SFMTA

Muni Metro Capacity Study

Community Working Group Meeting #5

November 20, 2024

Agenda

1. Ice breaker

2. What we heard at last meeting and how we're incorporating it

3. Group discussion

4. Next steps

Ice Breaker

Remind us of perspectives you are bringing to this group.

Examples:

Category	Possible Perspectives
Rider of specific line	J-rider, K-rider, L-rider, M-rider, N-rider, T-rider, etc.
Primary mode(s)	Transit, driving, cycling, walker, scooter, Uber/Lyft etc.
Neighborhood	Outer Sunset, Bayview, Cole Valley, West Portal, Ocean View, SoMa, etc
Occupation/roles	Small business owner, parent of young children, college student
Priority issues	Housing affordability, climate change, economy, urbanism
Demographics	Senior, youth, male, female, non-binary
Other?	

AND – Share a favorite fall activity and what mode of transportation you use to get there

Meeting Roadmap

Meeting #1 (November 2, 2023): Introduction

Meeting #2 (November 16, 2023): Project need and potential solutions to be studied

Meeting #3 (May 9, 2024): Structured group discussion about benefits and tradeoffs of potential solutions

Meeting #4 (September 19, 2024): Range of potential packages of improvements and group discussion

Meeting #5 (tonight, November 20, 2024): Follow-ups from Meeting #4

Currently planned meetings (can be adjusted as needed)

Meeting #6 (January 23, 2025)**:** evaluation results and next steps in developing draft Study recommendations

Meeting #7 (April 24, 2025): draft Study recommendations, funding and implementation strategy

What We Heard and How We're Incorporating

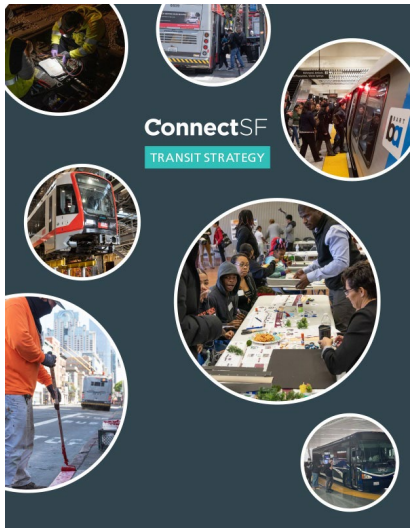
What We Heard	How We Are Incorporating
Capacity is an abstract term that doesn't resonate with typical Muni riders	• Re-framing Study language using rider-oriented language e.g. working towards preventing crowding and pass-ups • Emphasize other rider benefits such as travel time and reliability, accessibility, etc.
Explain how this Study relates to rest of SF's long-range transit vision	• Presenting this Study in context of SF's ConnectSF Transit Strategy which includes several rail expansion projects
Uncertainty over whether future growth will be realized	• Updating messaging to reflect more uncertainty over future • Planning to include analysis of additional scenario(s) with different levels of growth • Some recommendations would be triggered by reaching certain future ridership levels

What We Heard and How We're Incorporating

What We Heard	How We Are Incorporating
Confusion over why route restructuring is included in all the packages	• Providing additional information to better explain why, if growth forecast is achieved, all other strategies do not produce sufficient capacity • Providing more information on how staff currently envision Study recommendations handling potential next steps
Don't pit riders of different lines against one another. Don't pit different modes against one another	• Using this and future CWG meetings to discuss how best to incorporate this feedback

Foundation for Muni Metro Capacity Study: ConnectSF Transit Strategy

50-year Transit Strategy for San Francisco completed in 2021. Study is designed to advance Strategy 3: renew + modernize our rail system



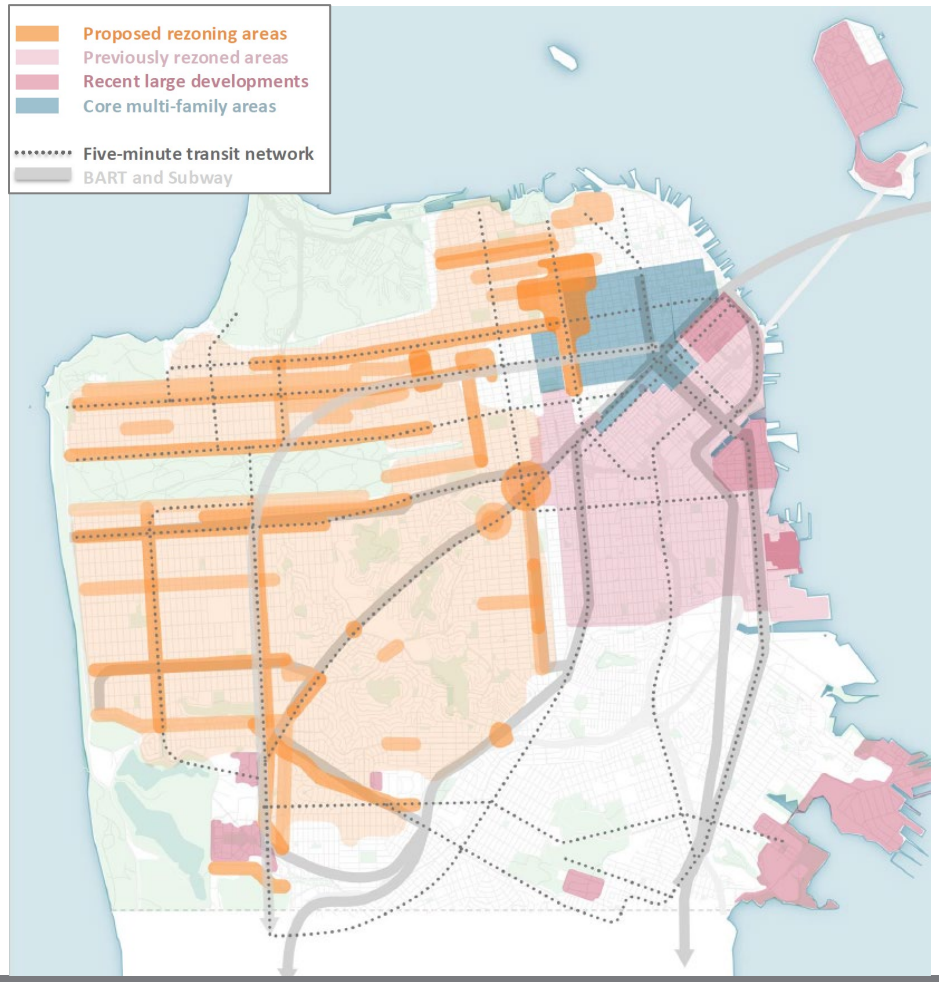
Strategy 4 includes significant new rail expansion

