



# SAN FRANCISCO PLANNING DEPARTMENT

**MEMO**

## Additional Service Variant and Errata for the Transit Effectiveness Project EIR Memorandum to the San Francisco Planning Commission

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*Date:* March 27, 2014  
*Case No.:* **2011.0558E**  
*Project Title:* **Transit Effectiveness Project (TEP)**  
*Zoning:* Citywide – N/A  
*Block/Lot:* Citywide – N/A  
*Lot Size:* Citywide – N/A  
*Project Sponsor:* San Francisco Municipal Transit Agency (SFMTA)  
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### **INTRODUCTION**

Since publication of the Response to Comments (RTC) document and Supplemental Service Variants Memorandum to the Planning Commission on March 13, 2014 and as a result of ongoing Transit Effectiveness Project (TEP) outreach, the SFMTA has proposed an additional variant to the Service Improvements component of the TEP. Therefore, this memorandum has been prepared to present the Additional Service Variant, and assess its physical environmental impacts in the context of the analyses of the TEP in the EIR.

This memorandum provides a brief description of the 58 24<sup>th</sup> Street Service Variant, discusses the impacts in each of the topic areas analyzed in the EIR and in the Initial Study (Appendix 2 in the EIR), and concludes that no new significant impacts would result from its implementation, no significant impacts identified in the EIR would become substantially more severe, mitigation measures identified in the Initial Study and EIR would apply to this additional Variant, and no new mitigation measures would be necessary to reduce significant impacts to less-than-significant levels. In addition, minor clarifications to Tables 7, 8 and 9 of the Project Description have been made to reflect modifications in transit frequency for the 2 Clement, 3 Jackson, 6 Parnassus, 33 Stanyan, 71L Haight-Noriega Limited. These changes

in frequency were included in the analysis prepared for the Supplemental Service Variants memorandum presented to the Commission on March 13, 2014, but were not reflected in Table 8 changes. Therefore, the analysis in the EIR is applicable to the Variant and these frequency changes, and recirculation of the EIR is not required.

Attachments to this memorandum constitute figure, text and table changes to the Draft EIR as a result of the 58 24<sup>th</sup> Street Service Variant and clarification of frequency changes. The Attachments consist of the following: Attachment A, Service Improvement maps from EIR Appendix 2b revised to illustrate the 58 24<sup>th</sup> Street Service Variant, and Attachment B, Staff-initiated Text Changes to the EIR to include the Additional Variant and frequency changes in the description and analyses. The additional changes to Tables 7, 8, and 9 are shown in bold text to differentiate them from information in the same tables provided on March 13, 2014.

## **PROJECT DESCRIPTION**

### **58 24<sup>th</sup> Street Service Variant**

The 58 24<sup>th</sup> Street Service Variant described below would be implemented to address concerns regarding changes to the 48 Quintara-24<sup>th</sup> Street to remove transit service from Grand View Avenue.

The 58 24<sup>th</sup> Street Service Variant would provide transit service along Clipper Street, Grand View Avenue, 21<sup>st</sup> Street, and Douglass Street. The segment along Grand View Avenue, 21<sup>st</sup> Street, and Douglass Street is proposed to be eliminated under the 48 Quintara-24<sup>th</sup> Street Service Improvements. Under this variant transit service would be introduced to Clipper Street between Douglass Street and Grand View Avenue and Douglass Street between 24<sup>th</sup> Street and Clipper Street, which previously did not have transit service. This variant would extend the new 58 24<sup>th</sup> Street bus from its proposed terminal at Castro Street to cover the former 48 Quintara-24<sup>th</sup> Street route described above. Under this variant, the frequency of the 58 24<sup>th</sup> Street would not change from what was analyzed in the EIR, namely 15 minute headways in the a.m. and p.m. peak hour. The terminal for this variant is not known yet, but would result in the same loss of up to five parking spaces as was considered for the proposed terminal for the 58 24<sup>th</sup> Street in the EIR.

This variant would introduce transit to Clipper Street (between Grand View Avenue and Douglass Street) and Douglass Street (between 24<sup>th</sup> Street and Clipper Street) and would maintain existing conditions along Grand View Avenue, 21<sup>st</sup> Street, and Douglass Street, with service frequencies of 15 minutes in the a.m. and p.m. peak period. Although the existing service frequency of the 48 Quintara-24<sup>th</sup> Street is 11 minutes in the a.m. peak period and 12 minutes in the p.m. peak period, under the proposed Service Improvements, the 48 Quintara-

24<sup>th</sup> Street service frequency would similarly be reduced to 15 minutes. Please see the Service Variant shown on the revised 58 24<sup>th</sup> Street and revised 48 Quintara-24<sup>th</sup> Street Service Improvement maps.

### **Service Frequency Clarifications**

Table 8 in the Project Description is revised to clarify the following information:

The frequency of the **2 Clement** would be decreased from 10.5 minutes to 12 minutes in the a.m. peak period instead of increased to 10 minutes as shown in the EIR. The frequency of the 6 Parnassus would be decreased from 10 minutes to 12 minutes in the p.m. peak period instead of No Change as shown in the EIR.

The **3 Jackson** was proposed for elimination. However, if retained the frequency of the **3 Jackson** would be decreased from 13.5 minutes to 15 minutes in the a.m. peak period instead of N/A as shown in the EIR, and the frequency would be decreased from 12 minutes to 15 minutes in the p.m. peak period instead of N/A as shown in the EIR.

The frequency of the **6 Parnassus** would be decreased from 10.5 minutes to 12 minutes in the a.m. peak period instead of increased to 10 minutes as shown in the EIR. The frequency of the 6 Parnassus would be decreased from 10 minutes to 12 minutes in the p.m. peak period instead of No Change as shown in the EIR.

The frequency of the **71L Haight-Noriega Limited** would be increased from 10.5 minutes to 7 minutes in the a.m. peak period instead of to 9 minutes as shown in the EIR. The frequency of the 71L Haight-Noriega Limited would be increased from 10 minutes to 7 minutes in the p.m. peak period instead of to 9 minutes as shown in the EIR.

The frequency of the **33 Stanyan** would be increased from 15 minutes to 12 minutes in the a.m. peak period instead of No Change as shown in the EIR. The frequency of the 33 Stanyan would be increased from 15 minutes to 12 minutes in the p.m. peak period instead of No Change as shown in the EIR.

### **ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION**

The proposed additional Service Variant would modify the proposed route for the 58 24<sup>th</sup> Street to extend it along streets that have transit service under existing conditions (under 48 Quintara service) and would introduce service to Clipper Street between Douglass Street and Grand View Avenue and to Douglass Street between 24<sup>th</sup> Street and Clipper Street. The proposed new variant to Service Improvements was analyzed in relation to the analysis of the TEP in each of the environmental topics in the Draft EIR and in the Initial Study to determine

whether it would result in any new or substantially more severe significant impacts, or whether any new mitigation measures would be required.

The Service Frequency Clarifications listed above were analyzed in the March 13, 2014 Supplemental Service Variant Memorandum to the Planning Commission and are reflected in the analysis provided on March 13, 2014. Only the clarification text changes to Table 8 are provided in this memorandum. No additional environmental analysis is required.

## **DRAFT EIR**

### **Transportation**

#### **58 24<sup>th</sup> Street Service Variant**

##### ***Existing Plus Project Impacts***

**Construction.** Implementation of the additional 58 24<sup>th</sup> Street Service Variant would utilize the existing bus zones for the 48 Quintara-24<sup>th</sup> Street and may introduce a transit zone on Clipper Street and/or Douglass Street and also curb ramps, if required. It would be consistent with construction-related activities analyzed in the EIR. Therefore, similar to the Service Improvements, construction impacts of this variant would be considered less than significant (see Impact TR-1 on EIR pp. 4.2-66 to 4.2-71).

**Transit Impacts.** The 58 24<sup>th</sup> Street Service Variant would extend service along a portion of the current alignment for the 48 Quintara-24<sup>th</sup> Street that would be eliminated as part of the Service Improvements and introduce transit on Clipper Street between Douglass Street and Grand View Avenue (approximately 1,250 feet), and on Douglass Street between 24<sup>th</sup> Street and Clipper Street (approximately 850 feet). This variant would use existing route 48 bus stops except along Clipper Street and Douglass Street where one to two bus zones may be added. The addition of service on streets that currently do not have transit routes was analyzed in the EIR under Impact TR-18 on EIR pp. 4.2-121 to 4.2-162.

