



Presentations for March 13, 2025 Board of Directors Meeting



Item 5a.ii: CARB Alternative Control of Emissions Approval and MV Karl
Acceptance and Delivery

San Francisco Bay Ferry Alternative Compliance

13 March 2025



San Francisco Bay Ferry

M.V. Karl Delivery



How Did We Get Here? – 2019 Pre- CARB CHC Rule Making

- 3 Pyxis Class Vessels Delivered
- First EPA Tier 4 Ferries in the USA
- First MTU 16V4000 EPA Tier 4 Engines

- 2 Dorado Class Vessels Under Construction
- First MTU 12V4000 EPA Tier 4 Engines



SF Bay Ferry is leading the Country with Lowest Emissions Ferries

April 2020 – Start of Commercial Harbor Craft Rule Making Process

- A majority of the fleet required major high risk capital expenditures
- Limited EPA Tier 4 engines available
- Limited to no space for SCR's
- No space for DPF's & extremely limited available information
- Industry was struggling to cope with EPA Tier 4

2022 Regulation: Cleaner Combustion

Cleanest
Certified Engine
Tier 3 or 4

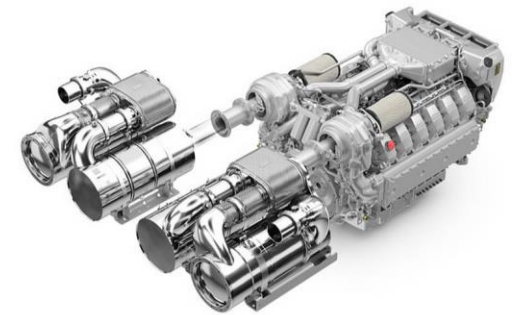


CARB Verified
Diesel Particulate
Filter
(DPF)

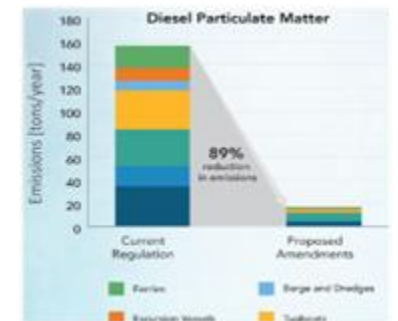
- Tier 4 engines required for <600 kW if certified for duty cycle
- Engines that meet CARB's performance standards in EPA-certified configuration may be used



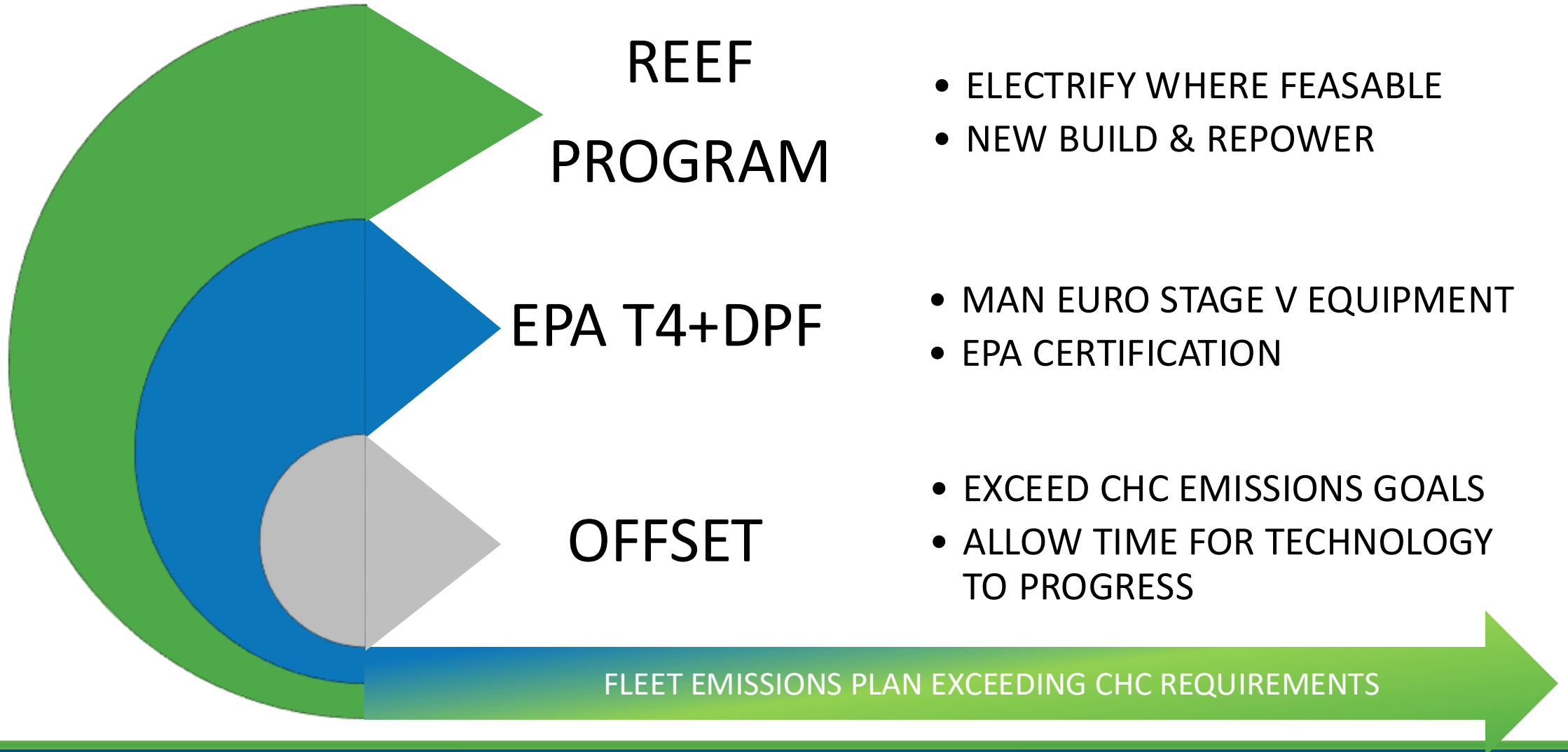
COLLABORATION



aurora
marine
design



ALTERNATIVE CONTROL OF EMISSIONS (ACE) PLAN



ALTERNATIVE CONTROL OF EMISSIONS (ACE) PLAN

Tracy Haynes, PE
Staff Air Pollution Specialist
Freight Activity Branch
Transportation and Toxics Division



ALTERNATIVE CONTROL OF EMISSIONS (ACE) PLAN

- Purpose of ACE Plan is compliance flexibility while achieving the required air quality benefits
- ACE Plan must achieve equivalent reductions of pollutants (NO_x and PM) as model-year-based compliance deadlines from 2023 through 2034
- Requires a public process – 2 public comment periods and CARB Executive Officer approval
- Complex calculations to show equivalent emission reductions for fleet
- Extensive coordination between WETA/SF Bay Ferry and CARB staff



SF BAY FERRY ACCOMPLISHMENTS

- ACE Plan approved March 7, 2025
- First approved ACE Plan under the Commercial Harbor Craft Regulation
- Achieves equivalent PM and significantly lower NOx emissions versus model-year-based compliance
- Visionary approach to fleet modernization, supports pollution and climate goals
- MV Karl – first vessel to meet the most stringent CHC Regulation emission standards for diesel vessels (Tier 4 + DPF)



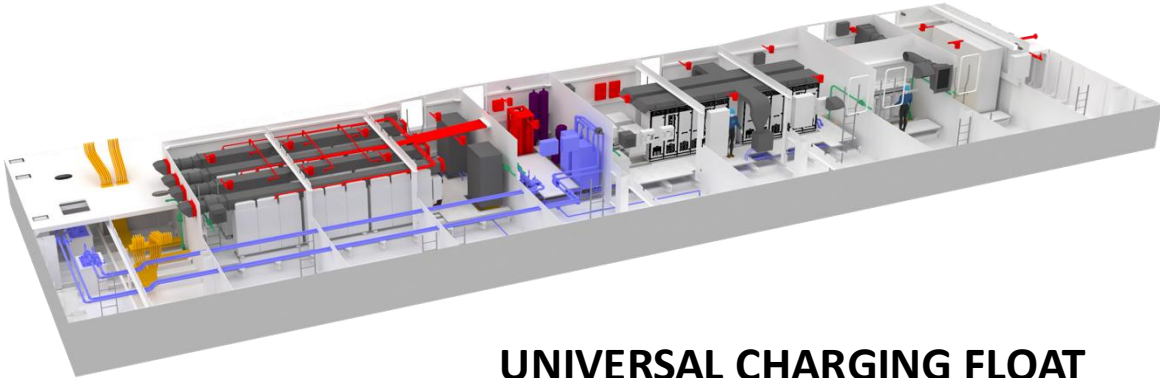
ZERO EMISSIONS PORTION OF ACE PLAN



RAPID ELECTRIC EMISSION-FREE FERRY PROGRAM



150 PASSENGER REEF



UNIVERSAL CHARGING FLOAT



400 PASSENGER REEF

EMISSIONS REDUCTION PORTION OF ACE PLAN

< 1,450 BHP ENGINES

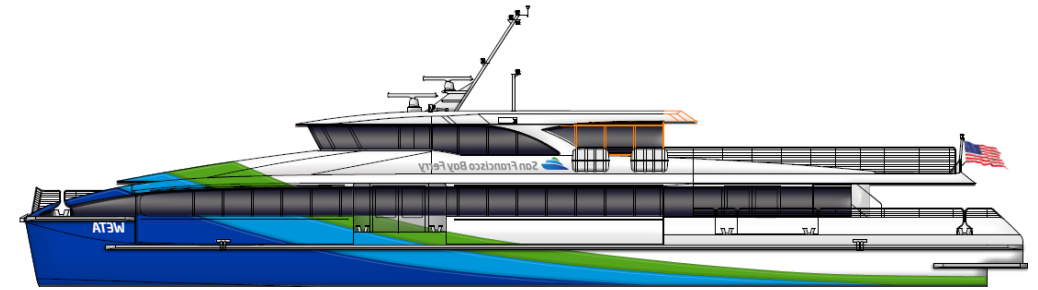
- MAN Engine+DPF+SCR System Identified
 - Technically Feasible solutions that was factory integrated and warrantied
 - Economically Viable for new builds and retrofits
 - Needed to be EPA Certified with DPF

> 1,450 BHP ENGINES

- 3RD Party aftermarket DPF systems added onto EPA Tier 4 engines and SCR's
- Very large, mounted after SCR, Integration risks
- Path to CARB verification was a risk

EPA CERTIFIED TIER 4 + DPF

- October 2020: Karl Class upgraded to MAN EPA Tier 4 compliance
- March 2021: Gemini Class rapidly repowered to MAN EPA Tier 4 to streamline future CHC compliance
- March 2022: SF Bay Ferry and Golden Gate Ferry commit to MAN T4+DFP
 - November 2023: EPA Certification
- FY 23 Community Project Funding Request
 - Championed by Congressman Garamendi
 - \$1.52M awarded for DPF's
 - Karl & Zalophous upgraded to MAN Tier 4 + DPF



KARL CLASS



GEMINI CLASS



M.V. Karl Improvements

UPPER DECK HVAC BAR AREA

M.V. DORADO HVAC AREA



M.V. KARL HVAC AREA



UPPER DECK PASSENGER AREA

M.V. DORADO HVAC UPPER DECK



M.V. KARL UPPER DECK



NEXT STEPS

- M.V. ZALOPHUS DELIVERY Q3 2025
- 400 PAX REEF VESSEL CONSTRUCTION CONTRACT AWARD
- UNIVERSAL CHARGING FLOAT CONSTRUCTION CONTRACT AWARD
- CONTINUED IMPLEMENTATION OF THE ACE PLAN



