



SFMTA



Muni Metro Capacity Study

SFMTA CAC

November 6, 2025

Study overview

The problem: Muni Metro is experiencing

- **Aging pains:** old infrastructure needs renewal
- **Growing pains:** some crowding today and more growth planned

The opportunity: Develop a capital program to address state of good repair and expand Metro capacity over the next 10-15 years **so that we can apply for an FTA Core Capacity grant**



Muni Metro's unusual history – 100+ year old streetcar lines + 1970s era Market Street subway



What is the Muni Metro?

That portion of the new Municipal Railway which will operate in the upper level of the Market Street subway and in Twin Peaks Tunnel out to West Portal will be the Muni Metro.

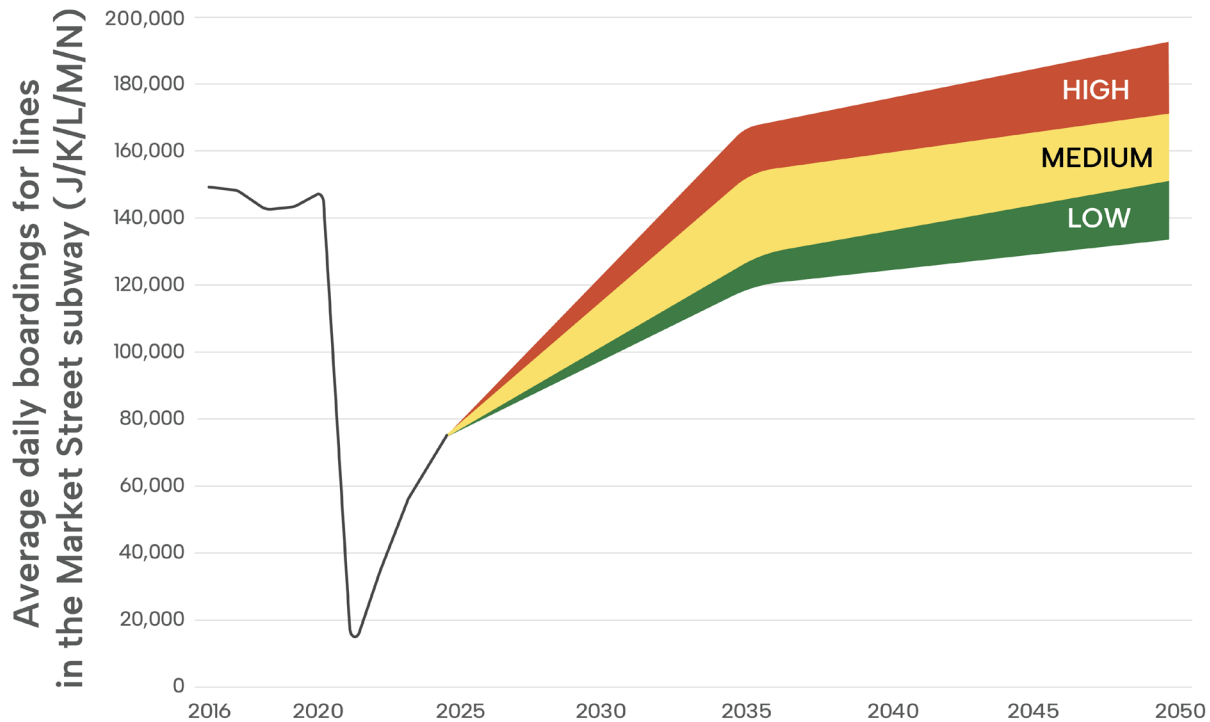


The Muni Metro is a subway-surface system. In the subway the Metro cars are rapid transit; on the surface they are streetcars.

