# Presentations for Dec. 12, 2024 Board of Directors Meeting

# Item 5a(1): Pilot Program Update

# Pilot Services Update

December 12, 2024

San Francisco Bay Ferry

# Redwood City Ballpark Service

- **Route Performance**
  - **Operated Weekend Days**: 4 (7/28, 8/11, 9/1, 9/15)
  - **Average Ridership**: 180
  - **Total Ridership (8 trips)**: 1,440
- **Customer Feedback**
  - Request for additional service
  - Positive feedback on crews and ride quality
  - Wake impacts (Recreational users feedback)
- **Operational Feedback**
  - **Dock setup in RWC:** Configuration required extra crew for safety in tying up and loading/unloading

# Oakland Alameda Water Shuttle

- **Route Performance**
  - **Service Start Date**: July 17, 2024
  - **Operating Days**: Wednesdays through Fridays
  - **Service Schedule Adjustment on Nov 4, 2024:** More frequent service with 52 more trips per week
  - **Total Ridership:** 45,500
  - **Average Weekday Ridership**: 353
  - **Average Weekend Ridership:** 608
  - **On-time Performance**: 99%
- **Customer Feedback**
  - Strong support for concept and requests for additional service
  - Capacity constraints cause anxiety

# Sea Change Demonstration Project

- **Route Performance**
  - **Service Start Date**: July 19, 2024
  - **Operating Days**: 3-day service (Friday-Sunday) expanding to 5-day service (adding Monday and Tuesday)
  - **Total Ridership:** 2,735

Customer feedback and operational considerations to be shared in final report after end of demonstration project.

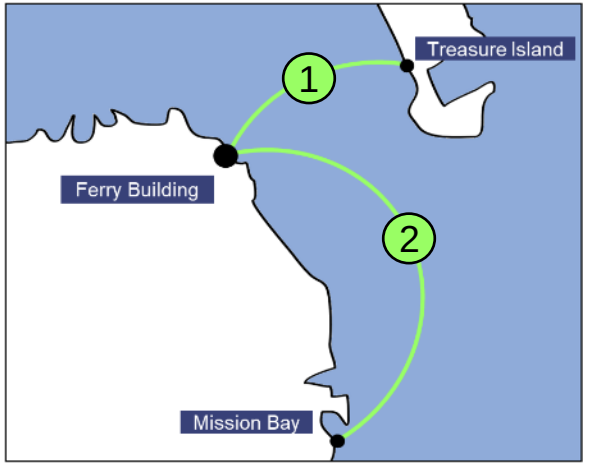
# Item 9: 150-Passenger REEF Vessel Procurement Award