Thank you



Item 5e: Ridership Report

Monthly Ridership Report

March 2025



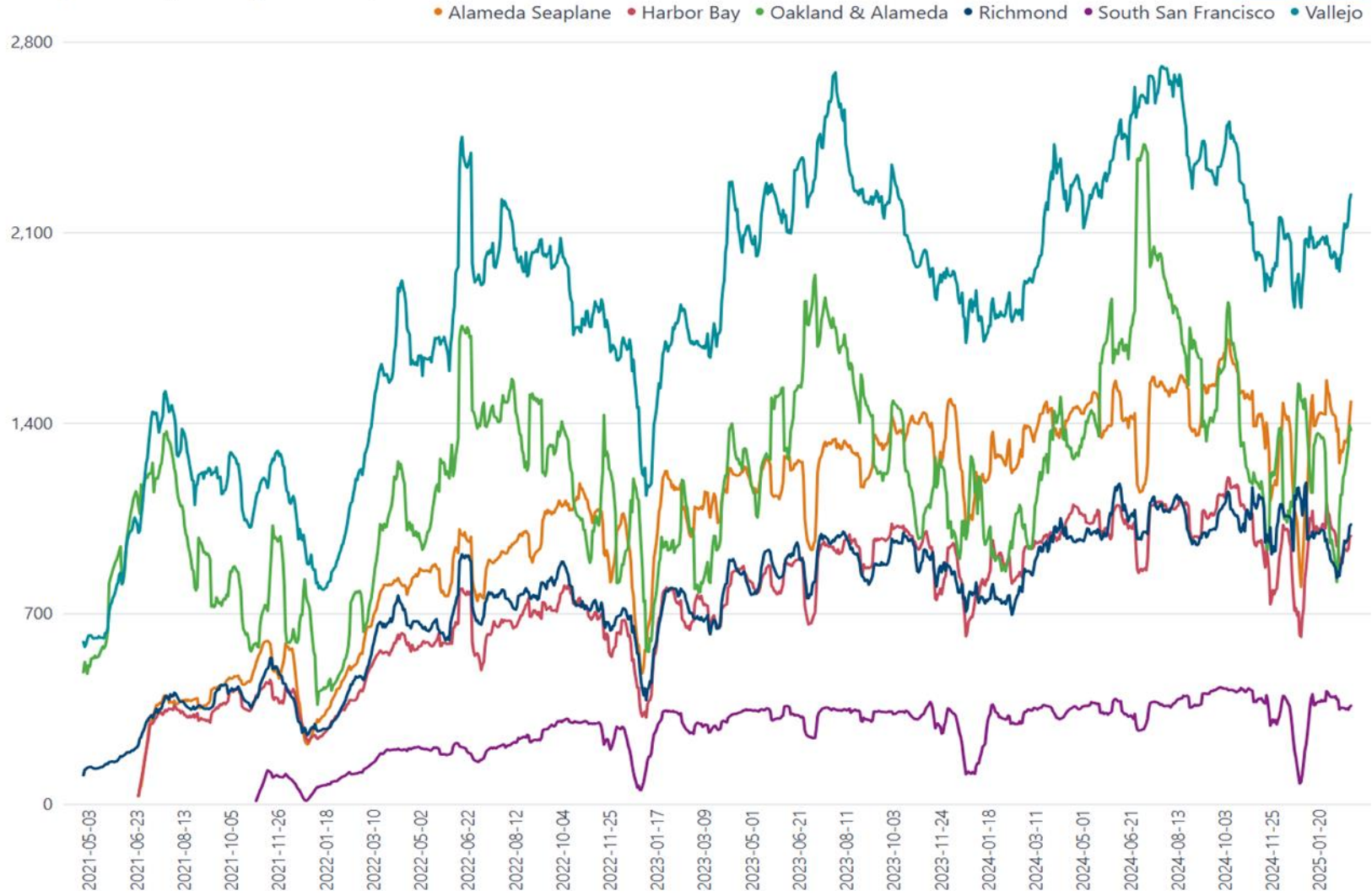
San Francisco Bay Ferry

Highlights

- February ridership: over 180,000 total boardings
- 7% higher than budget projection, 16% higher year-over-year
- 92% of pre-pandemic (February 2019) ridership
- SFBF continues to outperform other regional transit operators in ridership recovery
- Alameda Seaplane route carried its 1 millionth passenger
- Ferry routes serving Alameda make up about 57% of total SFBF ridership currently
- New Oakland Alameda Water Shuttle has been very successful since launch of service in July 2024

10-Day Weekday Average Ridership

[Download CSV](#)

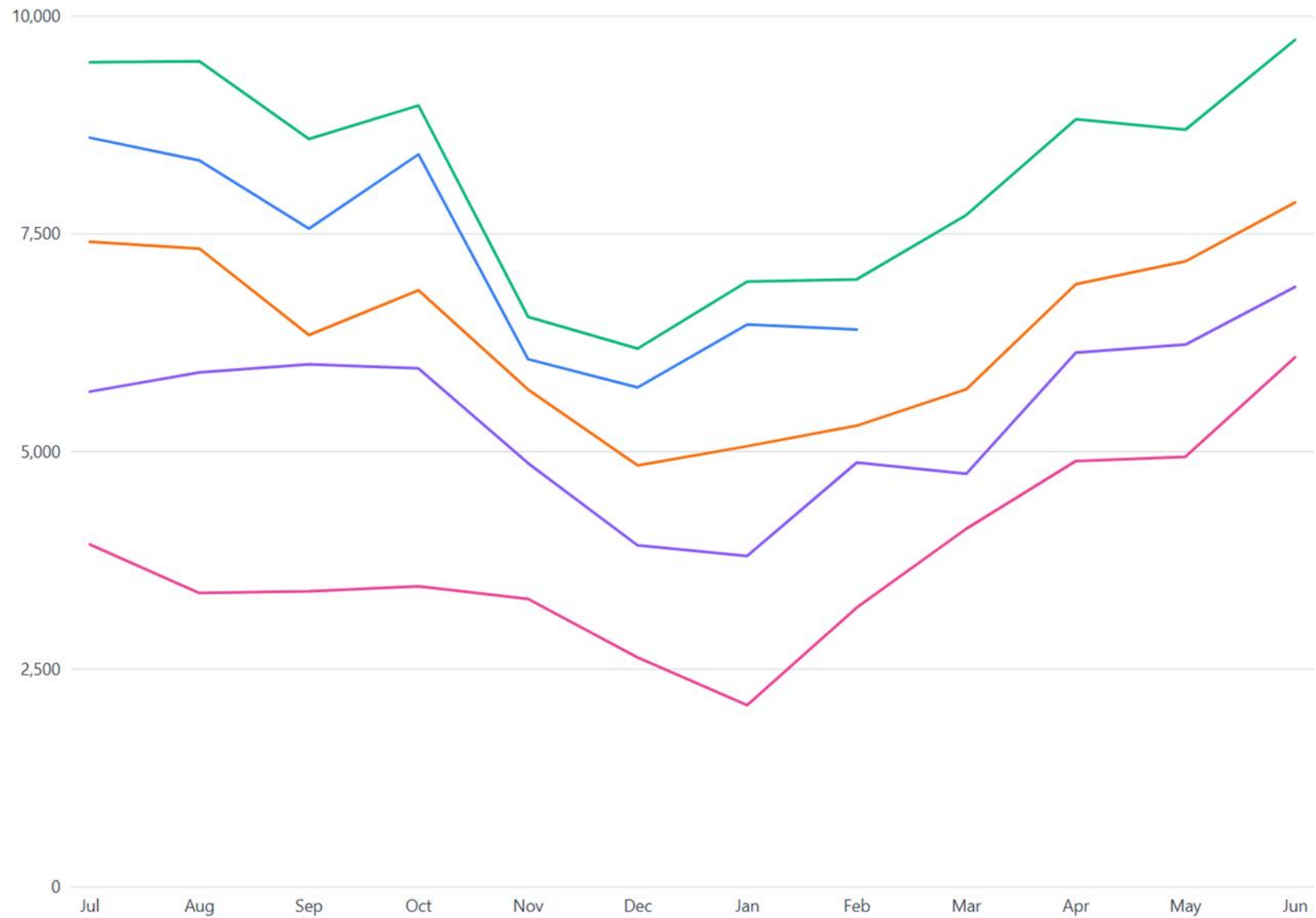


Ridership from other routes and event ridership is excluded.

Average Daily Ridership By Month

[Download CSV](#)

FY2019 FY2022 FY2023 FY2024 FY2025

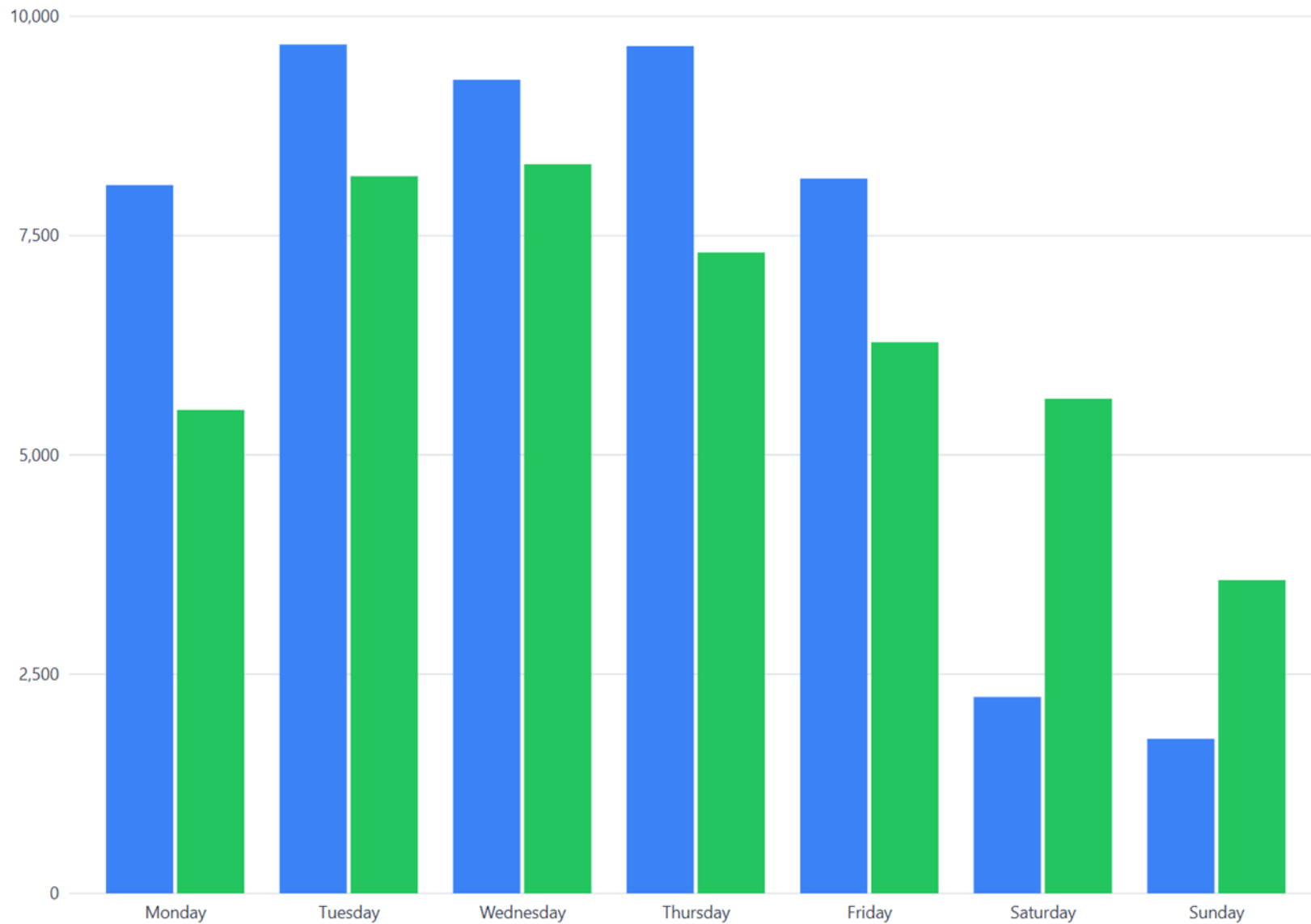


Event ridership is excluded.

