

**REQUEST FOR PROPOSALS NO. PS20141139  
MARINE ENGINEERING CONSULTING SERVICES  
SCHEDULE 1 - SCHEDULE OF DETAILED REQUIREMENTS**

---

**SCHEDULE 1  
SCHEDULE OF DETAILED REQUIREMENTS**

**1.0 BACKGROUND**

- 1.1 The Burrard Civic Marina (BCM) is located at the entrance to False Creek. It is the largest marina in False Creek with 423 water berths, 162 land storage spaces and 69 canoe, kayak, and paddleboat storage spaces.
- 1.2 A Condition Assessment Report completed in March 2013 highlighted the need for renewal of the BCM given the age of the facility and the condition of the existing float system, utility systems and services. The existing float system is deemed to be past its service life and requires ongoing costly maintenance that is labour intensive due to the maritime environment. The existing float design and its construction are not best suited to support the addition of new mechanical and electrical systems that are required of today's newer vessels. At this time the City requires a plan or strategy to direct a multi-year renewal plan, as well as detailed consulting to support the initial 2015/16 renewal work in accordance with this plan.

**2.0 SCOPE OF WORK**

- 2.1 This RFP identifies a business opportunity for the successful proponent to provide Marine Engineering Consulting Services for the Burrard Civic Marina Renewal in two stages as described below.
- 2.2 Based on previous reporting, the three priorities of the Burrard Civic Marina Renewal are:
- Breakwater Construction
  - Electrical Service Upgrading, and
  - Float Renewal
- 2.3 A breakwater previously protecting the marina has been removed and the City is seeking recommendations on the optimal strategy to reinstate appropriate breakwater protection (potentially utilizing the existing piles).
- 2.4 The City is further seeking recommendations on the optimal approach to address the need to upgrade both the electrical service and the floats. One concept is to upgrade the floats and electrical together in phases, and another is to consider upgrading the electrical service or renewing the floats for the entire marina as a first step. Both need to be reviewed in the context of possible phased or future reconfiguration of the floats to optimize efficiency.

**A. STAGE 1 - PROJECT PLANNING**

- i. The initial Project Planning Stage is to assess needs and create an overall phased renewal plan.
- ii. Based on the Condition Assessment Report, their own site review and analysis, and discussions with the City regarding their needs and issues, the Consultant team will be asked to:
- Review the Condition Assessment Report findings and the completed works done on the BCM to date per information provided by the City;
  - Review the City's needs and priorities in relation to long term and immediate renewal work;
  - Incorporate input from stakeholders and user groups;

**REQUEST FOR PROPOSALS NO. PS20141139  
MARINE ENGINEERING CONSULTING SERVICES  
SCHEDULE 1 - SCHEDULE OF DETAILED REQUIREMENTS**

---

- Review power needs for the slips and recommend service amperage(s);
- Determine and assess wind and wave impacts;
- Create 2-3 long-term phasing strategies for full renewal, including slip layout recommendations, based on the Condition Assessment Report recommendations and other inputs;
- Create 2-3 complimentary immediate phasing strategies to address the most pressing issues, concerns and priorities (in particular breakwater, floats, electrical);
- Ensure immediate phasing strategies are viable within the available construction budget of \$2.0M and that they maintain ongoing operation of the marina;
- Review the strategies with the City to select the optimal long term and immediate phasing strategy;
- Create design/engineering schematics, scheduling and basic costing, to describe the Burrard Civic Marina Renewal work;
- Ensure schematic work is consistent with the requirements of applicable codes including the Vancouver Building By-law latest version;
- Provide the Cost Consultant with information necessary to prepare estimates of the Construction Cost;
- Prepare a report summarizing the above findings and recommendations;
- Include six meetings with City staff and stakeholders (start-up, information gathering, long term phasing options, immediate phasing options, schematic design, and report presentation);
- Include two additional information meeting with stakeholders and user groups.

