



**RETURN BIDS TO:**

**RETOURNER LES SOUMISSIONS À:**

**Bid Receiving PWGSC / TPSGC reception des  
soumissions**

**Victory Building / Édifice Victory**

**Room 310 / pièce 310**

**269 Main Street / 269 rue Main**

**Winnipeg**

**Manitoba**

**R3C 1B3**

**Bid Fax: (204) 983-0338**

**SOLICITATION AMENDMENT**

**MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

**Comments - Commentaires**

**Vendor/Firm Name and Address**

**Raison sociale et adresse du  
fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**

Public Works and Government Services Canada -  
Western Region

Victory Building/Édifice Victory

Room 310/pièce 310

269 Main Street/269 rue Main

Winnipeg

Manitoba

R3C 1B3

<b>Title - Sujet</b> Engineering Design Services-Nunavut	
<b>Solicitation No. - N° de l'invitation</b> F2470-190036/A	<b>Amendment No. - N° modif.</b> 001
<b>Client Reference No. - N° de référence du client</b> F2470-190036	<b>Date</b> 2019-11-24
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$PWZ-202-10913	
<b>File No. - N° de dossier</b> PWZ-9-42135 (202)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2019-12-19</b>	<b>Time Zone</b> Fuseau horaire Central Standard Time CST
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Thompson, Valerie	<b>Buyer Id - Id de l'acheteur</b> pwz202
<b>Telephone No. - N° de téléphone</b> (204) 509-0349 ( )	<b>FAX No. - N° de FAX</b> (204) 983-7796
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> DFO-SCH, Harbour Development Arctic Bay and Clyde River, Nunavut	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

<b>Delivery Required - Livraison exigée</b>	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> <b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm (type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

The following changes to the tender documents are effective immediately and will form part of the contract documents:

## **1. Terms of Reference – Section 1.3 Summary of Design Work**

### **Delete:**

#### **1.3.1 Design Objectives**

1.3.1.1 The objective of this project is to provide detailed design for the construction of small craft harbours at the two communities identified. The Consultant shall prepare a complete tender ready package including Class 'A' estimates for the construction of the final designs, construction schedule and estimated annual maintenance costs including cost and frequency of dredging. A design to budget approach shall be used.

1.3.1.2 Final designs shall be consistent with the DFO Harbour Accommodations Guidelines, Version 1.2 updated in 2015. This document will be provided to the successful Consultant after contract award.

1.3.1.3 Each final design shall include the following elements:

1.3.1.3.1 Design of a new fixed wharf for a design vessel that has a length of 28.53m, breadth of 7.77m, depth of 5.3m and net tonnage of 199.38 tonnes (similar to the Arctic Fisheries Alliance vessels Suvak and Kiviuq 1). The fixed wharf shall be accessible to the design vessel at low tide conditions.

1.3.1.3.2 Design of breakwater(s) to ensure that wave agitation within the harbour does not exceed the design criteria outlined in the DFO Harbour Accommodation Guidelines, Version 1.2. A wave agitation study shall be undertaken to verify that each of the recommended design options meets this criteria.

1.3.1.3.3 Accommodation for small craft vessels ranging in length from 6 metres to 9 metres and a draft of 1.5m via a floating wooden dock system. The estimated number of small craft vessels to be accommodated at each of the harbour locations is as follows:  
Arctic Bay, NU – 90 vessels  
Clyde River, NU – 105 vessels

1.3.1.3.4 Design of a harbour basin and/or entrance channels with sufficient depth to support the navigation of small craft vessels and the design vessel to the fixed wharf at low tide conditions. A detailed sedimentation analysis shall be completed to ensure that any future maintenance dredging requirements are minimized and the estimated cost and frequency of future dredging requirements shall be included in the final deliverables.

1.3.1.3.5 The final designs shall include harbour lighting and an electrical service on the fixed wharf.

1.3.1.3.6 Design of a launch ramp for small craft vessels (6 metre to 9 metres in length) within each harbour basin shall be included in the design. The launch ramp shall also be designed so that Sea-Lift loading and unloading operations can be undertaken on the ramp. Consultation with Sea-Lift companies will be required to ensure approach angles and turning radius' required for the Sea-Lift vessels are considered.

