

**RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:**
**Bid Receiving Public Works and Government
Services Canada/Réception des soumissions
Travaux publics et Services gouvernementaux
Canada**
Pacific Region
401 - 1230 Government Street
Victoria, B.C.
V8W 3X4
Bid Fax: (250) 363-3344

REQUEST FOR PROPOSAL DEMANDE DE PROPOSITION

**Proposal To: Public Works and Government
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services
Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments - Commentaires

Title - Sujet TMT TABL	
Solicitation No. - N° de l'invitation 31034-142736/A	Date 2015-07-30
Client Reference No. - N° de référence du client 31034-142736	
GETS Reference No. - N° de référence de SEAG PW-\$VIC-211-6791	
File No. - N° de dossier VIC-5-38038 (211)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2015-08-24	Time Zone Fuseau horaire Pacific Daylight Saving Time PDT
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Park, Isabell	Buyer Id - Id de l'acheteur vic211
Telephone No. - N° de téléphone (250) 363-3981 ()	FAX No. - N° de FAX (250) 363-0395
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: NATIONAL RESEARCH COUNCIL CANADA HERZBERG INST. OF ASTROPHYSICS DOMINION ASTROPHYSICAL OBS. 5071 WEST SAANICH RD R.R. 5 VICTORIA BRITISH COLUMBIA V9E2E7 CANADA	

Instructions: See Herein

Instructions: Voir aux présentes

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 - Pacific
Region
401 - 1230 Government Street
Victoria, B. C.
V8W 3X4

Delivery Required - Livraison exigée See Herein	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 No. - N° de l'invitation

31034-142736/A

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

vic211

Client Ref. No. - N° de réf. du client

31034-142736

File No. - N° du dossier

VIC-5-38038

CCC No./N° CCC - FMS No/ N° VME

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TABLE OF CONTENTS

PART 1 - GENERAL INFORMATION

1. Introduction
2. Summary
3. Not Used
4. Debriefings
5. Communications
6. Conflict of Interest

PART 2 - BIDDER INSTRUCTIONS

1. Standard Instructions, Clauses and Conditions
2. Submission of Bids
3. Former Public Servant (if applicable)
4. Communications - Solicitation Period
5. Applicable Laws
6. Improvement of Requirement During Solicitation Period

PART 3 - BID PREPARATION INSTRUCTIONS

1. Bid Preparation Instructions:
Section I : Technical Bid
Section II : Financial Bid
Section III : Certifications

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

1. Evaluation Procedures
2. Basis of Selection

PART 5 - CERTIFICATIONS

1. Certifications Required Precedent to Contract Award
2. Additional Certifications Required Precedent to Contract Award

PART 6 - RESULTING CONTRACT CLAUSES

1. Statement of Work
2. Standard Clauses and Conditions
3. Security Requirement
4. Term of Contract
5. Authorities
6. Proactive Disclosure of Contracts with Former Public Servants (if applicable)
7. Payment
8. Invoicing Instructions
9. Certifications
10. Applicable Laws
11. Priority of Documents
12. Insurance
13. Shipping Instruction – Delivery at Destination
14. Government Site Regulations

Solicitation No. - N° de l'invitation
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Buyer ID - Id de l'acheteur
vic211
CCC No./N° CCC - FMS No./N° VME

List of Annexes:

Annex "A" Statement of Work
Annex "A1" Technical Evaluation Criteria
Annex "B" Basis of Payment
Annex "C" Contractor Disclosure of Foreground Information
Annex "D" Non-disclosure Agreement
Annex "E" Task Authorization Form
Annex "F" Claim for Progress Payment Form PWGSC 1111

LIST OF ATTACHMENTS (AD and RD)

Due to the highly technical nature of the design documents, they are only available in English. Some documents will only be available on written request (email) to the Contracting Authority specified herein, including submission of the completed Annex D Non-disclosure agreement.

AD - Non-Disclosure Agreement required

AD1 - TMT.AOS.TEC.15.028.REL01 NFIRAOS Optical Bench Structure (TABL) and Instrument Support Tower (IST) Design Requirements

This document describes the design of the optical bench structure and instrument support tower subsystems.

AD2 - TMT.AOS.ICD.07.004.CCR12 Interface Control Document Telescope Structure (STR) to Narrow Field Infrared Adaptive Optics System (NFIRAOS)

This document outlines the external interface requirements for the IST subsystem and the telescope structure.

AD3 - TMT.AOS.SPE.14.002.REL04 NFIRAOS Common Design Standard Document

This document defines the common elements and their design requirements among the NFIRAOS opto-mechanical subsystems to facilitate design, servicing and maintenance.

AD4 - TMT.AOS.PDD.11.005.REL01 NFIRAOS PDUR Book

This report documents the NFIRAOS subsystems design at the Preliminary Design Review level and identifies all pertinent TABL and IST supported subsystems that require accommodations for mounting, installation, access and servicing.

RD - Non-Disclosure not required

Reference documents contain information complementing, explaining, detailing, or otherwise supporting the information included in the current document.

RD1 – NFIRAOS Design Requirements Document, (TMT.AOS.DRD.07.002)

RD2 – 12a Integration AIV storyboard NFIRAOS PDU Final Review (TMT.AOS.PRE.11.154)

RD3 – NFIRAOS Preliminary structural design and analysis report (TMT.AOS.TEC.11.051)

RD4 – URS Report: Site-Specific Seismic Hazard Assessment (TMT.STR.TEC.10.001)

PART 1 - GENERAL INFORMATION

1. Introduction

The bid solicitation document is divided into six parts plus attachments and annexes as follows:

- Part 1 General Information: provides a general description of the requirement;
- Part 2 Bidder Instructions: provides the instructions, clauses and conditions applicable to the bid solicitation;
- Part 3 Bid Preparation Instructions: provides bidders with instructions on how to prepare their bid;
- Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the bid, and the basis of selection;
- Part 5 Certifications: includes the certifications to be provided;
- Part 6 Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract.

The Annexes include the Statement of Work, the Basis of Payment and other annexes.

2. Background / Summary

Background

As a part of the Canadian contribution towards the Thirty Meter Telescope (TMT) project, staff at NRC Herzberg in collaboration with various academic and industry partners are developing the Narrow Field InfraRed Adaptive Optics System (NFIRAOS). NFIRAOS represents a key element within the TMT optical system. In essence, NFIRAOS removes the blurring effect inherent to light passing through a dynamic medium such as our atmosphere. The value NFIRAOS brings to the TMT project is in its ability to produce images as would be taken by telescopes in space where seeing is unencumbered by the atmosphere, yet maintain all the accessibility advantages presented by having an observatory on the ground. Once this light is "corrected" NFIRAOS will interface with the InfraRed Imaging Spectrograph (IRIS), a client instrument.

The Government of Canada's (GoC) National Research Council (NRC) Herzberg Astronomy Technology Programs (referred to as NRC Herzberg) is currently involved in pre-construction design and development of the Adaptive Optics (AO) system for the TMT project. TMT will be located on the Big Island of Hawaii atop Mauna Kea where it will join many of the world's premier Observatories. For more information about the TMT project please refer to www.tmt.org

Summary

NRC requires engineering and design services in support of the NFIRAOS optical bench structure subsystem, TABL, a space frame structure that houses the NFIRAOS opto-mechanics, and the instrument support structure subsystem, IST, which provides the structural interface between NFIRAOS and the telescope structure. A hexapod arrangement (of three bipods) kinematically connects the TABL to the IST. The IST also provides structural support for the NFIRAOS optics enclosure, ENCL, and three client instruments.

Contractors bidding on this requirement must meet the required delivery dates as these are essential towards Canada meeting its deliverables towards the set timelines of the TMT project office.

The requirement is limited to Canadian goods and/or services

The Federal Contractors Program (FCP) for employment equity applies to this procurement; see Part 5 - Certifications, Part 7 - Resulting Contract Clauses and the annex titled [Federal Contractors Program for Employment Equity - Certification.](#)

Task Authorization Contract

The work required in this solicitation is limited to the defined **Phase 1 only**. Any subsequent work (if approved) will be conducted under a separate task authorization within the contract.

Canada at its discretion may choose to amend the contract issued for Phase 1 to include the work under Phase 2.

3. Not Used

4. Debriefings

After contract award, bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days of receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

5. Communications

As a courtesy and in order to coordinate any public announcements pertaining to this contract, the Government of Canada requests that successful Bidders notify the Contracting Authority 5 days in advance of their intention to make public an announcement related to the recommendation of a contract award, or any information related to the contract. The Government of Canada retains the right to make primary contract announcements.

6. Conflict of Interest

The Work described herein and the deliverable items under any resulting Contract specifically exclude the development of any statement of work, evaluation criteria or any document related to a bid solicitation. The Contractor, its subcontractor(s) or any of their agent(s) directly or indirectly involved in the performance of the Work and/or in the production of the deliverables under any resulting Contract will not be precluded from bidding on any potential future bid solicitation related to the production or exploitation of any concept or prototype developed or delivered under any resulting Contract.

PART 2 - BIDDER INSTRUCTIONS

1. Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the *Standard Acquisition Clauses and Conditions Manual* (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The 2003 (2015-07-03) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

1.1 SACC Manual Clauses

A7035T (2007-05-25) List of Proposed Subcontractors

A9033T (2012-07-16) Financial Capability

2. Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

3. Former Public Servant

Contracts awarded to former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts awarded to FPS, bidders must provide the information required below before contract award. If the answer to the questions and, as applicable the information required have not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to comply with Canada's request and meet the requirement within the prescribed time frame will render the bid non-responsive.

Definitions

For the purposes of this clause, "former public servant" is any former member of a department as defined in the *Financial Administration Act*, R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

- a. an individual;
- b. an individual who has incorporated;
- c. a partnership made of former public servants; or
- d. a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

"lump sum payment period" means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

"pension" means a pension or annual allowance paid under the *Public Service Superannuation Act* (PSSA), R.S., 1985, c.P-36, and any increases paid pursuant to the *Supplementary Retirement Benefits Act*, R.S., 1985, c.S-24 as it affects the PSSA. It does not include pensions payable pursuant to the *Canadian Forces Superannuation Act*, R.S., 1985, c.C-17, the *Defence Services Pension Continuation Act*, 1970, c.D-3, the *Royal Canadian Mounted Police Pension Continuation Act*, 1970, c.R-10, and the *Royal Canadian Mounted Police Superannuation Act*, R.S., 1985, c.R-11, the *Members of Parliament Retiring Allowances Act*, R.S., 1985, c.M-5, and that portion of pension payable to the *Canada Pension Plan Act*, R.S., 1985, c.C-8.

Former Public Servant in Receipt of a Pension

As per the above definitions, is the Bidder a FPS in receipt of a pension?

Yes () No ()

If so, the Bidder must provide the following information, for all FPS in receipt of a pension, as applicable:

- a. name of former public servant;
- b. date of termination of employment or retirement from the Public Service.

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with Contracting Policy Notice: 2012-2 and the Guidelines on the Proactive Disclosure of Contracts.