As discussed in Impact TR-18 and as identified in Tables 12 and 13 on EIR pp. 4.2-122 to 4.2-135, the transit capacity utilization during the a.m. and p.m. peak hours for the Existing plus Service Improvements conditions for the affected routes would be less than Muni's 85 percent capacity utilization standard. Implementation of the additional 58 24<sup>th</sup> Street Service Variant would not substantially affect the transit capacity utilization, as the maximum load point for this route is not in the vicinity of the alternate alignment, and implementation of the 58 24<sup>th</sup> Street Service Variant would not substantially affect ridership at the maximum load point or cause the maximum load point to change. For the above reasons, the impact of implementing the 58 24<sup>th</sup> Street Service Variant on transit capacity and operations, similar to the Service Improvements, would be less than significant.

**Traffic Impacts.** The 58 24<sup>th</sup> Street Service Variant would not result in an increase in transit service along the segment previously covered by the 48 Quintara-24<sup>th</sup> Street route. It would introduce transit (up to 4 buses each hour) along a portion of Clipper and Douglass Streets. This segment of Clipper Street (between Grand View Avenue and Douglass Street) is two-way with one travel lane in each direction (with bicycle lanes in each direction and a center left-turn lane) and Douglass Street (between Clipper and 24<sup>th</sup> streets) is two-way with one travel lane in each direction. The intersections of Clipper and Douglass Streets and Douglass Street and 24<sup>th</sup> Street, where transit would be making left-turns are stop-controlled. The EIR under Impact TR-18 discussed the traffic impacts of the addition of transit to streets that currently do not have transit, such as Clipper Street between Castro and Diamond Streets. The analysis concluded that such addition of service would not substantially change traffic conditions on new route segments, and would be less than significant.

**Pedestrian Impacts.** The sidewalk on the north side of Clipper Street, where transit would be introduced is approximately seven to eight feet wide. There currently is no sidewalk on the south side of Clipper Street. Implementation of the 58 24<sup>th</sup> Street Service Variant would not result in overcrowding of sidewalks. The direction of the extended route loop is unknown at this time. Should it result in buses operating in the downhill direction on Clipper Street between Grand View Avenue and Douglass Street, conditions would be similar to what was discussed in the EIR for the 48 Quintara-24<sup>th</sup> Street as discussed in Response PD-2 of the RTC on p. RTC-4.A-13. With the proposed 58 24<sup>th</sup> Street Service Variant, pedestrian conditions would be similar to Existing conditions, particularly on those segments currently served by the 48 Quintara-24<sup>th</sup> Street route.

The 58 24<sup>th</sup> Street Service Variant would not result in substantial overcrowding on public sidewalks, create potentially hazardous conditions for pedestrians, or otherwise interfere with pedestrian accessibility to a particular site and adjoining areas, and therefore, the impacts of the 58 24<sup>th</sup> Street Service Variant on pedestrians, similar to the Service Improvements, would be consistent with the analysis contained under TR-18 in the EIR and would be less than significant.

**Bicycle Impacts.** Service along a portion of the current alignment for the 48 Quintara-24<sup>th</sup> Street would be similar to existing conditions and would not change bicycle travel on that portion. Douglass Street is not a designated bicycle route. Clipper Street is designated Bicycle Route 60 (Class II, Bicycle Lanes), and as similarly analyzed in the EIR under TR-18 for other Service Improvements, an overlap in service with a bicycle route would not affect the operation of the bicycle facilities, and the increase in buses (up to four buses per hour for this Variant) would not substantially affect bicycle travel, or substantially interfere with bicycle facilities or accessibility. Therefore, the impact of the 58 24<sup>th</sup> Street Service Variant on

bicycle facilities and operations, similar to the Service Improvements, would be less than significant.

**Loading Impacts.** The streets affected by this variant (Douglass and Clipper streets, Grand View Avenue, and 21<sup>st</sup> Street) are residential streets without loading zones. Up to ten parking spaces may be removed on Clipper and Douglass Streets if one to two bus zones are added, but loading zones would not be effected. Therefore, the impacts of the 58 24<sup>th</sup> Street Service Variant on loading, similar to the Service Improvements and as discussed under TR-18, would be less than significant.

**Emergency Vehicle Access Impacts.** The proposed 58 24<sup>th</sup> Street Service Variant would not result in changes to the right-of-way or number of travel lanes along the proposed alternate alignments, or substantially change traffic operations along the routes. Emergency vehicle access would remain similar to Existing conditions, and therefore the impacts of the 58 24<sup>th</sup> Street Service Variant on emergency vehicle access, similar to the Service Improvements, would be less than significant.

**Parking Impacts.** On streets that currently have transit service (48 Quintara-24<sup>th</sup> Street) as well as the segments of Clipper and Douglass Streets where transit would be introduced, the 58 24<sup>th</sup> Street Service Variant would minimally change the existing on-street parking supply if a new terminal or bus zone(s) are implemented (up to five parking spaces for each transit zone). Although the loss of parking may be an inconvenience to private auto drivers in some locations, the parking removal associated with this variant to accommodate new transit stop(s) or a terminal, would be minor and, similar to the Service Improvements, as discussed under TR-18, parking impacts would be less than significant.

### ***Cumulative Impacts***

The 58 24<sup>th</sup> Street Service Variant proposes a minor alteration of the 58 service change that would provide transit service on streets served by the 48 Quintara-24<sup>th</sup> Street under existing conditions as well as introduce transit on a segment of Clipper and Douglass Streets. Under 2035 Cumulative conditions, in combination with past, present, and reasonably foreseeable development in San Francisco, the Service Improvements would result in a significant and unavoidable transit impact on the Mission corridor within the Southeast screenline. However, there would be no significant impacts to traffic, pedestrians, bicycles, loading, parking, emergency vehicle access or construction as a result of the Service Improvements.

For the reasons provided, this variant would not alter the analysis or conclusions for cumulative impacts in the EIR. With respect to transit, as discussed in Impact C-TR-1 on EIR pp. 4.2-267 to 4.2-271, under 2035 Cumulative plus project conditions, the Service Improvements would result in a significant cumulative transit impact on the Mission corridor within the Southeast screenline. As noted above, it is not anticipated that the 58 24<sup>th</sup> Street

Service Variant in combination with the Supplemental Service Variants would result in substantial changes in ridership that would affect capacity utilization presented in the EIR, particularly along the Mission corridor. Therefore, the 2035 Cumulative conditions with the TEP including the 58 24<sup>th</sup> Street Service Variant would be similar to those identified in the EIR for the Service Improvements, and , the cumulative impact on transit of the Supplemental Service Variants, similar to the Service Improvements, would be considered significant and unavoidable but would not be more severe as a result of the 58 24<sup>th</sup> Street Service Variant, as discussed above.

Cumulative traffic impacts associated with implementation of the 58 24<sup>th</sup> Street Service Variant and the TEP, in combination with past, present, and reasonably foreseeable development in San Francisco would be similar to those identified in Impact C-TR-11 on EIR pp. 4.2-282 to 4.2-291 for the Service Improvements. This variant would not affect traffic conditions at any of the 78 study intersections during the p.m. peak hour under 2035 Cumulative conditions. The cumulative traffic impact under 2035 Cumulative conditions as a result of this variant would, similar to the Service Improvements, be less than significant.

Cumulative pedestrian and bicycle impacts associated with implementation of the Supplemental Service Variants including the 58 24<sup>th</sup> Street Service Variant, in combination with past, present, and reasonably foreseeable development in San Francisco would be similar to those identified in Impact C-TR-40 on EIR pp. 4.2-298 to 4.2-302 for the Service Improvements. Transit service, in combination with past, present, and reasonably foreseeable development in San Francisco, would not result in new hazardous conditions for pedestrians and would not result in substantial overcrowding on public sidewalks, or otherwise interfere with pedestrian accessibility to a particular side and adjoining areas. Although with additional buses and bicyclists, there would be increased conflicts between bicycles and buses, the Service Variants would not result in hazardous conditions for bicyclists or otherwise substantially interfere with bicycle facilities or accessibility. Therefore, the Supplemental Service Variants including the 58 24<sup>th</sup> Street Service Variant, similar to the Service Improvements, would have less than significant cumulative pedestrian and bicycle impacts. Cumulative loading and parking impacts associated with implementation of the Supplemental Service Variants, in combination with past, present, and reasonably foreseeable development in San Francisco would be similar to those identified in Impact C-TR-46 on EIR pp. 4.2-309 to 4.2-310 and Impact C-TR-50 on EIR pp. 4.2-313 to 4.2-315 for the Service Improvements. The 58 24<sup>th</sup> Street Service Variant would not result in substantial on-street parking removal, and would similarly not affect commercial loading spaces or passenger loading/unloading zones. Although the loss of parking may be an inconvenience to private auto drivers in some locations, the parking removal associated with this variant would not be substantial. Therefore, the 58 24<sup>th</sup> Street Service Variant, similar to the Service

Improvements, in combination with past, present, and reasonably foreseeable development in San Francisco, would have a less than significant cumulative loading and parking impacts.