1.3.1.3.7 Detailed design shall include accommodation of sea-lift activities within the harbour with an emphasis on minimizing interaction between harbour users and sea-lift activities.

### **1.3.2 Design Life**

1.3.2.1 Infrastructure shall have the following minimum service lives:

- Breakwater – 75 Years
- Fixed Wharf – 40 Years including corrosion protection and allowance to meet the required service life
- Timber Float Wharves – 20 Years
- Launching Facility – 25 Years
- Electrical Facilities – 15 Years
- Basin/Channel Initial Dredging – 15 Years

### **1.3.3 Environmental Objectives**

1.3.3.1 Minimizing adverse effects on the environment is a government-wide goal. At all stages of work, keep in mind the need to have projects and facilities that DFO can build and maintain in an environmentally responsible manner.

**Insert:**

#### **1.3.1 Harbour Option Layout Optimization Objectives**

- 1.3.1.1 The Consultant shall optimize the remaining viable harbour concepts identified in the Feasibility Study to meet available budget, in consultation with SCH. The consultant shall prepare Class 'D' Estimates for each optimized layout to show how each option is within budget for SCH review. These optimized layouts will be presented to the Communities at the planned Open House in February 2020.

### **1.3.2 Design Objectives**

- 1.3.2.1 The objective of this project is to provide detailed design for the construction of small craft harbours at the two communities identified. The Consultant shall prepare a complete tender ready package including Class 'A' estimates for the construction of the final designs, construction schedule and estimated annual maintenance costs including cost and frequency of dredging. A design to budget approach shall be used.
- 1.3.2.2 Final designs shall be consistent with the DFO Harbour Accommodations Guidelines, Version 1.2 updated in 2015. This document will be provided to the successful Consultant after contract award.
- 1.3.2.3 Each final design shall include the following elements:
- 1.3.2.3.1 Design of a new fixed wharf for a design vessel that has a length of 28.53m, breadth of 7.77m, depth of 5.3m and net tonnage of 199.38 tonnes (similar to the Arctic Fisheries Alliance vessels Suvak and Kiviuk 1). The fixed wharf shall be accessible to the design vessel at low tide conditions. The fixed wharf shall have a design live load of 25.0 kPa. Corrosion allowances, including Microbial corrosion, shall be considered in the design of the fixed wharf. The design of the fixed wharf shall also include a wet well for future use by the Canadian Hydrographic Service (CHS) to install a tide gauge.
  - 1.3.2.3.2 Design of breakwater(s) to ensure that wave agitation within the harbour does not exceed the design criteria outlined in the DFO Harbour Accommodation Guidelines, Version 1.2. A wave agitation study shall be undertaken to verify that each of the recommended design option meets this criteria.
  - 1.3.2.3.3 Accommodation for small craft vessels ranging in length from 6 metres to 9 metres and a draft of 1.5m via a standard SCH float wharf system, similar to Pangnirtung Harbour. The estimated number of small craft vessels to be accommodated at each of the harbour locations is as follows:
    - Arctic Bay, NU – 90 vessels
    - Clyde River, NU – 105 vessels
  - 1.3.2.3.4 Design of a harbour basin and/or entrance channels with sufficient depth to support the navigation of small craft vessels and the design vessel to the fixed wharf at low tide conditions. A detailed sedimentation analysis shall be completed to ensure that any future maintenance dredging requirements are minimized and the estimated cost and frequency of future dredging requirements shall be included in the final deliverables.

- 1.3.2.3.5 The final design shall include harbour lighting and an electrical service on the fixed wharf.
- 1.3.2.3.6 Design of a launch ramp for small craft vessels (6 metre to 9 metres in length) within each harbour basin shall be included in the design. The launch ramp shall be a single lane ramp and shall also be designed so that Sea-Lift loading and unloading operations can be undertaken on the ramp if required. Consultation with Sea-Lift companies will be required to ensure approach angles and turning radius' required for the Sea-Lift vessels are considered.
- 1.3.2.3.7 Detailed design shall include accommodation of sea-lift activities within the harbour breakwaters with an emphasis on minimizing interaction between harbour users and sea-lift activities.
- 1.3.2.3.8 Detailed design shall include a harbour drainage plan and include diversion of any creeks or drainage ditches to the outside of the harbour basin.
- 1.3.2.3.9 SCH to provide Navigation Aid information from the Canadian Coast Guard to be incorporated into the design by the Consultant.