Work Force Adjustment Directive

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive?

Yes () No ()

If so, the Bidder must provide the following information:

- a. name of former public servant;
- b. conditions of the lump sum payment incentive;
- c. date of termination of employment;
- d. amount of lump sum payment;
- e. rate of pay on which lump sum payment is based;
- f. period of lump sum payment including start date, end date and number of weeks;
- g. number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including Applicable Taxes.

4. Communications - Solicitation Period

All enquiries must be submitted to the Contracting Authority no later than 5 calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a "proprietary" nature must be clearly marked "proprietary" at each relevant item. Items identified as proprietary will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated and the enquiry can be answered to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

5. Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in British Columbia.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the bidders.

6. Improvement of Requirement During Solicitation Period

Should bidders consider that the specifications or Statement of Work contained in the bid solicitation could be improved technically or technologically, bidders are invited to make suggestions, in writing, to the Contracting Authority named in the bid solicitation. Bidders must clearly outline the suggested improvement as well as the reason for the suggestion. Suggestions that do not restrict the level of competition nor favour a particular bidder will be given consideration provided they are submitted to the Contracting Authority at least 5 days before the bid closing date. Canada will have the right to accept or reject any or all suggestions.

PART 3 - BID PREPARATION INSTRUCTIONS

1. Bid Preparation Instructions

Canada requests that bidders provide their bid in separately bound sections as follows:

- Section I : Technical Bid (1 hard copies)
- Section II : Financial Bid (1 hard copies)
- Section III : Certifications (1 hard copies)

If there is a discrepancy between the wording of the soft copy and the hard copy, the wording of the hard copy will have priority over the wording of the soft copy.

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Canada requests that bidders follow the format instructions described below in the preparation of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper; and
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process [Policy on Green Procurement](http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, bidders should:

- (1) use paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- (2) use an environmentally-preferable format including black and white printing instead of colour printing, print double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

Section I : Technical Bid

In their technical bid, bidders should demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Bidders should demonstrate their capability and describe their approach in a thorough, concise and clear manner for carrying out the work.

The technical bid should clearly address and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient.

In order to facilitate the evaluation of the bid, Canada requests that bidders address and present topics in the order of the evaluation criteria under the same headings. To avoid duplication, bidders may refer to different sections of their bids by identifying the specific paragraph and page number where the subject topic has already been addressed.

Section II : Financial Bid

1.1 Bidders must submit their financial bid in accordance with the following:

- a) Bidders must submit a firm all-inclusive price for the work.
- b) The information must be provided in accordance with the Basis of Payment in Annex B.

Section III : Certifications

Bidders must submit the certifications required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

1. Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.
- (c) The evaluation team will determine first if there are two (2) or more bids with a valid Canadian Content certification. In that event, the evaluation process will be limited to the bids with the certification; otherwise, all bids will be evaluated. If some of the bids with a valid certification are declared non-responsive, or are withdrawn, and less than two responsive bids with a valid

certification remain, the evaluation will continue among those bids with a valid certification. If all bids with a valid certification are subsequently declared non-responsive, or are withdrawn, then all the other bids received will be evaluated.

1.1 Technical Evaluation

In their technical bid, bidders should demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Bidders should demonstrate their capability and describe their approach in a thorough, concise and clear manner for carrying out the work.

The technical bid should address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient. In order to facilitate the evaluation of the bid, Canada requests that bidders address and present topics in the order of the evaluation criteria under the same headings. To avoid duplication, bidders may refer to different sections of their bids by identifying the specific paragraph and page number where the subject topic has already been addressed.

The technical bid consists of the following:

All the information required to demonstrate its conformity with the Point Rated Technical Criteria described in Annex A1.

The solicitation package contains electronic documents that are essential for bidders to understand the technical nature of the work and must be requested from the PWGSC Contracting Authority in writing.

1.1.1 Supporting Information

In the event that the Bidder fails to submit any supporting information pursuant to technical evaluation criteria, the Contracting Authority may request it thereafter in writing, including after the closing date of the bid solicitation. It is mandatory that the Bidder provide the supporting information within three (3) business days of the written request or within such period as specified or agreed to by the Contracting Authority in the written notice to the Bidder.

1.1.2 Mandatory and Point Rated Technical Evaluation

See Annex A1.

1.2 Financial Evaluation

1.2.1 Evaluation of Price

The price of the bid will be evaluated in Canadian dollars, Applicable Taxes excluded, Canadian customs duties and excise taxes included.

2. Basis of Selection

2.1 Basis of Selection – Highest Combination of Technical Merit and Price

1. To be declared responsive, a bid must:
 - a. comply with all the requirements of the bid solicitation; and
 - b. meet all mandatory criteria; and
 - c. obtain the required minimum points specified for each criterion for the technical evaluation, and
 - d. obtain the required minimum of 41 points overall for the technical evaluation criteria which are subject to point rating.The rating is performed on a scale of 103 points.

2. Bids not meeting (a) and (b) and (c) and (d) will be declared non-responsive.
3. The selection will be based on the highest responsive combined rating of technical merit and price. The ratio will be 70 % for the technical merit and 30 % for the price.
4. To establish the technical merit score, the overall technical score for each responsive bid will be determined as follows: total number of points obtained / maximum number of points available multiplied by the ratio of 70 %.
5. To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 30 %.
6. For each responsive bid, the technical merit score and the pricing score will be added to determine its combined rating.
7. Neither the responsive bid obtaining the highest technical score nor the one with the lowest evaluated price will necessarily be accepted. The responsive bid with the highest combined rating of technical merit and price will be recommended for award of a contract.

The table below illustrates an **example** where all three bids are responsive and the selection of the contractor is determined by a 60/40 ratio of technical merit and price, respectively. The total available points equals 135 and the lowest evaluated price is \$45,000 (45).

EXAMPLE: Basis of Selection - Highest Combined Rating Technical Merit (60%) and Price (40%)

		Bidder 1	Bidder 2	Bidder 3
Overall Technical score		115/135	89/135	92/135
Bid Evaluated price		\$ 55 000,00	\$ 50 000,00	\$ 45 000,00
Calculations	Technical Merit	$115/135 \times 60 = 51.11$	$89/135 \times 60 = 39.56$	$92/135 \times 60 = 40.89$
	Pricing	$45/55 \times 40 = 32.73$	$45/50 \times 40 = 36.00$	$45/45 \times 40 = 40.00$
Combined rating		83,84	75,56	80,89
Overall rating		1	3	2

PART 5 - CERTIFICATIONS AND ADDITIONAL INFORMATION

Bidders must provide the required certifications and additional information to be awarded a contract.

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default if any certification made by the Bidder is found to be untrue, whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority will render the bid non-responsive or constitute a default under the Contract.

1. Certifications Required with the Bid

Bidders must submit the following duly completed certifications as part of their bid.

1.1 Declaration of Convicted Offences

As applicable, pursuant to subsection Declaration of Convicted Offences of section 01 of the Standard Instructions, the Bidder must provide with its bid, a completed [Declaration Form](http://www.tpsgc-pwgsc.gc.ca/ci-if/formulaire-form-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ci-if/formulaire-form-eng.html>), to be given further consideration in the procurement process.

1.2 Additional Certifications Required with the Bid

1.2.1 Canadian Content Certification

This procurement is subject to a preference for Canadian goods and/or services.

The Bidder certifies that: The service(s) offered is (are) a Canadian service as defined in paragraph 2 of clause A3050T. **Yes () or No ()**

1.2.1.1 SACC Manual Clause A3050T (2010-01-11) Canadian Content Definition

1. **Canadian good:** A good wholly manufactured or originating in Canada is considered a Canadian good. A product containing imported components may also be considered Canadian for the purpose of this policy when it has undergone sufficient change in Canada, in a manner that satisfies the definition specified under the North American Free Trade Agreement (NAFTA) Rules of Origin. For the purposes of this determination, the reference in the NAFTA Rules of Origin to "territory", is to be replaced with "Canada". (Consult Annex 3.6(9) of the Supply Manual.) For photocopiers, computers and office equipment within Federal Supply Classification (FSC) groups 36, 70 and 74, see paragraph 6.(a)).
2. **Canadian service:** A service provided by an individual based in Canada is considered a Canadian service. Where a requirement consists of only one service, which is being provided by more than one individual, the service will be considered Canadian if a minimum of 80 percent of the total bid price for the service is provided by individuals based in Canada.
3. **Variety of goods:** When requirements consist of more than one good, one of the two methods below is applied:
 - a. aggregate evaluation: no less than 80 percent of the total bid price must consist of Canadian goods; or,
 - b. item by item evaluation: in some cases, the bid evaluation may be conducted on an item-by-item basis and contracts may be awarded to more than one supplier. In these cases, suppliers will be asked to identify separately each item that meets the definition of Canadian goods.
4. **Variety of services:** For requirements consisting of more than one service, a minimum of 80 percent of the total bid price must be provided by individuals based in Canada.
5. **Mix of goods and services:** When requirements consist of a mix of goods and services, no less than 80 percent of the total bid price must consist of Canadian goods and services (as defined above).
For more information on how to determine the Canadian content for a mix of goods, a mix of services or a mix of goods and services, consult Annex 3.6.(9), Example 2, of the Supply Manual.
6. **Other Canadian goods and services:**
 - a. For photocopiers, computers and office equipment within FSC groups 36, 70 and 74, only the products of the following firms are considered Canadian goods:
 - i. MERIT Partner under the MERIT Partnership Program (administered by Industry Canada [IC] and Public Works and Government Services Canada [PWGSC]);
 - ii. Companies which, on March 31, 1992, were allocated to Priority Group 1 under the Priority Groups Policy in effect at that time; or

iii. CIRCLE Canada companies as agreed on by IC and PWGSC.

- b. Textiles: Textiles are considered to be Canadian goods according to a modified rule of origin, copies of which are available from the Clothing and Textiles Division, Commercial and Consumer Products Directorate.

2. Certifications Precedent to Contract Award and Additional Information

The certifications and additional information listed below should be submitted with the bid but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame specified will render the bid non-responsive.

2.1 Integrity Provisions – List of Names

Bidders who are incorporated, including those bidding as a joint venture, must provide a complete list of names of all individuals who are currently directors of the Bidder.

Bidders bidding as sole proprietorship, as well as those bidding as a joint venture, must provide the name of the owner(s).

Bidders bidding as societies, firms or partnerships do not need to provide lists of names.

2.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "[FCP Limited Eligibility to Bid](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)" list (http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) available from [Employment and Social Development Canada \(ESDC\) - Labour's](#) website.

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](#)" list at the time of contract award.

Canada will also have the right to terminate the Contract for default if a Contractor, or any member of the Contractor if the Contractor is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](#)" list during the period of the Contract.

The Bidder must provide the Contracting Authority with a completed annex [Federal Contractors Program for Employment Equity - Certification](#), before contract award. If the Bidder is a Joint Venture, the Bidder must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification, for each member of the Joint Venture.