Average Ridership by Day of Week Systemwide

[Download CSV](#)

• February 2019 • February 2025

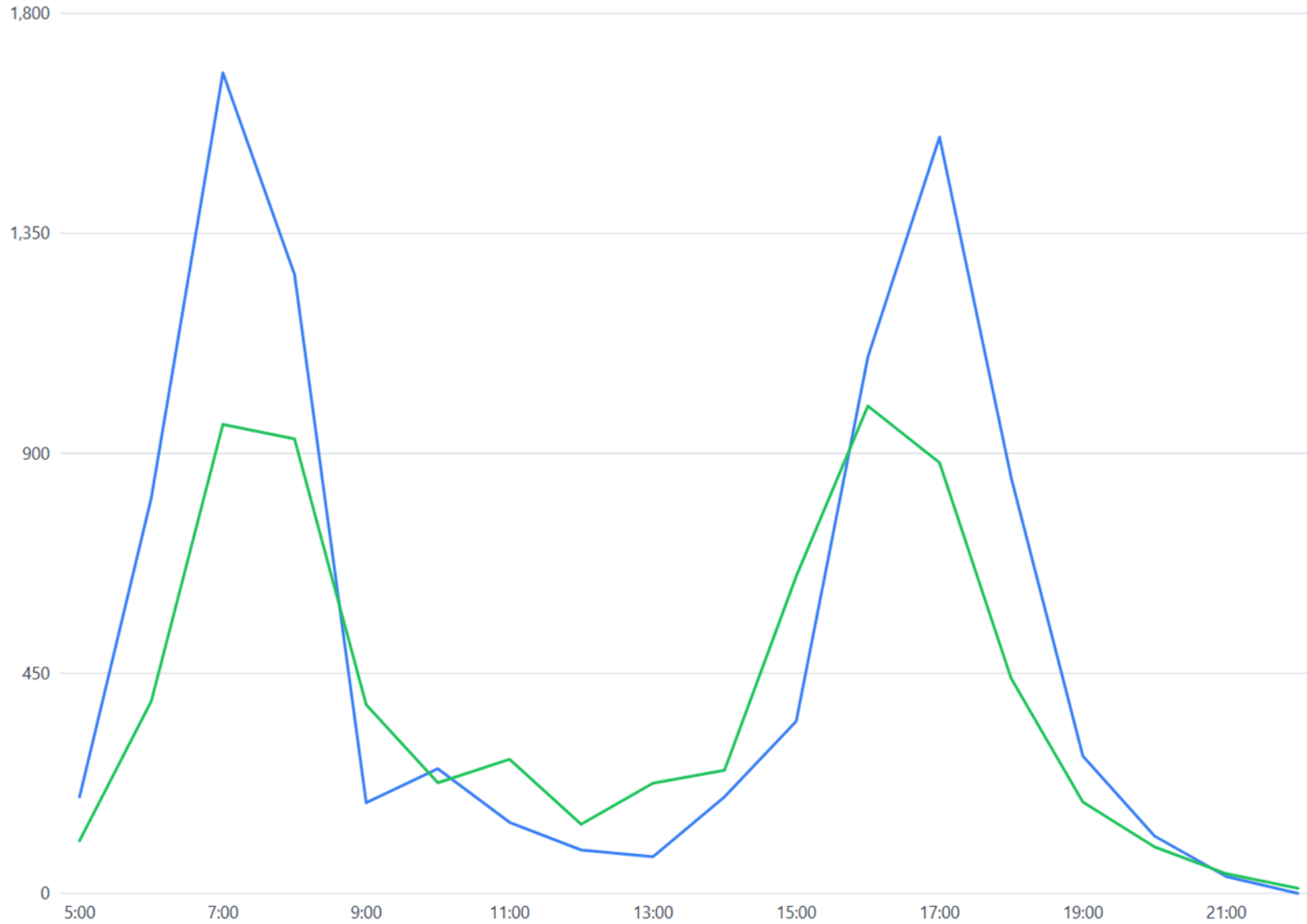


Event ridership is excluded. Holidays with no service are excluded.

Average Weekday Hourly Ridership

[Download CSV](#)

• February 2019 • February 2025

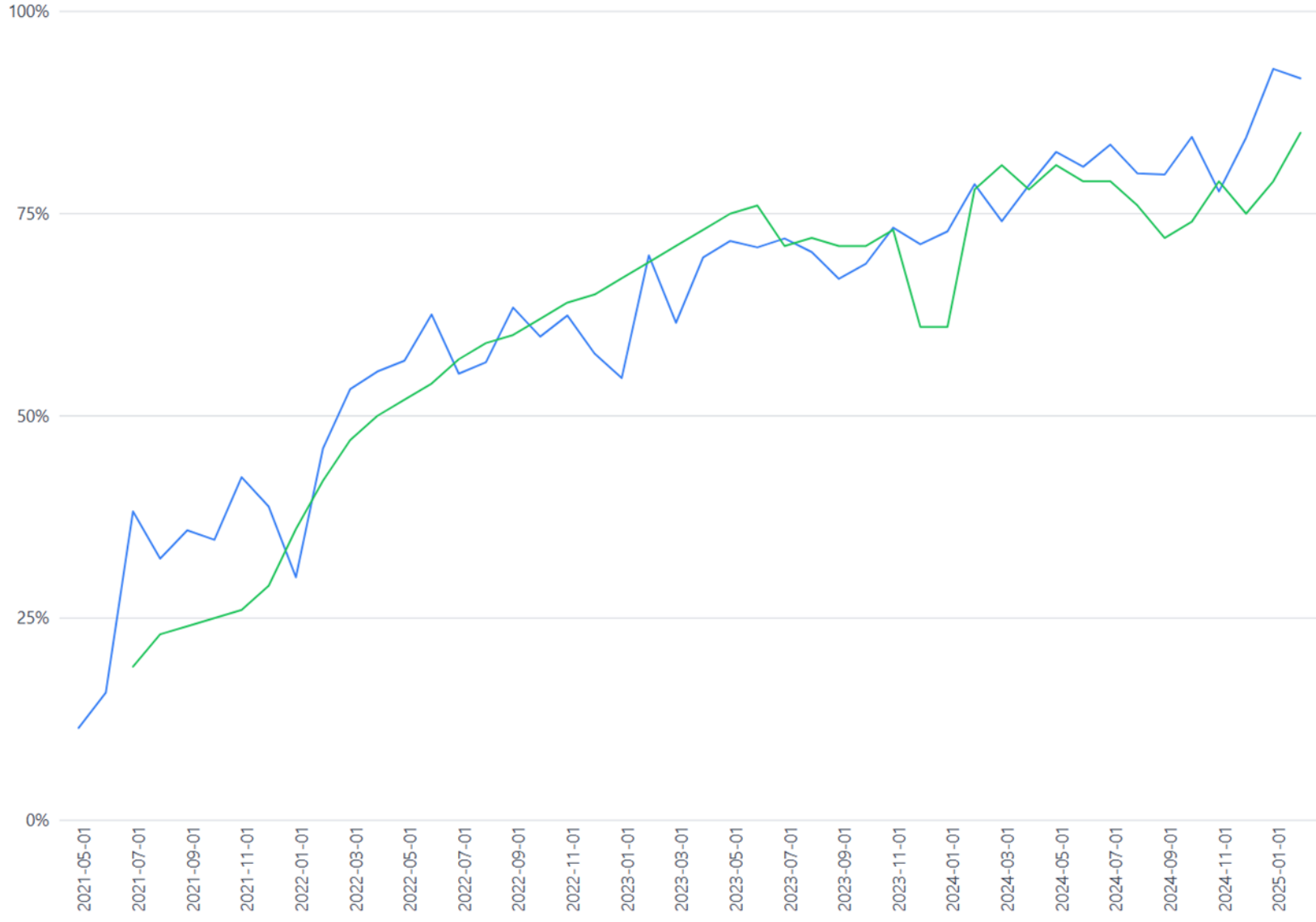


Event ridership is excluded. Scheduled trip segment start time is used.

Actual vs Budgeted Ridership

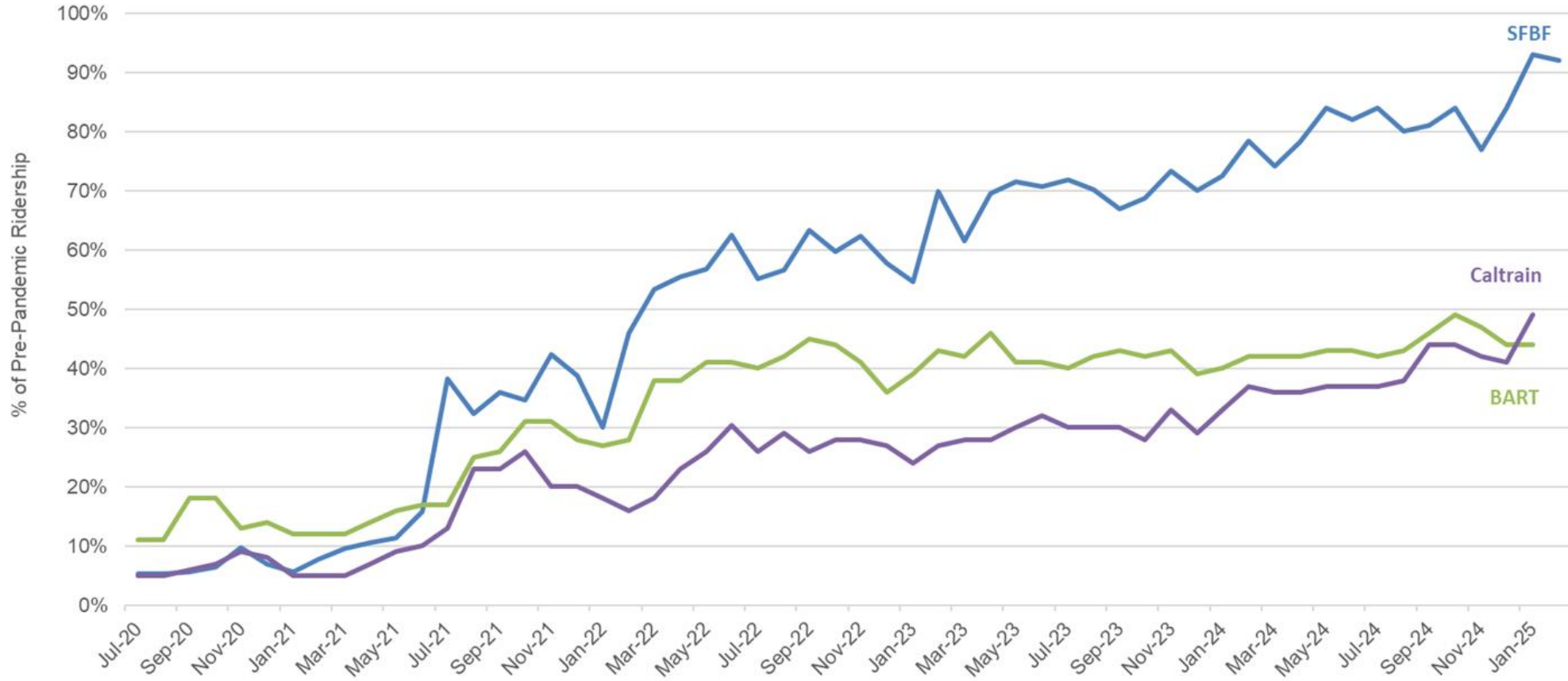
[Download CSV](#)

• Actual Ridership • WETA Budget Assumption



Event ridership is excluded.

