Proposals by Route

The following chapter provides detail on improvements recommended through the Transit Effectiveness Project. The implementation tools typology has been applied for each route. For details, please visit the "Implementation Tools" chapter.

Service Improvements

- NR — New Route
- RE — Route Elimination
- RA — Route Alignment
- HC — Headway Change
- VC — Vehicle Type Change
- EH — Expanded Hours

Service-Related Capital Improvements

- TTPI — Terminal & Transfer Point Improvements
- OWE — Overhead Wire Expansion
- SCI — Systemwide Capital Infrastructure

Travel Time Reduction Proposals (TTRP)

TS TRANSIT STOP CHANGES

1. Remove or Consolidate Transit Stops
2. Optimize Transit Stop Locations at Intersections
3. Install Transit Bulbs
4. Install Transit Boarding Islands
5. Optimize Transit Stop Lengths
6. Convert Flag Stops to Transit Zones

LM LANE MODIFICATIONS

7. Establish Transit-Only Lanes
8. Establish Transit Queue Jump/Bypass Lanes
9. Establish Dedicated Turn Lanes
10. Widen Travel Lanes through Lane Reductions

PR PARKING AND TURN RESTRICTIONS

11. Implement Turn Restrictions
12. Widen Travel Lanes through Parking Restrictions

TSC TRAFFIC SIGNAL & STOP SIGN CHANGES

13. Install Traffic Signals at Uncontrolled and Two-way Stop-controlled Intersections
14. Install Traffic Signals at All-way Stop-controlled Intersections
15. Replace All-way Stop-controls with Traffic Calming Measures at Intersections

PI PEDESTRIAN IMPROVEMENTS

16. Install Pedestrian Refuge Islands
17. Install Pedestrian Bulbs
18. Widen Sidewalks

Muni Route Index

Muni Route Index

Route	TEP Improvements	Page #
8BX Bayshore "B" Express	HC, TS, LM, PR, TSC, PI	102
9 / 9L San Bruno	HC, TS, LM, PR, TSC, PI	104
10 Sansome	RA, HC, EH, SCI	108
11 Downtown Connector	NR, RA	111
12 Folsom/Pacific	RE	114
14 Mission	VC, TS, LM, PR, TSC, PI	116
14L Mission Limited	RA, EH, HC, VC, TS, LM, PR, TSC, PI	121
14X Mission Express	HC, TS, LM, PR, TSC, PI	126
16X Noriega	RA	128/
17 Park Merced	RA, HC	130
18 46th Avenue	RA	133
19 Polk	RA	135
21 Hayes	HC	137
22 Fillmore	RA, HC, VC, OWE, TS, LM, PR, TSC, PI	139
23 Monterey	RA	147
24 Divisadero	HC	149
27 Bryant	RA	151

Muni Route Index

Muni Route Index

Muni Route Index

E Embarcadero

Legend

- Recommended Route
- Rail Network
- Muni Metro Stations
- BART Stations
- Caltrain Stations

Proposed Changes

NR TTPI

E Embarcadero

Overview

- A new historic streetcar line would be establish to connect Fisherman's Wharf and the northeast waterfront to AT&T Park and the Caltrain Station.
- The line would start at the F Market & Wharves' northern terminus at Jones Street, then travel south along The Embarcadero to Market Street, and then follow the N/T Line alignment to King Street to the E Embarcadero terminus at the Caltrain Station at Fourth and Townsend streets.
- Capital improvement TTPI.3 proposes to develop a new independent terminal for the E Embarcadero at the north end of the route near Jones and Beach streets. The terminal would facilitate independent movements of E and F streetcars, which would improve reliability for both routes by allowing for independent terminal departures.
- Initially, beginning in the summer of 2015, the E Embarcadero will provide service on weekends only between 11am and 7pm with 15 minute headways. In the spring of 2016, full, everyday E Embarcadero service will be introduced.

TTPI.3 E Embarcadero Line Independent Terminal at Jones Street/Beach Street

This project would involve development of a new independent terminal stop for the E Embarcadero Line at the north end of the route near Jones and Beach streets. A separate stop would facilitate independent movements of E Embarcadero and F Market & Wharves streetcars at its northern terminus, which would improve reliability for both routes by allowing for independent terminal departures and preventing trains on one route from getting delayed behind trains from the other route. Development of the new terminal would require the installation of new bypass rails, track work turnouts, track switches, and overhead wires and poles, and possibly sidewalk modifications.

Frequency

Service during peak periods (headway between vehicles, in minutes)

	Current	Proposed	Frequency
AM	N/A	15	N/A
PM	N/A	15	N/A

F Market & Wharves

Legend

- Recommended Route
- Rail Network
- Muni Metro Stations
- BART Stations
- Caltrain Stations

Proposed Changes

HC

F Market & Wharves

Overview

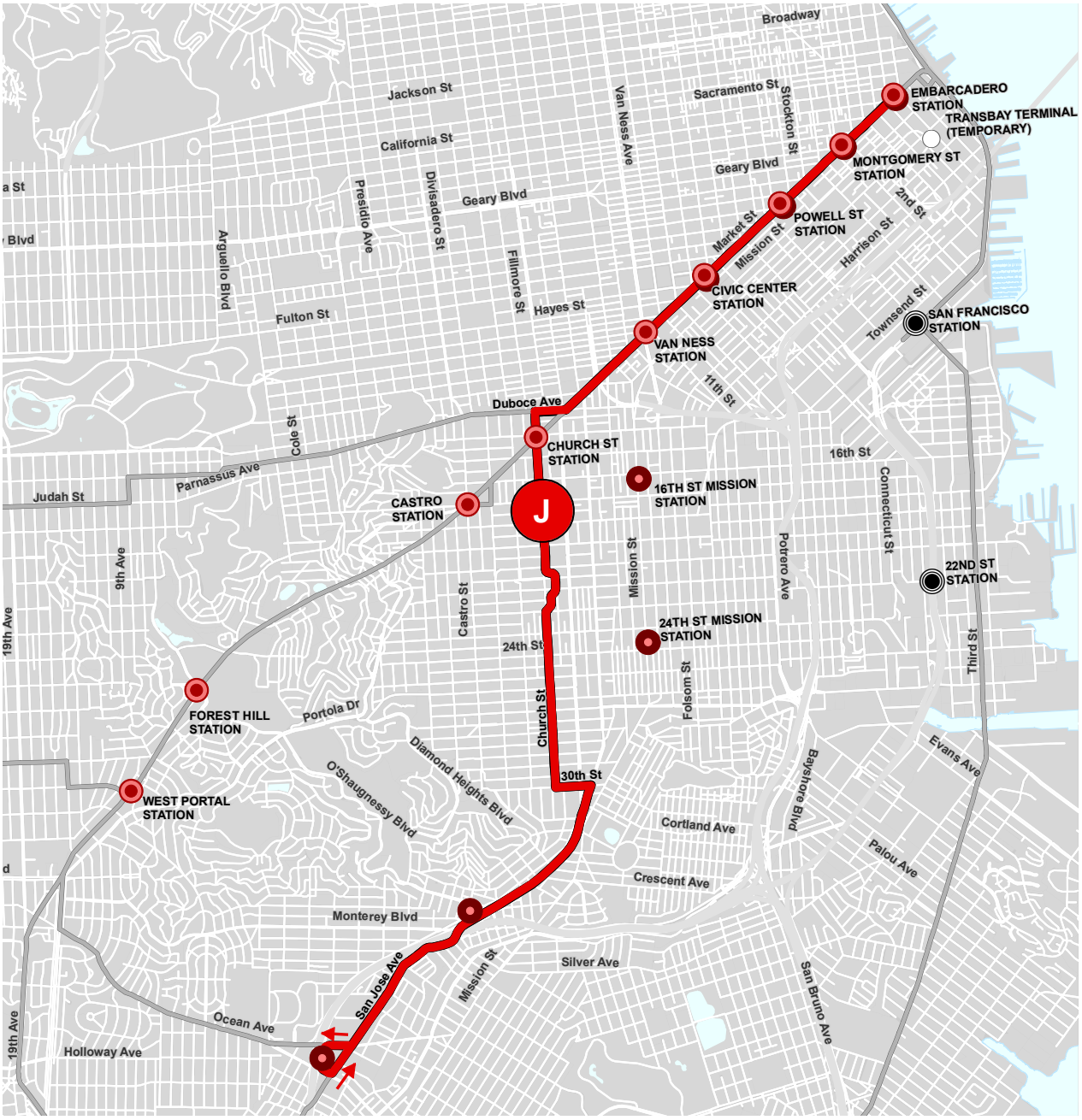
- No route changes proposed for this line.
- Frequencies would be reduced in the morning due to the additional capacity provided by the new E Embarcadero Line.
- Midday frequency would change from 5 to 6 minutes.