### **Noise**

The operational noise impact from transit vehicles was determined in the EIR using the Federal Transit Administration (FTA) Noise Impact Assessment Spreadsheet (see EIR pp. 4.3-16 to 4.3-20 and 4.3-43). The FTA Guidelines define three levels of potential noise impacts of a transit project on the environment: No Impact, Moderate, and Severe, as explained on EIR pp. 4.3-16 to 4.3-20. For the analysis in the EIR, noise impacts below the moderate threshold are considered less than significant (see Table 28, p. 4.3-21 and discussion on pp. 4.3-24 and 4.3-25).

The EIR includes the assessment of roadway segments with the largest increase in transit trips in low (55 to 59 dBA<sup>1</sup> Ldn<sup>2</sup>), medium (60 to 69 dBA Ldn), and high (70 dBA Ldn and greater) ambient noise environments using the FTA Noise Impact Assessment Spreadsheet to determine the increase in the ambient noise level and its FTA impact level. Then, if no significant impact was found, roadway segments with similar ambient noise levels and smaller numbers of increased transit trips were presumed to not have a significant noise impact from the planned service changes for those segments.

The minor change proposed under the 58 24<sup>th</sup> Street Service Variant would not result in significant noise impacts beyond those evaluated in the EIR. Most of the variant represents existing conditions and only up to four buses per hour would be added along Clipper and Douglass Streets which are currently without transit service. The ambient noise level along those segments falls within the medium (60 to 69 dBA Ldn) range at 60-64 dBA. The increase of up to 72 buses per day would be below the increases shown for other segments within medium noise environments as shown in Table 31 on EIR p. 4.3-39. Therefore, this change in service would not result in any significant noise impacts.

The potential noise impact from the 58 24<sup>th</sup> Street Service Variant would not result in a significant impact, since the proposed change would result in a larger increase in the number of transit vehicles trips, in the specific ambient noise level environments evaluated, beyond that evaluated in the EIR.



### **Cumulative Noise Impacts**

As explained on EIR pp. 4.3-51 to 4.3-54, short-term noise and vibration effects from constructing any TEP components would not contribute considerably to cumulative construction noise impacts from any nearby construction projects. The limited construction expected for the 58 24<sup>th</sup> Street Service Variant, typically the addition of curb ramps, would be the same as that analyzed in the EIR for the Service Improvements. Therefore, this variant would not contribute to significant cumulative noise or vibration impacts, and the conclusion that these impacts would be less than significant in EIR Impact Statement C-NO-1 on p. 4.3-51 remains applicable.

Operational noise from the TEP Service Improvements and Service Variants was evaluated in the EIR in combination with other transportation-related noise sources modeled in the City's Background Noise Levels – 2009 noise map, and in relation to increases in traffic volumes from forecast growth in population and employment in the future. This variant would result in the same types of operation noise as the Service Improvements and Service Variants analyzed in the EIR, would not result in a doubling of traffic volumes on any service street, and the conclusion in the EIR in Impact Statement C-NO-1 on p. 4.3-51 remains applicable.

### **Air Quality**

The proposed 58 24<sup>th</sup> Street Service Variant was evaluated to determine whether implementation would result in air quality impacts beyond those evaluated in the EIR, and whether any new significant impacts would occur.

The proposed 58 24<sup>th</sup> Street Service Variant would incrementally 1) increase diesel-fueled transit vehicle miles traveled (VMT) by about 29 miles each day and therefore result in an increase in the emissions of criteria pollutants (reactive organic gases [ROG], nitrogen oxides [NOx], and particulate matter [PM<sub>10</sub> and PM<sub>2.5</sub>]); and 2) introduce motor coach trips along segments of Clipper and Douglass Streets, due to increases in motor coach frequency or changes in routes, and therefore may increase localized concentrations of diesel particulate matter (DPM) and PM<sub>2.5</sub>.

The following sections provide operational and construction air quality analysis associated with the implementation of the 58 24<sup>th</sup> Street Service\_Variant.

### ***Criteria Pollutants***

The air quality impact of criteria pollutant emissions was evaluated in the EIR by comparing the estimated change in emissions of ROG, NOx, PM<sub>10</sub>, and PM<sub>2.5</sub> between baseline conditions and conditions with implementation of either the TTRP Moderate Alternative plus

Service Improvements or the TTRP Expanded Alternative plus Service Improvements, and comparing that change in emissions to the thresholds of significance listed below (see EIR p. 4.4-23):

- Increase in ROG – 54 pounds per day and 10 tons per year
- Increase in NO<sub>x</sub> – 54 pounds per day and 10 tons per year
- Increase in PM<sub>10</sub> – 82 pounds per day and 15 tons per year
- Increase in PM<sub>2.5</sub> – 54 average pounds per day and 10 tons per year

The change in criteria pollutant emissions was estimated in the EIR by determining the change in SFMTA's diesel and diesel electric-hybrid motor coach and privately-owned vehicle VMT that would result from implementation of the TEP and calculating the associated change in criteria pollutant emissions using appropriate emissions factors for these types of vehicles. Implementation of the TEP would result in an increase in diesel and diesel electric-hybrid motor coach VMT due to the increase in operating frequency or operating hours of transit vehicles. The increase in VMT from transit vehicles is offset by lower privately-owned vehicle VMT from an expected mode shift from privately-owned vehicles to public transit due to improvements and efficiency in the transit service.

The EIR found that implementation of the TEP TTRP Moderate Alternative or TTRP Expanded Alternative would not result in emissions of criteria pollutants in excess of the threshold of significance (see discussion on EIR pp. 4.4-36 to 4.4-38, pp. 4.4-43 to 4.4-47, and Table 43 on p. 4.4-46). The EIR concluded that implementation of the TEP would reduce the emissions of ROG, PM<sub>10</sub>, and PM<sub>2.5</sub> below baseline conditions; the emissions of NO<sub>x</sub> would increase but would remain below the significance thresholds of 54 average pounds per day and annual maximum of 10 tons per year. The criteria pollutant emission estimations accounted for the expected mode shift from privately-owned vehicles to public transit and the replacement of standard diesel-fueled motor coaches with new hybrid electric motor coaches, which occurred in 2013.

The proposed Supplemental Service Variants would result in an increase of 723 daily weekday miles for diesel and diesel electric-hybrid motor coaches.<sup>3</sup> This increase in VMT would reduce the total net expected decrease in ROG emissions from 14 to 12 pounds per day (lbs/day) and 2.5 to 2.1 tons per year (tons/year) for the TTRP Moderate Alternative and

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<sup>3</sup> SFMTA 2014. Calculations based on an Email from Graham Satterwhite, SFMTA, to Debra Dwyer, San Francisco Planning Department, February 26, 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2011.0558E.

from 22 to 19 lbs/day and 2.5 to 2.1 tons/yr for the TTRP Expanded Alternative. NOx emissions would increase from 18 to 38 lbs/day and 3.3 to 6.3 tons/yr for the TTRP Moderate Alternative and from 12 to 33 lbs/day and 2.3 to 5.3 tons/yr for the TTRP Expanded Alternative. Changes in PM<sub>10</sub> and PM<sub>2.5</sub> emission would be less than a pound per day and a ton per year.

Implementation of the TEP Moderate Alternative or Expanded Alternative in addition to the Supplemental Service Variants and the 58 24<sup>th</sup> Street Service Variant would still result in the emissions of ROG, PM<sub>10</sub>, and PM<sub>2.5</sub> being reduced below baseline conditions; the emissions of NOx would increase but would remain below the significance thresholds of 54 average lbs/day and annual maximum of 10 tons/yr. The impact of the proposed project with respect to operational criteria air pollutant would still be less than significant, as determined in Impact AQ-3 in the EIR. In addition, the SFMTA has received 50 additional diesel electric-hybrid motor coaches, which will reduce emissions of criteria pollutants to levels below those estimated in the EIR.<sup>4</sup>

### ***Toxic Air Contaminants and PM<sub>2.5</sub>***

The change of routes or increase in frequency proposed for specific Supplemental Service Variants would result in new or additional diesel-fueled motor coach trips on some streets, and therefore could result in a localized air quality impact. The air quality impact from localized emissions of DPM and PM<sub>2.5</sub> were evaluated in the EIR by modeling the air dispersion of these pollutants for the roadway section with the largest increase in diesel-fueled motor coaches. The EIR found that the proposed TEP would not result in a significant impact from localized DPM and PM<sub>2.5</sub> concentrations (see Table 44 and discussion on EIR pp. 4.4-47 to 4.4-49).