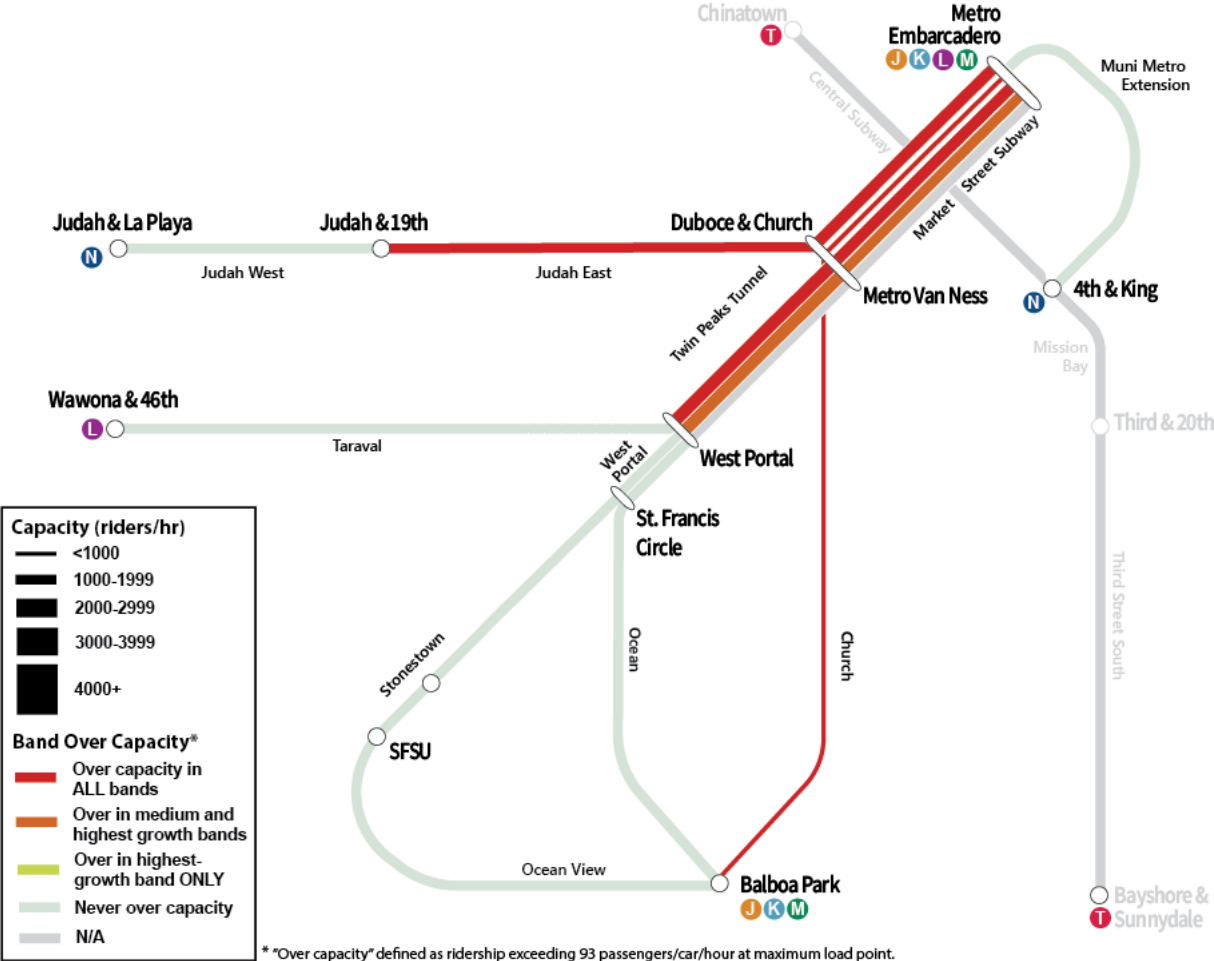
Forecast future ridership on Muni Metro lines in the Market Street subway

Low, medium, and high ridership “bands” were developed considering a range of different population/job growth rates and post-pandemic ridership recovery trends