Frequency

Service during peak periods (headway between vehicles, in minutes)

	Current	Proposed	Frequency
AM	6.5	7.5	−
PM	6	5	+

J Church



Legend

- Recommended Route
- Rail Network
- Muni Metro Stations
- BART Stations
- Caltrain Stations

Proposed Changes

HC TS LM PR TSC PI

Overview

- The J Church line is one of the highest ridership Muni corridors and carries more than 14,000 daily customers on an average weekday.
- The Travel Time Reduction Proposal (TTRP_J) is proposed to improve transit travel time, improve reliability, and decrease delay caused as a result of long passenger loading and unloading times, traffic signal delay, traffic congestion, a high number of STOP signs along the route and areas of closely spaced transit stops.
- The TTRP_J project study area is the four mile stretch between Church and Duboce and the J Line's terminal at Balboa Park Station.
- The proposed changes are anticipated to reduce the travel time of the J Church within the study area by about 6.5 minutes total in both directions (12% reduction), resulting in an average operating speed of nine miles per hour and improving service reliability.
- Other changes such as transit signal priority improvements, operational improvements and network enhancements would further improve travel times along the corridor and add valuable customer amenities such as NextBus displays. The travel time savings would also reduce operating costs on the line and allow for service to be cost effectively increased.

J Church Travel Time Reduction Proposal (TTRP_J)

The TTRP_J project is proposed to improve transit travel time and reliability along the corridor between Church and Duboce and the J Line's terminal at Balboa Park Station. Within the study area, the J Church operates at an average speed of eight miles per hour during peak periods. There are 19 transit stops in the inbound direction and 18 transit stops in the outbound direction. The average transit stop spacing between Duboce Avenue and Randall Street is 975 feet, with stops located about every two to four blocks. In the southern part of the line between Santa Rosa Avenue, and Balboa Park Station, the average stop spacing is 1,380 feet, or about every two to three blocks.

The main causes of delay to the J Church include long passenger loading and unloading times, traffic signal delay, traffic congestion, a high number of STOP signs along the route and areas of closely spaced transit stops. In order to reduce transit travel times and improve reliability, the SFMTA proposes a toolkit of measures within the study area. The proposals include:

- Replacing all-way STOP-controlled intersections with traffic signals or traffic calming measures at four intersections. Traffic calming measures such as corner bulbs, speed humps, and sidewalk extensions provide improved pedestrian safety by reducing the roadway crossing distance, making pedestrians waiting to cross the street more visible to approaching motorists and reducing the speed of motorists turning from cross streets.
- Adding a transit-only lane on three blocks. In areas of high traffic congestion, transit-only lanes

can save significant travel time for the J Church by giving the train its own exclusive lane.

- Turn Restrictions at two intersections. Left-turn restrictions can reduce transit delay by ensuring that auto traffic does not block intersections while waiting to turn left.
- Adding pedestrian bulbs at one intersection. Pedestrian bulbs are sidewalk extensions at intersection corners that improve pedestrian safety by reducing the roadway crossing distance, making pedestrians waiting to cross the street more visible to approaching motorists, and reducing the speed of motorists turning from cross streets.
- Optimizing transit stop locations at three intersections. Relocating transit stops from the near-side to the far-side of intersections at existing and proposed traffic signals would allow streetcars to take advantage of planned transit signal priority improvements. At all-way STOP-controlled intersections, transit stops would be relocated from the far-side of the intersection to the near-side, eliminating the need for streetcars to stop once for the STOP sign and again for customers to board the train.
- Create more consistent stop spacing. The J Church stops an average of once every two blocks for a majority of its route. However, at two locations, this distance is shortened to as little as once every block. This proposal moves towards at least a two-block spacing throughout the route. By stopping fewer times, the train would take less time to move through the corridor
- Adding transit bulbs at seven intersections. Transit bulbs are sidewalk extensions alongside transit stops that allow passengers to get on and off without having to walk between parked cars and cross a lane of traffic. They enhance the ability of streetcars to take advantage of all-door boarding and provide extra space for transit shelters and other customer amenities. Transit bulbs also improve pedestrian safety by reducing the roadway crossing distance, making pedestrians waiting to cross the street more visible to approaching motorists, and reducing the speed of motorists turning from cross streets.
- Extending boarding islands at two intersections. Boarding islands are dedicated waiting spaces for customers located between travel lanes. Extending existing boarding islands would cover the full length of the train and allow for passengers to be picked up and dropped off without having to walk between parked cars or cross a lane of traffic when the train arrives.

J Church

Frequency

Service during peak periods (headway between vehicles, in minutes)

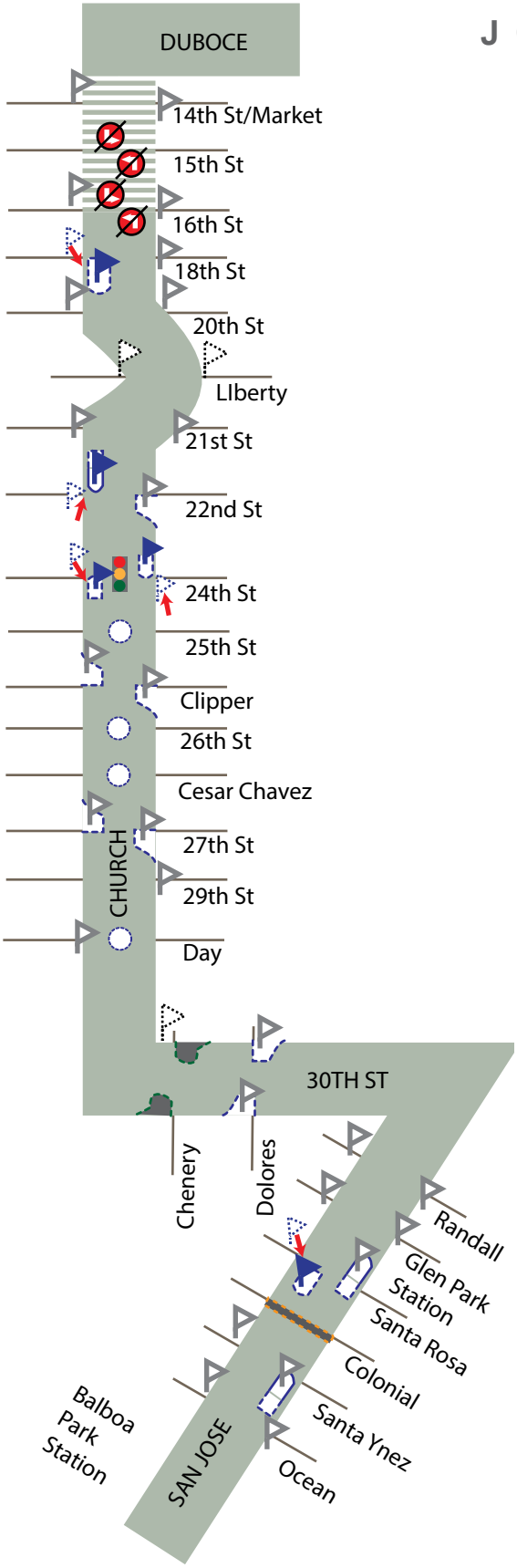
	Current	Proposed	Frequency
AM	9.5	8	+
PM	9	9	=

*Increasing light rail service is dependant upon vehicle availability. Fleet rehabilitation is underway and is scheduled for completion by the end of 2015.

Finance

Route / Fund Source		FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	FY17-18	Total
J Church								$11,720,000
TEP Capital Seg. 1	CCSF-GOBond			$1,020,000	$8,810,000			$9,830,000
	Total			**$1,020,000**	**$8,810,000**			**$9,830,000**
TEP Supportive	No Funding Source						$1,890,000	$1,890,000
	Total						**$1,890,000**	**$1,890,000**

J Church Segment Proposal



SEGMENT PROPOSALS

- Existing Stop
- Stop Removal
- Stop Relocation
- New Transit Bulb
- Extend Existing Boarding Island
- Proposed Transit Only Lane
- Traffic Calming
- New Traffic Signal
- New Boarding Island
- No Left Turn Restrictions
- New Pedestrian Bulbs
- Crosswalk

KT Ingleside / Third Street

Legend

- Recommended Route
- Rail Network
- Muni Metro Stations
- BART Stations
- Caltrain Stations

Proposed Changes

HC TS LM PR TSC PI

KT Ingleside / Third Street

Overview

- The KT Ingleside/Third Street line is one of the highest ridership Muni corridors.
- The programmatic KT Ingleside/Third St. Travel Time Reduction Proposal (TTRP_K) project is proposed to improve transit travel time, imrpove reliability, and decrease delay caused as a result of various factors such as long passenger loading and unloading times, traffic signal delay, traffic congestion, a high number of STOP signs along the route and areas of closely spaced transit stops.
- The TTRP_K proposal is a program-level project where specific treatments have not been identified at this time.
- The TTRP_K proposal study area stretches from the intersection of San Jose Avenue and Oneida Street (Balboa Park Station) to Sloat and Junipero Serra boulevards.