As presented in the EIR on p. 4.4-47 to 4.4-48, implementation of the TEP would result in the greatest daily increase in motor coach frequency along 23<sup>rd</sup> Street between Utah and Kansas streets; the number of motor coaches along this segment of the roadway would increase by 448 motor coaches per day, which would not result in an increase in health risks or PM<sub>2.5</sub> concentrations above the thresholds of significance. The EIR therefore concluded that operational health risks would be less than significant. The 58 24<sup>th</sup> Street Service Variant would not result in an increase of diesel-fueled motor coach trips greater than the 448 trips per day used in the analysis in the EIR, and therefore, implementation of the TEP with the 58

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<sup>4</sup> SFMTA, 2014. Email from Jeffrey Flynn, SFMTA to Debra Dwyer, San Francisco Planning Department, February 11, 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2011.0558E.

24<sup>th</sup> Street Service Variant would also be less than significant, as determined in Impact AQ-4 in the EIR.

### **Cumulative Air Quality Impacts**

As explained in the EIR on pp. 4.4-27 and 4.4-52, regional air quality impacts are by their nature a cumulative impact. No single project by itself would be of sufficient size to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulative air quality impacts. The analysis of the TEP with the 58 24<sup>th</sup> Street Service Variant presented above shows that the TEP would not result in emissions of criteria pollutants in excess of thresholds of significance. Therefore, the conclusion in Impact Statement C-AQ-1 on EIR p. 4.4-52 that construction and operation of the TEP would result in less-than-significant cumulative air quality impacts with respect to criteria pollutants is applicable to the proposed project with the 58 24<sup>th</sup> Street Service Variant.

The analysis of excess cancer risk and PM<sub>2.5</sub> concentrations for localized health risks presented above shows that the thresholds of significance would not be exceeded with either construction or operation of the TEP including the 58 24<sup>th</sup> Street Service Variant. The BAAQMD considers projects that do not exceed the established thresholds to not contribute considerably to cumulatively significant levels of health risk. Therefore, the conclusion in the EIR, that construction and operation of the TEP, in combination with other past, present, and reasonably foreseeable projects, would not generate emissions of PM<sub>2.5</sub> or toxic air contaminants at levels that would expose sensitive receptors to substantial pollutant concentrations in Impact Statement C-AQ-2 on EIR p. 4.4-52, remains the same. The 58 24<sup>th</sup> Street Service Variant would not contribute considerably to significant cumulative air quality impacts related to localized health risks.

### **INITIAL STUDY**

The Planning Department distributed a Notice of Availability and an Initial Study on January 23, 2013. The Initial Study determined that the proposed project would have either no impact, a less-than-significant impact, or a less-than-significant impact with implementation of mitigation measures in the following environmental topic areas: Land Use and Land Use Planning; Aesthetics; Population and Housing; Cultural and Paleontological Resources; Greenhouse Gas Emissions; Wind and Shadow; Recreation; Utilities and Service Systems; Public Services; Biological Resources; Geology and Soils; Hydrology and Water Quality; Hazards and Hazardous Materials; Mineral and Energy Resources; and Agricultural and Forest Resources. Each of these topics was discussed in the March 13, 2014 Supplemental Service Variants Memorandum to the Planning Commission. There are no unusual circumstances as a result of this variant that would alter the discussion provided on March 13, 2014. Therefore, that discussion is incorporated here by reference. The proposed

project, including 58 24<sup>th</sup> Street Service Variant, would have either no impact, a less-than-significant impact, or a less-than-significant impact with implementation of mitigation measures as discussed in the TEP Initial Study.

## **CONCLUSION**

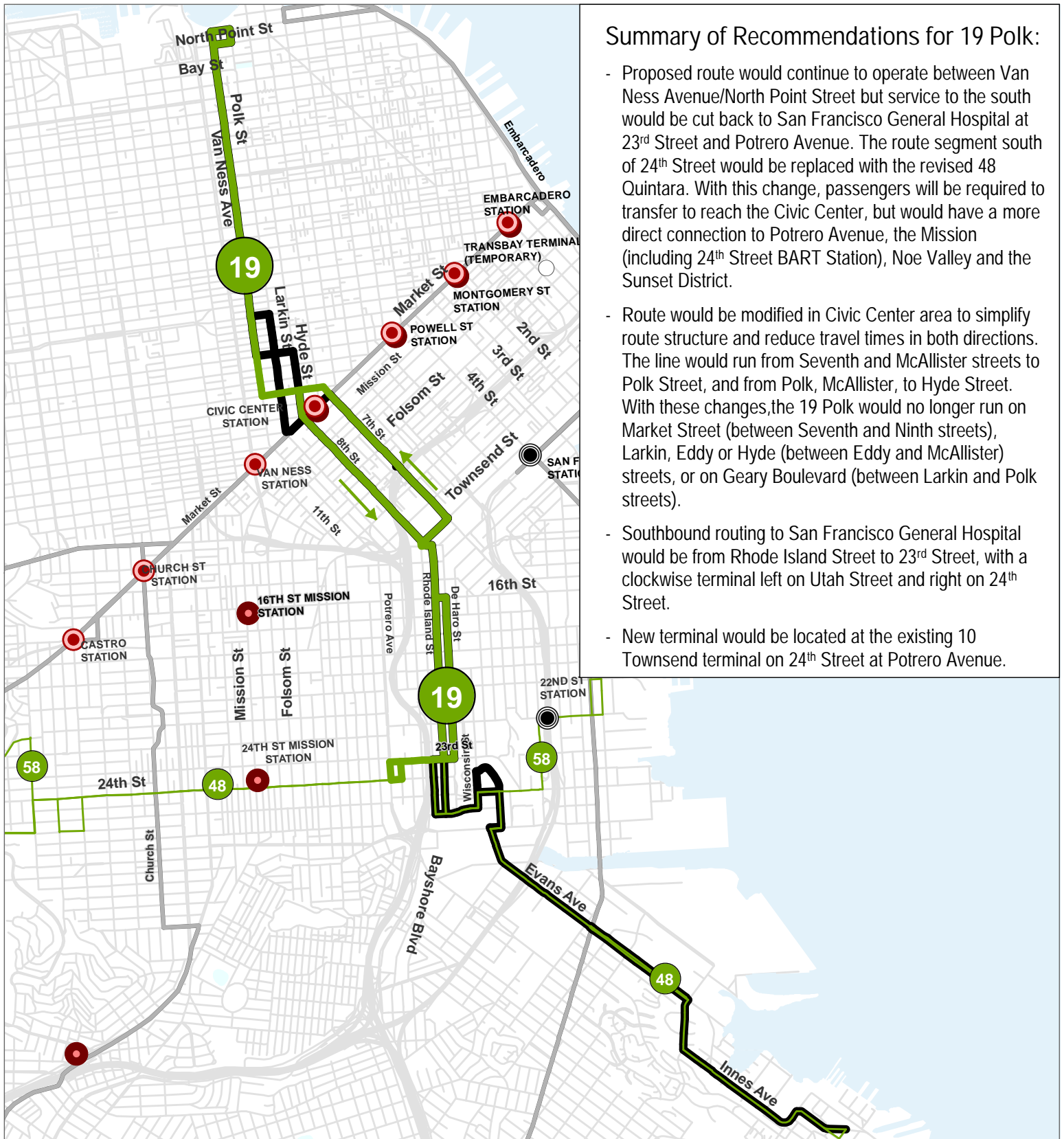
The proposed 58 24<sup>th</sup> Street Service Variant and frequency changes described in the project description were evaluated to determine whether they would change the analyses and conclusions contained in the Transit Effectiveness Project EIR and its Initial Study. No new significant impacts were identified, the additions to the TEP would not result in any significant impacts identified in the EIR becoming more severe, no new mitigation measures would be required, and no mitigation measures that the EIR explained may be infeasible have become feasible as a result of these additions to the proposed project.

## **ATTACHMENTS**

Attachment A: Revised Service Improvement Maps for the 58, 48 and 19.

