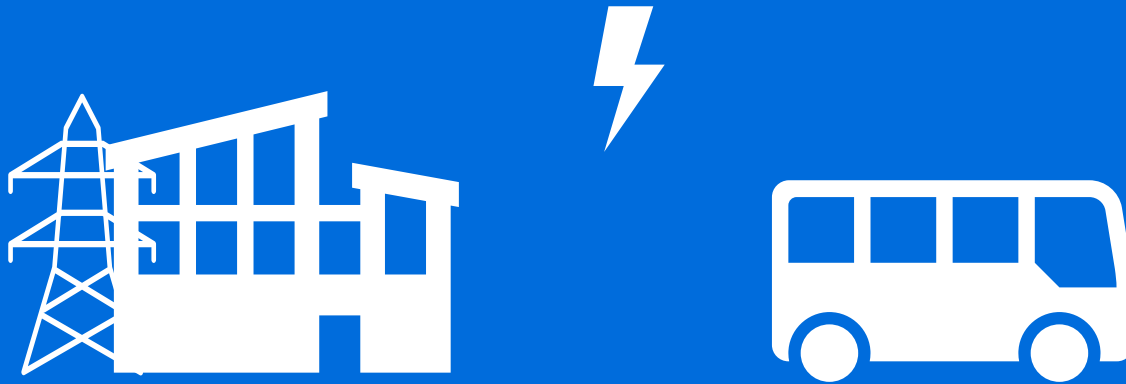




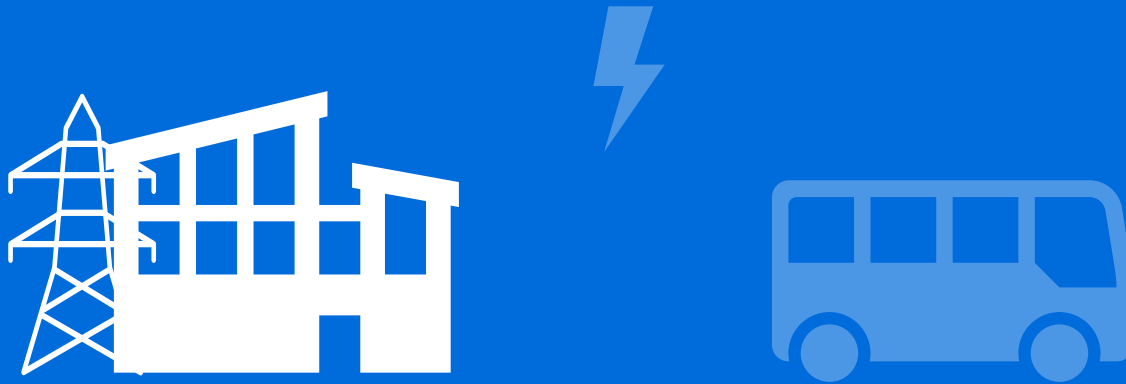
**SFMTA**

# San Francisco Municipal Transportation Agency Building Progress Program & Fleet Program Update

San Francisco County Transportation Authority Board  
Fall 2023



The transformation of the Muni Fleet is made possible by changes in fleet technology and the requirement to modernize and adapt its facilities to power and maintain this fleet.



We will start with an update on the SFMTA's **Building Progress Program** and the current major project at Potrero Yard. The program will modernize, adapt our facilities while creating future revenue opportunities for transportation.

### State of Good Repair

**Modernize aging SFMTA facilities** in order to meet the needs of everyone who travels in San Francisco.

### Resiliency

**Improve the transportation system's resiliency** to seismic events, climate change, technology changes.

### Community

**Make the SFMTA a better neighbor** in the parts of the city that currently host our facilities.

### Compliance

**Meet regulatory compliance** and policy goals related to fleet electrification.

Started in 2017, the **Building Progress Program** is a **\$2+ billion planning and capital program** that continues to lead in innovative project delivery, adaptability, resilient planning and community outreach.

## State of Good Repair

Stations

12

Buildings\*

31

Acres of Land

60

Building Sq. Feet

1.9 M

Building Value

\$2.6 B

Backlog Value

\$0.9 B

Stations Value

\$2.6 B

Backlog Value

\$0.7 B

Sources:

[2021 SFMTA State of Good Repair Report](#)

[2017 SFMTA Facilities Framework](#)