2.3 Additional Certifications Precedent to Contract Award

2.3.1 Status and Availability of Resources

The Bidder certifies that, should it be awarded a contract as a result of the bid solicitation, every individual proposed in its bid will be available to perform the Work as required by Canada's representatives and at the time specified in the bid solicitation or agreed to with Canada's representatives. If for reasons beyond its control, the Bidder is unable to provide the services of an individual named in its bid, the Bidder may propose a substitute with similar qualifications and experience. The Bidder must advise the Contracting Authority of the reason for the substitution and provide the name, qualifications and experience of the proposed replacement. For the purposes of this clause, only the following reasons will be considered as beyond the control of the Bidder: death, sickness, maternity and parental leave, retirement, resignation, dismissal for cause or termination of an agreement for default.

If the Bidder has proposed any individual who is not an employee of the Bidder, the Bidder certifies that it has the permission from that individual to propose his/her services in relation to the Work to be performed and to submit his/her résumé to Canada. The Bidder must, upon request from the Contracting Authority, provide a written confirmation, signed by the individual, of the permission given to the Bidder and of his/her availability. Failure to comply with the request may result in the bid being declared non-responsive.

2.3.2 Education and Experience

The Bidder certifies that all the information provided in the résumés and supporting material submitted with its bid, particularly the information pertaining to education, achievements, experience and work history, has been verified by the Bidder to be true and accurate. Furthermore, the Bidder warrants that every individual proposed by the Bidder for the requirement is capable of performing the Work described in the resulting contract.

2.3.3 Language Capability

The Bidder certifies that it has the language capability required to perform the Work, as stipulated in the Statement of Work.

PART 6 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

1. Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work at Annex A.

1.1 Task Authorization

The Work or a portion of the Work to be performed under the Contract will be on an "as and when requested basis" using a Task Authorization (TA). The Work described in the TA must be in accordance with the scope of the Contract.

1.1.1 Task Authorization Process

1. The Project Authority will provide the Contractor with a description of the task using the Task Authorization form specified in Annex E.
2. The Task Authorization (TA) will contain the details of the activities to be performed, a description of the deliverables, and a schedule indicating completion dates for the major activities or submission dates for the deliverables. The TA will also include the applicable basis(bases) and methods of payment as specified in the Contract.
3. The Contractor must provide the Project Authority, within 14 calendar days of its receipt, the proposed total estimated cost for performing the task and a breakdown of that cost, established in accordance with the Basis of Payment specified in the Contract.
4. The Contractor must not commence work until a TA authorized by the Project Authority has been received by the Contractor. The Contractor acknowledges that any work performed before a TA has been received will be done at the Contractor's own risk.

1.1.2 Task Authorization Limit

The Project Authority may authorize individual task authorizations up to a limit of \$40,000.00, Applicable Taxes included, inclusive of any revisions.

Any task authorization to be issued in excess of that limit must be authorized by the Project Authority and Contracting Authority before issuance.

1.1.3 Portion of the Work - Task Authorizations

Canada's obligation with respect to the portion of the Work under the Contract that is performed through task authorizations is limited to the total amount of the actual tasks performed by the Contractor.

2. Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the Standard Acquisition Clauses and Conditions Manual (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

2.1 General Conditions

2040 (2015-07-03), General Conditions – Research and Development, apply to and form part of the Contract.

2.1.1 Intellectual Property

K3305C (2008-05-12) License to Intellectual Property Rights in Foreground Information

K3315C (2008-05-12) License to Intellectual Property Rights in Canada-owned Information

K3410C (2015-02-25) Canada to Own Intellectual Property Rights In Foreground Information

2.2 Non-disclosure Agreement

The Contractor must obtain from its employee(s) or subcontractor(s) the completed and signed non-disclosure agreement, attached at Annex D, and provide it to the Contracting Authority before they are given access to information by or on behalf of Canada in connection with the Work.

3. Security Requirement

There is no security requirement applicable to this Contract.

4. Term of Contract

4.1 Period of Contract

The period of the Contract is from date of Contract award to _____, inclusive.

4.2 Option to extend the Contract

The Contractor grants to Canada the irrevocable option to extend the term of the Contract by up to two (2) additional one (1) year period(s) under the same conditions. The Contractor agrees that, during the extended period of the Contract, it will be paid in accordance with the applicable provisions as set out in the Basis of Payment.

Canada may exercise this option at any time by sending a written notice to the Contractor at least 30 calendar days before the expiry date of the Contract. The option may only be exercised by the Contracting Authority, and will be evidenced for administrative purposes only, through a contract amendment.

5. Authorities

5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Ji-Yon Isabell Park

Title: Supply Specialist

Public Works and Government Services Canada

Acquisitions Branch

Telephone: 250-363-3981

E-mail address: ji-yonisabell.park@pwgsc.gc.ca

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

5.2 Technical Authority

The Technical Authority for the Contract is: _____ (to be provided on award)

The Technical Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority; however, the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

5.3 Contractor's Representative

Contact for:	Name	Telephone	Email
Contracting issues			
Technical issues			
Invoicing issues			

5.4 Procurement Authority

The Procurement Authority for the Contract is: _____ (to be provided on award)

The Procurement Authority is the representative of the department or agency for whom the Work is being carried out under the Contract. The Procurement Authority is responsible for the implementation of tools and processes required for the administration of the Contract. The Contractor may discuss administrative matters identified in the Contract with the Procurement Authority however the Procurement Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of Work can only be made through a contract amendment issued by the Contracting Authority.

6. Proactive Disclosure of Contracts with Former Public Servants

By providing information on its status, with respect to being a former public servant in receipt of a Public Service Superannuation Act (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with Contracting Policy Notice: 2012-2 of the Treasury Board Secretariat of Canada.

7. Payment

7.1 Basis of Payment - Contract

The Contractor will be reimbursed for the costs reasonably and properly incurred in the performance of the Work as determined in accordance with the Basis of Payment in Annex B, to a ceiling price of \$ (insert the amount at contract award) . Customs duties are included and Applicable Taxes are extra.

The ceiling price is subject to downward adjustment so as not to exceed the actual costs reasonably incurred in the performance of the Work and computed in accordance with the Basis of Payment.

7.1.1 Basis of Payment –Task Authorizations

One of the following types of basis of payment will form part of the approved Task Authorization (TA). The task price must be determined in accordance with the Basis of Payment as specified in the authorized TA

(a) Firm Unit Price(s) or Firm Lot Price TA

In consideration of the Contractor satisfactorily completing all of its obligations under the authorized Task Authorization (TA), the Contractor will be paid _____, (*insert "the firm lot price of \$ _____" OR "the firm unit price(s)" (insert "in accordance with the basis of payment, in Annex ____" OR "as detailed in the Basis of Payment below")*), as specified in the authorized TA. Customs duties are _____ (*insert "included", "excluded" OR "subject to exemption"*) and Applicable Taxes are extra.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been authorized, in writing, by the Contracting Authority before their incorporation into the Work.

(b) Ceiling Price TA

The Contractor will be reimbursed its costs reasonably and properly incurred in the performance of the Work, plus _____ (*insert "a fixed fee" or "a profit,"*) as determined in accordance with the Basis of Payment in Annex ____, to the ceiling price specified in the approved TA. Customs duties are _____, (*insert "included", "excluded" or "subject to exemption"*) and Applicable Taxes are extra.

The ceiling price is subject to downward adjustment so as not to exceed the actual costs reasonably incurred in the performance of the Work and computed in accordance with the Basis of Payment.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work unless they have been approved, in writing, by the _____ (*insert "Technical Authority" or "Contracting Authority", as applicable*) before their incorporation into the Work.

(c) TA subject to a Limitation of Expenditure

The Contractor will be reimbursed for the costs reasonably and properly incurred in the performance of the Work specified in the authorized Task Authorization (TA), as determined in accordance with the Basis of Payment _____ (*insert "in Annex ____" OR "detailed below"*), to the limitation of expenditure specified in the authorized TA.

Canada's liability to the Contractor under the authorized TA must not exceed the limitation of expenditure specified in the authorized TA. Customs duties are _____ (*insert "included", "excluded" OR "subject to exemption"*) and Applicable Taxes are extra.

No increase in the liability of Canada or in the price of the Work specified in the authorized TA resulting from any design changes, modifications or interpretations of the Work will be authorized or paid to the Contractor unless these design changes, modifications or interpretations have been authorized, in writing, by the Contracting Authority before their incorporation into the Work.

7.2 Limitation of Price

SACC Manual Clause C6000C (2011-05-16), Limitation of Price

7.3 Method of Payment - Contract**7.3.1 Milestone Payments**

Canada will make milestone payments in accordance with the Schedule of Milestones detailed in the Contract and the payment provisions of the Contract if:

- (a) an accurate and complete claim for payment using form PWGSC-TPSGC 1111 (<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/1111.pdf>), Claim for Progress

Payment, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;

- (b) all the certificates appearing on form PWGSC-TPSGC 1111 have been signed by the respective authorized representatives;
- (c) all work associated with the milestone and as applicable any deliverable required has been completed and accepted by Canada.

7.3.2 Schedule of Milestones

The schedule of milestones for which payments will be made is in accordance with the Annex B.

7.3.3 SACC Manual Clause H1001C (2008-05-12), Multiple Payments

7.4 Method of Payment – Task Authorizations

7.4.1 Payments will be made not more frequently than once a month.

7.4.2 Depending on the method of payment specified in the applicable TA, one of the following method of payment clauses will apply.

7.4.2.1 Single Payment

Canada will pay the Contractor upon completion and delivery of the Work in accordance with the payment provisions of the Task Authorization and the Contract if:

- (a) an accurate and complete invoice and any other documents required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- (b) all such documents have been verified by Canada;
- (c) the Work delivered has been accepted by Canada.

7.4.2.2 Milestone Payments (For a Firm Price TA)

Canada will make milestone payments in accordance with the Schedule of Milestones detailed in the Task Authorization and the payment provisions of the Contract if:

- (a) an accurate and complete invoice, and any other documents required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- (b) all work associated with the milestone and as applicable any deliverable required has been completed and accepted by Canada.

7.4.2.3 Progress Payments (For a TA subject to a Limitation of Expenditure or a Ceiling Price)

- (a) Canada will make progress payments in accordance with the payment provisions of the Task Authorization and the Contract for cost incurred in the performance of the Work up to _____ (insert) percent of the amount claimed and approved by Canada if:
 - (i) an accurate and complete invoice and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
 - (ii) the amount claimed is in accordance with the Basis of payment and the Task Authorization;
 - (iii) the total amount for all progress payments paid by Canada does not exceed _____ (insert) percent of the total amount to be paid under the Task Authorization.

- (b) The balance of the amount payable will be paid in accordance with the payment provisions of the Task Authorization and the Contract upon completion and delivery of all work required under the Task Authorization if the Work has been accepted by Canada and a final claim for the payment is submitted.
- (c) Progress payments are interim payments only. Canada may conduct a government audit and interim time and cost verifications and reserves the right to make adjustments to the Contract from time to time during the performance of the Work. Any overpayment resulting from progress payments or otherwise must be refunded promptly to Canada.

