SAN FRANCISCO
PLANNING DEPARTMENT

Certificate of Determination
Exemption from Environmental Review

1650 Mission St.
Suite 400
San Francisco,
CA 94103-2479

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

Case No.:	2015-007975ENV
Project Title:	SFMTA – Commuter Shuttle Program
Project Sponsor:	San Francisco Municipal Transportation Agency Hank Willson – (415) 701-5041
Staff Contact:	Christopher Espiritu – (415) 575-9022 christopher.espiritu@sfgov.org

PROJECT DESCRIPTION:

The San Francisco Municipal Transportation Agency (SFMTA) proposes to implement a Commuter Shuttle Program (herein referred to as "proposed project or proposed Program") which would regulate commuter shuttle activity on San Francisco streets. The proposed project would continue and expand the guidelines and requirements established for the 18-month, Commuter Shuttle Pilot Program (herein referred to as "Pilot") implemented between August 2014 and January 2016. The program would involve the issuance of permits to eligible commuter shuttle operators for the use of public curb space, including designated passenger loading zones and bus stops. In addition, the proposed project would include capital improvements, such as transit boarding islands and curb extensions (bulb-outs). The proposed project would require approval by the SFMTA Board of Directors.

EXEMPT STATUS:

Categorical Exemption, Class 1 and Class 8 (California Environmental Quality Act [CEQA] Guidelines Section 15301 and 15308). See page 25.

DETERMINATION:

I do hereby certify that the above determination has been made pursuant to State and local requirements.

Sarah B. Jones
Environmental Review Officer

October 22, 2015
Date

cc: Hank Willson, SFMTA, Project Sponsor
Viktoriya Wise, SFMTA

Distribution List
Board of Supervisors, All Districts, (via Clerk of the Board)
Virna Byrd, M.D.F.

BACKGROUND

The number of privately operated shuttles in San Francisco has grown in recent years. Numerous employers, educational institutions, medical facilities, office buildings, and transportation management associations offer shuttle service to their employees, students, and clients. Some development projects are required to provide shuttle services as part of their conditions of approval (and the impacts of their shuttle services are considered within the development project's environmental review), and an employer may comply with San Francisco's Commuter Benefits Ordinance and the Bay Area's Commuter Benefits Program by offering a free commute shuttle to employees. The majority of the commuter shuttles are closed systems that provide service to a specific population and are not open to the general public. Most shuttles are provided for free to employees (or students, tenants, etc.). There are two distinct markets within the shuttle sector: those that operate within San Francisco (intra-city) and those that operate between San Francisco and another county (inter-city regional). Shuttles support local San Francisco and regional goals by decreasing single occupancy vehicle (SOV) trips, vehicle miles traveled (VMT), and private vehicle ownership.

Prior to August 2014 and the implementation of the Pilot Program, San Francisco did not regulate commuter shuttle activity on City streets. Shuttles operated throughout the City on both large arterial streets, such as Van Ness Avenue and Mission Streets, and smaller residential streets. Shuttles loaded and unloaded passengers in a variety of zones, including passenger loading (white) zones, Muni bus stops (red) zones, and other vacant curb space. When curb space was unavailable, shuttles often would load or unload passengers within a travel lane. The lack of rules and guidelines for where and when loading and unloading activities were permitted, and the lack of vacant space in general, resulted in confusion for shuttle operators and neighborhood residents, inconsistent enforcement, and real and perceived conflicts with other transportation modes.

To address these issues, in January 2014, the SFMTA Board of Directors approved an 18-month Pilot to test sharing of designated Muni zones and establish permitted commuter shuttle-only passenger loading (white) zones for use by eligible commuter shuttles that paid a fee and received a permit containing the terms and conditions for use of the shared zones. The Pilot Program began in August 2014, and created a network of shared stops for use by Muni and commuter shuttle buses that applied to participate, and restricted parking for some hours of the day in certain locations to create passenger loading (white) zones exclusively for the use of permitted commuter shuttles.

Program Objectives

Prior to the implementation of the Pilot Program, commuter shuttles travelled on City streets with few constraints beyond legislated commercial vehicle or weight restrictions. The City's regulatory and enforcement capacity involved restrictions on commercial vehicles under San Francisco *Transportation Code*, Section 503, which restricted commercial passenger vehicles (with seating capacity of nine or more persons) from certain streets and areas of the City. In addition, Section 501 of the *Transportation Code* restricted the operation of a vehicle with gross weight in excess of 6,000 pounds on specific streets.

Beyond these restrictions, the SFMTA does not have the authority to prevent commuter shuttles from operating on a majority of non-weight-restricted streets throughout the City.[1]

Commuter shuttles, like most vehicles in San Francisco, generally are free to drive on San Francisco's streets. However, without a network of approved zones, private commuter shuttle operators have imperfect choices to make about where to load and unload passengers, as sufficient unregulated or vacant curb space is mostly unavailable. Commuter shuttles would have few options, including: stopping in the travel lane (adjacent to parked cars), which blocks through traffic and bicycles, presents safety hazards for riders boarding and alighting, and risks a parking citation; or stopping at a Muni stop, which enables safer curbside access, but in the absence of regulations governing shuttle operations can delay Muni and risks a parking citation. The objectives of the proposed Commuter Shuttle Program would include:

- Provide a safe environment for all street users in support of the SFMTA's Vision Zero policy to eliminate all traffic deaths
- Prevent service disruptions, including any related to labor relations issues
- Ensure that commuter shuttles do not adversely affect operations of public transportation in San Francisco
- Consistently and fairly apply and enforce any regulations/policies governing shuttle operations
- Work collaboratively with shuttle sector to refine policies and resolve concerns and conflicts
- Integrate commuter shuttles into the existing multi-modal transportation system
- Establish a program structure that meets current needs and has the potential to evolve as the sector grows and evolves
- Ensure more focused enforcement, ease of administration and on-going oversight

Commuter Shuttle Pilot Program (August 2014 to January 2016)

Prior to the Pilot, SFMTA could only estimate the number of commuter shuttles in operation, the location of stops, hours of shuttle operation, routes and other operational characteristics. The Pilot allowed SFMTA to collect data regarding the movement of, usage of, and reaction to commuter shuttles in San Francisco, and determine whether management of the commuter shuttles through shared stops, permits and payment of a permit fee could reduce conflicts and complaints. SFMTA used the data collected during the Pilot to evaluate the Pilot and design the proposed Commuter Shuttle Program

The Pilot applied to privately operated transportation services that move commuters to, from, and within San Francisco. Services that are arranged by an employer, building, or institution to provide transportation for home-to-work, work-to-home, last-mile to work, or work site to work site were eligible to participate in the Pilot. Exceptions for eligibility were defined during the implementation of the Pilot

[1] San Francisco Transportation Code, Article 500, Sections 501 and 503. Available at: http://library.amlegal.com/nxt/gateway.dll/California/ transportation/divisionii/article500sizeweightloadrestrictions. Accessed October 2015.

and would remain under the Commuter Shuttle Program. Services that replicate Muni routes or are not licensed by the California Public Utilities Commission were not eligible for the program.

Under the Pilot, the SFMTA established specific requirements for shuttle types and providers, and identified providers that were not eligible to participate, including:

- Tour buses, recreational buses, and long-distance interurban buses
- Party buses
- School buses
- On-call point-to-point services (airport shuttles, limousines, other on-demand transportation)
- Private individual-fare transportation (jitneys, ride-share or transportation network companies (TNCs))
- Vanpool vehicles

As of October 2015, 17 commuter shuttle operators have been approved to participate in the Pilot. Most commuter shuttle vehicles in the Pilot were either cutaway buses (buses/shuttles formed by a small- to medium- truck chassis attached to the cabin of a truck or van, also called "mini buses") or motor coaches (also called "over the road" coaches) of either 40 or 45 feet in length designed for transporting passengers on intercity trips. To implement the Pilot Program, the SFMTA designated, and marked with appropriate signage, approximately 100 Muni zones and approximately 20 limited-hours shuttle-only loading zones for participating shuttle providers to load and unload passengers. Commuter shuttle zones are indicated by signs and painted curbs (red curbs at Muni zones, and white curbs at loading zones). The Pilot Program did not include modifications to existing Muni transit routes and did not remove (or relocate) any existing Muni bus stops.

The Pilot did not dictate the routing of individual shuttles, however, all shuttle providers were required to comply with San Francisco's commercial vehicle, weight, and passenger restrictions for designated streets. Additionally, permitted commuter shuttles were encouraged, through outreach by SFMTA staff to the shuttle providers, to select routes that follow arterial streets and avoid residential streets.

