# FORM A: BID (See B8)

		(See Bo)		
1.	Contract Title	SUPPLY AND DELIVER	Y OF AG TRACTORS	
2.	Bidder			
		Name of Bidder		
		Usual Business Name of Bidde	r as it appears on Invoice (if different from	above)
		Street		
		City	Province	Postal Code
		Email Address of Bidder		
		Facsimile Number		
	(Mailing address if different)	Street or P.O. Box		
		City	Province	Postal Code
		GST Registration Number (if ap	plicable)	
		The Bidder is:		
	(Choose one)	a sole proprietor		
		a partnership		
		a corporation		
		carrying on business und	er the above name.	
3.	Contact Person	The Bidder hereby author the Bidder for purposes of	rizes the following contact person f the Bid.	n to represent
		Contact Person	Title	
		Telephone Number	Facsimile Number	
		Email Address		
4.	Definitions	All capitalized terms us	ed in the Contract shall have	the meanings

ascribed to them in the General Conditions and D3.

Offer	The Bidder hereby offers to perform the Work in accordance with to Contract for the price(s), in Canadian funds, set out on Form B: Price appended hereto.	
Commencement of the Work	The Bidder agrees that no Work shall commence until he/she is receipt of a notice of award from the Award Authority authorizing t commencement of the Work.	
Contract	The Bidder agrees that the Bid Opportunity in its entirety shall deemed to be incorporated in and to form a part of this of notwithstanding that not all parts thereof are necessarily attached to accompany this Bid.	fer
Addenda	The Bidder certifies that the following addenda have been received a agrees that they shall be deemed to form a part of the Contract:	ınd
	No Dated	
Time	This offer shall be open for acceptance, binding and irrevocable for a period of sixty (60) Calendar Days following the Submission Deadline	·
Signatures	The Bidder or the Bidder's authorized official or officials have signed th	nis
	, 20,	_ •
	Signature of Bidder or Bidder's Authorized Official or Officials	
	(Print here name and official capacity of individual whose signature appears above)	
	(Print here name and official capacity of individual whose signature appears above)	
	Commencement of the Work  Contract  Addenda  Time	Contract for the price(s), in Canadian funds, set out on Form B: Price appended hereto.  Commencement of the Work

# FORM B: PRICES

(See B9)

## SUPPLY AND DELIVERY OF AG TRACTORS

## **UNIT PRICES**

ITEM NO.	DESCRIPTION	SPEC. REF.	UNIT	QUANTITY	UNIT PRICE
1.	Ag Tractor 40HP PTO with Cab	16020	Each	1	
2.	Ag Tractor 50HP PTO (Open Station)	16021	Each	1	
3.	Ag Tractor 60HP PTO with Cab	16022	Each	1	
4.	Ag Tractor 85-90 HP PTO with Cab	16023	Each	2	
5.	Ag Tractor 20 HP PTO with Cab	16024	Each	1	

Name of Bidder	 	 

#### FORM N: DETAILED SPECIFICATIONS 16020 AG TRACTOR (40HP PTO) WITH CAB

#### 1.0 DESCRIPTION OF EQUIPMENT

- 1.1 These specifications describe an <u>Ag Tractor</u> and other equipment and features as specified herein.
- 1.2 The **Ag Tractor** shall be a new 2016 model year or newer.
- 1.3 The <u>Ag Tractor</u> and all other items/components shall be the manufacturer's latest model. The equipment shall be furnished complete and ready for operation. Any parts or accessories not specifically mentioned, but which are required to complete and place the equipment and associated attachments in successful operation shall be furnished as though specifically mentioned in these specifications. The equipment and associated attachments, and all parts thereof, shall conform in strength and quality of material and workmanship, to the best standards and engineering practice of the industry.
- 1.4 It will be the responsibility of the Bidder to inform the City of any errors or omissions in these specifications, for under this Contract the Contractor shall be held responsible for the satisfactory operational function of the equipment.