Attachment B: Staff-Initiated Text Changes Related to 58 24<sup>th</sup> Street Service Variant and clarification for Service Frequency Changes

**ATTACHMENT A: REVISED SERVICE IMPROVEMENT MAPS**



### Summary of Recommendations for 19 Polk:

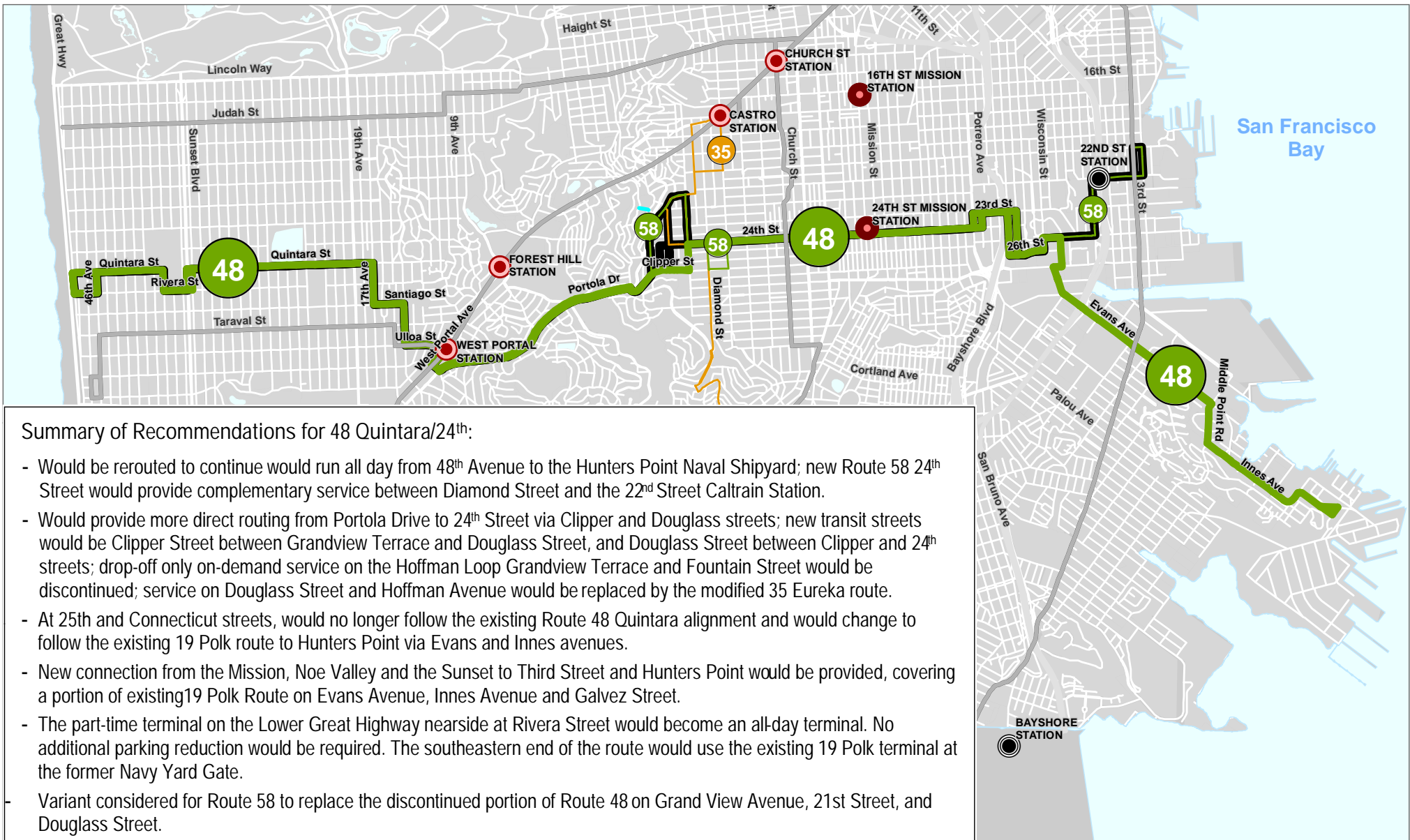
- Proposed route would continue to operate between Van Ness Avenue/North Point Street but service to the south would be cut back to San Francisco General Hospital at 23<sup>rd</sup> Street and Potrero Avenue. The route segment south of 24<sup>th</sup> Street would be replaced with the revised 48 Quintara. With this change, passengers will be required to transfer to reach the Civic Center, but would have a more direct connection to Potrero Avenue, the Mission (including 24<sup>th</sup> Street BART Station), Noe Valley and the Sunset District.
- Route would be modified in Civic Center area to simplify route structure and reduce travel times in both directions. The line would run from Seventh and McAllister streets to Polk Street, and from Polk, McAllister, to Hyde Street. With these changes, the 19 Polk would no longer run on Market Street (between Seventh and Ninth streets), Larkin, Eddy or Hyde (between Eddy and McAllister) streets, or on Geary Boulevard (between Larkin and Polk streets).
- Southbound routing to San Francisco General Hospital would be from Rhode Island Street to 23<sup>rd</sup> Street, with a clockwise terminal left on Utah Street and right on 24<sup>th</sup> Street.
- New terminal would be located at the existing 10 Townsend terminal on 24<sup>th</sup> Street at Potrero Avenue.

## Line 19 - Polk-Revised Recommended Route Alignment

### Legend

- Recommended Local Route
- Segment would be covered by another recommended route
- Segment Proposed for Elimination
- Rail Network
- Muni Metro Stations
- BART Stations
- Caltrain Stations





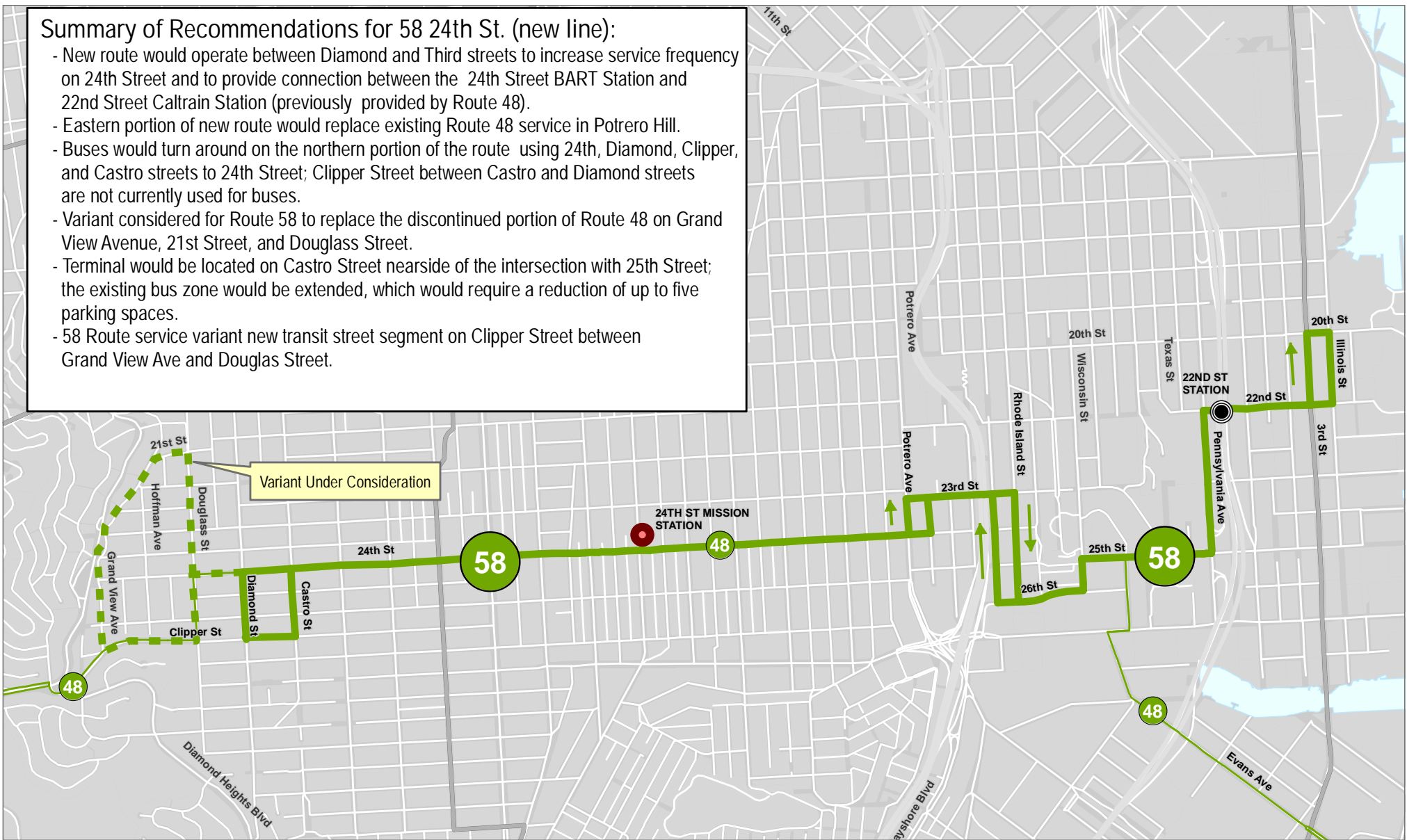
## Line 48 - Quintara/24th - Revised Recommended Route Alignment

- Legend**
- Recommended Local Route
  - Segment would be covered by another recommended route
  - Rail Network
  - Segment Proposed for Elimination
  - Muni Metro Stations
  - BART Stations
  - Caltrain Stations



**Summary of Recommendations for 58 24th St. (new line):**

- New route would operate between Diamond and Third streets to increase service frequency on 24th Street and to provide connection between the 24th Street BART Station and 22nd Street Caltrain Station (previously provided by Route 48).
- Eastern portion of new route would replace existing Route 48 service in Potrero Hill.
- Buses would turn around on the northern portion of the route using 24th, Diamond, Clipper, and Castro streets to 24th Street; Clipper Street between Castro and Diamond streets are not currently used for buses.
- Variant considered for Route 58 to replace the discontinued portion of Route 48 on Grand View Avenue, 21st Street, and Douglass Street.
- Terminal would be located on Castro Street nearside of the intersection with 25th Street; the existing bus zone would be extended, which would require a reduction of up to five parking spaces.
- 58 Route service variant new transit street segment on Clipper Street between Grand View Ave and Douglas Street.



