



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

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

Title - Sujet 4x4 Tractor with Flail Mower	
Solicitation No. - N° de l'invitation T7056-180057/A	Date 2018-10-18
Client Reference No. - N° de référence du client T7056-180057	
GETS Reference No. - N° de référence de SEAG PW-\$VIC-240-7605	
File No. - N° de dossier VIC-8-41097 (240)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2018-11-28	Time Zone Fuseau horaire Pacific Standard Time PST
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: Hogg(VIC), Mike	Buyer Id - Id de l'acheteur vic240
Telephone No. - N° de téléphone (250) 217-5640 ()	FAX No. - N° de FAX (250) 363-3344
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: DEPARTMENT OF TRANSPORT P.O.BOX 460 PORT HARDY British Columbia V0N2P0 Canada	

Instructions: See Herein

Instructions: Voir aux présentes

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

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PART 1 - GENERAL INFORMATION

1.1 Security Requirements

There is no security requirements associated with this tender.

1.2 Requirement

Supply and deliver to Transport Canada Port Hardy Airport a minimum 115 hp, 4 Wheel Drive tractor with attached Triple Gang Flail mower. All items noted in this specification must be included in the basic configuration.

1.3 Set-aside for Comprehensive Land Claims Agreement(s) Beneficiaries

N/A

1.4 Set-aside Under the Federal Government Procurement Strategy for Aboriginal Business (PSAB)

N/A

1.5 Debriefings

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 from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

1.6 National Security Exception

N/A

1.7 Trade Agreements

"The requirement is subject to the provisions of the North American Free Trade Agreement (NAFTA), and the Canadian Free Trade Agreement (CFTA).

1.8 Canadian Content

N/A

PART 2 - BIDDER INSTRUCTIONS

2.1 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 2018-05-22 Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

2.1.1 SACC Manual Clauses

2.2 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.

2.3 Former Public Servant

2.4 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than 15 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.

2.5 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.

PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

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

Section I: Technical Bid (1) hard copy) .

Section II: Financial Bid (1) hard copy)

Section III: Certifications (1) hard copy).

Section IV: Additional Information (1) hard copy).

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;
- (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 8.5 x 11 inch (216 mm x 279 mm) 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, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

Section I: Technical Bid

In their technical bid, Bidders should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Basis of Payment. The total amount of Applicable Taxes must be shown separately.

3.1.1 Exchange Rate Fluctuation

The requirement does not offer exchange rate fluctuation risk mitigation. Requests for exchange rate fluctuation risk mitigation will not be considered. All bids including such provision will render the bid non-responsive

[C3011T](#) __2013-11-06, Exchange Rate Fluctuation

3.1.2 SACC Manual Clauses

Section III: Certifications

Bidders must submit the certifications required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.

4.1.1 Technical Evaluation

4.1.1.1 Mandatory Technical Criteria

Refer to Statement of Requirements.

4.1.2 Financial Evaluation

SACC Manual Clause [A0220T](#) 2014-06-26, Evaluation of Price

4.2 Basis of Selection

A bid must comply with the requirements of the bid solicitation and meet all mandatory technical evaluation criteria to be declared responsive. The responsive bid with the lowest evaluated price will be recommended for award of a contract.

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.

5.1 Certifications Required with the Bid

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

5.1.1 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.

5.2 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 provided will render the bid non-responsive.

5.2.1 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.

5.2.2 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.

PART 6 - RESULTING CONTRACT CLAUSES

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

6.1 Security Requirements

N/A

6.2 Requirement

Supply and deliver to Transport Canada Port Hardy Airport a minimum 115 hp, 4 Wheel Drive tractor with attached Triple Gang Flail mower. All items noted in this specification must be included in the basic configuration.

6.3 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) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada

6.3.1 General Conditions

[2010A](#) 2018-06-21, General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

6.4 Term of Contract

Delivery is requested on or before March 31, 2019.