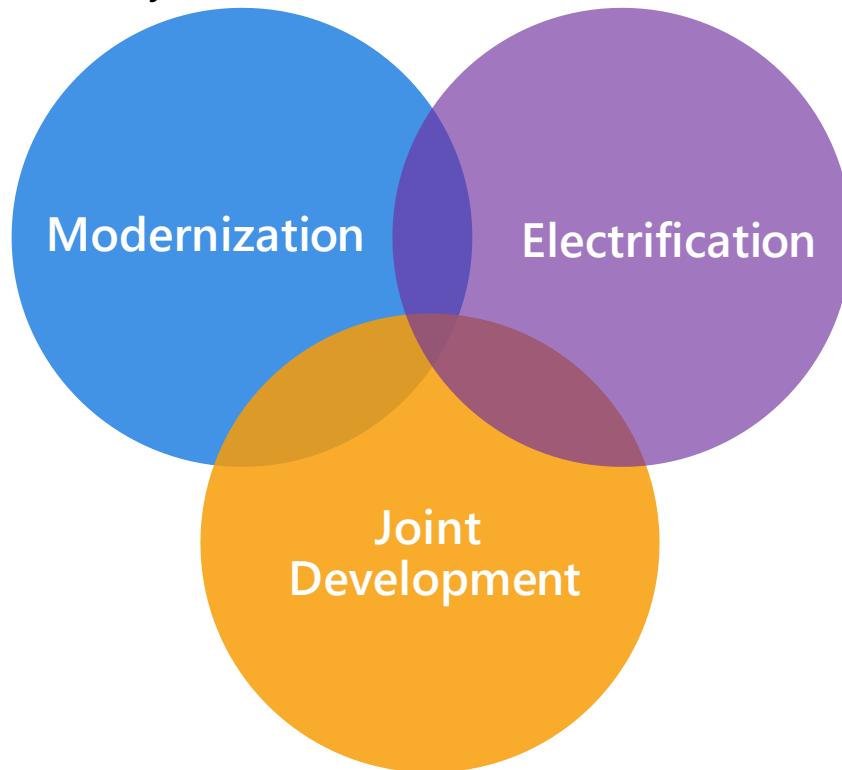
\*Does not include inventory of 45 owned Operator Restrooms

Investment and rehabilitation in the SFMTA's campus of facilities across San Francisco takes on **one of the agency's biggest State of Good Repair challenges.**

# Core Program Areas

Modernization of Muni operational workspaces and maintenance equipment for growth and resiliency.

Transformation of Muni Yards to support both the trolley fleets and expansion to Battery Electric Buses (BEBs).



Innovative Project Delivery to finance Muni capital, maintenance and operations into the future.

## Modernization Program

Potrero Yard Modernization  
Presidio Yard Modernization  
Kirkland Yard Modernization  
Muni Metro East Expansion

## Electrification/Retrofit Program

Woods and Islais Creek Yard Pilots  
Islais Creek Yard Electrification  
SFMTA Electrification EV Campus

## Capital Program

1200 15<sup>th</sup> Street PCO HQ  
Station Escalators/Elevators (i.e. Castro)  
Operator Restrooms

## Joint-Development Program

4th and Folsom  
Parking Garages  
Yard Modernization (Potrero + Presidio)

## Cable Car Barn Program

Cable Car Barn Improvements  
Cable Car Barn Master Plan

## Facility Condition Assessment (FCA) Program

Implementation of \$200+ million in deferred maintenance and repairs



**Modernization Program**

Potrero Yard  
Modernization

Kirkland Yard  
Modernization

Presidio Yard  
Modernization

Muni Metro  
East Expansion

We have adjusted the  
**Modernization  
Program** based on the  
following:

- Muni Service
- Fleet requirements
- Regulatory requirements around electrification
- Funding availability + maximizing resources

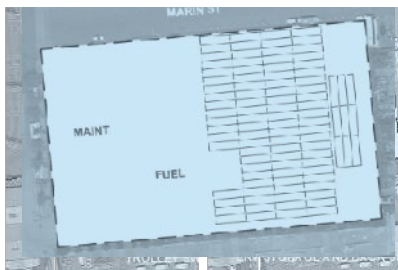
## PROGRAM (2019)

### Muni Metro East Expansion

Expand the site into the undeveloped 4 acres for a trolley coach facility

### 1399 Maintenance Facility

Build a trolley coach maintenance facility.



### Potrero Yard

Rebuild as multi-level trolley facility with private development above



### Presidio Yard

Rebuild as multi-level trolley and Zero Emission Bus Facility with private development adjacent



### Kirkland Yard

Modernize as a new Zero Emission Bus Facility

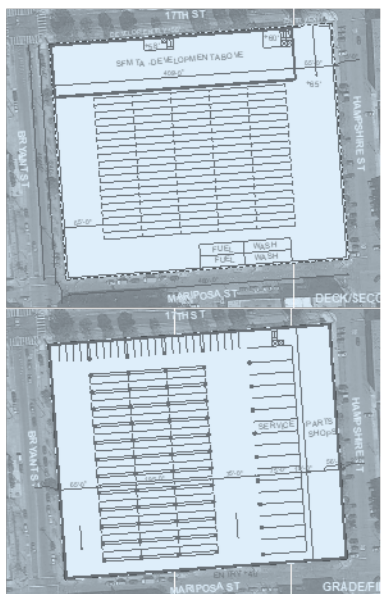




## UPDATED PROGRAM (2023)

### Potrero Yard

Rebuild as multi-level trolley facility with private development above



### Kirkland Yard

Modernize as a new Zero Emission Bus Facility



### Presidio Yard

Rebuild as multi-level trolley and Zero Emission Bus Facility with private development adjacent



### MME Expansion

Future fleet capacity and required swing.



