



Canadian Coast Guard
AW2W1 World-Class New and Modified Aids, Kitimat

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CONTRACT FOR: Navigational Aid Demolition Services

DEPARTMENT: Canadian Coast Guard, Maritime and Civil Infrastructure

DATE: December 2016

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A handwritten signature in blue ink that reads "Anita Hoffman".



Part 1 General

1.1 RELATED SECTIONS

- .1 Section 01 35 33 - Marine Health and Safety Requirements.
- .2 Section 01 35 43 - Environmental Procedures
- .3 Section 02 41 16 - Structure Demolition
- .4 Section 35 05 51 - Marine General Sitework.

1.2 CODES AND STANDARDS

- .1 Perform work in accordance with the National Building Code, the Workers' Compensation Board of B.C., the Canada Labour Code, the Canadian Government Specification Board, Canadian Standards Association, American Society of Testing and Materials, and any other code of provincial or local application provided that, in any case of conflict or discrepancy, the most stringent requirements shall apply.
- .2 Meet or exceed requirements of specified standards, codes and referenced documents.

1.3 PRECEDENCE

- .1 Division 1 Sections take precedence over technical specification sections in other Divisions of these Project Specifications.

1.4 DESCRIPTION OF WORK

- .1 Work under this Contract include but is not limited to the provision of all labour, materials, and equipment required to:
 - .1 Mobilize to site with a work barge of appropriate size and certification;
 - .2 Demolish and dispose existing navigational aids identified herein including four (4) different sites;
 - .3 Return the existing navigation aid equipment and materials above the concrete base, if present, including all lighting and electrical equipment to CCG;
 - .4 Dispose of concrete foundations materials to a certified land based facility.
 - .5 Demobilize.
- .2 The following work will be undertaken by others and must be accommodated during construction.
 - .1 Inspection by CCG Representative prior to demolishing site.
 - .2 Review of works by Environmental Monitor, under separate contract.
 - .3 Observation of demolition activities by First Nations Observer, if present.
- .3 Location of Site



- .1 The work involves multiple project sites and the exact locations are to be identified by the CCG Representative following the award of the Contract. These site locations are:
 - .1 LL 652.0 Gertrude Point, at the co-ordinates of 53° 37' 54.3"N, 129° 13' 49.2"W.
 - .2 LL 652.5 Maitland Island, at the co-ordinates of 53° 42' 7.21"N, 129° 4' 31.6"W.
 - .3 LL 652.0 Emilia Island, at the co-ordinates of 53° 45' 30.5"N, 128° 58' 16.4"W.
 - .4 LL 737.0 Keswar Point, at the co-ordinates of 53° 37' 34.10"N, 130° 21' 4.10"W.
- .2 The work sites typically include cast concrete bases on bedrock supporting lattice steel towers, in the near-shore area.
- .3 The inland area above the shoreline natural boundary is not to be entered or disturbed.
- .4 Refer to the Appendix for further information including a site map and photos.

1.5 SITE CONDITIONS

- .1 The Contractor is to be thoroughly acquainted with site conditions including, but not limited, soil, climatic, tidal conditions, and site access along with the nature and extent of the work.
- .2 Submission of a tender will be deemed confirmation that the Contractor is familiar with the site and is conversant with all relevant conditions.
- .3 All known discrepancies are to be brought to the attention of the CCG Representative and are to be accounted for in the Contractor's Bid Price.

1.6 CONTRACTOR'S ACCESS TO SITE

- .1 Contractor is responsible for all transport of all labour, materials, and equipment to and from the site, including any and all material furnished or itemized for salvage by Coast Guard.
- .2 Sites are water accessible only.
- .3 The Contractor is responsible for supplying appropriate marine access to support all construction work.

1.7 SUBMITTALS

- .1 Mandatory submittals and schedule for submission are detailed below. The following identifies general requirements only; the relevant sections must be consulted for a complete listing of mandatory content.
- .2 Detailed Schedule:
 - .1 Deadline:



- .1 No later than ten (10) working days following award.
- .2 Deliverables:
 - .1 The Contractor must furnish a high level schedule outlining the major construction milestones. Schedule must clearly define the anticipated start and finish of the project.
- .3 Proof of Qualifications:
 - .1 Deadline:
 - .1 No later than ten (10) working days following award.
 - .2 Deliverables:
 - .1 Contractor must furnish proof of vessel registration.
 - .2 Contractor must furnish listing of all subcontractors.
- .4 Detailed Demolition Plan:
 - .1 Deadline:
 - .1 No later than twenty (20) working days following award.
 - .2 Deliverables:
 - .1 A Detailed Demolition Plan of sufficient detail to demonstrate that the Contractor has considered all the challenges of the project and is prepared to undertake the works in a competent and professional manner in accordance with all legislation, and including:
 - .1 Project Health and Safety Plan (Section 013533);
 - .2 Project Environmental Emergency Response Plan (Section 013543);
 - .3 Detailed Demolition Plan (Section 024116);
- .5 Ensure all documents noted as required throughout the specifications are submitted in a timely manner.
- .6 Allow sufficient time for the following:
 - .1 Approval of submittal.
 - .2 Review of re-submission.
 - .3 Ordering of approved material and/or products.

