



RETURN BIDS TO:

RETOURNER LES SOUMISSIONS À:

Bid Receiving Public Works and Government
Services Canada/Réception des soumissions/Travaux
publics et Services gouvernementaux Canada
See herein for bid submission
instructions/

Voir la présente pour les
instructions sur la présentation
d'une soumission

NA
Alberta

SOLICITATION AMENDMENT MODIFICATION DE L'INVITATION

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

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

Comments - Commentaires

Vendor/Firm Name and Address
Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution

Public Works and Government Services / Travaux
publics et services gouvernementaux
Canada Place/Place du Canada
Suite 1000
10th Floor/10e étage
9700 Jasper Ave/9700 ave Jasper
Edmonton
Alberta
T5J 4C3

Title - Sujet Telescope	
Solicitation No. - N° de l'invitation W0117-200021/A	Amendment No. - N° modif. 002
Client Reference No. - N° de référence du client W0117-200021	Date 2020-10-28
GETS Reference No. - N° de référence de SEAG PW-\$EDM-034-11909	
File No. - N° de dossier EDM-0-43068 (034)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2020-11-12	
Time Zone Fuseau horaire Mountain Daylight Saving Time MDT	
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Nigam, Nidhi	Buyer Id - Id de l'acheteur edm034
Telephone No. - N° de téléphone (587) 532-8142 ()	FAX No. - N° de FAX (780) 497-3510
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:	

Instructions: See Herein

Instructions: Voir aux présentes

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

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VME
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Amd. No. - N° de la modif.
002
File No. - N° du dossier
EDM-0-43068

Buyer ID - Id de l'acheteur
EDM034
CCC No./N° CCC - FMS No./N°

This amendment is raised to update the original solicitation as follows:

REVISED CLOSING DATE OF:

02:00 PM MST on 2020-11-12

Under: PART 6 - RESULTING CONTRACT CLAUSES

Delete:

6.4.2 Delivery Date

All the deliverables must be received on or before **2020-12-30**.

Insert:

6.4.2 Delivery Date

Bidder is to complete the following:

_____ We confirm that we can meet the preferred delivery date of on or before **2021-12-31**

or

_____ We confirm that the best delivery date we can offer is on or before _____.

Please note that meeting the preferred delivery date is **not** a mandatory requirement of this solicitation.

Delete in its entirety: Annex "A", Statement of Requirement

Insert: Annex "A", Statement of Requirement

ANNEX "A"

STATEMENT OF REQUIREMENT

1.0 Background

Barker College of Department of National Defence (DND) is installing a telescope for educating operational space applications to students and planning for education of ground-based space surveillance telescopes in the future.

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VME		
W0117-200021	EDM-0-43068	

Objectives

Barker College requires an optical telescope assembly for the educational purposes.

3.0 Scope

Barker College requires an Optical tube, Direct drive mount, Shroud and Electronic focuser assembly to support the Space Department of Barker College.

4.0 Definitions and Acronyms

Astigmatism - similarly to coma, astigmatism is an off-axis point wavefront aberration, caused by obliquity of the incident wavefront relative to the optical surface.

Astrograph - is a telescope designed for the sole purpose of astrophotography.

Backlash error - typical shortcoming of most telescope mounts that use gears to drive the two axes (most but not all amateur mounts use gears). It is caused by a variable amount of looseness or slack anywhere two gears are meshed together.

CCD - charge-coupled device used for digital imaging.

Computerized direct drive mount - a device that can be programmed to track satellites and space debris that compensates for earth's rotation.

DND – Department of National Defence

Dew Heater - a device to remove condensation from telescope mirror.

Electronic Focuser - allows computer controlled focusing.

Focal ratio - 'speed' of a telescope's optics, found by dividing the focal length by the aperture.

Light shroud - cloth used to cover the optical tube and shields your mirrors from stray and reflected light.

Optical tube - the general name for optical devices used for visual observation of distant objects.

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Periodic Error - inevitable small mechanical errors that occur in the drive gearing as the scope is tracking during long-exposure imaging.

RMS - Root Mean Square.

VDC - Volts Direct Current.

5.0 Minimum Mandatory performance specifications

Refer to the Compliance Matrix for the complete performance specifications and instructions that must be satisfied in order for a bid to be deemed responsive.

