Better Market Street

CAC Info Session #2 –
Traffic/Bicycle Volume Data, Transit, F loop

BETTER MARKET STREET

CITY AND COUNTY OF SAN FRANCISCO · SEAL OF THE CITY AND COUNTY OF SAN FRANCISCO

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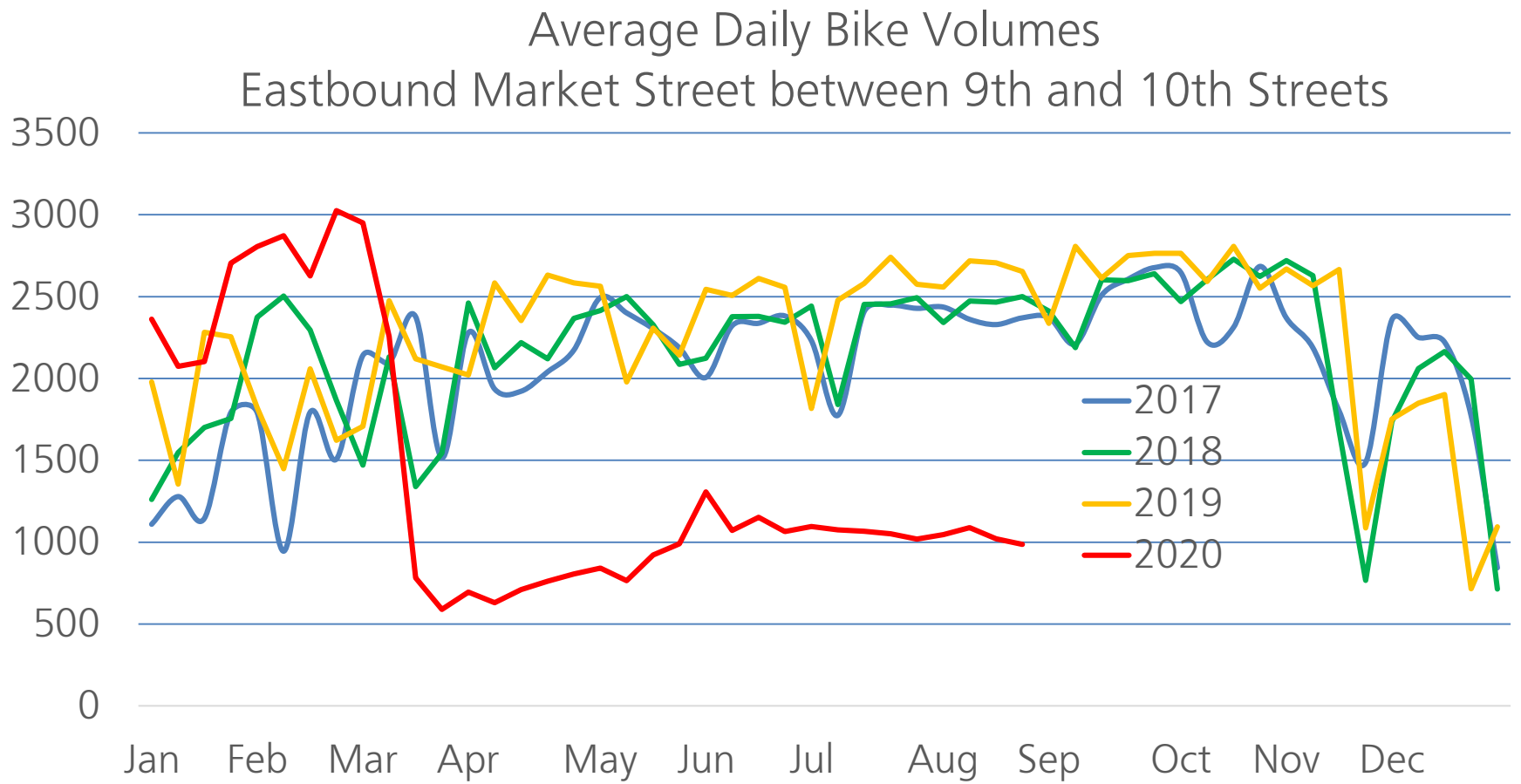
San Francisco County Transportation Authority

San Francisco Water Power Sewer
Services of the San Francisco Public Utilities Commission