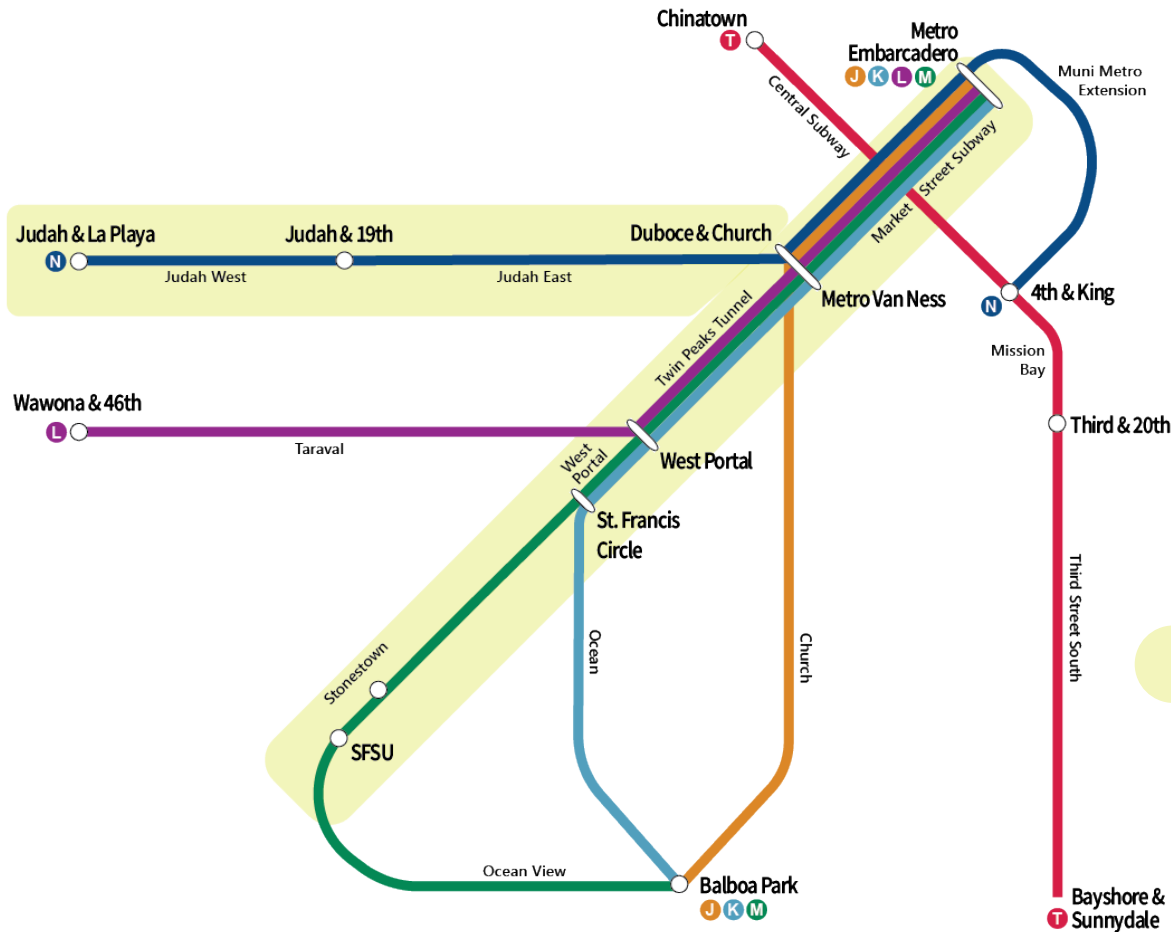
Forecast future ridership on Muni Metro lines that run in the Market Street Subway (J/K/L/M/N)



Future overcrowding in 2035 (baseline, assumes existing service frequencies)



10-15-year capital program: Where we need to plan now for future investment



Locations where capital investments are needed to address crowding

Investments recommended would undergo additional community planning to co-create designs before seeking future approvals



