



Project Title: Skidegate Channel Aids to Navigation Pile Construction

1.0 OBJECTIVE:

The Canadian Coast Guard’s objective is to rebuild or refurbish fixed aids to navigation in the Skidegate Narrows area in Haida Gwaii, BC and requires a Contractor to assist with construction and demolition of the piled dolphin sites.

2.0 BACKGROUND INFORMATION:

The Canadian Coast Guard (CCG) is a Special Operating Agency of the Department of Fisheries and Oceans Canada (DFO) that helps to ensure safe and accessible waterways for Canadians. Within its mandate, the CCG has the responsibility to provide aids to navigation, and marine communications and traffic management services that contribute to the safety, accessibility and security of Canadian waters.

Through an ongoing review process, the CCG identifies locations where aids to navigation are required to be constructed or modified to better provide their service and to improve the safety to those who maintain them. The CCG has identified navigational aids in Haida Gwaii, BC which require work to improve their structural condition and to improve the safety of those who maintain them.

3.0 SUMMARY OF WORK:

The CCG has identified 12 existing pile dolphin aids to navigation sites which require replacement and 1 pile dolphin site which requires establishment. The full details of the work planned for each site are identified within the construction drawings provided in the reference documents. The general project activities will include removal and disposal of the existing steel and timber structures after constructing new steel structures which includes: driving new steel piles, welding tabs and ladders, and installing work platforms.

The following information is provided to clarify the requirements.

- .1 WORK LOCATION – The 13 sites requiring work are located in the Skidegate Narrows, in Haida Gwaii, BC. Their identifications and locations are provided in Table 1 below and maps of the sites are provided in Appendix A.

Table 1 - Site Locations

LL / UL #	SITE NAME	LATITUDE	LONGITUDE
6090.5	Skidegate Channel East Narrows Daybeacon #2	53° 8' 43.8"	132° 14' 23"
6091.4	Skidegate Channel East Narrows Daybeacon #3	53° 8' 43.5"	132° 14' 31.3"
6091.7	Skidegate Channel East Narrows Daybeacon #5	53° 8' 46.4"	132° 14' 53.1"
6092.4	Skidegate Channel East Narrows Daybeacon #6	53° 8' 47.9"	132° 15' 8"
6092.8	Skidegate Channel East Narrows Daybeacon #7	53° 8' 53"	132° 15' 24"
6093.5	Skidegate Channel East Narrows Daybeacon #8	53° 8' 54.5"	132° 15' 33.6"
6094.2	Skidegate Channel East Narrows Daybeacon #9	53° 8' 54.9"	132° 15' 59.9"
6094.3	Skidegate Channel East Narrows Daybeacon #10	53° 8' 57.9"	132° 16' 16.4"
6094.5	Skidegate Channel East Narrows Daybeacon #11	53° 8' 59"	132° 16' 26"
6094.6	Skidegate Channel East Narrows Front Range #5	53° 9' 7.7"	132° 16' 55.5"
6095.3	Skidegate Channel West Narrows Daybeacon #1	53° 9' .6"	132° 21' 11.7"
6095.4	Skidegate Channel West Narrows Daybeacon #2	53° 8' 58"	132° 21' 43"
6096	Skidegate Channel West Narrows Daybeacon #3	53° 8' 59"	132° 21' 51.2"



- .2 SCHEDULE – The project construction is to be scheduled by the Contractor within the constraints provided in Section 7.0 below. The anticipated schedule is as follows:
 - .1 PILE DOLPHIN CONSTRUCTION – The Contractor will be responsible for the construction of 13 piled dolphins and demolition of 12 piled dolphins. All Work must be completed within the Project Construction window of Nov 1 to Dec 31, 2017.
 - .2 WORK BY OTHERS OUTSIDE OF THIS CONTRACT
 - .1 The CCG has identified 14 additional existing aids to navigation sites in Skidegate Narrows which require replacement. Construction of these sites will be performed by CCG crews from shore and will be coordinated with barge activities. Work will include demolition of existing concrete structures, drilling rock anchors, formwork, reinforcing steel, concrete pouring, and installing work platforms and navigational towers.
 - .2 This work will be completed during a similar time period and may require coordination to avoid conflicts.
- .3 REVIEW OF WORK – All Work by the Contractor will be reviewed by CCG for conformance to the Contract Documents and by a DFO Environmental Monitor for conformance to the Environmental Protection Plan. A CCG representative will be on the pile driving barge during all pile driving activities and at completion of Work.
- .4 REFERENCE DOCUMENTS – The following documents provide clarification for the required work at each site location.
 - .1 Appendix A – SITE MAPS
 - .2 Appendix B – CONSTRUCTION DRAWINGS
 - .3 Appendix C – ENVIRONMENTAL PROTECTION PLAN
 - .4 Appendix D – SUMMARY OF SUBMITTALS