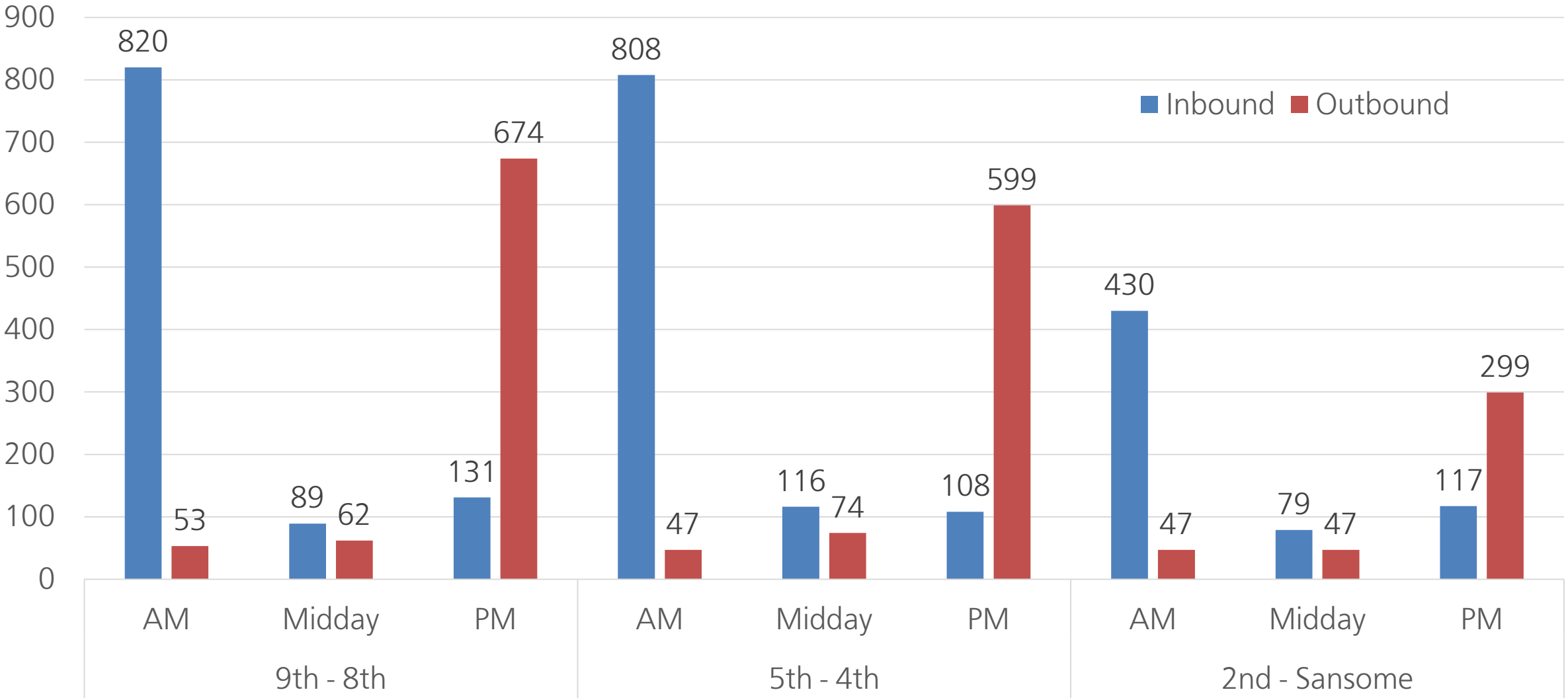
SAN FRANCISCO
Office of Economic and Workforce Development

Bike Volume Growth after Car Free Market

Over 25% increase in cycling on Market Street, and growing
… until the COVID-19 Shelter in Place order



Peak Hour Bike Volumes (January 7, 2020)



AM (8a-9a) - Midday (~11:30a-12:30p) - PM (5p-6p)

Design Guidance for Bike Facility Width

CROW *Design Manual for Bicycle Traffic:*

11.5' for volumes over 750 bikes/hr

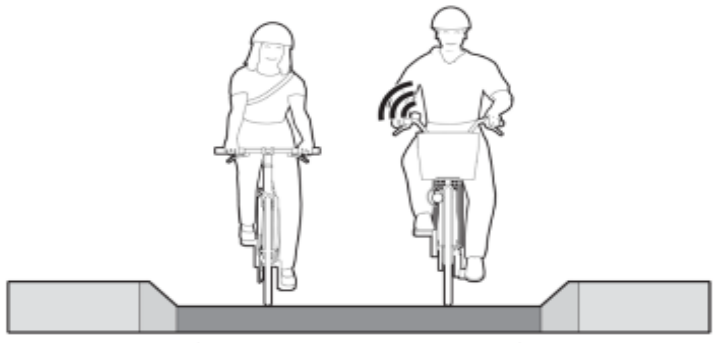
Volume (one-way, bikes/hr)	One-way Cycle Track Width (ft)
0 – 150	6.5
150 - 750	9.8 (8.2 of path)
> 750	13 (11.5 of path)