**Line 58 - 24th St - Revised  
Recommended Route Alignment**

**Legend**

- Recommended Local Route
- - - Potential Route Variation
- Segment would be covered by another recommended route
- Rail Network

- Muni Metro Stations
- BART Stations
- Caltrain Stations

**SFMTA** | Municipal Transportation Agency

Map Updated  
March 2014



0 0.25 0.5  
Miles

**ATTACHMENT B: STAFF-INITIATED TEXT CHANGES**

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**Table 7: Summary of Proposed Service Improvements\***

Transit Route	New Route	Route Elimination	Change to Route Alignment	Change to Headway	Change to Vehicle Type	Other Changes <sup>1</sup>
E Embarcadero	X					
F Market-Wharves				X		
J Church				X		X
K-T Ingleside-Third				X		
L Taraval				X		
M Ocean View				X		
N Judah				X		5
1 California				X		
1AX California Express						X
1BX California Express			X			X
2 Clement			<sup>4</sup>	X		X
3 Jackson		X		<u>X</u>		
5 Fulton			X	X	<sup>2</sup>	5
5L Fulton Limited	X					5
6 Parnassus			X	<u>X</u>		
8X Bayshore Express			X <sup>4</sup>	X		5
8AX Bayshore Express				<u>X</u>		5
8BX Bayshore Express			X <sup>4</sup>	<u>X</u>		5
9 San Bruno						X
9L San Bruno Limited				X		X

**Table 7: Summary of Proposed Service Improvements (cont.)**

Transit Route	New Route	Route Elimination	Change to Route Alignment	Change to Headway	Change to Vehicle Type	Other Changes <sup>1</sup>
10 Sansome (formerly 10 Townsend)			X	X		X
11 Downtown Connector	X		<sup>4</sup>			
12 Folsom-Pacific		X				
14 Mission					X	<sup>5</sup>
14L Mission Limited				X	X	<sup>5</sup>
14X Mission Express				X		<sup>5</sup>
16X Noriega Express			X <sup>4</sup>			X
17 Parkmerced			X <sup>4</sup>	X		X
18 46 <sup>th</sup> Avenue			X			
19 Polk			X			X
21 Hayes				X		
22 Fillmore			X <sup>4</sup>	X	<sup>2</sup>	<sup>5</sup>
23 Monterey			X			
24 Divisadero				X		
27 Bryant			X <sup>4</sup>			X
28 19 <sup>th</sup> Avenue			X <sup>4</sup>	X		<sup>5</sup>
28L 19 <sup>th</sup> Avenue Limited			X <sup>4</sup>	X		<sup>5</sup>
29 Sunset			X	X		
30 Stockton					X	<sup>5</sup>
30X Marina Express				X		

**Table 7: Summary of Proposed Service Improvements (cont.)**

Transit Route	New Route	Route Elimination	Change to Route Alignment	Change to Headway	Change to Vehicle Type	Other Changes <sup>1</sup>
31 Balboa				X		
31AX Balboa Express						X
31BX Balboa Express						X
32 Roosevelt	X		<sup>4</sup>			
33 Stanyan			X <sup>4</sup>	<u>X</u>		
35 Eureka			X <sup>4</sup>	X	X	
36 Teresita			X	X	X	
37 Corbett			X <sup>4</sup>	X	X	
38 Geary				X		
38 Geary Short				X		
38L Geary Limited				X		
38AX Geary Express						X
38BX Geary Express				X		X
41 Union				X		
43 Masonic			X <sup>4</sup>	X		
44 O'Shaughnessy				X		
45 Union-Stockton						<sup>5</sup>
47 Van Ness			X	X		
48 Quintara-24 <sup>th</sup> Street			X	X		X
49 Van Ness-Mission		X				

**Table 7: Summary of Proposed Service Improvements (cont.)**

Transit Route	New Route	Route Elimination	Change to Route Alignment	Change to Headway	Change to Vehicle Type	Other Changes <sup>1</sup>
49L Van Ness-Mission Limited	X				X	
52 Excelsior			X	X		X
54 Felton			X	X		
56 Rutland			X	X	X	
58 24 <sup>th</sup> Street	X <sup>4</sup>					
66 Quintara					X	
71/71L Haight-Noriega <sup>3</sup>			X <sup>4</sup>	X		X
76 Marin Headlands (Sundays Only)			X			X
91 Owl A			X			
91 Owl B			X			

Notes:

\* The 39 Coit, 67 Bernal Heights, 80X Gateway Express, 81X Caltrain Express, 82X Levi Express, 83X Mid-Market Express, 88 BART Shuttle, 90 Owl, and 108 Treasure Island do not have any changes associated with them and, therefore are not listed.

<sup>1</sup> "Other Changes" includes miscellaneous service improvements such as new express service stops, and expanding limited-stop service to Sundays, and the addition of a day of service for a route.

<sup>2</sup> The 5 Fulton shortline, and 22 Fillmore have Service Variants related to a change in vehicle type.

<sup>3</sup> Currently, the 71L Haight-Noriega Limited operates in the peak direction during the weekday peak period only, covering the same route as the 71 Haight-Noriega local service. The limited stop area is between Haight Street and Masonic Avenue and Market Street and 11<sup>th</sup> Street/Van Ness Avenue. As part of the TEP, there would no longer be 71 Haight-Noriega local service. Instead, all service on this route would be provided by the 71L Haight-Noriega Limited. See the 71L Haight-Noriega Limited route map in the Service Improvement Maps in the Initial Study, Appendix 2 to the EIR, for more information.

<sup>4</sup> The 2 Clement, ~~8X Bayshore Express, 8AX Bayshore Express, 8BX Bayshore Express, 40 Sansome,~~ 11 Downtown Connector, 16X Noriega Express, ~~17 Parkmerced,~~ 22 Fillmore, 27 Bryant, ~~28 19<sup>th</sup> Ave, 28L 19<sup>th</sup> Ave. Ltd.,~~ 32 Roosevelt, ~~33 Stanyan,~~ 35 Eureka, 37 Roosevelt, ~~43 Masonic,~~ **58 24<sup>th</sup> Street** and 71L Haight-Noriega Limited have Service Variants related to a route change. The 33 Stanyan would have a route change as part of the 22 Fillmore Variant 1.

<sup>5</sup> "Other Changes", such as stop relocation and elimination, are planned along a portion of this route as part of a project-level TTRP. See associated project-level TTRP for a detailed description of these changes.

**Table 8: Description of Proposed Service Improvements**

Transit Line (Type of Change)	Description of Proposed Service Change	a.m. Existing	a.m. Proposed	p.m. Existing	p.m. Proposed
		Change to Peak Period -Headway <sup>1, 2</sup> (Minutes)			
2 Clement  (west of Presidio Avenue)	<ul style="list-style-type: none"> <li>No route changes proposed.</li> <li>Supplemental trolley coach service would be added between Downtown (Sansome/Market streets) and Presidio Avenue to maintain current transit frequencies on Sutter and Post streets after replacing the discontinued 3 Jackson route on this segment.</li> <li>2 Clement Service Variant proposes an alternative alignment that would use existing overhead wires for trolley coach service on the entire Sutter Street corridor. Instead of operating on Clement Street from Arguello Boulevard to Park Presidio Boulevard, the route would continue on California Street to Eighth Avenue, then south to Clement Street to Sixth Avenue. This Service Variant would include a terminal loop at Sansome Street in the Downtown area.</li> </ul>	12	<del>107.5</del>	12	<del>107.5</del>
2 Clement  (east of Presidio Avenue)	<ul style="list-style-type: none"> <li>No route changes proposed.</li> <li>Supplemental trolley coach service would be added between Downtown (Sansome/Market streets) and Presidio Avenue to maintain current transit frequencies on Sutter and Post streets after replacing the discontinued 3 Jackson route on this segment.</li> <li>2 Clement Service Variant proposes an alternative alignment that would use existing overhead wires for trolley coach service on the entire Sutter Street corridor. Instead of operating on Clement Street from Arguello Boulevard to Park Presidio Boulevard, the route would continue on California Street to Eighth Avenue, then south to Clement Street to Sixth Avenue. This Service Variant would include a terminal loop at Sansome Street in the Downtown area.</li> </ul>	12	<del>515</del>	12	<del>515</del>

