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1713 Bedford Row
Halifax, N.S./Halifax, (N.É.)
Halifax
Nova Scotia
B3J 1T3
Bid Fax: (902) 496-5016

**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
Atlantic Region Acquisitions/Région de l'Atlantique
Acquisitions
1713 Bedford Row
Halifax, N.S./Halifax, (N.É.)
Halifax
Nova Scotia
B3J 1T3

Title - Sujet CCGS Jacques Cartier Drydocking CCGS Jacques Cartier Drydocking	
Solicitation No. - N° de l'invitation F5561-211547/A	Amendment No. - N° modif. 002
Client Reference No. - N° de référence du client F5561-21-1547	Date 2022-04-08
GETS Reference No. - N° de référence de SEAG PW-SHAL-308-11495	
File No. - N° de dossier HAL-1-87193 (308)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM Atlantic Daylight Saving Time ADT on - le 2022-04-21 Heure Avancée de l'Atlantique HAA	
F.O.B. - F.A.B. Specified Herein - Précisé dans les présentes Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input checked="" type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: LaBrash, Rachelle	Buyer Id - Id de l'acheteur hal308
Telephone No. - N° de téléphone (902) 401-2080 ()	FAX No. - N° de FAX (902) 496-5016
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:	

Instructions: See Herein

Instructions: Voir aux présentes

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

Solicitation amendment 002 is issued for the following:

1. To revise the solicitation closing date;
2. To revise the refit period;
3. To provide the minutes of the Bidders' Conference;
4. To provide Specification amendments; and
5. To provide the Pricing Data Sheet.

1. Solicitation closing date

The solicitation closing date has been extended to **April 21, 2022 at 2pm ADT**.

2. Refit period

Paragraphs 2.7 and 7.4.1 of the ITT are **AMENDED** as follows:

2.7 Work Period – Marine - Bid

Work must commence and be completed as follows:

Commence: 13 June 2022

Complete: 4 July 2022.

By submitting a bid, the Bidder certifies that they have sufficient material and human resources allocated or available and that the above work period is adequate to both complete the known work and absorb a reasonable amount of unscheduled work.

7.4.1 Work Period – Marine – Contract

Work must commence and be completed as follows:

Commence: 13 June 2022

Complete: 4 July 2022.

The Contractor certifies that they have sufficient material and human resources allocated or available and that the above work period is adequate to both complete the known work and absorb a reasonable amount of unscheduled work.

3. MINUTES OF THE BIDDERS' CONFERENCE

Solicitation F5561-211547/A

Docking Refit CCGS Capt. Jacques Cartier

The Bidders Conference for the CCGS Capt. Jacques Cartier Docking Refit was convened by teleconference on April 6, 2022 at 11:00 am. The following persons attended:

Rachelle LaBrash	Contract Authority (CA)	PSPC
Todd Smith	Technical Authority (TA)	CCG
Brian Romain	Chief Engineer (CE)	Cartier
Darryl Penney	Estimator	Newdock
George Penney		Newdock
Nathalie Elliott	OFSV Class Desk Officer	CCG

Solicitation Closing

Subsequent to the meeting the CA extended the closing date. The tender will close at 2:00 P.M. local, on April 21, 2022.

Delivery

The work period is:

Commencement of Work	13 June 2022
Completion of Work	27 June 2022 → 4 July 2022

Concerns were expressed about the short timeframe to complete the scope of work. Subsequent to the meeting the CGTA advised that an additional week can be added to the refit period so the revised end date will be July 4.

Site Visit

No vessel viewing is offered for this requirement.

Care and Custody

The refit is manned in accordance with article 7.15.3 of the ITT. Care and custody of the vessel will remain with the Canadian Coast Guard for the duration of this work period. The crew will be living on the vessel.

Covid-19

Bidders are advised that the COVID-19 Vaccination Requirement Certification is required prior to contract award. Bidders may submit the certification with their bid or wait to be identified as the responsive bid with the lowest evaluated price and submit it only when requested by the Contracting Authority.

Bidders are reminded that CCG COVID-19 Incident Specific Standard Operating Procedures (ISSOP) 06 – *Process for Non-CCG Persons Accessing a CCG Facility/Vessel*, 07 – *Screening and Temperature Verification* and 19 – *COVID-19 Testing Procedure for Access to CCG Facilities* will apply, and Contractors must consider these requirements in their schedule and bid prices.