1.8 TIME OF COMPLETION

- .1 The Work is to be completed prior to **September, 30 2017**.

1.9 NOTIFICATIONS

- .1 Standard notifications to applicable governing bodies for navigation activities regarding the Work by the Contractor are the responsibility of the Contractor. This is include, but not limited to:
 - .1 The Contractor must notify the local Fisheries Officer not less than five (5) days prior to commencement of the work.



- .2 Contractor must notify Canadian Coast Guard, Vessel Traffic Services, and inform them of operations to allow them to issue any necessary notices to shipping prior to commencement of the work.

1.10 TEMPORARY FACILITIES

- .1 Provide sanitary facilities for work force in accordance with governing regulations and ordinances.
- .2 Maintain emergency spills kit on-site at all times.

1.11 BIDDER QUALIFICATIONS

- .1 The work must be carried out under the supervision and responsibility of a sole specialized Contractor, capable of performing demolition of reinforced concrete bases and that noted herein.
- .2 The Contractor must designate a project manager or main point of contact for the contract.
- .3 The Contractor must provide a detailed list of all subcontractors being used to complete the work described herein.

1.12 REGULATORY AGENCIES REQUIREMENTS

- .1 Ensure the Work meets all applicable environmental regulations and standards.
- .2 The Contractor shall comply with municipal, provincial, and national regulatory agency regulations relating to the project.
- .3 Claims for extra costs resulting from all regulatory agency requirements will not be entertained by the Department.
- .4 The Contractor shall mark floating equipment with lights in accordance with Notice to Mariners CCG regulations.
- .5 The Contractor will ensure that a fuel/oil spill emergency action plan is in place at all times.

1.13 PERMITS, CERTIFICATES, AND FEES

- .1 The Contractor shall give all notices, obtain and pay all fees and permits, and all other services required or requested by the authorities having local jurisdiction for the portion of the Work by the Contractor.
- .2 The Contractor shall be responsible for all damages and costs which result from the Contractor's failure to pay the fees and procure the permits referred to herein, if applicable with the Work.
- .3 All ramp fees associated with loading and unloading of equipment is paid by the Contractor.



1.14 INTERFERENCE TO NAVIGATION

- .1 The Contractor shall be familiar with vessel movements, environmental, and fishery requirements and regulations in areas affected by the Work. The Contractor shall plan and execute the Work in a manner that will not impede on navigation or interfere with fisheries windows.
- .2 Comply with all Canadian Coast Guard regulations in conjunction with navigation aids which may be considered necessary during the course of the project.

Part 2 Products

- .1 Not applicable.

Part 3 Execution

- .1 Not applicable.

END OF SECTION



Part 1 General

1.1 RELATED SECTIONS

- .1 Section 01 11 00 – Summary of Work
- .2 Section 01 35 43 – Environmental Procedures
- .3 Section 02 41 16 - Structure Demolition
- .4 Section 35 05 51 - Marine General Sitework.

1.2 REFERENCES

- .1 Government of Canada
 - .1 Canada Labour Code, Part II
 - .2 Canada Occupational Health and Safety Regulations.
- .2 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).
- .3 National Building Code of Canada (NBC):
 - .1 Part 8, Safety Measures at Construction and Demolition Sites.
- .4 Canadian Standards Association (CSA):
 - .1 CSA-S350-M1980 (R2003), Code of Practice for Safety in Demolition of Structures.
- .5 Fire Protection Engineering Services, HRSDC:
 - .1 FCC No. 301, Standard for Construction Operations.
 - .2 FCC No. 302, Standard for Welding and Cutting.
 - .3 HRSDC website:
http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_standards/commissioner/index.shtml
- .6 American National Standards Institute (ANSI):
 - .1 ANSI A10.3, Operations – Safety Requirements for Powder-Actuated Fastening Systems.
- .7 Province of British Columbia:
 - .1 Workers Compensation Act. Part 3 Occupational Health and Safety.
 - .2 Occupational Health and Safety Regulation.

1.3 WORKERS' COMPENSATION BOARD COVERAGE

- .1 Comply fully with the Workers' Compensation Act, regulations and orders made pursuant thereto, and any amendments up to the completion of the work.



- .2 Maintain Workers' Compensation Board coverage during the term of the Contract, until and including the date that the Certificate of Final Completion is issued.

1.4 COMPLIANCE WITH REGULATIONS

- .1 CCG may terminate the Contract without liability to CCG where the Contractor, in the opinion of CCG, refuses to comply with a requirement of the Workers' Compensation Act or the Occupational Health and Safety Regulations.
- .2 It is the Contractor's responsibility to ensure that all workers are qualified, competent and certified to perform the work as required by the Workers' Compensation Act or the Occupational Health and Safety Regulations.
- .3 All work must comply with the requirements of the Navigable Waters Protection Act.
- .4 Comply with specified codes, acts, bylaws, standards and regulations to ensure safe operations at site.
- .5 In event of conflict between any provisions of the above authorities, the most stringent provision will apply. Should a dispute arise in determining the most stringent requirement, the CCG Representative will advise on the course of action to be followed.

1.5 NAVIGATION

- .1 Navigational safety shall be maintained during the decommissioning process to avoid interactions between construction vessels and other potential users of the area. Marker buoys with appropriate signage shall be used to warn vessels as appropriate.
- .2 Any materials or equipment used shall be marked in accordance with the Collision Regulations of *The Canada Shipping Act* if located in or on the waterway.