Project Goals

**Efficiency**

Repair buses faster, improving Muni's reliability

**Sustainability**

Provide the green infrastructure needed for all-electric fleet

**Future Growth**

Accommodate fleet as it grows – room for 54% more buses at the yard

**Work Conditions**

Improve environments, amenities and safety conditions for 800+ staff

**The Potrero Yard Modernization Project is designed and scoped to address several critical policy priorities:**

- ***State of Good Repair*** via the replacement of a 100-year-old maintenance yard.
- ***Climate and decarbonization*** via expanded vehicle capacity to create a large trolley hub.
- ***Housing*** via advancing an over 500-unit project consistent with the adopted Housing Element.
- ***Project Delivery*** via taking lessons learned and using new innovative methods of delivery.

## BUS YARD

The foundation of the project is a modern and expanded bus yard growing from 221,450 gsf to 698,687 gsf to accommodate 213 trolley buses (54% increase) 829 employees (78% increase to current staff).

**78%**  
increase  
On-Site  
Employees

**54%**  
increase  
Bus  
Storage

**Enhanced Employee Wellness** including natural light and dedicated employee outdoor spaces.

**Podium** provides structural integrity to build proposed housing above bus yard.

**Enclosed and Centralized Maintenance** Activities on ground floor to insulate noise within building.

**Roof Deck** caps the bus yard and insulates noise and vibration to mitigate impact on Potrero Yard residents and surrounding neighbors.

**Public Visibility to Yard** Operations through a glass wall on 17th Street and metal screening around 2nd and 3rd floors.

**Support Transportation Demand Management** Planning including parking for Non-Revenue Vehicles, car share service, and bicycles.



The project is currently on-schedule, and the **critical path is advancing 100% schematic design, CEQA environmental requirements and land use entitlements/zoning**. A key focus for the project team is to keep the project on schedule.

**Schedule Milestone and Upcoming Tasks Include:**

- **Mar 2023:** *Draft 50% schematic design* submitted to SFMTA
- **Apr 2023:** *Project application* submitted to Planning Department
- **May 2023:** *Final 50% schematic design* submitted to SFMTA
- **Sep 2023:** *Draft 100% schematic design* submitted to SFMTA
- **Anticipate Winter 2024:** At close of Predevelopment Agreement phases 1 & 2, CEQA and Entitlements certified by Planning Commission and approved by Board of Supervisors
- **Anticipate Spring 2024:** At close of Predevelopment Agreement phase 3, Agreements for Project and Housing Commercial Components are approved by SFMTA Board and Board of Supervisors



## VIEW FROM NORTHWEST





## 17TH STREET



### Joint-Development Program

Potrero  
Yard

Presidio  
Yard

Moscone  
Garage

5<sup>th</sup> and Mission  
Garage

The **Joint-Development program** maximizes land-use to generate revenue for transportation.

- Advancing Potrero Yard Housing Project.
- RFP was developed/released for Moscone Garage (pre-pandemic).
- Completed planning study for 5<sup>th</sup> and Mission Garage (pre-pandemic).
- Completed Caltrans Planning study for Presidio Yard.

## Electrification Program

Woods Yard Pilot  
Phase II  
(12 more BEB Chargers)

Islais Creek Pilot  
Phase I  
(6 BEB Chargers)

Kirkland Yard  
Electrification

Islais Creek  
Electrification

Presidio Yard  
Modernization

Paratransit  
Electrification

The **Electrification/Retrofit Program** readies the SFMTA for transition to Zero-Emission vehicles.

- Reviewed transit fleet requirements – timing, size, type, technology.
- Schedule and project sequencing based on current regulatory requirements.

Vehicle  
Procurement

Charging  
Infrastructure

Maintenance  
and Storage

Funding

Risks

SFMTA is coordinating project sequencing for modernization and electrification upgrades with the larger plan to move toward an **entirely zero-emission transit fleet**.

Procurement timing for battery electric buses is reliant on:

- Available charging infrastructure
- Storage capacity for new buses

Risks include:

- Power/Load Requirements
- On and Offsite Infrastructure
- PG&E Capacity and Timing
- Funding



**Our goal has not changed, a 100% zero emissions fleet.** As the industry has matured, regulations have solidified and infrastructure requirements are known, we have charted a new path to get there.

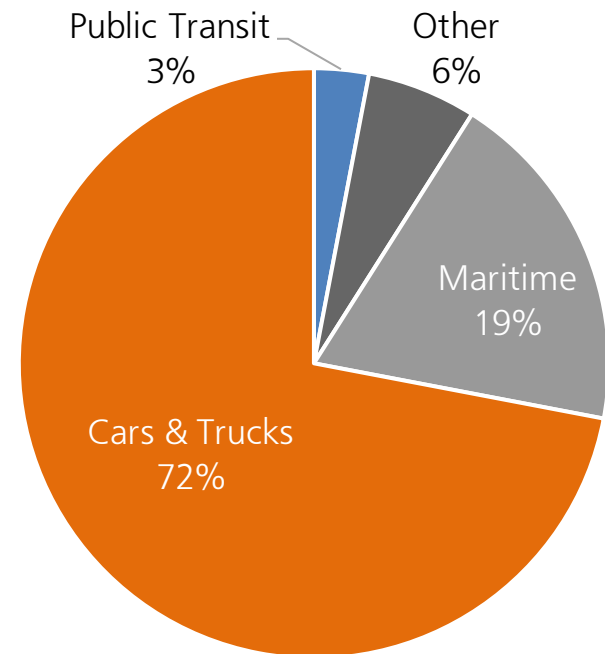


# Climate Action at the SFMTA

47% of San Francisco GHG emissions come from the transportation sector – *Three fourths of those emissions are from personal driving.*

The SFMTA's core climate actions center on making walking, rolling and using transit more affordable, convenient and attractive than driving.