The best delivery offered is _____ weeks from contract award

6.5 Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Mike Hogg
Title: Supply Specialist
Public Works and Government Services Canada
Acquisitions Branch: Victoria
Directorate: Pacific
Address: 401-1230 Government Street
Victoria, BC V8W 3X4

Telephone: 250- 217-5640
Facsimile: 250-363-0395
E-mail address: mike.hogg@pwgsc-tpsgc.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.

6.5.2 Project Authority

The Technical Authority for the Contract is:

TBD

The Project 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 Project Authority, however the Project 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.

6.5.3 Contractor's Representative

6.6 Proactive Disclosure of Contracts with Former Public Servants

6.7 Payment

6.7.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a _____ (insert "firm price" OR "firm unit price(s)" OR "firm lot price(s)", as specified in _____ insert "contract" OR "in Annex ____" for a cost of \$ _____ insert the amount at contract award). 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 approved, in writing, by the Contracting Authority before their incorporation into the Work.

6.7.2 Limitation of Price

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 Contracting Authority before their incorporation into the Work.

SACC Manual clause C6000C _____ 2017-08-17 Limitation of Price

6.7.4 SACC Manual Clauses

6.8 Invoicing Instructions

1. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.
2. Invoices must be distributed as follows:
 - a. The original and one (1) copy must be forwarded to the address shown on page 1 of the Contract for certification and payment.
 - b. One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.

6.9 Certifications

See part 5 for certifications required

6.9.1 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.

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

6.9.3 SACC Manual Clauses

6.10 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in British Columbia.

Solicitation No. - N° de l'invitation
T7056-180057/A
Client Ref. No. - N° de réf. du client
T7056-180057

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

Buyer ID - Id de l'acheteur
vic240
CCC No./N° CCC - FMS No./N° VME

6.11 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 2010A (2018-06-21)
- (c) Annex A, Requirement;
- (d) Annex B; Basis of Payment
- (e) the Contractor's bid dated _____

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Annex A – Requirement

Please see below at end of document

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Annex B Basis of Payment

The unit prices below shall be firm and in Canadian funds including Canadian customs duties, excise taxes, delivery, training and installation charges which are to be Delivered Duty Paid (DDP) to destination as indicated herein.

The amount of the Goods and Services Tax or Harmonized Tax shall be shown as a separate item.

Item	Description	U of I	Qty	Unit Price	Extended Price
1	Supply and deliver to Transport Canada Port Hardy Airport a minimum 115 hp, 4 Wheel Drive tractor with attached Triple Gang Flail mower. All items noted in this specification must be included in the basic configuration as per Annex A (mandatory requirements)	LOT	1	\$	\$
Sub Total					\$
GST Tax					\$
Grand Total					\$

Delivery is requested on or before March 31, 2019

The best delivery offered is _____ weeks from contract award.

BIDDER'S INSTRUCTIONS

- Bidders must identify compliance to all the mandatory specifications identified in the Form below.
- Bidders must provide information and technical documentation as identified in the right column of the form below.

Mandatory Specification	Comply		Information required in your Technical Proposal
	Yes	No	
1. SCOPE			
<p>1.1 Scope - Supply and deliver to Transport Canada Port Hardy Airport a minimum 115 hp, 4 Wheel Drive tractor with attached Triple Gang Flail mower. All items noted in this specification must be included in the basic configuration.</p>	—	—	<p>Proposed Tractor MAKE _____ MODEL _____ Proposed Flail Mower System Make _____ Model _____</p>
2. GENERAL REQUIREMENTS			
<p>2.1 Standard Requirements - The Tractor and attached Flail Mower must be;</p> <p style="padding-left: 20px;">a) a new built, standard commercial product</p>	—	—	<p>Bidders must provide marketing information or documentation to substantiate compliance</p>
<p>2.2 Overview - The Tractor supplied under this specification must be a four wheel, rubber tired, four wheel drive unit, have a power shift transmission with hydraulic gear shifting, creeper gear, and Tier 4 Final diesel engine.</p>	—	—	