### **1.3.3 Design Life**

1.3.3.1 Infrastructure shall have the following minimum service lives:

- Breakwater – 75 Years
- Fixed Wharf – 40 Years including corrosion protection and allowance to meet the required service life
- Timber Float Wharves – 20 Years
- Launching Facility – 25 Years
- Electrical Facilities – 15 Years
- Basin/Channel Initial Dredging – 15 Years

### **1.3.4 Environmental Objectives**

1.3.4.1 Minimizing adverse effects on the environment is a government-wide goal. At all stages of work, keep in mind the need to have projects and facilities that DFO can build and maintain in an environmentally responsible manner.

## **2. Terms of Reference – Section 1.5 Schedule**

**Delete:**

### 1.5.1 General

1.5.1.1 Deliver the project in accordance with the project milestone listing identified below.

Project Phase	Milestone Completion Date
Project Kick-Off Meeting	January 15, 2020
Project Plan and Schedule Submission	February 3, 2020
Community Consultation	March 2, 2020
Geotechnical Investigation Complete	April 30, 2020
33% Draft Plans, Specification, Schedule & Class 'D' Cost Estimate	June 1, 2020
Legal Land Survey Filed with Land Titles Office	July 20, 2020
Community Consultation	August 10, 2020
Topographic and Bathymetric Survey Complete	September 14, 2020
66% Draft Plans, Specification, Schedule & Class 'C' Cost Estimate	October 5, 2020
Community Consultation	November 2, 2020
Applications for Permits and Approvals Submitted by Consultant	December 2, 2020
99% Draft Plans, Specification, Schedule & Class 'B' Cost Estimate	January 11, 2021
Community Consultation	February 1, 2021
Final Tender Ready Package including Final Plans, Specification, Construction Schedule & Class 'A' Cost Estimate	March 15, 2021

1.5.1.2 Field work shall be completed no later than October 15, 2020 to ensure that the overall project schedule is maintained.

1.5.1.3 The consultant shall submit a detailed project schedule based on the critical milestones for this project and the deliverables listed in section 2.0 Required Services. This schedule will then be used to coordinate all phases of the Consultants services. This schedule is to be submitted to DFO by February 3, 2020 at the latest.

**Insert:**

### 1.5.1 General

1.5.1.1 Deliver the project in accordance with the project milestone listing identified below.

Project Phase	Milestone Completion Date
Project Kick-Off Meeting	January 15, 2020
Project Plan and Schedule Submission	January 22, 2020
Optimized Harbour Layouts Submission	February 11, 2020
Community Consultation & Public Open House	February 24, 2020
Final Harbour Layout Plan	March 19, 2020
Geotechnical Investigation Complete	April 30, 2020
33% Draft Plans, Specification, Schedule & Class 'D' Cost Estimate	June 1, 2020
Community Consultation	August 10, 2020
Legal Land Survey Filed with Land Titles Office	August 22, 2020
Topographic and Bathymetric Survey Complete	September 14, 2020
66% Draft Plans, Specification, Schedule & Class 'C' Cost Estimate	October 5, 2020
Community Consultation	November 2, 2020
99% Draft Plans, Specification, Schedule & Class 'B' Cost Estimate	January 11, 2021
Community Consultation	February 1, 2021
Applications for Permits and Approvals Submitted by Consultant	February 16, 2021
Final Tender Ready Package including Final Plans, Specification, Construction Schedule & Class 'A' Cost Estimate	March 15, 2021

1.5.1.2 Field work shall be completed no later than October 15, 2020 to ensure that the overall project schedule is maintained.

1.5.1.3 The consultant shall submit a detailed project schedule based on the critical milestones for this project and the deliverables listed in section 2.0 Required Services. This schedule will then be used to coordinate all phases of the Consultants services. This schedule is to be submitted to DFO by January 22, 2020 at the latest.