# San Francisco Bay Ferry - 150 Passenger REEF Vessel Design & Construction Contract Award

December 12, 2024

# WETA Long Term Electrification Overview

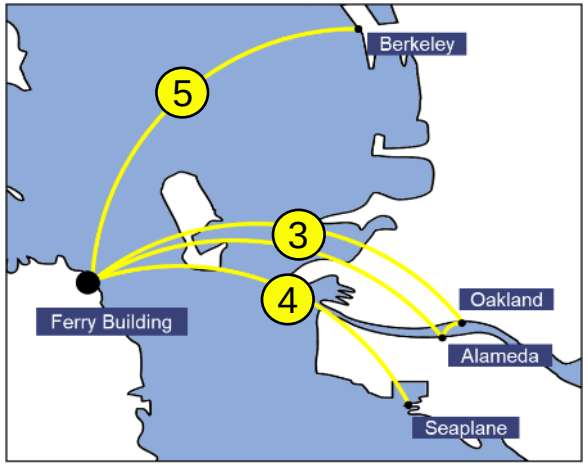
### Phase 1 - Inner Central Bay




1 Treasure Island

2 Mission Bay

### Phase 2 – Central Bay

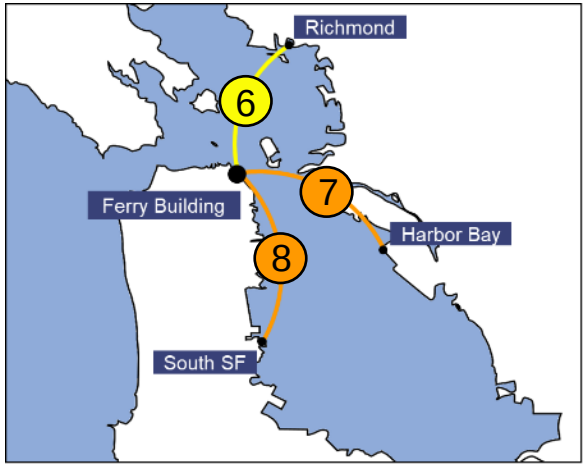



3 Oakland/Alameda

4 Seaplane

5 Berkeley

### Phase 3 – Long Run Central Bay

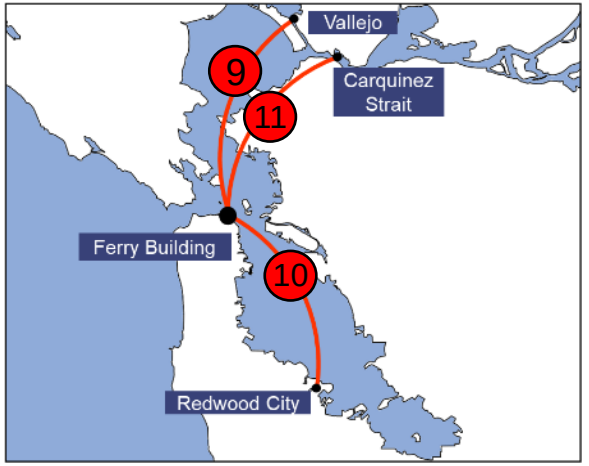



6 Richmond

7 Harbor Bay

8 South SF

### Phase 4 – Long Runs




9 Vallejo

10 Redwood City

11 Carquinez

Feasible with Current Vessel Technology

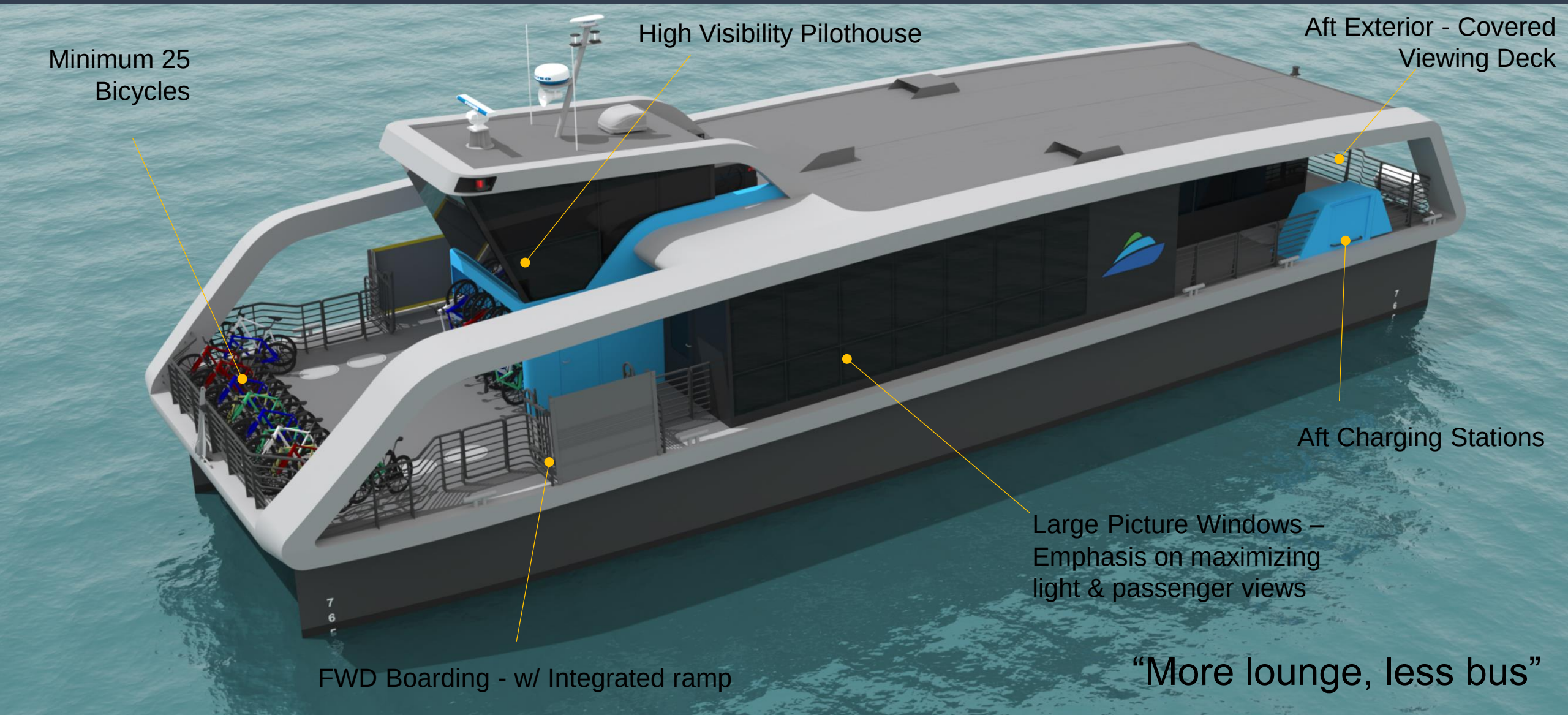
Feasible with Current Vessel Technology

Feasible with Current Vessel Technology

Not Currently Feasible – TBD Future Technology Required

# Initial Phase 1&2 Procurements

# Small Vessel Preliminary Design Key Features

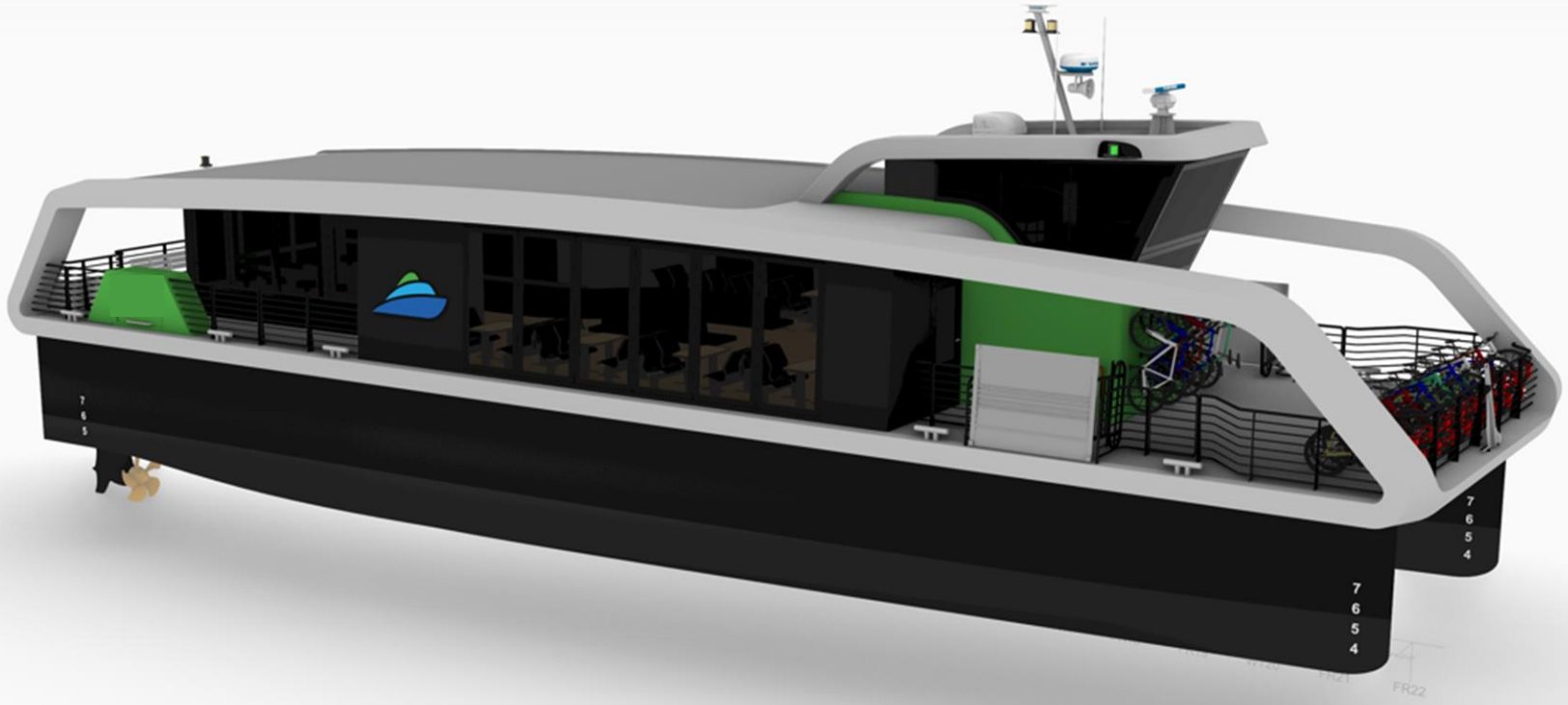



"More lounge, less bus"

