

Central Embarcadero Quick-Build Evaluation Summary



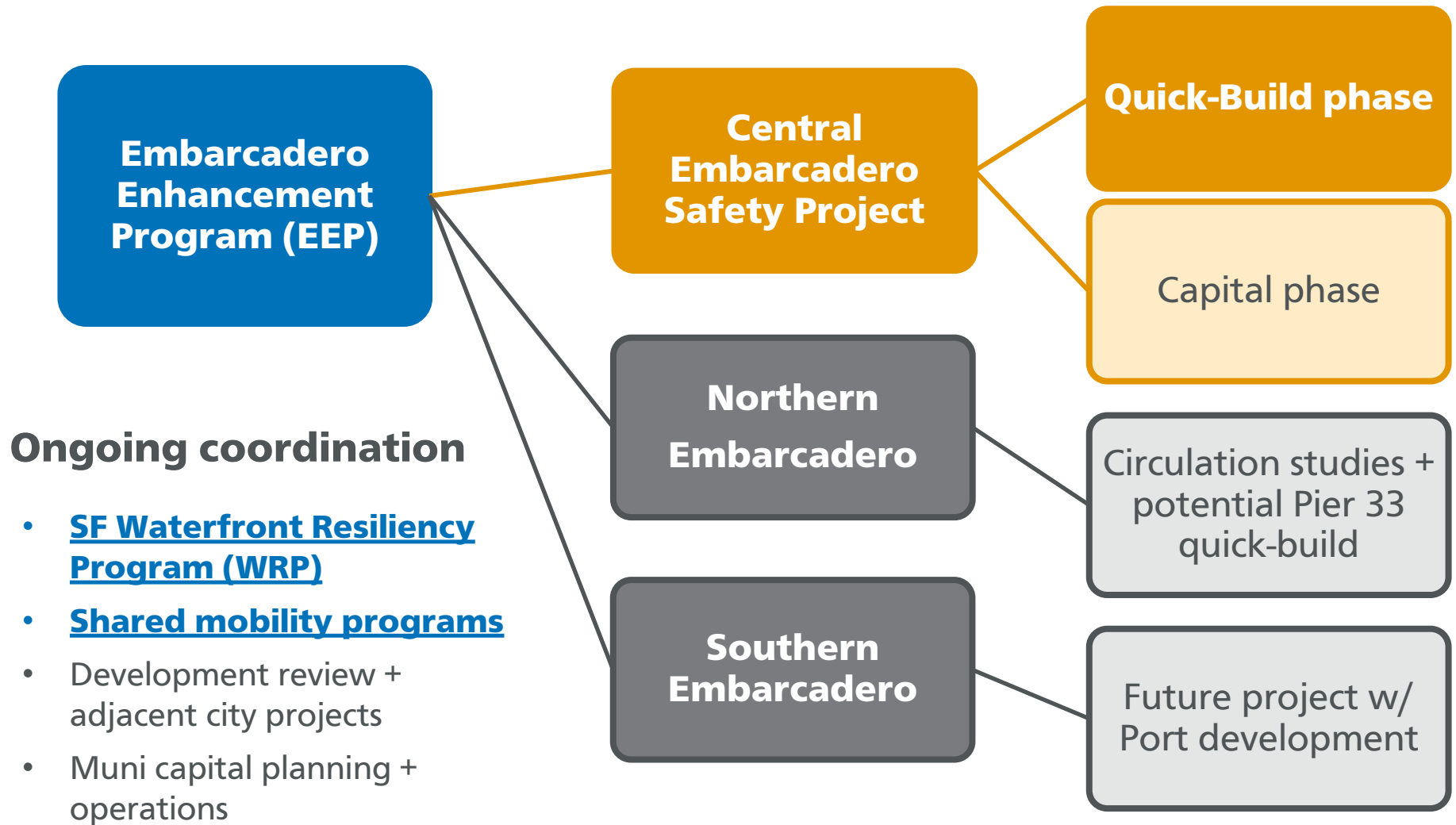
San Francisco Port Commission
November 8, 2022



SFMTA



Embarcadero Enhancement Program



February 2022 Substantial Completion

Google Earth

**See you on
the waterfront!**



SFMTA

**SFMTA.COM/
EMBARCADERO**



[youtube.com/watch?v=PJb0AJTm2GY](https://www.youtube.com/watch?v=PJb0AJTm2GY)



SFMTA

Central Embarcadero Quick-Build Evaluation Summary

November 2022

Central Embarcadero Quick-Build Project



Project additions since February 2022

- **Curb ramps** to improve accessibility at floating load zones
- **More flexible posts** to dissuade people from driving/loading in the bikeway and crosswalks
- **Fully green-colored bikeway along the Ferry Building frontage** to better delineate space in this high-activity area
- **Promenade-safety signs** to promote pedestrian priority and encourage people into the bikeway

Upcoming changes...