7.5 SACC Manual Clauses

A9117C (2007-11-30), T1204 - Direct Request by Customer Department
H4500C (2010-01-11), Lien - Section 427 of the *Bank Act*

8. Invoicing Instructions – Progress Payment Claim

1. The Contractor must submit a claim for payment using form PWGSC-TPSGC 1111, Claim for Progress Payment.

Each claim must show:

- a. all information required on form PWGSC-TPSGC 1111;
- b. all applicable information detailed under the section entitled "Invoice Submission" of the general conditions;
- c. a list of all expenses;
- d. the description and value of the milestone claimed as detailed in the Contract.

Each claim must be supported by:

- a. a copy of time sheets to support the time claimed;
- b. a copy of the invoices, receipts, vouchers for all direct expenses, travel and living expenses;
- c. a copy of the monthly progress report.

2. Applicable Taxes must be calculated on the total amount of the claim before the holdback is applied. At the time the holdback is claimed, there will be no Applicable Taxes payable as it was claimed and payable under the previous claims for progress payments.
3. The Contractor must prepare and certify one original and two (2) copies of the claim on form PWGSC-TPSGC 1111, and forward it to the Procurement Authority identified under the section entitled "Authorities" of the Contract for appropriate certification after inspection and acceptance of the Work takes place.

The Procurement Authority will then forward the original and two (2) copies of the claim to the Contracting Authority for certification and onward submission to the Payment Office for the remaining certification and payment action.

4. The Contractor must not submit claims until all work identified in the claim is completed.

9. Certifications

9.1 Compliance

The continuous compliance with the certifications provided by the Contractor in its bid and the ongoing cooperation in providing additional information are conditions of the Contract. Certifications are subject to verification by Canada during the entire period of the Contract. If the Contractor does not comply with any certification, fails to provide the additional information, or if it is determined that any certification made by

the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

9.2 Federal Contractors Program for Employment Equity - Default by the Contractor

The Contractor understands and agrees that, when an Agreement to Implement Employment Equity (AIEE) exists between the Contractor and Employment and Social Development Canada (ESDC)-Labour, the AIEE must remain valid during the entire period of the Contract. If the AIEE becomes invalid, the name of the Contractor will be added to the "[FCP Limited Eligibility to Bid](#)" list. The imposition of such a sanction by ESDC will constitute the Contractor in default as per the terms of the Contract.

9.3 SACC Manual Clauses

A0285C (2007-05-25) Workers Compensation
A3060C (2008-05-12) Canadian Content Certification

10. Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in (to be inserted at contract award).

11. Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- a) the Articles of Agreement;
- b) the general conditions 2040 (2015-07-03), General Conditions – Research and Development, as amended in Section 2.1 above;
- c) Annex A, Statement of Work;
- d) Annex B, Basis of Payment / Schedule of Milestones;
- e) Annex C, Contractor Disclosure of Foreground Information;
- f) Annex D, Non-disclosure Agreement;
- g) the signed Task Authorizations (including all of its annexes, if any) (if applicable);
- h) the Contractor's bid dated _____ (insert date of bid) (If the bid was clarified or amended, insert at the time of contract award: "as clarified on _____" **or** ", as amended on _____" and insert date(s) of clarification(s) or amendment(s))

12. Insurance

The Contractor is responsible for deciding if insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any insurance acquired or maintained by the Contractor is at its own expense and for its own benefit and protection. It does not release the Contractor from or reduce its liability under the Contract.

13. Shipping Instructions – Delivery at Destination

Goods must be consigned to the destination specified in the Contract and delivered DDP (Delivered Duty Paid) to National Research Council of Canada, 5071 West Saanich Road, Victoria, British Columbia Canada V9E2E7, Incoterms 2000 for shipments from a commercial contractor.

14. Government Site Regulations

The Contractor must comply with all regulations, instructions and directives in force on the site where the Work is performed.

ANNEX A - STATEMENT OF WORK

Phased Contract

The work required in this solicitation is limited to the following **Phase 1 only**.

Canada at its discretion may choose to amend the contract issued for Phase 1 to include the work under Phase 2.

Note 1: Bidders in responding to this solicitation are agreeing they have the capabilities and capacity to execute the work required for Phase 1 and 2¹.

PHASE 1: Final design of NFIRAOS TABL and IST subsystems

Phase 1 work to be performed is the final design of NFIRAOS TABL and IST subsystems including structural design and analysis, fabrication and alignment plan, shipping and installation plans etc.

Specifically, the work includes:

1. Advance the TABL and IST subsystem from Preliminary Design Review (PDR) level development to Final Design Review (FDR) level design in context with the Thirty Meter Telescope Project Office (TMTPO) design review level definitions².
 - PDR design has demonstrated a design and defined the outline of associated processes resulting in the subsystem. Major design tasks verified at the NFIRAOS PDR review were:
 - Sufficiently detailed design to demonstrate that (i) the majority of design and interface requirements are met and (ii) significant design choices are made at the subsystem assembly level
 - Enabling technologies established
 - Major technical risks retired
 - Outline of assembly, integration, and verification of overall NFIRAOS system integration at NRC Herzberg and TMT observatory sites
 - Long lead time procurement plans for optics
 - Associated schedule and cost of final design phase
 - Bottom-up fabrication and construction cost estimate for subsystems
 - Integrated fabrication and construction schedule with the overall TMT project schedule
 - Initial FMEA and Hazard Risk Assessment
 - FDR design development work supplied by Contractor shall demonstrate the detailed subsystem design can be realized as well as the realization processes. Major subsystem design tasks that the contractor is responsible for advancing are:
 - Final, construction/production ready design and work scopes for fabrication and procurements
 - Key technologies industrialized
 - Compliance with requirements and interfaces
 - Vendor QA/QC plans
 - Failure Mode and Effects Analysis (FMEA) and reliability prediction
 - Operations/maintenance procedures

¹ Bidders are not required to have fabrication capability in-house; however, bidders must demonstrate their experience and ability to coordinate and supervise fabrication work should Phase 2 work be subcontracted. Conversely, bidders who are capable to perform Phase 2 work can subcontract Phase 1 work as long as division of work and responsibilities are clearly stated in their proposal. In both cases, the bidder proposals must meet the Technical Evaluation Criteria stated in ANNEX A1.

² TMT Reviews: Definitions, Guidelines, And Procedures,TMT.SEN.SPE.12.002

- Refined fabrication and construction plan, budget and schedule

For Phase 1 work, the Contractor is required to complete the design of the TABL and IST to illustrate the overall subsystem design requirements and functionalities will be met in terms of mass properties, loads, stiffness, seismic survivability, fabrication accuracy, alignment ability, shipping feasibility, assembly repeatability and long-term structural stability with specific accommodations³ for installation and removal of all interfacing subsystems shall be included in the TABL and IST design.

2. Develop a binding fixed-price quote, cost and schedule, for the fabrication, integration, verification and delivery of the complete subsystem to NRC Herzberg, according to the design and interface requirements, with the systems engineering documents and project control documents listed. Statement of Work.
3. Provide final design documentation set for the subsystem listed according to the Deliverables listed below.

Description of the Work

1. Subsystem Final Design activities
 - a. Review and assessment of the preliminary TABL and IST designs as per the design document set supplied⁴
 - b. Develop final design, including documentation of design description and engineering analysis, according to the design documents supplied
 - c. Tabulate compliance matrix according to design and interface requirements and document how the requirements are fully met by the design developed including consideration for FMEA, reliability prediction and spare list
2. Binding Fixed-Price Quote Development Activities
 - a. The fixed-price quote development should be based on the cost to advance the final design to the final product and include the labour effort:
 - i. To produce fabrication drawings, bill-of-materials with long lead-time items
 - ii. To develop fabrication and assembly plan with vendor QA/QC plans that ensure production compliance
 - iii. To document maintenance procedures of the proposed design to meet the design life requirement
 - iv. To provide systems engineering, project management and control activities such QA/QC reports, compliance matrix, verification & testing plans, and verification & testing reports to demonstrate full requirement compliance.
 - b. The fixed-price quote shall include shipping containers, special tools, assembly fixtures, handling jigs and spare parts required for the subsystems.

³ This portion of the design work is expected to be iterative and interactive with the NFIRAOS team.

⁴ Including review of the Inventor CAD, ANSYS finite element models of TABL and IST with details of non-structural masses to be accommodated, and all applicable internal interface control documents (ICDs) of TABL mounted opto-mechanical subsystems, and client instrument ICDs supported by the IST.

Deliverables:

- Deliverables pertaining to documentation, designs and drawings shall be delivered in English and in a format determined by the NRC Project Authority.
- Telecon kickoff meeting⁵ with initial project plan
 - The project plan shall contain sufficient information to define the work breakdown for all engineering, systems engineering and project control tasks required to execute the Phase 1 tasks. Each scheduled task shall contain its associated: Resource assignments; duration; labour, material and procurement costs; predecessor and successor link-logic for the workflow. In addition, key milestones shall be clearly identified in the project plan according to the milestone schedule in the Schedule of Key Activities section.
 - The project plan shall be provided in the native file format of the applicable project management software as well as PDF format.
- Telecon bi-weekly progress meetings with progress report.
 - Progress reports shall be available two days prior to the bi-weekly progress meeting. This is a concise summary of the current status of the work in progress according to the project plan including descriptions of the results achieved in the current period and planned work for the next period. In addition, the progress report shall identify unresolved issues and problems which may be technical, programmatic and financial, that could potentially impact the project schedule and budget. The Contractor will further propose corrective actions to mitigate and/or resolve the issues so that the project may advance in a timely manner.
 - The progress report shall be in MS Word or PDF format.
 - For the first bi-weekly report of each month, up-to-date program information such as % complete, labour cost and procurement expenses shall be available for reporting. This should extend to each scheduled task in the project plan at the progress meeting for the purpose of earned-value calculations by the NRC Project Authority.
- Preliminary design review report
 - The design review report is a document that assesses the form and function of the preliminary design in context with the subsystem design and interface requirements outlined in the documentation supplied.
 - The report shall be an assessment of the practicality of the preliminary design proposed in context of static and dynamic response, fabrication, alignment, shipping and assembly considerations. In addition, the report shall outline the Contractor's plan and schedule to progress the final design work and the Contract shall revise the initial project plan presented at the kickoff meeting correspondingly.
 - The report shall be in MS Word format.
 - The revised project plan shall be provided in the same file format as the initial project plan as well as in PDF format.
- Design description report for the TABL and IST
 - The design description report is a document that outlines the form and function of the final design in context with the subsystem design and interface requirements

⁵ NRC-Herzberg reserves the option to hold the kickoff meeting at the Contractor's site.