6.0 Deliverables

Bidder is to complete the following:

_____ We confirm that we can meet the preferred delivery date of on or before **2021-03-31**

or

_____ We confirm that the best delivery date we can offer is on or before _____.

Please note that meeting the preferred delivery date is **not** a mandatory requirement of this solicitation.

The equipment must contain installation and calibration instructions. Contractor must provide access to remote/teleconference/email technical consultation with respect to installation and calibration free of charge.

7.0 Delivery Destination

Equipment must be shipped to Barker College or suitable acceptance point on 17 Wing Winnipeg, 715 Wihuri Rd, Winnipeg, MB, R3J 3Y5.

8.0 Government Supplies

DND will be responsible for the installation and calibration of the telescope and associated equipment. Contractor must provide access to remote/teleconference/email technical consultation with respect to installation and calibration free of charge.

MINIMUM MANDATORY PERFORMANCE SPECIFICATIONS

COMPLIANCE MATRIX – MINIMUM MANDATORY PERFORMANCE SPECIFICATIONS

A complete list of the minimum mandatory performance specifications are detailed below in the "Compliance Matrix". Bidders are to clearly demonstrate compliance with each mandatory specification.

1. Bidders **must** show compliance by addressing each performance specification in the Compliance Matrix, whether the product offered "meets" or "doesn't meet".
2. Bidders are requested to indicate how they meet each performance specification by recording this information under the Performance Specification Offered column in the Compliance Matrix.
3. It is requested that supporting technical documentation, including but not limited to, specification sheets, technical brochures, photographs or illustrations be provided with the bid at solicitation close and be cross-referenced on the Compliance Matrix for each performance specification to outline where in the supporting technical documentation it demonstrates compliance. It is the Bidders responsibility to ensure that the submitted supporting technical documentation provides detail to prove that the proposed product(s) meet the requirements of the Performance Specification. If published supporting technical document is not available, the Bidder should prepare a written narrative complete with a detailed explanation of how its bid demonstrates technical compliance.
4. If the supporting documentation referenced above has not been provided at bid closing, the Contracting Authority will notify the Bidder that they must provide supporting documentation within two (2) business days following notification. Failure to comply with the request of the Contracting Authority within that time period, will deem the bid non-responsive and the bid will be given no further consideration.
5. Bidders must address any concerns with the performance specifications in written detail to the Contracting Authority before bid closing as outlined in the Request for Proposal (RFP) document.
6. Failure to meet each mandatory performance specification will result in the bid being deemed non-responsive, and be given no further consideration.

Requirement		Manufacturer Offered:		Model number Offered#	
tem #	Performance Specification	Status (M) Mandatory	Performance Specification Met? Indicate either Yes/No	Performance Specification Offered: Bidder should indicate how they meet the performance specification by recording this information in this column.	Cross Reference: In this column, Bidders should cross-reference where this performance specification is indicated in their supporting documents.
01	The telescope must have 14" aperture.	(M)			
02	The telescope/optical tube assembly must cover 70 mm field of view without any field curvature, off-axis coma, or astigmatism.	(M)			

03	The telescope/optical tube primary and secondary mirror coating reflectivity must be at least 96%	(M)			
04	Must come with a Primary mirror/optical tube cover.	(M)			
05	Computerized direct drive mount must be compatible with the 14" Optical Tube with slew rate of up to 50 degrees per second and weight capacity of 100 lbs or greater.	(M)			

06	Must come with associated wirings. Zero backlash and periodic error, and less than 10 arc second RMS with modeling software.	(M)			
07	Must have a latitude range 0-90 degrees. Dual axis motors. Control software with integrated mount modeling software.	(M)			
08	The focal ratio must range between 7 and 8.	(M)			

09	The telescope design must provide pinpoint stars from the center to the corner of the field of view.	(M)			
10	Optical Performance must be: at least 3.5 micron RMS at 13mm off-axis; 6.5 micron RMS at 35mm off-axis	(M)			
11	Must come with 12VDC Power Supply	(M)			

12	Light shroud must be compatible with large format CCD camera and optional visual use.	(M)			
13	Electronic Focuser kit/assembly must be capable of automating focus, monitor temperature, and controls fans built-in to the telescope.	(M)			

14	Must come with a compatible Dew heater.	(M)			
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ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME AND IN FULL EFFECT.