SF transit with ConnectSF strategies

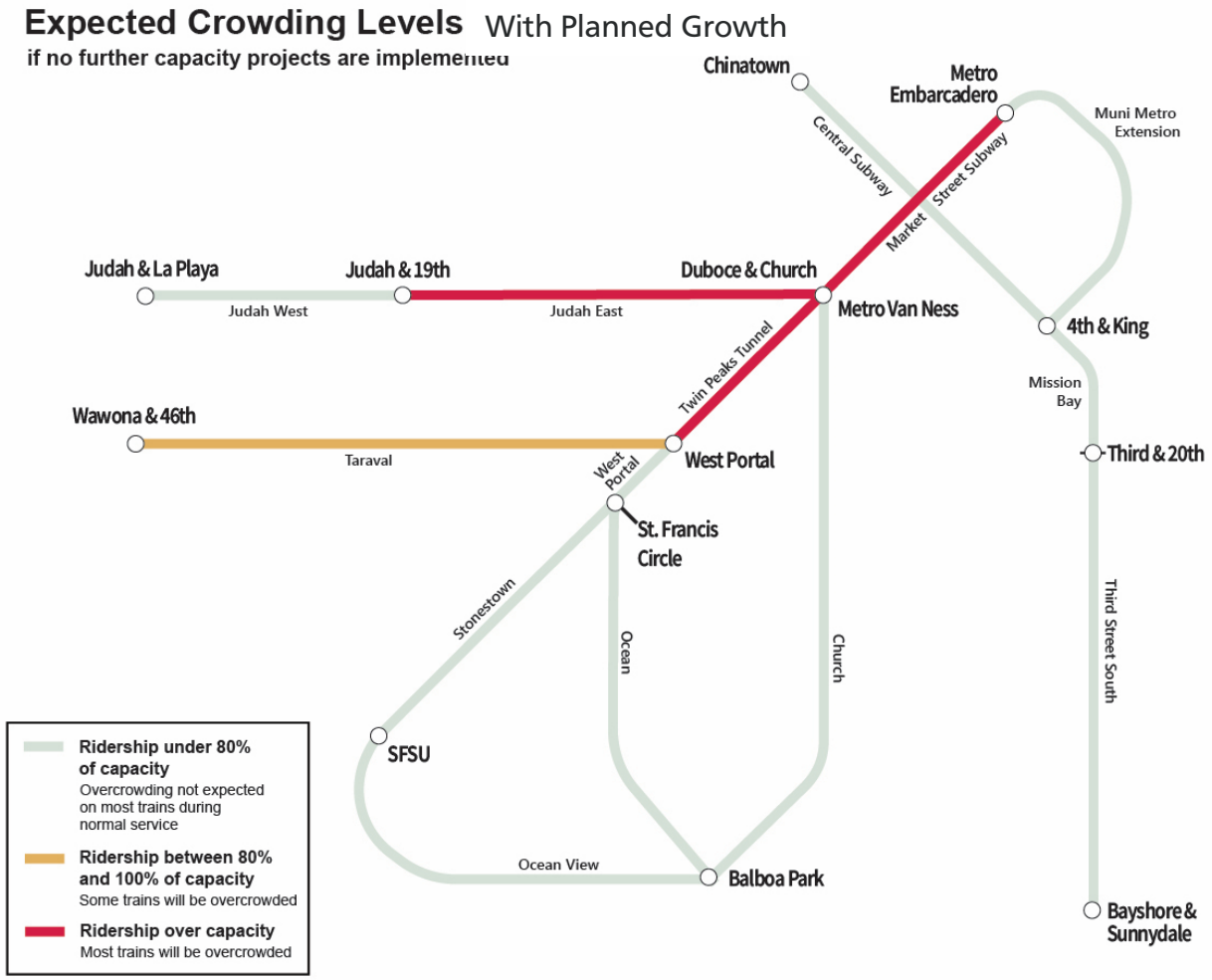
The future is uncertain, but we are preparing for more growth and more ridership

- In 2023, the city approved a Housing Plan to add over 82,000 units of housing for 150,000 people by 2031
- While it's likely some of this growth may take longer to realize, we need a vision to accommodate this growth which is needed to help the City meet its housing affordability, climate and equity goals.