### **3. Terms of Reference – Section 1.7.1 Existing Documentation- Available for the Consultant**

**Delete:**

- 1.7.1.2 A feasibility study for each harbour location is to be completed by December 2019 and copies of the final reports will be provided to the successful Consultant after contract award. The scope of work in the feasibility study includes pre-design service and design concept analysis and the TOR outlining the work to be provided with the feasibility study is included in Appendix B. A preferred conceptual design for each harbour location will be provided in the completed feasibility study and shall be used as the basis for design development. The Consultant will be responsible for verifying the accuracy of the information incorporated into the design.

**Insert:**

- 1.7.1.2 A feasibility study for each harbour location is to be completed by December 2019 and copies of the final reports will be provided to the successful Consultant after contract award. The scope of work in the feasibility study includes pre-design service and design concept analysis and the TOR outlining the work to be provided with the feasibility study is included in Appendix B. The conceptual designs for each harbour location will be provided in the completed feasibility study and shall be used as the basis for layout optimization. The Consultant will be responsible for verifying the accuracy of the information incorporated into the design.

### **4. Terms of Reference – Section 1.8 Codes, Acts, Standards, Regulations - General**

**Delete:**

- 1.8.1.4 The consultant will be responsible for the submission of permits for the harbour construction work and the project shall be undertaken in such a way that the designs are compliant with the AHJ. The AHJ on this project may include but are not limited to:
- Nunavut Planning Commissions (NPC)
  - Nunavut Impact Review Board (NIRB)
  - Fisheries and Oceans Canada (DFO)
  - Environment and Climate Change Canada (ECCC)
  - Nunavut Research Institute (NRI)
  - Nunavut Water Board (NWB)
  - Transport Canada (TC)
  - Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)
  - Hamlet of Arctic Bay
  - Hamlet of Clyde River
  - Nunavut Land Claim Agreement
  - Canadian Environmental Assessment Act (CEAA)
  - Any other authority that is triggered by NIRB/NPC review



**Insert:**

1.8.1.4 The consultant will be responsible for the submission of permits for the harbour construction work and the project shall be undertaken in such a way that the designs are compliant with the AHJ. The AHJ on this project may include but are not limited to:

- Nunavut Planning Commissions (NPC)
- Nunavut Impact Review Board (NIRB)
- Fisheries and Oceans Canada, Fish and Fish Habitat Protection Program (FFHPP)
- Environment and Climate Change Canada (ECCC)
- Nunavut Research Institute (NRI)
- Nunavut Water Board (NWB)
- Nunavut Wildlife Management Board (NWMB)
- Transport Canada, Navigation Protection Program (NPP)
- Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)
- Hamlet of Arctic Bay
- Hamlet of Clyde River
- Nunavut Land Claim Agreement
- Impact Assessment Agency of Canada Act (IAA)
- Any other authority that is triggered by NIRB/NPC review
- Government of Nunavut (GN)

**5. Terms of Reference – Section 2.3 Investigations, Studies and Reports**

**Delete:**

**2.3.2 Community Consultation**

2.3.2.1 The consultant shall make allowance for one initial on site consultation meeting with each community to accomplish the following:

- Develop a rapport with key community stakeholders to be further developed at the next consultations.
- Develop a good understanding of the site limitations by obtaining local and Inuit knowledge of the site conditions and land use.
- Listen to and consider the opinions of key community members and stakeholders.
- Workshop ideas to provide a good understanding of the perspectives and needs of the communities and the various users of the harbour.
- Consult with the community on the upcoming field work that will be undertaken as part of Section 2.3 Investigations, Studies and Reports.

2.3.2.2 The Consultant shall complete this community consultation prior to any field work being conducted and no later than March 2, 2020.

2.3.2.3 The Consultant shall prepare a Consultation Summary Report in PDF format.

**Insert:**

**2.3.2 Layout Optimization, Public Open House & Community Consultation**

2.3.2.1 The Consultant shall prepare optimized harbour layout concepts based on the remaining viable harbour concepts identified in the Feasibility Study to meet available budget, in consultation with SCH. The consultant shall prepare Class 'D' Estimates for each optimized layout to show how each option is within budget for SCH review. These optimized layouts will be presented to the Communities at the planned Open House in February 2020.