#### 2.0 OTHER SPECIFICATIONS AND STANDARDS

- 2.1 All applicable SAE standards form an integral part of these specifications and shall have precedence in any conflict concerning minimum acceptable standards.
- 2.2 The **Ag Tractor** shall comply with the applicable regulations:

National Safety Mark, NSM = http://www.tc.gc.ca/eng/acts-regulations/acts-road.htm

Manitoba Safety and Health Act, Parts 12, 22 = http://web2.gov.mb.ca/laws/statutes/ccsm/w210e.php and http://www.gov.mb.ca/labour/safety/

Canadian Standards Association, CSA = http://www.csa.ca/about/Default.asp?language=english

Under Writers of Canada, U/L = http://www.ulc.ca/

Society of Automotive Engineers, SAE = <a href="http://www.sae.org/">http://www.sae.org/</a>

City of Winnipeg Lighting Visibility

Standard=http://winnipeg.ca/matmgt/pdfs/PublicWorksEquipLightingVisibility.pdf.

2.3 It will be the responsibility of the Bidder to inform the City of any deficiencies in these specifications, for under this Contract the Contractor shall be held responsible for the design, performance, reliability and satisfactory operational function of the units.

#### 3.0 SERVICE FACILITY

3.1 For the purpose of warranty repairs, the Bidder shall have an authorized service facility located within 10 km of the boundaries of the City of Winnipeg. The facility, or a portion thereof, shall be dedicated to the service and maintenance of the type equipment being offered. Further to B9.1, Bidders shall provide a description of the service facility including, but not limited to, number of qualified service staff, years of service experience, and general service capabilities within three (3) Business Days upon request of the Contract Administrator.

#### 4.0 REFERENCES

4.1	Provide five (5) Canadian references where this equipment is used in a working environment where climatic conditions are similar to the City of Winnipeg.
5.0	MAKE & MODEL
5.1	State make, model and year of the equipment bid-

#### 6.0 INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS

- 6.1 Each bid will be evaluated based on adherence to all terms, conditions and requirements outlined in the Bid Opportunity package.
- All items in these specifications must be answered indicating compliance or non-compliance.

  BIDDERS SHALL STATE "YES" FOR COMPLIANCE OR STATE DEVIATION, or give reply where requested to do so. Deviations shall be clearly stated and fully detailed. Alternatives will be considered subject to evaluation.
- 6.3 EACH BIDDER IS REQUIRED TO FILL IN EVERY BLANK. FAILURE TO DO SO MAY BE USED AS A BASIS FOR REJECTION OF BID

#### 7.0 PERFORMANCE RELIABILITY

- 7.1 The responsibility for the design of the <u>Ag Tractor</u>, its performance and reliability shall rest upon the Contractor.
- 7.2 The term "repeated failures" as used herein is defined to mean that the same component, subassembly, or assembly develops repeated defects, breakdowns and/or malfunctions rendering the vehicle inoperative, or requiring repeated shop correction, service and/or replacement during the warranty period applicable for said component, subassembly, of assembly. Minor items or ordinary service adjustments are not included, or considered under the scope of "repeated failures", as well as other factors, such as operational damage due to accidents, misuse or lack of proper maintenance, service and lubrication attention by not following the manufacturer's preventative maintenance schedule.
- 7.3 Where the <u>Ag Tractor</u> develops "repeated failures" in service, the Contractor shall make any necessary engineering changes, repairs, alterations or modifications in order to guarantee reliability of performance.
- 7.4 The equipment shall be capable of consistent top performance in City of Winnipeg Environment. Note: The City of Winnipeg has four seasons with ambient temperatures ranging from approximately 90°F (32°C) to -40°F (-40°C)

#### 8.0 <u>FUEL</u>

8.1 Where applicable, all equipment must be fully fuelled upon delivery (no exceptions).

#### 9.0 QUALIFICATIONS OF MANUFACTURER & CONTRACTOR

9.1 The manufacturer of the **Ag Tractor** shall have five (5) years continuous experience manufacturing the equipment.

- 9.2 The manufacturer shall have in effect a documented quality control program ensuring that the quality of materials and workmanship, including welding, conforms to the best standards and engineering practice of the industry.
- 9.3 The Contractor shall have five (5) years continuous experience servicing, repairing and maintaining **Ag Tractor and associated attachments** of the type being offered.