1.6 SUBMITTALS

- .1 Submit to CCG Representative submittals for review.
- .2 Work affected by submittals is not to proceed until review is complete.
- .3 Submit the following prior to start of work (unless noted otherwise):
 - .1 Health and Safety Plan, see clause below.
 - .2 Complete set of Material Safety Data Sheets (MSDS), and all other documentation required by Workplace Hazardous Materials Information System (WHMIS) requirements.
 - .3 Emergency procedures.
 - .4 Copies of reports or directions issued by federal and provincial health and safety inspectors, report within one week of receipt.
 - .5 Copies of incident and accident reports, report within one week of incident.
- .4 The CCG Representative will review the Contractor's site-specific project Health and Safety Plan and emergency procedures, and provide comments to the Contractor within 5



days after receipt of the plan. Revise the plan as appropriate and resubmit to CCG Representative for review upon request.

- .5 Medical surveillance: where prescribed by legislation, regulation or safety program, submit certification of medical surveillance for site personnel prior to commencement of work, and submit additional certifications for any new site personnel to CCG Representative.
- .6 Submission of the Health and Safety Plan, and any revised version, to the CCG Representative is for information and reference purposes only. It shall not:
 - .1 Be construed to imply approval by the CCG Representative.
 - .2 Be interpreted as a warranty of being complete, accurate and legislatively compliant.
 - .3 Relieve the Contractor of his legal obligations for the provision of health and safety on the project.

1.7 RESPONSIBILITY

- .1 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to the extent that they may be affected by conduct of Work.
- .2 Comply with and enforce compliance by employees with safety requirements of the specification, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, and with site-specific Health and Safety Plan.

1.8 PROJECT/SITE CONDITIONS

- .1 Work at site will involve:
 - .1 Demolition and removal of potentially unstable structures
 - .2 Aged metal frames likely with significant bird fecal matter
 - .3 Crane lifting/overhead work

1.9 HEALTH AND SAFETY PLAN

- .1 Conduct a site-specific hazard assessment based on review of the specifications, required work, and project site. Identify any known and potential health risks and safety hazards.
- .2 Prepare and comply with a site-specific project Health and Safety Plan based on hazard assessment, including, but not limited to, the following:
 - .1 Primary requirements:
 - .1 Contractor's safety policy.
 - .2 Identification of applicable compliance obligations.
 - .3 Definition of responsibilities for project Safety/ Organization chart for project.
 - .4 General safety rules for project.
 - .5 Job-specific safe work procedures.
 - .6 Inspection policy and procedures.



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- .7 Incident reporting and investigation policy and procedures.
- .8 Occupational Health and Safety Committee/Representative procedures.
- .9 Occupational Health and Safety meetings.
- .10 Occupational Health and Safety communications and recordkeeping procedures.
- .2 Summary of health risks and safety hazards resulting from analysis of hazard assessment, with respect to site tasks and operations which must be performed as part of the work.
- .3 List hazardous materials to be brought on site as required by work.
- .4 Indicate engineering and administrative control measures to be implemented at the site for managing identified risks and hazards.
- .5 Identify personal protective equipment (PPE) to be used by workers.
- .6 Identify personnel and alternates responsible for site safety and health.
- .7 Identify personnel training requirements and training plan, including site orientation for new workers.
- .3 Develop the plan in collaboration with all subcontractors. Ensure that work/activities of subcontractors are included in the hazard assessment and are reflected in the plan.
- .4 Revise and update Health and Safety Plan as required, and re-submit to the CCG Representative.
- .5 CCG review shall not relieve the Contractor of responsibility of errors and omissions in the Final Health and Safety Plan or of responsibility for meeting all requirements of construction and the specifications.

1.10 EMERGENCY PROCEDURES

- .1 List standard operating procedures and measures to be taken in emergency situations. Include an evacuation plan and emergency contacts (i.e. names/telephone numbers) of:
 - .1 Designated personnel from own company.
 - .2 Regulatory agencies applicable to work and as per legislated regulations.
 - .3 Local emergency resources.
 - .4 CCG Representative.
- .2 Include the following provisions in the emergency procedures:
 - .1 Notify workers and the first-aid attendant, of the nature and location of the emergency.
 - .2 Evacuate all workers safely.
 - .3 Check and confirm the safe evacuation of all workers.
 - .4 Notify the fire department or other emergency responders.
 - .5 Notify adjacent workplaces or residences which may be affected if the risk extends beyond the workplace.
 - .6 Notify CCG Representative.
- .3 Provide written rescue/evacuation procedures as required for, but not limited to:



- .1 Work with hazardous substances.
- .2 Work on, over, under and adjacent to water.
- .4 Revise and update emergency procedures as required, and re-submit to the CCG Representative.

1.11 HAZARDOUS PRODUCTS

- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage and disposal of hazardous materials, and regarding labelling and provision of Material Safety Data Sheets (MSDS) acceptable to the CCG Representative and in accordance with the Canada Labour Code.
- .2 Where use of hazardous and toxic products cannot be avoided:
 - .1 Advise CCG Representative beforehand of the product(s) intended for use. Submit applicable MSDS and WHMIS documents.