2.3.2.2 The consultant shall make allowance for one initial on site consultation meeting with each community to accomplish the following:

- Consult with local stakeholders in advance of the community open house to discuss format and topics to be discussed.
- Present the optimized layout options to community stakeholders at a public open house and determine the preferred option which will be used as the final harbour layout plan for detailed design.
- Develop a rapport with key community stakeholders to be further developed at the next consultations.
- Develop a good understanding of the site limitations by obtaining local and Inuit knowledge of the site conditions and land use.
- Listen to and consider the opinions of key community members and stakeholders.
- Consult with the community on the upcoming field work that will be undertaken as part of Section 2.3 Investigations, Studies and Reports.

2.3.2.3 The Consultant shall complete this community consultation and open house during the week of February 23, 2020.

2.3.2.4 The Consultant shall prepare a Consultation Summary Report in PDF format.

2.3.2.5 The Consultant shall be responsible for supporting SCH consultation throughout the project with project stakeholders. The stakeholders may include but are not limited to:

- Hamlet of Arctic Bay
- Hamlet of Clyde River
- Ikajutit Hunters and Trappers Organization (HTO) – Arctic Bay
- Nangmoutaq Hunters and Trappers Organization (HTO) – Clyde River
- Knowledge Holders
- Guardian Programs
- RCMP
- Conservation Officer

- Public
- Shoreline Residents & Businesses
- Arctic Fisheries Alliance
- Sea-Lift Services (NSSI and NEAS)
- Fuel Re-Supply – Woodward's Oil Limited

## **6. Terms of Reference – Section 2.3.3 Legal Land Survey**

### **Delete:**

2.3.3.4 Plan of Survey shall be filed with the appropriate Land Titles Office by July 20, 2020.

### **Insert:**

2.3.3.4 Plan of Survey shall be filed with the appropriate Land Titles Office by August 22, 2020.

## **7. Terms of Reference – Section 2.3.4 Bathymetric and Topographic Survey**

### **Delete:**

2.3.4.2 The consultant shall Establish permanent reference points at each of the harbour locations that is convenient for future use and in a position likely to be safe from damage during the construction of the harbours. Permanent reference points are to be specifically identified on all drawings produced.

2.3.4.3 Survey must be conducted in accordance with the CHS Standards for Hydrographic Surveys:  
<http://www.charts.gc.ca/documents/data-gestion/standards-normes/standards-normes-2013-eng.pdf>

2.3.4.4 Horizontal Control:

2.3.4.4.1 All points to be in UTM coordinates referenced to NAD83 (CSRS) datum.

2.3.4.4.2 Primary shore control points shall be established by ground survey methods to a relative accuracy of 1 part in 100,000. When geodetic satellite positioning methods are used to establish such points, the error shall not exceed 10 cm at 95% confidence level with respect to NAD 83 (CSRS).

2.3.4.5 Vertical Datum:

2.3.4.5.1 All depths must be reduced to a low water datum.

2.3.4.5.2 In tidal waters, soundings are reduced to Lowest Low Water Large Tide (LLWLT).

2.3.4.5.3 Sounding datum must be referred to a minimum of 3 vertical benchmarks whose elevations must be determined to the accuracy stated in the Canadian Tidal Manual.

- 2.3.4.6 Undertake a topographic/sounding survey to the limits of the harbour area that is accurate in all planes to within +/- 0.05m of the reference point for points on land and +/- 0.1m for points underwater.
- 2.3.4.7 Survey lines are to start at the limits of the upland area and extend into the water to the limits of the water area. Survey lines are to be spaced at a maximum offset of 10m.
- 2.3.4.8 Survey points along the lines are to have a maximum spacing of 5m for points underwater and a maximum spacing of 5m for points on land. Additional survey points may be required along or between the lines to completely identify significant site features.
- 2.3.4.9 Significant site features to be surveyed include but are not limited to the following:
- Locations and elevations of any existing structures (buildings, wharves, floats, launch ramps, power poles, concrete pads, parking lots, culverts, etc.)
  - Shoulder of roads
  - Top of slope and toe of slope of any breakwater, shore line or naturally sloped feature
  - Extents of any topographical or geological features (bedrock outcrops, cliffs, ravines, streams, ditches)
  - Location of any evidence of high water lines in addition to Ordinary High Water Mark
  - Locations of any navigational aids (lights, ranges, buoys)
  - Edge of water on the given day
  - Property pins
  - Any other site conditions that may impact the development of a harbour at the site.
- 2.3.4.10 Topographic and bathymetric survey shall be submitted to DFO by September 14, 2020.
- 2.3.4.11 The Consultant shall prepare a report that includes the following items:
- Site Plan that illustrates the findings of the field work. Drawing is to be to a scale that shows the limits of the field investigation on ARCH D sized paper.
  - Copies of any Field Notes recorded on site.
  - Copies of the raw data collected on site.
  - Details of survey method used, equipment used and any pertinent site information.
  - Electronic copy of the Site Plan in an AutoCAD format with all features drawn on separate layers.
  - Electronic copy of the raw data in a CSV or similar format.