Each province has a different response to Covid-19 travel so bidders must familiarize themselves with their province's requirements and consider these requirements in their bid price.

Pricing Data Sheet

The Pricing Data Sheet will be provided with the minutes of the bidders' conference as a Solicitation Amendment that will be published in the coming days, and will be structured in a manner that will allow PWGSC and the Technical Authority to cancel any work that has not been started in accordance with the Contractor's schedule. Any cancelled work will be credited in its entirety as per the Pricing Data Sheet if it has not been started.

The CA agreed to provide the pricing data sheet in Excel format upon request, but cautioned bidders that no changes to the pricing data sheet are permitted. Only pricing fields may be populated by bidders. Pricing data sheets that have been otherwise altered will be rejected, rendering the bid non-compliant.

Tender Deliverables

Bidders are reminded that in order for bids to be received, the following information must be included with the tender package, and received at PSPC prior to the Solicitation closing date:

- Fully completed and signed Page 1 of the Bid Solicitation document;
- Fully completed Annex F, Financial Bid Presentation Sheet;
- Fully completed Appendix 1 to Annex F, Pricing Data Sheet.

As part of the evaluation process all certifications and other requirements contained in parts 5 and 6 of the solicitation will be requested from the lowest bid received and evaluated. Therefore, all bids may not necessarily be fully evaluated.

Tender Submission

The Contracting Authority encouraged bidders to submit bids using ePost connect. Bidders are reminded that the mailroom at Bedford Row in Halifax is operating at

reduced hours due to COVID-19, and the hours of operation are listed in the ITT document.

In accordance with Standard Instructions 2003, section 08, paragraph 2(b)(ii), bidders should open an epost Connect conversation at least six business days prior to the solicitation closing date and time.

Concurrent Work

The CGTA indicated that Seaspan is looking to complete some warranty work to replace 2 valves during this drydocking.

The CA advised that this work does not form part of this refit and any discussions regarding the possibility of this warranty taking place will be at the sole discretion of the winning shipyard.

Specification items added or removed from the work package

There are no spec items being added or removed.

Specification Review

G 1.0 GENERAL NOTES:

The Contracting Authority reminded all bidders of the requirement for security watches for the duration of the refit period, as per paragraph G 1.8.

Given that this is a manned refit, a question was raised to confirm that security watches will still be necessary.

Subsequent to the bidders' conference, the CGTA confirmed that the requirement for security watches can be removed from the specification.

S 1.0 SERVICES:

S.1.13.2 The CA clarified that there should be a total of 250 photographs not 250 of each area.

11.0 Hull and Related Structures

11.1 Docking and undocking

11.1.C.12b The CA clarified that the intent is for the bidder to provide a cost to hand scrape and dispose of marine growth. The spec has been revised to make this clearer.

A question was raised to clarify if shore power is truly required for 48 hours after the refit period. The CGTA agreed that paragraph C.20 can be deleted in its entirety.

11.2 Hull anodes

A question was raised to ask where these particular anodes can be sourced. The CGTA indicated that the details in paragraph A.1.1 are from the original spec sheet and sourced from Martyr: (<https://martyranodes.com/>), however the CGTA clarified that he will accept equivalent anodes providing they match original material, mass, style, and mounting arrangement for each unit to be replaced.

12.0 Propulsion and Maneuvering

12.1 Propulsion Shaft Bearing Renewal

The CGTA advised that allowances for a Wartsila FSR and a Thordon bearing FSR have been added to the specification, along with some additional minor changes. As such, a revised specification will be distributed for 12.1

Concerns were raised about space limitations and the requirement to grit blast the sterntube, as per paragraph 12.1.C.7.

Subsequent to the meeting, the CGTA confirmed that a supplier of Blue Seal has indicated that a rotary blaster can be used to achieve the desired surface profile prior to coating application.

When questioned, the CGTA confirmed that Blue Seal Marine Coating noted in paragraph 12.1.C.8 is to be contractor supplied.

12.2 Rudder Removal & Bearing Installation

The CGTA advised that a \$20,000 allowance will be added to cover the services of a Becker Marine Systems Field Service Representative.

When questioned, the CGTA confirmed that EP2 grease noted in paragraph 12.2.C.7 is to be contractor supplied.