1.12 FIRE SAFETY REQUIREMENTS

- .1 Store oily/paint-soaked rags, waste products, empty containers and materials subject to spontaneous combustion in ULC approved, sealed containers and remove from site on a daily basis.
- .2 Handle, store, use and dispose of flammable and combustible materials in accordance with the National Fire Code of Canada.

1.13 UNFORESEEN HAZARDS

- .1 Should any unforeseen or peculiar safety-related factor, hazard or condition become evident during performance of the work, follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of British Columbia having jurisdiction and advise the CCG Representative verbally and in writing.

1.14 POSTED DOCUMENTS

- .1 Post legible versions of the following documents on site:
 - .1 Health and Safety Plan.
 - .2 Emergency procedures.
 - .3 Notice of Project.
 - .4 Notice as to where a copy of the Workers' Compensation Act and Regulations are available on the work site for review by employees and workers.
 - .5 Workplace Hazardous Materials Information System (WHMIS) documents.
 - .6 Material Safety Data Sheets (MSDS).
- .2 Post all Material Safety Data Sheets (MSDS) on site, in a common area, protected from inclement weather, visible to all workers and in locations accessible to users of the facility when work of this Contract includes construction activities adjacent to occupied areas.



1.15 MEETINGS

- .1 The Contractor must coordinate and lead a safety meeting prior to performing the Work and daily tail gate safety meetings during the Work for the Contractors workers. This is to be included in the Health and Safety Plan or other applicable plan administered by the Contractor.

1.16 CORRECTION OF NON-COMPLIANCE

- .1 Immediately address health and safety non-compliance issues identified by the CCG Representative.
- .2 Provide CCG Representative with written report of action taken to correct non-compliance with health and safety issues identified.
- .3 The CCG Representative may issue a "stop work order" if non-compliance of health and safety regulations is not corrected immediately or within posted time. The Prime Contractor/subcontractors will be responsible for any costs arising from such a "stop work order".

Part 2 Products

- .1 Not applicable.

Part 3 Execution

- .1 Not applicable.

END OF SECTION



Part 1 General

1.1 RELATED SECTIONS

- .1 Section 01 11 00 – Summary of Work
- .2 Section 01 35 33 - Marine Health and Safety Requirements.
- .3 Section 02 41 16 - Structure Demolition
- .4 Section 35 05 51 - Marine General Sitework.

1.2 REFERENCES

- .1 Work under this section shall be undertaken in strict conformance with all listed references, In the case of any conflict or discrepancy the more stringent requirements will apply.
 - .1 Legislation
 - .1 Canadian Environmental Protection Act;
 - .2 Canadian Environmental Assessment Act (2012);
 - .3 Fisheries Act;
 - .4 Species at Risk Act;
 - .5 Migratory Birds Convention Act.
 - .2 Environmental Management Plan (EMP). Refer to the Appendix for details.
 - .3 Marine Habitat and Archaeological Assessment. Refer to the Appendix for details.

1.3 SCOPE OF WORK

- .1 The Contractor must review and follow relevant sections of the Environmental Management Plan and Marine Habitat and Archaeological Assessment documents provided in the Appendix.
- .2 The Contractor must implement and enforce the following procedures throughout the duration of work to mitigate potential negative impacts on the surrounding environment.
- .3 At the Coast Guards sole discretion an Environmental Monitor may be present during the removal of marine structures and related work.

1.4 POLLUTION CONTROL

- .1 Control emissions from equipment and plant to local authorities emission requirements.



- .2 Prevent sandblasting and other extraneous materials from contaminating air beyond application area, by providing temporary enclosures.
- .3 Spill kits and containment are to be maintained on site and ready for deployment in case of spills.
 - .1 Spill kits are to contain sufficient quantities of absorbent material on site in close proximity to working machinery.
 - .2 During the work there are to be trained and qualified personnel on site that are ready to deploy spill kits when necessary.

1.5 **PROTECTION OF WILDLIFE**

- .1 Make every effort to minimize disturbance to the benthic and upland wildlife communities.
- .2 Do not disturb native vegetation, aquatic or otherwise.
- .3 Any large invertebrates adhering to the portion of the structure under construction must be removed and replaced in the nearby marine environment.

1.6 **ARCHAEOLOGICAL MONITORING**

- .1 Closely observe the worksite prior to demolition activities which may disturb the current condition of the land for evidence of archaeological or heritage objects.
- .2 Protect any archaeological or heritage objects discovered and report the discovery to the CCG Representative. Protection of archaeological or heritage objects may require rescheduling of work activities or relocation of resources.
- .3 If an archaeological site is encountered, stop work and notify CCG Representative immediately. CCG will assign an archaeologist to determine measure to be followed (recording and potential retrieval).

1.7 **SUBMITTALS**

- .1 Contractors that have a Tug/ Barge Crane operation as a component of their work must submit an Environmental Emergency Response Plan (EERP).
 - .1 Deadline:
 - .1 With Detailed Demolition Plan
 - .2 Deliverables:
 - .1 Contractors to Submit an Environmental Emergency Response Plan, to provide the procedures to be implemented for mitigating any potential negative impact on the environment.

Part 2 Products

- .1 Not applicable.



Part 3 Execution

- .1 Not applicable.