Other guidance documents don't provide volume criteria:

- NACTO *Urban Bikeway Design Guide*: **6.5'** to allow side-by-side riding, no volume criteria.
- EMBARQ/World Resources Institute's *Cities Safer By Design*: Recommend bike lane normal minimum width of 2.2m (**7' 3"**)
- Cyclenation/Cambridge (UK) Cycling Campaign's *Making Space for Cycling*: Good width, easy to cycle side-by-side. 2.5m (**8.2'**) width

MassDOT's *Separated Bike Lane Planning & Design Guide:*

8' (min.) to 10' (rec.) over 750 bikes/hr



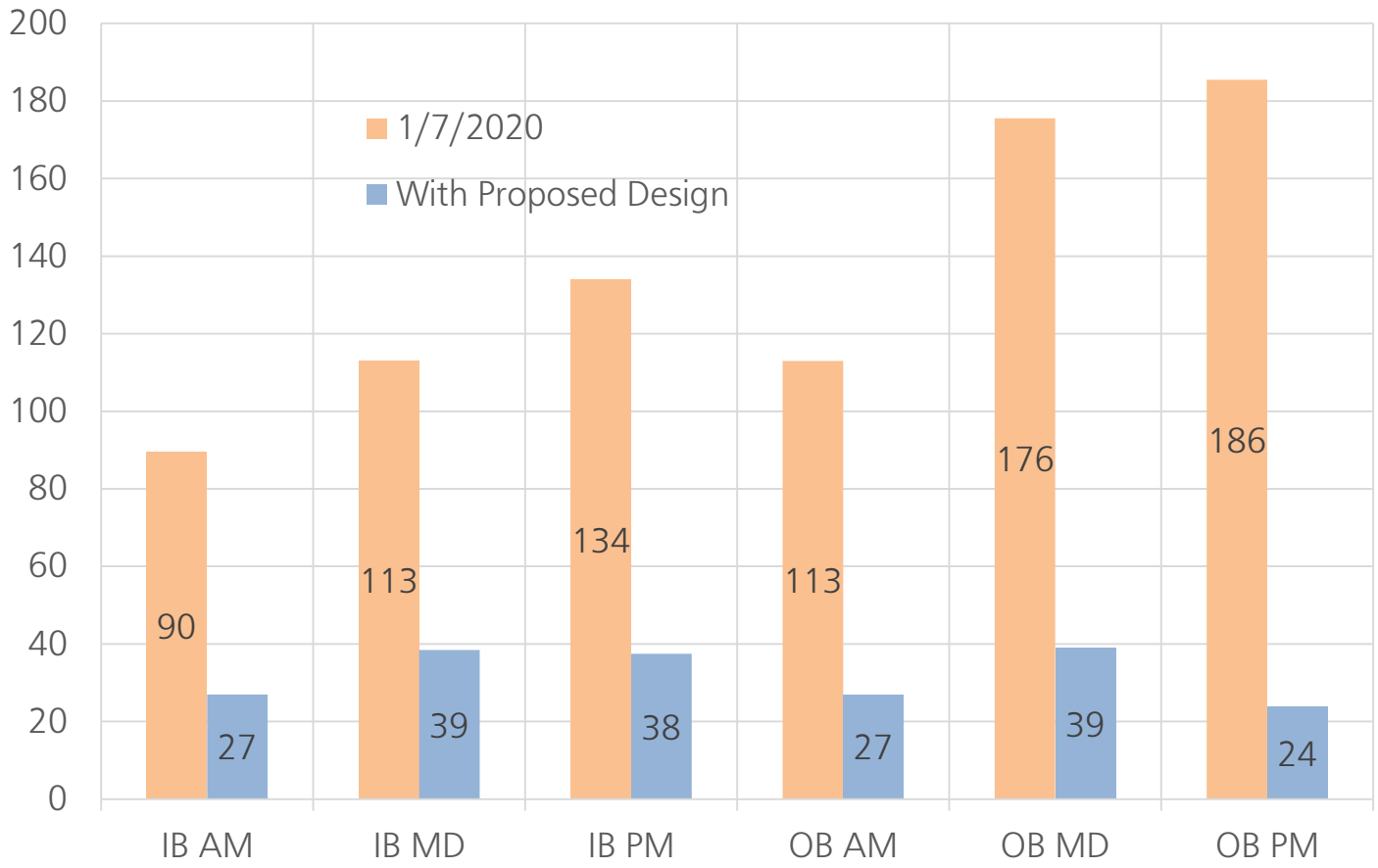
at least 6.5 ft. recommended to enable passing movements