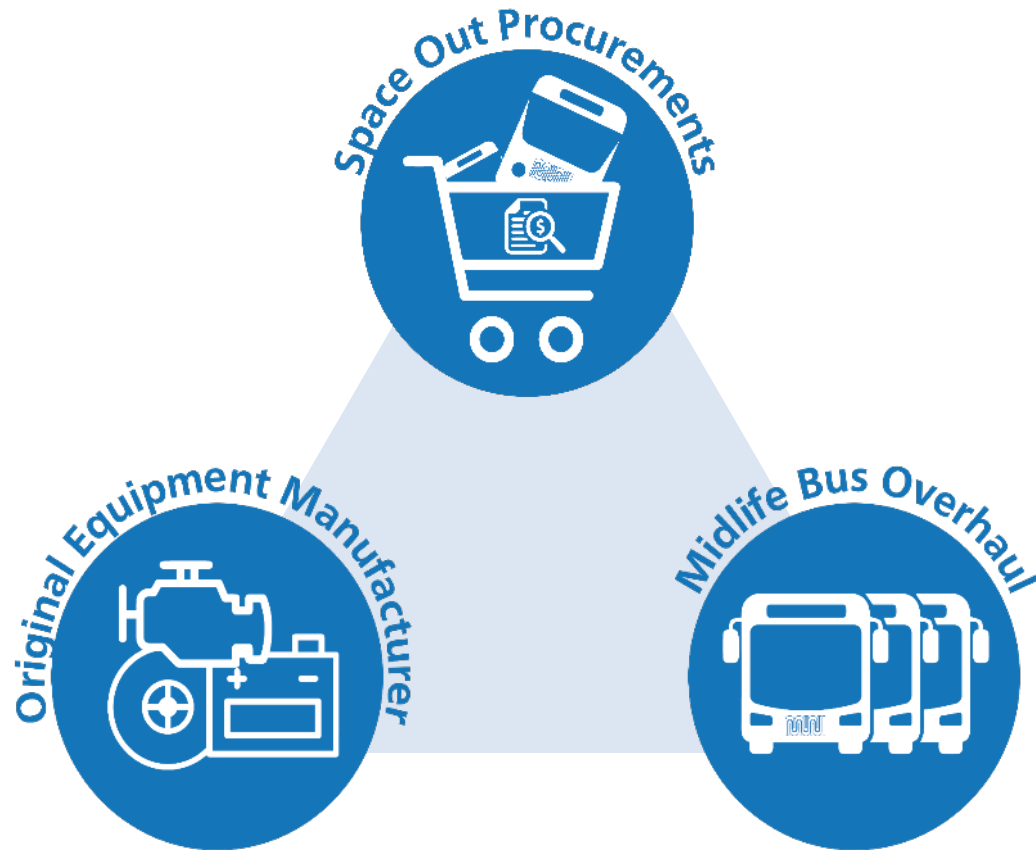
## San Francisco Transportation Sector GHG Emissions, 2019



.02% of transportation emissions are attributable to Muni fleet

# SFMTA's Approach to Fleet Management

- Maintain consistent fleet average age
- Performance-based procurements
- Uphold robust maintenance standards and midlife investments
- Align with city's sustainability goals



# Progress Made: Battery Electric Bus Pilot





# Progress Made: Charging Stations



# Challenges, Lessons Learned

## Timeline challenges

- Set back by the pandemic
- Facility upgrades take longer than expected
- Dependent on PG&E

## Funding challenges

- Failure of Prop A (General Obligation Bond)
- Mixed record getting federal grants for costly infrastructure
- Cost of battery-electric-buses 30% higher than hybrid

Outcome: Our facility upgrades are not keeping up with our vehicle replacement needs