### 10.0 **SPECIFICATIONS:**

#### **ENGINE** 10.1 Engine type Diesel, state manufacturer 10.2 Tier IV interim or final, state Tier 10.3 Engine HP (Gross) Approx. 48 HP 10.4 PTO HP Approx. 40 HP 10.5 Anti-stall feature on engine Protect engine and PTO from stalling when under heavy load 10.6 Auto throttle For synchronizing tractor speed and engine rpm 10.7 Rated speed, RPM State rated RPM Speed 10.8 Air cleaner Dry type air cleaner 10.9 Fuel tank capacity State capacity 10.10 Throttle Hand or foot throttle control, **state** 10.11 Engine block heater Cold weather operation **ELECTRICAL** 10.12 Alternator Approx. 75 Amps, State **DRIVE TRAIN** 10.13 Transmission Hydrostatic transmission 4 wheel drive, (3 speed with hi-low range) 10.14 No. of speeds State, No. of speeds for forward and reverse 10.15 Wet, multi disc Brakes 10.16 Steering Hydrostatic power steering

4x4 (4 wheel drive)

Drive

10.17

10.18	Туре	Full independent of manual	
10.19	Rear (rpm)	Approx. 540 rpm	
	HYDRAULICS		
10.20	Pump gpm	State gpm	
10.21	Total flow	State total gpm flow	
10.22	Mid mount hydraulic couplers	Remote hydraulics with ability to control two separate functions, quick release connectors	
10.23	Rear mount hydraulic couplers	Remote hydraulics with ability to control two separate functions, quick release connectors	
10.24	Hitch lift	State hitch lift capacity	
10.25	Hitch category	Adjustable category I and II (3) point hitch	
10.26	Adjustable stabilizer linkage	To secure rear mounted attachments (check chains not acceptable).	
10.27	Safety chain bracket	3 point bracket (for hooking safety chains on draw bar)	
	CAB		
10.28	CAB Instrumentation	Alternates, warning light- engine oil pressure light. Gauges – water, fuel, tachometer w/ hour meter	
10.28		pressure light. Gauges – water, fuel,	
	Instrumentation	pressure light. Gauges – water, fuel, tachometer w/ hour meter  Cab with heat and A/C with ROPS with	
10.29	Instrumentation	pressure light. Gauges – water, fuel, tachometer w/ hour meter  Cab with heat and A/C with ROPS with seat belt	
10.29	Instrumentation  Cab  Cab doors	pressure light. Gauges – water, fuel, tachometer w/ hour meter  Cab with heat and A/C with ROPS with seat belt  Two (2) door opening	
10.29 10.30 10.31	Instrumentation  Cab  Cab doors  Radio	pressure light. Gauges – water, fuel, tachometer w/ hour meter  Cab with heat and A/C with ROPS with seat belt  Two (2) door opening  AM/FM/CD or MP3	
10.29 10.30 10.31 10.32	Instrumentation  Cab  Cab doors  Radio  Work lights	pressure light. Gauges – water, fuel, tachometer w/ hour meter  Cab with heat and A/C with ROPS with seat belt  Two (2) door opening  AM/FM/CD or MP3  Front and rear work lights	
10.29 10.30 10.31 10.32 10.33	Instrumentation  Cab  Cab doors  Radio  Work lights  Seat	pressure light. Gauges – water, fuel, tachometer w/ hour meter  Cab with heat and A/C with ROPS with seat belt  Two (2) door opening  AM/FM/CD or MP3  Front and rear work lights  Air ride seat with compressor	
10.29 10.30 10.31 10.32 10.33	Instrumentation  Cab  Cab doors  Radio  Work lights  Seat  Wipers	pressure light. Gauges – water, fuel, tachometer w/ hour meter  Cab with heat and A/C with ROPS with seat belt  Two (2) door opening  AM/FM/CD or MP3  Front and rear work lights  Air ride seat with compressor  Front and rear wiper/washer	
10.29 10.30 10.31 10.32 10.33 10.34 10.35	Instrumentation  Cab  Cab doors  Radio  Work lights  Seat  Wipers  Air circulation	pressure light. Gauges – water, fuel, tachometer w/ hour meter  Cab with heat and A/C with ROPS with seat belt  Two (2) door opening  AM/FM/CD or MP3  Front and rear work lights  Air ride seat with compressor  Front and rear wiper/washer  Cab air recirculation	
10.29 10.30 10.31 10.32 10.33 10.34 10.35 10.36	Instrumentation  Cab  Cab doors  Radio  Work lights  Seat  Wipers  Air circulation  Rear window defrost	pressure light. Gauges – water, fuel, tachometer w/ hour meter  Cab with heat and A/C with ROPS with seat belt  Two (2) door opening  AM/FM/CD or MP3  Front and rear work lights  Air ride seat with compressor  Front and rear wiper/washer  Cab air recirculation  Electric grid on rear windows	
10.29 10.30 10.31 10.32 10.33 10.34 10.35 10.36 10.37	Instrumentation  Cab  Cab doors  Radio  Work lights  Seat  Wipers  Air circulation  Rear window defrost  Mirrors	pressure light. Gauges – water, fuel, tachometer w/ hour meter  Cab with heat and A/C with ROPS with seat belt  Two (2) door opening  AM/FM/CD or MP3  Front and rear work lights  Air ride seat with compressor  Front and rear wiper/washer  Cab air recirculation  Electric grid on rear windows  Rear view mirrors	