Regional Transit Ridership



Thank you



Item 7: 400-Passenger REEF Vessel Procurement

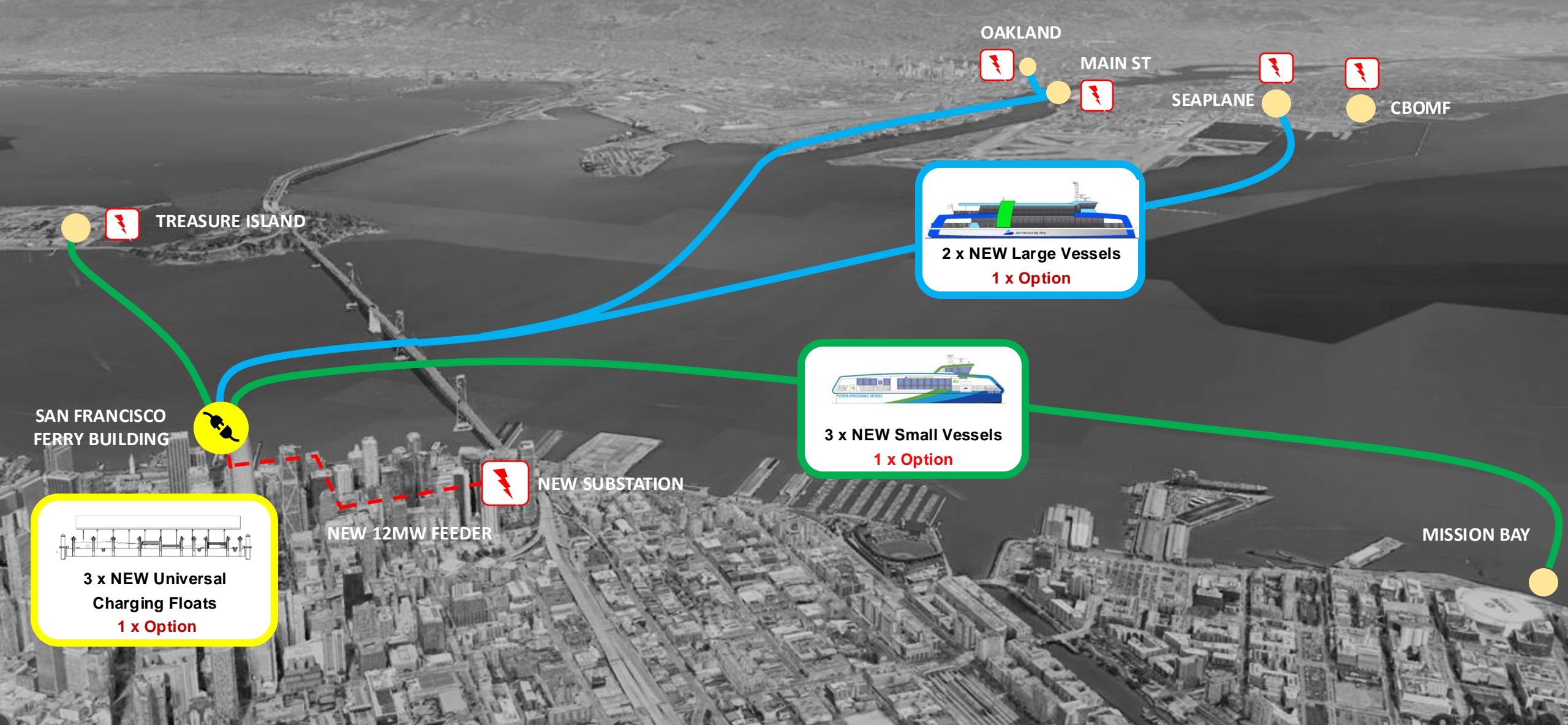
RFP 22-017 400 Passenger REEF Vessel Award

March 2025



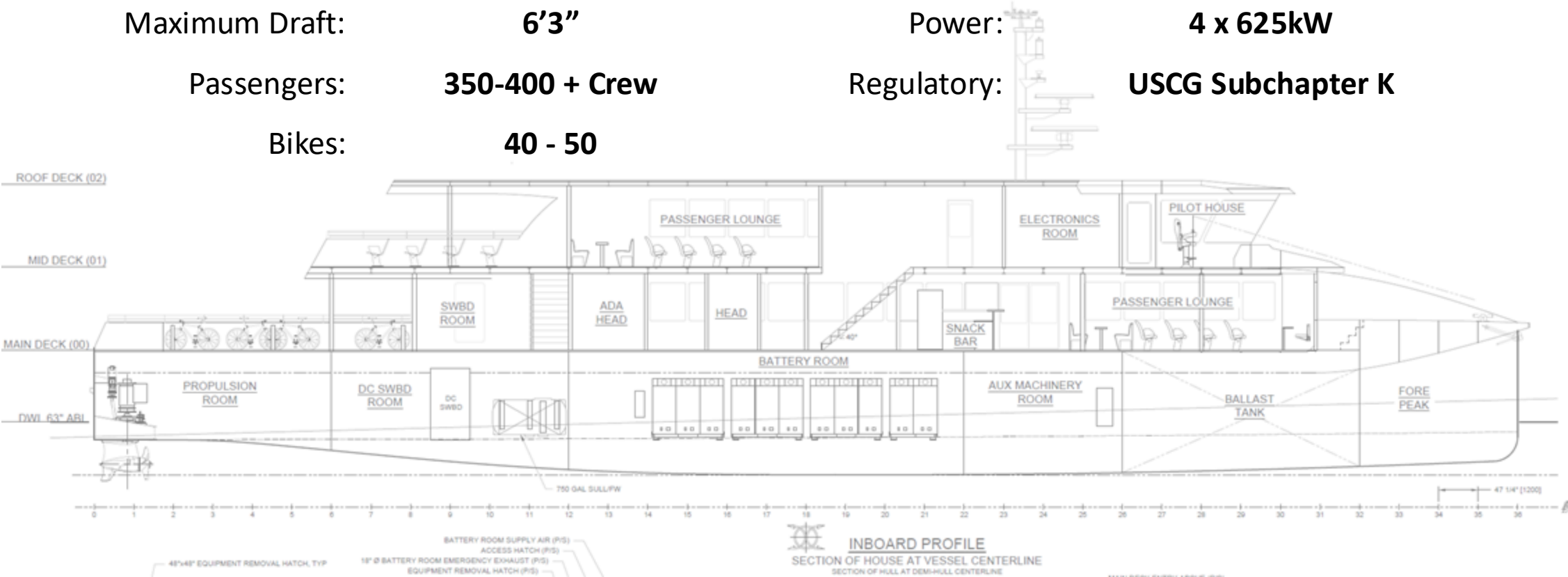
San Francisco Bay Ferry

Initial REEF Phase 1 and 2 Procurements



Large Vessel Required Design Metrics

Maximum Length:	144'	Speed:	24 kts – 26 kts
Maximum Beam:	35'	Propulsion:	All Battery Electric
Maximum Draft:	6'3"	Power:	4 x 625kW
Passengers:	350-400 + Crew	Regulatory:	USCG Subchapter K
Bikes:	40 - 50		

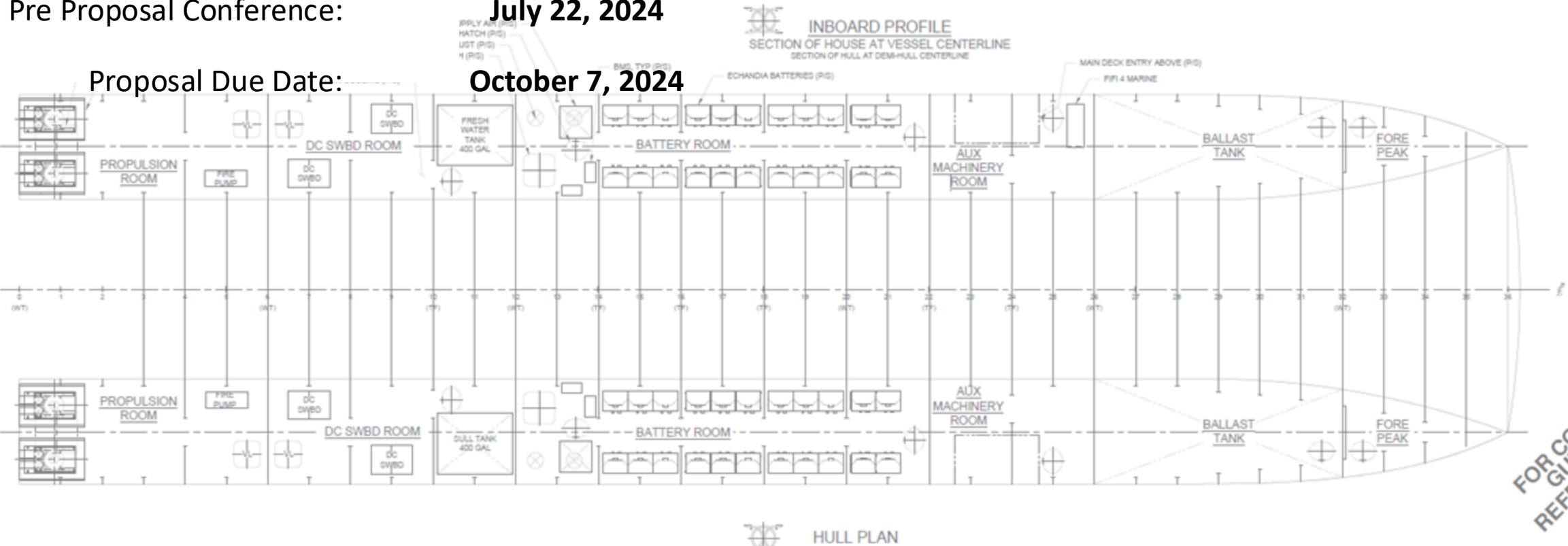


Procurement Schedule and process

RFP Released: **July 5, 2024**

Pre Proposal Conference: **July 22, 2024**

Proposal Due Date: **October 7, 2024**



FOR CONTRACT
GUIDANCE
REFERENCE ONLY

Vessel Proposal Evaluation

Proposer	Project Understanding & Approach	Proposer's Qualifications & Experience	Qualifications & Experience of Key Personnel	Total Price	Total Score
Possible Points	20.0	20.0	20.0	40.0	100.0
Nichols Brothers	15.7	15.2	16.7	39.6	87.2
Hornblower	11.1	11.5	13.0	40.0	76.6

Nichols Brothers Boat Builders

- Located on Whidbey Island, Washington
- 19-acre facility
- In business since 1982 / 42 years
- History of working with SF Bay Ferry
- Warehouse (10,000 sq ft), Pipe shop (5,280 sq ft), Electrical shop (1,000 sq ft), Machine shop (1,000 sq ft), Fabrication Dome (3,400 sq ft), Panel line and fabrication shed 120' x 60' (expanding to 280'x 60')



Nichols Brothers Proposed Vessel Design

Vessel Design by Incat Crowther. Numerous Parent crafts in service worldwide. Integrates Wartsila & Hydromaster systems for familiarity and redundancy across the REEF program.