# Small Vessel Preliminary Design Metrics

Short Hop Routes

| | |
|---|---|
| Length: | **92’** |
| Beam: | **27’6”** |
| Draft: | **5’2”** |
| Passengers: | **150 + Crew** |
| Regulatory: | **USCG Sub. T** |
| Speed: | **24 Kts** |
| Power: | **2 x 625kW** |
| Material: | **Aluminum** |



Less fixed seating, more flex space

# Small Vessel Proposals

| Proposer | Project Understanding & Approach | Proposer's Qualifications and Experience | Qualifications & Experience of Key Personnel | Total Price | Total Score | Cost Per Boat (averaged) |
|---|---|---|---|---|---|---|
| Possible Points | 20 | 20 | 20 | 40 | 100 | - |
| All American Marine | 15.5 | 17.5 | 16.8 | 38.4 | 88.2 | $15.38M |
| Nichols Brothers Boat Builders | 14.8 | 14.8 | 16.2 | 40 | 85.8 | $14.75M |
| Marine Group Boat Works | 13.1 | 13.4 | 13.4 | 31.5 | 71.4 | $18.71M |

# Vessel Procurement Project DBE Goal

- **Required DBE Project Goal**
  - Mandatory Vessel Procurement Project goal of 1.72% DBE participation.
  - Proposers must meet the required 1.72% DBE project goal or provide adequate good faith efforts documenting its efforts to satisfy the project goal to be responsive

- **Proposer Goal Achievement**
  - All American Marine – 2.6% DBE participation
    - Met and exceeded the goal.
    - DBE participation work areas: safety equipment purchasing, shipping services  composite repair services
  - Nichols Brothers Boat Builders – 0.03% DBE participation
    - NBBB did not meet the goal, proposal was found responsive.
    - DBE participation work areas: interior design services
  - Marine Group Boatworks – 0% DBE participation
    - MGBW did not meet the goal, proposal was found responsive.
    - DBE participation work areas: outfitting, coatings, electrical, deck coverings, scaffolding/containment, naval architecture and engineering package subcontracting opportunities