12.3 Propeller Inspection & Maintenance

The CGTA advised that there have been some changes to the specification. As such, a revised specification will be distributed for 12.3

15.0 Auxiliary Systems

15.1 Marine Growth Prevention System Installation

The CA reminded bidders that the spec item may be cancelled in its entirety if GSM are not received in time for the refit, as per paragraph 15.1.A.3

A bidder expressed concerns with this and the CGTA confirmed that this spec item can be deleted in its entirety.

15.2 Seawater Piping Service

This spec item is also deleted in its entirety.

Open Discussion Items

There were no comments or questions.

There being no further questions or discussion, the CA adjourned at 11:35am ADT.

SPECIFICATION AMENDMENTS

S.1.0 Services paragraph S.1.13.2 is **AMENDED** as follows:

The Contractor's Quality Assurance Representative must take 250 digital photographs ~~of each area~~ showing the outfit therein.

G.1.0 General Notes paragraph G 1.8 is **DELETED** in its entirety.

11.1 Docking and Undocking paragraph 11.1.C.12b is **AMENDED** as follows:

DELETE:

~~The Contractor must dispose of estimated 50 square meters of heavy marine growth to be hand scraped.~~

INSERT:

The contractor must provide costs to hand scrape and dispose of an estimated 50 square meters of heavy marine growth.

11.1 Docking and Undocking paragraph 11.1.C.20 is **DELETED** in its entirety.

11.2 Hull Anodes paragraph 11.2.B.1.1 is amended as follows:

B.1.1 The Contractor must quote on the supply and renewal of the following anodes (or equivalent **material, mass, style, and mounting arrangement**, and provide a unit cost for each:

- i) 4 – Martyr CMZ03SZ (**or equivalent**) on the Rudder flaps
- ii) 8 – Martyr CM812SZ (**or equivalent**) on Drop Keel Trunk (Up To WL)
- iii) 4 – Martyr CMZ03SZ (**or equivalent**) in the Seachest

- iv) 3 – Martyr CMZ03SZ (or equivalent) in the Seabay
- v) 10 – Martyr CM812SZ (or equivalent) on the ship's hull

12.1 Propulsion Shaft Bearing Renewal paragraph 12.C.1.7 is deleted in its entirety and replaced with the following:

While the shaft is removed, Contractor must prepare the stern tube to SSPC-SP10 (Near White Metal Blast) to achieve 3-6 mil profile in preparation of application of Blue Seal product. The recommended tooling for this task is a rotary sand blaster. Following blasting, all grit must be removed. The CGTA and NACE inspector must inspect the inside of the stern tube. *ITP

12.2 Rudder Removal & Bearing Inspection paragraph 12.2.C.1 is amended to ADD the following:

The Contractor must obtain the services of a Becker Marine Systems Field Service Representative for the removal and reinstallation of the rudder and inspection of all associated bearings. The Contractor must include an allowance of \$20,000 in their overall bid price for the services of a Becker Marine Systems FSR. Contractor must make all necessary arrangements for acquiring the FSR's services. The FSR will be reimbursed for the authorized travel and living expenses reasonably and properly incurred in the performance of the specified work, at cost without any allowance for the overhead or profit. The Allowance must form part of the overall bid and will be adjusted up or down using the PSPC 1379 process upon proof of final invoice. *ITP

15.0 Auxiliary Systems specs 15.1 and 15.2 are deleted in their entirety

12.1 Propulsion Shaft Bearing Renewal and 12.3 Propeller Inspection & Maintenance are deleted in their entirety and replaced with the following:

INSERT:

12.0 PROPULSION AND MANEUVERING

12.1 PROPULSION SHAFT BEARING RENEWAL

12.1.A Identification

- A.1 The intent of this specification is to replace the forward and aft propulsion shaft stern tube bearings with GSM Thordon Bearings and to blast and coat the stern tubes.

12.1.B References

B.1 Equipment Data

- B.1.1 For equipment identification, refer to drawing 191-243.10-004, sheet 1.

B.2 Drawings

- B.2.1 All Drawings and Documents are listed in the General Notes.

B.3 Regulations and Standards

- B.3.1 All Regulations and Standards are listed in the General Notes. The Contractor must ensure all work completed in this section meets these Regulations and Standards as well as any other pertinent Federal/Territorial Regulation.