- **Bike/scooter parking hubs** to consolidate and expand racks
- **Broadway 'field test'**
- **Signal timing** review/update in 2023 along full corridor

Evaluation framework



Effective design

- Are bike and scooter riders moving off the promenade into the bikeway?
- Are bike and scooter riders stopping at bicycle traffic signals?
- How are the 'floating' loading zones being used?

Safe behavior

- Are bike and scooter riders yielding at crosswalks?
- Are people driving yielding at 'conflict zones' (e.g., driveways)?

Ease of navigation

- Are loading/parked vehicles blocking x-walks, bikeway, travel lanes?
- What effects does the bikeway have on Ferry Building operations?

Mobility

- Has vehicle travel time changed?
- How is the performance of the Broadway intersection?

Perception of safety

- Do people feel safer / more comfortable with the changes?

Evaluation summary

1. Are bike, scooter, and skateboard riders moving off the promenade into the bikeway?



Implementation of the two-way bikeway successfully helped attract wheeled users off the promenade and into the new facility – especially on weekdays and since the promenade-safety signs were installed.

		AM peak (8am-9am)		PM peak (5pm-6pm)		Weekend peak (Sat 11:15am-12:15pm)	
		Promenade	Bikeway	Promenade	Bikeway	Promenade	Bikeway
Oct 2021 (before)	Bikes	43%	57%	39%	61%	22%	78%
	Scooters	69%	31%	58%	42%	28%	72%
	Combined	47%	53%	43%	57%	23%	77%
Apr 2022 (after)	Bikes	35%	65%	22%	78%	22%	78%
	Scooters	37%	63%	37%	63%	16%	84%
	Combined	35%	65%	25%	75%	21%	79%
Aug 2022 (after)	Bikes	13%	87%	20%	80%	4%	96%
	Scooters	19%	81%	27%	73%	15%	85%
	Combined	14%	86%	22%	78%	6%	94%

Evaluation summary

2. Are faster bike, electric bike, scooter, and skateboard riders in the bikeway?



Those who continue to ride on the Promenade tend to ride more slowly than those in the protected bikeway.

3. Are more people riding on The Embarcadero corridor?



Despite less people using The Embarcadero overall (due to the pandemic), wheeled user volumes are similar to pre-pandemic levels – indicating a potential to attract new users

4. Are bike/scooter riders yielding at mid-block crosswalks?



Two-out-of-three bike/scooter riders yield or give space to pedestrians, but the other third continue at speed.

5. Are bike/scooter riders stopping at bike traffic signals?



People on bikes/scooters generally stop at bike signals, but behavior varies, with crosswalks near the Ferry Building seeing less compliance.

Evaluation summary



Evaluation summary

6. Are people driving yielding at driveway 'conflict zones'?



Driver yield compliance at conflict zones is relatively low, however few "close calls" were observed.

7. Are the new 'floating' zones working well?



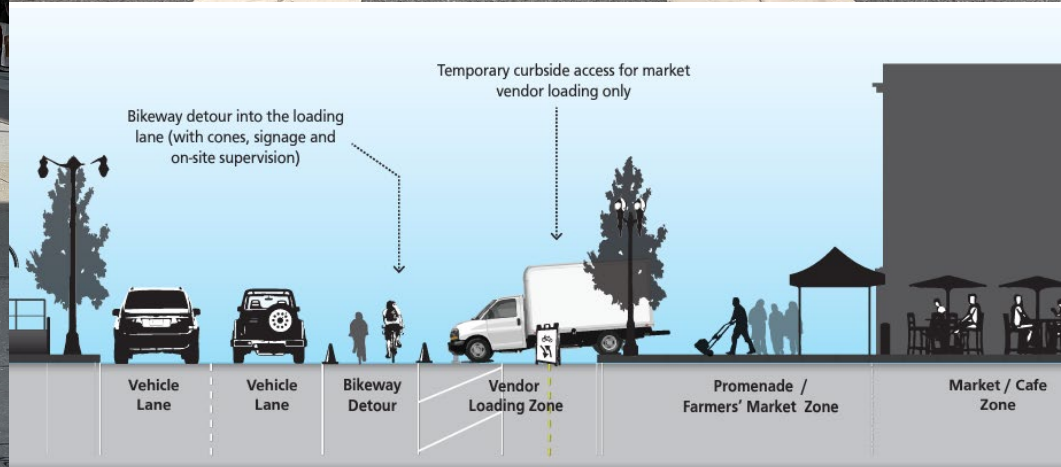
Vehicles generally use the load zones properly and stay out of the bikeway.