- The report shall address the design considerations, joint details and fabrication procedures for mass properties, loads, stiffness, seismic survivability, fabrication accuracy, alignment ability, shipping feasibility, assembly repeatability and long-term structural stability, geometrical and dimensional, with specific accommodations for installation and removal of all interfacing subsystems.
 - Loads shall specified according to ASCE-7 (2010) and design checks for steel according to AISC (2005), or equivalent standards.
 - Seismic survivability shall be evaluated up to seven seismic response time series supplied.
 - Fabrication procedures shall address accuracy and long-term stability over the expected operating range as specified.
 - Finishing requirements for stray light considerations and environmental protection .
 - TABL structural connection shall conform to assembly configurations and shipping size limitations as specified in context of alignment and repeatability considerations.
 - IST structural connection shall conform to assembly configurations and shipping size limitations as specified, and interface points with TABL, ENCL and client instruments in context of alignment and repeatability considerations. The decomposition of the IST at the TABL region is not at the Contractor's discretion. The NFIRAOS alignment budget assumes that the IST will be decomposed in a particular way where it interfaces with the TABL.
 - Shipping feasibility shall address shipping logistics in term of modes of transportation, part sizes and weights with respect to routing (road and port) between fabrication site to NRC-Herzberg and between NRC-Herzberg to TMT Observatory, in addition to protection of the contents from physical and environmental damages in the course of handling/shipping.
- The report shall be in MS Word format.
- Engineering analysis report
 - The design analysis report shall contain sufficient engineering information for a technical reader to understand the design assumptions, engineering theories and analytical tool used to realize the design. The report shall state the achieved design margin, e.g. safety factor as well as limitations and uncertainties of the analysis with respect to the design requirements.
 - The design analysis shall be calculated in SI Units and the design analysis report shall be in the native file format of the analytical software as well as PDF format.
- Compliance matrix, verification and test plan
 - Compliance matrix is a tabulated list of all design and interface requirements and the corresponding justifications of how the requirements are fully met by the final design as developed.
 - The verification & test plan shall tabulate the pass-or-fail methodology to verify the design and interface requirements, as supplied by NRC, and outline the proposed equipment and test setup to verify performance. Ancillary information such as calibration certificates, equipment specifications and accuracy of the test equipment shall also be provided.
 - The verification and test plan shall document the test setup and procedures of those requirements that must be tested in order to verify their compliances.
 - The verification and test plan shall outline the timeline of the tests to be performed in the fabrication and assembly phase.

- The compliance matrix, and verification and test plan shall be in MS Word or MS Excel file format.
- Downtime prediction document set, if applicable
 - This is a document set including FMEA, reliability prediction, repair time estimate and a list of spare list for all critical components to demonstrate the proposed subsystem meets the required downtime budget.
 - The downtime prediction shall be provided in the native file format of the analytical software as well as in PDF format.
- Design CAD and finite element analysis models
 - These are the Contractor developed CAD models and finite element models (FEMs) for the actual TABL and IST final design.
 - The CAD models shall contain the assembly of TABL and IST and individual subassemblies.
 - The file format shall be AutoDesk Inventor (preferred) or SolidWorks with corresponding STEP files.
 - The finite element models shall be in ANSYS format and include all associated scribe and database files.
- Fabrication drawings, bill-of-materials with long lead-time items identified
 - This is a document set which supports component and material procurements, and fabrication of the subsystem.
 - The drawing set shall include fabrication information for the TABL and IST, including shipping containers, special tools, assembly fixtures and handling jigs.
 - The fabrication drawings shall follow established Canadian drawing standard and provided in the native CAD software format as well as PDF format.
 - The bill-of-materials shall be provided in MS Excel format or PDF format.
- Fabrication and assembly plan with contractor QA/QC plans
 - This is a document set to outline the Contractor's plan to implement the production of the subsystem and the associated procedures to ensure quality assurance and control.
 - The fabrication plan shall outline the construction processes and metrology procedures to ensure the structural accuracy and long-term stability are achieved, geometrically and dimensionally.
 - The assembly plan shall follow on the installation steps outlined in [RD2] and compatible for shipping and installation of the TABL and IST at NRC-Herzberg in Victoria and on the Nasmyth platform of the telescope at the TMT Observatory on the summit of Mauna Kea, Hawaii, USA (elevation 4000m), including space constraints and available crane capacities at each location. The plan shall address
 - IST shall be disassembled, packed, and shipped in parts by land and sea from NRC-Herzberg to the TMT Observatory. As a strong goal, these parts shall be designed to fit inside standard intermodal shipping container(s). Bolted connections high repeatability shall be used to reassemble the IST components. In particular, welding is not allowed in the observatory.
 - Potentially the TABL structure shall be unitary in form. If unitary, the TABL structure will require an oversized shipping container and special logistics. Alternatively, the TABL

- design⁶ shall demonstrate high, geometric and dimensional, repeatability when reassemble at the TMT Observatory after shipment of the aligned TABL from NRC-Herzberg.
- Items of temporary falsework and/or fixtures required to safely erect the IST shall be included in the design. Assembly of the IST shall need to be sequenced to include installation of the ENCL panels or sections.
 - In general, the ENCL panels are installed with motions in the vertical plane. The IST shall be self-supporting in a partially completed configuration, with the top cross members absent, in order to facilitate the installation of the optics ENCL panels and the TABL structure.
 - The TABL structure shall be installed and mated to the IST in a single piece and in a single crane lift. The TABL structure shall interface with the IST using repeatable locating features on each side of this interface.
 - Locating features shall be incorporated into the bipod design⁷ to ensure that the alignment between the TABL structure and the IST is preserved after disassembly and shipment.
 - The plan shall be provided in MS Word or PDF format.
- Maintenance procedures, if applicable
 - This is a document that outlines the inspections and preventive maintenance required to ensure the proposed design meets the design life requirement.
 - The Contractor shall identify all spare/replacement parts required for the design life of the subsystem.
 - The Contractor shall identify all special tools, assembly fixtures and handling jigs for the maintenance process required.
 - The procedure shall be provided in MS Word format.
 - Binding Fixed-Price Quote
 - The fixed-price quote shall include the cost of completing all subsystem fabrication, assembly, test and verification tasks, including: the revised design description and engineering analysis reports; compliance matrix, verification and testing plan; downtime prediction document set, as-built fabrication drawings, bill-of-materials; as-built assembly plan with Contractor QA/QC report including material certifications ; revised maintenance procedures and schedule and the as-built verification test report for the delivery of the fully verified subsystems to NRC-Herzberg.
 - The complete subsystem design document set shall be provided in the same formats as specified in Phase 1.
 - The fixed-price quote shall contain cost breakdown at the structural component level and include shipping containers, special tools, assembly fixtures, handling jigs and spare parts etc.
 - The fixed-price quote shall contain cost breakdown at the component level such as optics, cell, framework, mechanism, actuator, sensors, switches, cabling and utilities, shipping containers, special tools, assembly fixtures, handling jigs and spare parts etc.

⁶ The optimal TABL design may be in parts due to fabrication and cost considerations.

⁷ The design responsibilities of the interfacing bipod system are distributed. The Contractor is responsible for the structural, mechanical and alignment design. NRC-Herzberg is responsible for the thermal design of the in-line heat exchangers, one per bipod, between the IST at ambient temperature and the TABL at -30°C operating temperature.

- The fixed-price quote shall include documentation list, shipping containers, special tools, assembly fixtures and handling jigs required for the subsystems
- The fixed-price quote shall identify the cost and schedule contingencies assumed.
- The quote shall be in tabulated in MS Word or MS Excel file format.

Additional considerations

- The Contractor shall identify cost and design drivers in the design and interface requirements for discussion at the bi-weekly progress meeting as soon as they are discovered in the final design phase.
- Unless explicit written permission is granted, the Contractor design shall adhere to advancing the design developed for the Preliminary Design Review as stated in the design report [AD4] and requirement documents [AD1, AD2, AD3].
- The proposed final design work(Phase 1) is the basis for the fabrication and construction phase of the NFIRAOS subsystems. The Contractor who is selected for Phase 1 and meets the stated performance requirements shall be required to supply the subsystems.

Schedule of Key activities (following Date of Contract Award - Estimated)

a. Kickoff meeting	2 weeks
b. Preliminary design review report and review meeting	2 months
c. Progress review meeting #1	4 months
d. Design description and engineering analysis reports	7 months
e. Progress review meeting #2	7 months
f. CAD and FEM models	8 months
g. Compliance matrix, verification and test plan	8 months
h. Downtime prediction document set	8 months
i. Fabrication drawings and bill-of-materials	10 months
j. Progress review meeting #3	10 months
k. Fabrication and assembly plans	11 months
l. Contractor QA/QC plan and maintenance procedures	11 months
m. Binding fixed price quote and closeout meeting	12 months

Estimated budget for this Phase is \$350,000.00. CAD

The following additional phases are for **information only**. It is the intent of this project to continue subsequent phases with the successful bidder for Phase 1.

PHASE 2: TABL and IST subsystems Fabrication, Assembly and Verification

As NRC's option, the Contractor shall fabricate and deliver a fully qualified subsystem to NRC-Herzberg. Delivery shall be to the National Research Council of Canada, 5071 West Saanich Road Victoria, British Columbia Canada according to the Contractor's binding fixed-price quote provided in Phase 2.

Estimated budget for this Phase is \$1,580,000.00.

ANNEX A1 - TECHNICAL EVALUATION CRITERIA

Bidders who do not meet these mandatory criteria will be deemed non-responsive.

Technical Evaluation Criteria is applicable to provide the work required under Phase 1 and may be considered acceptable for subsequent phases.

Substantial Information:

Bidders must demonstrate their compliance with EACH AND EVERY section of the evaluation criteria by providing substantial information describing completely and in detail how the requirement is met or addressed. Bidders must provide with their technical bid, a page reference indicating clearly where the substantial information for each of the sections identified below can be found (*example, fill in right hand column of evaluation tables*)

Mandatory Technical Criteria	Evaluation Scale	Notes:	Page #
1.0 Design and Analytical Tools Bidders must demonstrate they possess the appropriate design and analytical tools to complete the design elements detailed in the NRC Documents list: TMT.AOS.TEC.15.028.REL01 TMT.AOS.ICD.07.004.CCR12 TMT.AOS.SPE.14.002.REL04 TMT.AOS.PDD.11.005.REL01	Mandatory	Bidders are to include a comprehensive list of equipment / facilities in their proposal.	
2.0 Equipment/Infrastructure for Construction Bidders must show that they have secured access to fabrication facilities with sufficient capacity to produce the TABL and IST, and appropriate equipment for construction, inspection and QA/QC to complete the manufacturing elements detailed in the NRC Documents list: TMT.AOS.TEC.15.028.REL01 TMT.AOS.ICD.07.004.CCR12 TMT.AOS.SPE.14.002.REL04 TMT.AOS.PDD.11.005.REL01	Mandatory	The bidder's proposal <u>must include</u> a full description of the cold temperature facility, arrangement of usage, availability and logistics of transportation between bidder's own facility and cold test facility.	
3.0 RESOURCES PROPOSED Provide a list of the key personnel (and CVs) that will be assigned to the project.	Mandatory	The CVs must clearly demonstrate that the proposed resources can perform the requirements called for in the statement of work. Bidders shall include an estimated breakdown of resources proposed. (I.e Project Manager 20% , Senior Engineer 20%, Engineer 40%, technologist 20%)	

POINT RATED TECHNICAL CRITERIA

Max = maximum number of points; Min = mandatory passing mark; Page # = the page number in your bid that references the required substantiating documentation.