END OF SECTION



Part 1 General

1.1 RELATED SECTIONS

- .1 Section 01 11 00 – Summary of Work
- .2 Section 01 35 33 - Marine Health and Safety Requirements.
- .3 Section 01 35 43 - Environmental Procedures
- .4 Section 35 05 51 - Marine General Sitework.

1.2 REFERENCES

- .1 Work under this section must be undertaken in strict conformance with all listed references, In the case of any conflict or discrepancy the more stringent requirements and latest editions shall apply.
 - .1 Canada Labour Code Part II
 - .2 NRC-CNRC National Building Code of Canada
 - .3 BC Workers Compensation Act
 - .4 CSA-S350 Code of Practice for Safety in Demolition of Structures.

1.3 SCOPE OF WORK

- .2 Work under this section consists of the provision of all labour, materials, and equipment necessary to complete the following activities:
 - .1 Demolition of the existing reinforced concrete base structures;
 - .2 Disposal of all waste at a licensed waste disposal facility;
 - .3 Transportation of the towers identified for salvage and all lighting and electrical equipment to Prince Rupert CCG base if applicable.

1.4 SUBMITTALS

- .1 Contractor to provide Detailed Demolition Plan.
 - .1 Deadline:
 - .1 With Construction Plan.
 - .2 Deliverables:
 - .1 Method of demolition including all associated tasks and schedule;
 - .2 Methods for protecting the site from demolition debris
 - .3 The ultimate disposal location of all waste material and debris.
 - .1 Include documentation detailing regulatory approval for waste disposal facility and transporter.
- .2 Work under this section must not proceed until written approval of the demolition plan had been received from the Coast Guard.



- .3 Contactor must submit copies of certified receipts from the disposal sites for all materials removed from the work site upon request.

1.5 EXISTING CONDITIONS

- .1 Existing reinforced concrete bases are beyond their life expectancies, and signs of failure are present. Contractor must ensure the tower and foundation are dismantled and demolished in a safe manner.

Part 2 Products

- .1 Not applicable.

Part 3 Execution

3.1 GENERAL

- .1 Work under this section must be continuous and proceed without interruption unless otherwise approved by Coast Guard.
- .2 It is preferred that pieces are lifted onto the barge in intact sections to avoid environmental issues.
- .3 Demolition work shall not commence until inspection has been completed by CCG Representative.

3.2 PROTECTION

- .1 Implement effective controls to catch/collect all debris during demolition,
- .2 Implement effective controls to prevent injury to workers and mariners.

3.3 PREPARATION

- .1 Ensure all environmental protection/mitigation measures are in place.
- .2 Ensure all items identified for salvage have been safely removed and stored.

3.4 DEMOLITION

- .1 Remove and salvage old tower and electrical equipment in their entirety if applicable.
- .2 Demolish existing reinforced concrete base in its entirety. Any reinforcement embedded into the rock that cannot be removed shall be cut flush with the ground
- .3 Ensure that demolition does not adversely affect adjacent watercourses, groundwater and wildlife or contribute to excess air and noise pollution.



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- .4 Ensure demolition is undertaken safely. If at any period during the demolition the safety of the Contractor's staff cannot be maintained take preventative measures, stop work and immediately notify Coast Guard.

END OF SECTION



Part 1 General

1.1 RELATED SECTIONS

- .1 Section 01 11 00 – Summary of Work
- .2 Section 01 35 43 - Environmental Procedures
- .3 Section 02 41 16 - Structure Demolition
- .4 Section 35 05 51 - Marine General Sitework.

1.2 REFERENCES

- .1 Environment Canada:
 - .1 General Water Quality Guidelines for Construction Work In and Around Water.
 - .2 Pacific and Yukon Interim Guidance for Addressing Water Quality for Work in and around Water (Feb 2007).

1.3 MOBILIZATION AND DEMOBILIZATION

- .1 Mobilization and demobilization will include all work required to supply the material, plant and labour to the sites of the work, unless specified otherwise.
- .2

Part 2 Products

- .1 Not applicable.

Part 3 Execution

3.1 GENERAL

- .1 All equipment operating in the water must use biodegradable hydraulic oil in order to minimize potential impacts to the environment.
- .2 Marine vessels and other construction equipment shall use the lowest sulphur content fuel commercially available, where reasonable.
- .3 At no time shall any portion of the vessel be permitted to ground on the foreshore or near shore areas except through the use of spuds as required to secure the vessel in position.
- .4 Contain all debris, from any cutting/decommissioning by suspending tarps under the immediate work site. Retrieve any floating debris that escape from tarps prior to dispersion



and sinking. Waste materials will be stored on the barge/scow temporarily until such a time that the material can be transferred to an appropriate off-Site disposal site.

- .5 All works and activities shall be carried out in a manner that minimizes induced turbidity of local waters and the release of sediment, sediment-impacted, and turbid waters to the aquatic environment.
- .6 Delineate the least damaging access route for the tug and barge/scow prior to mobilization. Minimize tug and barge movement that may impact sediments.
- .7 Remove all non-sessile organisms (sea stars, crabs, etc.) from structures prior to decommissioning activities. Organisms will be relocated to suitable tidal habitat nearby in a manner that promotes their survival.
- .8 Minimize noise whenever possible. Vessels will move at slow speeds (0.5 to 2 knots) within the work area, minimizing the potential for collision with marine mammals. If marine mammals come close to work area (within 100 m), halt loud work until they move away.