8. How is the farmers' market load in/out working?



Foodwise operations and bikeway adjustments during load in/out help maintain safe access for vendors, customers, and bikeway users. However, vehicles are often parked both at the curb and in the floating spaces during the afternoon load-out.

Evaluation summary



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Evaluation summary

9. Have vehicle speeds changed?



There are no clear trends to describe changes in vehicle speeds before and after the project's construction.

10. Has the project affected vehicle travel times?



Vehicle travel time along the corridor has increased slightly, but not as much as originally expected nor so much that the schedule of a typical driver would be affected.

11. Are people riding in the Washington Street bikeway?



Bike volumes remain similar to before the pandemic.

Evaluation summary

12. Are people able to easily enter and exit the bikeway?



The transition from one-way to two-way bikeway at either end of the project area can be challenging for southbound wheeled users.

13. How has the performance of the Broadway intersection changed?



The reconfiguration of lanes approaching Broadway has resulted in 100% more delay for left-turning vehicles and no change (or a slight decrease) in average delay for northbound through traffic. Traffic analysis suggests an alternative lane configuration may improve the performance of the intersection.

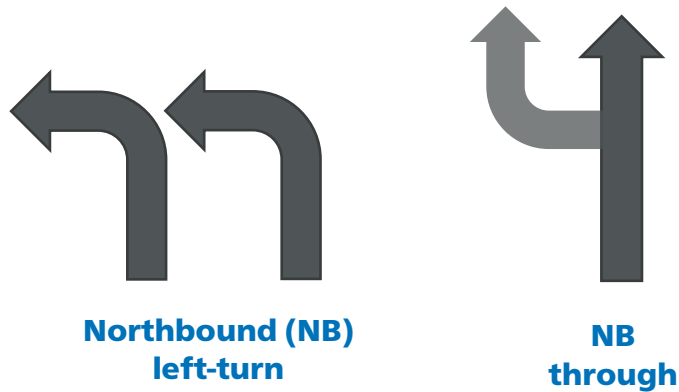
Broadway layout



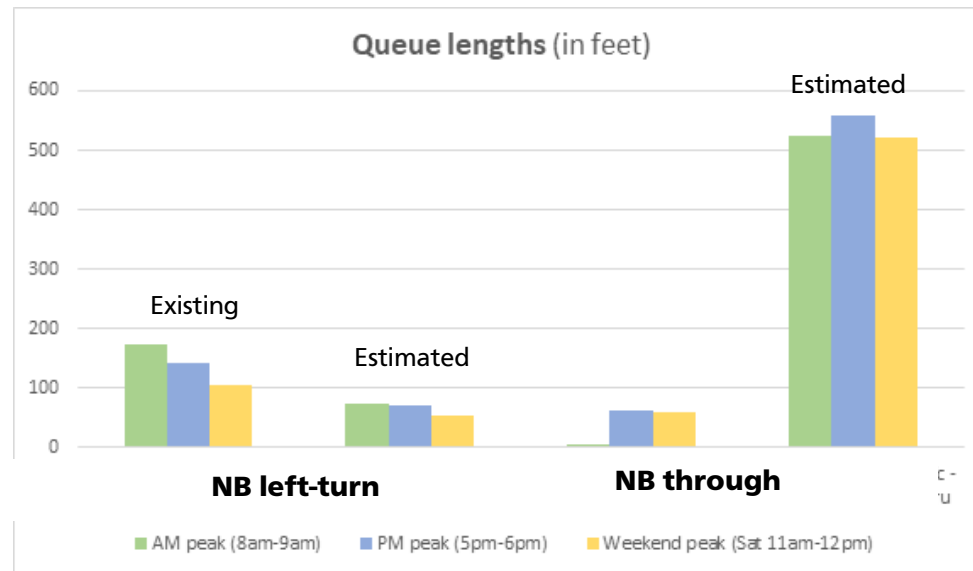
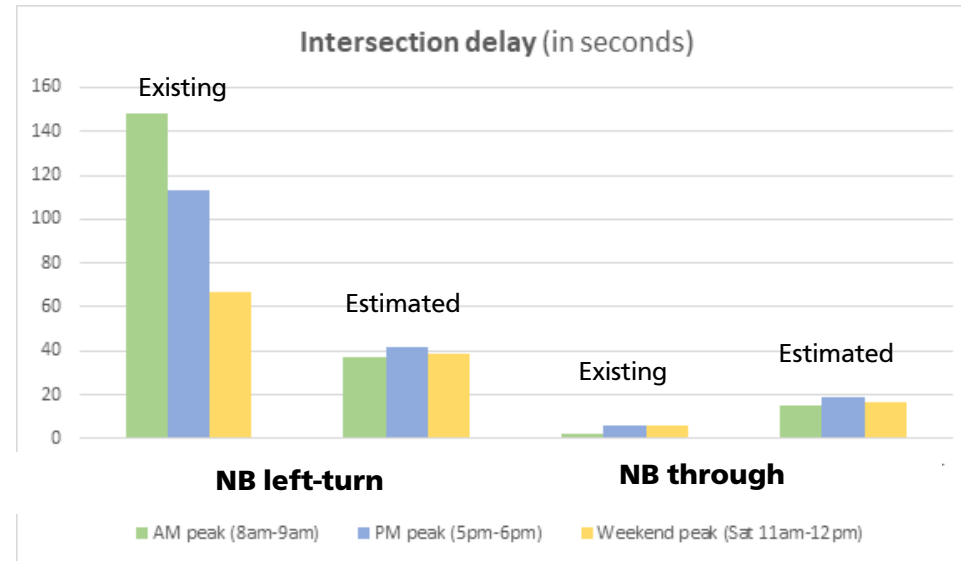
Existing Conditions - Northbound Embarcadero at Broadway