Bidders must obtain the required minimum points for **EACH** criterion with a pass mark. Bids not meeting this criteria will be declared non-responsive and not evaluated further.

Point Rated Technical Criteria	Evaluation Scale	Max	Min	Page #
1.0 Technical Proposal				
<p>1.1 Understanding of the 'Statement of Work'</p> <p>The bidder should demonstrate its understanding of the 'Statement of Work' by providing in its own words a convincing demonstration of its understanding of the context, scope and objectives of the resulting contract. The demonstrated understanding of the context, scope and objectives should be complete and should not be limited to the description of the statement of work.</p> <p>The understanding of the three elements (context, scope and objectives) will be evaluated independently. The score given will be the average of the individual scores for the three elements.</p> <p>Example of calculation : The score of the bidder is as follows : - 15 points for context - 12 points for scope - 6 points for objectives The total score of the bidder is (15+12+6)/3 = 11 points</p>	<p>EXCELLENT – 15 pts VERY GOOD – 12 pts GOOD – 9 pts ACCEPTABLE – 6 pts WEAK – 3 pts INADEQUATE – 0 point</p> <p>Please note that the definition of each element of the evaluation scale is available at the end of this attachment.</p>	15	9	
<p>2.0 Bidder's Experience</p> <p>The bidder should demonstrate their experience by describing relevant past projects (e.g. design, fabrication assembly, alignment, verification and shipping of large precision steel structure systems that operate at below freezing temperature) which includes the following information:</p> <ol style="list-style-type: none"> the topic, the context, the objectives and the scope of the project, the project periods (exact month and year of the beginning and exact month and year of the end), the exact dates of the involvement of the bidder in the project, the role(s) of the bidder in the project (prime contractor, subcontractor, etc.), the budget, the name of the client , the number of resource (equivalent of full-time employee)involved in the project for each year of the project, any other relevant information. <p>A project will be considered by the evaluation team only if the bidder demonstrates that the project involved the equivalent of at least one full time employee working on the project for at least one year and meet the related criterion.</p>				

2.1 Bidder's experience in performing projects in a field related to the statement of work.			
<p>2.1.1 Bidder Design Experience Bidder's experience in performing projects in a field related to the <i>Design and Analysis of large precision steel structures or equivalents for low temperature applications</i></p> <p>To be awarded Points in this section, requires a minimum of 2 and up to 3 recent projects, within the last 5 years and at a minimum shall outline the following:</p> <p>At a minimum, examples should outline the design elements and materials selected, analytical and CAD tools used, describe any relevant load, deflection, seismic or thermal analysis performed corresponding to the overall operating and survival conditions such as temperature range and rate, earthquake; mechanical stability and repeatability etc.; and or relevant design features applicable to the accuracy, repeatability and long-term (geometrical and dimensional) stability of the subsystems.</p>	<p>EXCELLENT – 5 pts VERY GOOD – 4 pts GOOD – 3 pts ACCEPTABLE – 3 pts WEAK – 1 pts INADEQUATE – 0 point</p> <p>Please note that the definition of each element of the evaluation scale is available at the end of this attachment.</p> <p>Bidders shall be scored for each example up to a maximum of 3.</p>	15	6
<p>2.1.1.1 (no minimum score) The dollar value of each project referenced in 2.1.1, shall be stated separately. Points will be calculated based on the total dollar value of the projects (up to a maximum of 3 projects)</p> <p>Example of calculation : The score of the bidder is as follows :</p> <ul style="list-style-type: none"> • >\$2.5M = 5pts, • \$1.5M - \$2.5M = 4pts • \$500K - \$1.5M = 3pts • \$250K - \$500K = 2pts • \$100K - \$250K = 1pts • <\$100K = 0pts 		5	No min
<p>2.2.1 Bidder Construction Experience Bidder's experience in performing projects in a field related to the <i>Fabrication, Assembly, Alignment, Verification and Shipping of large precision steel structures or equivalents for low temperature applications</i></p> <p>To be awarded Points in this section, requires a minimum of 2 and up to a maximum of 3. Project must be recent, i.e. within the last 5 years and at a minimum shall outline the following:</p> <p>At a minimum, examples should demonstrate the materials used; fabrication equipment, fabrication processes and techniques in context with the precision required; testing and metrology equipment; overall QA/QC process, the procedure and precision required in assembly work</p>	<p>EXCELLENT – 5 pts VERY GOOD – 4 pts GOOD – 3 pts ACCEPTABLE – 2 pts WEAK – 1 pts INADEQUATE – 0 point</p> <p>Please note that the definition of each element of</p>	15	6

as well as the end performance, etc.	the evaluation scale is available at the end of this attachment. Bidders shall be scored for each example up to a maximum of 3.			
2.2.1.1 (no minimum score) The dollar value of each project referenced in 2.2.1, shall be stated separately. Points will be calculated based on the total dollar value of the projects (up to a maximum of 3 projects) Example of calculation : The score of the bidder is as follows : >\$2.5M = 5pts \$1.5M - \$2.5M = 4pts \$500K - \$1.5M = 3pts \$250K - \$500K = 2pts \$100K - \$250K = 1pts <\$100K = 0pts		5	No min	
3.0 Management proposal				
3.1 Personnel and task management method The bidder should describe the method and tools to be used to manage its personnel, in terms of contingency management, availability of resources, and work overload in the context completing the work under the contract.				
3.1.1 Management method: The management method described by the bidder should be realistic and take into account each of the following elements: contingency management, availability of proposed resources, work overload, and the potential unpredictable context specific to research and development contracts.	EXCELLENT – 8 pts VERY GOOD – 6 pts GOOD – 4 pts ACCEPTABLE – 2 pts WEAK – 1 pt INADEQUATE – 0 Pt Please note that the definition of each element of the evaluation scale is available at the end of this attachment.	8	4	
3.1.2 Tools used: The bidder should describe the planning and control tools that will be used to enable an efficient management methodology.	EXCELLENT – 8 pts VERY GOOD – 6 pts	8	2	

	<p>GOOD – 4 pts ACCEPTABLE – 2 pts WEAK – 1 pt INADEQUATE – 0 Pt</p> <p>Please note that the definition of each element of the evaluation scale is available at the end of this attachment.</p>			
<p>3.2 Work plan and schedule development method The bidder should describe its proposed work plan and schedule development method and demonstrate its effectiveness.</p>				
<p>3.2.1 Work plan and schedule development method</p> <p>The bidder should describe its proposed work plan and schedule development method. The bidder should describe how its work plan and schedule development method take into account the risk elements of the project and the unpredictable nature of a research and development contract.</p>	<p>EXCELLENT – 8 pts VERY GOOD – 6 pts GOOD – 4 pts ACCEPTABLE – 2 pts WEAK – 1 pt INADEQUATE – 0 pt</p> <p>Please note that the definition of each element of the evaluation scale is available at the end of this attachment.</p>	8	2	
<p>3.2.2 Demonstration of Effectiveness:</p> <p>The bidder should clearly demonstrate that their work plan and schedule development method has been successfully applied and tested in previous design and fabrication projects with emphasis on schedule management during the construction phase. To be awarded Points in this section, requires a minimum of 1 project and up to a maximum of 3. Project must be recent, i.e. within the last 5 years.</p>	<p>EXCELLENT – 4 pts VERY GOOD – 3 pts GOOD – 2 pts ACCEPTABLE – 1 pts WEAK – 0 pt INADEQUATE – 0 pt</p> <p>Please note that the definition of each element of the evaluation scale is available at the end of this</p>	8	4	

	attachment. Bidders shall be scored for each example up to a maximum of 2.			
3.3 Quality control Process and Workflow management method. The bidder should describe its management method for overseeing the progress of the work and compliance with deadlines. It should also describe its quality control process and the tools to be used to ensure that deliverables meet requirements. Furthermore, it should demonstrate clearly and beyond a reasonable doubt that this method has been tested and shown to be effective in previous projects.				
3.3.2 Quality control process: The bidder should describe its quality control process that should at least include: 1. Verification and validation of work performed 2. Validation of compliance with the client's requirements 3. Identification of future elements requiring improvement The bidder should clearly demonstrate that quality control process have been successfully applied and tested in previous projects.	EXCELLENT – 8 pts VERY GOOD – 6 pts GOOD – 4 pts ACCEPTABLE – 2 pts WEAK – 1 pt INADEQUATE – 0 pt Please note that the definition of each element of the evaluation scale is available at the end of this attachment.	8	4	
4. Packaging for Shipping Methodology Bidder should demonstrate established methodologies to ensure large structural components can be handled safely during fabrication and assembly, and with adequate packaging/crating to protect the contents from shipping and environmental damages, and successful implementation of shipping logistics. Bidder should include examples of special tools, assembly fixtures, handling jigs, packaging/crating design used in previous projects and should include photos of examples packaging/crating used in previous shipments.	EXCELLENT – 8 pts VERY GOOD – 6 pts GOOD – 4 pts ACCEPTABLE – 2 pts WEAK – 1 pt INADEQUATE – 0 pt Please note that the definition of each element of the evaluation scale is available at the end of this attachment.	8	4	

Evaluation grid for qualitative criteria

INADEQUATE	WEAK	ACCEPTABLE	GOOD	VERY GOOD	EXCELLENT
Did not submit information which could be evaluated or inadequate information submitted.	Lacks complete or almost complete understanding of the requirements.	Has some understanding of the requirements.	Demonstrates a good understanding of the requirements.	Demonstrates a very good understanding of the requirements.	Demonstrates expert understanding of the requirements
.....	Weaknesses cannot be corrected or doubtful that weaknesses can be corrected.	Generally, there is a good chance that weaknesses can be easily corrected.	Weaknesses can be easily corrected.	No significant weaknesses.	No apparent weaknesses
.....	Poor; insufficient to meet performance requirements or little capability to meet performance requirements.	Minimum acceptable capability, should meet minimum performance.	Satisfactory capability, should ensure effective results.	Very satisfactory capability, should ensure very effective results.	Superior capability, should ensure superior results

ANNEX B - BASIS OF PAYMENT / SCHEDULE OF MILESTONES (Phase 1)

TABLE B1

Mile-stone No.	Description	% of total Bid price	Firm Amount CAD\$	Due Date Following contract award (Dates to be inserted at Contract award)
1	Completion of activities a,b and c	30%		On or before 4 months following contract award (estimated) or Contractor's best Date of _____.
2	Completion of activities d, e, f, g and h Note: NRC is responsible for all costs to travel to Contractor's site to review Contractor's Factory acceptance test results and inspect deliverables	35%		On or before 8 months following contract award (estimated) or Contractor's best Date of _____.
3	Completion of activities: i, j, k, l and m Note: bid price to includes all delivery and insurance costs	35%		On or Before 12 months following contract award. (Mandatory).
Total EVALUATED BID PRICE (GST Extra as applicable)				

Additional Expenses

i) Travel

Travel for additional services beyond the scope of the tender and requested by NRC, shall be invoiced as per the following.