Same Direction Bicyclists/ Peak Hour	Bike Lane Width (ft.)	
	Rec.	Min.*
<150	6.5	5.0
150-750	8.0	6.5
>750	10.0	8.0

* A design exception is required for designs below the minimum width

EXHIBIT 3H: Bike Lane Widths for One-way Operation

Projected Curb Lane Traffic Volume – 5th to 8th



Time of Day	1/7/2020	With Proposed Design	% change
IB AM	90	27	70%
IB MD	113	39	66%
IB PM	134	38	72%
OB AM	113	27	76%
OB MD	176	39	78%
OB PM	186	24	87%
Average	**135**	**32**	**76%**

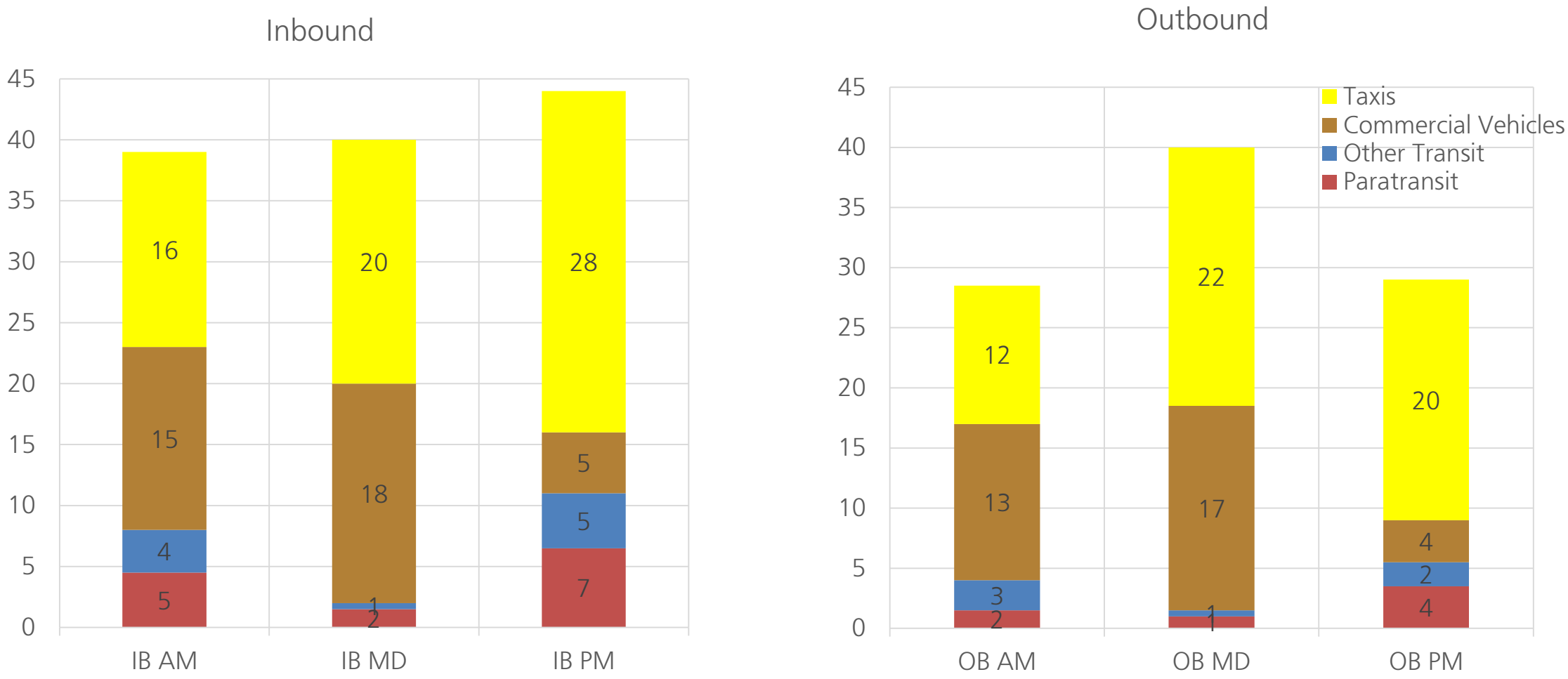
Methodology:

1/7/2020 = Average of midblock peak hour volumes manually counted by lane between 4th/5th and 8th/9th