- Vehicle travel lane angles toward bikeway and promenade (not ideal)
- Bikeway not well connected to Broadway; transition to/from promenade could be improved

Field test alternative



Restoring the two left-turn lanes and maintaining two northbound (NB) vehicle lanes on the far-side of the Broadway would likely improve conditions for all users - including drivers. **While longer NB back-ups are expected, the 'green time' provided should help clear most vehicles each signal cycle;** capacity for left-turns to Broadway meanwhile would be greatly improved.



Central Embarcadero Safety Project



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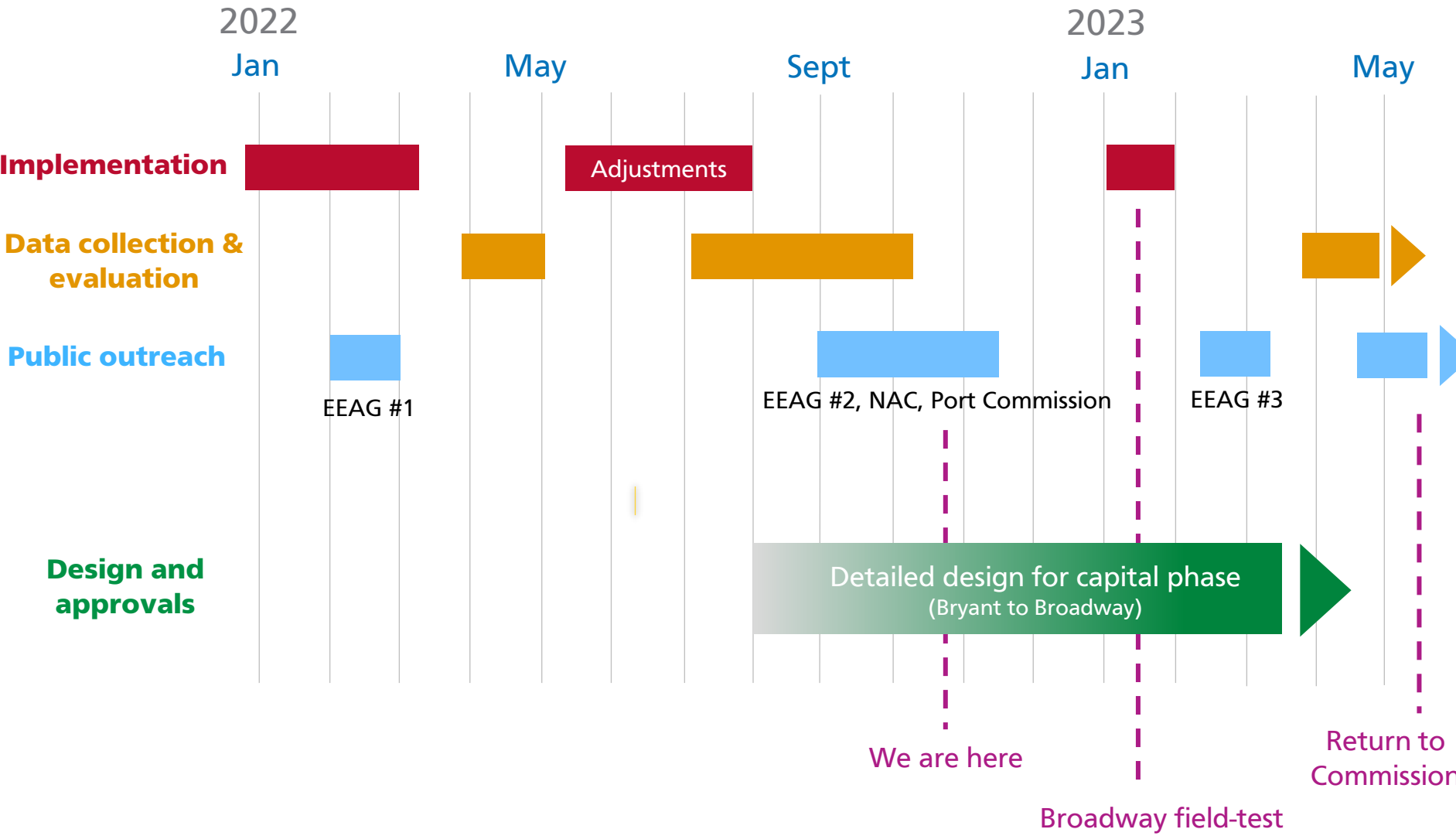
Bryant to Harrison