The Contractor will be reimbursed for the authorized travel and living expenses reasonable and properly incurred in the performance of the work, at cost without any allowance for overhead or profit, in accordance with the meal, private vehicle and incidental expense allowances specified in Appendix B, C, D of the Treasury Board Travel Directive, and with the other provisions of the directive referring to "travellers", rather than those referring to "employees". http://www.tbs-sct.gc.ca/pubs_pol/hrpubs/tbm_113/menu-travel-voyage-eng.asp

All Travel must have the prior authorization of the Project Authority. All Payments are subject to government audit.

ii) Additional Labour

Labour for additional services beyond the scope of the tender and requested by NRC, shall be invoiced as per the following rates:

Project Man \$ _____ / hourly
Sen Engineer \$ _____ / hourly
Engineer \$ _____ / hourly
Technologist \$ _____ / hourly

Note: The cost for additional expenses as per i) and ii) above shall **not** be included in the Financial Evaluation.

ANNEX C - Contractor Disclosure of Foreground Information

CONTRACTOR DISCLOSURE OF FOREGROUND INFORMATION

Please refer to **Article 1 - Interpretation of 2040 General Conditions** for the definition of Foreground Information to determine what information must be disclosed.

The Contractor must provide the following information:

1. Contract No.:
2. What is the descriptive title of the FIP (Foreground Intellectual Property)?
3. Abbreviated description of the FIP and, if applicable, of the different systems and subsystems.
4. What is or was the objective of the project?
5. Explain how the FIP meets the objective of the project (for example: the advantage of the new solution, what problem did the FIP resolve or what benefits did the FIP deliver).
6. Under which category(ies) would you best describe the FIP and why: Patents, Inventions, Trade Secrets, Copyright, Industrial Designs, Rights in Integrated Circuit Topography, Know-how, Other?
7. Describe the features or aspects of the FIP that are novel, useful and not obvious.
8. Has the FIP been tested or demonstrated? If yes, please summarise the results.
9. Has any publication or disclosure to others been made? If so, to whom, when, where and how?
10. Provide names and addresses of the inventors.
11. Provide an explicit and detailed description of the FIP developed during the contract (Refer to pertinent section of the technical report, if necessary).

Please specify name and position of person approving / authorizing this disclosure. This person is to sign and date the disclosure.

Signature Date
Name Title

Signature Date

Name Title (Technical authority)

Solicitation No. - N° de l'invitation
31034-142736/A
Client Ref. No. - N° de réf. du client
31034-142736

Amd. No. - N° de la modif.
File No. - N° du dossier
VIC-5-38038

Buyer ID - Id de l'acheteur
vic211
CCC No./N° CCC - FMS No./N° VME

ANNEX D - NON - DISCLOSURE AGREEMENT

I _____, (*Print Name*) recognize that in the course of my work as an employee or

subcontractor of _____, (*Print Firm Name*)

I may be given access to information by or on behalf of Canada in connection with the Work, pursuant to **Solicitation No 31034-142736/A-TABL/ISM** between Her Majesty the Queen in right of Canada, represented by the Minister of Public Works and Government Services and National Research Council, including any information that is confidential or proprietary to third parties, and information conceived, developed or produced by the Contractor as part of the Work.

For the purposes of this agreement, information includes but not limited to: any documents, instructions, guidelines, data, material, advice or any other information whether received orally, in printed form, recorded electronically, or otherwise and whether or not labeled as proprietary or sensitive, that is disclosed to a person or that a person becomes aware of during the performance of the Contract.

I agree that I will not reproduce, copy, use, divulge, release or disclose, in whole or in part, in whatever way or form any information described above to any person other than a person employed by Canada on a need to know basis. I undertake to safeguard the same and take all necessary and appropriate measures, including those set out in any written or oral instructions issued by Canada, to prevent the disclosure of or access to such information in contravention of this agreement.

I also acknowledge that any information provided to the Contractor by or on behalf of Canada must be used solely for the purpose of the Contract and must remain the property of Canada or a third party, as the case may be.

I agree that the obligation of this agreement will survive the completion of the solicitation

No 31034-142736/A and any resultant Contract(s).

Signature

Date

NOTE:

Once the information is in the custody of the identified firm, ALL employees or subcontractors of the identified firm given access to the information MUST sign and return a non-disclosure agreement PRIOR to release of that information to the individual by the identified firm.

Task Authorization Autorisation de tâche

Instruction for completing the form PWGSC - TPSGC 572 - Task Authorization
(Use form DND 626 for contracts for the Department of National Defence)

Instruction pour compléter le formulaire PWGSC - TPSGC 572 - Autorisation de tâche
(Utiliser le formulaire DND 626 pour les contrats pour le ministère de la Défense)

Contract Number

Enter the PWGSC contract number.

Contractor's Name and Address

Enter the applicable information

Security Requirements

Enter the applicable requirements

Total estimated cost of Task (GST/HST extra)

Enter the amount

Numéro du contrat

Inscrire le numéro du contrat de TPSGC.

Nom et adresse de l'entrepreneur

Inscrire les informations pertinentes

Exigences relatives à la sécurité

Inscrire les exigences pertinentes

Coût total estimatif de la tâche (TPS/TVH en sus)

Inscrire le montant

For revision only

Aux fins de révision seulement

TA Revision Number

Enter the revision number to the task, if applicable.

Total Estimated Cost of Task (GST/HST Extra) before the revision

Enter the amount of the task indicated in the authorized TA or, if the task was previously revised, in the last TA revision.

Increase or Decrease (GST/HST Extra), as applicable

As applicable, enter the amount of the increase or decrease to the Total Estimated Cost of Task (GST/HST Extra) before the revision.

Numéro de la révision de l'AT

Inscrire le numéro de révision de la tâche, s'il y a lieu.

Coût total estimatif de la tâche (TPS/TVH en sus) avant la révision

Inscrire le montant de la tâche indiquée dans l'AT autorisée ou, si la tâche a été révisée précédemment, dans la dernière révision de l'AT.

Augmentation ou réduction (TPS/TVH en sus), s'il y a lieu

S'il y a lieu, inscrire le montant de l'augmentation ou de la réduction du Coût total estimatif de la tâche (TPS/TVH en sus) avant la révision.

1. Required Work: Complete sections A, B, C, and D, as required.

1. Travaux requis : Remplir les sections A, B, C et D, au besoin.

A. Task Description of the Work required:

Complete the following paragraphs, if applicable. Paragraph (a) applies only if there is a revision to an authorized task.

(a) Reason for revision of TA, if applicable: Include the reason for the revision; i.e. revised activities; delivery/completion dates; revised costs. Revisions to TAs must be in accordance with the conditions of the contract. See Supply Manual 3.35.1.50 or paragraph 6 of the Guide to Preparing and Administering Task Authorizations.

(b) Details of the activities to be performed (include as an attachment, if applicable)

(c) Description of the deliverables to be submitted (include as an attachment, if applicable).

(d) Completion dates for the major activities and/or submission dates for the deliverables (include as an attachment, if applicable).

A. Description de tâche des travaux requis :

Remplir les alinéas suivants, s'il y a lieu : L'alinéa (a) s'applique seulement s'il y a révision à une tâche autorisée.

(a) Motif de la révision de l'AT, s'il y a lieu : Inclure le motif de la révision c.-à.-d., les activités révisées, les dates de livraison ou d'achèvement, les coûts révisés. Les révisions apportées aux AT doivent respecter les conditions du contrat. Voir l'article 3.35.1.50 du Guide des approvisionnements ou l'alinéa 6 du Guide sur la préparation et l'administration des autorisations de tâches.

(b) Détails des activités à exécuter (joindre comme annexe, s'il y a lieu).

(c) Description des produits à livrer (joindre comme annexe, s'il y a lieu).

(d) Les dates d'achèvement des activités principales et (ou) les dates de livraison des produits (joindre comme annexe, s'il y a lieu).

B. Basis of Payment:

Insert the basis of payment or bases of payment that form part of the contract that are applicable to the task description of the work; e.g. firm lot price, limitation of expenditure, firm unit price

C. Cost of Task:**(a) Insert Option 1 or 2:****Option 1:**

Total estimated cost of Task (GST/HST extra): Insert the applicable cost elements for the task determined in accordance with the contract basis of payment; e.g. Labour categories and rates, level of effort, Travel and living expenses, and other direct costs.

Option 2:

Total cost of Task (GST/HST extra): Insert the firm unit price in accordance with the contract basis of payment and the total estimated cost of the task.

(b) Insert GST/HST as a separate item under the Basis of Payment**D. Method of Payment**

Insert the method(s) of payment determined in accordance with the contract that are applicable to the task; i.e. single payment, multiple payments, progress payments or milestone payments. For milestone payments, include a schedule of milestones.

B. Base de paiement :

Insérer la base ou les bases de paiement qui font partie du contrat qui sont applicables à la description du travail à exécuter : p. ex., prix de lot ferme, limitation des dépenses et prix unitaire ferme.

C. Coût de la tâche :**(a) Insérer l'option 1 ou 2****Option 1 :**

Coût total estimatif de la tâche (TPS/TVH en sus) Insérer les éléments applicables du coût de la tâche établies conformément à la base de paiement du contrat. p. ex., les catégories de main d'œuvre, le niveau d'effort, les frais de déplacement et de séjour et autres coûts directs.

Option 2 :

Coût total de la tâche (TPS/TVH en sus) : Insérer le prix unitaire ferme conformément à la base de paiement du contrat et le coût estimatif de la tâche.

(b) Insérer la TPS/TVH comme élément distinct sous la Base de paiement**D. Méthode de paiement**

Insérer la ou les méthode(s) de paiement établit conformément au contrat et qui sont applicable(s) à la tâche; c.-à.-d., paiement unique, paiements multiples, paiements progressifs ou paiements d'étape. Pour ces derniers, joindre un calendrier des étapes.

2. Authorization(s):

The client and/or PWGSC must authorize the task by signing the Task Authorization in accordance with the conditions of the contract. The applicable signatures and the date of the signatures is subject to the TA limits set in the contract. When the estimate of cost exceeds the client Task Authorization's limits, the task must be referred to PWGSC.

3. Contractor's Signature

The individual authorized to sign on behalf of the Contractor must sign and date the TA authorized by the client and/or PWGSC and provide the signed original and a copy as detailed in the contract.

2. Autorisation(s) :

Le client et (ou) TPSGC doivent autoriser la tâche en signant l'autorisation de tâche conformément aux conditions du contrat. Les signatures et la date des signatures appropriées sont assujetties aux limites d'autorisation de tâche établies dans le contrat. Lorsque l'estimation du coût dépasse les limites d'autorisation de tâches du client, la tâche doit être renvoyée à TPSGC.

3. Signature de l'entrepreneur

La personne autorisée à signer au nom de l'entrepreneur doit signer et dater l'AT, autorisée par le client et (ou) TPSGC et soumettre l'original signé de l'autorisation et une copie tel que décrit au contrat.



