



Agenda Item No. (5)

To: Building and Operating Committee/Committee of the Whole Meeting of August 25, 2022

From: Michael Hoffman, Director of Engineering and Maintenance, Ferry Division  
James P. Swindler, Deputy General Manager, Ferry Division  
Denis J. Mulligan, General Manager

Subject: **APPROVE AWARD OF CONTRACT NO. 2022-F-012, ENGINEERING AND DETAILED DESIGN SERVICES FOR THE CONSTRUCTION OF A NEW BUILD FERRY, TO AURORA MARINE DESIGN**

### **Recommendation**

The Building and Operating Committee recommends that the Board of Directors approve award of Contract No. 2022-F-012, *Engineering and Detailed Design Services for the Construction of a New Build Ferry*, to Aurora Marine Design of San Diego, CA, to provide detailed design and engineering services for the construction of a new build ferry for a total not-to-exceed amount of \$1,943,173.50.

This matter will be presented to the Board of Directors at its August 26, 2022, meeting for appropriate action.

### **Summary**

The Golden Gate Bridge, Highway and Transportation District (District) plans to add a new ferry to the fleet through a new build construction process. This ferry will allow the District to support its mission statement and comply with the California Air Resource Board's amendments to the Commercial Harbor Craft regulations. The District is in need of engineering and detailed design services to support the construction of the new build vessel.

On March 7, 2022, the District issued a Request for Statement of Qualifications and Proposals (RFQ/RFP) No. 2022-F-012, *Engineering and Detailed Design Services for the Construction of a New Build Ferry* to seek proposals from qualified firms to provide the following services:

- Phase One: Preliminary Design Analysis
  - An examination of available EPA Tier 4 main engines, gears, exhaust after-treatment devices and associated special requirements.
  - An investigation into the feasibility of a diesel electric system such as the Hamilton Jet Electro-Drive System or similar.

- Development of a General Arrangement (GA) including deck plans and outboard profile.
    - The GA will include space allocations for major machinery and equipment, seating, compliance with the Americans with Disabilities Act, egress, multi-level loading, dock integration, and tonnage requirements.
    - The GA will provide a feasible design solution and define fixed vessel parameters.
  - Development of a Preliminary Machinery Arrangement that will locate major equipment, ventilation, and maintenance envelopes.
  - Provide a comparison report and executive summary of scenarios for District staff to decide on a preferred driveline arrangement.
    - A steering committee of Ferry Division staff, including front-line personnel, will participate in the review of possible configurations.
  - Prepare a preliminary Weight Budget as the basis for performance calculations of preferred driveline.
  - Hull Lines 3D Model – This will be used as the basis for performance calculations, powering study, and to confirm draft and trims.
  - Powering Study – Development of accurate resistance figures for the vessel at various loading conditions.
  - Wake Wash Energy Density analysis.
  - Preliminary Tonnage Calculation.
- Phase 2: Development of Full Scope of Services
    - Collaborate with District staff to determine the full scope of work for the engineering and detailed design package for the vessel construction contract so that a competent shipyard may accurately bid on and build to the specifications.
  - Phase 3: Technical Specifications, Drawings, and Data
    - Develop Technical Specifications and drawings to be used by the shipyard constructing the new vessel, and participate in meetings with District Ferry staff to ensure operational and maintenance requirements are considered and addressed.
    - Develop the necessary purchase specifications for the District's purchasing department to procure material, components, equipment and/or machinery that, due to long lead time, cannot be procured by the shipyard.
    - Provide an Independent Cost Estimate and estimated timeline of the construction phase.
    - Provide a Buy America Pre-Award Audit for Rolling Stock Procurement under 49 CFR part 663.
  - Phase 4: As Built Drawings
    - Provide a full set of As Built Drawings.

The RFQ/RFP was posted on the District's Procurement Portal, and notifications were sent to all registered firms that selected the relevant North American Industry Classification System codes. The solicitation was published in the Small Business Exchange, MarineLog, and the Passenger

Vessel Association newsletter. Notice of the RFQ/RFP was also sent directly to fifteen potential respondents and to over 1,600 Small Business Enterprises (SBEs), including Disadvantaged Business Enterprises (DBEs). Proposals were received from the following firms by the submission deadline date of May 6, 2022:

1. Aurora Marine Design – San Diego, CA
2. BMT – United Kingdom
3. Elliot Bay Design Group – Seattle, WA
4. Incat Crowther America, LLC – Lafayette, LA

In accordance with the three-step price-blind evaluation process set forth in the RFQ/RFP, a Selection Committee comprised of District staff and an independent consultant first reviewed and evaluated each technical proposal based upon the following Evaluation Criteria specified in the RFQ/RFP:

- Team Qualifications and Experience – 40 Points
- Project Understanding and Approach – 40 Points
- Firm’s Qualifications – 20 Points

After considering the technical proposals and references, the Selection Committee conducted interviews and a final ranking of the firms based on the Evaluation Criteria set forth above. The Selection Committee determined that Aurora Marine Design (Aurora) was the highest ranked firm and best met all of the RFQ/RFP requirements.

Finally, the Selection Committee entered into contract negotiations with Aurora, which included the development of a detailed scope of work, schedule, and associated deliverables, and evaluation of Aurora’s final price proposal. Aurora proposed to perform the services for an amount not to exceed \$1,943,173.50, which the District determined to be fair and reasonable. Aurora’s hourly labor rates are similar historical rates for engineering services, their estimated hours are within 10% of the District’s estimation, and their final price is within 1% of the Districts independent cost estimate.

Aurora has partnered with the following subcontractors to perform the services: One2three Naval Architects, AXIS Engineering Services, Jeanine Bequette, and Blackfish Solutions. Aurora’s high score was based on the team’s qualifications and experience in the area of ferry vessel design and projects similar to this new ferry design, the capability to perform the required work, and its understanding of this specific project. The team as a whole has intimate knowledge of San Francisco Bay Area passenger ferries including operational/mechanical requirements, electrical engineering, interior design, new California Air Resource Board regulations, and federally funded contract compliance. The One2three Naval Architects design team has over three decades of experience in the maritime industry and has designed over 300 vessels. The team’s attention to detail and innovation is evident from past projects.

Staff, the District’s Attorney, and the DBE Program Administrator reviewed the proposals and found the selected firm submitted all required documents, and its proposal is technically responsive to the solicitation requirements.

The new build ferry project is assisted with Federal Transit Administration (FTA) funds and has an approved DBE Project Goal of 1.55%. Proposers were required to submit a *Prime Consultant and Subcontractor/Subconsultant/Supplier Report* and the *Description of the Selection Process of Subcontractors/Subconsultants/Suppliers* to document the utilization of DBEs and SBEs participation. Aurora is an SBE firm and included a DBE subconsultant to perform services. District staff anticipates 91.43% SBE participation, including 1.67% DBE participation during the performance of this contract.

### **Fiscal Impact**

The *Purchase New Vessel* project #1940 is included in the FY22/23 Ferry Division Capital Budget in the amount of \$30,000,000 and is funded as follows: \$12,400,335 (41.3%) State of California Low Carbon Transit Operations Program and State of Good Repair, \$11,699,665 (39%) District, and \$5,900,000 (19.7%) FTA funds. There are sufficient funds in the project budget to support the recommended action.