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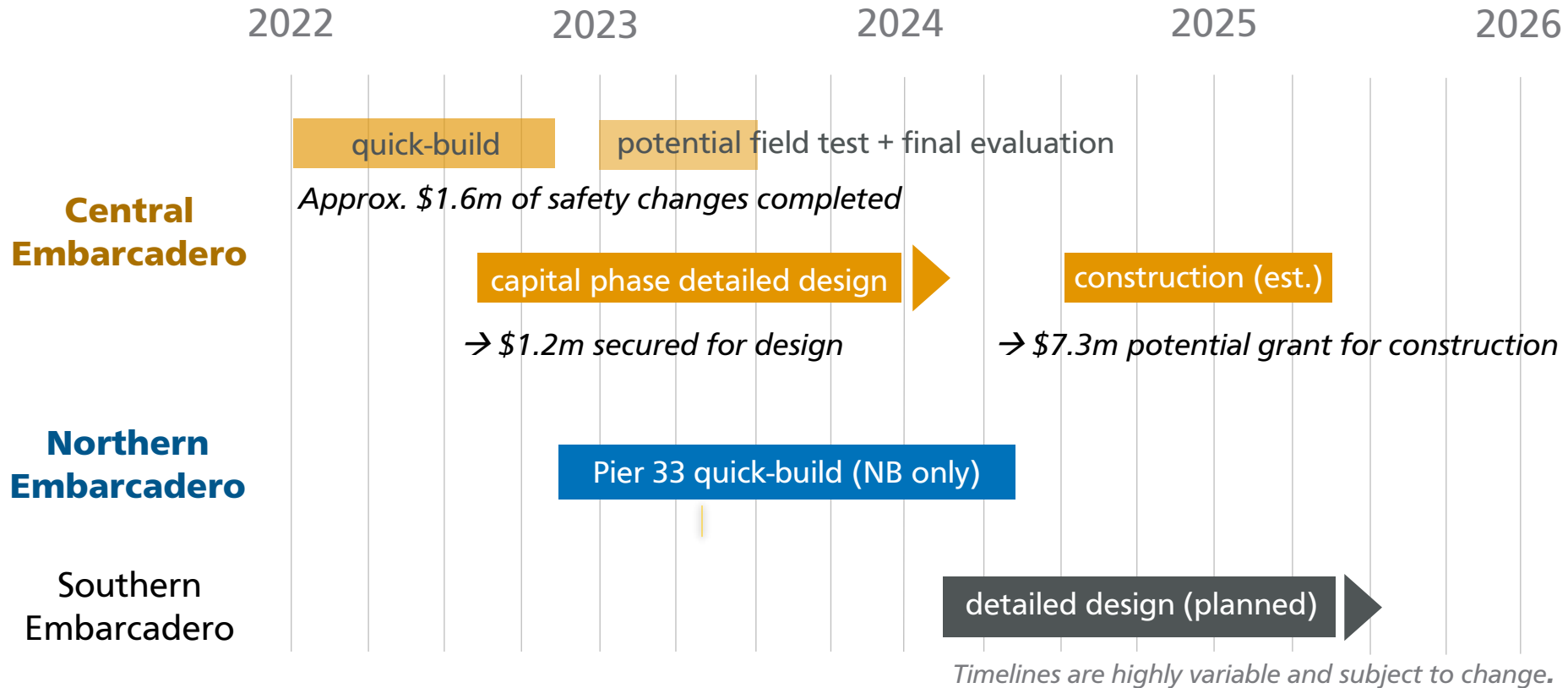