With Proposed Design = Based on 1/7/2020 volumes for commercial, non-Muni transit, paratransit and taxis, regardless of lane

Curb Lane Traffic Volumes – 5th to 8th

Projected motorized hourly volume remaining in curb lane
(based on classification counts January 7, 2020)



Average of midblock volumes between 4th/5th and 8th/9th for commercial, non-Muni transit, paratransit and taxis, regardless of lane

Transit Volumes as Modeled in Environmental Review

- Pre-COVID Schedule:
  52 buses/hr from 8th to Turk,
  63 buses/hr from Turk to 5th
- Environmental analysis assumed small increase in 2020 service and significant increase in 2040 service
- 2019 design assumed up to ~60 vehicles/lane in 2040

Route	February 2020 Actual		2020 Modeled		2040 Modeled	
	Frequency (minutes)	Buses per hour	Frequency (minutes)	Buses per hour	Frequency (minutes)	Buses per hour
2	8	8	7.5	8	7.5	8
5	10	6	7.5	8	7.5	10
5R	6	10	7.5	8	7.5	10
6	10	6	12	5	12	5
7	12	5	7	9	7	8
9	12	5	10	6	10	6
9R	10	6	10	6	10	8
21	9	7	9	7	9	7
31	12	5	12	5	12	5
38	8	8	6	10	6	10
38R	4	14	5	12	5	24
7X	10	6	9	7	9	6
F	9	7	10	6	10	8
F short			10	6	10	8
Total		93		103		123
Buses 8th to Turk		52		61		70
Buses Turk to 5th		63		73		81

Transit Travel Time Savings as Modeled

VISSIM was used to model transit travel time savings in the BMS EIR (Appendix 7)

FULL CORRIDOR

Lane	Route	Dir	2020 no project	2020 proposed project	Travel Time Savings	2040 transit	Travel Time Savings
Center	F	IB	29:00	24:00	17%	24:30	16%
		OB	27:30	20:30	25%	21:00	24%
	9R	IB	18:00	14:00	22%	16:30	8%
		OB	15:30	13:30	13%	14:30	6%
Curb	21	IB	17:00	15:00	12%	16:30	3%
		OB	22:30	18:30	18%	21:30	4%