Under the Pilot, modifications to the public right-of-way were required for the removal or restriction of a limited number of existing on-street parking spaces in order to extend the length of some Muni and shuttle-only loading zones. The addition of shuttle-only loading zones typically required the use of up to 100 feet of curb space for loading during certain hours. All changes to zone locations or lengths during the Pilot Program were submitted for public review and comment at SFMTA engineering hearings.

The Pilot Program shuttle zone network was established through consultation with shuttle operators, community groups, residents, and SFMTA transit service planning and traffic engineering staff. Attachment A shows a map of the shuttle network under the Pilot and locations of Muni zones and passenger loading (white) zones currently designated as shuttle-only loading zones under the Pilot. At the launch of the Pilot, there were 106 zones (14 passenger loading zones, 92 Muni zones). Over the course of the Pilot, the shuttle network was expanded to 125 zones (21 passenger loading zones and 104 shared Muni zones) with 41 stops that have been removed, added or adjusted due to a variety of reasons,

including: construction projects, network gaps in service, residential opposition, rescinded Muni stops, stop location requests from permit holders, and Muni Forward projects.

Under the Pilot, the most frequently used zones were observed to have as many as 100 shuttle stop-events per day, while some zones saw no stop-events at all. The corridors or locations with the most shuttle traffic in the Pilot include Lombard Street, Van Ness Avenue, Divisadero/Castro Streets, Valencia Street, Union/Powell Streets in North Beach, 24th/25th Streets in the Mission/Noe Valley, 30th Street in Noe Valley, and Townsend/Fourth Street near the Caltrain station.

Based on the data that SFMTA has been able to gather regarding operations of commuter shuttles, staff has learned that approximately 90% of shuttle operations occur during peak hours, 6am-10am and 4pm-8pm, with the remaining 10% occurring over off-peak hours 5am-6am, 10am-4pm, and 8pm-12am.[2]

COMMUTER SHUTTLE PROGRAM PROJECT DESCRIPTION

Based on information collected under the Pilot, the SFMTA proposes to establish the Commuter Shuttle Program subsequent to the conclusion of the 18-month Pilot (February 2016). Similar to the Pilot, the proposed Commuter Shuttle Program would apply to privately operated transportation services that move commuters to, from, and within San Francisco. The Commuter Shuttle Program would, at the outset, utilize the shuttle zone network in place at the conclusion of the Pilot.

The Pilot shuttle zone network is the SFMTA's best estimate of an effective zone network at the time of the Commuter Shuttle Program's launch. As further described below, the shuttle zone network would continue to evolve as necessary to best meet the transportation needs. Under the Program, SFMTA would receive consistent feedback from the community and consider changes to the shuttle network. Any proposed changes to the stops and the overall shuttle network would require public comment and testimony, prior to approval, at an engineering hearing and/or by the SFMTA Board of Directors. Both of these venues are open to the public and include a public comment/testimony component.

The program would be a mechanism by which the SFMTA can regulate the travel routes and stops of commuter shuttles in San Francisco. As part of the Commuter Shuttle Program, the SFMTA would continue to designate, and mark with appropriate signage, select Muni zones and passenger loading zones for commuter shuttle use. Of the 125 combined stops/zones (104 Muni zones and 21 passenger loading zones) that exist today under the Pilot, all 125 stops/zones would remain under the Commuter Shuttle Program.

In contrast with the Pilot, under the Commuter Shuttle Program, permitted shuttle vehicles longer than 35 feet would be required to limit travel to major and minor arterial street network as determined by the California Department of Transportation (Caltrans). This additional requirement was included to address the most frequent comment from members of the public about the Pilot, and it also ensures that large

[2] Information provided by Kathleen Phu, SFMTA, September 2015.

buses use the street network that was best designed to handle large vehicles. Attachment B shows a map of major and minor arterial streets where large shuttle vehicles may operate under the Program. In general, large shuttle vehicles would be required to operate on major and minor arterial street networks and avoid steep and/or narrow streets whenever possible. Permitted shuttles would be required to comply with all relevant street and lane restrictions.

Similar to the Pilot, approximately 90% of shuttle operations are assumed to occur during peak hours 6am-10am and 4pm-8pm, with the remaining 10% occurring over off-peak hours 5am-6am, 10am-4pm, and 8pm-12am.[3]

In addition to the stop locations and routes described above, program regulations would also include the following, in order for a shuttle provider to receive a permit:

1. Permittee vehicles (shuttles) must display a placard issued by SFMTA at specified location on the front and rear of vehicles at all times when operating commuter service in San Francisco.
2. Permittee must comply with operating guidelines:
    a. Muni priority: Muni buses have priority at and approaching or departing Designated Stops.
    b. Yield to Muni: Where Muni or other public transit buses are approaching a Designated Stop and when safe to do so, allow such buses to pass so they may stop at Designated Stops first.
    c. Stay within the network: Permittees shall stop only at Designated Stops or other non-Muni zones, and may not stop at Muni zones outside the network.
    d. Active loading; No staging or idling: Designated Stops may be used only for active loading and unloading; shuttles must load and unload riders as quickly and safely as possible. Staging must take place outside of any Designated Stops, consistent with parking regulations. Unnecessarily idling is not permitted, even while staging.
    e. Move forward: Shuttle drivers shall pull forward in a Designated Stop to leave room for Muni or other shuttles.
    f. Pull in: Shuttle drivers shall pull all the way to, and parallel with, the curb for passenger boarding and alighting; shuttle vehicles shall not block travel or bicycle lanes; loading and unloading shall not take place in a vehicle or bicycle lane, or in a manner that impedes travel in these lanes.
    g. Comply with all applicable traffic laws: Shuttles shall operate in accordance with all applicable state and local traffic laws.
    h. Circulation: Shuttle vehicles longer than 35 feet may travel only on the major and minor arterial street network as determined by the California Department of Transportation, as appears on the map of major and minor arterial streets attached as Attachment B. All shuttle vehicles shall stay on the major and minor arterial street networks and avoid

[3] Information provided by Kathleen Phu, SFMTA, September 2015.

steep and/or narrow streets to the extent possible. Permittees shall comply with all relevant street and lane restrictions.

i. Training: Permittees shall ensure that training for shuttle drivers addresses these operating guidelines.

j. Follow instructions from officials and traffic control devices: Shuttle drivers shall follow instructions from police officers, authorized SFMTA staff (including Parking Control Officers) and traffic control devices in the event of emergencies, construction work, special events, or other unusual traffic conditions.

k. Use of Designated Stops limited to permit-related activity. Shuttle vehicles that display a placard but are not making commuter shuttle-related trips may not use Designated Stops.

3. Permittee must comply with the San Francisco Board of Supervisors' March 2015 Labor Harmony Resolution by submitting a Service Disruption Prevention Plan that describes Permittee's efforts to ensure its efficient operations while avoiding any potential disruptions to SFMTA operations by addressing the principles and concerns set forth in such Resolution. Permittee must ensure its operations do not cause or contribute to any service disruptions. Failure to comply with this provision will result in denial or revocation of permits.
4. Permittee must certify that anyone who drives a shuttle in San Francisco has viewed the SFMTA's Large Vehicle Urban Driving Safety video, which can be accessed at https://youtu.be/_LbC3FQeZqc.
5. Permittee must indemnify SFMTA and the City of San Francisco for injuries or damage resulting from Permittee's use of Designated Stops, including associated bus shelters and other related sidewalk features.
6. Permittee vehicles must display a placard issued by SFMTA at specified location on the front and rear of vehicles at all times when operating commuter service in San Francisco.
7. Provide data feeds per SFMTA specifications, and demonstrate for each vehicle that data feeds are regular and accurate.
8. Pay permit fees. Any stop-events made by shuttle vehicles that are free for use by the public, and display the words "Free to the Public" on the loading side of the vehicle in letters at least four inches tall, are exempt from this permit fee requirement but are subject to all other permit terms.
9. Promptly pay any outstanding traffic citations.
10. Demonstrate compliance with all applicable regulatory requirements imposed by the CPUC, including registration/permitting, insurance, vehicle inspection requirements, and driver training.
11. All shuttle vehicles not already approved for use in the Pilot as of January 31, 2016 must be either model year 2012 or newer, or be equipped with a power source that complies with emissions standards applicable to the 2012 class of vehicle. As of January 1, 2020, all shuttle vehicles used by Permittees in the Commuter Shuttle Program must be model year 2012 or newer. After January 1, 2020, all shuttle vehicles used by Permittees in the Commuter Shuttle Program must be no more than eight model years old. SFMTA ensures compliance with this condition through the

annual permit renewal process, which requires submittal of vehicle registration and, in the case of vehicles older than model year 2012, documentation to show compliance with applicable emissions standards.