12.1.C Statement of Work

- C.1 The Contractor must obtain the services of a Wartsila Marine Shaft Seal Field Service Representative for the disassembly/reassembly of the vessels shaft seal and to oversee the propulsion shaft withdraw and reassembly. The Contractor must include an allowance of \$30,000 in their overall bid price for the services of a Wartsila Marine Shaft Seal (FSR). Contractor must make all necessary arrangements for acquiring the FSR's services. The FSR will be reimbursed for the authorized travel and living expenses reasonably and properly incurred in the performance of the specified work, at cost without any allowance for the overhead or profit. The Allowance must form part of the overall bid and will be adjusted up or down using the PSPC 1379 process upon proof of final invoice. ***ITP**
- C.2 Prior to shaft removal, Contractor must measure the shaft position using CCG supplied poker gauge. Contractor must also complete top and bottom clearance measurements of the aft end of the aft stern bearing using feeler gauges. Results of these measurements must be recorded and delivered to CGTA. ***ITP**

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- C.3 Contractor must release the ship's rudder to make way for propulsion shaft removal. This process is detailed in specification 12.2 - Rudder Removal & Bearing Inspection. ***ITP**
- C.4 Contractor must remove the propulsion shaft from the vessel. Contractor must refer to Wartsila documentation to determine the best procedure for removal and reinstallation. ***ITP**
- C.5 The Contractor must thoroughly inspect the forward and aft stern tubes for signs of calcareous layers forming on the propulsion shaft liners as per the Wärtsilä Service Letter – “Possible accelerated bearing wear issue WCS-01”. A report must be provided, including photos covering all areas of the bearing raceway. Photos must show sufficient detail to display any defects that may be identified by close visual inspection. ***ITP**
- C.6 Contractor must remove the forward and aft stern tube bearings from the vessel. These bearings must be returned to CCG for further analysis. ***ITP**
- C.7 While the shaft is removed, Contractor must prepare the stern tube to SSPC-SP10 (Near White Metal Blast) to achieve 3-6 mil profile in preparation of application of Blue Seal product. The recommended tooling for this task is a rotary sand blaster. Following blasting, all grit must be removed. The CGTA and NACE inspector must inspect the inside of the stern tube. ***ITP**
- C.8 The Contractor shall then coat the stern tube with Blue Seal Marine Coating in color grey. The approximate surface area to be blasted and coated is 17.5m². All coatings must be applied as per manufacturer's recommendations. Base coat, and first and second top coat must be inspected by NACE. ***ITP**
- C.9 Contractor must install new GSM Thordon Bearings to the forward & aft sterntube bearing locations. The Contractor must obtain the services of a Thordon Bearings Field Service Representative (FSR) to oversee the installation of the new Thordon Bearings. The Contractor must include an allowance of \$10,000 in their overall bid price for the services of a Thordon Bearings (FSR). Contractor must make all necessary arrangements for acquiring the FSR's services. The FSR will be reimbursed for the authorized travel and living expenses reasonably and properly incurred in the performance of the specified work, at cost without any allowance for the overhead or profit. The Allowance must form part of the overall bid and will be adjusted up or down using the PSPC 1379 process upon proof of final invoice.
- C.10 Contractor must re-install and reassemble the propulsion shaft as per the Wartsila reference documentation or under the direction of the attending Wartsila FSR.

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- C.11 Contractor must re-install and reassemble the vessels rudder after the propulsion shaft and propeller has been installed as specified in 12.2 Rudder Removal & Bearing Inspection.

12.1.D Proof of Performance

D.1 Inspection Points

- D.1.1 The Contractor must consult with the ABS to determine any required inspections. The Contractor is responsible for scheduling all ABS inspections. TA to be informed of any required ABS inspections. ***ITP**
- D.1.2 Prior to any disassembly, Contractor must measure and report on the stern bearing clearances to determine the amount of wear. These measurements must be retained to ensure proper fit upon reassembly. ***ITP**
- D.1.3 All surface preparation and coating must follow the Coatings and Surface Treatment Schedule and manufacturer's requirements. ***ITP**

D.2 Testing/Trials

- D.2.1 After the vessel is afloat, dockside trials must be completed at low RPM to ensure proper operation before proceeding to sea trials. ***ITP**
- D.2.2 Sea trials must be completed with shaft operating at 100% RPM for a continuous period of four hours. During these trials, bearings will be monitored for overheating and any abnormal noise. ***ITP**