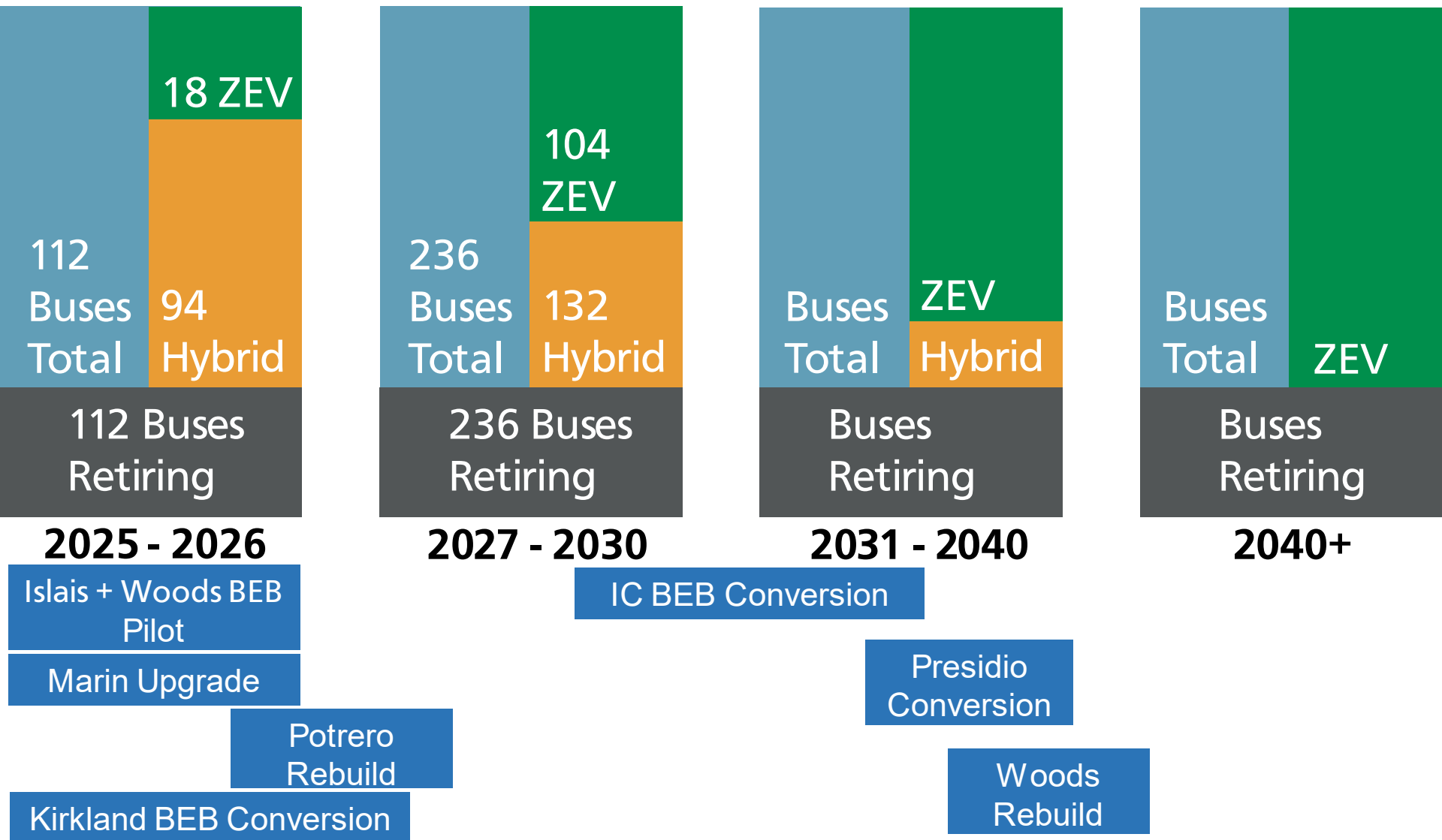
# Next Steps

- Designate Potrero rebuild as trolley hub and continue to invest in trolley buses (*60ft trolley buses will be temporarily stored during construction*)
- Buy a combination of hybrids and electrics through 2030 - battery electric buses increase at pace of facility upgrades and available funding

Facility	BEB Capacity	Date	Funding Status
Woods	Increase from 12 to 24 chargers	2025	Fully funded
Islais Creek	Add 6 chargers	2026	Fully funded
Kirkland	Up to 100 chargers	2028	Minimal funding

- Update SFMTA Zero-Emissions Bus Policy to include trolley buses and extend 100% zero emission target date to 2040 (to match CARB)
- Apply for 2026-2028 partial exemption from CARB

# Bus Procurement Schedule



# Proposed Procurement Plan



**FY 25/26 - 112 hybrid electric buses need to be replaced**

Procure both hybrid and battery-electric buses in 2025/2026

- 12 40 ft Battery Electric Buses
- 6 60 ft Battery Electric Buses
- 94 40 ft Hybrid Buses

**FY 27-29 procurement will also require a combination of hybrid and battery electric buses**

# Procurement Schedule

Fiscal Year	Motor Coach Procurement				Total Procured
	40' Hybrid	60' Hybrid	40' BEB	60' BEB	
2025	47		12	3	62
2026	47			3	50
2027		48			48
2028		79	11		90
2029		5	45		50
2030			48		48

All procurements shown are hybrid replacement procurements.