# All American Marine Inc

- Located on Bellingham Bay in Washington State
- 30 Years experience building high quality aluminum catamaran and single hull vessels
- 25 year exclusive partnership with Teknicraft Naval Architects
- 57k Sqft covered and climate controlled facility & dedicated launch access
- 4 lofting bays and all necessary fabrication eqpt on site, limited subcontracted labor
- 63+ personnel on staff covering all required trades

# All American Marine Vessels

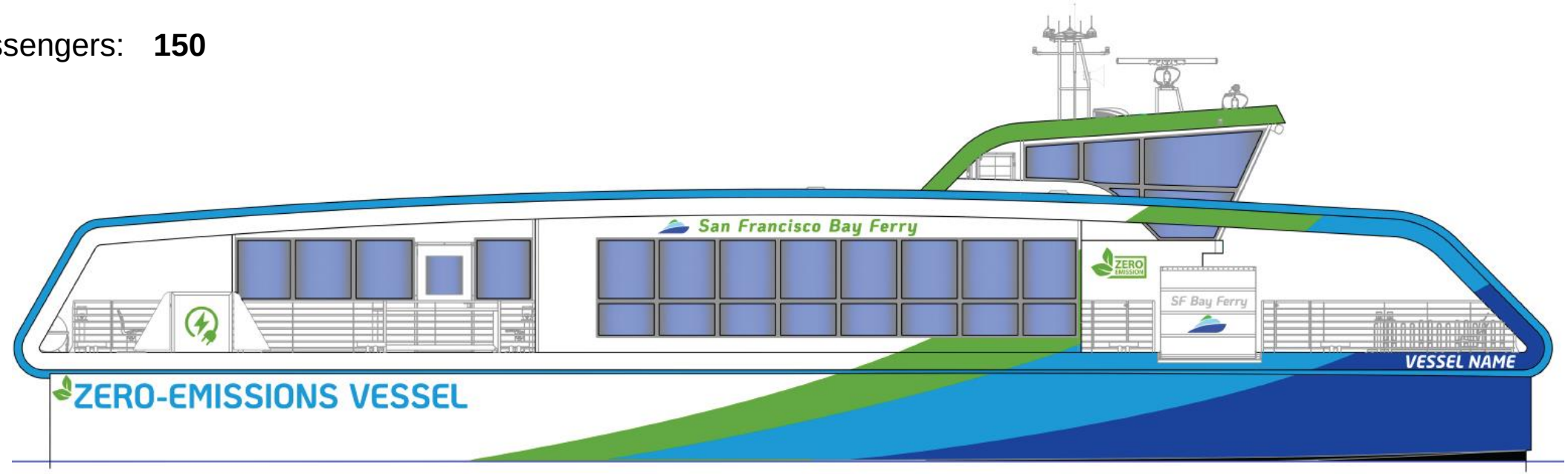
- Extensive experience with Teknicraft hulls – 200+ vessel designs operating worldwide
- Recent experience building Hybrid Electric Passenger vessels including Waterman and Enhydra
- Completed Sea Change with novel Hydrogen Fuel Cell propulsion system