D.3 Certification

- D.3.1 The Contractor is responsible to ensure that the Survey Record Book is signed off by ABS. ***ITP**

D.4 Documentation

- D.4.1 Documentation must be in accordance with the Documentation section of the General Notes.
- D.4.2 The Contractor must provide endorsement of safe operation required by ABS for certification to the TA prior to the conclusion of the contract. ***ITP**
- D.4.3 The Contractor must provide readings taken in the final documentation. ***ITP**
- D.4.4 The Contractor must provide an inspection report for the stern seal. The Contractor must detail all findings of the inspection and the condition of components in the inspection report. The Contractor must supply a PDF electronic copy of the inspection report to the TA in accordance with the General Notes. ***ITP**

12.3 PROPELLER INSPECTION & MAINTENANCE

12.3.A Identification

- A.1 The intent of this specification is to have the propulsion propeller inspected and polished while the vessel is docked.
- A.2 This work must be completed in conjunction with specification 12.1 – Propulsion Shaft Bearing Renewal and 12.2 – Rudder Removal & Bearing Inspection.

12.3.B References

B.1 Equipment Data

- B.1.1 Propulsion propeller:
 - i) Manufacturer: Wartsila
 - ii) Model: PAAF288226/- Single, fixed pitch, 5 blade
 - iii) Part Number: PAAF288226/-
 - iv) Diameter: 3,800 mm
 - v) Serial Number: BB0 1504565

B.2 Drawings and Documents

- B.2.1 OFSV001216 – Wartsila Corporation – Main Propeller and Shafting Installation and Planning Instructions
- B.2.2 OFSV001217 – Wartsila Corporation – Main Propeller and Shafting Operation and Maintenance Manual
- B.2.3 OFSV000296 – Wartsila – ECOSAFE Water Lubricated Tailshaft Bearings Design & Procedures Manual DPM-01

B.3 Regulations and Standards

- B.3.1 All Regulations and Standards are listed in the General Notes. The Contractor must ensure all work completed in this section meets these Regulations and Standards as well as any other pertinent Federal/Territorial Regulation.

12.3.C Statement of Work

- C.1 The propeller is held on with a Pilgrim nut. The CGTA will supply special tools for the removal of the Pilgrim nut. Contractor must supply all equipment and rigging for lifting the propeller and shaft including any brackets, slings, etc. that may require fabrication for this work as well as all associated labor. The propeller and cones must

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be thoroughly cleaned and examined for defects. The CGTA and attending ABS Surveyor must witness the final installation of the propeller on the shaft to ensure that the propeller is properly aligned with the original proof marks and that the travel is equivalent and proper torque (PSI) applied as per manufacture instructions on the pilgrim nut.

- C.2 The Contractor's bid must include an allowance of \$20,000 for the complete polishing, assessment and repair of any damage found on the propeller by an approved propeller repair facility. The allowance must form part of the overall bid price. The actual cost for assessment and repair will be adjusted up or down upon proof of invoice using the PSPC 1379 process.
- C.3 The Contractor must polish the propulsion propeller with Scotch-brite discs or equal to the extent required to remove all marine growth. Propeller material must not be removed by this work.
- C.4 After cleaning, the Contractor must dye-penetrant test the propulsion propeller for cracks. This work must be done by a technician qualified to Canadian General Standards Board (CGSB) Standard CAN/CGSB-48.9712-2014 (Qualification and Certification of Non-Destructive Testing Personnel). ***ITP**
- C.5 Contractor's bid must include a cost for (2) propeller fit ups on its tail shaft. The CGTA must witness the blueing and fitting of the propeller. Contractor must obtain a contact area of no less than 70% between the propeller and tail shaft. This cost will be included in the overall bid and will be prorated up or down based on the amount of propeller fittings required using the PSPC 1379 process. ***ITP**
- C.6 Upon completion of all work, the propeller cones must be filled with CSM preservative and fitted to the propeller. All securing nuts must be locked in position as per original installation using stainless steel locking materials. Cone bolt recesses must be filled with cement and faired flush with the cone surfaces.
- C.7 Any additional repair or defects will be addressed via PSPC 1379 Work Arising procedure.