<p>The Triple Gang Flail Mower supplied must have all accessories customarily furnished and installed on this type of unit, whether specified herein or not, to enable the unit to function while attached to the tractor supplied.</p>	<p>_____</p>	<p>_____</p>	
<p>3.0 REGULATIONS AND STANDARDS</p>			
<p>3.1 General - All standards and specifications referenced herein refer to the latest editions.</p>	<p>_____</p>	<p>_____</p>	
<p>3.2 Society of Automotive Engineers - All notations in this specification indicating SAE refer to the most recent specification in effect by the Society of Automotive Engineers.</p>	<p>_____</p>	<p>_____</p>	
<p>4.0 DELIVERY INSTRUCTIONS:</p>			
<p>4.1 Pre-delivery - The units must be delivered complete with all liquids, lubricated and serviced with all associated products suitable for the equipment to operate to manufacturer's specifications.</p>	<p>_____</p>	<p>_____</p>	<p>Bidder must provide the "local" PDI dealer's name and address: Name: _____ Address: _____</p>
<p>4.3 Distance - The Tractor and Flail Mower system must be delivered to the final destination with a maximum of 20 hours on the unit.</p>	<p>_____</p>	<p>_____</p>	<p>ESTIMATED ENGINE HOURS _____</p>
<p>5.0 WARRANTY AND MANUALS</p>			
<p>5.1 Manuals - The Contractor must provide two copies; one electronic and one hard copy of each of the operator's, maintenance, and spare parts manuals at the time of delivery.</p>	<p>_____</p>	<p>_____</p>	
<p>5.2 Warranty period - The Tractor and Flail Mower</p>	<p>_____</p>	<p>_____</p>	

units must include an onsite warranty on all components and repair labour inclusive of all travel and living expenses for a minimum of 12 months from the date the unit is initiated into service.	—	—	WARRANTY OFFERED _____
5.3 <u>Warranty claims</u> - During the warranty period, the Contractor must commence repairs within a 48 hour period upon request from Transport Canada.	—	—	
5.4 <u>Repair Depot</u> - responsible for performing any required warranty repairs.			<p>Bidder must provide the name and phone number of the person to be contacted should warranty repairs be required.</p> <p>REPAIR DEPOT _____</p> <p>ADDRESS: _____</p> <p>CONTACT NAME: _____</p> <p>Phone Number: _____</p>

6.0 TRACTOR SPECIFICATIONS

ITEM	DESCRIPTION	YES	NO	ACTUAL
	General Specifications			
6.1	The tractor must have a minimum operating speed of 30 KM/H when operating in top gear			
6.2	The tractor must be of a type capable for the installation of a triple gang flail mower system, including dual side flail configuration.			
6.3	Unit to be equipped with a slow moving vehicle emblem			
	Engine			
6.4	Engine must be a minimum 4 cylinder, turbocharged, water cooled diesel; Tier 4 final.			
6.5	Minimum net PTO power output to be 95 HP.			
6.6	Engine must have minimum 115 HP at maximum rated engine speed of 2,300 RPM			
6.7	Oil filter to be a full flow type, incorporating a replaceable element			
6.8	In cab oil pressure gauge, or light			
6.9	Provide a full flow fuel filter/water separator incorporating a replaceable element			
6.10	Coolant protection to -40 C to be provided			
6.11	Provide a cold starting block heater			
6.12	Provide a dry type, dual element, air cleaner with replaceable elements			
	Transmission			
6.13	Transmission must include creeper gear, no exceptions.			
6.14	The transmission must be fully synchronized power shuttle having a minimum of 16 forward, and 16 reverse speeds. A dedicated shuttle control lever must be mounted within operator reach.			
	Axles			
6.15	The rear axle to be a driver controlled locking differential type			
6.16	Must have a Heavy Duty front axle with electrohydraulic engaged FWD			