KT Ingleside/ Third St. Travel Time Reduction Proposal (TTRP_K)

The TTRP_K proposal is a program-level project where specific treatments have not yet been identified for the corridor. For this and other programmatic proposals, the TPS Toolkit elements would be applied along Junipero Serra Boulevard and Ocean Avenue, from the intersection of San Jose Avenue and Oneida Street (Balboa Park Station) to Sloat and Junipero Serra boulevards.

This Rapid Network corridor provides transit connections between the West Portal, St. Francis Wood, and Ingleside neighborhoods as well as the City College of San Francisco (CCSF) main campus and vicinity and Balboa Park Station. Inbound, the K Ingleside enters the Muni System underground at West Portal Station. From West Portal Station the K Ingleside becomes the T Third Street and continues to Embarcadero Station, providing connections from the above neighborhoods to Forest Hill, Midtown Terrace, the Castro/Eureka Valley/Corona Heights, Duboce Triangle, Church and Market streets vicinity, and destinations in Civic Center and Downtown before resurfacing after Embarcadero Station to provide transit service along the Embarcadero, through SoMa and Mission Bay, to Potrero Hill, Hunter's Point, Bay View and Visitacíon Valley neighborhoods.

KT Ingleside / Third Street

Frequency

Service during peak periods (headway between vehicles, in minutes)

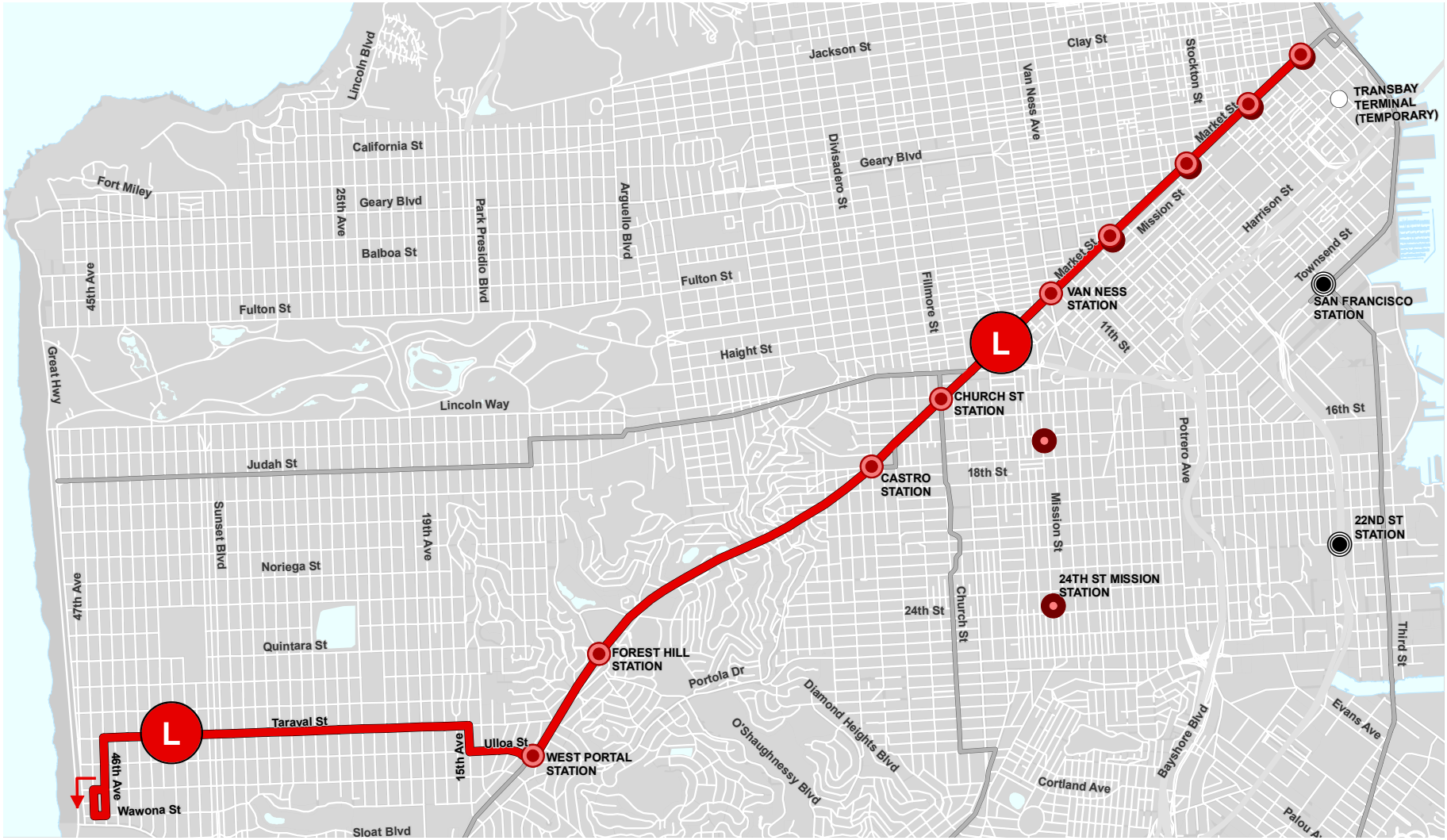
	Current	Proposed	Frequency
AM	9	8	+
PM	9	8	+

*Increasing light rail service is dependant upon vehicle availability. Fleet rehabilitation is underway and is scheduled for completion by the end of 2015.

Finance

Route / Fund Source		FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	FY17-18	Total
K Ingleside								$7,130,000
TEP Capital Seg. 1	CCSF-GOBond					$4,720,000		$4,720,000
	Total					**$4,720,000**		**$4,720,000**
TEP Supportive	No Funding Source						$2,410,000	$2,410,000
	Total						**$2,410,000**	**$2,410,000**

L Taraval



Legend

- Recommended Route
- Rail Network
- Muni Metro Stations
- BART Stations
- Caltrain Stations

Proposed Changes

HC TS LM PR TSC PI

L Taraval

Overview

- The L Taraval line is one of the highest ridership Muni corridors.
- The L Taraval Travel Time Reduction Proposal (TTRP_L) is proposed to improve transit travel time, imrpove reliability, and decrease delay caused as a result of long passenger loading and unloading times, traffic signal delay, traffic congestion, a high number of STOP signs along the route and areas of closely spaced transit stops.
- The TTRP_L project study area is
- The proposed changes are anticipated to reduce travel time of the L Taraval within the study area by about 6.5 minutes total in both directions (12% reduction), resulting in an average operating speed of nine miles per hour and improving service reliability.
- Other changes such as transit signal priority improvements, operational improvements and network enhancements would further improve travel times along the corridor and add valuable customer amenities such as NextBus displays. The travel time savings would also reduce operating costs on the line and allow for service to be cost effectively increased. No service route changes are proposed

Frequency

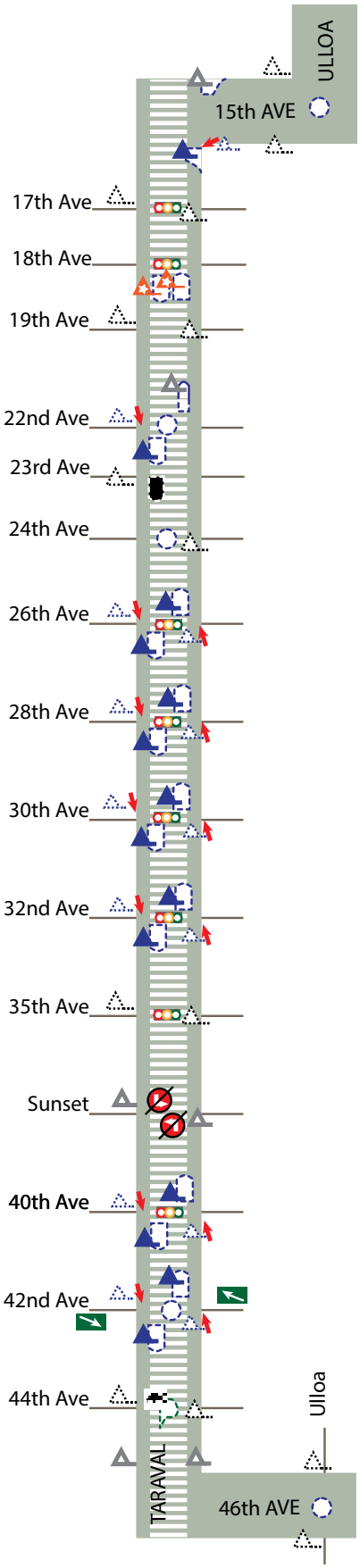
Service during peak periods (headway between vehicles, in minutes)

	Current	Proposed	Frequency
AM	8	7.5	+
PM	7.5	7.5	=

*Increasing light rail service is dependant upon vehicle availability. Fleet rehabilitation is underway and is scheduled for completion by the end of 2015.