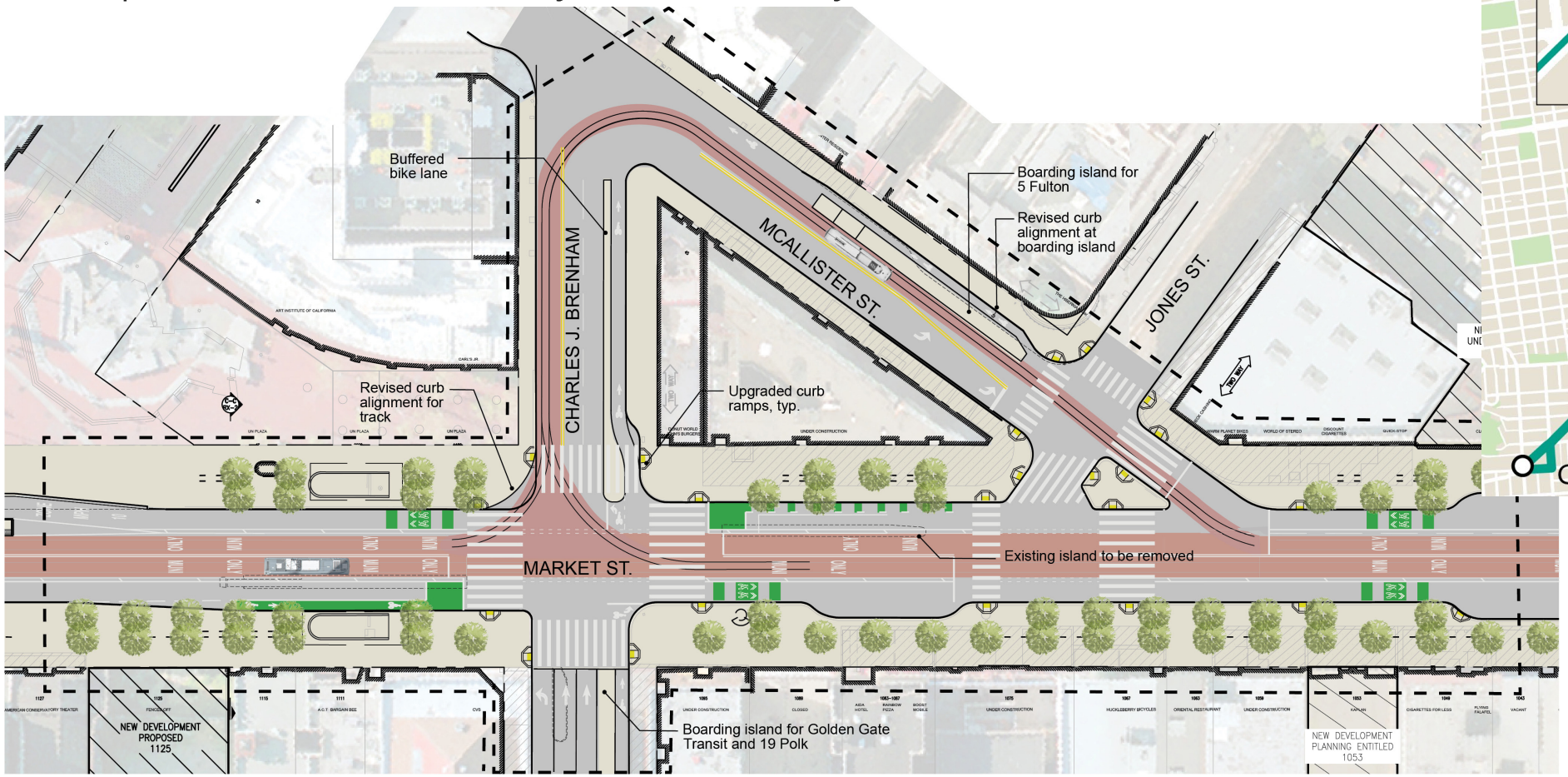
1st STREET TO 4TH STREET

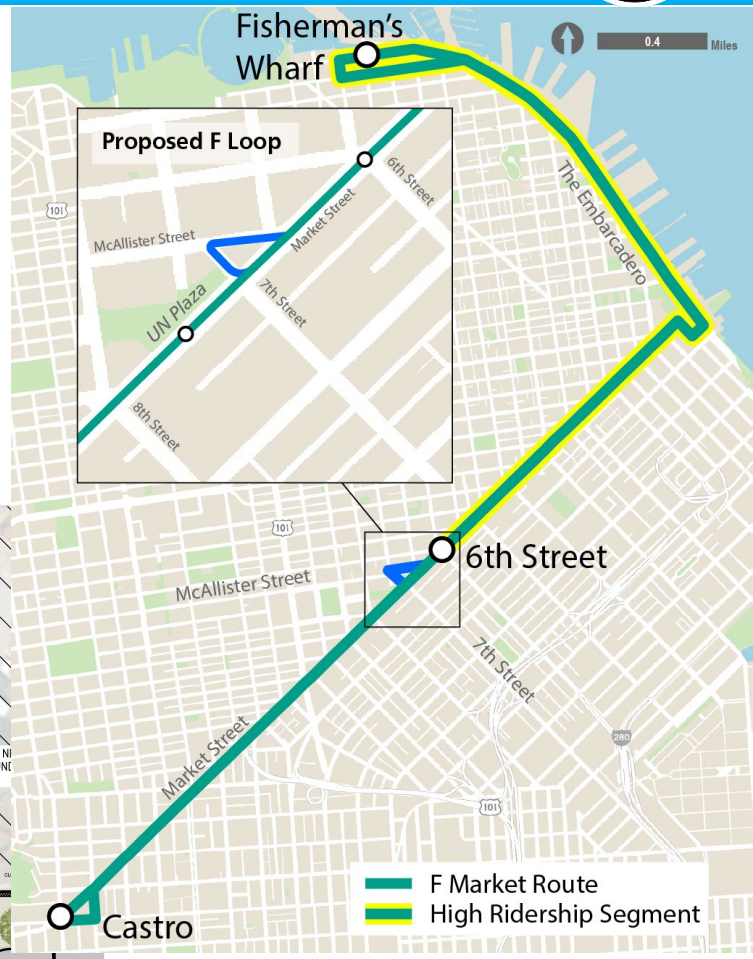
Lane	Route	Dir	2020 no project	Transit vehicles/ lane	2020 proposed project	Transit vehicles/ lane	Travel Time Savings	2040 transit	Transit vehicles/ lane	Travel Time Savings
Center	F	IB	6:28	56	5:21	56	17%	5:36	61	13%
		OB	5:35	56	4:46	56	15%	4:53	61	13%
	9R	IB	5:19	56	4:14	56	20%	5:23	61	-1%
		OB	4:57	56	4:28	56	10%	4:46	61	4%
Curb	21	IB	7:53	47	6:29	47	18%	6:57	63	12%
		OB	6:48	47	5:35	47	18%	7:50	63	-15%