Length Over All: **142' 1"**

Passengers: **400**

Length Waterline: **139' 9"**

Speed: **24+ kts**

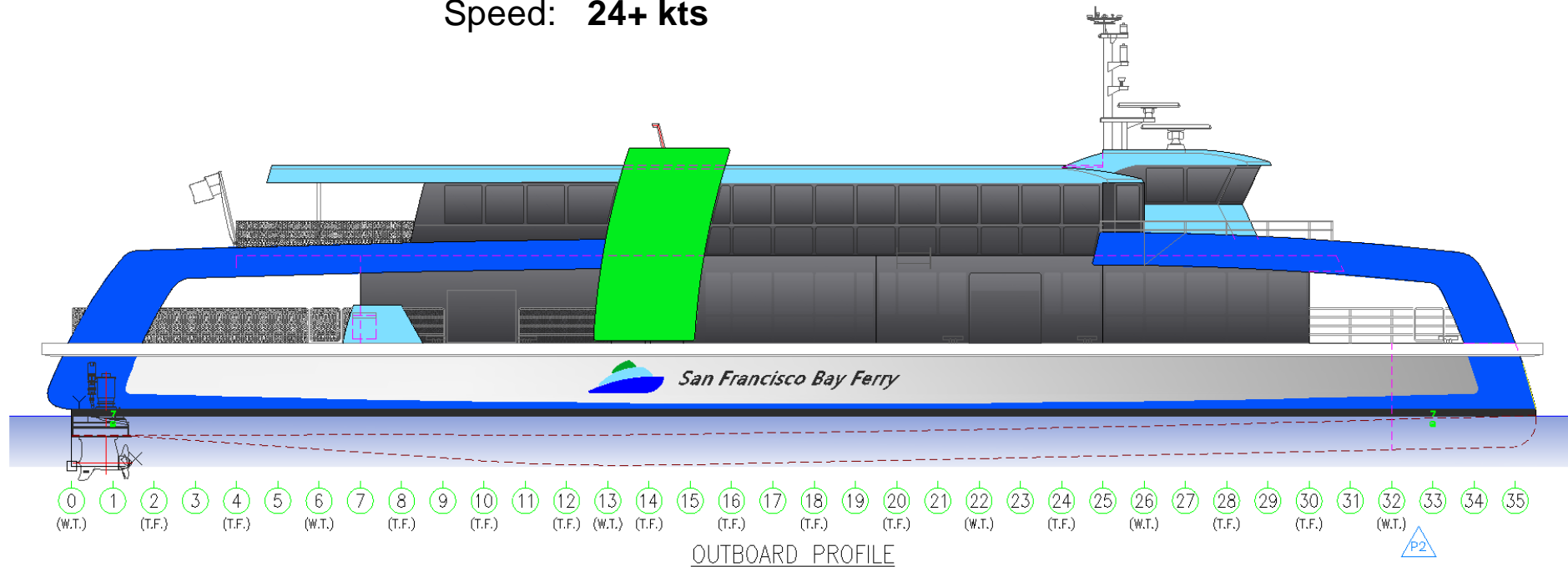
Beam: **34' 9"**

Draft: **6' 3"**

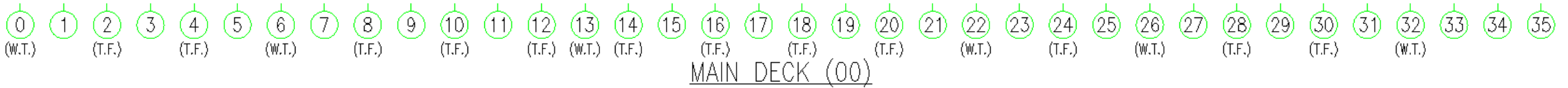
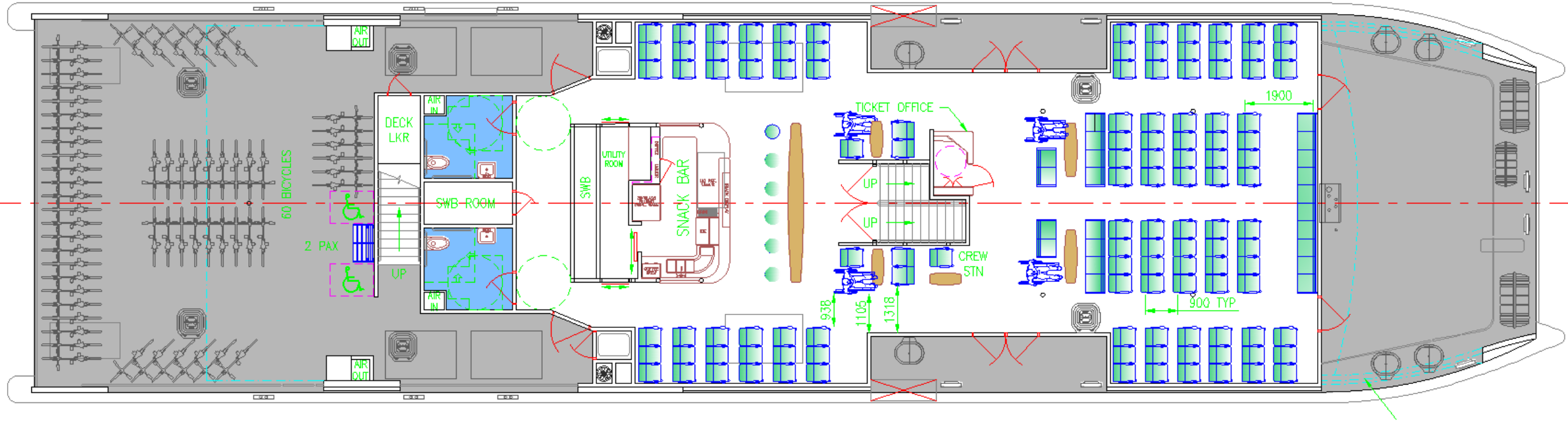
Lightship: **164 LT**

Full Load: **203 LT**

Power: **4 x 625 kW**



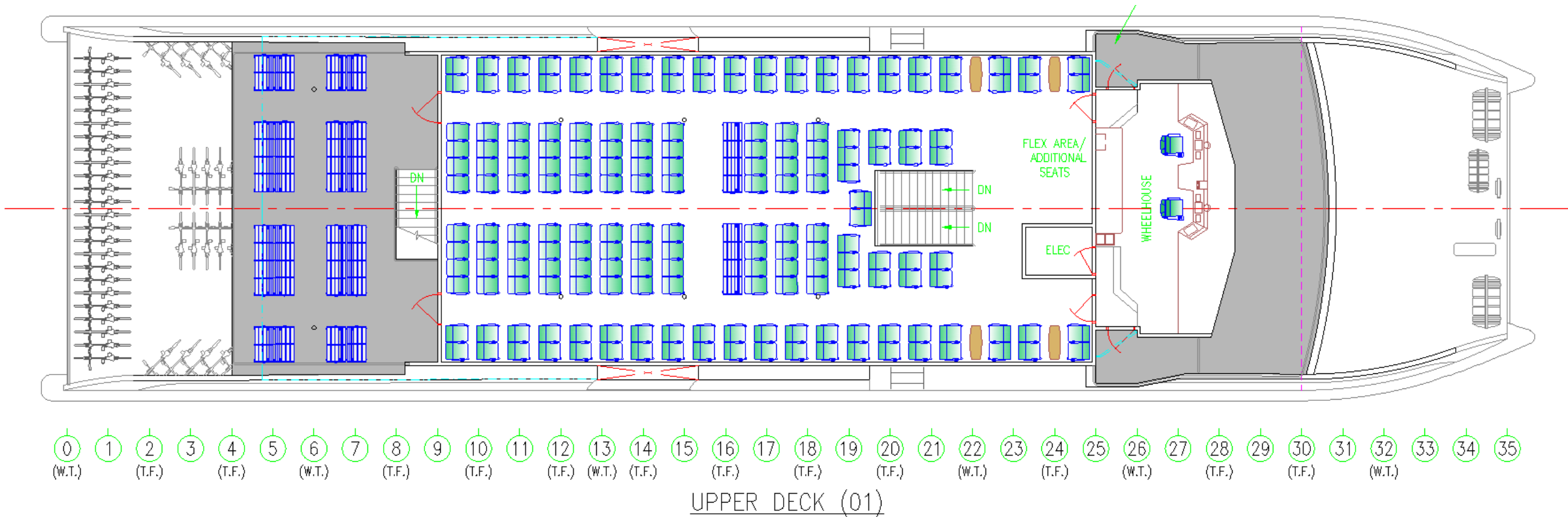
Nichols Brothers Proposed Main Deck Arrangement



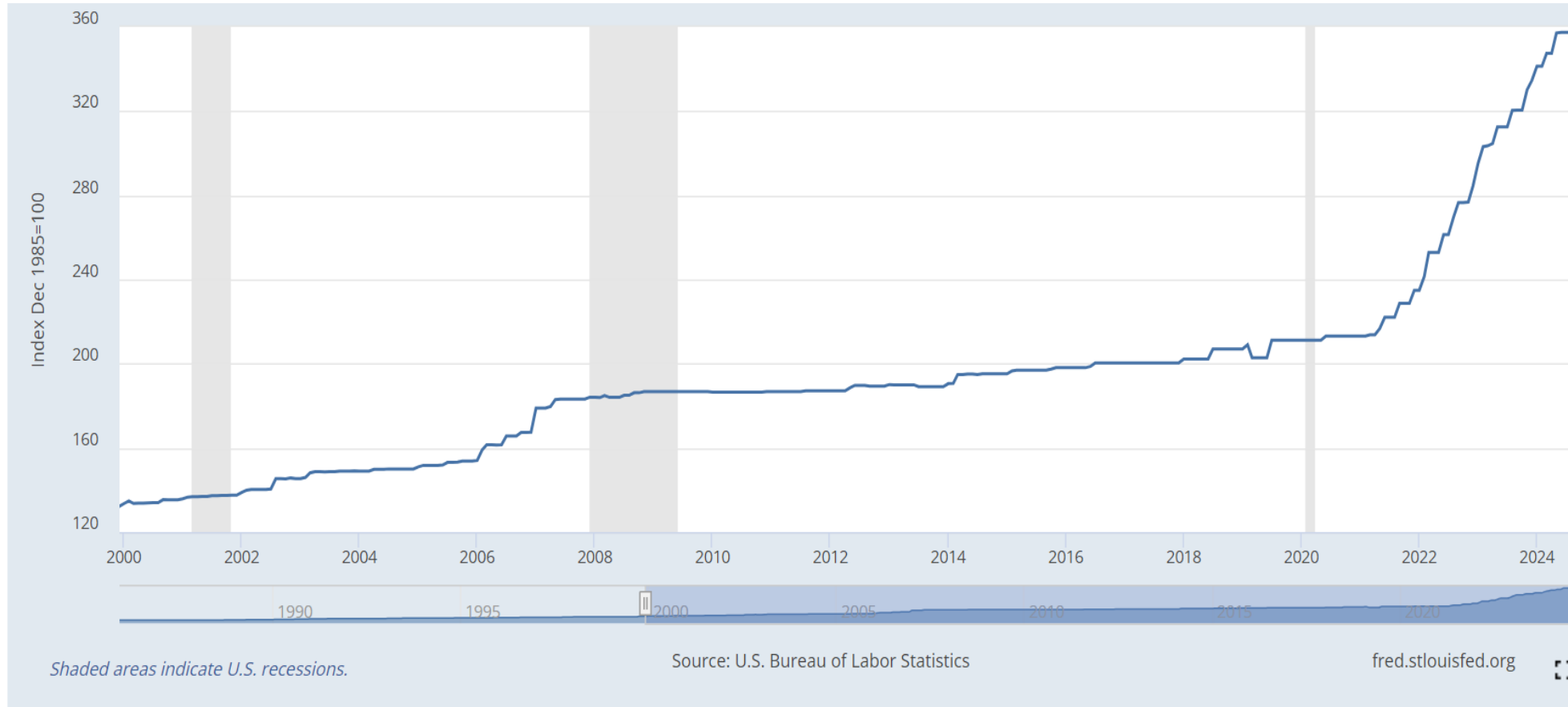
Interior Seats: 152
 Bikes: 60
 ADA Heads: 2

Hydrus & Dorado Inspired Layout
 External Machinery Space Access
 Optimized to Universal Charging Float

Nichols Brothers Proposed Upper Deck Arrangement



Ship Building Cost Trend, 2000-2024 (U.S. BLS PPI)



- **Ave. annual increase in ship building costs, 2020 to 2024 = 13.9% vs. 4.9% CPI**
- **Ship built in 2024 is 70% more expensive compared to ship built in 2020**

Vessel Cost Analysis

Negotiated Vessel Pricing vs. Independent Cost Estimate

Source	Vessel Price (2-Vessels)	Average Price/Vessel	% Difference from ICE
Nichols Brothers	\$59.56	\$29.78	43.7%
Independent Cost Estimate (2021)	\$41.45	\$20.73	0.0%

- **Three key factors** explain higher-than-expected vessel pricing:
 - Impacts from Pandemic-Era Inflation
 - High Demand and Limited Supply of U.S. Shipyard Capacity (“Sellers Market”)
 - Perceived Risk Associated with New Vessel Technology

Vessel Cost Analysis

Inflation-Adjusted Price of Comparable Vessels

Operator	Builder	Boat Name	PAX	Cost (\$2024)	Cost/PAX
Kitsap Transit	All American Marine	Waterman	149	\$9.0M	\$60K
NJ Transit	Hornblower Marine	TBD	149	\$14.9M	\$100K
Kolumbus	Fjellstrand Shipyard	Medstraum	147	\$16.8M	\$114K
Waterbus	Damen Shipyards	Blue Rotterdam	75	\$15.3M	\$204K
WETA	Vigor Kvichak	Gemini	149	\$16.1M	\$108K
WETA	Vigor Kvichak	Pisces	149	\$16.2M	\$109K
WETA	Vigor Kvichak	Scorpio	199	\$18.9M	\$95K
WETA	Vigor Kvichak	Taurus	199	\$18.9M	\$95K

- **Ave. Cost/PAX for the 400-PAX vessel is \$74K which is within range of comps**
- **400-PAX all-electric vessel is first of its kind; No comps in the market currently**