12.3.D Proof of Performance

D.1 Inspection Points

- D.1.1 The Contractor must consult with the ABS to determine any required inspections. The Contractor is responsible for scheduling all ABS inspections. TA to be informed of any required ABS inspections. ***ITP**

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D.1.2 The Contractor must provide the TA and ABS the opportunity to visually inspect the propeller from the dock bottom when the ship is docked both before and after power washing. ***ITP**

D.1.3 The Contractor must provide the TA the opportunity to witness the NDT inspection. ***ITP**

D.2 Testing/Trials

D.2.1 NDT inspection of the propeller roots must be completed before the ship is undocked. ***ITP**

D.3 Certification

D.3.1 The Contractor must provide CCG with a copy of the certification of the NDT technician. ***ITP**

D.4 Documentation

D.4.1 Documentation in accordance with the general notes.

D.4.2 The Contractor must provide a written report in digital format detailing the work completed and any defect founds during the work. The Contractor must provide any photographs taken in this report. ***ITP**

PRICING DATA SHEET

See attached.

All other terms and conditions remain unchanged.

APPENDIX 1 TO ANNEX F
CCGS Capt. Jacques Cartier Docking Refit June 13-July 4, 2022
F5561-211547/A

S.1.0 Services (22 days)	1	\$
S.1.5.7 Electric Power \$ / kWh x 100,000 kWh (estimate)	2	\$
S.1.6.1 Cost to supply, install and remove ¼" Masonite \$ / m² x 100 m² (estimate)	3	\$
S.1.6.2 Cost to supply, install and remove bulkhead protection \$ / m² x 200 m² (estimate)	4	\$
S.1.8.1 Potable Water \$ / m³ x 90m³ (90,000 litres) (estimate)	5	\$
S.1.9.4 Water supply for fire main per m³	6	\$
S.1.10.1 Disposal of black water \$ /L x 45,000L (estimate)	7	\$
S.1.12 Cranage \$ / hour x 40 hours (estimate)	8	\$
S.1.13.2 Cost to supply 250 high resolution digital images in .JPG format	9	\$
G 1.0 General Notes	////////	//////////
G 1.5.6 Environmental Hazardous Material Subcontractor allowance	10	\$10,000.00
11.1 Docking and undocking	11	\$
11.1.C.12.b Cost to dispose of heavy marine growth \$ / m² x 50 m² (estimate)	12	\$
11.1.C.13 Cost of manlift services \$ / hour x 12 hours (estimate)	13	\$
11.2 Hull Anodes	14	\$
11.2.B.1.1.i) Cost to supply and install Martyr CMZ03SZ (or equivalent) \$ /anode x 4 anodes (estimate)	15	\$
11.2.B.1.1.ii) Cost to supply and install Martyr CM812SZ (or equivalent) \$ /anode x 8 anodes (estimate)	16	\$
11.2.B.1.1.iii) Cost to supply and install Martyr CMZ03SZ(or equivalent) (seachest) \$ /anode x 4 anodes (estimate)	17	\$
11.2.B.1.1.iv) Cost to supply and install Martyr CMZ03SZ (or equivalent) (seabay) \$ /anode x 3 anodes (estimate)	18	\$
11.2.B.1.1.v) Cost to supply and install Martyr CM812SZ (or equivalent) \$ /anode x 10 anodes (estimate)	19	\$
12.1 Propulsion Shaft Bearing Renewal	20	\$
12.1.C.1 FSR allowance	21	\$30,000.00
12.1.C.9 FSR allowance	22	\$10,000.00
12.2 Rudder Removal & Bearing Installation	23	\$
12.2.C.1 FSR allowance	24	\$20,000.00
12.2.C.5 Labour for inspection/repairs to bearing grease passages \$ Contractor's hourly rate x 24 hours (estimate)	25	\$
12.3 Propeller Inspection & Maintenance	26	\$
12.3.C.2 Propeller allowance	27	\$20,000.00
12.3.C.5 Cost for propeller fit-ups on tail shaft \$ per fit-up x 2 fit-ups (estimate)	28	\$
15.1 Marine Growth Prevention System Installation	29	\$
15.2 Seawater Piping Service	30	\$
15.2.C.3.5 Waste fluids \$ / m³ x 40m³ (40,000 litres) (estimate)	31	\$
TOTAL TAXES NOT INCLUDED (items 1 to 31) This is the price for Known Work in Annex F		