Transit Line (Type of Change)	Description of Proposed Service Change	a.m. Existing	a.m. Proposed	p.m. Existing	p.m. Proposed
		Change to Peak Period -Headway <sup>1,2</sup> (Minutes)			
3 Jackson  (Route Elimination)	<ul style="list-style-type: none"> <li>Route would be discontinued.</li> <li>Other Muni routes would provide service on streets currently served by this route, except for Jackson Street between Divisadero Street and Presidio Avenue which would be eliminated due to low ridership. Transit headways on Sutter Street would be maintained by adding supplemental trolley coach service on the 2 Clement between Downtown and Presidio Avenue.</li> <li><b><u>If 3 Jackson route is retained as recommended, frequencies would be 15 minutes in the a.m. and p.m. peak hour.</u></b></li> </ul>	13.5	N/A	12	N/A



Transit Line (Type of Change)	Description of Proposed Service Change	a.m. Existing	a.m. Proposed	p.m. Existing	p.m. Proposed
		Change to Peak Period -Headway <sup>1,2</sup> (Minutes)			
33 Stanyan (Alignment Change)	<ul style="list-style-type: none"> <li>• Would operate on current route on 18<sup>th</sup> Street west of Valencia Street and 16<sup>th</sup> Street between Valencia Street and Potrero Avenue.</li> <li>• Would cross Potrero and continue east on 16<sup>th</sup> Street to Connecticut Street, south to 18<sup>th</sup> Street, to Third Street, 20<sup>th</sup> and Tennessee streets to cover Potrero Hill segment of 22 Fillmore that would be eliminated.</li> <li>• Service would be rerouted onto Valencia Street between 16<sup>th</sup> and 18<sup>th</sup> streets (new street segment) to alleviate transit congestion on Mission Street and provide better connections with 22 Fillmore as described in Service-related Capital Improvement project OWE.1.</li> <li>• Potrero Avenue passengers would use Route 9 San Bruno/9L San Bruno Limited.</li> <li>• <u>33 Stanyan Service Variant would include an alternative alignment on 16th Street between Mission and Guerrero streets, and on Guerrero Street between 16th and 18th streets. Proposed eliminated segments would be on Mission Street between 16th and 18th streets, and 18th Street between Mission and Guerrero streets. The 33 Stanyan Service Variant would include Service-related Capital Improvement project OWE.1 Variant.</u></li> <li>• <u>33 Stanyan Service Variant new transit street segment includes Guerrero Street between 16th and 18th streets.</u></li> </ul>	15	<b>No Change<del>12</del></b>	15	<b>No Change<del>12</del></b>

Transit Line (Type of Change)	Description of Proposed Service Change	a.m. Existing	a.m. Proposed	p.m. Existing	p.m. Proposed
		Change to Peak Period -Headway <sup>1, 2</sup> (Minutes)			
71L Haight-Noriega Limited <sup>1</sup> (Route)	<ul style="list-style-type: none"> <li>No route changes proposed.</li> <li>Existing 71L Haight-Noriega Limited, which operates only in the peak period and peak direction, would replace the 71 Haight Noriega and provide all day limited-stop service on Haight Street in both directions.</li> <li>Route would make local stops west of Stanyan Street and on Market Street; route would make limited stops between Stanyan and Market streets.</li> <li>Route includes inbound/outbound service on 22<sup>nd</sup>/23<sup>rd</sup> Avenue couplet. 71L Haight-Noriega Limited Service Variant would evaluate two-way, inbound/outbound service on 22<sup>nd</sup> Avenue to improve connections to the N Judah.</li> <li>Midday frequency would change from 12 to 10 minutes.</li> <li>TTRP.71 is proposed to reduce transit travel time on this corridor.</li> </ul>	10.5	<u>97</u>	10	<u>97</u>

<sup>1</sup> 71L Haight-Noriega Limited - Proposed route includes two-way service on lower Haight Street consistent with the SFMTA project (in design phase) to convert Haight Street to two-way traffic operation between Gough Street and Octavia Boulevard. This would allow the 6 Parnassus and 71L Haight-Noriega Limited to continue east on Haight from Laguna to Market streets. When completed, inbound buses would have fewer turns and would not be delayed by traffic on Page Street turning onto Octavia Boulevard.

Transit Line (Type of Change)	Description of Proposed Service Change	a.m. Existing	a.m. Proposed	p.m. Existing	p.m. Proposed
		Change to Peak Period -Headway <sup>1,2</sup> (Minutes)			
48 Quintara- 24 <sup>th</sup> Street  (Alignment Change)	<ul style="list-style-type: none"> <li>• Service would operate all day from 48<sup>th</sup> Avenue to the Hunters Point Naval Shipyard; new Route 58 24<sup>th</sup> Street would provide complementary service between Diamond Street and the 22<sup>nd</sup> Street Caltrain Station.</li> <li>• Would provide more direct routing from Portola Drive to 24<sup>th</sup> Street via Clipper and Douglass streets; new transit streets would be Clipper Street between Grandview Terrace and Douglass Street, and Douglass Street between Clipper and 24<sup>th</sup> streets; drop-off only on-demand service on the Hoffman Loop, Grandview Terrace, and Fountain Street would be discontinued; service on Douglass Street and Hoffman Avenue would be replaced by the modified Route 35 Eureka.</li> <li>• At 25<sup>th</sup> and Connecticut streets, this route would no longer follow the existing Route 48 Quintara alignment and would change to follow the existing 19 Polk route to Hunters Point via Evans and Innes avenues.</li> <li>• New connection from the Mission District, Noe Valley and the Sunset to Third Street and Hunters Point would be provided, covering a portion of existing Route 19 Polk on Evans and Innes avenues and Galvez Street.</li> <li>• The part-time terminal on the Lower Great Highway nearside at Rivera Street would become an all-day terminal. No additional parking reduction would be required. The southeastern end of the route would use the existing 19 Polk terminal at the former Navy Yard Gate.</li> <li>• <b><u>58 Service Variant would replace the discontinued portion of Route 48 on Grand View Avenue, 21<sup>st</sup> Street, and Douglass Street and introduce service on Clipper Street between Grand View Avenue and Douglass Street and on Douglass Street between Clipper Street and 24<sup>th</sup> Street.</u></b></li> </ul>	11	15	12	15

Transit Line (Type of Change)	Description of Proposed Service Change	a.m. Existing	a.m. Proposed	p.m. Existing	p.m. Proposed
		Change to Peak Period -Headway <sup>1,2</sup> (Minutes)			
58 24 <sup>th</sup> Street (New Route)	<ul style="list-style-type: none"> <li>Route would operate between Diamond and Third streets to increase service frequency on 24<sup>th</sup> Street and to provide connection between the 24<sup>th</sup> Street BART Station and 22<sup>nd</sup> Street Caltrain Station (previously provided by Route 48 Quintara).</li> <li>Eastern portion of new route would replace existing Route 48 Quintara service in Potrero Hill.</li> <li>Buses would turn around on the northern portion of the route using 24<sup>th</sup>, Diamond, Clipper, and Castro streets to 24<sup>th</sup> Street; Clipper Street between Castro and Diamond streets is not currently used for buses.</li> <li>Terminal would be located on Castro Street nearside of the intersection with 25<sup>th</sup> Street; the existing transit zone would be extended, which would require a reduction of up to five parking spaces</li> <li><b><u>58 Service Variant would replace the discontinued portion of Route 48 on Grand View Avenue, 21<sup>st</sup> Street, and Douglass Street and introduce service on Clipper Street between Grand View Avenue and Douglass Street and on Douglass Street between Clipper Street and 24<sup>th</sup> Street.</u></b></li> </ul>	N/A	15	N/A	15