San Francisco housing growth areas

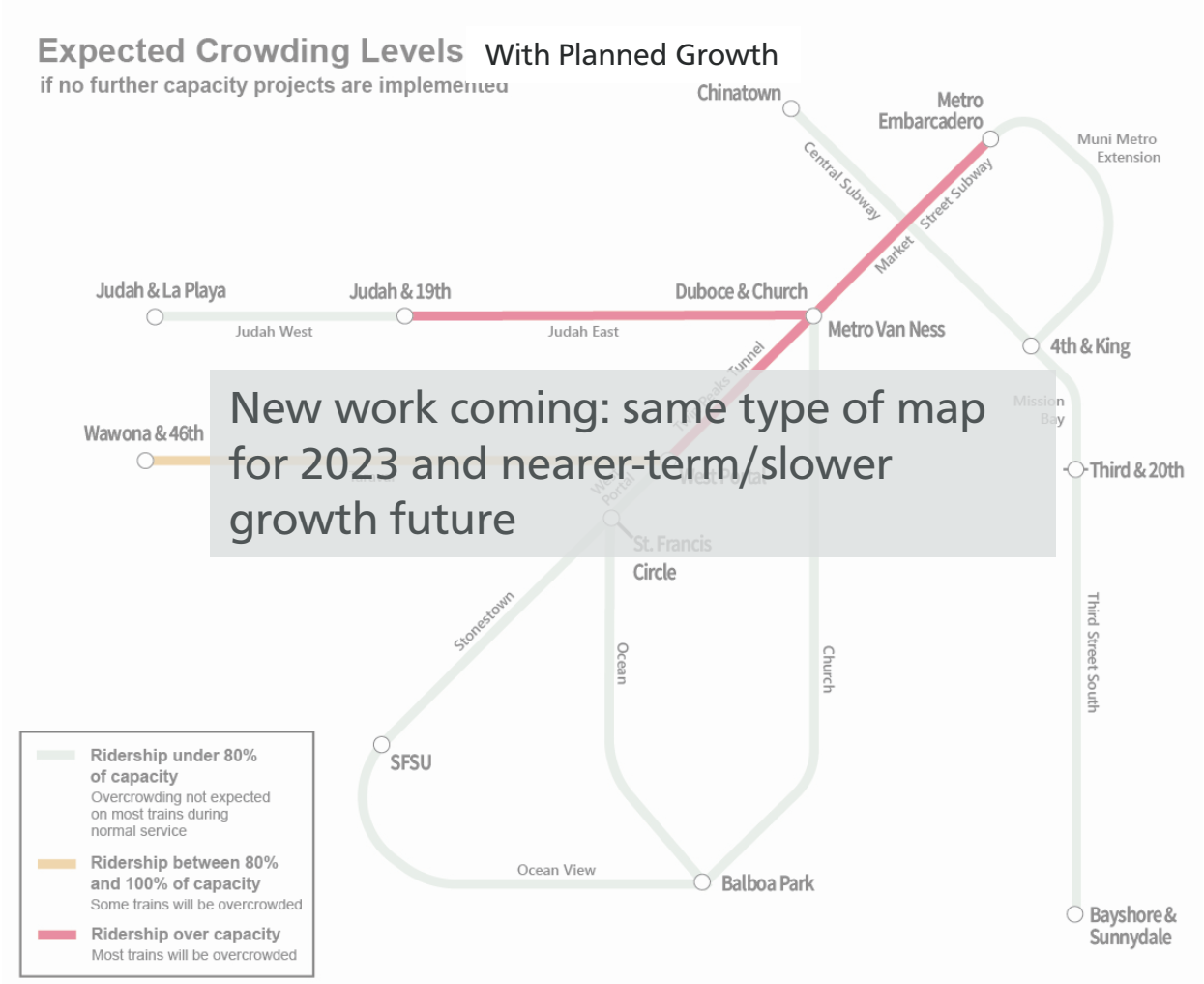


With planned growth, the core of the system would be overcrowded. Riders would experience pass-ups



*includes capacity benefits anticipated from the Train Control Upgrade Project

Existing and nearer term crowding forecast – to be developed



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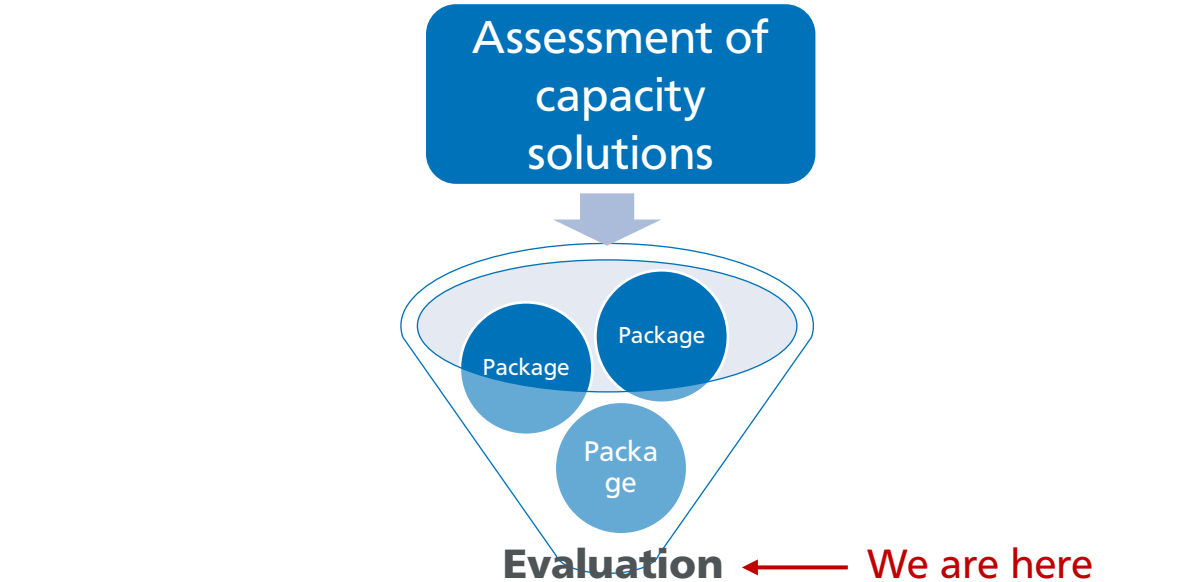
Study process

Outreach including meetings of a Community Working Group and meetings with interested stakeholders



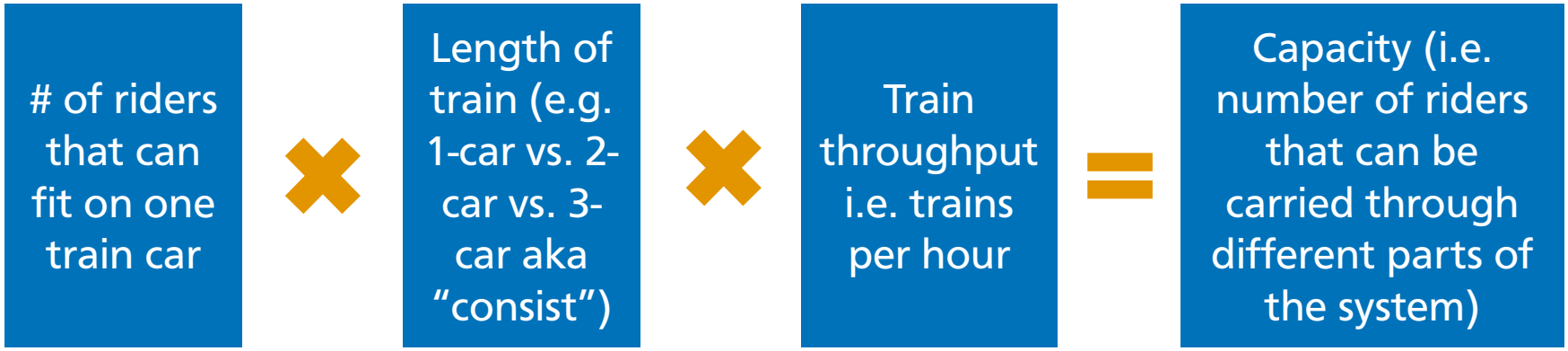
Recommendations (likely to be a mix and match of packages with certain strategies triggered by certain future ridership levels being achieved)

