning and implementation of a TDM program, with an annual budget for TDM staffing, communications, and programs. The site-wide transportation staff will provide customized travel guidance to residents and employees, helping raise awareness and understanding of transportation options and ensuring that site users can find non-auto transportation options that meet their unique travel needs. Other staff, such as the in-building concierge or those tasked with organizing bike events and maintaining the bike resource room, could also provide similar targeted information and facilitate discussions around using different modes. This dedicated transportation staff would act as a centralized transportation resource to the in-building concierges, providing up-to-date transportation information and expert support to front-line staff that are less likely to have the same depth of knowledge of the transportation system.

Mission Rock will hire and task dedicated transportation staff with providing individualized advice and information on transportation options to residents and employees.

Implementation Examples

This would likely be a new strategy, as other developments have not explicitly instituted and integrated transportation information with residential or employee services. Several cities have used something similar to this strategy at a neighborhood level. Portland, Ore. has seen notable mode shifts from its Smart Trips program, which provides targeted marketing and information on non-auto transportation options in particular neighborhoods.

❖ Mission Bay Transportation Management Association (TMA)

A transportation management association (TMA) is typically a nonprofit, member-based organization that provides transportation services in a particular area, formed to address the transportation needs and challenges of a particular destination with a distinct geographic boundary, such as a central business district. TMAs address parking and circulation through employee commute programs, trip planning, information about various travel options, and other tools. Currently, the Mission Rock development is within the coverage area of the Mission Bay TMA, which provides several shuttle services connecting the area with Caltrain, BART, and local and regional buses, as well as guidance on walking, bicycling, and carpooling. Mission Rock will also participate in the Ballpark/Mission Bay Transportation Coordinating Committee.

Mission Rock will coordinate with the Mission Bay TMA on TDM implementation and data collection and explore the possibility of partnering more closely with the TMA on other transportation programs.

❖ Improved Walking Conditions

As described in the Mission Rock Design Controls, the development will add over half a mile of complete streets, including new and improved sidewalks and pedestrian crossings. Complete streets are streets designed and operated to enable safe access for users of all ages, abilities, and transportation modes with the ultimate goal of fostering more livable communities. Today, many sidewalks in Mission Bay are narrow or missing in areas. The new streets within Mission Rock will greatly improve the overall walking conditions of the neighborhood and facilitate safer and

more convenient pedestrian connections. A pedestrian-oriented urban design is essential for residents, employees, and visitors to fully take advantage of the other TDM strategies, supporting access to all of the available transportation options and programs throughout the site and nearby. These improvements help shape the environment for the other TDM strategies to succeed.

Mission Rock has integrated high-quality pedestrian design features (high connectivity, wide sidewalks, highly visible crossings, and others) into its design.

3 MARKETING AND COMMUNICATIONS

A strong communication strategy is critical to the success of any TDM program, ensuring that residents, employees, and visitors receive information about relevant resources and incentives at appropriate times and through channels that are easily accessible. Incorporating consistent branding into all communications can help create a sense of place and establish a cohesive identity for the transportation program. Branding can be used to support marketing and communication efforts, particularly on signage and wayfinding, to emphasize that residents, employees, and visitors can travel seamlessly through the area.

Communications technology and norms are changing rapidly, and as such, this portion of the Plan will necessarily be updated as the projects approaches first occupancy. As such, this section is presented as a set of recommendations, rather than an agreed upon plan of action.

COMMUNICATION STRATEGIES

The Plan anticipates that Mission Rock will likely have three main channels for transportation-related communications: Its site-wide transportation staff, a mobile-friendly web portal for site users, and physical signage and other wayfinding mechanisms on site. This section includes examples of communication tactics and channels to illustrate how specific channels can help reach target audiences. Given the diverse mix of ways different people process information, any good communications plan relies on a mix of strategies and channels. The Communications Timeline section matches the mix of channels outlined in this section to the key audiences for the information: residents, employees, and visitors.

Site-Wide Transportation Staff

Mission Rock transportation staff would be responsible for maintaining information about TDM programs and acting as a point of contact to assist residents, employees, and visitors with transportation-related questions, concerns, or general assistance. The Mission Rock team envisions that a transportation coordinator would have the authority to implement TDM strategies, oversee the management and marketing of all measures, and monitor success of the TDM program. Whether the coordinator would need support from additional staff and how large the team would be will be figured out as the communications strategy is solidified closer to occupancy.