**Table 9: Service Variants**

Route	Description of Variant to Service Improvement
2 Clement	2 Clement Service Variant would include continuing route on California Street to Eighth Avenue, then south on Clement Street to Sixth Avenue, as well as an eastern terminal loop at Sansome Street.
5 Fulton short	5 Fulton Service Variant would include operation of 5 Fulton short-line as motor coach service, instead of trolley service, prior to the installation of bypass wires.
<u>8X Bayshore Express</u>	<u>8X Bayshore Express Service Variant would include an alternate alignment that would extend every other 8X Bayshore Express bus north of Broadway on the existing 8X Bayshore Express route to the existing terminal at Powell and North Point streets. Midday frequency would change from 9 to 7.5 minutes.</u>
<u>8AX Bayshore Express</u>	<u>8AX Bayshore Express Service Variant would operate with increased service frequencies, from 7.5 minutes to 7 minutes, in the morning and afternoon peak periods.</u>
<u>8BX Bayshore Express</u>	<u>8BX Bayshore Express Service Variant would include an alternate alignment that would extend every other 8BX Bayshore Express bus north of Broadway on the existing 8BX Bayshore Express route to the existing terminal at Powell and North Point streets. Morning and afternoon peak period frequencies would change from 8 to 7 minutes in the a.m. peak period and from 7.5 to 7 minutes in the p.m. peak period.</u>
11 Downtown Connector	11 Downtown Connector Service Variant <u>1</u> would include two-way service on Folsom, rather than Folsom (east) and Harrison (west) couplet.
<u>11 Downtown Connector</u>	<u>11 Downtown Connector Service Variant 2 would include an additional route segment along the existing 12 Folsom –Pacific alignment south of 11th and Folsom streets. It would operate in both directions on Folsom Street between 11th and Cesar Chavez streets, as well as on the portions of Cesar Chavez, Valencia and 24th streets currently served by the 12 Folsom-Pacific, and on the portions of South Van Ness Avenue and Capp and Mission streets included in the terminal loop, using the existing terminal at South Van Ness Avenue and 24th Street.</u>
16X Noriega Express	16X Noriega Express Service Variant would include two-way service on 22nd Avenue, rather than current 22nd/23rd Avenue couplet.
<u>17 Parkmerced</u>	<u>17 Parkmerced Service Variant would include an alternate alignment along Brotherhood Way, rather than extending service south to serve Westlake Plaza. North of the intersection of John Muir Drive/Lake Merced Boulevard, the 17 Parkmerced would extend along the existing 18 46th Avenue alignment on Lake Merced Boulevard between John Muir Drive and Brotherhood Way, on Brotherhood Way between John Muir Drive and Junipero Serra Boulevard, South of the intersection of Brotherhood Way/Junipero Serra Boulevard, the 17 Parkmerced would operate along the existing 28 19th Avenue alignment and would serve the Daly City BART Station, and then return in the opposite direction on Junipero Serra Boulevard. North of the Intersection of Brotherhood Way and Junipero Serra Boulevard, the 17 Parkmerced would serve Chumasera Drive, Font Boulevard, Laker Merced Boulevard, and Winston Drive between Lake Merced Boulevard and Buckingham Way. Between the intersection of Winston Drive and Buckingham Way and the West Portal Station, the 17 Parkmerced would operate on its current alignment.</u>

Route	Description of Variant to Service Improvement
22 Fillmore/ 33 Stanyan	22 Fillmore Service Variant 1 would include motor coach service to the Mission Bay terminus from the 16th Street BART Station and the reroute of the 33 Stanyan along the current 22 Fillmore route. The Mission Bay motor coach service would include a western terminal loop that would make a right on Mission Street, left on 15th Street, left on Valencia Street and back onto 16th Street to Mission Street. The eastern terminus would use the proposed 22 Fillmore terminal loop in Mission Bay. The 22 Fillmore trolley coach service would conduct a terminal loop by turning right on Kansas Street, right on 17th Street, right on Vermont Street and left on 16th Street.
22 Fillmore/33 Stanyan	22 Fillmore Service Variant 2 would include motor coach service between 16th Street BART Station and Mission Bay. However, instead of rerouting the 33 Stanyan to 18th Street, that segment would be covered by sending every other 22 Fillmore trolley coach to the current terminal at Third and 20th streets and having the other 22 Fillmore trolley coaches at the existing loop on Kansas, 17th and Vermont streets
27 Folsom	27 Folsom Service Variant 1 would include two-way service on Leavenworth and Ellis streets, and two-way service on Folsom Street.
27 Folsom	27 Folsom Service Variant 2 would include two-way service on Harrison Street from 11th to Cesar Chavez streets.
<u>27 Folsom</u>	<u>27 Folsom Service Variant 3 would maintain the existing routing of the 27 Bryant south of Market Street under the 11 Downtown Connector Variant 2. The 27 Bryant would not be realigned from Bryant Street to Folsom Street, and the route would not be re-named the 27 Folsom.</u>
<u>28 19<sup>th</sup> Avenue</u>	<u>28 19th Avenue Service Variant would maintain the existing route of the 28 19th Avenue between the Golden Gate Bridge Toll Plaza Area and the intersection of Lombard and Laguna streets, and continue along Lombard Street between Laguna Street and Van Ness Avenue, and along Van Ness Avenue between Lombard and North Point streets. Proposed eliminated segments would be on Laguna Street between Lombard and Beach streets, Beach Street between Laguna and Buchanan streets, Buchanan Street between Beach and Bay streets, and Bay Street between Laguna and Buchanan streets.</u>
<u>28 19th Avenue Limited</u>	<u>The 28L 19th Avenue Limited Service Variant northern segment would terminate at Park Presidio Boulevard and California Street. Proposed eliminated segments would be on California Street between Park Presidio Boulevard and Presidio Avenue, Presidio Avenue between California Street and Letterman Drive in the Presidio, Letterman Drive between Presidio Avenue and Lyon Street, Lombard Street between Lyon Street and Laguna Street, Laguna Street between Lombard and Beach streets, Beach Street between Laguna and Buchanan streets, Buchanan Street between Beach and Bay streets, and Bay Street between Laguna and Buchanan streets.</u>
32 Roosevelt	32 Roosevelt Service Variant would include an alternate eastern terminal loop along Church Street, Hermann Street, Fillmore Street and Duboce Avenue.
33 Stanyan	Service Variant 2 for 22 Fillmore would retain existing route for 33 Stanyan from Potrero Avenue to current southern terminus.
<u>33 Stanyan</u>	<u>33 Stanyan Service Variant would include an alternative alignment on 16th Street between Mission and Guerrero streets, and on Guerrero Street between 16th and 18th streets to allow rerouting from 18th to 16th streets via Guerrero Street rather than Valencia Street.</u>
35 Eureka	35 Eureka Service Variant 1 would include an alignment along Diamond Street.

Route	Description of Variant to Service Improvement
<u>35 Eureka</u>	<u>35 Eureka Service Variant 2 would include an alternative alignment for the route extension to the Glen Park Station. From Bemis and Addison streets, outbound service towards the Glen Park Station would be routed on Bemis Street between Addison and Miguel streets, Miguel Street between Bemis and Arlington streets, and Arlington Street between Miguel and Bosworth streets. Service would terminate on Bosworth Street across from the Glen Park Station between Arlington and Chenery streets. Inbound service towards the Castro would continue from the Glen Park terminal on Bosworth Street via Diamond Street between Bosworth and Chenery streets, Chenery Street between Diamond and Miguel streets, Miguel Street between Chenery and Bemis streets, and Bemis Street between Miguel and Addison streets, where it would connect with the existing 35 Eureka route.</u>
<u>35 Eureka</u>	<u>35 Eureka Service Variant 3 would include an alternative routing to Variant 2 in which two-way service would be provided on Chenery Street. This would replace the one-way transit service proposed to go westbound on Arlington Street and eastbound on Chenery Street in Variant 2.</u>
37 Corbett	37 Corbett Service Variant would include an alternate eastern terminal loop along Church Street, Hermann Street, Fillmore Street and Duboce Avenue.
<u>37 Corbett</u>	<u>37 Corbett Service Variant 2 would not replace the Roosevelt Way branch of the existing 37 Corbett with a new 32 Roosevelt route. Instead, the 37 Corbett Service Variant 2 would include an alternative alignment on Frederick Street between Cole Street and Masonic Avenue, and on Masonic Avenue between Frederick and Haight streets. Proposed eliminated segments would be on Cole Street between Frederick and Haight streets, and Haight Street between Cole Street and Masonic Avenue. The 37 Corbett Service Variant 2 would use the existing 6 Parnassus terminal at Haight Street and Masonic Avenue.</u>
<u>43 Masonic</u>	<u>43 Masonic Service Variant would include an alternative alignment on Masonic Avenue between Haight and Frederick streets, and on Frederick Street between Masonic Avenue and Cole Street. Proposed eliminated segments would be on Haight Street between Masonic Avenue and Cole Street, and Cole Street between Haight and Frederick streets.</u>
<u>58 24<sup>th</sup> Street</u>	<u>58 Service Variant would replace the discontinued portion of Route 48 on Grand View Avenue, 21<sup>st</sup> Street, and Douglass Street and introduce service on Clipper Street between Grand View Avenue and Douglass Street and on Douglass Street between Clipper Street and 24<sup>th</sup> Street.</u>
71L Haight - Noriega	71L Haight - Noriega Service Variant would include two-way service on 22nd Avenue, rather than current 22nd/23rd Avenue couplet.