Bryant to Harrison

Central Embarcadero timeline



Embarcadero Enhancement capital program



The EEP includes over \$10 million programmed in near-term Complete Street safety investments for Central Embarcadero



SF Board of Supervisors resolution

- Encourage SFMTA Board of Directors to increase fines from \$150 to \$500
- Urged SFMTA to require anti-sidewalk riding technology on all scooters (geo-fencing)

SFMTA shared scooter program changes

- Geo-fencing restrictions to prohibit parking scooters on the Promenade and on Jefferson Street sidewalks
- Geo-fencing to reduce scooter speeds to 3 mph on Promenade
- Geo-fencing to be effective for month of November and could be extended
- Does not apply to privately owned scooters

Embarcadero Promenade



Potential additional regulatory options

- Prohibit bicycles and/or other wheeled devices under human power from all or a portion of the Promenade
- Age limits, such as prohibiting persons 13 and over from using wheeled devices (similar to most City sidewalks)
- Limiting speeds



Implementation

- Port Code changes may require approval by the Board of Supervisors
- Public outreach for changing Promenade regulations
- Identify potential resources for enforcement

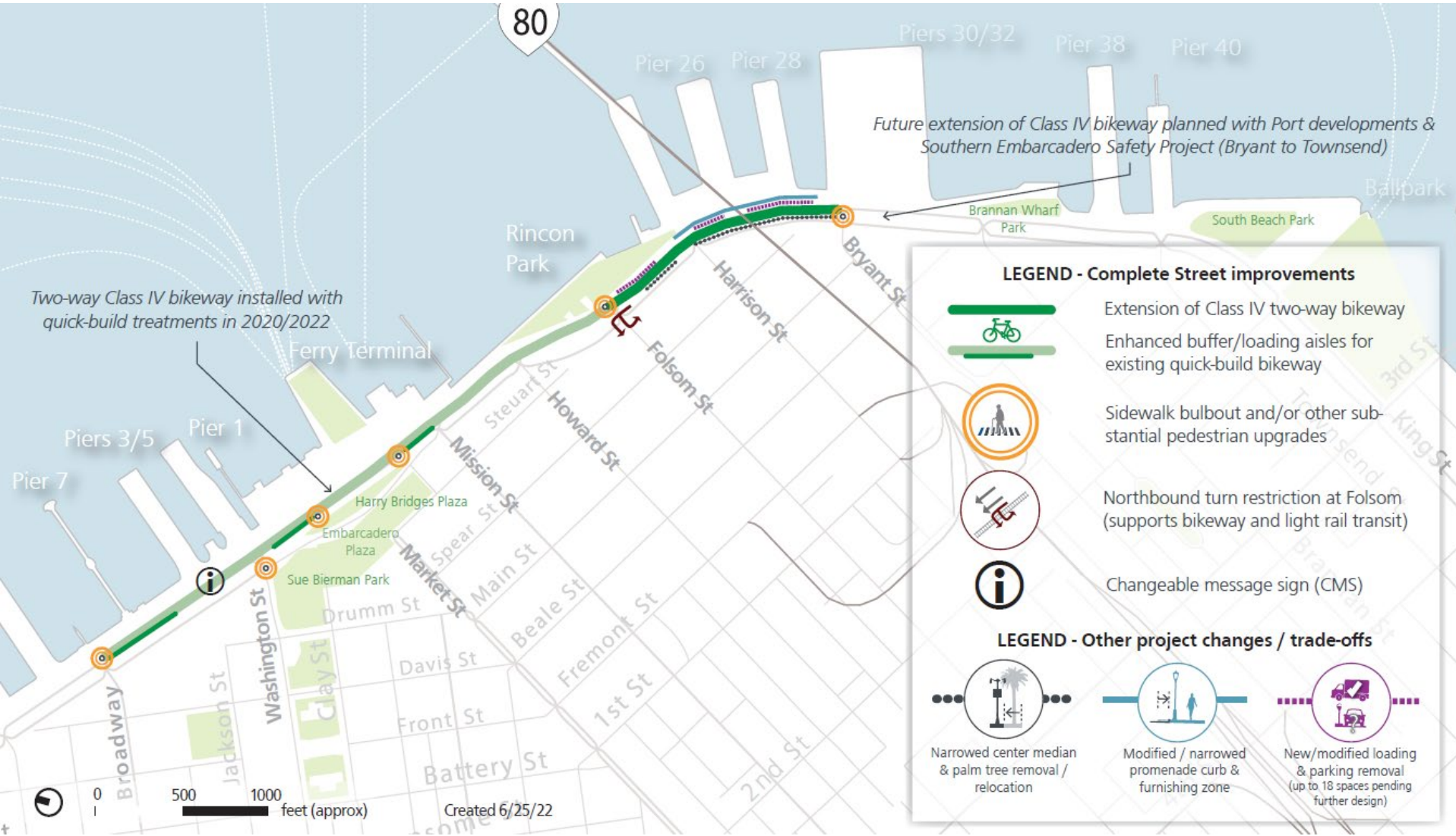


Full evaluation report available at:
sfmta.com/embarcadero

Contact us:
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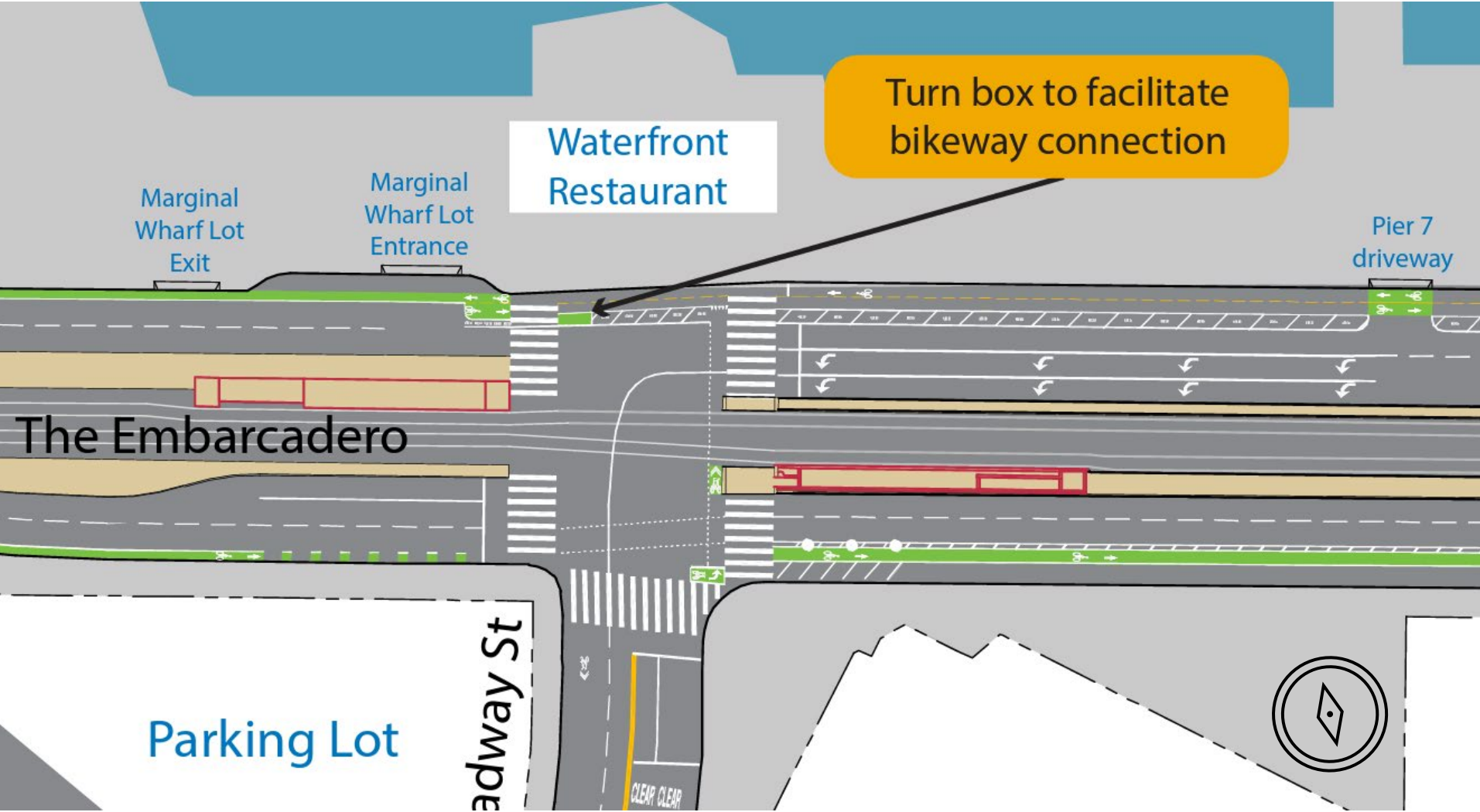