Finance

Route / Fund Source		FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	FY17-18	Total
L Taraval								$7,860,000
TEP Capital Seg. 1	CCSF-GOBond					$4,720,000		$4,720,000
	Total					**$4,720,000**		**$4,720,000**
TEP Supportive	No Funding Source						$3,140,000	$3,140,000
	Total						**$3,140,000**	**$3,140,000**

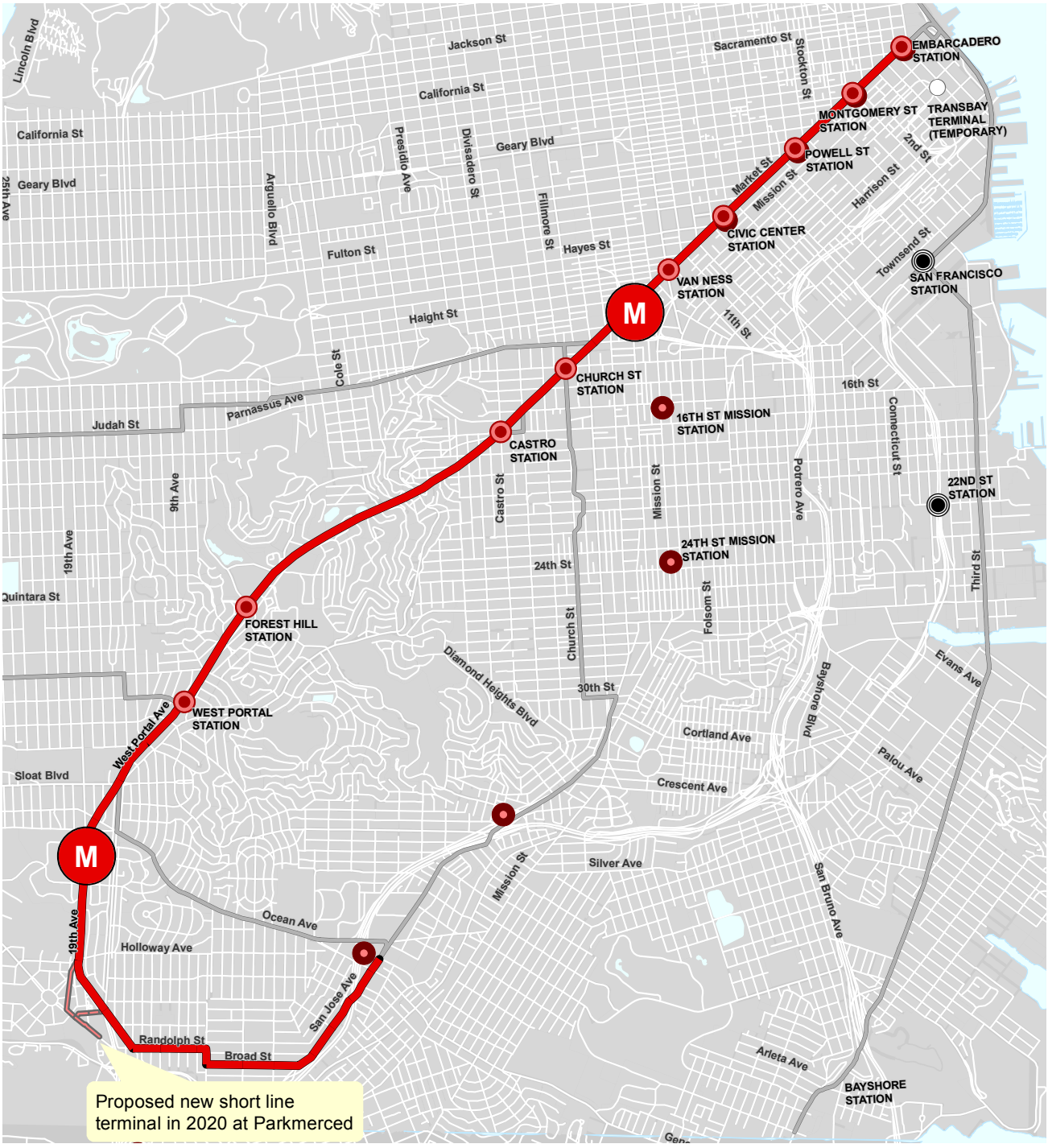


L Taraval Segment Proposal

SEGMENT PROPOSALS

- Existing Stop
- Stop Removal
- Stop Relocation
- New Transit Bulb
- New Pedesrian Refuge Island
- New Boarding Island
- Extend Boarding Island
- New Traffic Signal
- Remove Stop Signs and Replace with Traffic Calming Measure
- New Stop
- No Left-Turn Restriction
- Center Transit-Only Lanes (both directions)
- Remove Exist. Boarding Island
- Right-Turn Only Restrictions

M Ocean View



Legend

- Recommended Route
- Segment Proposed for Elimination
- Parkmerced Extension
- Recommended Bus & Rail Network
- Muni Metro Stations
- BART Stations
- Caltrain Stations

Proposed Changes

HC TS LM PR TSC PI

M Ocean View

Overview

- No route changes proposed.
- New terminal at Parkmerced is planned and would be funded by the private developer with an estimated year 2020 completion. During peak periods, alternate trips would originate/terminate from/to the Balboa Park Station and this new terminal.
- TTRP is proposed for this corridor to reduce transit travel time.

M Ocean View Travel Time Reduction Proposal Overview

For this proposal, the TPS Toolkit elements would be applied along the dedicated right-of-way south of St. Francis Circle, 19th Avenue, Parkmerced local streets, Randolph Street, Orizaba Avenue, Broad Street and San Jose Avenue, from the intersection of 19th and Holloway avenues to Geneva and San Jose avenues near the Balboa Park Station. This corridor provides transit connections between West Portal Station and Balboa Park Station (Muni and BART), and includes transit service for the West Portal, St. Francis Wood, Stonestown/San Francisco State University, Ingleside and Parkmerced neighborhoods. The M Ocean View continues along West Portal Avenue to West Portal Station, where inbound it enters the Muni System underground to Embarcadero Station providing connections from the above neighborhoods to Forest Hill, Midtown Terrace, the Castro/Eureka Valley/Corona Heights, Duboce Triangle, Church and Market streets vicinity, and destinations in the Civic Center and Downtown.

Frequency

Service during peak periods (headway between vehicles, in minutes)

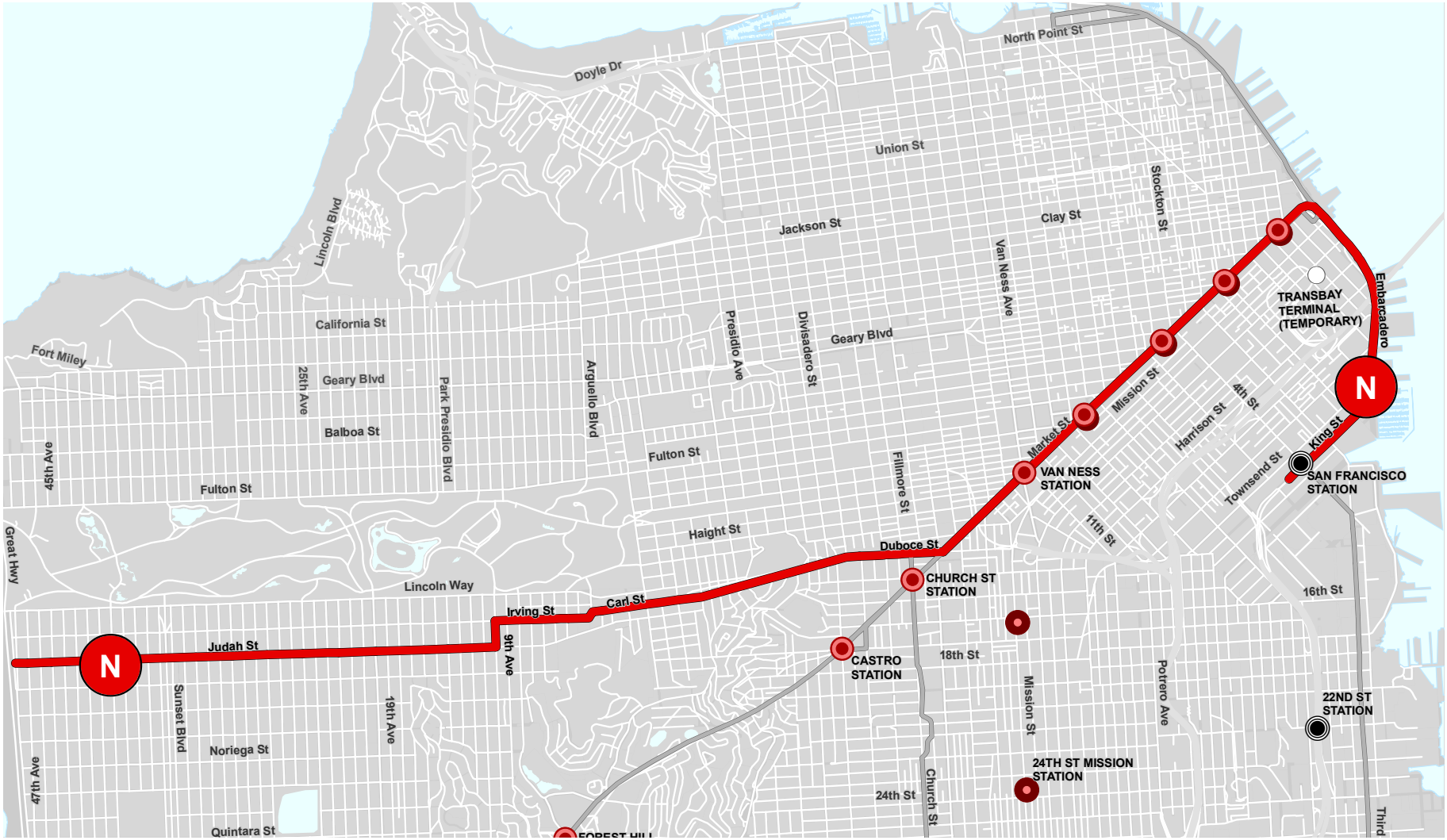
	Current	Proposed	Frequency
AM	9	8.5	+
PM	9	8.5	+