	Brakes				
6.17	The unit must have brakes on both rear wheels minimum, brakes must be able to operate independently as well as lock together.				
6.18	The brakes can be either dry or wet type				
6.19	The unit must have an independent parking brake system which is applied to the tractor driveline				
	Steering				
6.20	Must have hydrostatic power steering with dedicated pump, and, emergency steer capability in the event of power loss				
	Wheels				
6.21	The wheels shall comply with the axle manufacturer's rating for imposed loads and operating conditions				
	Tires				
6.22	The rear tires must be radial type, and must be 18.4 X 34 size				
6.23	The front tires must be 14.9 X 24 size				
6.24	The tires must comply with the axle manufacture's rating for imposed loads and operating conditions				
6.25	The tires must permit dual side flail mounting style triple gang flail mower installation and operation.				
	Exhaust				
6.26	The exhaust system must be installed complete with a rain cap or elbow				
6.27	The exhaust system must be complete with a muffler				
	Electrical				
6.30	Provide maintenance free batteries having a minimum total of 800 CCA				
6.31	A remote electrical connection must be provided for towed implement lighting.				
6.32	The alternator must have a minimum output of 85 Amps				
6.33	The minimum lights required are; front and rear LED working and				

	travelling lights, turn signal lights with 4-way flashers, back-up lights, and instrument panel illumination				
6.34	Provide a backup alarm having a minimum of 97 dBa as per SAE J-994 type 'C'				
6.35	Provide an electric or air horn				
6.36	Provide permanent roof mounted Class 1, amber LED strobe light. The light flashing frequency must be between 60 and 90 per minute				
	Guards and Shields				
6.37	Provide fenders over the rear wheels				
6.38	Provide a heavy duty radiator grille guard and engine hood with easily removable side panels				
6.39	Provide efficient and durable guards or shields where necessary to ensure maximum safety when servicing and operating the front end tractor and attachments.				
	Cab				
6.40	The unit is to be complete with an all-weather, protective ROPS enclosure which provides full visibility. The enclosure shall conform to SAE J1040				
6.41	The cab is to be equipped with adequate steps, handholds, and non-slip surfaces to permit easy access and exit without hazard to the operator				
6.42	The cab is to be complete with tinted safety glass windows, as well as, heavy duty wipers for both the front and rear windows				
6.43	The unit must be equipped with a fresh air heating and defrosting system of adequate capacity to maintain a cab temperature of 13 degrees Celsius with an ambient temperature of minus 40 degrees				
6.44	Must have air conditioning which is capable of maintaining an interior cab temperature of 22 degrees celsius with an ambient of 30 degrees celsius				
6.45	Must have full cab insulation to provide a maximum sound level of 80 dB(A) with the tractor operating at full RPM and moving at 10 KPH				
6.46	Must provide the operator sufficient instrumentation. The minimum gauges required are; voltmeter, coolant temperature gauge (or light), fuel gauge, tachometer and hour meter				

6.47	Must have dual west coast type side mirrors				
6.48	Must have a cloth, air suspension type, adjustable drives seat. Must have seatbelts				
	Hydraulic System				
6.49	The hydraulic system is to include adequate oil capacity, filtration (with external replaceable filters), pressure control and relief devices, and other equipment necessary to ensure the satisfactory and safe operation of the tractor.				
6.50	Hydraulics for attachments on rear of tractor to be readily coupled to the system with leak proof quick-disconnect fittings				
6.51	The hydraulic system must be a closed loop type with a piston type, hydrostatic pump. An open loop system, with or without closed centre valving, will not be accepted				
6.52	Hydraulic oil pump(s) to be driven by the engine through positive mechanical drive(s). Minimum 20 GPM at 2200 PSI hydraulic capacity				
6.53	Provide a minimum of four (4) spare, minimum four (4) position spool valves to operate attachments.				
	Rear PTO and 3 Point Hitch				
6.54	Must have an independent rear mechanical drive PTO. Dual speed 540/1000 RPM				
6.55	Must have a Category II three point hitch. Provide anti-sway feature on the three point hitch				
6.56	Tractor 3 point hitch control system must provide lift, lower and float.				
	Fuel Tank				
6.57	Must have a minimum 110 litre fuel tank				
6.58	Must have an in cab fuel level gauge				
	Painting				
6.59	The tractor is to be painted with factory installed epoxy type paint.				