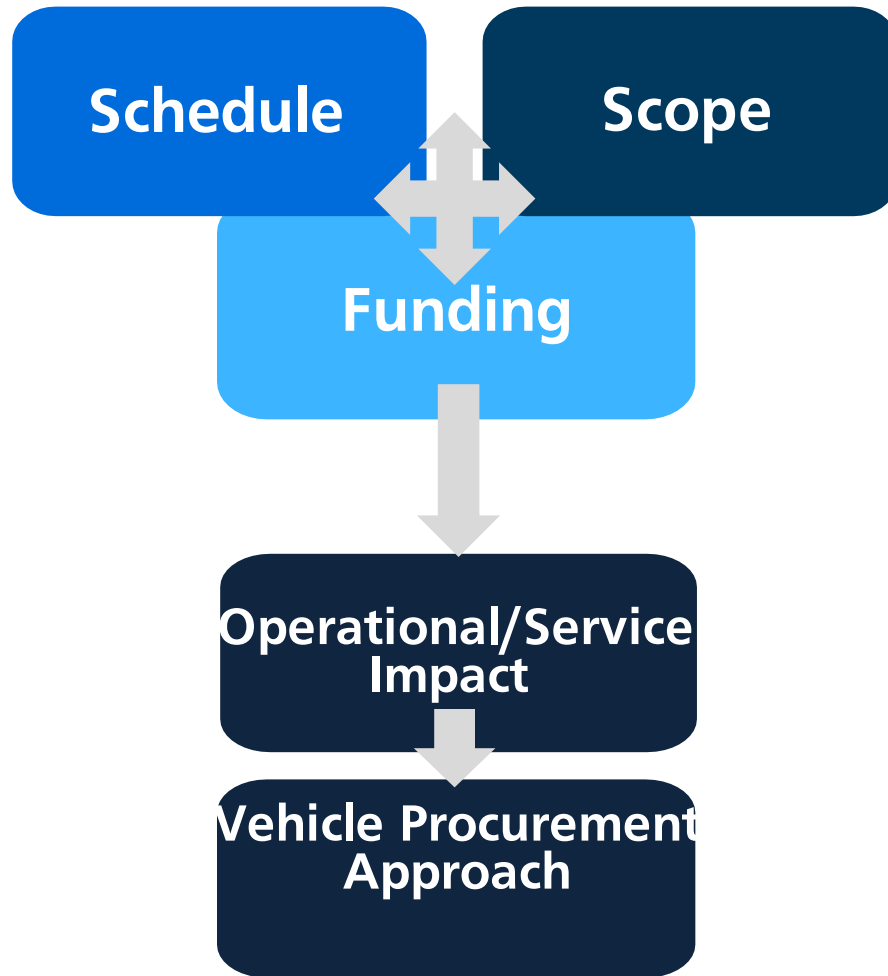
# Impact On Our Workforce



- Transition to zero-emissions vehicles won't result in job loss
- Minimal training needed to transition staff
- Expanded workforce for infrastructure maintenance

Labor Task	Union
BEB Maintenance	Local 1414
Trolley Maintenance	IBEW Local 6
Overhead & Charging Infrastructure	IBEW Local 6
Electronic Component Repair	IBEW Local 6





**The Building Progress is a “pay-go” program**, and with planning, design, construction and funding advocacy occurring simultaneously.

Funding and subsequent impact on schedule, delivery and cost (due to escalation) are risks that to date we have managed but remain.

Vehicle procurement approach therefore must be adaptable as we manage these risks.

An aerial, high-angle photograph of a large train yard or depot. Numerous tracks run parallel, each filled with a long train of passenger cars. The trains are mostly white with red and blue accents. The perspective is from directly above, looking down the length of the tracks. The image has a blue tint. 

Thank you.