10-15-year capital program draft recommendations

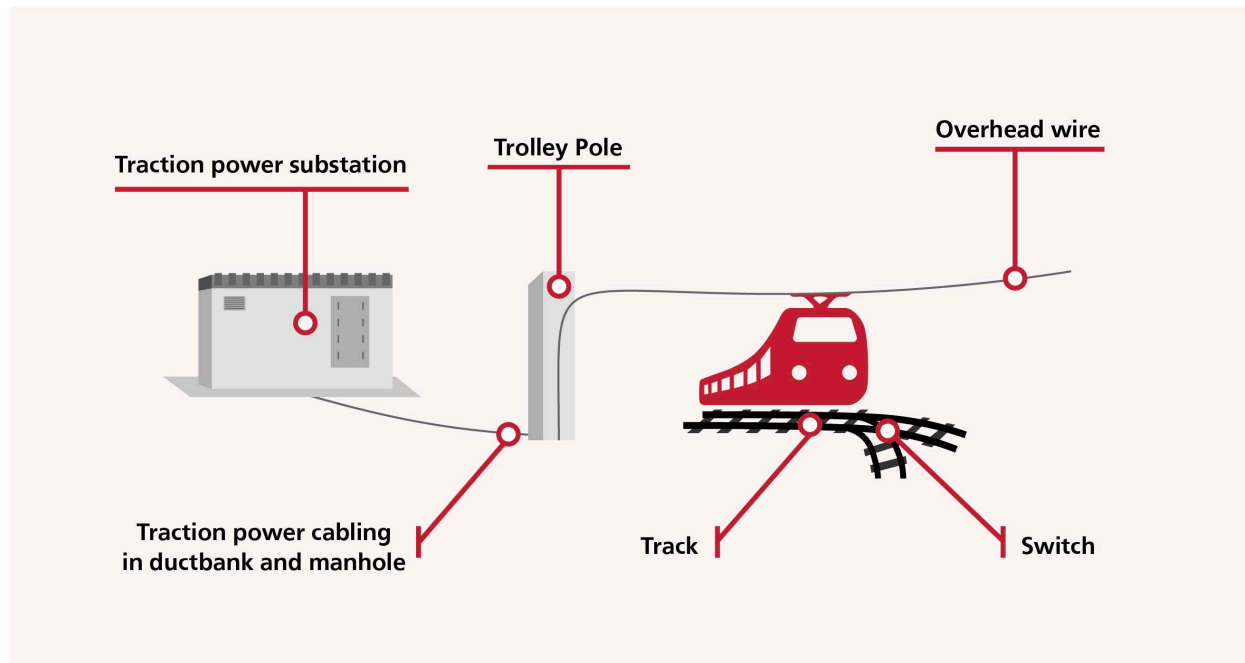
1. **Capacity-enhancing upgrades to old infrastructure** such as new light rail track, overhead wires, and traction power
2. **Expanded transit priority infrastructure** such as transit lanes, new traffic signals, expanded signal priority and pre-emption, and potentially crossing gates
3. **Upgrade infrastructure to accommodate 3-car trains** for the N Judah line and the M Ocean View between Downtown and SF State*
 - **Boarding infrastructure for 3-car trains, including upgrades to station accessibility**
 - **Infrastructure to provide operational flexibility** to operate different service patterns in the future (enable 3-car service between Downtown and SF State and J Church extension to Stonestown)

*We recommend continuing to advance this strategy, although implementation could be deferred if ridership growth is in the low range of our future forecasts

1. Capacity-enhancing upgrades to old infrastructure

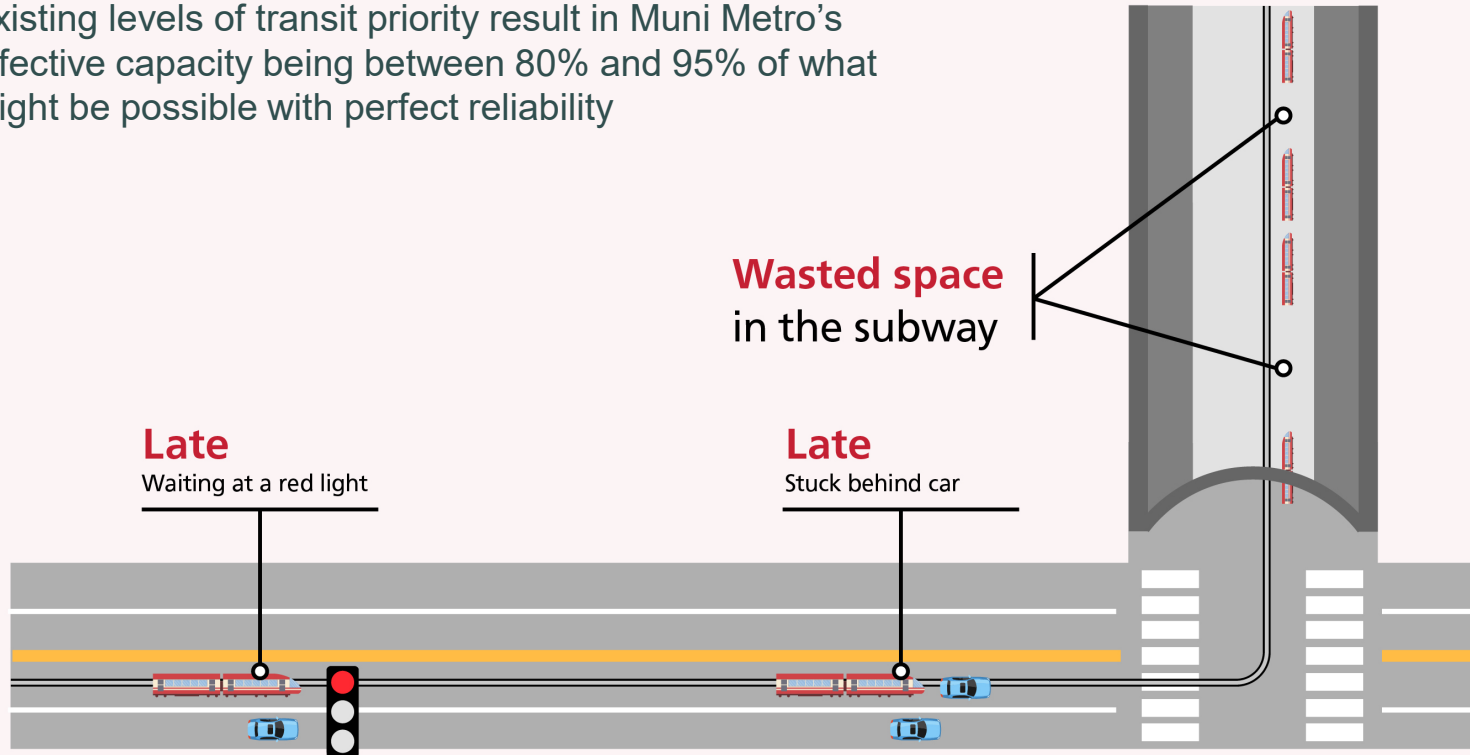
Much of the M Ocean View and N Judah surface sections are due for re-railing in the 2030s, creating significant opportunity to combine infrastructure renewal and capacity-enhancing investments