Funding and Implementation Strategy

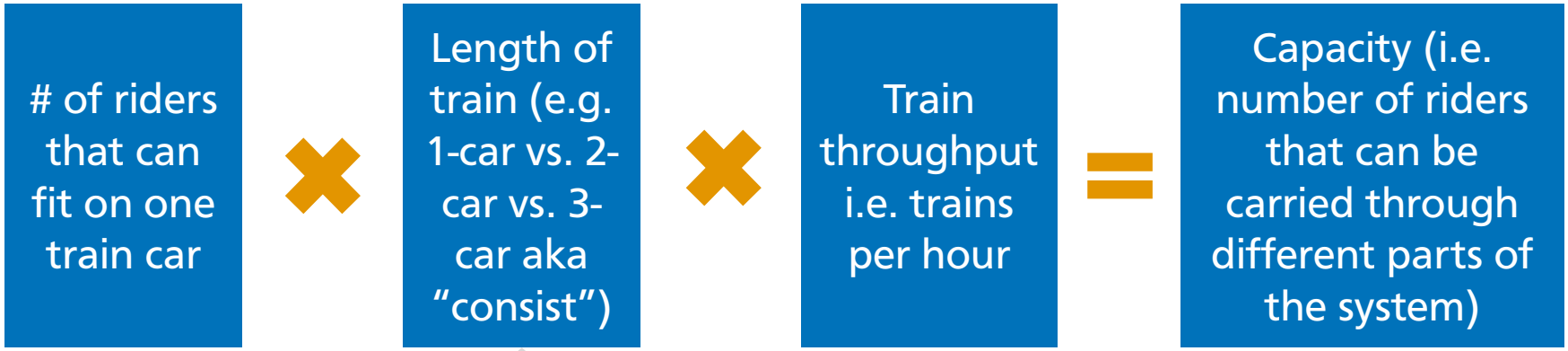
Core Capacity Grant Program

Other Recommendations for Longer-Term Future Muni Metro (Vision)

Capacity basics



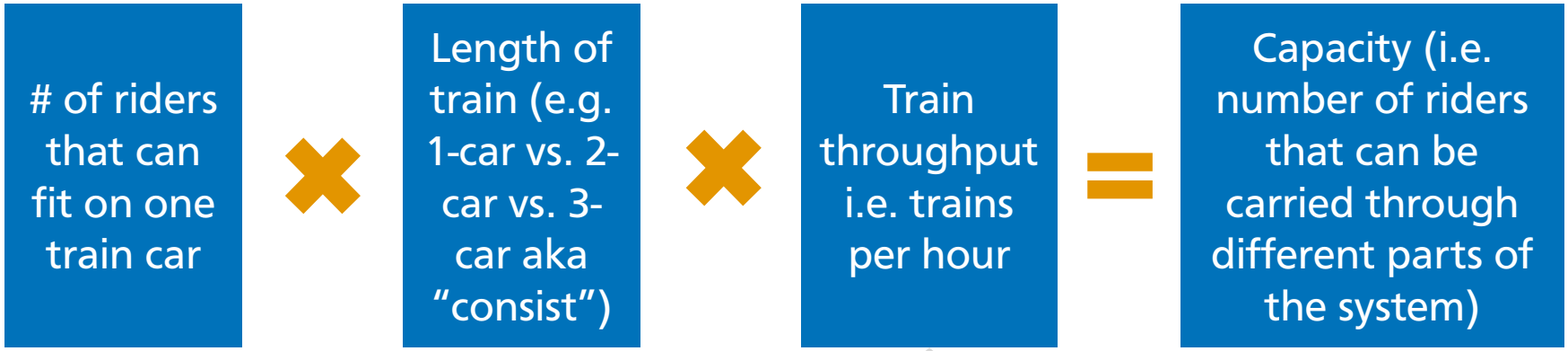
Capacity basics



Considerations:

- Can street conditions on the surface accommodate a longer train (e.g. block lengths, turning radii, etc.)?
- Is there enough ridership on this segment of the system to benefit from longer trains?
- Is our rail vehicle fleet large enough to accommodate?