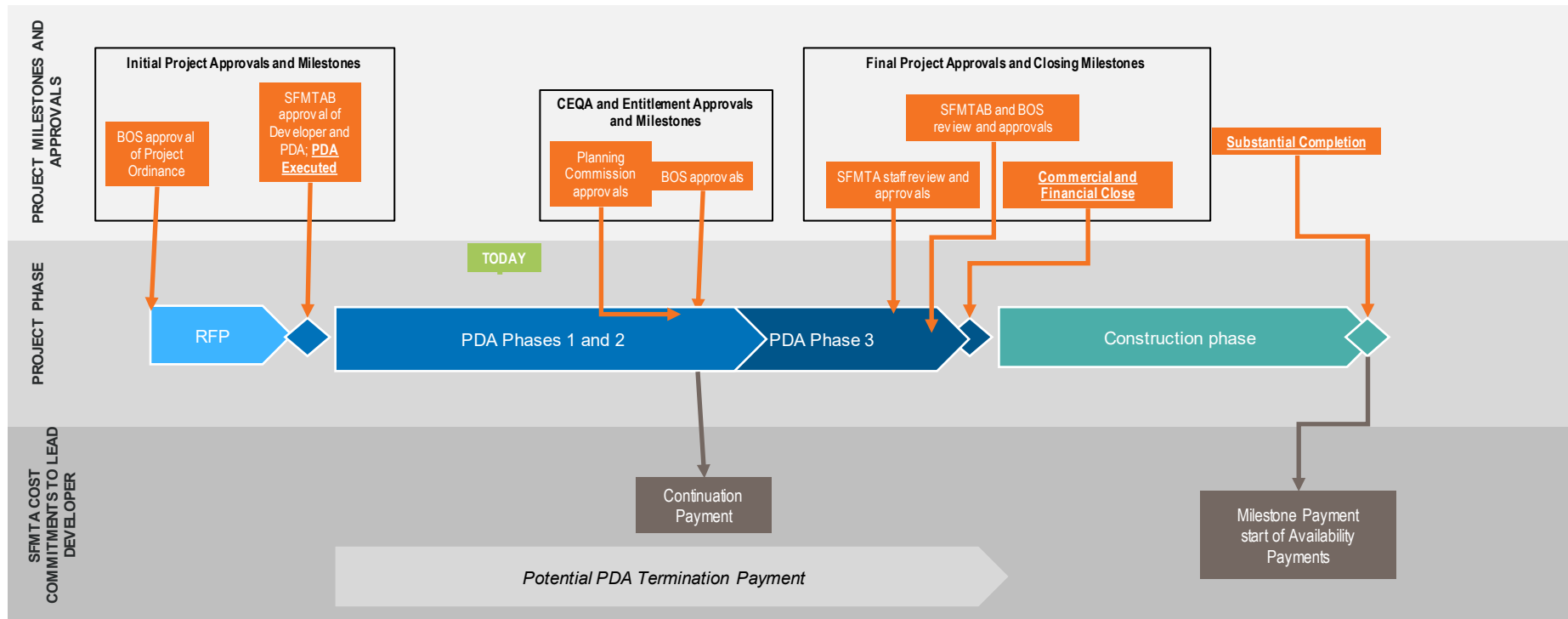


SFMTA

# APPENDIX



The project is currently on-schedule, and the **critical path is advancing 100% schematic design, CEQA environmental requirements and land use entitlements/zoning**. A key focus for the project team is to keep the project on schedule.





**Active engagement has been a foundational principal of this project** – SFMTA goes to the communities where they are and works with our partners, including the Potrero Working Group since 2018, with PNC joining in Nov. 2022:

- Potrero Working Group meetings monthly
- Community Listening Sessions (ongoing)
- Pre-Application Meeting (December 13, 2022)
- District 9 Beautification Day (February 11, 2023)
- In-Reach Meetings (March 14 and May 26, 2023)
- Open House (March 18, 2023)
- Civic Design Review (March 20, 2023)
- KQED Fest (April 28, 2023)
- Virtual Public Meeting (May 17, 2023)
- Carnaval San Francisco (May 27-28, 2023)
- Survey on Open Decision Points (March – May)
- In-Reach Events (Sept 19, 2023)
- Community Open House (Sept 20, 2023)



PNC uniquely combines **global leadership in infrastructure development with local expertise** – all with a commitment to innovation, efficiency, and community inclusion.



#### Infrastructure Developer and Workforce Housing Developer

- Plenary Americas is a US-based company with US headquarters in Los Angeles.
- Portfolio of 59 public-private-partnership projects in North America. Total value of over \$17.3 billion. ~120 people who are responsible for managing the business in the US and Canada.
- Predevelopment experience including design, CEQA, permitting, stakeholder engagement.



#### Affordable Housing Developer

- Experience developing affordable housing in San Francisco (Casa Adelante – 2060 Folsom, 1990 Folsom, 1296 Shotwell, Alice Griffith Apartments)
- Invested in enhancing the capacity of Black-led and Latin-led neighborhood rooted organizations in direct response to historic racial injustices committed against BIPOC communities.



#### Design Team

- 30+ years in architecture and design industry in infrastructure (Salt Lake City Intermodal Hub, GoRaleigh Operations and Maintenance Facility, GRT Northfield Drive Bus Facility, Hamilton Transit Maintenance Storage Facility)
- 23+ years of affordable housing (Casa Adelante, Hope SF Potrero Hill, The Avery, Parcel Q).



#### Consultants

- 30+ years of Bay Area commercial construction experience (100 Van Ness, UCSF – Clinical Science Building, Pier 70 – Horizontal Improvements + Public Realm)
- 19+ years of facilities maintenance and operational management experience
- 35+ years of Bay Area communications consulting