*Increasing light rail service is dependant upon vehicle availability. Fleet rehabilitation is underway and is scheduled for completion by the end of 2015.

Finance

Route / Fund Source		FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	FY17-18	Total
M Ocean View								$9,920,000
TEP Capital Seg. 1	CCSF-GOBond					$3,500,000		$3,500,000
	Total					**$3,500,000**		**$3,500,000**
TEP Capital Seg. 2	CCSF-GOBond					$3,620,000		$3,620,000
	Total					**$3,620,000**		**$3,620,000**
TEP Supportive	No Funding Source						$2,800,000	$2,800,000
	Total						**$2,800,000**	**$2,800,000**

N Judah



Legend

- Recommended Route
- Rail Network
- Muni Metro Stations
- BART Stations
- Caltrain Stations

Proposed Changes

HC TS LM PR TSC PI

Overview

- Muni's N Judah rail line has one of the highest riderships in the Muni Network and carries more than 40,000 daily customers on an average weekday.
- The N Judah Travel Time Reduction Proposal (TTRP_N) is proposed to improve transit travel time, imrpove reliability, and decrease delay caused as a result of long passenger loading and unloading times, traffic signal delay, traffic congestion, a high number of STOP signs along the route and areas of closely spaced transit stops.
- The TTRP_L project study area extends between Carl and Cole and Judah and Great Highway. Within the study area, the N Judah operates at an average speed of 8 miles per hour during peak periods. There are 21 transit stops in each direction. The average transit stop spacing between Carl and Cole and Judah and Great Highway is 850 feet, with stops located at every two to three intersections.
- The proposed changes are anticipated to reduce the travel time of the N Judah rail service by about 5 minutes in each direction (10 minutes total) within the study area (19% reduction), improving average operating speed to 9.5 miles per hour and improving service reliability. Other changes such as transit signal priority improvements, operational improvements and network enhancements would further improve travel times along the corridor and add valuable customer amenities such as NextBus displays. The travel time savings would also reduce operating costs on the line and allow for service to be cost effectively increased.

The main causes of delay to the N Judah include long passenger boarding and alighting times, a high number of stop signs along the route and areas of closely spaced transit stops.

N Judah Travel Time Reduction Proposal

In order to reduce transit travel times and improve reliability, the SFMTA proposes a toolkit of measures within the study area. These proposals include:

- Replacing all-way STOP-controlled intersections with traffic signals or traffic calming measures at eight intersections. Currently, the N Judah is delayed by having to come to a complete stop at multiple intersections with stop signs. These stop signs could be replaced with traffic signals equipped with transit signal priority. This would reduce delay at intersections because the signals could be programmed to hold green lights for approaching trains. Alternatively, traffic calming measures such as corner bulbs, raised crosswalks, and sidewalk extensions could be installed to provide improved pedestrian safety by reducing the roadway crossing distance, making pedestrians waiting to cross the street more visible to approaching motorists and reducing the speed of motorists turning from cross streets. Traffic calming measures would have a similar effect of reducing intersection delays for trains, by eliminating the need for the

train to come to a complete stop.

- Optimizing transit stop locations at four intersections. Relocating transit stops from the near-side to the far-side of intersections at existing traffic signals would allow streetcars to take advantage of planned transit signal priority improvements. At all-way STOP-controlled intersections, transit stops would be relocated from the far-side of the intersection to the near-side, eliminating the need for streetcars to stop once for the STOP sign and again for customers to board the train. One of the relocated transit stops at Sunset and Judah would require new boarding islands and extend into the intersections of 36th Avenue and 37th Avenue. The boarding island would block through traffic and drivers would only be allowed to turn right at these intersections.
- Increasing transit stop spacing from two to three blocks to three to four blocks. Currently the N Judah stops every two to three blocks within the study area. This proposal moves toward a three to four block spacing for most stops. By stopping fewer times, the train takes less time to move through the corridor.
- Adding transit bulbs at five intersections. Transit bulbs are sidewalk extensions alongside transit stops that allow passengers to get on and off without having to walk between parked cars and cross a lane of traffic. Transit bulbs enhance the ability of streetcars to take advantage of all-door boarding. Transit bulbs provide space for transit shelters and other customer amenities. Transit bulbs also improve pedestrian safety by reducing the roadway crossing distance, making pedestrians waiting to cross the street more visible to approaching motorists, and reducing the speed of motorists turning from cross streets.
- Extending boarding islands at 13 intersections. Boarding islands are dedicated waiting spaces for customers located between travel lanes. Extending existing boarding islands would cover the full length of two-car trains and allow for passengers to be picked up and dropped off without having to walk between parked cars and cross a lane of traffic when the train arrives.

N Judah

Frequency

Service during peak periods (headway between vehicles, in minutes)

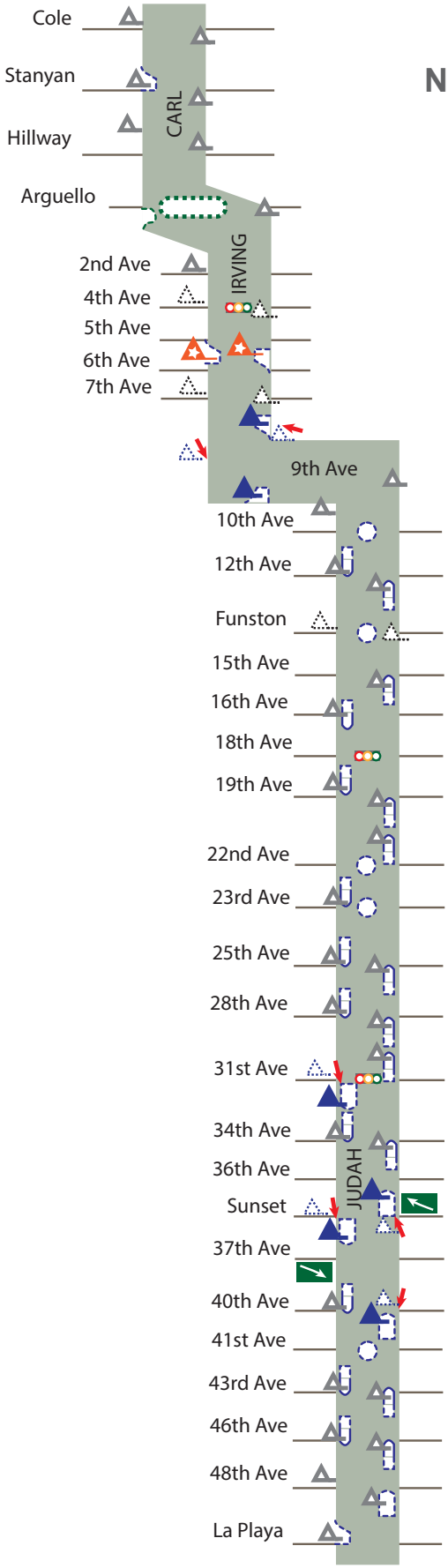
	Current	Proposed	Frequency
AM	7	5.5	+
PM	7	6	+

*Increasing light rail service is dependant upon vehicle availability. Fleet rehabilitation is underway and is scheduled for completion by the end of 2015.