Transportation staff might also be responsible for compiling a print and/or electronic transportation handbook to be distributed to residents on move-in and employees on hiring. This handbook could include information on transportation programs, policies, and service options, in addition to the following information:

- Transportation staff contact information, including information for the in-building concierges (if relevant)
- Commute trip planning information, including links to the regional 511 Rideshare program
- Clipper Card and vehicle (including car, bike, and scooter) share membership subsidies and parking policies
- Information on accessing other TDM program details and amenities, such as the in-building storage facilities
- Walking and biking routes within the area, estimated walk and bike times to key locations, including transit hubs, and a link to the San Francisco bike map
- Local transit options and schedules, including links to Muni, BART, and Caltrain schedules, route maps, and existing trip planner mobile applications

It is envisioned that this handbook would be distributed to all prospective residential tenants and all prospective employees who receive an offer to work within the development. It might also be included as a component of resident and employee welcome packets or employee orientation. The information provided in the handbook, as well as relevant website addresses, may also be posted in prominent locations for all residents and employees, such as apartment lobbies or lunchrooms. Print materials with information on various programs, maps, and amenities could also be provided to the in-building concierge staff for easy distribution when questions arise.

The transportation coordinator will also be responsible for supporting employers by providing information and guidance regarding tools and programs for flex work or telecommuting.

To make sure information stays useful to residents and employees over time, it is important that Mission Rock transportation staff keep all information and materials up to date and relevant.

Mobile-Friendly Mission Rock Website

Mobile-friendly websites are an easy way to create a dynamic and engaging repository for transportation information, point-to-point navigation tools, travel suggestions, user engagement campaigns, and other efforts to raise awareness of alternatives to drive-alone travel options and residents, employees, and visitors to use them. In addition to supporting the information already provided in the resident and employee handbook, this website could include the following:

- Real-time transit information
- Real-time parking pricing and availability information
- Notifications of upcoming transportation-related events, such as bike parties and farmers' markets, and alerts
- Integration with internet delivery services for ordering
- Registration for car share, bike share, and/or scooter share memberships
- Room reservations for the collaborative workspace
- On-site childcare services enrollment
- Specific pages or portals for residents, employees, and visitors so that each of these audiences has access to the appropriate and relevant travel information
- Functionality which allows for tracking travel behavior and enables gamification for incentives

Establishing specific portals for each audience can allow for the delivery of targeted, individualized TDM information for each of the audience groups. For example, the resident and employee portals could have features to receive notifications for coordinated delivery services, should Mission Rock choose to develop a centralized delivery facility. Each of the portals could also provide specific information on costs and multimodal options available for traveling to and from Mission Rock, as well as information on nearby attractions and services and links to citywide or regional information. Figure 9 shows an example of a landing page for this type of website. Advantages of a webpage similar to that shown in the figure include prominent links to a trip planning service, alerts for riders, and individual operator websites for more information.

Figure 9 Sample Site-Wide Transportation Website, Mountain View Transportation Management Association (TMA)



Signage and Wayfinding

Clear, consistent, and predictable signage and wayfinding can help residents, employees, and visitors navigate the site easily. Signage can also bring awareness to important information such as parking prices and availability, bike parking locations, estimates of bike and pedestrian travel times, and other information on Mission Rock programs or services. Simply providing information on non-motorized travel prominently can increase the likelihood that people will select biking or walking as their mode of transportation.

The efficacy of signage and wayfinding is dependent of the design and placement of signs. Signage should be clear and provide relevant information at key decision points in people's journeys, in areas that are highly visible, and in clear lines of sight. For instance, when entering the site,

cyclists should be able to clearly understand the route options along Terry Francois Boulevard, Exposition Street, and Bridgeview Street. This signage will be especially important for safety along the shared public ways, to ensure that users understand the encouraged forms of travel and appropriate behavior on each mode. Temporary signage may be used in areas more highly trafficked by residents or employees, to provide information on specific events or programs, such as CSA pick up locations.

Figure 10 and Figure 11 are examples of wayfinding signage used in vibrant, mixed-use areas. The wayfinding signage in Figure 10 offers clear guidance for the nearby area at two different scales while providing clear directional guidance to nearby transportation hubs and popular destinations. Figure 11 offers examples of bike directional signage, as well as digital, dynamic parking availability signage.