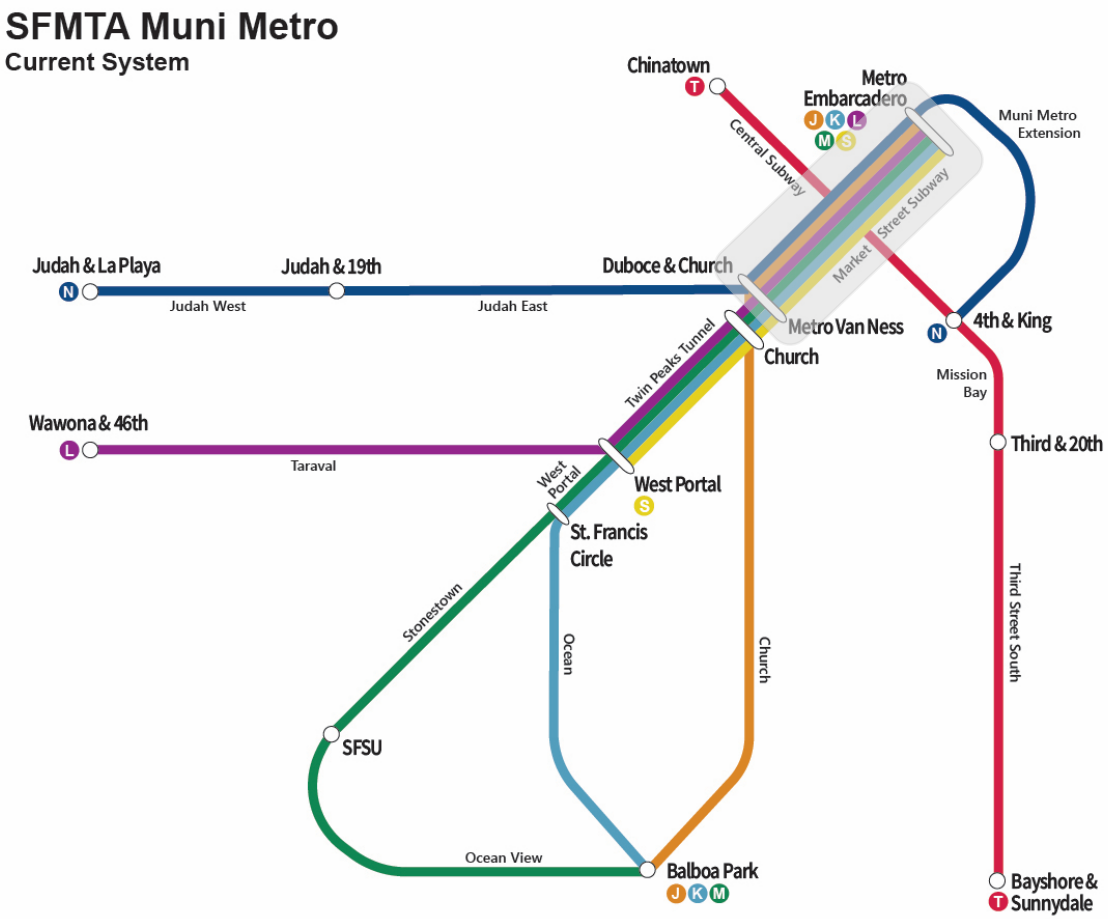
Capacity basics



Considerations:

- How many trains per hour can be processed.
  - Train Control Upgrade Project would increase Market Street Subway capacity by up to 20%.
  - We are currently scheduling ~28 trains/hour and were reliably able to deliver ~32/hour pre-pandemic.
- Can trains travel reliably on surface segments so arrival time at subway entrance (portal) is predictable?
- Is there sufficient operating resources (financial, human) to operate at scheduled frequency?

Existing and future Market Street subway capacity



Pre-pandemic:

- ~42 trains/hour scheduled
- ~32 trains/hour typically delivered

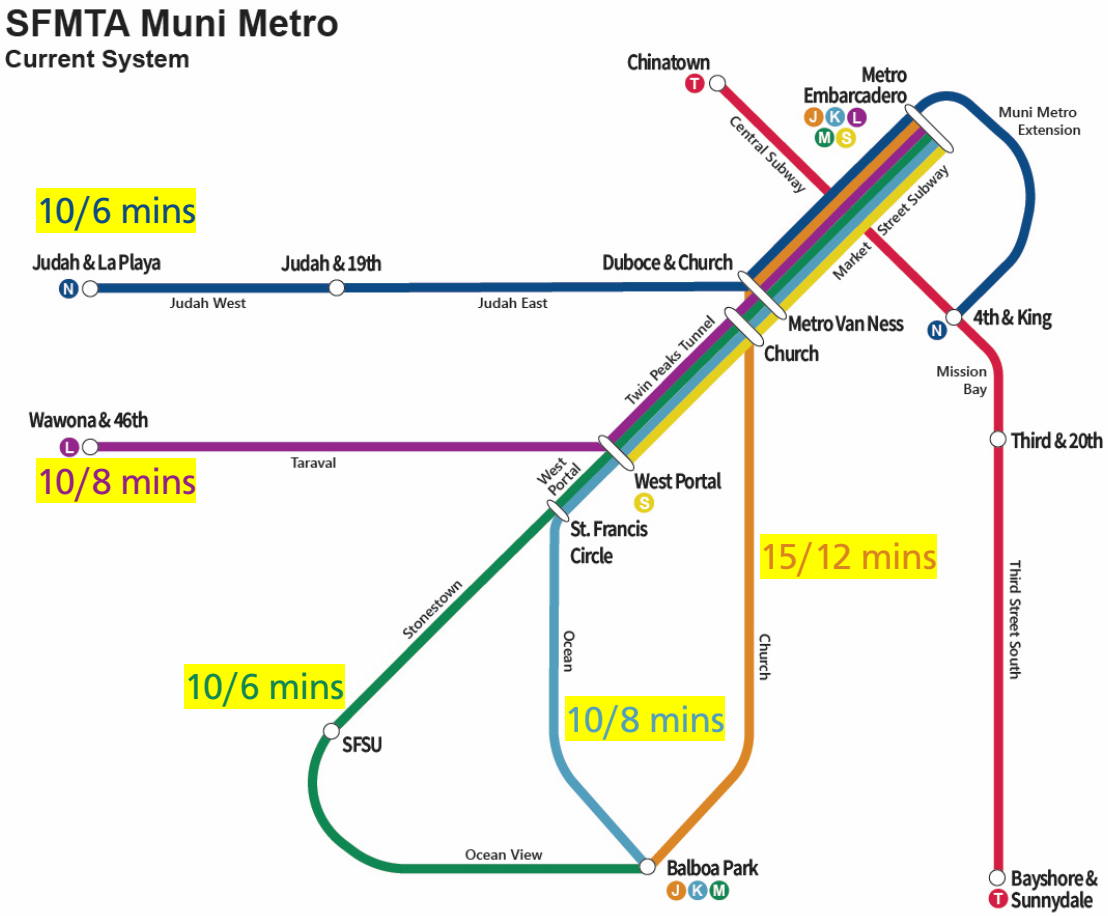
Current:

- ~28 trains/hour scheduled

Future with Train Control Upgrade Project:

- ~20% improvement in capacity

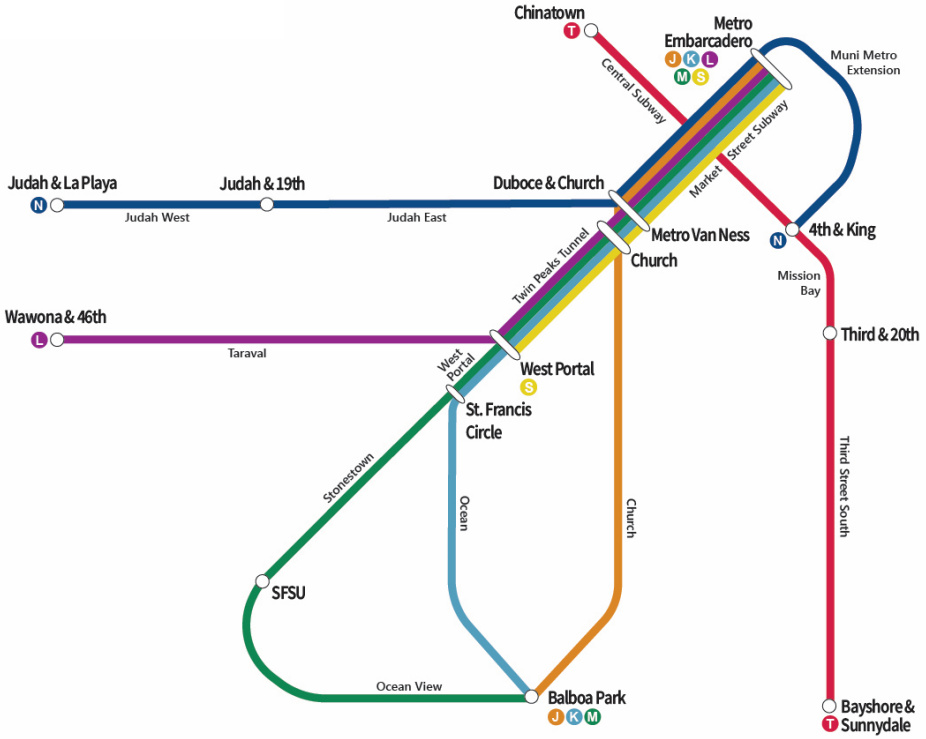
Hypothetical example that would "max out" the frequencies we can accommodate with existing route structure



*Future frequencies are a hypothetical example that reflects TCUP capacity benefits and operational/service planning considerations. Other future frequencies that increase frequency on one line and decrease on another are also possible. This example reflects existing ridership patterns along different segments of Muni Metro system. Line frequency decisions are reviewed and regularly updated multiple times/year and would not be determined by this Study.

What is route restructuring?

- Any new service pattern that is different than one of the lines in our existing system such as combining all or parts of lines, truncating lines, etc.
- Muni Metro's current system has five branches that all converge in the Market Street subway



Why consider route restructuring?

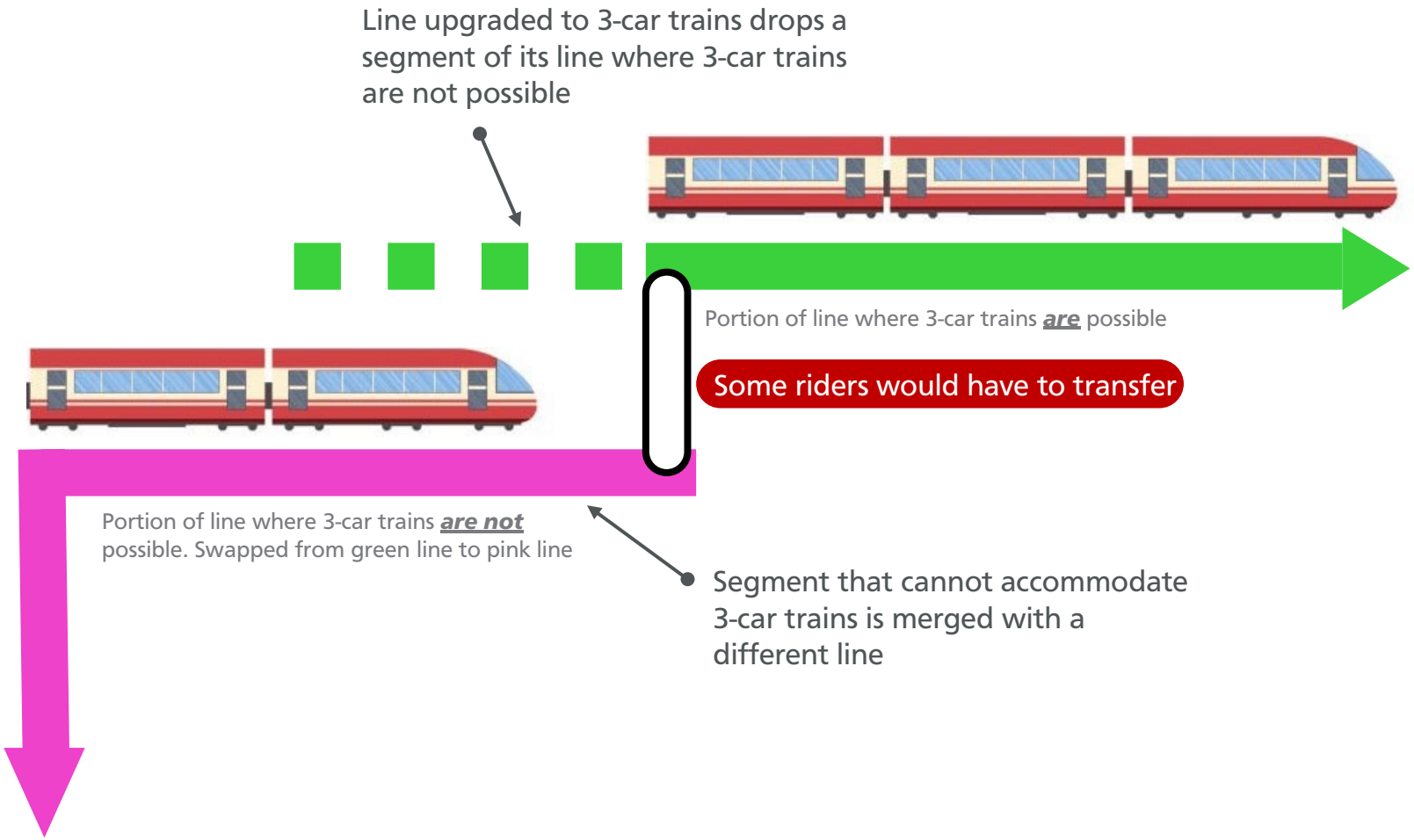
Capacity considerations

- To match longer trains with segments of the system where more capacity is needed
- To provide some leeway for small delays in the subway to not create cascading delays