Capital Improvements

As part of the proposed Program, SFMTA would continue to designate and install appropriate signage on select Muni zones and passenger loading zones for shared Muni/commuter shuttle use. In addition, as appropriate, the Program would include the installation of several safety improvements to the existing right-of-way that would improve the stop network for both commuter shuttles and users of other modes, including: boarding islands, pedestrian bulbs, and bus bulbs.

These improvements, combined, would expand the sidewalk area for passengers waiting to board either Muni vehicles or commuter shuttles (depending on the location). Also, the addition of these improvements would enhance passenger loading and unloading activities by bringing Muni/shuttle passengers closer to buses, as well as reduce delays and potential conflicts from Muni vehicles and commuter shuttles re-entering the travel lane.

As listed in Table 1 below, SFMTA has identified the following capital improvements at existing stops/zones within the Pilot Program network. The locations listed below were selected by SFMTA, during the Pilot Program data collection, due to the level of activity at each location (number of shuttle stop events, Muni bus activity, and availability pedestrian/bicycle facilities). Further, as part of the Program, implementation and construction of the proposed capital improvements would be funded partially through the permit fees collected from shuttle providers through the Program.

Table 1. Capital Improvement Locations (Preliminary)

Locations	Potential Capital Improvement
8th/Market Muni zone/white zone SW corner	Boarding island
Arguello/Geary Muni zones (NW and SE corner)	Boarding islands
Valencia/25th Muni zone (SW corner)	Boarding island
7th/Market Muni zone (SW corner)	Boarding island (left-hand)
7th/Townsend Muni zone (NE corner)	Boarding island (left-hand)
O'Shaughnessy/Portola Muni zone (SW corner)	TSP
Castro/25th Muni zone (SE corner)	Bus bulb
Divisadero corridor (24 line)	TSP
Divisadero/California Muni zones (SW and NE corner)	Bus bulbs
Lombard/Pierce Muni zones (NW, SE corner)	Bus bulbs
Harrison corridor (8/27 lines)	TSP
Harrison/2nd Muni zone (NW corner)	Bus bulb
Harrison/4th Muni zone (NW corner)	Bus bulb
Harrison/7th Muni zone (NW corner)	Bus bulb
18th Street corridor (33 line)	TSP
Bryant corridor (27/47 lines)	TSP
Bryant/7th Muni zone (SE corner)	Bus bulb
North Point/Mason Muni zone (NW corner)	Bus bulb

Source: SFMTA, 2015

Project Approvals

The proposed project is subject to review by SFMTA staff and approval by the SFMTA Board of Directors. The Approval Action for the proposed project would be approved by the SFMTA Board of Directors, which would approve the Commuter Shuttle Program as well as proposed roadway improvements to be implemented or constructed on the public right-of-way. The Approval Action date establishes the start of the 30-day appeal period for this CEQA exemption determination pursuant to Section 31.04(h) of the San Francisco Administrative Code.

REMARKS:

Program Evaluation - Travel Survey

SFMTA conducted field data collection in June 2014, prior to the start of the Pilot Program to assess existing commuter shuttle activity on City streets, followed by a second field data collection effort in June 2015 to examine the effects of the Pilot Program on the transportation system, including effects on Muni operations and identify conflicts and other potential safety issues caused by commuter shuttle activity.

The 2015 field data collection effort observed commuter shuttle and Muni activity at 20 shuttle stop/zone locations including: 10 stops in the morning commute period (6:45-9:15am) and 10 stops in the evening

commute period (5:30-8:00pm). Field data was collected by SFMTA staff and included observations of stop activities at the selected locations, typically in 2 ½-hour increments.

In addition to data collection activities, SFMTA conducted an extensive evaluation of the Pilot and on October 5, 2015, the Commuter Shuttle Pilot Program Evaluation Report was published. As part of the evaluation, in June 2015, SFMTA distributed a survey to shuttle riders to determine the impact of shuttle availability on their transportation choices. According to survey results, 546 shuttle riders responded to the survey; 418 (77%) were intercity regional shuttle riders, while 128 (23%) rode intracity shuttles. This split of riders accurately represents the overall share of boardings for intercity (76%) and intracity shuttles (24%).

Shuttle riders are widely dispersed among neighborhoods in the City, though the top ten neighborhoods of origin are concentrated in the Mission and the northeastern quadrant of the city. The top ten neighborhoods house 55% of total survey respondents, while the remaining 45% of survey respondents are scattered across 56 other neighborhoods.

As shown in Table 2 below, the Evaluation Report found that 47% of shuttle riders said they would drive alone to work if a shuttle were not available, a finding that has allowed SFMTA to conclude that commuter shuttles do help accomplish local and regional objectives related to VMT reduction. Based on the survey data, availability of commuter shuttles influence the travel behavior for a substantial number of shuttle riders which results in the reduction of drive-alone trips. The survey also indicated that 29% of shuttle riders would use public transit in the absence of commuter shuttles, a finding that can inform SFMTA and regional transit providers' decisions regarding transit service to and from employment centers.

Table 2. Commuter Shuttle – Rider Survey

How would you get to work without the shuttle?	Riders	Percent of total
Drive alone	257	47.2%
Public transit	158	29.0%
Get a job closer to home	75	13.8%
Carpool	28	5.2%
Move closer to work	26	4.8%

Source: SFMTA, 2015

Program Evaluation - Shuttle Ridership

Shuttles participating in the Pilot program had approximately 356,997 boardings per month, or 17,000 on an average weekday. An estimated 270,252 of the monthly shuttle boardings were on intercity regional shuttle trips, and 86,745 were shuttle trips that began and ended in San Francisco. Assuming that most people boarded the shuttle twice in one day, this means that an average of 8,500 people ride a permitted shuttle each day. Further, shuttles load or unload an average of 5.7 people per stop-event among all designated shuttle zones and Muni/shuttle loading zones.

Approach to Analysis

Prior to the implementation of the Pilot, commuter shuttles operated on City streets with limited regulation. The Pilot established a means to collect data and manage commuter shuttle activity beyond citing shuttle buses for infractions. However, the approval of the Pilot program only provided for an 18-month operational period. No further regulation of the commuter shuttles is authorized beyond February 2016.

The California Environmental Quality Act (CEQA) mandates that the potential physical changes to the environment resulting from a project be analyzed, as compared to the baseline ("on the ground") conditions existing at the time of the environmental review. Although the Pilot program is operational at the time that this analysis has occurred, the Pilot would not continue after February 2016 and therefore a comparison of the conditions under the proposed Program to the conditions under the Pilot would not reflect an accurate analysis. Moreover, because the proposed Program is a refined and expanded version of the Pilot, analysis of current conditions (i.e., with the Pilot) as the baseline would understate the impacts of the proposed Program because the physical changes resulting from the proposed Program would be minimal; for example, use of the Pilot as a baseline would not reflect the localized emissions resulting from the designation of permitted shuttle stops. Therefore, for the purposes of this analysis, the pre-Pilot conditions represent the baseline existing conditions to provide the most conservative analysis and because the Pilot is a temporary program with a required end date.

The data collected during the Pilot period has been used to inform the conclusions of this analysis, providing a reliable basis for understanding the impacts of the proposed Commuter Shuttle Program.

Transportation

Prior to the Pilot, shuttle operators did not inform SFMTA of their stop locations. However, because the stop network for the Pilot was created based on shuttle providers' requested stop locations and there was no limit on the number of potential stops, it can be reasonably assumed that the Pilot program stop network is similar to the shuttle stop locations that were in use informally prior to the Pilot. One physical change resulting from the proposed Program would be that, rather than having full choice of stop locations, shuttle activity for larger vehicles would be directed away from non-arterial streets towards arterials. The traffic analysis below considers the impacts of this component of the proposed Program by quantifying potential additional shuttle vehicle activity in those arterial locations where the greatest number of shuttles would be routed away from non-arterial streets.

Table 2 below depicts a worst-case scenario showing the number of buses that would be moved to nearby arterial streets if all commuter shuttle traffic (both large and small vehicles) at four of the busiest non-arterial zones would move to a single nearby zone on an arterial, and not dispersed across several nearby zones. Table 3 shows that the shuttle activity at these four arterial streets currently constitutes 1.1% to 7% of the peak hour vehicle activity at these intersections, this maximum number of relocated commuter

shuttles, when added to existing shuttle activity at these stops, would account for between 1.7% and 9% of the average daily traffic on the streets to which they would be relocated.