Finance

Route / Fund Source		FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	FY17-18	Total
N Judah								$22,653,027
TEP Capital Seg. 1	CCSF-GOBond			$13,110,000				$13,110,000
	SFCTA-PropK-EP1		$1,443,027					$1,443,027
	Total		**$1,443,027**	**$13,110,000**				**$14,553,027**
TEP Supportive	MTC-TPI(MC)	$5,383,860						$5,383,860
	SFCTA-PropK-EP16	$716,140						$716,140
	Total	**$6,100,000**						**$6,100,000**

N Judah

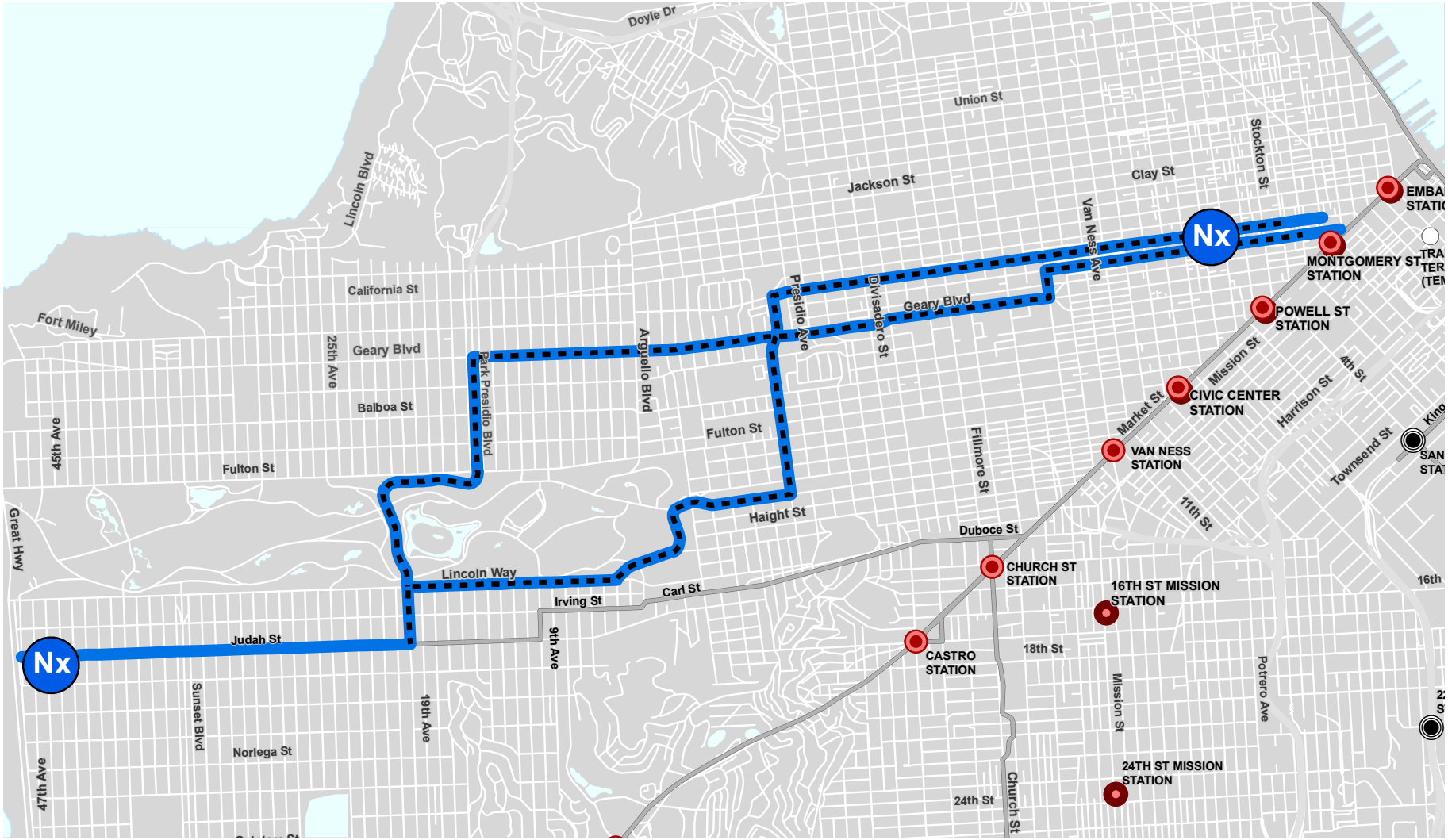


N Judah Segment Proposal

SEGMENT PROPOSALS

- Existing Stop
- Stop Removal
- Stop Relocation
- New Transit Bulb
- Extend Existing Boarding Island
- Proposed Transit Only Lane
- Traffic Calming
- New Traffic Signal
- New Boarding Island
- No Left Turn Restrictions
- New Pedestrian Bulbs
- Crosswalk

Nx Express



Legend

- Recommended Route
- Express Segment (No stops)
- Rail Network
- Muni Metro Stations
- BART Stations
- Caltrain Stations

Proposed Changes

TS LM PR TSC PI

Nx Express

Overview

- No route changes proposed.
- TTRP for N Judah will improve travel time and reliability on this route.

1 California

Legend

- Recommended Route
- Rail Network
- Muni Metro Stations
- BART Stations
- Caltrain Stations

Proposed Changes

HC OWE TS LM PR TSC PI

Travel Time Reduction Proposal

For this proposal, the TPS Toolkit elements would be applied along the 1 California route. The TPS Toolkit elements would be implemented along the following streets: Drumm, Sacramento, Steiner, and California streets, 32nd Avenue and Geary Boulevard (outbound), and along Geary Boulevard, 33rd Avenue, Clement Street, 32nd Avenue, California, Steiner, Sacramento, Gough and Clay streets (inbound). The corridor extends from the intersection of Geary Boulevard and 33rd Avenue to the intersection of Clay and Drumm streets, providing transit improvements to a major east-west route in the Rapid Network. This Rapid Network corridor provides transit connections between the northern portion of the Richmond District and neighborhoods to the east, including Pacific Heights, Nob Hill, Chinatown, the Financial District and the Embarcadero.

OWE.2 - 1 California Bypass Wires at Terminal Location

This project would install bypass wires to improve terminal operations where multiple trolley coach routes share a terminal. This project would provide trolley coach access to and egress from terminals and would improve route reliability by preventing trolley coaches from one route from getting stuck behind trolley coaches from another route. Currently, at terminals shared by multiple trolley coach routes, operators must exit their vehicle and pull trolley poles in order to pass a coach already in the terminal. Including an additional terminal location for the 41 Union/ 45 Union Stockton, a combined total of about 1,200 linear feet of overhead bypass wires and the installation of about 50 poles is proposed also at the 1 California terminal location at Presidio Avenue and Sacramento Street (Terminal for Routes 1 California and 2 Clement short-line).

This proposal would provide a common inbound stop for the 1 California and its short-line and would also accommodate the western 2 Clement short-line terminal, which would use trolley coaches. New poles, overhead wires, and duct banks, would be constructed. Four new curb ramps to meet accessibility standards are proposed for both the Laurel Street and Walnut Street intersections with Sacramento Street; in addition, four curb ramps are proposed on the north side of California Street at its intersection with Laurel and Walnut streets for a total of eight curb ramps. The installation of poles and underground wiring may require minor utility relocation, such as moving catch basins.

1 California

Frequency

Service during peak periods (headway between vehicles, in minutes)

West of Presidio Ave.