Thank you



Item 8: Mission Bay Ferry Landing MOU

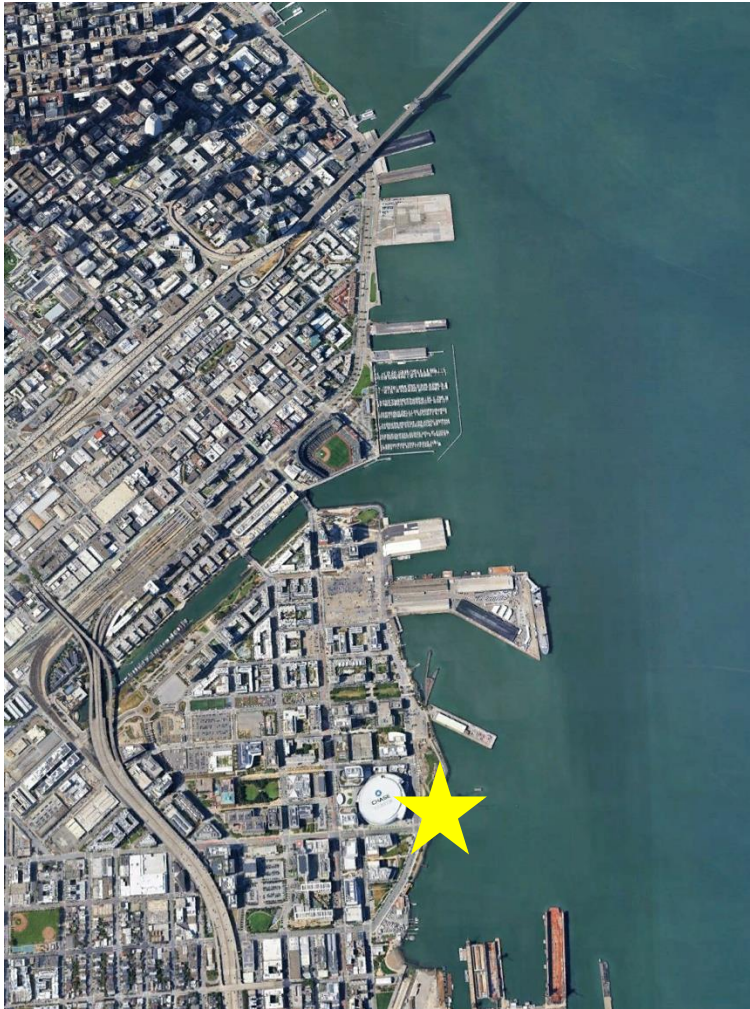
MISSION BAY FERRY LANDING

MARCH 13, 2025



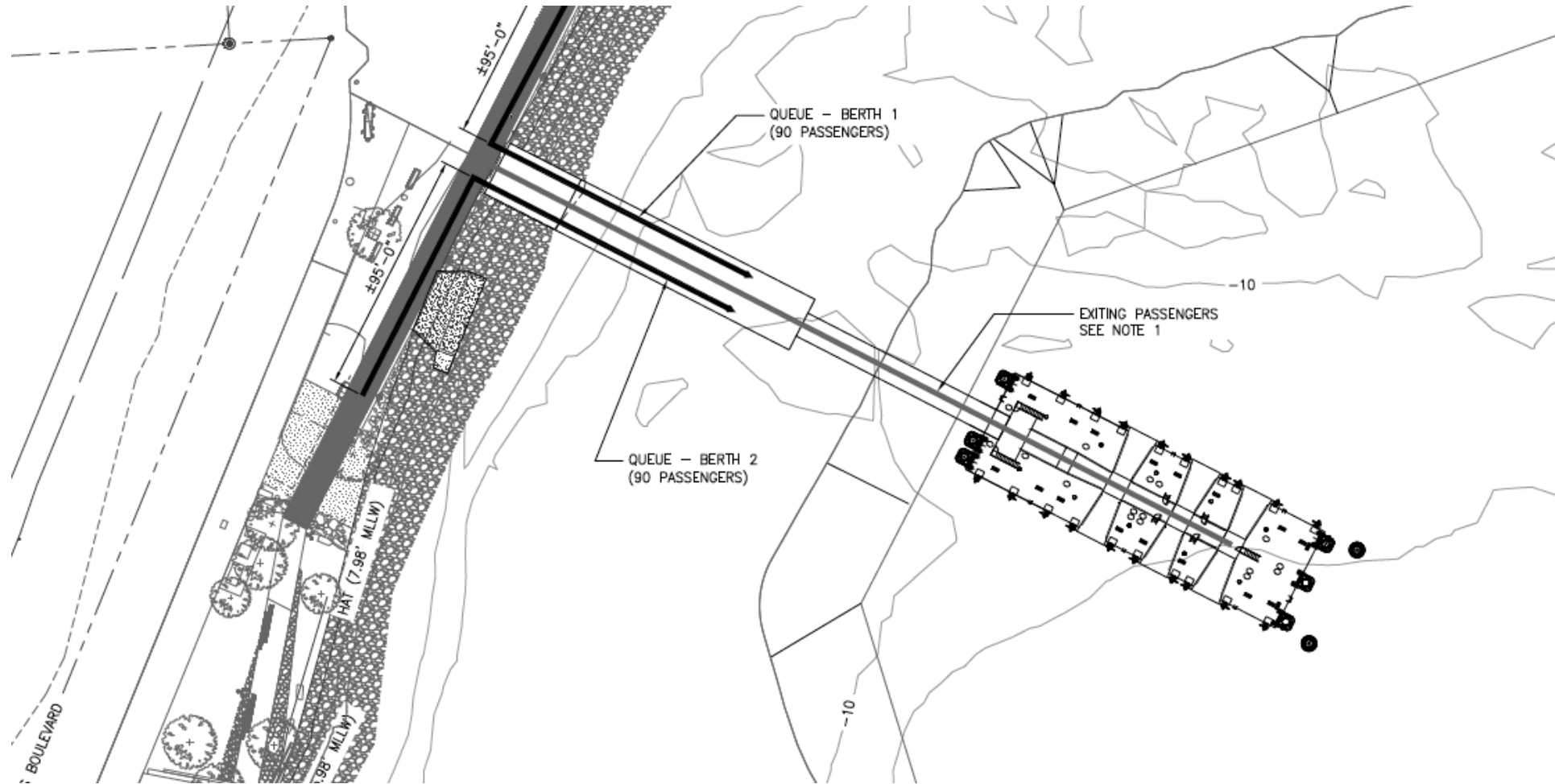
San Francisco Bay Ferry

PROJECT LOCATION



Terry A. Francois Boulevard and 16th Street

PROJECT DESIGN



**Source: Port of San Francisco, COWI North America*

PROJECT DESIGN



**Source: Port of San Francisco, COWI North America, Robin Chang & Company*

Thank you



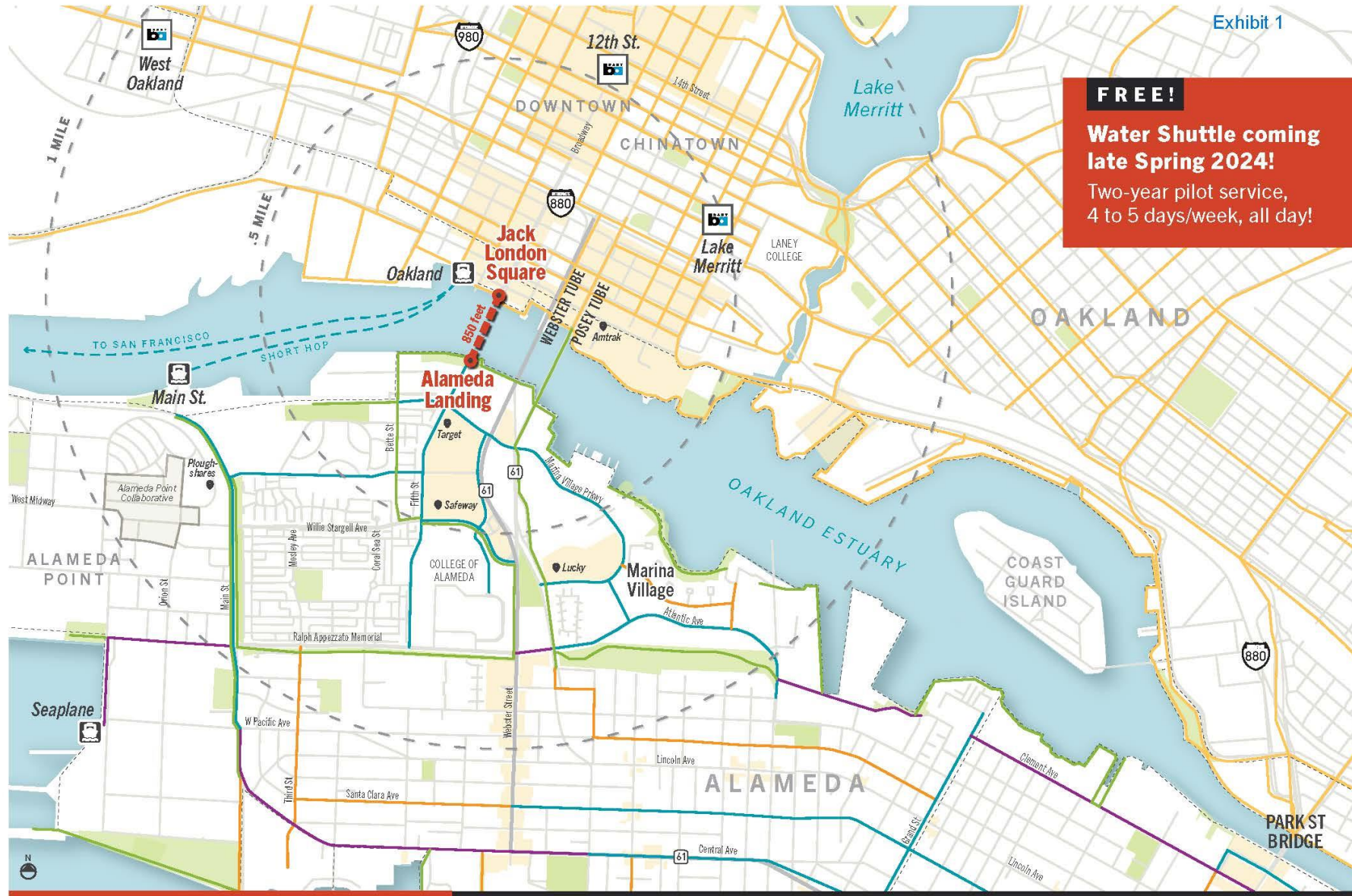
Item 10: Oakland Alameda Water Shuttle Pilot Project Update

Oakland Alameda Water Shuttle Update

March 2025



FREE!
Water Shuttle coming late Spring 2024!
 Two-year pilot service,
 4 to 5 days/week, all day!