Table 3. Stop Events at Designated Zones (with Commuter Shuttle Program)

Existing Non-Arterial Zone		Nearest Arterial Zone Alternative				Combined Totals After Relocation	
Existing Non-Arterial Zone (to be relocated)	**Stop Events[a]**	**Nearest Existing Arterial Zone[b]**	**Stop Events**	**Existing Arterial Traffic Counts[c]**	**Shuttle % of Current Traffic Counts**	**Total Stop Events (after relocation)**	**Shuttle % of Total Traffic Counts (after relocation)**
Castro/25th NW corner, near-side	20.0	24th/Church SW corner, near-side	9.6	342	6%	29.6	9%
Church/Market NE corner, AM/PM white zone	10.3	Castro/Market NE corner, PM white zone	10.3	311	3%	20.5	6%
30th/Church SW corner, flag stop	12.9	San Jose/Dolores NW corner, AM white zone	6.9	1159	1.1%	19.7	1.7%
Townsend/4th South side, Mid-block	22.7	Harrison/Embarcadero, white zone	8.7	341	7%	31.4	9.5%

Source: SFMTA, 2015

Notes:

a – Estimated commuter shuttle stop events per hour

b – Peak hour traffic counts collected by SFMTA in 2009, 2011, and 2012

c – Identified zone with existing shuttle stop where nearest non-arterial stop would be located.

Implementation of the proposed project may include the relocation of stop events and routes for large vehicles to arterial roadways. As shown in Table 3, the four arterial locations closest to the current non-arterial locations experiencing the highest level of shuttle activity could experience an increase in shuttle stop events due to the relocation of nearby non-arterial stops. However, with the relocation of shuttle stops and the subsequent increase in shuttle activity at each location, peak hour traffic volumes at intersections analyzed would increase by 0.6% to 3%, which would not represent a substantial increase from the addition of shuttle stop events due to the relocation of a non-arterial zone. Peak hour traffic volumes collected for each of the four locations listed above includes all vehicle types (including shuttles). The relocation of stops would not result in a substantial increase in the number of commuter shuttle vehicles (or other vehicles) at the locations analyzed above, with the increases in shuttle activity adding approximately one to three percent more shuttle vehicles than current conditions. Ultimately, commuter shuttles would remain approximately less than 10 percent of the vehicles that travel through

each location shown above during the peak hour. Moreover, as part of the Program, commuter shuttles are required to avoid using non-arterial streets, which would further reduce the number of shuttle vehicles on those streets. The relatively minor increase in shuttle activity, compared to the overall peak hour volumes, would not substantially degrade traffic operations and would not have a significant impact on traffic operations at arterial roadways.

Transit

One of the principal objectives in regulating commuter shuttles is to ensure that commuter shuttle conflicts with Muni were avoided or minimized whenever possible. To that end, the Pilot Program shuttle zone network included stops on lower-frequency Muni lines and exclusive shuttle loading zones near, but not shared with, Muni zones. Commuter shuttle activities, especially in designated shared Muni/Shuttle zones, were observed during the data collection effort in 2015. Table 4 below, compares the number of times that a Muni bus was blocked, at least temporarily, by a commuter shuttle bus from accessing a Muni zone, pre- and during-pilot.

Table 4. Average Number of Shuttle Stop-Events Resulting in Blocked Muni Buses (per hour)

Zone Location	Pre-Pilot Program	During-Pilot Program	Percentage (average per hour)
4th and Townsend	0.8	0	0%
16th and Mission	0	0	0%
16th and Mission/South Van Ness	0.4	0	0%
19th and Taraval/Wawona	0	0	0%
Castro and 24th/25th	0	0	0%
Church and 15th/16th	0	0	0%
Church and Market	0	0	0%
Divisadero and Haight/Oak PM	0	0.4	4%
Divisadero and Geary	1.2	0	0%
Divisadero and Haight AM	0.2	0.8	5%
Fillmore and Jackson	0.4	0.4	9%
Lombard and Pierce	0	0	0%
Van Ness and Market AM	0	0	0%
Valencia and 24th	0.86	1.6	10%
Valencia and 25th	0	0.4	2%
Van Ness and Market PM	0	0.8	5%
Van Ness and Sacramento	1.0	0.4	2%
Van Ness and California	0.8	0	0%
Van Ness and Union PM	0	3.2	18%
Van Ness and Union AM	1.2	0	0%
Program Average	**0.3**	**0.4**	**3%**

Source: SFMTA, 2015

Notes: Locations in **BOLD** include loading zones shared with Muni Buses

During data collection for the Pilot in June 2015, commuter shuttles blocking Muni vehicles were observed across several designated stops/zones. Results show that the occurrences of shuttles blocking Muni vehicles did not substantially increase between pre-Pilot conditions and after implementation of the Pilot Program. As shown in Table 4, twelve stops/zones were observed to not have any Muni buses blocked, compared to 11 stops/zones during the pre-pilot data collection. The average number of Muni buses blocked per hour was less than one Muni vehicle per hour (0.4 Muni vehicles during Pilot, 0.3 Muni vehicles pre-Pilot). Blocked Muni buses as a percentage of shuttles per hour shows that Commuter Shuttles blocking Muni buses occurred infrequently; an average of only 3% of shuttle stop-events blocked Muni access to a zone, and only in two locations did 10% or more shuttle stop-events block Muni.

Across all the field data collection locations during the Pilot, which saw 706 total stop-events, or 24% of the 2,978 stop-events that occur at all zones/stops on a typical day, 19 total Muni buses were temporarily prevented from accessing the Muni zone. As part of the proposed project, SFMTA would provide increased enforcement and monitoring at shuttle zones with a higher number of observed cases where commuter shuttles blocked Muni vehicles. The proposed project includes ongoing evaluation to actively respond to community concerns, identify safety issues, and would have the ability to modify shuttle network stops/zones to maintain consistent Muni operations.

For the purposes of a conservative analysis, SFMTA estimated that, by multiplying the average commuter shuttle dwell time (62.4 seconds) at designated stops/zones by 2,978 total daily stop-events, shuttles add a total of 83 minutes per day of delay into the Muni system. The resulting delay per Muni run (Muni makes over 1,200 runs every weekday) is approximately four seconds. The estimated delay added to existing Muni runs would be disperse throughout the Muni bus routes where shuttles also operate and would not be considered substantial. As shown above, the Commuter Shuttle Program would not substantially add delay to Muni lines operating along the same corridors as shuttles.

Further, the threshold of significance for determining peak period transit demand impacts to the SFMTA lines is defined by an "85 percent" capacity utilization performance standard. As determined by the SFMTA Board and the Planning Department, local transit lines should operate at or below 85 percent capacity utilization. This performance standard more accurately reflects actual operations and the likelihood of "pass-ups" (i.e., vehicles not stopping to pick up more passengers). The 85 percent capacity utilization standard would not be exceeded due to the Commuter Shuttle Program, since shuttles do not add to the capacity of existing Muni lines. Therefore, the proposed project would not result in a significant impact related to transit operations.

Bicycles

Similar to transit observations above, data collected by SFMTA during the Pilot indicated that commuter shuttles were observed to have infrequent operational conflicts with existing bicycle facilities. Though these occurrences were infrequent, commuter shuttles were observed to block the travel lane and/or bicycle lane when shuttles failed to maneuver all the way to the curb when accessing a zone, or when shuttles were denied access to the zone by another shuttle, a Muni vehicle, or another vehicle. During the

Pilot, these issues were addressed by extending shuttle zones, creating shuttle-only zones or directing shuttles to stop at low-frequency Muni zones where there were less likely to conflict with a Muni bus. Because of their infrequency, and the Program's ability to address any potential conflicts through modification of the shuttle stop length or location, the proposed Program would not be expected to result in a significant impact related to bicycles.

In addition, the Program requires commuter shuttles to pull all the way into, and maneuver the shuttle vehicle parallel with, the curb for passenger boarding and unloading. The Program would also prohibit shuttle vehicles from blocking travel or bicycle lanes and that loading and unloading do not take place in a vehicle or bicycle lane, or operate in a manner that impedes travel in these lanes. As appropriate, the SFMTA would create far-side shuttle loading zones to minimize the occurrence of shuttles blocking travel lanes and/or bike lanes, and increase enforcement at certain locations to ensure that shuttle drivers pull shuttle vehicles completely into the zone and out of traffic or bicycle lanes. Further, it is important to note that while the conflict with both travel lanes and bicycle lanes were observed, these incidents were very infrequent: the conflicts were observed at three of six near-side zones, and were not observed at all at any of the far-side or mid-block zones. Given the above, the proposed project would not result in a significant impact related to bicycles.