3.2 APPURTENANCE REMOVAL

- .1 All appurtenances (signage, lighting, electrical components, etc.) shall be removed prior to tower dismantlement.
- .2 Appurtenances shall be removed in a manner that minimizes damage, stored separately from other removed material, and delivered to CCG in Victoria as specified.
- .3 Any cutting/permanent damage necessary to remove appurtenances shall, where possible, be limited to replaceable fittings and easily repaired extremities.

3.3 TOWER DECONSTRUCTION

- .1 Each metallic lattice-framed tower shall be removed from its anchorage, stored, and delivered to CCG in Prince Rupert as specified.
- .2 When practical the tower shall be stored and delivered as a complete structure; dismantlement of the frame members shall be avoided unless absolutely necessary.

3.4 CONCRETE FOOTING DEMOLITION

- .1 The concrete footings shall be demolished and completely removed from site, including any anchorage into bedrock which shall be cut of and ground smooth at grade.
- .2 All footing material shall be transported and disposed of in accordance with the specifications.



3.5 MATERIAL DISPOSAL

.1 General:

- .1 Debris specified to be removed and disposed of becomes the property of the Contractor. Disposal of the debris shall be performed in an environmentally sensitive manner at upland site(s) approved by the Ministry of Water, Land and Air Protection under the B.C. Waste Management Act, and by other agencies having jurisdiction, including municipal authorities.
- .2 All disposal sites must be operating with up-to-date permits and licences.
- .3 The Contractor shall submit proof of approval(s), copies of current permits and licences from the disposal facility to the CCG Representative 10 days before the initial disposal of debris.

.2 Certificates of Disposal:

- .1 Provide CCG Representative with certificates of disposal from the disposal site, noting the dates, quantities, weights and general description of the debris received and proof of payment of all disposal fees.
- .2 Provide certificates within 5 days of disposal.
- .3 The Contract work will not be accepted until all certificates have been received by the CCG Representative.

END OF SECTION



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APPENDIX A

NAVIGATIONAL AID DEMOLITIONS

PROJECT TITLE: AW2W1 World-Class New and Modified Aids, Kitimat

CONTRACT FOR: Navigational Aid Demolition Services

DEPARTMENT: Canadian Coast Guard, Maritime and Civil Infrastructure

DATE: December 2016

APPENDIX A – Site Map and Photos



Contract No. D-1000
 Contract Title
 Contract No.

QUEEN CHARLOTTE SOUND TOIA DIXON ENTRANCE

BRITISH COLUMBIA/COLOMBIE-BRITANNIQUE
 Scale 1:50,000 (approximate)

GENERAL INFORMATION
 This chart is a reproduction of the original chart published by the Hydrographic Office, London, in 1978. It is based on the original chart and includes all amendments and corrections published since that date. The original chart was based on the work of the British Admiralty Hydrographic Survey, and the original chart was published in 1978.

CHANGES
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NOTES
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PROJECTION
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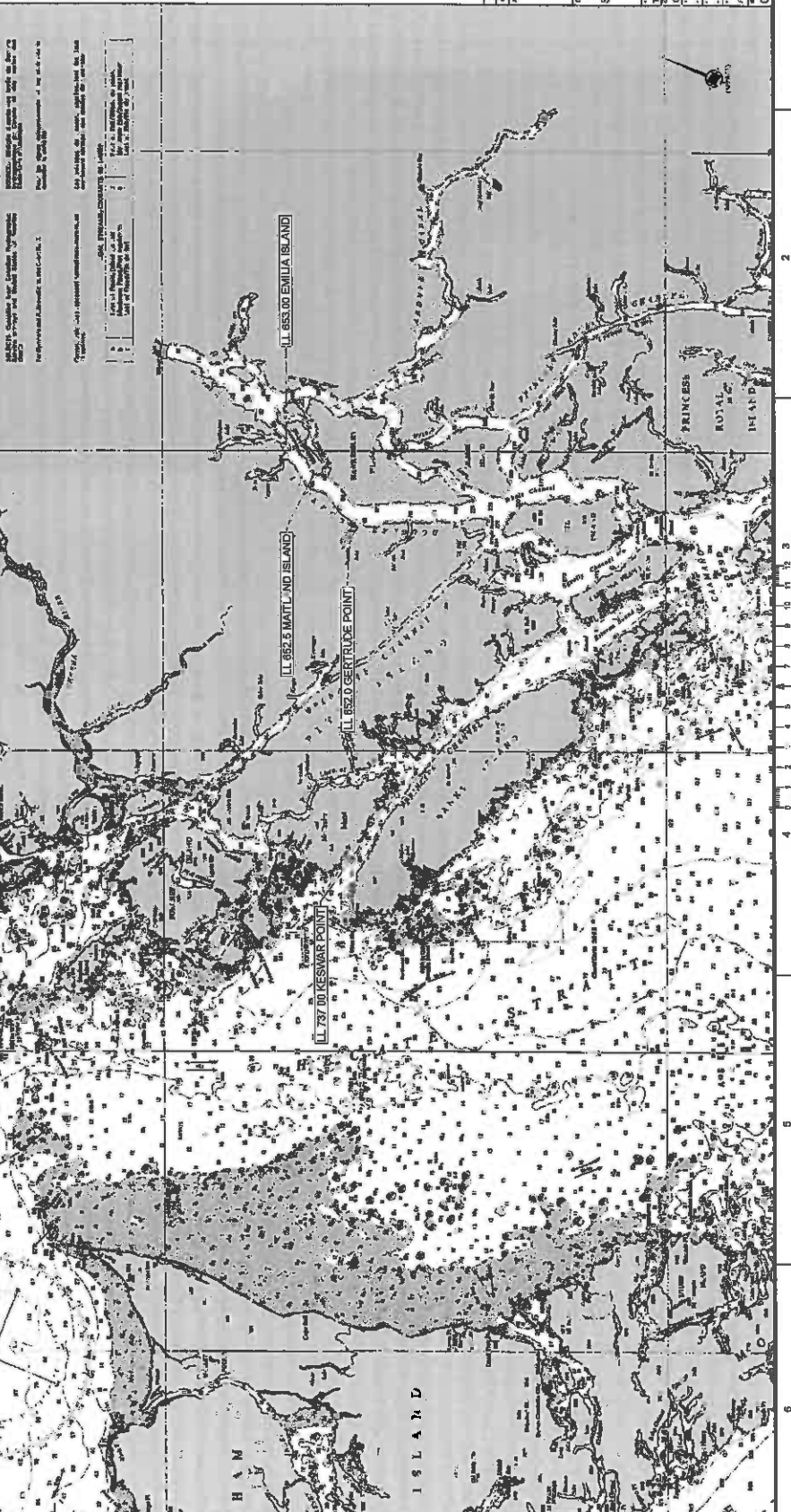
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 This chart is a reproduction of the original chart published by the Hydrographic Office, London, in 1978. It is based on the original chart and includes all amendments and corrections published since that date. The original chart was based on the work of the British Admiralty Hydrographic Survey, and the original chart was published in 1978.