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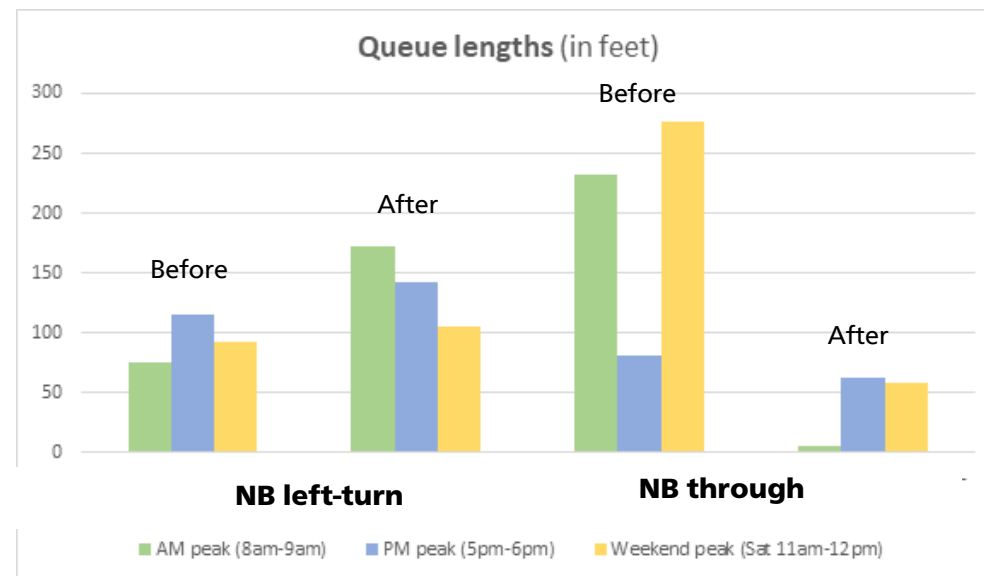
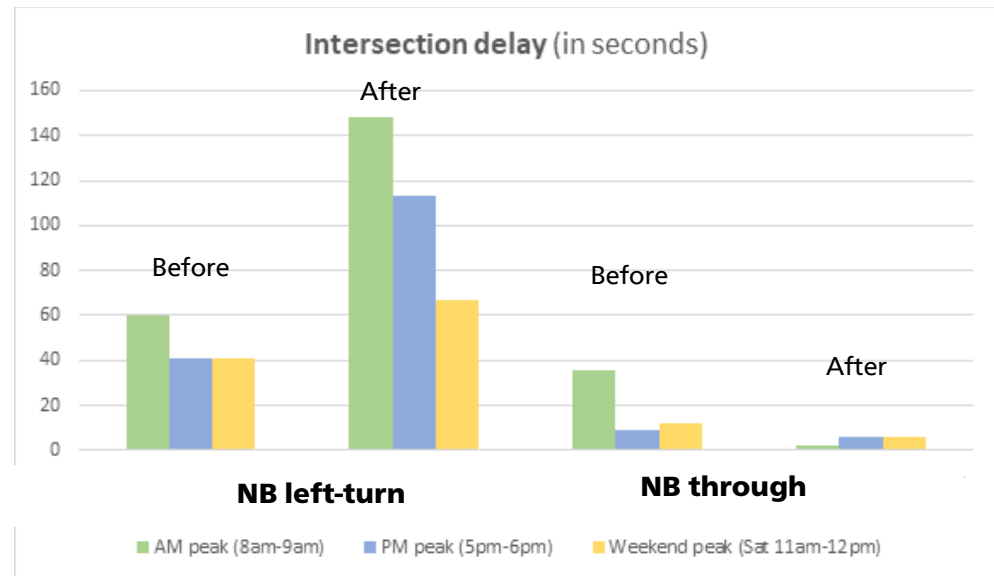
Broadway layout

Potential Broadway layout with restored double left-turn lane



Evaluation summary

The single left-turn lane from northbound Embarcadero onto westbound Broadway is inadequate during weekday AM-peak and PM-peak periods. Vehicle queues regularly back-up beyond the left lane, spilling into the through travel lane and adding to corridor delay/altering driver behaviors.



Central Embarcadero Safety Project



Washington Street at the Embarcadero