10.41	Fire extinguisher	2.5 lbs. High volume ABC type, <b>State</b> location	
10.42	Safety lighting	Make and Model: Whelen L31 Series Super-LED, SAE Class 1 (or equivalent) Blue/Amber (individual control) Low Dome Beacon, 360 degree visibility. Wired through ignition, lights shall be wired for separate amber and separate blue labelled independently "winter", "off", "summer". The winter mode will turn on both blue and amber, the summer will only turn on the amber lights.	
10.43	Slow moving sign	Slow-moving vehicle warning triangle	
10.44	Signals and brake lights	Safety flasher and turn signals	
10.45	Back-up alarm	State dB	
10.46	Horn	Located on steering wheel or dash panel	

# OPERATOR STATION ERGONOMICS

10.47 Cab or station layout should provide a comfortable seating position for the 5<sup>th</sup> to the 95<sup>th</sup> percentile of personnel. Figure 1 below illustrates the variance between a 5<sup>th</sup> to a 95<sup>th</sup> percentile of North American males and females when seated.

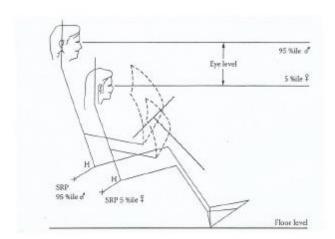


Figure 2: Use the below diagram to answer the specifications for Operator Station Ergonomics.

10.56

10.57

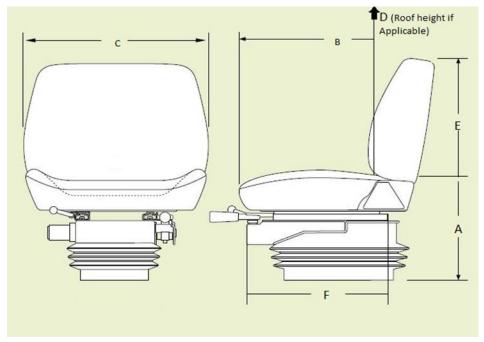
10.58

Remote control valves

One (1) set of turf R3 tires

One (1) set of industrial tractor R4

**TIRES** 



10.48	Sitting height range from floor (where feet rest) (A)	State, seat height range in inches	
10.49	Seat length/depth (B)	State, seat length/depth in inches	
10.50	Seat width (C)	State, seat width in inches	
10.51	Cab height from seat to roof (if applicable) (D)	State, cab height range in inches	
10.52	Back rest height (E)	State, back rest height in inches	
10.53	Seat travel range (F)	State, seat travel in inches	
10.54	Include any other relevant ergonomic specifications and applicable range of adjustment		
	ELECTRICAL & REMOTE VALVES		
10.55	Light socket	7 pin connector implement light socket	