Phase 2: F Market Loop

New F-line turn-back loop on McAllister and Charles J Brenham planned to start construction in 2024

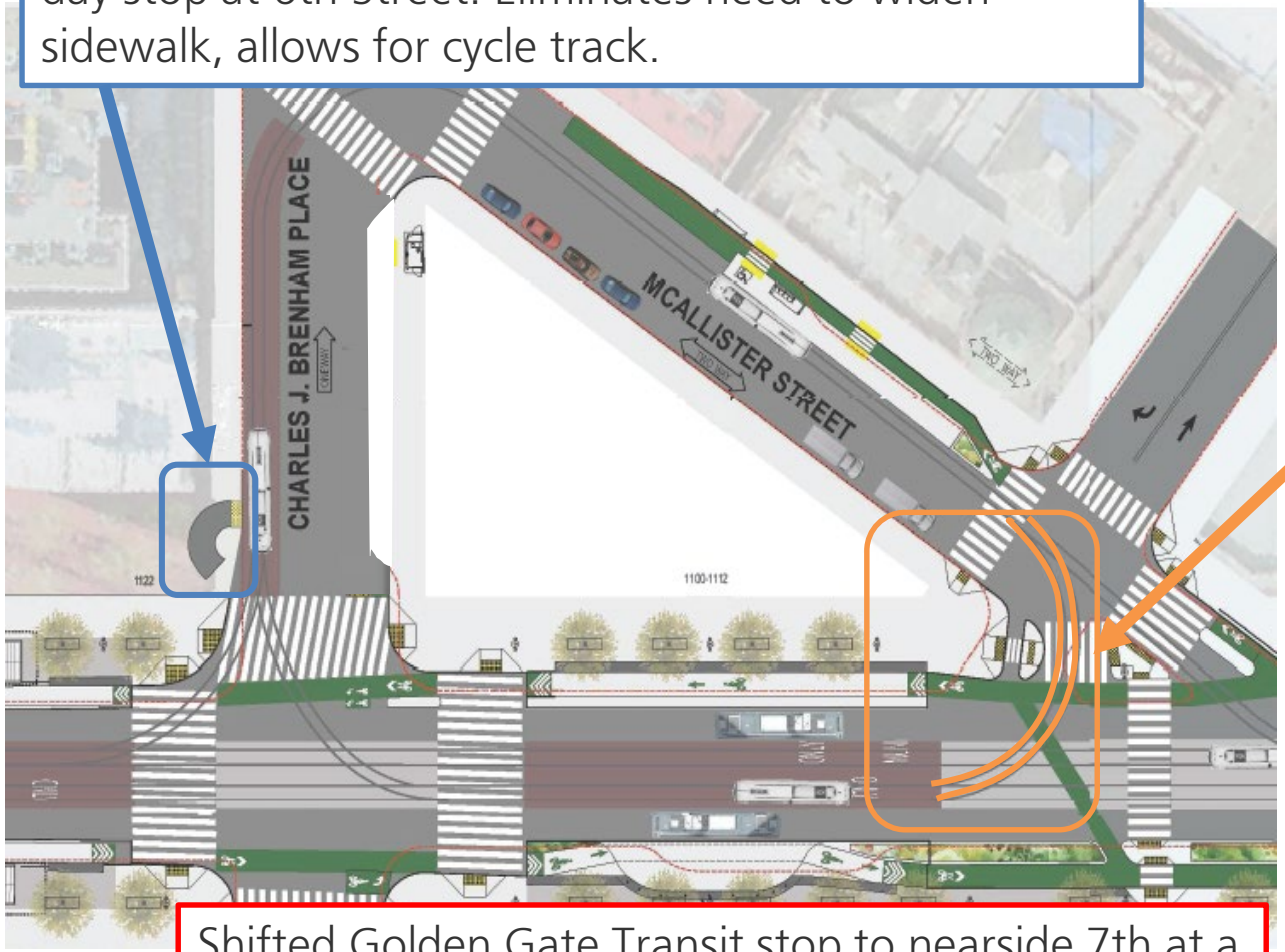
- Enables more service where ridership is highest
- Improves transit flexibility and reliability