**B. STAGE 2 - FULL ENGINEERING SERVICES FOR THE BURRARD CIVIC MARINA RENEWAL WORK (Construction Budget \$2.0M)**

- i. Subsequent to the completion of Stage 1 reporting and the approval to proceed with the preferred option for Burrard Marina Renewal work, the consultant team will be asked to provide full consulting services for the initial renewal work, including schematic design, design development, contract documents, documents required for permitting, tendering assistance to the City of Vancouver Supply Chain Management group, contract administration, close-out documentation, and post-construction services, all as described in the attached Form of Agreement (“FOA”).
- ii. Proponents are asked to provide in their proposals in separate lump-sum pricing for Stage 1 and Stage 2 work, both broken down along the phases described in the FOA.

**3.0 DELIVERABLES**

3.1 Deliverables generally as described in or inferable from Schedule A to the Form of Agreement, attached including:

- A. Long Term and Immediate Phasing Plan Report
- B. Schematic Design Documents
- C. Design Development Documents
- D. Development Permits and Building Permit
- E. Tender and Construction Documents

**REQUEST FOR PROPOSALS NO. PS20141139**  
**MARINE ENGINEERING CONSULTING SERVICES**  
**SCHEDULE 1 - SCHEDULE OF DETAILED REQUIREMENTS**

---

F. Full Construction Phase and Post-Construction Services

**4.0 CITY-PROVIDED DOCUMENTS AND DRAWINGS**

4.1 Interested Proponents will need to sign a Non-Disclosure Agreement (incorporated by reference to this RFP) and send it to the Contact Person prior to receiving a copy of all documents and drawings listed under Schedule 3 of this RFP.

**5.0 COMPLETED WORKS**

5.1 In October 2013, there were remedial repairs done on the piles and float leveling. Below is the list of tasks performed by the contractor at that time:

A. Piling

1. Wharf new wood pile @ no. 4 & A and walers;
2. Wharf miscellaneous metals;
3. Removed and replaced steel mooring pile dolphins;
4. 10 New steel piles have been installed at the S & T floats;
5. Installation of 10 anodes;
6. Removal and replacement of the finger floats for piling access; and
7. Moorage upgraded for non-painted piles.

B. Float Leveling

1. Float leveling requiring 2'x6'x1' billets - 35 required; 2'x4'x1' billets - 45 required;
2. Replacement of the Timber Mooring Piles;
3. Replacement of the Wharf Stringers;
4. Replacement of the Float Walers;
5. Replacement of the Timber Mooring Wells;
6. Replacement of the UHMW Rub Strips; and
7. Replacement of light standard.

5.2 All waler work completed to the floats are shown on Drawing S01 incorporated by reference to this RFP and the wharf stringer replacement is shown in Drawing S02 also incorporated by reference to this RFP. The above repairs should not be included in future construction plans.

**6.0 QUALIFICATIONS**

6.1 The City is seeking Marine Engineering Consultants qualified to provide the services described above. All Proponents must state fulfillment of these qualifications in their proposal. The successful proponent must have recent experience (within the last 5 years) in each of the following areas:

- Marine Engineering Assessment and Reporting;
- Marina Functional Programming;
- Marina Design and Construction Documents;
- Innovative use of structure, utility systems and materials in the construction of wharves and piers;
- Marine Structures Design including breakwaters;
- Sustainable/Low Environmental Impact Marina Design; and
- Marine Environmental Regulatory Compliance.

6.2 Consulting Teams are to include engineering expertise in the following disciplines:

- Marine Engineering;

**REQUEST FOR PROPOSALS NO. PS20141139  
MARINE ENGINEERING CONSULTING SERVICES  
SCHEDULE 1 - SCHEDULE OF DETAILED REQUIREMENTS**

---

- Structural Engineering;
- Mechanical Engineering;
- Electrical Engineering;
- Civil/Utilities Engineering;
- Marine Barometric Surveying; and
- Environmental Monitoring.

**REQUEST FOR PROPOSALS NO. PS20141139  
MARINE ENGINEERING CONSULTING SERVICES  
SCHEDULE 2 - PRICING SCHEDULE**

---

**SCHEDULE 2  
PRICING SCHEDULE**

Please use the Excel Spreadsheet included in the RFP package for your pricing.