Two (2) pairs each mid and rear

Turf R3 tires, state tire size,

make/model, front and rear

make/model, front and rear

Industrial tractor R4 tires, state tire size,

# **DIMENSIONS**

	<u></u>		
10.59	Length	State overall length with 3 point hitch	
10.60	Width	State overall width in inches	
10.61	Wheelbase	State wheelbase in inches	
10.62	Height	State height to top of cab in inches	
10.63	Weight	State total operating weight	- <del></del>
10.64	Radius	State turning radius	- <del></del>
	WEIGHT KITS		
10.65	Rear wheel weights	Rear removable weights, 4 in total approx. 180 lbs. each (2 per side). Total weight approx. 720 lbs.	
10.66	Front Detachable weights	Front bracket assembly with retaining pin, quick attach pin. Seven (7) approx. 55 lbs/each suitcase style weights. Total weight approx. 385 lbs.	
11.0	WARRANTY		
11.1	Basic coverage	(Complete Machine) Warranty 2 years, 2000 hours	
11.2	Powertrain	(Engine, Transmission) Warranty 2 years 2000 hours	
11.3	Hydraulics warranty	(Hydraulics) Warranty 2 years, 2000 hours	
11.4	Batteries warranty	(Batteries) Warranty 1 year	
11.5	Tires warranty	(Tires) Warranty 1 year	
11.6	Electrical warranty	(Electrical) Warranty 2 years, 2000 hours	
11.7	All warranty information shall be detailed successful bidder shall provide all public of the equipment. Bidder shall state all	ished warranty information upon delivery	
12.0	DELIVERY		
12.1			
12.2	Delivery Time: Sixteen to eighteen (1 award. Equipment shall be delivered to Business Days.	6-18) calendar weeks from the date of between 8:00 am and 3:00 pm on	

12.3	Delivery Contact: The Contractor shall contact the Contract Administrator		
	prior to delivery of the equipment.		
12.4	P.D.I: A pre-delivery inspection shall be performed by the Contractor on the equipment. Proof upon inspection including completed check list		
13.0	MANUALS .		
13.1	Manuals supplied under this Contract. The manuals shall cover the complete equipment including all components thereof, CD is preferred where available.		
13.2	The following manuals shall be supplied with the units when delivered:		
	a) Operator's manual – Two (2) per unit (one operator manual shall be sent to the Equipment Operator Training Branch		
	b) Parts and service manuals – one (1) complete sets including preventative maintenance schedules. CDs are preferred.		
14.0	PARTS/LABOUR PRICING		
14.1	Bidder to provide City of Winnipeg Parts Discount % Pricing from retail parts pricing. <b>State percentage discount-</b>		
14.2	Bidder to provide City of Winnipeg Labor Discount % Pricing from Retail shop labor rate. State percentage discount-		

# FORM N: DETAILED SPECIFICATIONS 16021 AG TRACTOR (50HP PTO) OPEN STATION

#### 1.0 DESCRIPTION OF EQUIPMENT

- 1.1 These specifications describe an <u>Ag Tractor</u> and other equipment and features as specified herein.
- 1.2 The **Ag Tractor** shall be a new 2016 model year or newer.
- 1.3 The <u>Ag Tractor</u> and all other items/components shall be the manufacturer's latest model. The equipment shall be furnished complete and ready for operation. Any parts or accessories not specifically mentioned, but which are required to complete and place the equipment and associated attachments in successful operation shall be furnished as though specifically mentioned in these specifications. The equipment and associated attachments, and all parts thereof, shall conform in strength and quality of material and workmanship, to the best standards and engineering practice of the industry.
- 1.4 It will be the responsibility of the Bidder to inform the City of any errors or omissions in these specifications, for under this Contract the Contractor shall be held responsible for the satisfactory operational function of the equipment.