4.0 REQUIREMENTS:

- .1 LAWFULNESS – The Contractor must perform all Work in accordance with all applicable laws, acts, legislations, regulations, and agencies. This may include, but not be limited to, the following:
 - .1 Canada Labour Code
 - .2 WorkSafe BC
 - .3 Canadian Environmental Protection Act
 - .4 Canadian Environmental Assessment Act
 - .5 Fisheries Act
 - .6 Species at Risk Act
 - .7 Migratory Birds Convention Act
 - .8 BC Water Act
- .2 PERFORMANCE – Perform all Work identified and to the specifications of this SOW and/or supplemental documents.
- .3 PILE DOLPHIN CONSTRUCTION – The Contractor is to provide the pile construction services to completely build the 13 structures identified above in accordance to the drawings provided in Appendix B. The Contractor is to completely demolish the 12 existing steel and timber pile sites identified. This Work will include pile driving, welding, installing platforms and ladders, and extracting piles. If a pile is snapped



during extraction and cannot be fully extracted, the Contractor must cut off the remaining pile at the sea floor. The Contractor must provide a Construction Plan within 10 days following award.

- .4 NAVIGATION – The Contractor must plan and execute all Work in a manner that will not impede navigation.
- .5 MATERIALS – The Contractor must provide all construction materials required for the completion of Work unless noted on the construction drawings as supplied by CCG.
- .6 SALVAGE – The Contractor must remove, transport, and store any items noted on the Construction Drawings to be salvaged to a safe and secure location until collected by the CCG.
- .7 DISPOSAL – All construction and demolition waste to be disposed of by the Contractor at approved facilities. The Contractor is to provide to CCG waste disposal certificates from an approved facility for the disposal of any hazardous or controlled wastes.
- .8 SCHEDULE – The Contractor must provide to CCG within 10 days following contract award a written schedule for all Work. The site works must be executed in a continual basis and must be completed within the Project Construction window of Nov 1 to Dec 31, 2017.
- .9 CERTIFICATIONS – The Contractor must ensure that all welding performed by the Contractor is performed by a welder certified by the Canadian Welding Bureau (CWB) in the material specified and the method selected. Within 10 days following contract award the Contractor must provide CCG verification of the welder's certification and a description of the method to be used.
- .10 ENVIRONMENTAL ADHERENCE – The Contractor must adhere to the Environmental Protection Plan (EPP) provided in the reference documents. The supplied EPP addresses additional requirements including mitigation measures and Best Management Practices (BMPs) to be implemented to reduce the risk of negatively impacting the environment due to the Work activities.
- .11 EERP – The Contractor must provide to CCG an Environmental Emergency Response Plan (EERP) that addresses the procedures to be implemented to mitigate any potential negative impact on the environment (i.e. spill) within 10 days following contract award. The Contractor must designate an environmental lead and ensure that workers are adequately trained to carry out the EERP.
- .12 HEALTH AND SAFETY – The Contractor is responsible for the health and safety of their workers as it pertains to the Work and to ensure all workers act in accordance with WorkSafe BC regulations. The contractor must submit a health and safety program within 10 days of contract award as outlined by WorkSafe BC.

5.0 TRAVEL:

The Contractor is responsible for all food, lodging, transportation, and all other travel related expenses incurred for the Contractor's workers as it relates to the Work.

6.0 SUPPORT PROVIDED BY CCG:

- .1 MATERIALS – CCG will provide all materials and items noted on the Construction Drawings as supplied by CCG and will deliver the materials and items to the Contractor's work yard, or a mutually agreed upon alternate location.



- .2 SITE LOCATIONS – The exact locations and orientations of the structures will be identified in the field by CCG and verbally communicated to the Contractor at the time of construction.
- .3 CONSTRUCTION WORKERS – CCG will provide the work crews necessary to perform the installation of materials and items noted on the Construction Drawings as to be installed by CCG.
- .4 ENVIRONMENTAL MONITORS – CCG, or its representatives, will monitor construction activities for conformance to the Environmental Protection Plan provided.
- .5 SURVEY – The CCG will survey in the final coordinates of the built structures and will report any changes to the necessary authorities.
- .6 NOTIFICATIONS – CCG will provide notices to shipping and project update notifications to other governing bodies such as Transport Canada and Nav Canada.
- .7 PERMITS and FEES – CCG will obtain all necessary permits for the execution of the Work and pay all fees associated with such.

7.0 CONSTRAINTS:

The Contractor should be familiar with the locations of each site and identify project constraints as they relate to the Work. The constraints include, but are not limited to, the following:

- .1 TIDES – Work must be coordinated with tidal windows at each location. Limited windows and predicated tide elevations may dictate the schedule. The Contractor is advised to be familiar with the tides during the construction period.
- .2 ENVIRONMENTAL – The EPP addresses project specific activities and procedures to be implemented, to mitigate any potential negative impact on the environment. The Contractor is advised to review the EPP supplied in Appendix C for further requirements.
- .3 SCHEDULING – Some site Works may need to be scheduled to avoid conflicts with larger vessel traffic.
- .4 NAVIGATIONAL HAZARDS – Some work sites will require barge placements in narrow channels subject to high currents and strong winds. The Contractor is advised to be familiar with the challenges of working, transiting and mooring vessels in these waterways.
- .5 REMOTE WORKING LOCATIONS – Due to the remoteness of the work area, there may be additional challenges including but not limited to: safety, availability of sub-trades and service providers, limited cellular coverage, food and lodging availability, and supply or disposal locations.