Potential capacity-enhancing State of Good Repair enhancements we are studying



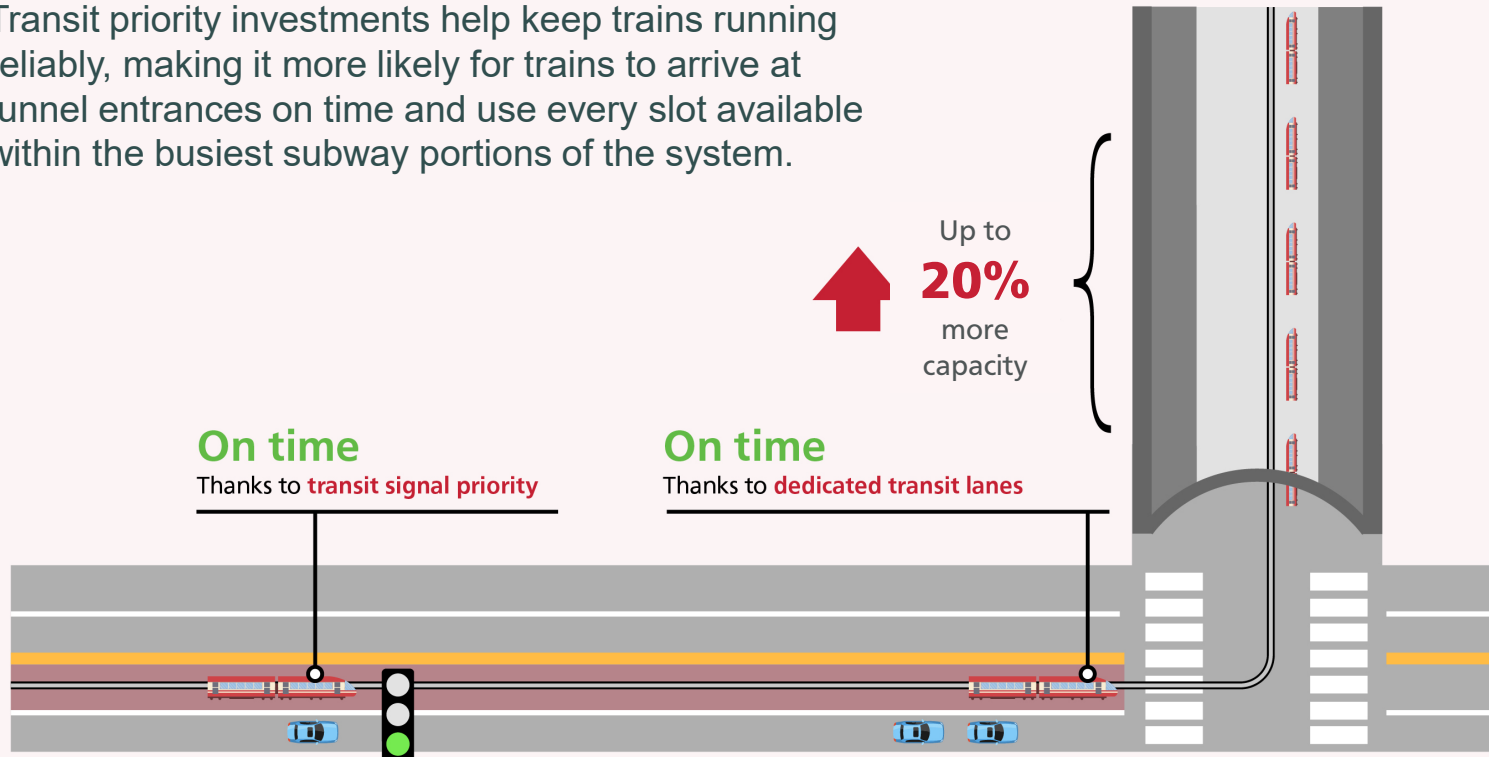
2. Expanded transit priority infrastructure