	Current	Proposed	Frequency
AM	7	7	=
PM	7	6	+

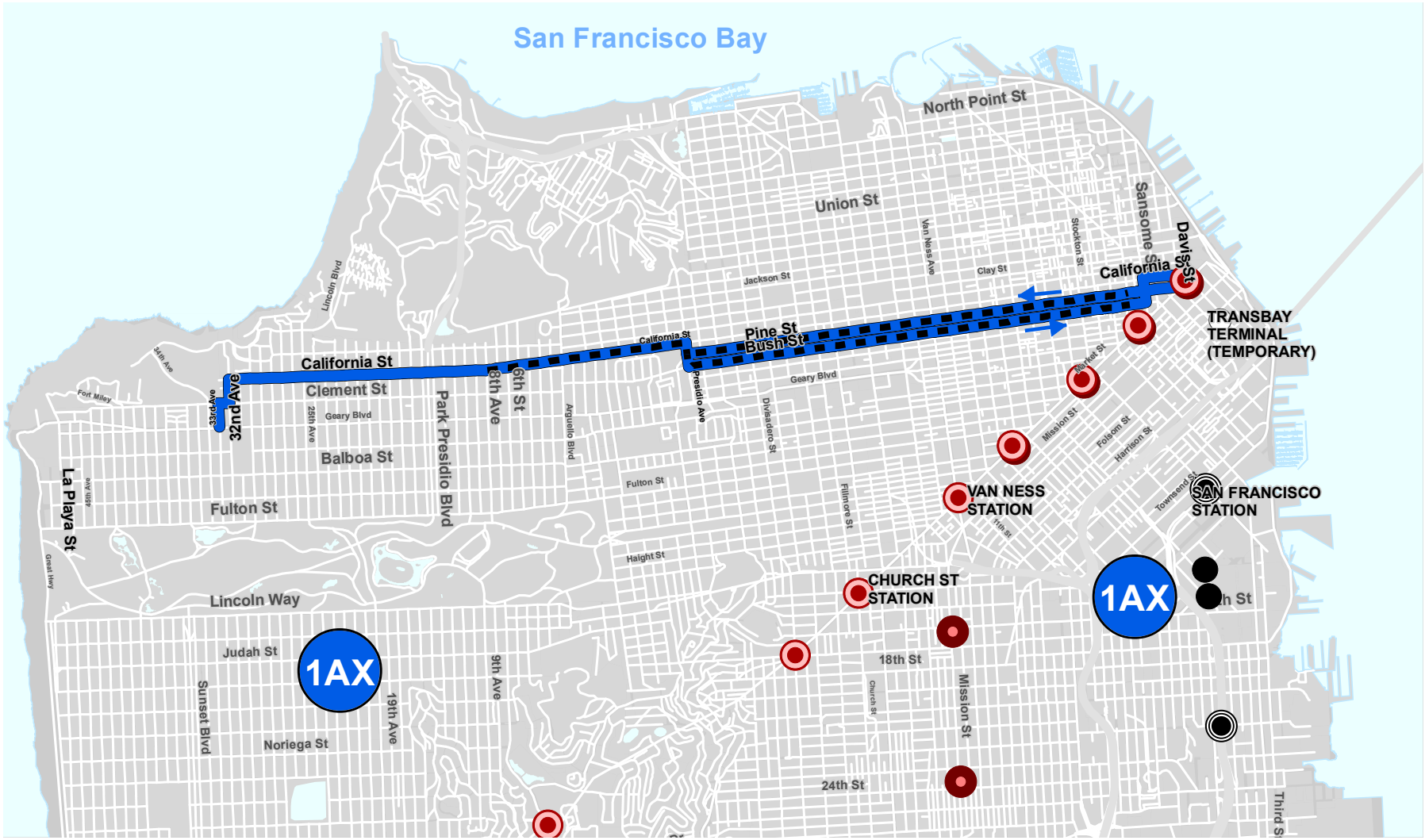
East of Presidio Ave.

	Current	Proposed	Frequency
AM	3.5	3.5	=
PM	3.5	3	+

Finance

Route / Fund Source	FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	FY17-18	Total
1 California							$14,810,000
TEP Capital — CCSF-GOBond			$1,020,000	$7,900,000			$8,920,000
TEP Capital — **Total**			**$1,020,000**	**$7,900,000**			**$8,920,000**
TEP Supportive — No Funding Source						$5,890,000	$5,890,000
TEP Supportive — **Total**						**$5,890,000**	**$5,890,000**

1AX California "A" Express



Legend

- Recommended Route
- Express Segment (No stops)
- Rail Network
- New Stop
- Muni Metro Stations
- BART Stations
- Caltrain Stations

Proposed Changes

TS LM PR TSC PI

1AX California “A” Express

Overview

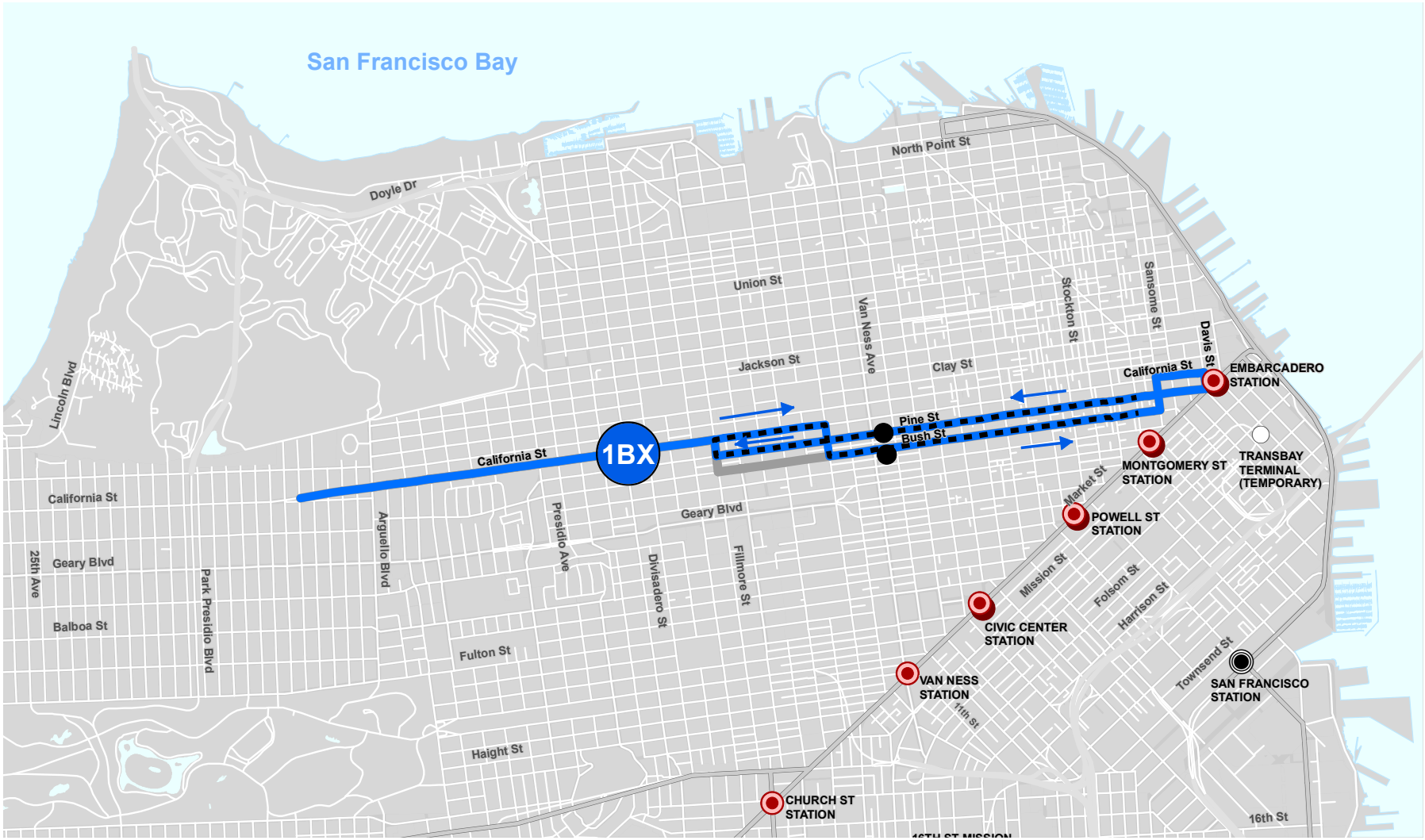
- No route changes proposed.
- New transit stop would be added on Pine Street (p.m.) and Bush Street (a.m.) at Van Ness Avenue to improve transit connections to the Civic Center and the northern waterfront.
- TTRP.1 is also proposed for this corridor to reduce transit travel time.

Frequency

Service during peak periods (headway between vehicles, in minutes)

	Current	Proposed	Frequency
AM	10	10	=
PM	13	13	=

1BX California “B” Express



Legend

- Recommended Route
- Express Segment (No stops)
- Rail Network
- Muni Metro Stations
- BART Stations
- Caltrain Stations

Proposed Changes

HC RA TS LM PR TSC PI

1BX California “B” Express

Overview

- No stops would be eliminated, but the route alignment would change. Where the inbound (eastbound) route currently turns south on Fillmore Street, the proposed route would continue on California Street and turn south on Gough Street to Bush Street. The route segment that extends south on Fillmore Street and east on Bush Street to Gough Street would be discontinued.
- New transit stop would be added on Pine Street (pm) and Bush Street (am) at Van Ness Avenue to improve transit connections to the Civic Center and the northern waterfront.
- TTRP.1 is also proposed for the California Street corridor to reduce transit travel time.

Frequency

Service during peak periods (headway between vehicles, in minutes)

	Current	Proposed	Frequency
AM	7	7	=
PM	11	11	=

2 Clement

Legend

- Recommended Route
- Potential Route Variation
- Rail Network
- Muni Metro Stations
- BART Stations
- Caltrain Stations

Proposed Changes

RA HC VC EH

2 Clement

Overview

- The recommended alternative for the 2 Clement Service 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.
- Supplemental trolley coach service would be added between Downtown (Sansome/Market streets) and Presidio Avenue to improve current transit frequencies on Sutter and Post streets due to the reduced 3 Jackson service on this segment.
- A 2 Clement service variant would continue service to the current terminal on Clement Street and 14th Avenue.
- East of Fillmore Street during peak hours, the combined 2 Clement and 3 Jackson lines would operate with five minute headways. Between Fillmore Street and Presidio Avenue, the 2 Clement would operate with 7.5 minute headways.