# All American Marine Proposed Vessel Design

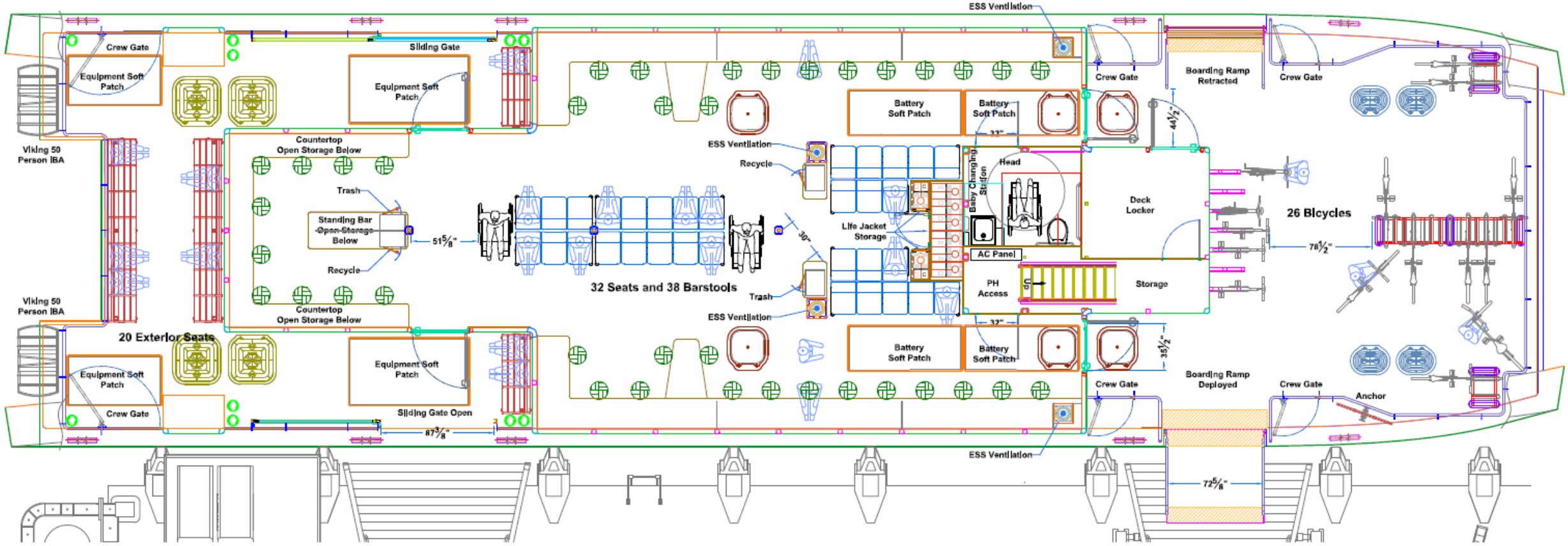
Detailed Proposal – Inspired by Preliminary Design, Integrates Wartsila, Echandia & Hydromaster systems, with improvements to hull efficiency

| | | | |
|---|---|---|---|
| Length: | **100.3’** | Speed: | **24 Kts** |
| Beam: | **26’** | Power: | **2 x 625kW** |
| Draft: | **5’9”** | Material: | **Aluminum** |
| Passengers: | **150** | | |



# All American Marine Proposed Deck Arrangement

| | | | |
|---|---|---|---|
| Interior Seats: | **70** | Bikes: | **26** |
| Exterior Seats: | **20** | High Visibility Pilothouse | |
| ADA Head: | **1** | Planned Equipment Rigging Paths | |