Existing levels of transit priority result in Muni Metro's effective capacity being between 80% and 95% of what might be possible with perfect reliability



2. Expanded transit priority infrastructure

Transit priority investments help keep trains running reliably, making it more likely for trains to arrive at tunnel entrances on time and use every slot available within the busiest subway portions of the system.



On Street Opportunities: Expansion of transit lanes

Intersection Opportunities: modifying 4-way stops to 2-way with traffic calming, traffic signal instead of stop, transit signal priority, transit signal pre-emption

3. 3-car trains for the N Judah and the M Ocean View between Downtown and SF State

1-car train = 93 passengers



2-car train = 186 passengers




3-car train = 279 passengers



3-car trains provide up to

 **50%**
more capacity

 = 10 passengers

3. Boarding infrastructure for 3-car trains

Stonestown Station – existing conditions



3. Boarding infrastructure for 3-car trains

Illustration of possible upgrades at Stonestown Station for 3-car trains



3. Boarding infrastructure for 3-car trains

N Judah stop on Judah Street – Existing Conditions



3. Boarding infrastructure for 3-car trains

Illustration of possible upgrades along Judah Street to provide boarding islands for 3-car trains



3. Boarding infrastructure for 3-car trains: accessibility

Any rail upgrade project should make all stops within the project area accessible with at least a mini-high at each stop, except where it's not physically possible.

Recommendations for core capacity capital program:

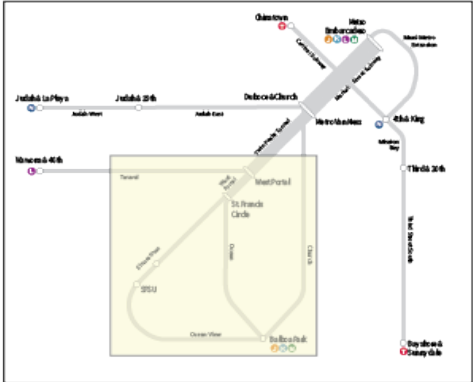
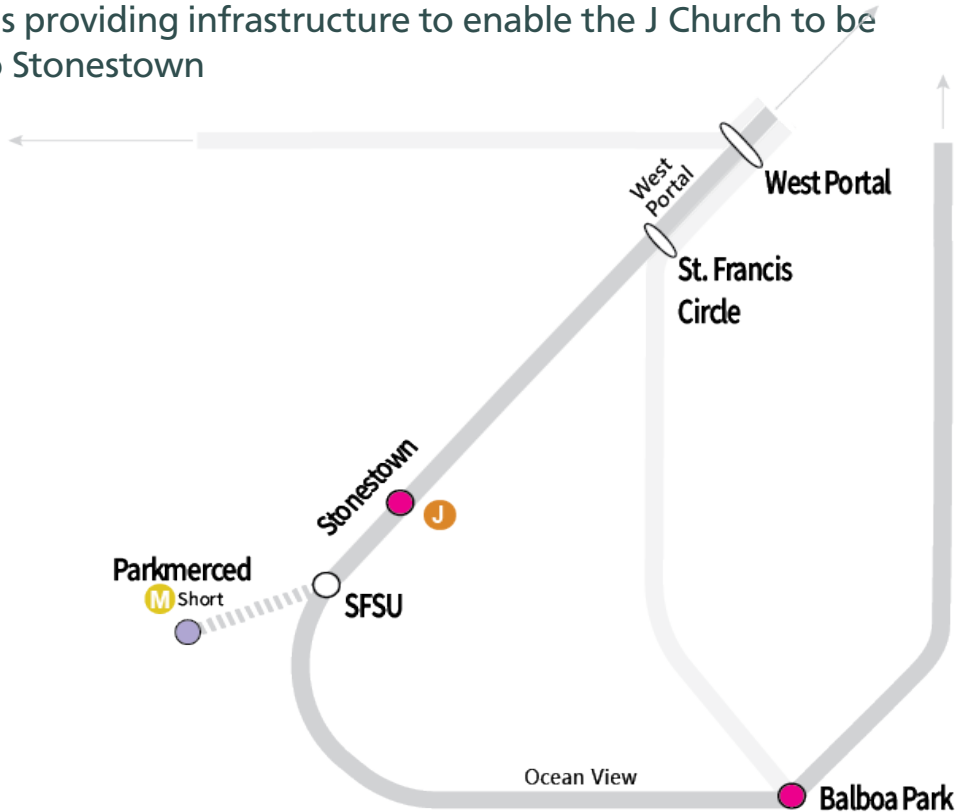
- **West Portal to SF State:** Upgrade stations with fully level boarding platforms
- **N Judah:** Upgrade stations with mini-high ramps to provide level boarding at one-door