Figure 10 Area Wayfinding Signage – London, UK



Source: Andrew Nash, Flickr Creative Commons

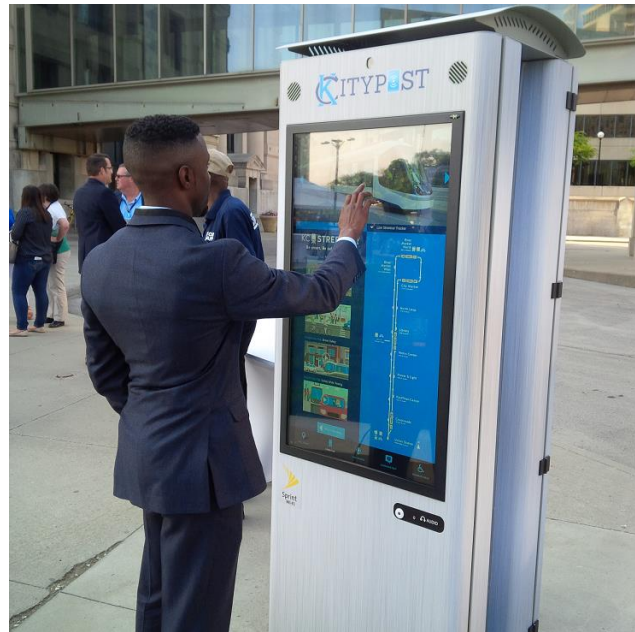
Figure 11 Bike Route and Parking Signage



Source: Nelson\Nygaard, signal-tech.com

Transportation Information Kiosks

Transportation information kiosks can provide centralized locations for relevant transportation information for trips within Mission Rock and to nearby services and attractions. These kiosks could be placed throughout the site, at strategic decision-making locations where residents, employees, and visitors might need the information. For instance, kiosks located at the primary entrances to Mission Rock such as the intersection of Terry Francois Boulevard and Mission Rock Street could include all information necessary to navigate to specific places throughout the site. Similarly, kiosks could be placed in and around primary points of congregation on the site, including China Basin Park and Mission Rock Square. The kiosks could include transit schedules and fare information, walking and cycling routes, real-time transit information, and Bay Area Bike Share dock locations and bike availability.



Source: Kansas City example from transit.dot.gov

It is recommended that these kiosks be digital, interactive displays (as shown in the accompanying image) to allow information to be updated easily and regularly. These boards would be maintained and updated as needed by the transportation staff.

Real-time transit information signage, such as the technology provided by TransitScreen, would be a similar dynamic information-distribution mechanism aimed mostly at residents, employees, and their visitors, located in the site's residential and office building lobbies (see more information on this strategy in Chapter 2). While the information kiosks can provide detailed

information on transportation options to visitors and others new or unfamiliar with Mission Rock and the surrounding area, real-time transit screen technology is designed to offer an opportunity to understand transportation options at a quick glance. This would be particularly useful for employees and residents, those who make recurring trips frequently and don't need detailed guidance.

COMMUNICATION TIMELINE

Each of the communication-based TDM measures are pertinent to residents, employees, and visitors at different times during their lifecycle at Mission Rock. As such, it is critical to think strategically about when to share what with each of these key segments.

The mobile-friendly Mission Rock website will be an important avenue for sharing information about programs, policies, and services. It is reasonable to assume that the website will act as a front-line communications vehicle to reach all of those who have or may be interested in having a connection with the site. Signage and wayfinding will be seen on a daily basis and is an important element for users of the development to efficiently navigate Mission Rock. The site-wide transportation staff will provide key information for residents and employees at the time of move-in or hire, and will provide as needed services over time. See Figure 12 through Figure 14 for more detail on the progression of anticipated touch points for transportation-related communication for residents, employees, and visitors of Mission Rock.

Figure 15 notes the impact that the communication-based TDM strategies are expected to have on the success of each of the other TDM strategies included in the TDM plan. Impacts are ranked from low to high.

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Figure 12 Residential Communications Touch Points

	Pre-Move In & Lease Signing Period	Move-in Period	Establishing Transportation Patterns	Ongoing	Life Change: New Job	Life Change: Family
Website	Promote website and all web-based transportation tools through pages or portal aimed at prospective tenants	Receipt of access to special "residents-only" website pages/portals	Visit website to plan frequent trips and learn about transportation options, sign up for any available subsidies or complimentary memberships, as applicable	Ongoing use of website for trip planning tools, information on events, and program memberships	Return to trip planning tools and information on website	Return of trip planning tools and information on website
Wayfinding & Signage	View wayfinding and signage when touring site	Gain deeper familiarity with the site and surroundings through signage and wayfinding	Use of dynamic wayfinding (kiosks and transit screens) to deepen understanding of nearby transportation options and develop time/schedule patterns	Ongoing use of wayfinding and signage	Renewed use of dynamic wayfinding to deepen understanding of new transportation options given new destination	Renewed use of dynamic wayfinding to deepen understanding of new transportation options given new destination; use of signage pointing to family transportation resources
Site-wide Transportation Coordinator	Discussion of transportation handbook, nearby transportation options, amenities or subsidies as applicable, promotion of trip-planning assistance	Distribution of transportation handbook, one-on-one assistance in planning commute or other trip options, or signing up for transportation programs/memberships	One-on-one assistance in planning commute or other trip options	Available for questions as they arise	Additional one-on-one support to plan new routes, etc. as needed	Additional one-on-one support to plan new routes, understand family-friendly resources on site, as needed