ALAMEDA-OAKLAND ESTUARY WATER SHUTTLE PILOT

December 2023

WATER SHUTTLE ROUTE

Route

OAKLAND EXISTING + PROPOSED

All Bikeway Types

ALAMEDA EXISTING + PLANNED (FUNDED)

- Shared-Use Path (Class I)
- Separated Bike Lane (Class IV)
- Bike Lane (Class II)
- Shared Lane (Class III)

DESTINATIONS

- Commercial District
- Parks
- BART Station
- Ferry Terminal
- Bay Trail Alignment

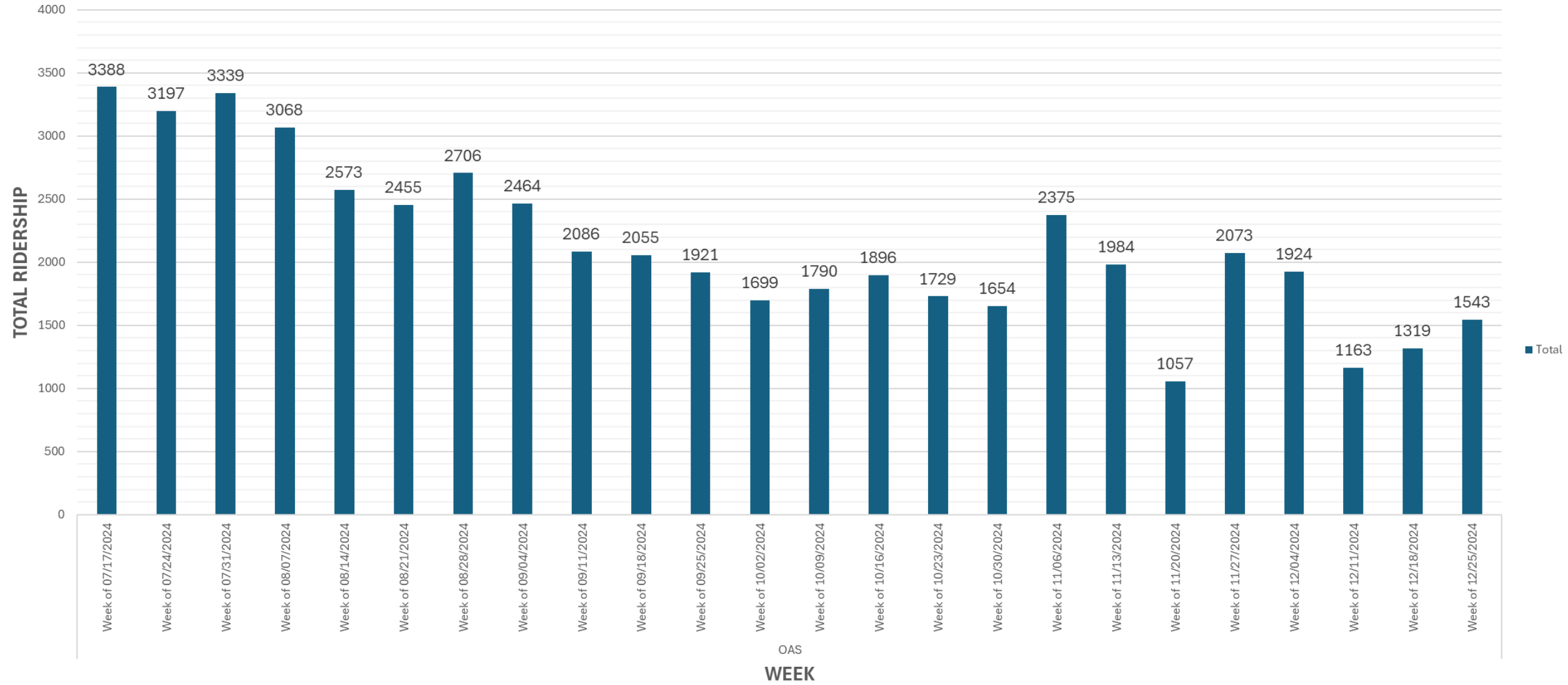
Background

- Free temporary service between Alameda Landing and Jack London Sq. in Oakland
- Operates 12 hours/day, 5 days/week (Wednesday – Sunday)
- Estimated annual operating cost: \$1.5 - \$2 million
- Blue and Gold operates and maintains the vessel with administrative support from WETA and City of Alameda
- Funded through a combination of an ACTC grant and other public and private sources
- Service launched on July 17, for a two-year term
- Service increased in November for schedule optimization in response to rider feedback
- Data included in this report goes up to December 31, 2024

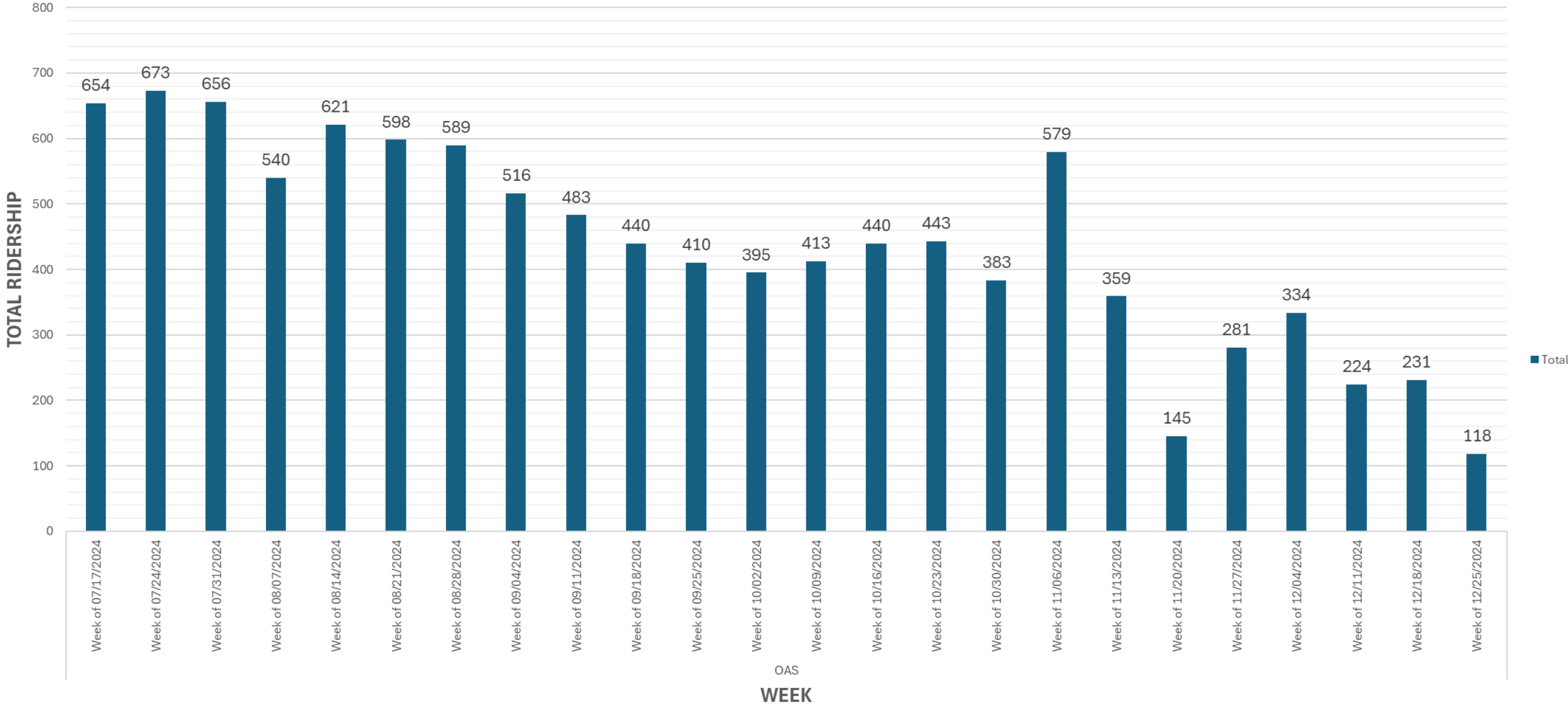
Preliminary Findings

- Ridership is seasonal and variable with weather conditions
- Ridership is bi-directional and peaks on the weekends in the midday, afternoon, and PM commute time
- Service and vessel have been mostly reliable thus far (95% of scheduled runs completed)
- Riders have expressed a desire for more service

Total Ridership by Week



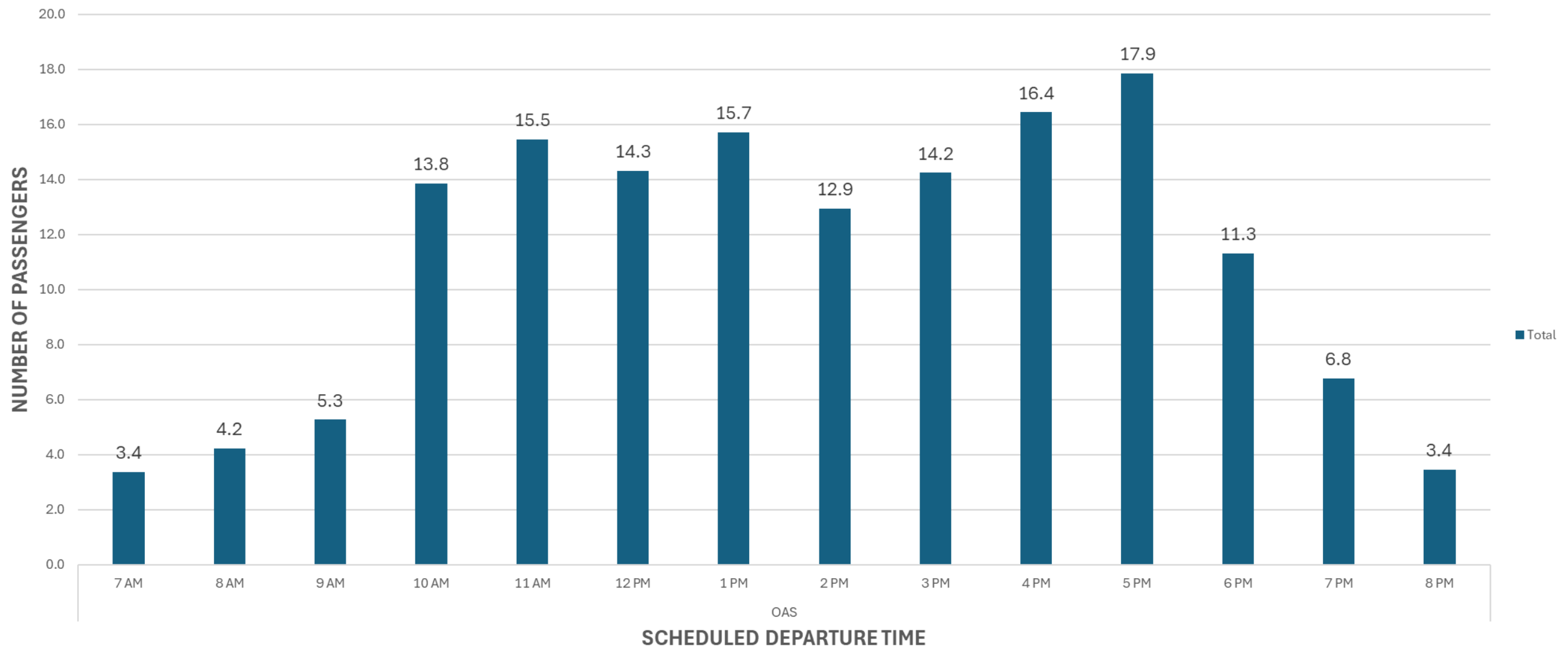
Total Bike Ridership by Week



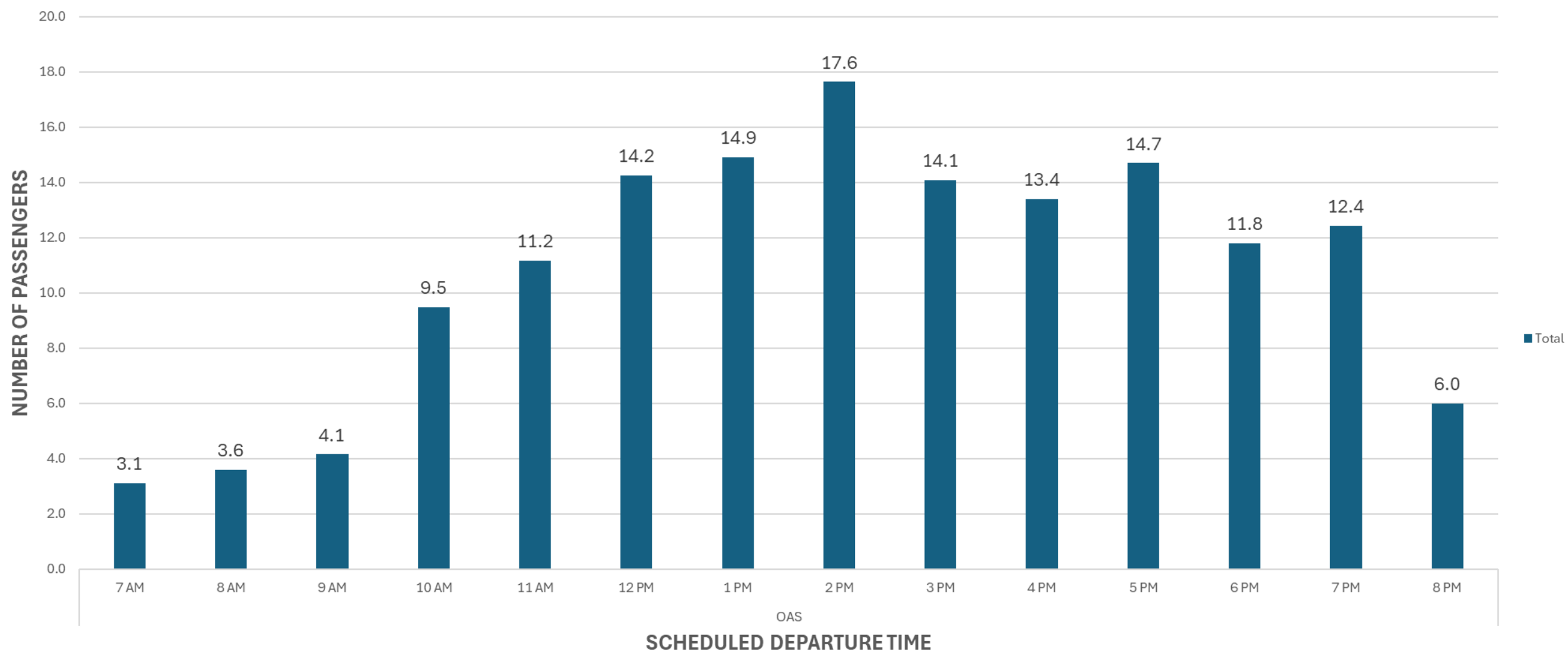
Route Week of 07/17/2024

+ -

Average Riders per Run by Hour (Oakland-bound)