Existing mini-high ramp on the J Church

3. 3-car trains: infrastructure to provide operational flexibility

In addition to the current plan for Parkmerced to provide a terminal for 3-car M service, the Muni Metro Capacity Study recommends providing infrastructure to enable the J Church to be extended to Stonestown

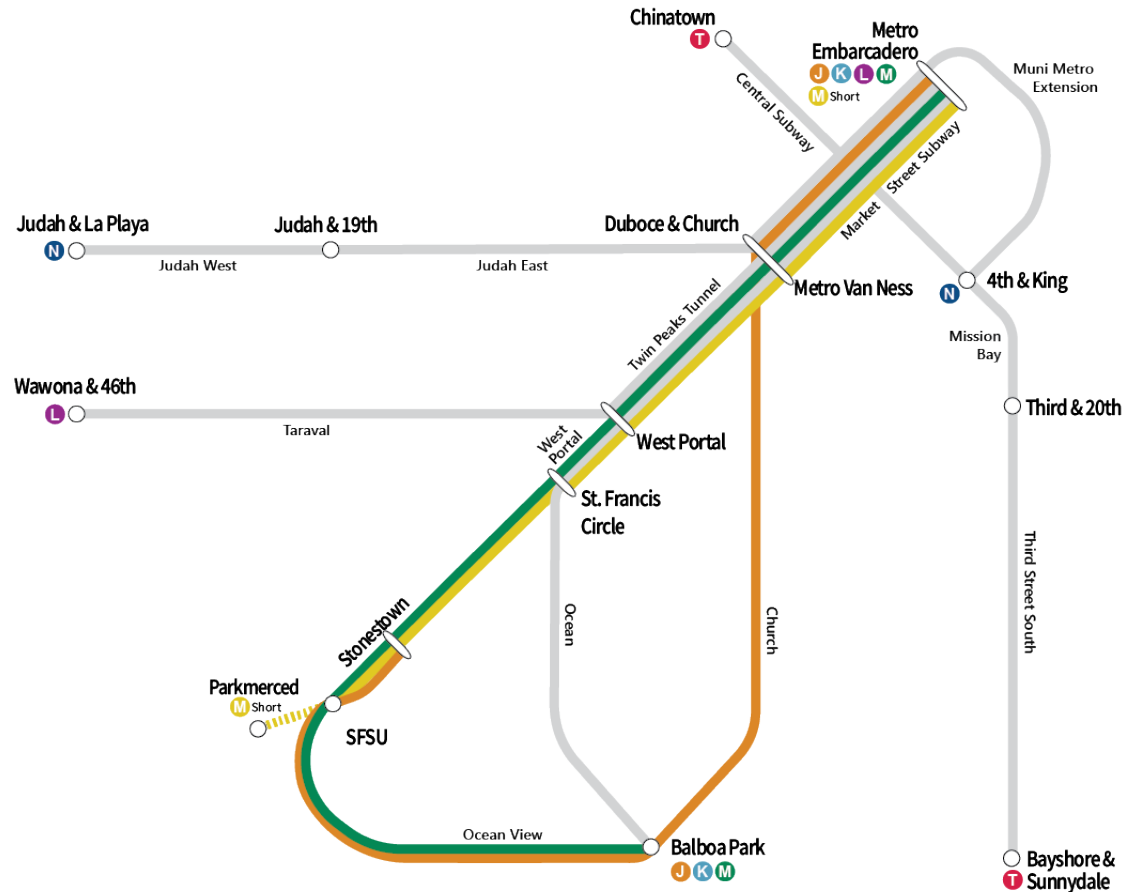


- Recommended new infrastructure to enable J Church service to be extended to Stonestown
- Already planned infrastructure to enable 3-car M short service to turn around in Parkmerced