**Insert:**

- 2.3.4.2 The consultant shall establish permanent control points at each of the harbour locations that is convenient for future use and in a position likely to be safe from damage during the construction of the harbours. Permanent control points are to be specifically identified on all drawings produced and shall be used during construction. Planned locations for permanent control points shall be determined in consultation with SCH.
- 2.3.4.3 Survey must be conducted in accordance with the CHS Standards for Hydrographic Surveys: <http://www.charts.gc.ca/documents/data-gestion/standards-normes/standards-normes-2013-eng.pdf>
- 2.3.4.4 The survey shall be undertaken by a Certified Hydrographer.
- 2.3.4.5 The bathymetric survey shall be undertaken using a multibeam echosounder.
- 2.3.4.6 Horizontal Control:
- 2.3.4.6.1 All points to be in UTM coordinates referenced to NAD83 (CSRS) datum.
- 2.3.4.6.1 Primary shore control points shall be established by ground survey methods to a relative accuracy of 1 part in 100,000. When geodetic satellite positioning methods are used to establish such points, the error shall not exceed 10 cm at 95% confidence level with respect to NAD 83 (CSRS).
- 2.3.4.7 Vertical Datum:
- 2.3.4.7.1 All depths must be reduced to a low water datum.
- 2.3.4.7.1 In tidal waters, soundings are reduced to Lowest Low Water Large Tide (LLWLT). Sounding datum must be referred to a minimum of 3 vertical benchmarks whose elevations must be determined to the accuracy stated in the Canadian Tidal Manual.
- 2.3.4.7.3 Geodetic datum shall be CVGD2013.
- 2.3.4.8 Undertake a topographic/sounding survey to the limits of the harbour area that is accurate in all planes to within +/- 0.05m of the reference point for points on land and +/- 0.1m for points underwater.
- 2.3.4.9 Survey lines are to start at the limits of the upland area and extend into the water to the limits of the water area. Survey lines are to be spaced at a maximum offset of 10m.
- 2.3.4.10 Survey points along the lines are to have a maximum spacing of 5m for points underwater and a maximum spacing of 5m for points on land. Additional survey points may be required along or between the lines to completely identify significant site features.
- 2.3.4.11 Significant site features to be surveyed include but are not limited to the following:
- Locations and elevations of any existing structures (buildings, wharves, floats, launch ramps, power poles, concrete pads, parking lots, culverts, etc.)

- Shoulder of roads
- Top of slope and toe of slope of any breakwater, shore line or naturally sloped feature
- Extents of any topographical or geological features (bedrock outcrops, cliffs, ravines, streams, ditches)
- Location of any evidence of high water lines in addition to Ordinary High Water Mark
- Locations of any navigational aids (lights, ranges, buoys)
- Edge of water on the given day
- Property pins
- Any other site conditions that may impact the development of a harbour at the site.

2.3.4.12 Topographic and bathymetric survey shall be submitted to DFO by September 14, 2020.

2.3.4.13 The Consultant shall prepare a report that includes the following items:

- Site Plan that illustrates the findings of the field work. Drawing is to be to a scale that shows the limits of the field investigation on ARCH D sized paper.
- Copies of any Field Notes recorded on site.
- Copies of the raw data collected on site.
- Details of survey method used, equipment used and any pertinent site information.
- Electronic copy of the Site Plan in an AutoCAD format with all features drawn on separate layers.
- Electronic copy of the raw data in a CSV or similar format.