Pedestrians

Data collected during the Pilot indicated that commuter shuttles presented infrequent operational conflicts with pedestrian facilities. According to SFMTA and described below, pedestrian safety issues identified were related to the size of the commuter shuttle and placement of new shuttle stops/zones in relation to certain crosswalks. Observations conducted during the Pilot noted potential reduction in sight distance and whether commuter shuttles are preventing right-turning drivers from seeing pedestrians who may be crossing in front of a shuttle at a near-side stop. Because of the size of the commuter shuttles, shuttles at near-side stops/zones create a temporary restriction of the view of drivers attempting to make a right turn. Analysis of conditions indicated that the temporary restriction in sight distance is created only if all of the following conditions are met at the same time: (1) the commuter shuttle is stopped at the near side of the intersection, (2) a driver is attempting to turn right around the shuttle, and (3) pedestrians are crossing in front of the shuttle and may not be seen by the car driver. Because this issue only arises in limited circumstances, during data collection activities, SFMTA staff noted that these conditions were met only 16 times across the entire data collection period during the Pilot. While infrequent, these occurrences were one of the primary reasons that the Commuter Shuttle Program, upon implementation, would include identifying shuttle zones that may be moved from the near side of the intersection to the far side of the intersection. Also, as part of the Program, participants would be required to certify that shuttle drivers have completed driver safety training consistent with SFMTA's Large Vehicle Urban Driving Safety Program.

In addition, data collection activities during the Pilot Program observed instances where commuter shuttles blocked crosswalks. SFMTA staff noted that this usually occurs when a commuter shuttle driver misjudges the stop light cycle or attempts to access a zone that is already occupied by another vehicle.

Overall, analysis indicated that commuter shuttles actively blocking pedestrian facilities did not occur often during Pilot Program data collection. Shuttles blocked crosswalks six times out of 706 stop-events observed, or less than one percent of all stop events.

While data collected during the Pilot observed minimal conflicts with pedestrian facilities, the Commuter Shuttle Program would further reduce conflicts through increased enforcement at high-activity locations identified by SFMTA, the extension of the length of shuttle-only zones, and in certain cases as determined by SFMTA staff, the modification of near-side stops to far-side stops. By pursuing modifications to identified shuttle loading zones, such as relocating stops to the far-side of the street, both right-turning vehicles and pedestrians at a given crosswalk would not have an obstructed view of the intersection.

While there were intermittent occurrences of operational conflicts, the proposed project would not create a hazard and intermittent conflicts such as shuttle vehicles blocking Muni vehicles, travel lanes, or bicycle lanes would be reduced through the Commuter Shuttle Program. The proposed project, as mentioned previously, would identify specific locations (based on Pilot data collection) and pursue improvements to better manage the movement of vehicles, transit, bicycles, and pedestrians. The observations during the Pilot indicate that these improvements, as part of the project, would further reduce the conflicts between those modes of transportation and avoid instances where Muni passengers would need to board Muni vehicles on the street.

The proposed project would not include any narrowing of sidewalks or other components that could negatively affect pedestrian circulation within the project area. Based on the above, the proposed project would not result in significant impacts related to pedestrians.

Loading

The project, as proposed, would not eliminate any commercial loading zones or create additional demand for commercial loading activities. Under the Commuter Shuttle Program, use of existing passenger loading (white) zones and designated shared Muni/shuttle stops would not reduce the number of commercial loading (yellow) zones. Any elimination of existing loading zones would be evaluated for its impacts. However, the elimination of a loading zone does not typically result in a significant impact. Therefore, the proposed project would not result in significant commercial loading impacts.

If the Commuter Shuttle Program were not implemented, commuter shuttles would be expected to return to operating on non-arterial streets and other streets without restrictions such as residential streets; loading and unloading passengers at near-side bus stops, white zones or vacant curb areas; or loading and unloading passengers in travel lanes on both arterial and non-arterial streets, which could occasionally result in delays to traffic and Muni service or affect Muni patrons who might need to go out into the street to board, and could affect pedestrians crossing streets in front of commuter shuttles.

Other Environmental Topics

Air Quality

An Air Quality Technical Report (AQTR)[4] was prepared in order to assess the regional criteria air pollutant, and localized health risk impacts of the proposed project. The following summarizes the results of the AQTR, as well as provides some background information regarding threshold of significance.

Criteria Air Pollutants (Regional Analysis)

The Bay Area Air Quality Management District (BAAQMD) is the regional agency with jurisdiction over the nine-county San Francisco Bay Area Air Basin (SFBAAB), which includes San Francisco, Alameda, Contra Costa, Marin, San Mateo, Santa Clara, and Napa Counties and portions of Sonoma and Solano Counties. The BAAQMD is responsible for attaining and maintaining air quality in the SFBAAB within federal and state air quality standards, as established by the federal Clean Air Act (CAA) and the California Clean Air Act (CCAA), respectively.

In accordance with the state and federal Clean Air Acts, air pollutant standards are identified for the following six criteria air pollutants: ozone (O_3), carbon monoxide (CO), particulate matter (PM_{10} and $PM_{2.5}$), nitrogen dioxide (NO_2), sulfur dioxide (SO_2) and lead. These air pollutants are termed criteria air pollutants because they are regulated by developing specific public health- and welfare-based criteria as the basis for setting permissible levels. In general, the SFBAAB experiences low concentrations of most pollutants when compared to federal or state standards. The SFBAAB is designated as either in attainment[5] or unclassified for most criteria pollutants with the exception of ozone, $PM_{2.5}$, and PM_{10}, for which these pollutants are designated as non-attainment for either the state or federal standards.[6] By its very nature, regional air pollution is largely a cumulative impact in that no single project is sufficient in size to, by itself, result in non-attainment of air quality standards. Instead, a project's individual emissions contribute to existing cumulative air quality impacts. If a project's contribution to cumulative air quality impacts is considerable, then the project's impact on air quality would be considered significant.[7] The City is utilizing the significance thresholds developed by BAAQMD to analyze this project's criteria pollutant air quality impacts.

The proposed project would include capital improvements consisting of boarding islands, pedestrian bulbs, and bus bulbs. These capital improvements would require the use of construction equipment.

---

4 Ramboll Environ. Final Air Quality Technical Report. SFMTA Commuter Shuttle Program. October 13, 2015.

5 "Attainment" status refers to those regions that are meeting federal and/or state standards for a specified criteria pollutant. "Non-attainment" refers to regions that do not meet federal and/or state standards for a specified criteria pollutant. "Unclassified" refers to regions where there is not enough data to determine the region's attainment status for a specified criteria air pollutant.

6 U.S. EPA. Green Book. Current Nonattainment Counties for All Criteria Pollutants. As of October 01, 2015. Available online: http://www3.epa.gov/airquality/greenbook/ancl.html

7 Bay Area Air Quality Management District (BAAQMD), *California Environmental Quality Act Air Quality Guidelines*, May 2011, page 2-1.

Given the limited use and amount of construction, the proposed project would not have the potential to result in significant construction criteria air pollutant impacts.

For the purposes of environmental review, shuttle growth was assumed to be 41 percent of the Pilot Program and was based available data collected by the SFMTA. Shuttle activities occurred on City streets even before the Pilot was implemented. Based on the number of commuter shuttle permits (placards) issued prior to the implementation of the Pilot and the Commuter Shuttle Program (beginning in 2016), SFMTA estimates that participation in the Program could increase by 41 percent.[8]

Potential commuter shuttle activity could grow as a result of increased demand for shuttle service from local and regional employers and their workers. This potential growth could occur with or without implementation of the proposed project. However, for environmental review purposes, the potential growth in the number of shuttles and stop events is being analyzed as related to the Program. Regional criteria air pollutant emissions may increase from the increase in potential commuter shuttle activity within San Francisco and to and from commuter shuttle destinations in the Bay Area. Therefore, regional criteria air pollutant emissions were estimated based upon the following assumptions: a 41 percent growth in commuter shuttle permits (placards) issued prior to the commencement of the Pilot (2014) and estimated Commuter Shuttle Program implementation (2016); commuter shuttle engine year, including model year 2012 equivalent or newer for all new commuter shuttle vehicles entering the Program and, by 2020, a requirement that all active commuter shuttle vehicle engines are no more than eight years old or equivalent (thus requiring fleet turnover of older vehicles); commuter shuttle data on fuel type, idling time, and trip length; and survey responses from individuals participating as commuter shuttle riders in the Pilot Program regarding their mode of commuter travel or location of home/job if commuter shuttles were not available.