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Figure 13 Employee Communications Touch Points

	Employer Signs Lease at Mission Rock	Employer Move-in Period	Employee Move-In Period	Ongoing: With Employer	Ongoing: With Employees	Ongoing: New Hires
Website	Promote website and all web-based transportation tools through pages or portal aimed at prospective tenants	Receipt of access to special "employer-only" website pages/portals	Employees receive access to special "employees-only" website pages/portal Plan frequent trips and learn about transportation options, sign up for available subsidies or complimentary memberships, as applicable	Ongoing references of website for trip planning tools, information on events and program memberships	Ongoing use of trip planner on website and other website tools	Receipt of access to special "employees-only" website pages/portals Ongoing use of trip planner on website and other website tools
Wayfinding & Signage	View wayfinding and signage when touring site	Presentation regarding available wayfinding	Use of wayfinding and signage to learn about nearby transportation options	Ongoing use of wayfinding and signage	Ongoing use of wayfinding and signage	Presentation regarding available wayfinding
Site-wide Transportation Coordinator	Discussion of transportation handbook, nearby transportation options, amenities or subsidies as applicable, promotion of trip-planning assistance	Distribution of transportation handbook, one-on-one assistance in planning commute or other trip options, or signing up for transportation programs/memberships	Distribution of transportation handbook One-on-one assistance in planning commute options is made available to new employees	Presentations to share new web or wayfinding functionality, employee-focused TDM programs, and ongoing support structures	Available for questions as they arise	Distribution of transportation handbook Additional one-on-one support is available to plan new routes, etc.

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Figure 14 Visitor Communications Touch Points

	Planning Trip to Site	(For Event Attendees) Purchase Tickets	Arrive on Site	Ongoing Time Spent on Site	Planning to Leave Site
Website	Use of public-facing website, including embedded trip-planning tools and parking pricing and availability information	Opportunity to receive tailored point-to-point trip suggestions and information emphasizing parking pricing and limited parking availability at time of ticket purchase	Use mobile-friendly website to understand transportation options, parking pricing and availability information, and maps of site		Use mobile-friendly website to plan onward journey from site
Wayfinding & Signage			Use of dynamic parking pricing and availability signage; use of wayfinding and signage, including kiosks, to navigate to specific destination	Use of wayfinding and signage to navigate to additional destinations	Use of wayfinding and signage, including kiosks, to understand options for onward journey from site and navigate to nearby transit options, as applicable
Site-wide Transportation Coordinator	Coordinate with retailers and restaurants to post latest transportation information on their websites; maintain site website to ensure any updates to transportation information are readily available				

Figure 15 Connecting Communications to Other TDM Strategies

● = High Impact ● = Medium Impact ○ = Low Impact

TDM Program Measures	Target Audience for Measure			Mobile-Friendly, Site-Wide Website	Signage and Wayfinding	Site-Wide Transportation Staff
	Residents	Employees	Visitors			
Real-time transit information in lobby and on website	x	x	x	●	●	-
Clipper cards	x			●	-	●
Bike share memberships	x			●	-	●
On-site bike share	x	x	x	●	●	-
Bicycle valet			x	●	●	-
Bike event programming	x	x		●	●	●
Bicycle resource center	x	x		●	●	○
Bicycle parking	x	x	x	●	●	-
Showers and clothes lockers		x		○	●	○
On-site shared scooters	x	x	x	●	●	○
Electric scooter share memberships	x			○	-	○
On-site car share	x	x	x	●	●	○
Car share memberships	x			●	-	●
Market-based parking pricing for regular parking permits	x	x	x	●	●	●
Parking cash-out		x		○	-	●
Real-time information on parking pricing and availability	x	x	x	●	●	-