7.0	TRIPLE GANG FLAIL MOWER SPECIFICATIONS				
ITEM	DESCRIPTION	YES	NO	ACTUAL	
7.1	Safety Safety guarding must be attached on all leading edges flail mower units				
7.2	Emergency mower shut off control valve shall stop cutter within 10 seconds at full RPM				
7.3	Safety discharge flap must be provided at the rear of flail mower units				
7.4	Must have travel and transport hook and pin locks. Operator must not be required to leave operators position to place unit in a travel position				
7.5	Manual lock pins must be provided for transport				
7.6	Reverse rotation models must be equipped with front deflector flap				
7.7	Flail Specification Triple gang flail mower unit must include 2 side mounted hydraulically operated flails, and 1 rear mounted PTO operated flail				
7.8	Total cutting width must be at least 21' of actual cut with up to 6 inches of overlap between the front flails and the rear flails				
7.9	Side cutter assembly shall be (2) 90" flail type, hydraulically powered mower units.				
7.10	Rear cutter assembly shall be (1) 102" flail type, mechanically powered by tractor's PTO				
7.11	Cutting height must be adjustable between 2" to 6". It must not be necessary to remove any mounting brackets to adjust cutting height.				
7.12	Cutter heads must have forged, self-cleaning, reversible all-purpose cutting tools. Specify number per each flail mower unit and type.				
7.13	Cutting heads must have replaceable skid shoes				
7.14	Drive belt system must have automatic belt tensioner.				
7.15	Cutter head arc must be 150° from vertical position				

	Mounting System			
7.16	Mower mounting design must align side flails with operator seated position. Mower mounting must be solidly braced to rear axle and front axle housing to absorb side torque and impact			
7.17	Side flail lift assembly must consist of one single acting and one double acting hydraulic cylinders to control inboard and outboard ends on cutter head.			
7.18	Cutter head tilt control must allow for precise operation of cutting assembly.			
7.19	Rear Flail unit must have a three point hitch Category II mounting system.			
	Hydraulics			
7.20	Motors shall have cast steel housing with steel gears			
7.21	Mower hydraulic reservoir must be internally treated against corrosion. Reservoir must have an in-tank hydraulic oil filter.			
7.22	Hydraulic pressure connections shall meet SAE O-ring and JIC standards.			
7.23	A hydraulic cooler fan must be incorporated into the flail mower system.			
7.24	Pressure system hoses shall be minimum 1" unrestricted inside diameter. Hose shall have a burst pressure of 4 times working pressure			
7.25	Suction line shall be an unrestricted minimum 1-1/4" inside diameter.			
	Lift Control Valve			
7.26	Lift control for side flails shall be by Joy-sticks, with detent float position and pilot relief valve.			
7.27	Mower lift control Joy-stick levers shall be of the dual action design.			
7.28	Mower lift, hydraulic control valve, shall be closed center, load sense, section valve, with individual section compensation. The valve shall have a low operating effort, and a working capability of at least 3,000 PSI.			
	Cutter Shaft (all flails)			
7.29	Cutter heads must have hardened forged, self-cleaning, reversible			

	all-purpose cutting tools.				
7.30	Specify number per each flail mower unit and type.				
	Cutter shaft must have minimum operating speed of 2,400 RPM at rated tractor RPM				
7.31	Cutter shafts must be dynamically balanced.				
7.32	Knife interchangeability must not require change of cutter shaft				
	Ground Roller				
7.33	Ground roller system must be a horizontal tube type with replaceable stub shafts located at each end. A bearing assembly must be located in a roller adjustment bracket located at each end of the cutter housing, and connect to the roller through the stub shafts				
7.34	Stub shafts must be a heavy duty solid 1 piece design, and must replaceable, bolt in design.				
7.35	A double row spherical bearing shall support the ground roller shaft on each end. Inner bearing area shall be protected by a full double lipped seal. Bearing shall be secured to the stub shaft.				
8. Instruction identification					
1. The contractor must provide permanently installed ISO or English / French instructions, diagrams and warning plates, where required to ensure efficient operation and servicing with maximum safety.					