Emissions from the proposed project display net reductions in ROG, PM_{10}, and $PM_{2.5}$emissions of 0.26, 0.05, and 0.05 tons per year, respectively, and net reductions in CO_2 of 1,149 metric tons per year. Emissions from the proposed project display net increases of NO_x by 6.6 tons per year. Increases in NO_x are attributable to the difference in emissions generated from a large diesel-fueled bus engine relative to a gasoline-fueled car. In 2018, NO_x emissions from the average shuttle are approximately 18 times greater per mile than a passenger car. However, the NOx emissions would still be below the thresholds of significance, as shown in Table 5. Therefore, no significant criteria air pollutant impacts would occur.

[8] Memo – Potential Increase in Commuter Shuttle Activity, from Hank Willson (SFMTA) to Melinda Hue (SF Planning Department), dated October 8, 2015.

Table 5. Estimated Criteria Air Pollutant Emissions

	ROG	NO_x	PM_{10}	$PM_{2.5}$	CO_2
Estimated emissions (pounds per day)[1]					
Project Emissions	-1.4	36	-0.3	-0.3	-6,939
Significance Threshold	54	54	82	54	n/a[2]
Estimated emissions (tons per year)[1]					
Project Emissions	-0.26	6.60	-0.05	-0.05	-1,149
Significance Threshold	10	10	15	10	n/a[2]

Source: Ramboll Environ, 2015.

1. Annual CO_2 emissions are in metric tons.
2. The City relies on compliance with the City's Greenhouse Gas Reduction Strategy instead of quantitative thresholds for determining significance.

Health Risks and Hazards (Localized Analysis)

In addition to criteria air pollutants, individual projects may emit toxic air contaminants (TACs). TACs collectively refer to a diverse group of air pollutants that are capable of causing chronic (i.e., of long-duration) and acute (i.e., potentially severe but short-term) adverse effects to human health, including carcinogenic effects. In an effort to identify areas of San Francisco most adversely affected by sources of TACs, San Francisco partnered with the BAAQMD to conduct a citywide health risk assessment based on an inventory and assessment of air pollution and exposures from mobile, stationary, and area sources within San Francisco. Areas with poor air quality, termed the "Air Pollutant Exposure Zone," were identified based on health-protective criteria that consider estimated cancer risk, exposures to fine particulate matter, proximity to freeways, and locations with particularly vulnerable populations.

The above citywide health risk modeling was also used as the basis in approving a series of amendments to the San Francisco Building and Health Codes, generally referred to as the Enhanced Ventilation Required for Urban Infill Sensitive Use Developments or Health Code, Article 38 (Ordinance 224-14, effective December 8, 2014) (Article 38). The purpose of Article 38 is to protect the public health and welfare by establishing an Air Pollutant Exposure Zone and imposing an enhanced ventilation requirement for all urban infill sensitive use development within the Air Pollutant Exposure Zone. The Air Pollutant Exposure Zone was also used as the basis in approving a series of amendments to the San Francisco Environment and Administrative Codes, generally referred to as the Clean Construction Ordinance, or Environment Code Section 25.

The threshold of significance used to evaluate health risks from new sources of TACs associated with the project is based on the potential for the proposed project to substantially affect the extent and severity of the Air Pollutant Exposure Zone at sensitive receptor locations. For projects that could result in sensitive

receptor locations meeting the Air Pollutant Exposure Zone criteria that otherwise would not occur without the project, a proposed project that would emit $PM_{2.5}$ concentration above 0.3 $\mu g/m^3$ or result in an excess cancer risk greater than 10.0 per million would be considered a significant impact. The 0.3 $\mu g/m^3$ $PM_{2.5}$ concentration and the excess cancer risk of 10.0 per million persons exposed are the levels below which the BAAQMD considers new sources not to make a considerable contribution to cumulative health risks.[9] For those locations already meeting the Air Pollutant Exposure Zone criteria, a lower significance standard is required to ensure that a proposed project's contribution to existing health risks would not be significant. In these areas a proposed project's $PM_{2.5}$ concentrations above 0.2 $\mu g/m^3$ or an excess cancer risk greater than 7.0 per million would be considered a significant impact. The proposed project would include stops both within and outside the Air Pollutant Exposure Zone and thus all of the above thresholds of significance apply.

The proposed project would include limited construction activities for capital improvements. Project construction activities would result in short-term emissions of DPM and other TACs. The proposed project is subject to the Clean Construction Ordinance. While emission reductions from limiting idling, educating workers and the public and properly maintaining equipment are difficult to quantify, other measures in the Clean Construction Ordinance, specifically the requirement for equipment with Tier 2 engines and Level 3 Verified Diesel Emission Control Strategy (VDECS) can reduce construction emissions by 89 to 94 percent compared to equipment with engines meeting no emission standards and without a VDECS. Emissions reductions from the combination of Tier 2 equipment with level 3 VDECS is almost equivalent to requiring only equipment with Tier 4 Final engines, which is not yet readily available for engine sizes subject to the Clean Construction Ordinance. Therefore, compliance with the Clean Construction Ordinance would ensure construction emissions impacts on nearby sensitive receptors would not be significant.

Sensitive receptors may be exposed to increased emissions at existing stops as a result of the increased demand for shuttle service from local and regional employers and their workers. In addition, sensitive receptors that are currently not exposed to emissions from commuter shuttle stop events could be exposed in the future if new stops are added as part of the Program. Therefore, a localized health risk assessment was conducted to assess the excess cancer risk and $PM_{2.5}$ concentrations from the Program.

Four local impact zones were modeled to represent the localized health risk effects at any existing stop or proposed stop under the Program. The four local impact zones were chosen based on the following criteria: exhibit high volumes of stop events under the Pilot Program; represent average or above average idling times for idling times for commuter shuttle under the Pilot Program; representative of the geographic diversity within the City for stops (within and outside the Air Pollutant Exposure Zone, differing locations of sensitive receptors); and representative of configuration of stops (e.g., east-west vs. north-south, stops on both sides of the street).

[9] Bay Area Air Quality Management District, *California Environmental Quality Act Guidelines Update, Proposed Air Quality CEQA Thresholds of Significance*, May 3, 2010.

In order to assess potential impacts from locating a new stop anywhere in the City, for a baseline the modeling assumed that no shuttles currently stop at the four local impact zones. This represents a conservative analysis for some locations because with or without the Program the shuttles would be making stops at various locations throughout the City. However, this conservative approach allows for disclosure of air quality effects that occur today at some locations and provides information about health effects that could occur in the future if and/or when a new loading zone is created. In addition, localized health effects were based upon the following assumptions: an increase in the number of stop events that could occur between Pilot and Program conditions (estimated at 29 percent) at locations with a high volume stop events; the same commuter shuttle engine years (2012 or newer) as mentioned above for criteria air pollutants; commuter shuttle fuel type and idling time; and various methodologies consistent with BAAQMD guidance regarding assessing local risks and hazards.

As shown in Table 6, the estimated health risk and $PM_{2.5}$ concentrations from the Program would not exceed significance thresholds both within and outside the Air Pollutant Exposure Zone for residential sensitive receptors. Therefore, no significant localized health risk impacts would occur.

Table 6. Estimated Health Risks and Hazards

Air Pollutant Exposure Zone Location	Local Impact Zone	Lifetime Cancer Risk	Shuttle-Generated Annual $PM_{2.5}$ Concentrations
Outside	Van Ness & Union	5.6	0.02
Outside	Valencia & 24th/25th	4.3	0.01
	Significance Threshold	10.0	0.3
Within	Townsend & 4th	0.9	<0.01
Within	Market & 8th	2.8	<0.01
	Significance Threshold	7.0	0.2

Source: Ramboll Environ, 2015.

Noise

An analysis of the potential noise effects of adding transit service on streets in San Francisco was prepared for the Service Improvements analyzed in the Transit Effectiveness Project EIR (TEP EIR) in Chapter 4, Section 4.3, Noise and Vibration, on pp. 4.3-35 to 4.3-48.[10] The results of that analysis are relevant to the indirect changes in noise that could occur as the commuter shuttle program expands in the future.