## **8. Terms of Reference – Section 2.3.5 Biological Environment and Socio-Economic Environment Assessment:**

**Delete:**

### **2.3.5 Biological Environment and Socio-Economic Environment Assessment:**

2.3.5.1 Consultant shall produce the following reports/studies to support the construction work and permit requirements for AHJ:

- Traditional knowledge study
- Fish and fish habitat assessment and baseline study
- Migratory and marine bird assessment
- Terrestrial vegetation assessment
- Wildlife assessment
- Marine mammal assessment
- Species at Risk assessment
- Archeological and Cultural Historic Site assessment

2.3.5.1 The Consultant shall prepare a report for each harbour location that includes the above items in PDF format.

**Insert:**

### **2.3.5 Biological Environment and Socio-Economic Environment Assessment:**

2.3.5.1 Consultant shall produce the following reports/studies to support the construction work and permit requirements for AHJ:

- Traditional knowledge study
- Fish and fish habitat assessment and baseline study, including:
  - Habitat map of proposed harbour and disposal at sea areas;
  - Existing fish and marine mammal community information;
  - Spatial extent to include both immediate harbour footprint and surrounding bay area for those species that are migratory - focus to be within the harbour footprint.
  - Where possible, diversity study for richness, life stage and abundance, not to be used for population/stock assessment estimates but to be used qualitatively.
  - Identify how the fish species are utilizing the habitat (spawning, nursery, rearing, feeding, migration) if applicable.
  - Identify presence of food sources – invertebrate/plankton, if applicable.
  - Understanding of water circulation patterns and water quality parameters and the impact of tidal fluctuation.
- Migratory and marine bird assessment
- Terrestrial vegetation assessment
- Wildlife assessment
- Marine mammal assessment
- Species at Risk assessment
- Archeological and Cultural Historic Site assessment

2.3.5.2 The Consultant shall prepare a report for each harbour location that includes the above items in PDF format.

2.3.5.3 The consultant shall assist in developing complimentary compensation and physical compensation proposal in consultation with SCH.

## **9. Terms of Reference – Section 2.4.1 Permitting Support – Scope and Activities**

**Delete:**

2.4.1.6 Applications for Permits and Approvals shall start by December 2, 2020.

**Insert:**

2.4.1.6 Applications for Permits and Approvals shall start by February 16, 2021.

## **10. Terms of Reference – Section 2.5 Design Development**

**Delete:**

## **2.5.1 33% Report and Class 'D' Estimate & Community Consultation**

2.5.1.1 The Consultant shall, after acceptance of the design concept documents prepared in the provided feasibility studies, prepare and:

2.5.1.1.1 Refine the approved Conceptual Design Option to a level of detail which will facilitate Class 'D' cost estimates and conduct design review and discussions with the Client Department.

2.5.1.1.2 33% indicates technical completeness of all working documents.

2.5.1.1.3 Submit to the Departmental Representative, design development documents in sufficient detail to define the size, intent and character of the entire Project.

2.5.1.1.4 Submit an updated Class 'D' Construction Cost Estimate based on the design development documents, and an updated Cost Plan, Project Risk Management Plan and Project Schedule.

**Insert:**

## **2.5.1 33% Report and Class 'D' Estimate & Community Consultation**

2.5.1.1 The Consultant shall, after acceptance of the final optimized layout, prepare and:

2.5.1.1.1 33% indicates technical completeness of all working documents.

2.5.1.1.2 Submit to the Departmental Representative, design development documents in sufficient detail to define the size, intent and character of the entire Project.

2.1.5.5.3 Submit an updated Class 'D' Construction Cost Estimate based on the design development documents, and an updated Cost Plan, Project Risk Management Plan and Project Schedule.

## **11. Terms of Reference – Section 3.2 Meetings**

**Delete:**

### **3.2.2 On Site Consultation Meetings**

3.2.2.1 The consultant shall make allowance for on site consultation meetings as indicated in Section 1.5 with each community.

**Insert:**



### **3.2.2 On Site Consultation Meetings & Public Open House**

- 3.2.2.1 The consultant shall make allowance for on site consultation meetings and public open house as indicated in Section 1.5 with each community.