* If the Parkmerced Development does not build out as planned, this infrastructure could instead be provided in the median of 19th Avenue south of SF State

3. 3-car trains: infrastructure to provide operational flexibility

- Recommended infrastructure could enable a future service plan with both M Long and J Church service in the Ocean View
- We recommend that combined service frequency in the Oceanview remain the same as today's frequency (every 10 minutes during weekday daytime hours).



No route restructuring is recommended

- Not needed to accommodate future ridership in the next 10-15 years in all three ridership growth scenarios analyzed
- By 2050, additional strategies beyond those recommended could be needed if ridership growth is in medium or high range
- Route restructuring could provide more capacity, but so could upgrading an additional line or lines for longer trains
- If ridership is high, we would consult with the community before taking action
- If route restructuring is pursued in the future, it would be accompanied by transfer improvements (e.g. holding trains at transfer locations, physical improvements at stations)

Outreach approach designed for a long-range system-wide study

- Community Working Group
- Community group meetings
- Muni Metro rider focus groups (English, Spanish, and Chinese)
- Interagency Technical Advisory Committee
- Project webpage and subscriber updates
- Interactive website overviewing draft recommendations (English, Spanish, Chinese, and Filipino)
- Feedback form on draft recommendations

Outreach Goals:

- ✓ Get targeted feedback from diverse cross-section of people who live/work near Muni Metro, including regular riders of all lines
- ✓ Cultivate support for the process, setting the stage of subsequent project-specific outreach
- ✓ Seek feedback on draft recommendations before finalizing

Key feedback incorporated into recommendations

- ✓ **Plan for multiple future scenarios.** The Study shifted from using one forecast to multiple forecasts that represent a range of possible growth scenarios.
- ✓ **Shift focus to rider priorities.** Framing the Study around capacity did not resonate with stakeholders. After feedback, Study recommendations were framed in terms of how they will impact the Muni rider experience.
- ✓ **Set up future corridor-based outreach for success.** Some community members felt that planning can seem like a competition between interests, particularly between travel modes. While tradeoffs are inevitable, future outreach should work to build consensus and reduce the impact of those tradeoffs.
- ✓ **Removing a line from the subway should be a last resort.** The Study does not recommend removing a line from the subway. The Study's analysis finds that we can serve ridership growth in the next 10-15 years without needing this strategy.
- ✓ **Maintain service frequency in the Oceanview.** The Study's recommendations include infrastructure to enable extending the J Church to Stonestown. This would enable maintaining service frequency in the Oceanview while introducing 3-car M short lines between SF State and downtown.

Next steps

- Final report to be presented to SFMTA Board for acceptance (anticipated December 2, 2025)
- Additional planning will advance the program via at least two distinct projects that will be staggered in their planning, design, and construction
 - N Judah Project
 - M Ocean View Project
- Each project would then pursue the required next steps of the federal Core Capacity grant application process:
 - Project development (~2 years) including outreach and project approval
 - Engineering (2-3 years)
 - Receipt of Full Funding Grant Agreement
 - Construction

Thank you!



Study funded by Caltrans Planning Grant (MTC Partnership), SFCTA sales tax, and TIRCP



What's not recommended

Systemwide Level Boarding:

- **Why not?** Expensive, disruptive, and tradeoffs to fitting in a boarding platform in some portions of the system (e.g. inner N Judah) are significant. Accessibility can be achieved via mini-high ramps where systemwide level boarding is not a good fit.

Systemwide Low Floor Fleet:

- **Why not?** Does not make achieving systemwide level boarding significantly easier, while creating significant cost, construction and service disruption, and new rail vehicle maintenance needs



Example of high-floor level boarding on T Third in San Francisco



Example of low-floor station platform in San Jose, VTA

What's not recommended

Four-car trains:

- **Why not?** Most street blocks are not long enough to fit four-car trains. Intersections would have to be closed. Even at the highest projected demand, three-car trains would be enough to handle ridership for the next 25 years.

Surface-only L Taraval/K Ingleside (interlining):

- **Why not?** Would not provide more capacity and would require new transfers for L and K riders destined downtown.