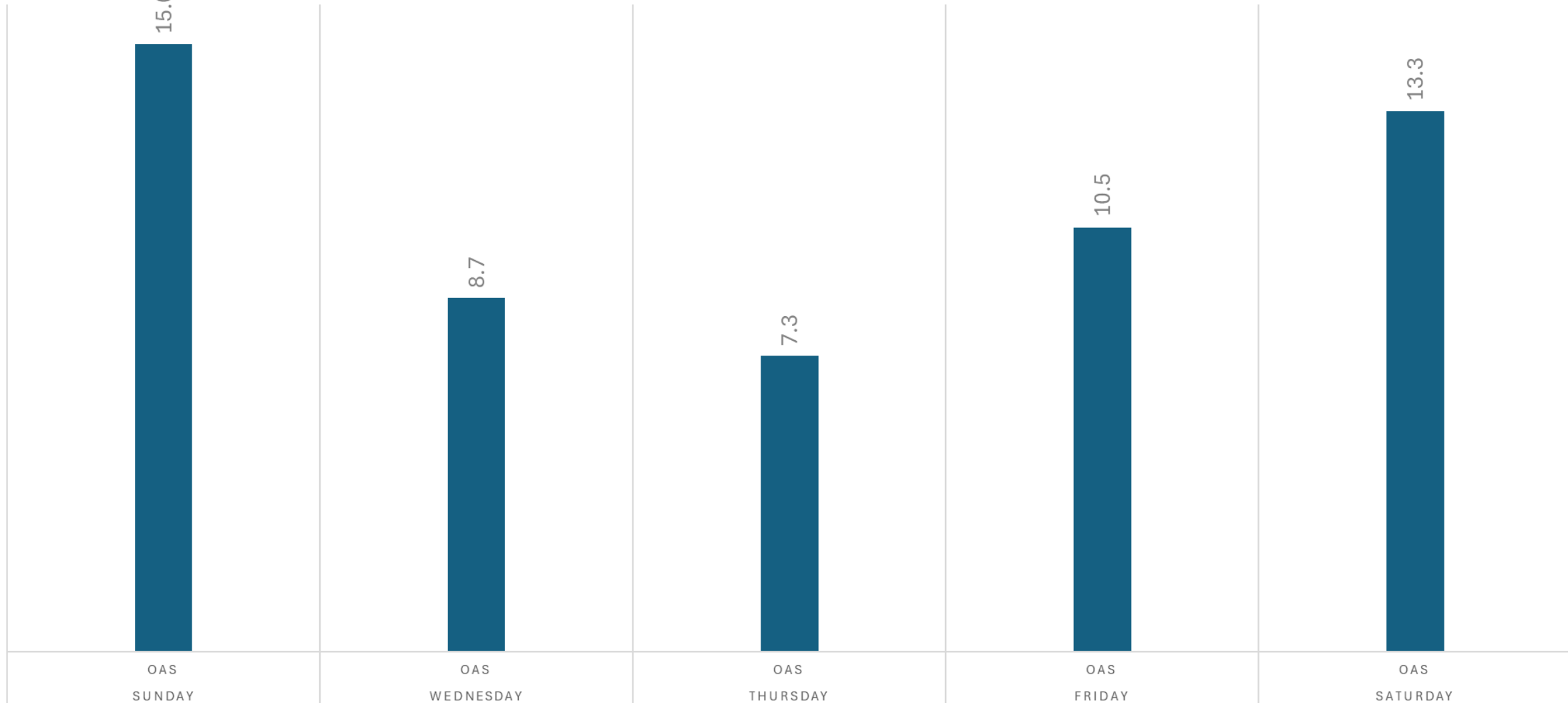


Average Riders per Run by Hour (Alameda-bound)



AVG. PAX ON BOARD BY DAY OF WK

NUMBER OF PASSENGERS



DAY OF WEEK

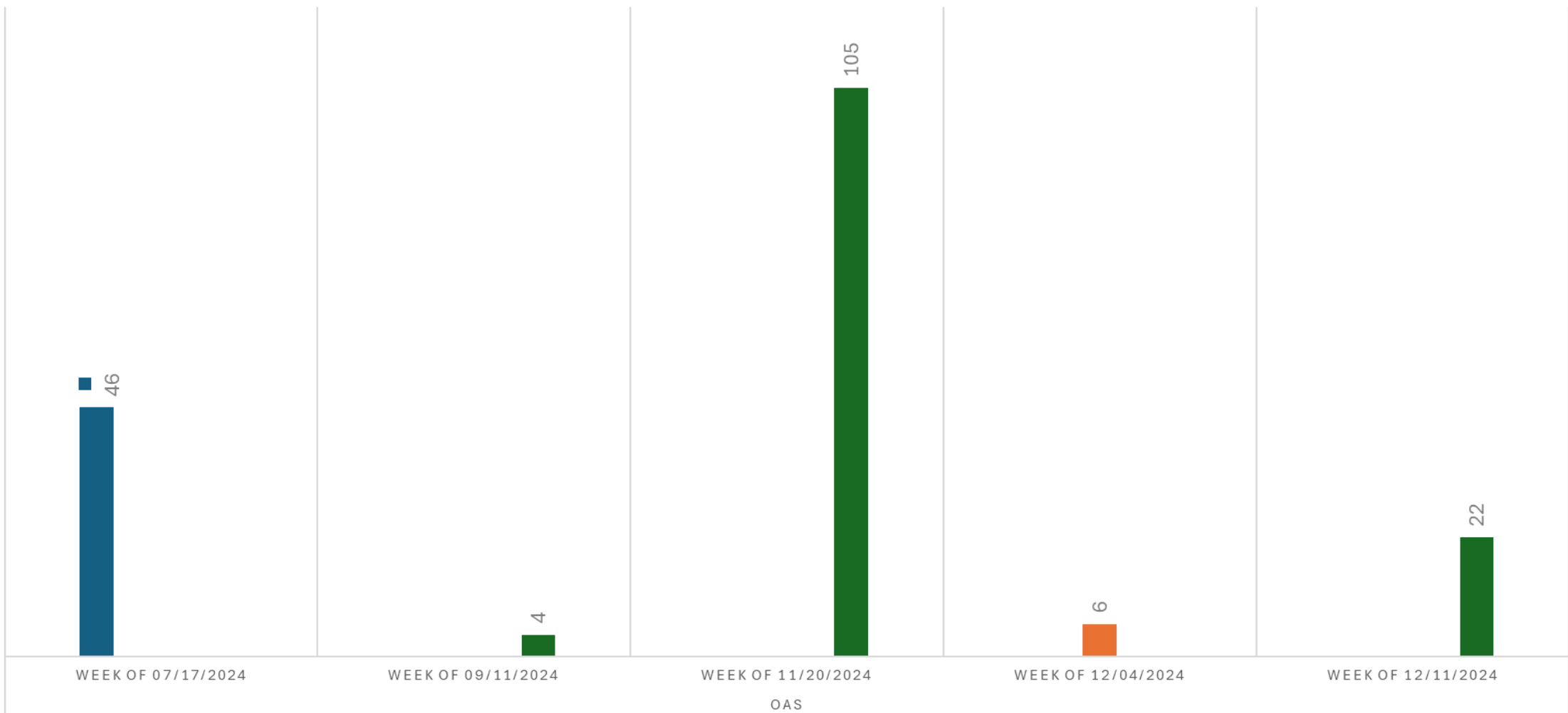
Total

Day of Week ▾ Route ▾

+ -

CANCELLATIONS BY WEEK

NUMBER OF CANCELLATIONS



Cancellation Reason ▾

- MECHANICAL
- OTHER
- WEATHER

Next Steps

- City to initiate and conduct surveys of both riders and non-riders before end of pilot service
- SF Bay Ferry to continue coordination with City on schedule optimization in response to public feedback and ridership patterns
- Continue to ensure high reliability of vessel and service
- Collaborate with City on marketing efforts to increase awareness and usage of the service

Thank you



Item 12: Updated and Restated SF Bay Ferry Administration Code

SF BAY FERRY ADMIN CODE

March 2025

Why a New Admin Code?

- Board Adopted Chapters 1-3 of Admin Code in 2001
 - Budget was \$12 MM
 - WETA had no employees—staffed by the City of San Carlos
- Board adopted rest of Admin Code piecemeal—by 2008, Board adopted the complete Admin Code in essentially its current state
 - In 2008, SF Bay Ferry applied to become FTA grantee
 - \$29 MM budget
 - 8 employees
- **SF Bay Ferry is a different organization now than it was in 2001 and 2008, but same Admin Code applies**

Outdated Admin Code Provisions

- Describes a Technical Advisory Committee that doesn't exist
 - Artifact from before WETA had in-house expertise
- Board-established Petty Cash Revolving Account Fund of \$2,000 for photocopying and office refreshments
- Board dictates methods of compensating consultants
- Board sets procedures for renting equipment—outdated, perhaps at a time when SF Bay Ferry didn't own its own equipment
- All procurement procedures set by the Board—many are now no longer current with FTA requirements.
- Not taking advantage of some efficiencies permitted by FTA
 - For example, small purchase threshold is set at \$100,000 but FTA threshold is now \$250,000
- Protest Policy not compliant with FTA requirements and not following SF Bay Ferry procedures

Best Practices for Admin Code

- Board sets policies and ED/CFO crafts procedures that implement those policies
- Set powers and duties of Board, Board Members, and Management Officers
- Describe desired conduct of Board meetings
- Director Code of Conduct
 - Not an issue now, but important to have in place in unlikely event of future misconduct—essential to protect WETA
- Establish Procurement Policy, not procurement procedures

Procurement Policy—Six Fundamental Goals



To promote the greatest economy and efficiency for SF Bay Ferry;



To provide safeguards to maintain a procurement system of quality and integrity;



To instill public confidence in SF Bay Ferry’s procurement process and adherence to proper standards of conduct by all SF Bay Ferry personnel;



To ensure fair and equitable treatment for all vendors who seek to deal with SF Bay Ferry while creating a level playing field on which Disadvantaged Business Enterprises and Small Business Enterprises can compete fairly for contracts and subcontracts;



To foster maximum open and free competition in the expenditure of public funds; and,



To maintain procurement policies and procedures that ensure compliance with applicable local, state, and federal laws and regulations.

Procurement Policy

- Creation and Maintenance of Stand-Alone Procedures Manual
 - Implement Procurement Policy
 - Comply with all FTA and State rules
 - Methods of Procurement
 - Administration of Solicitations
 - Protest Procedures
 - Standards of Conduct for Procurement Staff
 - Contract Administration
- Executive Director Procurement Authority of \$250,000
 - Increase from \$100,000
 - Consistent with FTA “small purchase” threshold
 - Consistent with authority to other GMs in Bay Area

Thank you