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CHANGES
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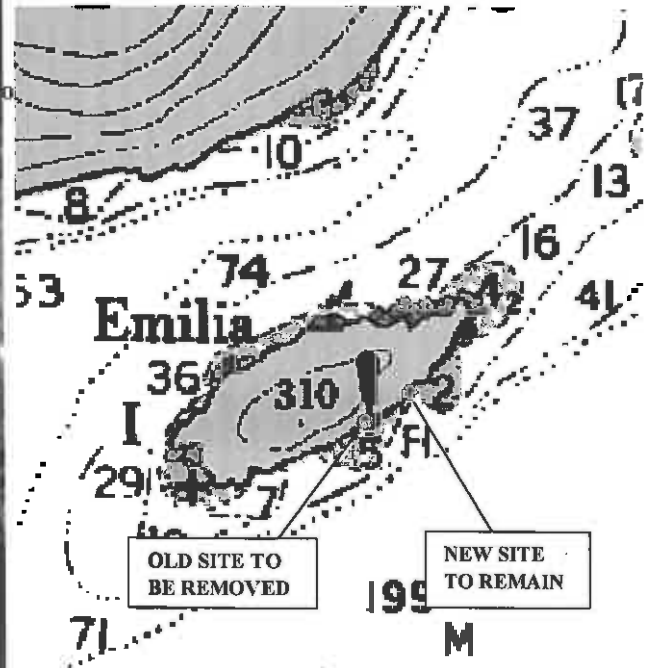
NOTES
 This chart is a reproduction of the original chart published by the Hydrographic Office, London, in 1978. It is based on the original chart and includes all amendments and corrections published since that date. The original chart was based on the work of the British Admiralty Hydrographic Survey, and the original chart was published in 1978.

SCALE
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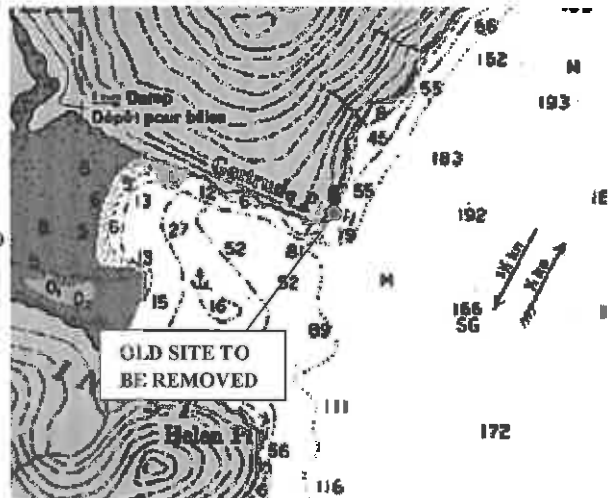
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Site Deconstruction Map For	FY 17-18
Date	2018.12.23
Scale	1:50,000
Sheet No.	01
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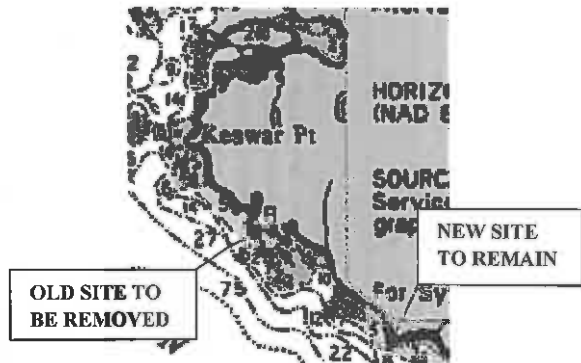
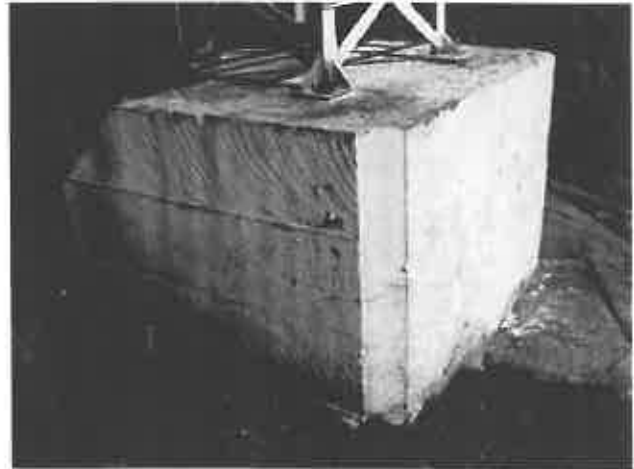
LL 653.0 Emilia Island