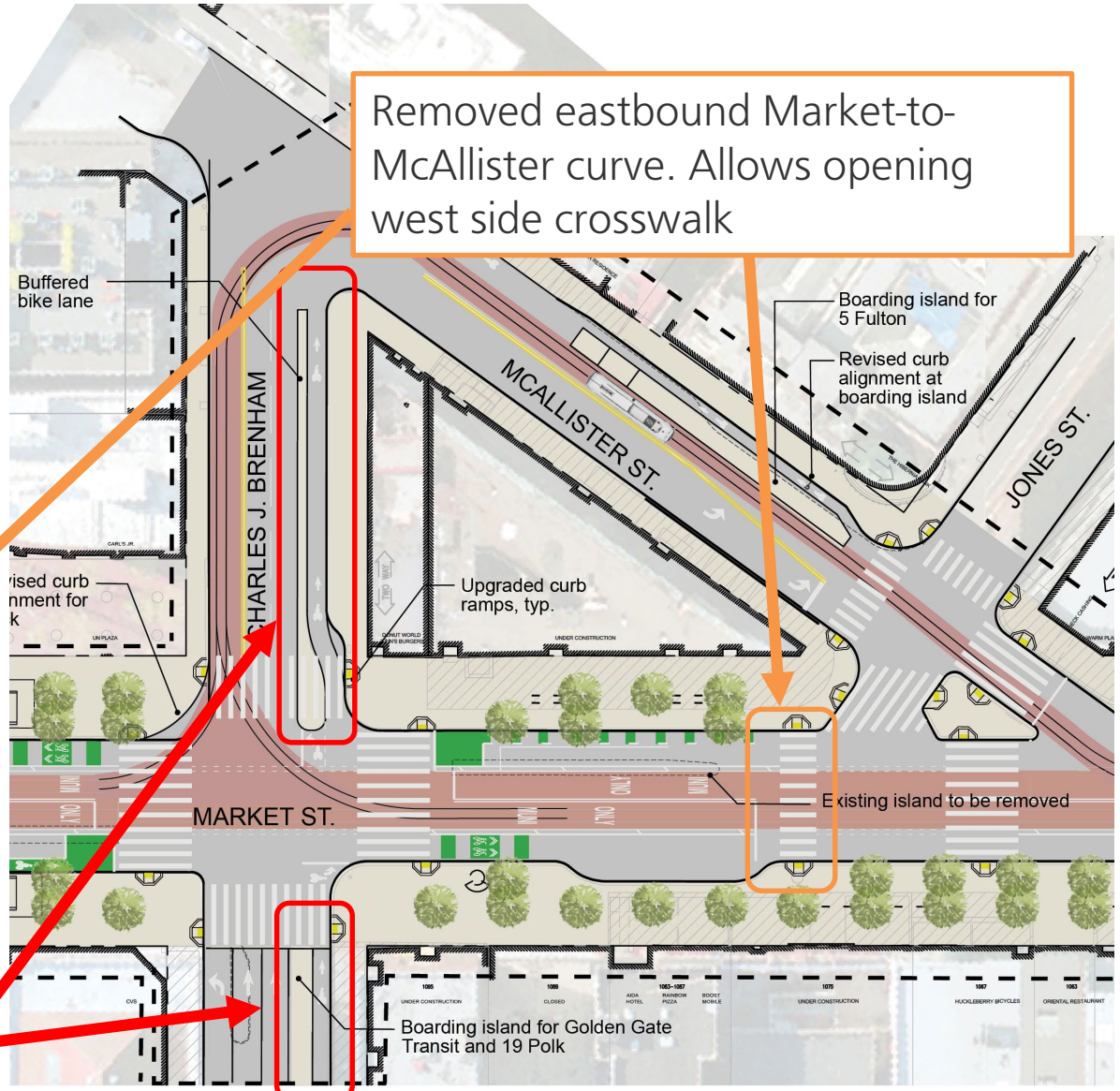


F Loop Design 2019 vs. 2020

Replaced part-time stop at Charles J Brenham with all-day stop at 6th Street. Eliminates need to widen sidewalk, allows for cycle track.



Removed eastbound Market-to-McAllister curve. Allows opening west side crosswalk



Shifted Golden Gate Transit stop to nearside 7th at a boarding island. Allows 7th Street cycle track to continue north

What Will Happen Beyond 5th to 8th?

- Each new construction segment will have a public process and updated environmental review
- We will need to identify additional funds for design and construction
- **East of 5th:** We will need to determine what service we can restore post-COVID. This will inform design parameters so that we can develop design options
- **West of 8th:** We are exploring way to accelerate implementation of Hub/Western Variant improvements (with all buses in center lane per 2019 design)

Potential Hub Design with street-level bikeway and median islands, instead of widened sidewalks

Thank You!

For media inquiries and general project-related questions, please contact:

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