The City considers temporary noise from construction performed in compliance with the San Francisco Noise Ordinance, Article 2.4 of the San Francisco Public Works Code/DPW Order No. 176-707, and the SFMTA Blue Book to be less than significant. These regulations require that construction not produce noise from any construction equipment (except impact tools) that would exceed 80 dBA at 100 feet or

[10] San Francisco Planning Department, *Transit Effectiveness Project Final Environmental Impact Report*, certified March 27, 2014, Case No. 2011.0558E (hereinafter "TEP EIR").

generate construction noise between 8:00 p.m. and 7:00 a.m. that exceeds the ambient noise level by 5 dBA at the nearest property line without procuring a Night Noise Permit. Pursuant to § 2907 of the San Francisco Noise Ordinance, impact tools and equipment must be equipped with intake and exhaust mufflers recommended by the manufacturers and approved by the Director of Public Works for maximum noise attenuation, and pavement breakers and jackhammers must be equipped with acoustically attenuating shields or shrouds.[11] Per the Night Noise Permit, the use of construction equipment that generates high level of noise and impact equipment is not allowed after 10:00 p.m.[12]

The Federal Transit Administration (FTA) developed a methodology and significance criteria to evaluate noise impacts from operation of surface transportation modes (i.e. passenger cars, trucks, buses, and rail) in their guidance document: *Transit Noise Impact and Vibration Assessment* (FTA Guidelines).[13] The FTA incremental noise impact criteria are based on US EPA recommended levels and studies of community annoyance from transportation noise. This approach was used in the TEP EIR to evaluate the noise impact from increases in transit vehicle trips on San Francisco streets.

The TEP EIR noise analysis evaluated construction impacts from adding pedestrian bulbs, bus bulbs, and boarding islands similar to those included in the proposed project.[14] The loudest noise levels are typically generated by impact equipment (e.g., hoe ram or jackhammers) that would be required for the demolition of the existing sidewalk and street and from paving equipment during street restoration.

The expected noise level from construction equipment used for the proposed capital improvements would not emit noise in excess of 80 dBA at 100 feet.[15] Therefore, with adherence to the San Francisco Noise Ordinance, including limiting the noise levels from individual pieces of construction equipment (other than impact tools) to 80 dBA at a distance of 100 feet, equipping impact tools with both intake and exhaust muffled, and obtaining a noise permit for night work from DPW, as well as compliance with the Public Works Code and other DPW regulations, indirect temporary construction noise impacts from the program would be less than significant.

The TEP EIR noise analysis studied the daily increase in operational ambient noise from increases in transit vehicle trips on streets with existing low (55 to 59 dBA Ldn), medium (60 to 69 dBA Ldn), and high (70 dBA Ldn and greater) ambient noise levels. The increases in numbers of standard diesel motor coaches ranged from about 115 per day on a street with low ambient noise levels (55 dBA Ldn) to over 500 per day on a street with high ambient noise levels (70 dBA Ldn).[16] The use of standard diesel motor coaches provided a conservative estimate of the noise that could be generated by increases in transit

[11] San Francisco Municipal Code, Police Code, Article 29 – Regulation of Noise. Available online at: http://www.sfdph.org/dph/files/EHSdocs/ehsNoise/NoiseOrd.pdf. Accessed June 3, 2013.

[12] TEP EIR p. 4.3.16.

[13] FTA, *Transit Noise and Vibration Impact Assessment*, May 2006. Available online at: www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf. Accessed March 13, 2013.

[14] Note that implementing transit system priority signal systems would not require any construction activities.

[15] See TEP EIR Table 29, p. 4.3.31.

[16] TEP EIR Table 31, pp. 4.3.38-4.3.39.

vehicles in the analysis.[17] The results of the analysis of operational noise impacts in the TEP EIR show that adding substantial numbers of motor coaches to city streets, including streets that currently experience low ambient noise levels, would not result in significant increases in noise and would cause less-than-significant noise impacts.[18] Similarly, noise generated by the commuter shuttles would be comparable to those of the MUNI system if they were all standard diesel motor coaches.

As shown in Table 3 (Stop Events at Designated Zones [with Commuter Shuttle Program]), the commuter shuttle program could add up to three percent to the total number of shuttle vehicles to major and minor arterial roadways, assumed to have moderate to high ambient noise levels on a typical week day in San Francisco. It should be noted that as part of the program, shuttle motor coaches would be required to follow routes along arterial streets and avoid residential streets, thereby avoiding streets with low ambient noise levels. Therefore, it is reasonable to assume that, as for the TEP Service Improvements, the increase in noise levels during operation of the commuter shuttles would result in similar less-than-significant noise impacts.

Further, an approximate doubling of traffic volumes in the project area would be necessary to produce an increase in ambient noise levels noticeable to most people. As previously described, the proposed project would not cause a doubling in traffic volumes with the implementation of the Commuter Shuttle Program. The project's marginal increase to the existing shuttle activity at arterial roads (up to three percent) would not cause a noticeable increase in the ambient noise level in the project vicinity. The noise generated by commuter shuttles would be considered common and generally acceptable in an urban area, and would not be considered a significant impact.

Other CEQA Topics

Members of the public have expressed concern that commuter shuttles, the Pilot, and/or the proposed Program have caused an increase in housing costs, resulting in displacement. The increase in housing costs in San Francisco is a well-documented issue that is being addressed in a variety of ways. Prices have risen across the City as demand for housing has increased due to a variety of factors, including significant growth in employment opportunities within San Francisco and the Bay Area. As shown in Table 2 on p. 10, the ridership survey indicates that of the estimated 8,500 daily shuttle riders, only five percent (425 shuttle users) would move closer to their jobs were the commuter shuttles unavailable. Therefore, the availability and proximity of commuter shuttles do not appear to be contributing substantially to housing demand or prices in San Francisco.

CEQA Guidelines Section 15064(e) states that "economic and social changes resulting from a project shall not be treated as significant effects on the environment. Economic or social changes may be used, however, to determine that a physical change shall be regarded as a significant effect on the environment. Where a physical change is caused by economic or social effects of a project, the physical change may be

[17] TEP EIR pp. 4.3.36-4.3.37.

[18] EPT EIR Table 32, p. 4.3.46, and pp. 4.3-43 to 4.3-44

regarded as a significant effect in the same manner as any other physical change resulting from the project. Alternatively, economic and social effects of a physical change may be used to determine that the physical change is a significant effect on the environment. If the physical change causes adverse economic or social effects on people, those adverse effects may be used as a factor in determining whether the physical change is significant." The proposed Program would not result in elimination of any housing units. Any physical impacts associated with increased housing costs would be related to the construction of replacement housing for displaced residents, or increased trip lengths and emissions for displaced residents. However, there is no demonstrable evidence of physical displacement of individuals from housing units attributable to commuter shuttles, and if such displacement were to occur as a result of the proposed program, there is no basis to assess where such individuals would relocate and what their travel behavior would entail. Since there is no demonstrated causative link between commuter shuttle use and housing demand or price, and there is no foreseeable displacement associated with the proposed Program, analysis of any such impacts would be speculative with regard to their scale and nature.

The Commuter Shuttle Program would not result in any changes in land use, urban design or long range views, cultural resources, biological resources, greenhouse gas emissions, wind, shadow, utilities and service systems, geology and soils, hydrology or water quality, mineral resources or agricultural and forest resources. No new hazardous waste would be generated by the Commuter Shuttle Program. Implementation of the proposed project, may reduce already less-than-significant effects on emergency vehicle access.

EXEMPT STATUS

The California Environmental Quality Act (CEQA) Guidelines Section 15301, or Class 1, provides for the exemption from environmental review of minor alterations to existing highways and streets, sidewalks, gutters, bicycle and pedestrian trails, and similar facilities. The proposed project would include minor modifications to the existing arterials to install new commuter shuttle stops, as well as the installation of minor improvements such as signage, traffic islands, and bus bulbs. Therefore, the proposed project would be exempt from CEQA under Class 1.