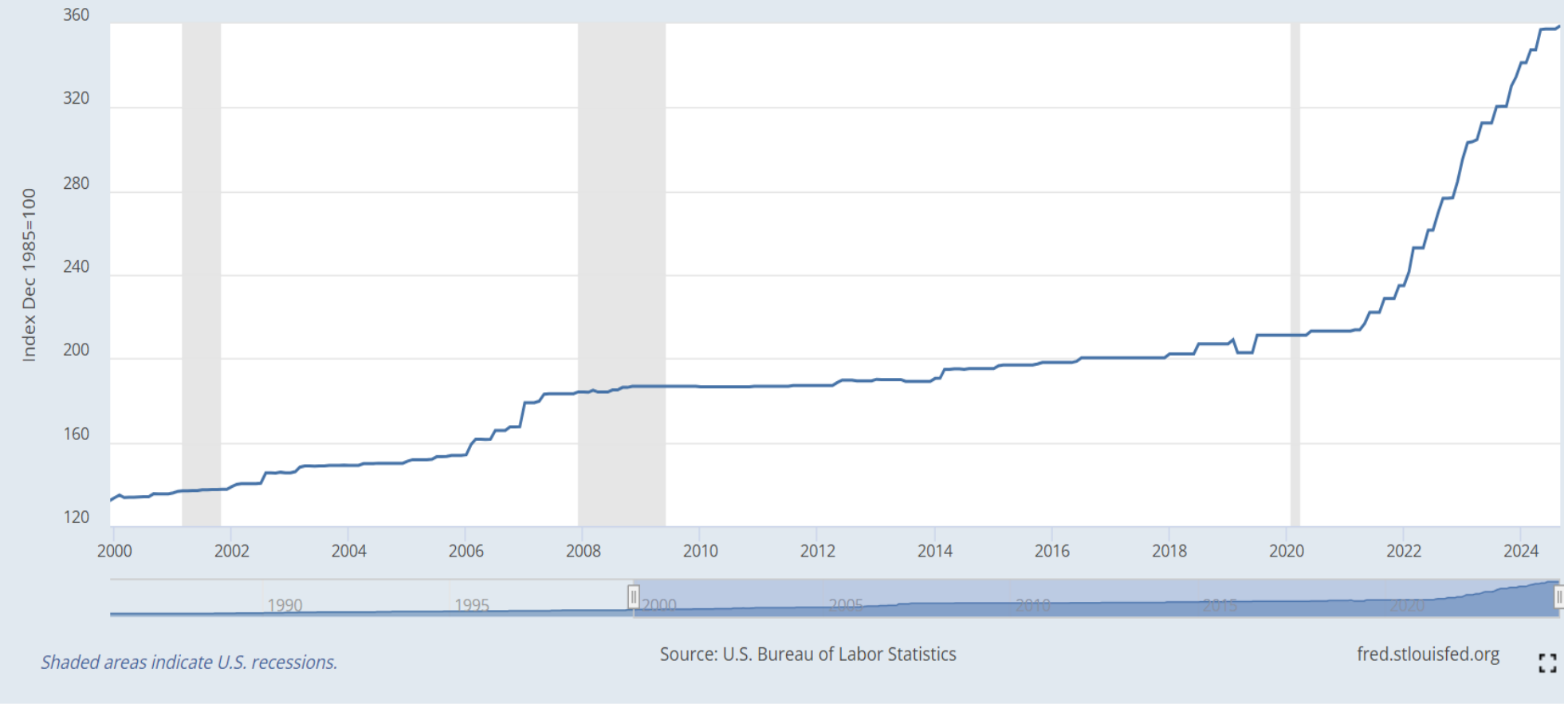
# Vessel Cost Analysis

**Summary of Price Proposals for 150-PAX Vessels**

| Proposer | Vessel Price Proposal (4-Vessels) | Average Price/Vessel | % Difference from ICE |
|---|---|---|---|
| All American Marine | $61.52M | $15.38M | 89.9% |
| Nichols Brothers Boat Builders | $59.02M | $14.75M | 82.1% |
| Marine Group Boat Works | $74.85M | $18.71M | 131.0% |
| **Independent Cost Estimate (ICE)** | **$32.40M** | **$8.10M** | |

- **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

# 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

## Inflation-Adjusted Price of Comparable Vessels

| Operator | Builder | Boat Name | PAX | Cost ($2024) | Cost/PAX |
|---|---|---|---|---|---|
| Kitsap Transit | All American Marine | Waterman | 149 | $9.0M | $49K |
| 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 |
| **150 PAX Electric** | **TBD** | **TBD** | **149** | **$14.8 - $18.7M** | **$99K - $126K** |

- **Medstraum is the most comparable vessel (battery all-electric) with a cost of $16.8 million**

# Thank You!

# Q&A