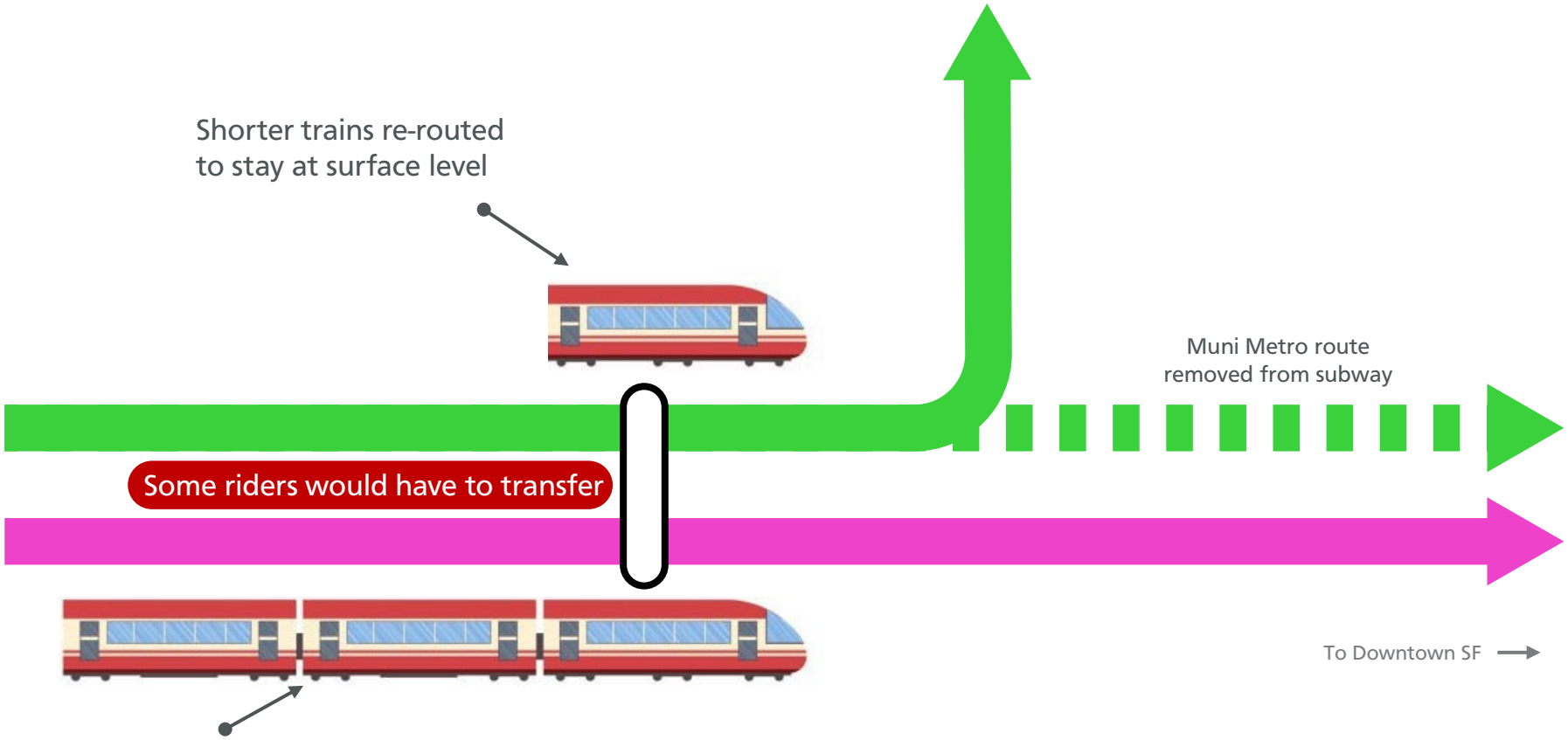
Possible co-benefits

- To create new one seat rides for trips that currently require a transfer
- To enable more frequency on the surface of the system while not exceeding the limited number of trains per hour that can travel through the Market Street subway

One concept: swapping a segment of one line with another to allow upgrades to 3-car trains



One concept: removing a line from the subway to make the most of limited subway space



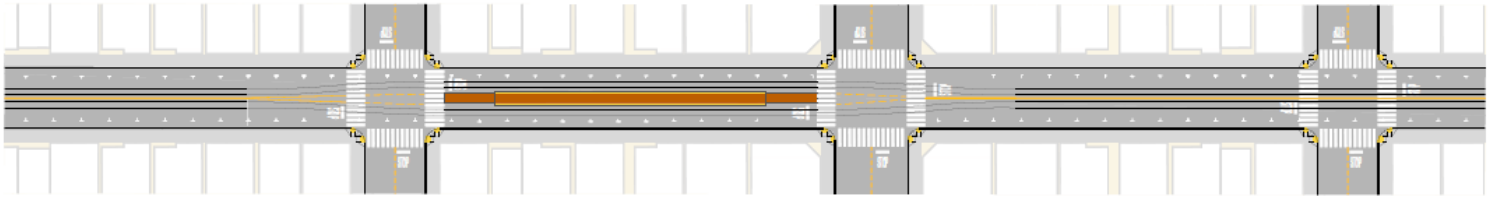
Route restructuring: where are we headed?

The Muni Metro Capacity Study:

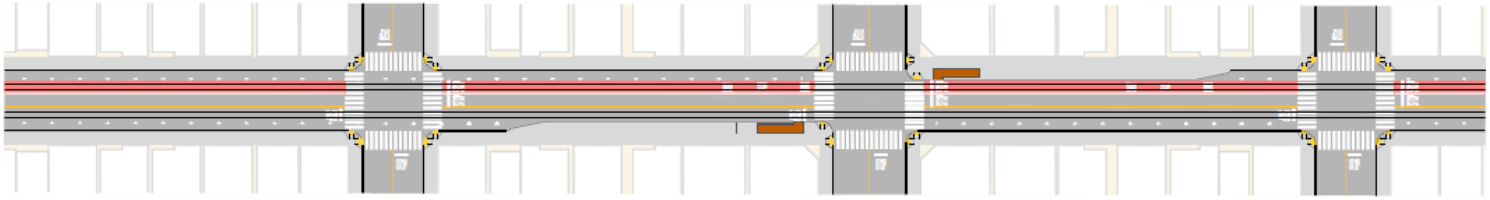
- Will not result in any final decisions about whether to restructure any lines
- Will establish future ridership level that, if achieved, would trigger the need for implementation planning in support of route restructuring*
- Document pros and cons to several different route restructuring concepts
- Get policy-maker direction on whether to delay as much as possible or pursue before absolutely necessary
- Outline a package of mitigating features that should accompany any route restructuring package. E.g.
  - ❑ Planned frequencies that indicate typical transfer times across all hours of service
  - ❑ Operational changes to increase odds of seamless transfers outside of peak hours (e.g. policies to hold trains for up to X mins at relevant transfer locations such as potentially Stonestown, West Portal, or Church St)
  - ❑ Upgraded station transfer facilities at Stonestown, SF State, West Portal and/or Church St (e.g. new platforms, new stairs and/or elevators).
- Ask the question of whether we want to plan for a future where transfers are not perceived as negatively as today?