Note: Tower and battery box have been removed by CCG. Concrete bases are to be removed by Contractor. CCG has built a new site approx. 120'NE which is to remain.



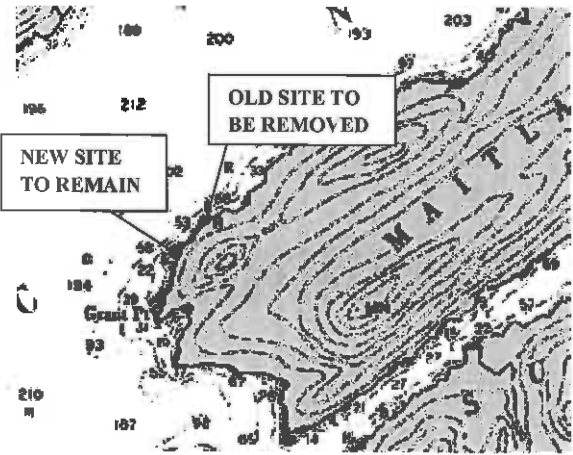
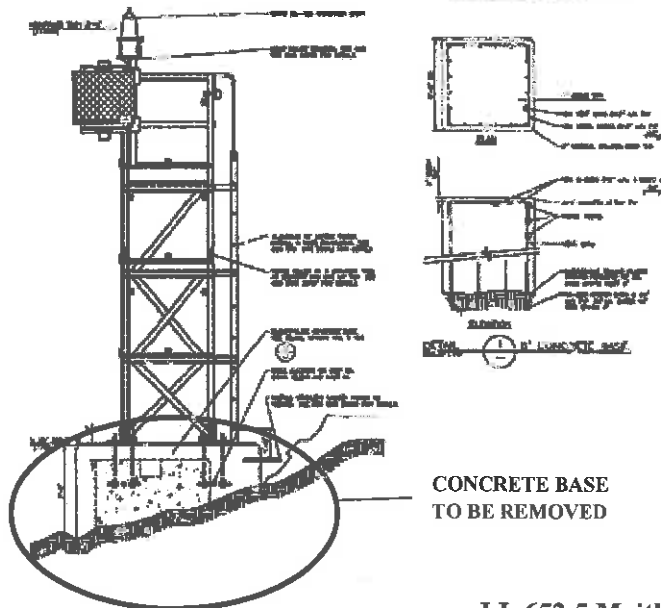
LL 652.0 Gertrude Point

Note: Tower and battery box have been removed by CCG. Concrete bases are to be removed by the Contractor.



LL 737.0 Keswar Point

Note: Tower and Concrete bases are to be removed by the Contractor. CCG has built a new site approx. 0.8NM to the SE which is to remain.



LL 652.5 Maitland Island

Note: Tower and battery box have been removed by CCG. Concrete base to be removed by Contractor. CCG has built a new site approx. 0.3NM to the SW which is to remain.



Canadian Coast Guard
AW2W1 World-Class New and Modified Aids, Kitimat

APPENDIX B

NAVIGATIONAL AID DEMOLITIONS

PROJECT TITLE: AW2W1 World-Class New and Modified Aids, Kitimat

CONTRACT FOR: Navigational Aid Demolition Services

DEPARTMENT: Canadian Coast Guard, Maritime and Civil Infrastructure

DATE: December 2016

APPENDIX B – Marine Habitat and Archaeological Assessment, Stantec, Feb. 23, 2016



Canadian Coast Guard
AW2W1 World-Class New and Modified Aids, Kitimat

APPENDIX C

NAVIGATIONAL AID DEMOLITIONS

PROJECT TITLE: AW2W1 World-Class New and Modified Aids, Kitimat

CONTRACT FOR: Navigational Aid Demolition Services

DEPARTMENT: Canadian Coast Guard, Maritime and Civil Infrastructure

DATE: December 2016

APPENDIX C – Environmental Management Plan, Stantec