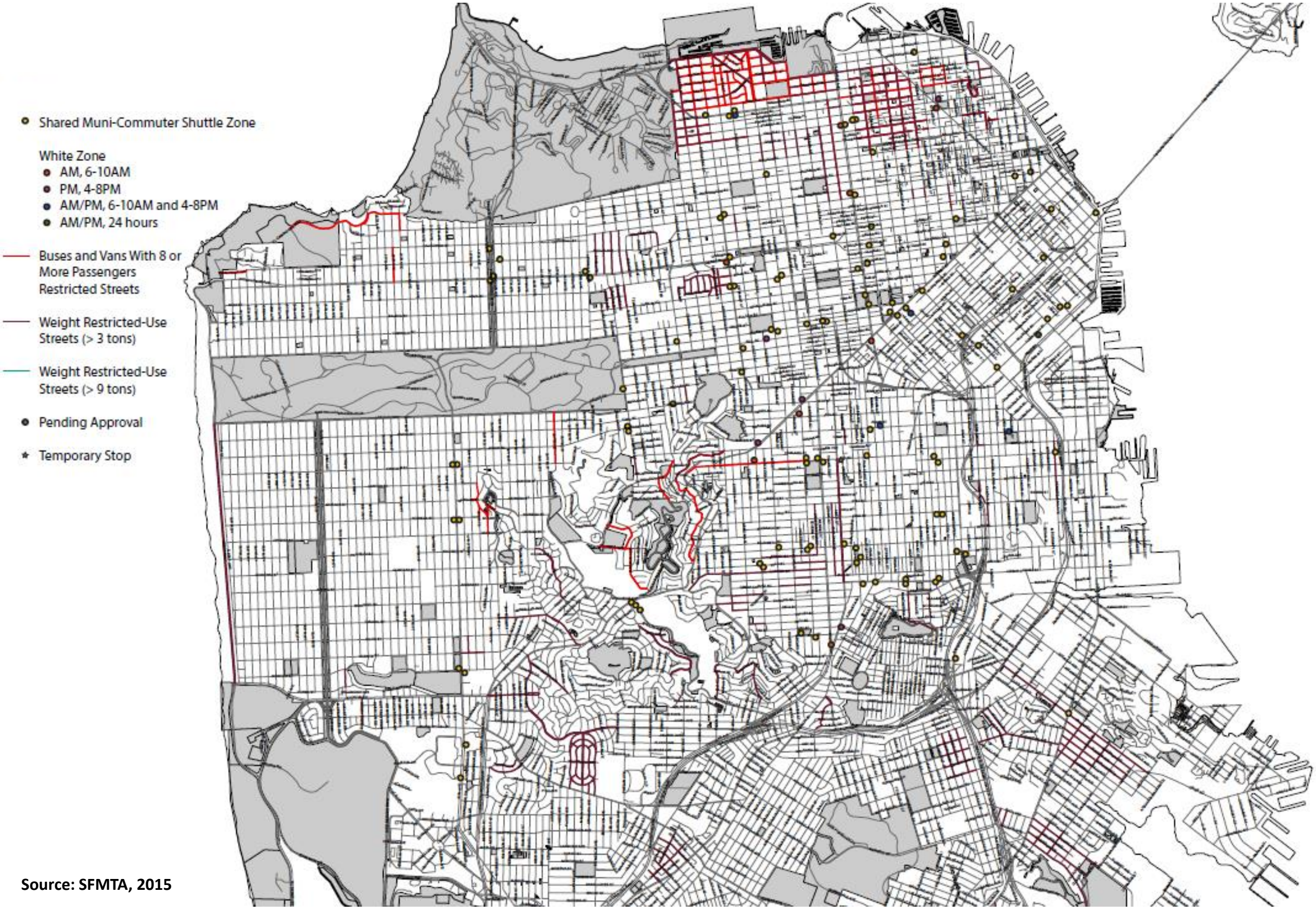
CEQA Guidelines Section 15308, or Class 8, provides for exemption for actions taken by regulatory agencies, as authorized by state or local ordinance, to assure the maintenance, restoration, enhancement, or protection of the environment where the regulatory process involves procedures for protection of the environment. The proposed project would include the implementation of the Commuter Shuttle Program, which issues permits to eligible commuter shuttle providers meeting specific requirements and terms and would allow the use of designated public curb space. The program provides procedures intended to facilitate operation of commuter shuttles, enable vehicle trip reduction, and minimize impacts to users of other transportation modes in San Francisco. As such, it constitutes actions by SFMTA meant to enhance and protect the environment involving regulatory procedures for shuttle activity. Therefore, the proposed project would be exempt from CEQA under Class 8.

CONCLUSION

Guidelines Section 15300.2, subdivision (c), provides that a categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances. As illustrated, herein there are no unusual circumstances surrounding the proposed project that would suggest a reasonable possibility of a significant effect. The proposed project would not substantially increase traffic on the existing street system and no significant environmental impact would occur. For the above reasons, the proposed project is appropriately exempt from environmental review.

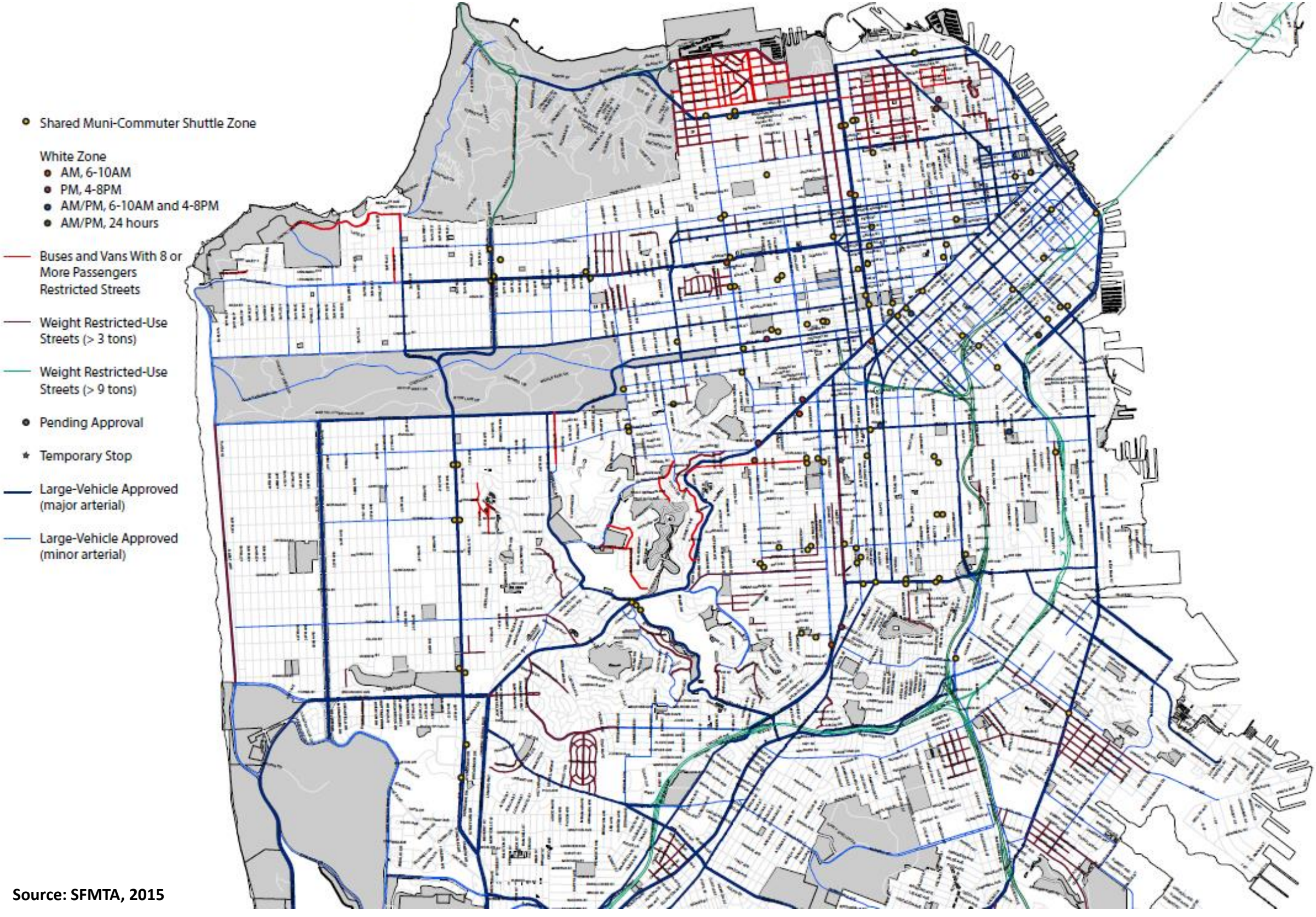
The proposed project satisfies the criteria for exemption under the above-cited classification(s). In addition, none of the CEQA Guidelines Section 15300.2 exceptions to the use of a categorical exemption applies to the proposed project. For the above reasons, the proposed project is appropriately exempt from environmental review.

Attachment A: Pilot Program Shuttle Network



Source: SFMTA, 2015

Attachment B: Proposed Commuter Shuttle Street Network



Source: SFMTA, 2015