Frequency

Service during peak periods (headway between vehicles, in minutes)

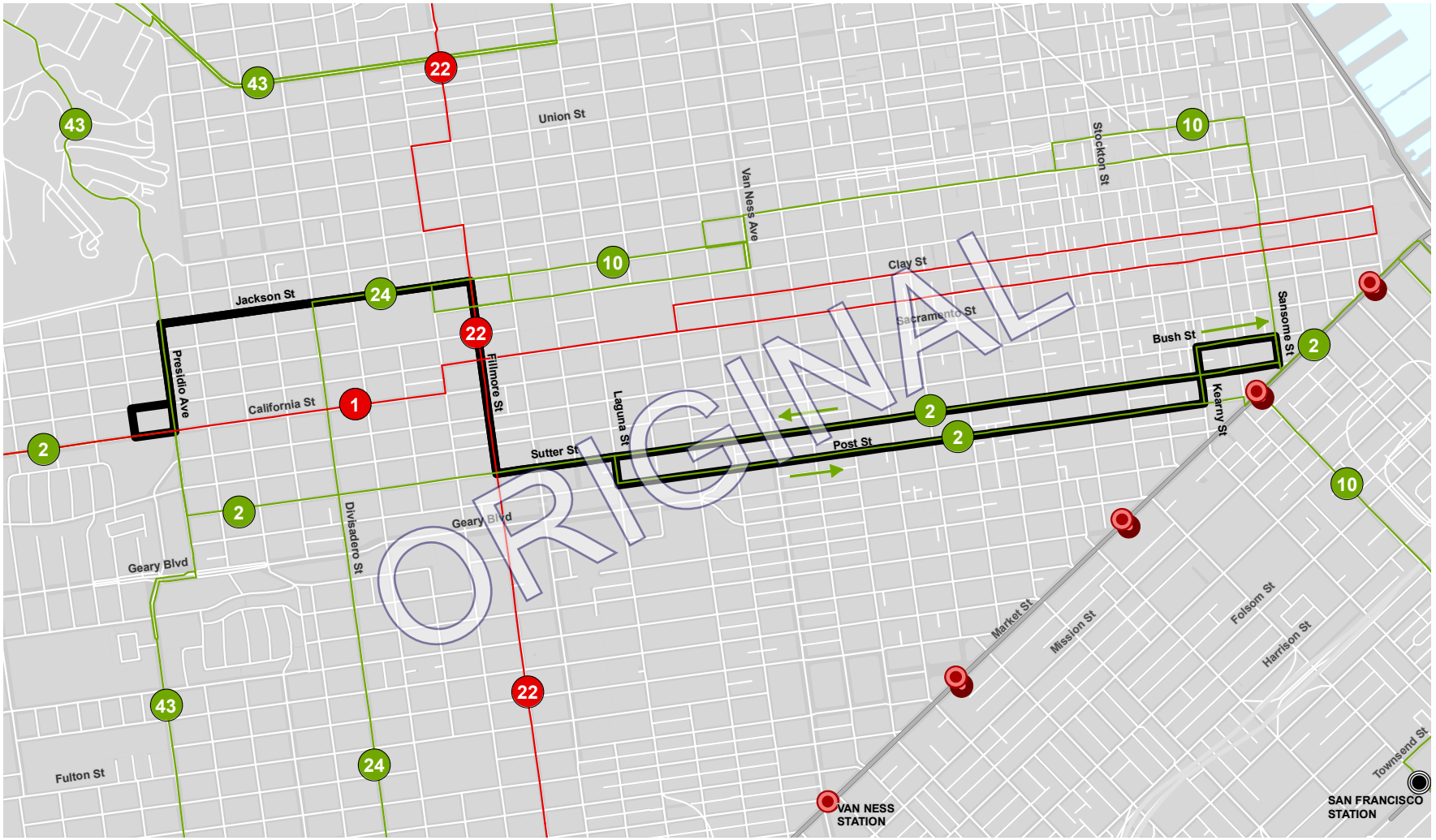
West of Presidio Ave.

	Current	Proposed	Frequency
AM	12	15	–
PM	12	15	–

East of Presidio Ave.

	Current	Proposed	Frequency
AM	12	7.5	+
PM	12	7.5	+

3 Jackson - Original Proposal (See Revised Proposal on Pg 81)



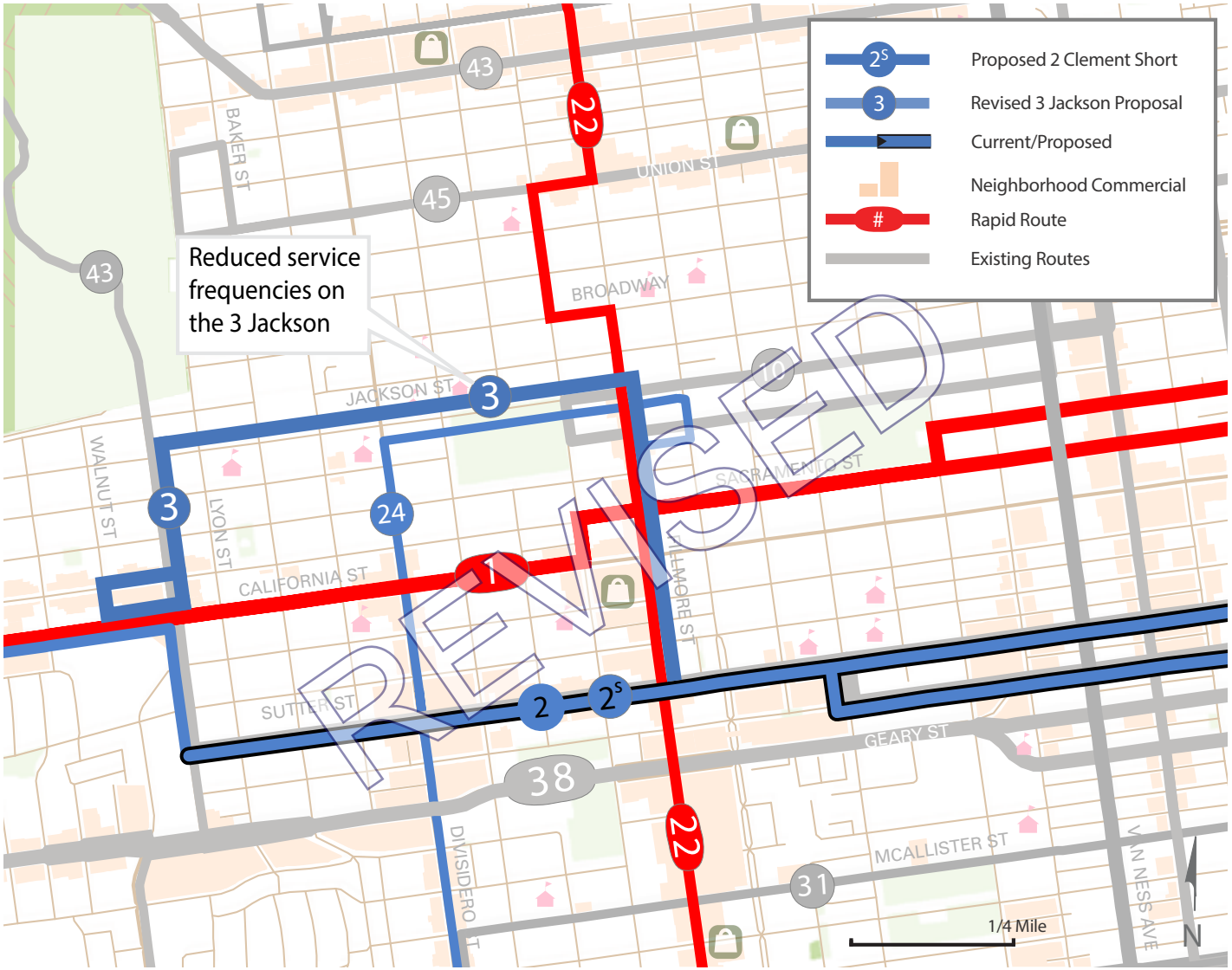
Legend

- Segment will be covered by another recommended route
- Recommended Bus & Rail Network
- Segment Proposed for Elimination
- Muni Metro Stations
- BART Stations
- Caltrain Stations

Proposed Changes

RE

3 Jackson - Revised Proposal



Proposed Changes

HC

Overview

- ~~Route would be discontinued.~~ REVISED: Route would be retained and its frequency would be reduced.
- ~~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.~~ REVISED: Transit headways on Sutter Street would be increased by adding supplemental trolley coach service on the 2 Clement between Downtown and Presidio Avenue.
- REVISED: Midday service frequency may be reduced from 20 minutes to 30 minutes.

Frequency

Service during peak periods (headway between vehicles, in minutes)
ORIGINAL PROPOSAL:

	Current	Proposed	Frequency
AM	12	N/A	N/A
PM	12	N/A	N/A

REVISED PROPOSAL:

	Current	Proposed	Frequency
AM	12	15	—
PM	12	15	—