*based on current conservative estimate of future train throughput that can be reliably scheduled after implementation of TCUP– this could be adjusted later based on observed data after implementation of TCUP

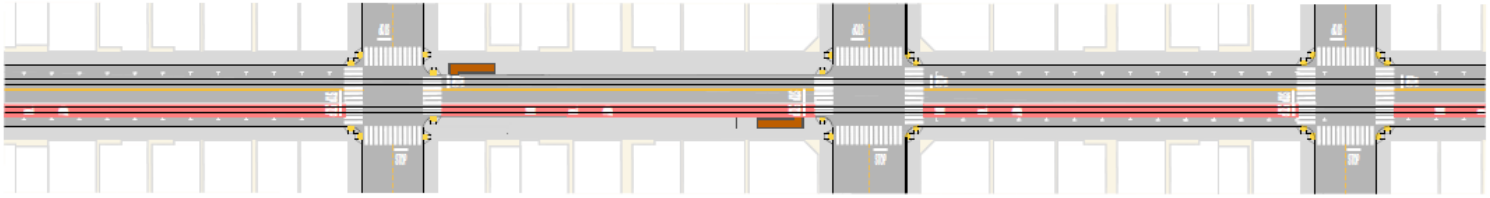
Recap: street design options that could accommodate accessible boarding within a 50-55’ wide street, ordered from smallest to largest change in travel lane and parking/loading



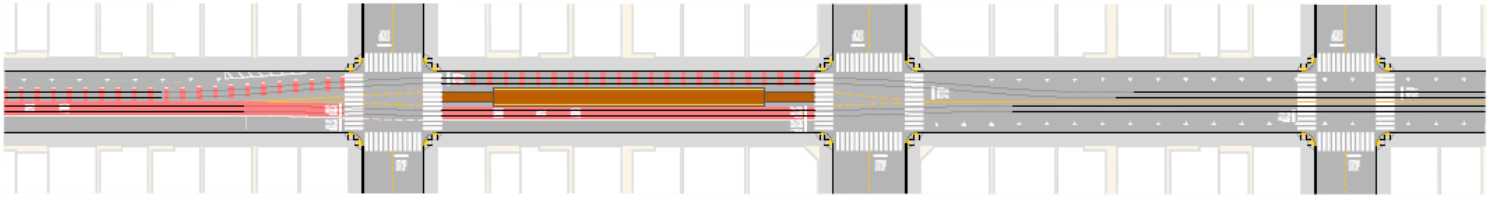
1: Center platform, maintain travel lane and parking/loading on both sides of street



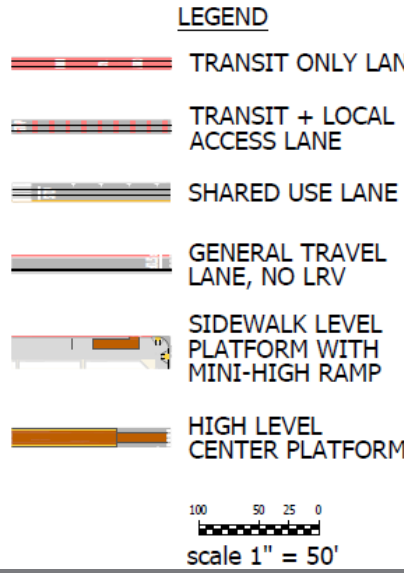
2: Side platforms with small accessible ramps, maintain travel lane on both sides and parking/loading on only one side of the street



3: Side platforms with small accessible ramps, maintain travel lanes on both sides of street, no parking/loading on either side of street



4: Center platform and transit lanes in both directions, maintain travel lane on only one side of street, no parking/loading on either side of street



Street width prioritization: where are we headed?

The Muni Metro Capacity Study seeks to:

- Lay out a "ceiling" (ideal goal) and a "floor" (bare minimum) for different street rights-of-way (ranging from 40-60 feet) that must be accommodated in future corridor projects
  - ❑ e.g. ceiling: level boarding at every door of every stop
  - ❑ e.g. floor: accessible boarding at every stop without requiring double stopping
- Identify principles for future community engagement such as:
  - ❑ Working towards creative solutions instead of one mode "winning" over another
  - ❑ Working at neighborhood level instead of corridor level

Preview of evaluation metrics

Goal	Metrics
Capacity	• Change in segment volume over capacity by 2050 • Change in SFMTA capacity threshold by line
State of Good Repair	• Percent of total State of Good Repair need included in package
Cost Effectiveness	• Total capacity benefit per capital cost • Total state of good repair benefit per capital cost • Total accessibility benefit per capital cost • Capacity benefit per incremental operating costs • Percent of capacity improvements deliverable by 2035 • Estimated Capital Investment Grant score
Speed and Reliability	• Passenger peak period minutes saved • Percent improvement in headway adherence (reliability) • Percent of trips requiring transfers
Accessibility	• New riders with access to ADA compliant transit stops • New riders with access to all-door boarding
Equity	• Percent of ADA/all-door in equity neighborhoods • Number of forced transfers in equity neighborhoods • Journey time savings for Origin-Destination pairs in equity neighborhoods
Trade-offs	• Construction impacts • Neighborhood-level risks (parking, safety, access) • Operational complexity • Delivery risk

Q+A and discussion

Themes for discussion

1. Relationship to citywide transit vision
2. Future growth uncertainty
3. Route restructuring
4. Street width prioritization “ceilings” and “floors”

Thank you!