Task Authorization Autorisation de tâche

Contract Number - Numéro du contrat

Contractor's Name and Address - Nom et l'adresse de l'entrepreneur	Task Authorization (TA) No. - N° de l'autorisation de tâche (AT)
	Title of the task, if applicable - Titre de la tâche, s'il y a lieu
	Total Estimated Cost of Task (GST/HST extra) Coût total estimatif de la tâche (TPS/TVH en sus) \$
Security Requirements: This task includes security requirements Exigences relatives à la sécurité : Cette tâche comprend des exigences relatives à la sécurité <input type="checkbox"/> No - Non <input type="checkbox"/> Yes - Oui If YES, refer to the Security Requirements Checklist (SCRL) included in the Contract Si OUI, voir la Liste de vérification des exigences relative à la sécurité (LVERS) dans le contrat ▶	

For Revision only - Aux fins de révision seulement

TA Revision Number, if applicable Numéro de révision de l'AT, s'il y a lieu	Total Estimated Cost of Task (GST/HST Extra) before the revision Coût total estimatif de la tâche (TPS/TVH en sus) avant la révision \$	Increase or Decrease (GST/HST Extra), as applicable Augmentation ou réduction (TPS/TVH en sus), s'il y a lieu \$
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Start of the Work for a TA : Work cannot commence until a TA has been authorized in accordance with the conditions of the contract.

Début des travaux pour l'AT : Les travaux ne peuvent pas commencer avant que l'AT soit autorisée conformément au contrat.

1. Required Work: - Travaux requis :

A. Task Description of the Work required - Description de tâche des travaux requis	See Attached - Ci-joint <input type="checkbox"/>
B. Basis of Payment - Base de paiement	See Attached - Ci-joint <input type="checkbox"/>
C. Cost of Task - Coût de la tâche	See Attached - Ci-joint <input type="checkbox"/>
D. Method of Payment - Méthode de paiement	See Attached - Ci-joint <input type="checkbox"/>

Contract Number - Numéro du contrat

2. Authorization(s) - Autorisation(s)

By signing this TA, the authorized client and (or) the PWGSC Contracting Authority certify(ies) that the content of this TA is in accordance with the conditions of the contract.

The client's authorization limit is identified in the contract. When the value of a TA and its revisions is in excess of this limit, the TA must be forwarded to the PWGSC Contracting Authority for authorization.

En apposant sa signature sur l'AT, le client autorisé et (ou) l'autorité contractante de TPSGC atteste(nt) que le contenu de cette AT respecte les conditions du contrat.

La limite d'autorisation du client est précisée dans le contrat. Lorsque la valeur de l'AT et ses révisions dépasse cette limite, l'AT doit être transmise à l'autorité contractante de TPSGC pour autorisation.

Name and title of authorized client - Nom et titre du client autorisé à signer

Signature

Date

PWGSC Contracting Authority - Autorité contractante de TPSGC

Signature

Date

3. Contractor's Signature - Signature de l'entrepreneur

Name and title of individual authorized - to sign for the Contractor
Nom et titre de la personne autorisée à signer au nom de l'entrepreneur

Signature

Date



Claim for Progress Payment Demande de paiement progressif

If necessary, use form PWGSC-TPSGC 1112 to record detail costs

Si nécessaire, utiliser le formulaire PWGSC-TPSGC 1112 pour inscrire les coûts détaillés

Contractor's Name and Address Nom et adresse de l'entrepreneur	Claim No. N° de la demande	Date YYYY-MM-DD / AAAA-MM-JJ	Contract Price - Prix contractuel
	File No. - N° du dossier		Contract Serial No. N° de série du contrat
Contractor's Procurement Business Number (PBN) Numéro d'entreprise-appvisionnement (NEA) de l'entrepreneur		Financial Code(s) - Code(s) financier(s)	
Contractor's Report of Work Progress (if needed, use additional sheets) Compte rendu de l'avancement des travaux par l'entrepreneur (si nécessaire, utiliser des feuilles supplémentaires)			

Period of work covered by the claim Période des travaux visée par la demande ▶	Current Claim Demande courante		Previous Claims Demandes précédentes		Total to Date Total à date (A + B)
	(A)	Tax Rate Taux de taxe	(B)	Tax Rate Taux de taxe	
Description: (Expenditures must be claimed in accordance with the basis and/or method of payment of the contract) Description : (Les dépenses doivent être réclamées conformément à la base de paiement et (ou) à la méthode de paiement du contrat).		%		%	
		%		%	
		%		%	
		%		%	
		%		%	
		%		%	
		%		%	
		%		%	
		%		%	
		%		%	
		%		%	
		%		%	
Contractor's GST No. N° de TPS de l'entrepreneur	Subtotal Sous-total				
Contractor's QST No. No. de TVQ de l'entrepreneur	Applicable taxes Taxes applicables				
Total					
Less holdbacks on expenditures only (Applicable taxes excluded) Moins les retenues sur les dépenses uniquement (Taxes applicables en sus)					
Total Amount of Claim (including applicable taxes) Montant total de la demande (incluant les taxes applicables)					
Percentage of the work completed Pourcentage des travaux achevés	%	Current Claim Demande courante	▶ Amount due Montant dû		

Claim No.
N° de la demande

Contract Serial No.
N° de série du contrat

CERTIFICATE OF CONTRACTOR

I certify that:

- All authorizations required under the contract have been obtained. The claim is consistent with the progress of the work and is in accordance with the contract.
- Indirect costs have been paid for or accrued in the accounts.
- Direct materials and the subcontracted work have been received, accepted and either paid for or accrued in the accounts following receipt of invoice from supplier/subcontractor, and have been or will be used exclusively for the purpose of the contract.
- All direct labour costs have been paid for or accrued in the accounts and all such costs were incurred exclusively for the purpose of the contract;
- All other direct costs have been paid for or accrued in the accounts following receipt of applicable invoice or expense voucher and all such costs were incurred exclusively for the purpose of the contract; and
- No liens, encumbrances, charges or other claims exist against the work except those which may arise by operation of law such as a lien in the nature of an unpaid contractor's lien and in respect of which a progress payment and/or advance payment has been or will be made by Canada.

Contractor's Signature - Signature de l'entrepreneur

Check the box if the claim is being made with respect to advance payment provisions included in the basis of payment of the contract.

☐

This claim, or a portion of this claim, is for an advance payment.

I certify that:

- The funds received will be used solely for the purpose of the contract and attached is a complete description of the purpose to which the advance payment will be applied.
- The amount of the payment is established in accordance with the conditions of the contract.
- The contractor is not in default of its obligations under the contract.
- The payment is related to an identifiable part of the contractual work.

Contractor's Signature - Signature de l'entrepreneur

CERTIFICATES OF DEPARTMENTAL REPRESENTATIVES

Scientific/Project/Inspection Authority: I certify that the work meets the quality standards required under the contract, and its progress is in accordance with the conditions of the contract.

Inspection Authority (all other contracts): I certify that the quality of the work performed is in accordance with the standards required under the contract.

Signature of Scientific / Project / Inspection Authority
Signature de l'autorité scientifique ou responsable du projet / de l'inspection

PWGSC Contracting Authority: I certify that, to the best of my knowledge, the claim is consistent with the progress of the work and is in accordance with the contract. This claim, however, may be subject to further verification and any necessary adjustment before final settlement.

Contracting Authority Signature de l'autorité contractante

Client's Authorized Signing Officer - (must sign the interim claim): I certify that the claim is in accordance with the contract.

Client Signature du client

Client's Authorized Signing Officer - (must sign the final claim): I certify that all goods have been received and all services have been rendered, that the work has been properly performed and that the claim is in accordance with the contract.

Client Signature du client

ATTESTATION DE L'ENTREPRENEUR

J'atteste que :

- Toutes les autorisations exigées en vertu du contrat ont été obtenues. La demande correspond à l'avancement des travaux et est conforme au contrat.
- Les coûts indirects ont été réglés ou portés aux livres.
- Les matières directes et les travaux de sous-traitance ont été reçus, et le tout a été accepté et payé, ou encore porté aux livres après réception de factures envoyées par le fournisseur ou le sous-traitant; ces matières et ces travaux ont été ou seront utilisés exclusivement aux fins du contrat.
- Tous les coûts de la main-d'œuvre directe ont été réglés ou portés aux livres et tous ces coûts ont été engagés exclusivement aux fins du contrat.
- Tous les autres coûts indirects ont été réglés ou portés aux livres après réception des factures ou pièces justificatives pertinentes et tous ces coûts ont été engagés exclusivement aux fins du contrat.
- Il n'existe aucun privilège ni demande ou imputation à l'égard de ces travaux sauf ceux qui pourraient survenir par effet de la loi, notamment le privilège d'un entrepreneur non payé à l'égard duquel un paiement progressif et/ou un paiement anticipé a été ou sera effectué par le Canada.

Title - Titre

Date (YYYY-MM-DD / AAAA-MM-JJ)

Cocher la case si la demande est faite en rapport avec les dispositions relatives aux paiements anticipés qui se trouvent dans la base de paiement du contrat.

Cette demande, ou une partie de cette demande, est pour un paiement anticipé.

J'atteste que :

- Les fonds reçus ne serviront uniquement qu'aux fins du contrat; ci-joint est une description complète des fins auxquelles le paiement anticipé sera utilisé.
- Le montant du paiement est établi conformément aux conditions du contrat.
- L'entrepreneur n'a pas manqué à ses obligations en vertu du contrat.
- Le paiement porte sur une partie identifiable des travaux précisés dans le contrat.

Title - Titre

Date (YYYY-MM-DD / AAAA-MM-JJ)

ATTESTATIONS DES REPRÉSENTANTS DU MINISTÈRE

Autorité scientifique ou responsable du projet / de l'inspection :

J'atteste que les travaux sont conformes aux normes de qualité exigées en vertu du contrat et que leur avancement est conforme aux conditions du contrat.

Responsable de l'inspection (tous les autres contrats) : J'atteste que la qualité des travaux exécutés est conforme aux normes exigées en vertu du contrat.

Date (YYYY-MM-DD / AAAA-MM-JJ)

Autorité contractante de TPSGC : J'atteste, au meilleur de ma connaissance, que la demande correspond à l'avancement des travaux et est conforme au contrat. Toutefois, cette demande pourrait faire l'objet d'une autre vérification et de tout rajustement nécessaire avant le règlement final.

Title - Titre

Date (YYYY-MM-DD / AAAA-MM-JJ)

Signataire autorisé du client - (doit signer la demande provisoire) : J'atteste que la demande est conforme au contrat.

Title - Titre

Date (YYYY-MM-DD / AAAA-MM-JJ)

Signataire autorisé du client - (doit signer la demande finale) : J'atteste que tous les biens ont été reçus, que tous les services ont été rendus, que tous les travaux ont été exécutés convenablement, et que la demande est conforme au contrat.

Title - Titre

Date (YYYY-MM-DD / AAAA-MM-JJ)