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TDM Program Measures	Target Audience for Measure			Mobile-Friendly, Site-Wide Website	Signage and Wayfinding	Site-Wide Transportation Staff
	Residents	Employees	Visitors			
In-building concierge services	X	X		-	-	●
Coordinated delivery services	X	X		●	-	○
CSA/Farmers market partnerships	X	X		●	●	○
Storage space for grocery and package delivery	X			-	●	-
Designated convenient passenger loading and delivery zones	X	X	X	-	●	-
Childcare services and facilities	X	X		●	○	-
Collaborative work space	X			●	○	-
Elevators tailored to bicycle, stroller, wheelchair/mobility device usage	X	X	X	-	○	-

● = High Impact ● = Medium Impact ○ = Low Impact

4 MONITORING AND COMPLIANCE WITH SF TDM ORDINANCE

The San Francisco Planning Department has proposed a citywide TDM ordinance that will go before the Planning Commission in July. If approved, the ordinance will standardize implementation of TDM programs and improve predictability during the entitlement process, providing developers with a clear idea of how TDM strategies affect their projects' trip-generation and mode-split characteristics. The ordinance is unlikely to apply directly to Mission Rock, as the development's TDM and other transportation-related obligations will be worked out through a development agreement. However, the City's TDM framework provides a helpful standard against which to compare Mission Rock's planned TDM program.

At the heart of the proposed ordinance is a menu of potential TDM strategies, with points or credits assigned to different strategies based on their documented effectiveness. Developers would be required to implement strategies that get them to a point total established based on the number of net new parking spaces planned as part of a given project. For example, residential and office projects with 20 or fewer parking spaces (including zero) would need to implement strategies with point values adding up to 13 points; each additional 10 spaces would require them to generate an additional point through additional TDM efforts. Retail projects with four or fewer spaces (including zero) would need to implement strategies worth a total of nine points, and each additional two spaces will require another point.

Figure 16 estimates how the Mission Rock TDM Plan would rate against the City's draft TDM strategy menu and the range of associated point values. As the table shows, the strategies included in this Plan are expected to garner 26 points for the residential component of the project, 25 points for the office component, and 11 points for the retail/restaurant component.

Figure 16 Comparing Mission Rock TDM Strategies to Proposed Ordinance Measures, with Estimated Point Values

Program	Ordinance Category	Estimated Point Values by Use		
		Res	Office	Retail
Real-time transit information in lobby and on website	INFO-2	1	1	1
Clipper cards				
Improve walking conditions	ACTIVE-1	1	1	1
Bike share memberships	ACTIVE-4	2		
On-site bike share				

Program	Ordinance Category	Estimated Point Values by Use		
		Res	Office	Retail
Bike event programming				
Bicycle resource center	ACTIVE-5a	2	2	
Bicycle parking	ACTIVE-2	2	2	2
Showers and clothes lockers	ACTIVE-3		1	
Bicycle Valet	ACTIVE-7			1
Electric scooter share memberships				
On-site shared scooters				
On-site car share parking spaces	CSHARE-1	3	3	3
Car share memberships	CSHARE-1	2		
Unbundled Parking	PKG-1	2	3	3
Real-time parking pricing and availability information				
In-building concierge services	DELIVERY-1	1	1	
Coordinated delivery services	DELIVERY-1	Covered	Covered	
CSA/Farmers' market partnerships				
Storage space for grocery and package delivery	DELIVERY-1	Covered		
Loading zones convenient for passenger loading and package delivery	DELIVERY-1	Covered	Covered	1
Childcare services and facilities	FAM-2	2	2	
Family TDM amenities	FAM-1	1		
Collaborative work space				
Elevators tailored to bicycle, stroller, wheelchair/mobility device usage				

Program	Ordinance Category	Estimated Point Values by Use		
		Res	Office	Retail
On-Site Affordable Housing	LU-2	2		
Site-wide website (combined with real-time transit information)				
Signage and wayfinding across modes	INFO-1	1	1	1
Site-wide transportation staff	INFO-3	4	4	1
		22	19	12

There are several strategies recommended in this Plan that do not clearly align with any of those specified in documents related to the proposed ordinance. As noted earlier, many of these strategies play important roles in supporting programs that might more directly affect travel behavior. Others may deserve recognition in the City's framework. Regardless, the specifics of Mission Rock's TDM monitoring will need to be worked out through discussions with the City.

Monitoring and Reporting

The draft TDM ordinance includes reporting requirements that help ensure that projects follow through on planned TDM investments and programs. These requirements would include a pre-occupancy site visit, annual reporting for the first five years (starting in the 18th month after issuance of the certificate of occupancy), and reports every three years in perpetuity. Mission Rock will comply with these requirements.