# MARIPOSA STREET

PERSPECTIVE





# BRYANT STREET

PERSPECTIVE





# 17TH STREET

PERSPECTIVE



# HAMPSHIRE STREET

PERSPECTIVE



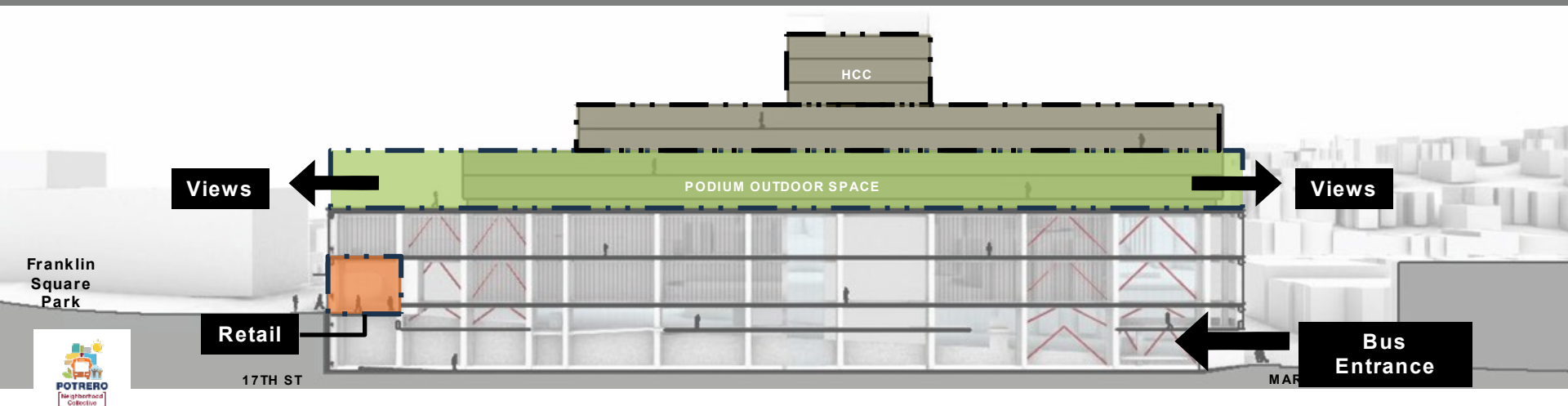


# YORK STREET

PERSPECTIVE



# SECTIONS





# SFMTA, RETAIL AND PUBLIC RESTROOM

ENTRY





# RESIDENTIAL

ENTRY





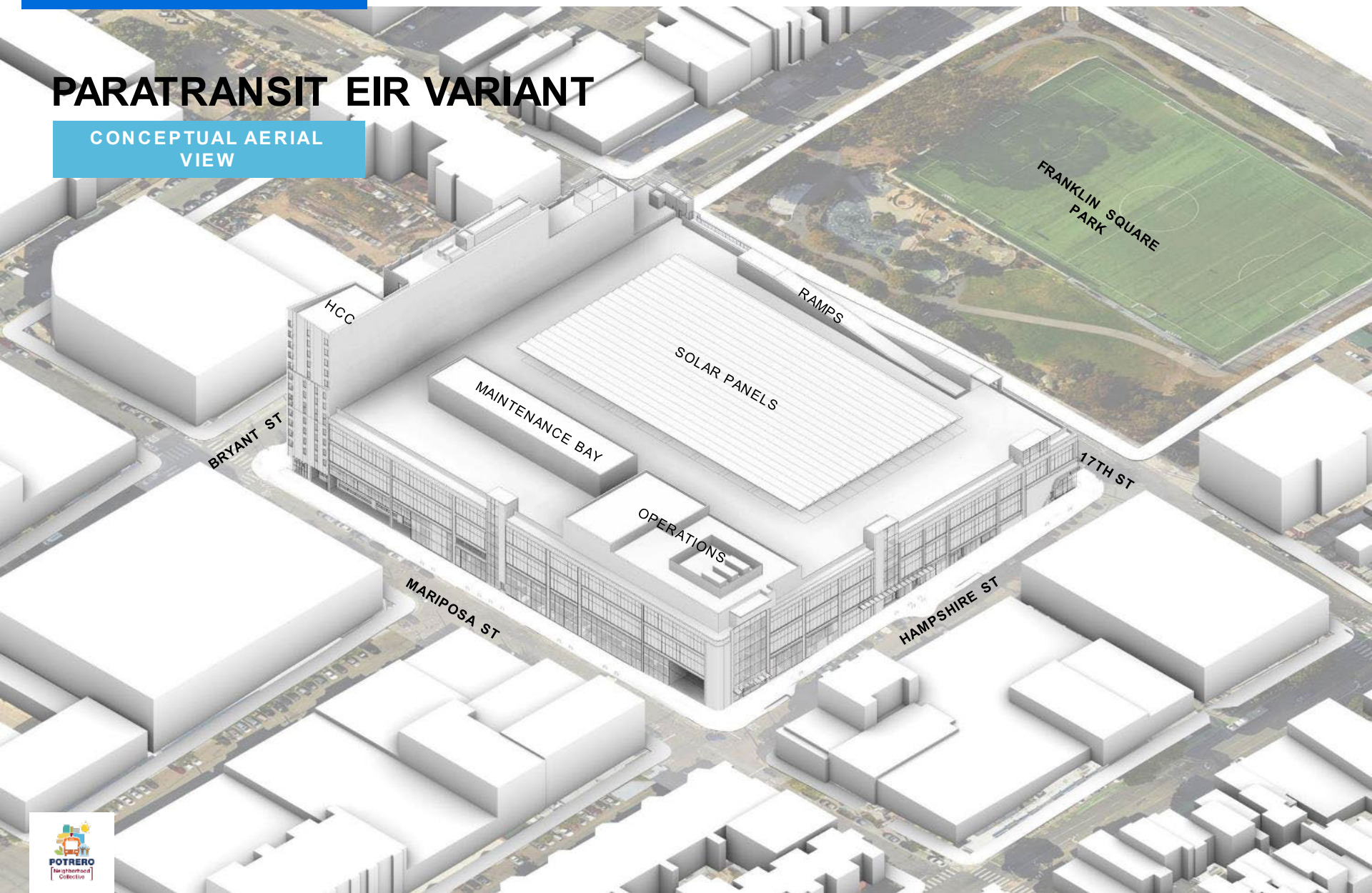
# PODIUM





# PARATRANSIT EIR VARIANT

CONCEPTUAL AERIAL  
VIEW





# Role of Trolley Buses

Trolleys are an important part of the SFMTA's ZEV Program

In Motion Charging are promising – currently conducting a pilot and planning to upgrade our existing fleet

100% Trolleys are not the best fit due to:

- Only one manufacturer available and they may not continue to build (also impacts parts/ support)
- State of good repair needs for trolley network should be prioritized over expansion (e.g., most substations are past their useful life)
- Public concerns over new overhead wires
- Facility challenges mirror BEB
- Still working on reliable process for going on/off wire