#### 2.0 OTHER SPECIFICATIONS AND STANDARDS

- 2.1 All applicable SAE standards form an integral part of these specifications and shall have precedence in any conflict concerning minimum acceptable standards.
- 2.2 The **Ag Tractor** shall comply with the applicable regulations:

National Safety Mark, NSM = http://www.tc.gc.ca/eng/acts-regulations/acts-road.htm

Manitoba Safety and Health Act, Parts 12, 22 = <a href="http://web2.gov.mb.ca/laws/statutes/ccsm/w210e.php">http://web2.gov.mb.ca/laws/statutes/ccsm/w210e.php</a> and <a href="http://www.gov.mb.ca/labour/safety/">http://www.gov.mb.ca/labour/safety/</a>

Canadian Standards Association, CSA = http://www.csa.ca/about/Default.asp?language=english

Under Writers of Canada, U/L = http://www.ulc.ca/

Society of Automotive Engineers, SAE = <a href="http://www.sae.org/">http://www.sae.org/</a>

City of Winnipeg Lighting Visibility

Standard=http://winnipeg.ca/matmgt/pdfs/PublicWorksEquipLightingVisibility.pdf.

2.3 It will be the responsibility of the Bidder to inform the City of any deficiencies in these specifications, for under this Contract the Contractor shall be held responsible for the design, performance, reliability and satisfactory operational function of the units.

#### 3.0 SERVICE FACILITY

3.1 For the purpose of warranty repairs, the Bidder shall have an authorized service facility located within 10 km of the boundaries of the City of Winnipeg. The facility, or a portion thereof, shall be dedicated to the service and maintenance of the type equipment being offered. Further to B9.1, Bidders shall provide a description of the service facility including, but not limited to, number of qualified service staff, years of service experience, and general service capabilities within three (3) Business Days upon request of the Contract Administrator.

#### 4.0 REFERENCES

4.1	Provide five (5) Canadian references where this equipment is used in a working environment where climatic conditions are similar to the City of Winnipeg.
5.0	MAKE & MODEL
5.1	State make, model and year of the equipment bid

#### 6.0 INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS

- 6.1 Each bid will be evaluated based on adherence to all terms, conditions and requirements outlined in the Bid Opportunity package.
- All items in these specifications must be answered indicating compliance or non-compliance.

  BIDDERS SHALL STATE "YES" FOR COMPLIANCE OR STATE DEVIATION, or give reply where requested to do so. Deviations shall be clearly stated and fully detailed. Alternatives will be considered subject to evaluation.
- 6.3 EACH BIDDER IS REQUIRED TO FILL IN EVERY BLANK. FAILURE TO DO SO MAY BE USED AS A BASIS FOR REJECTION OF BID

#### 7.0 PERFORMANCE RELIABILITY

- 7.1 The responsibility for the design of the <u>Ag Tractor</u>, its performance and reliability shall rest upon the Contractor.
- 7.2 The term "repeated failures" as used herein is defined to mean that the same component, subassembly, or assembly develops repeated defects, breakdowns and/or malfunctions rendering the vehicle inoperative, or requiring repeated shop correction, service and/or replacement during the warranty period applicable for said component, subassembly, of assembly. Minor items or ordinary service adjustments are not included, or considered under the scope of "repeated failures", as well as other factors, such as operational damage due to accidents, misuse or lack of proper maintenance, service and lubrication attention by not following the manufacturer's preventative maintenance schedule.
- 7.3 Where the <u>Ag Tractor</u> develops "repeated failures" in service, the Contractor shall make any necessary engineering changes, repairs, alterations or modifications in order to guarantee reliability of performance.
- 7.4 The equipment shall be capable of consistent top performance in City of Winnipeg Environment. Note: The City of Winnipeg has four seasons with ambient temperatures ranging from approximately 90°F (32°C) to -40°F (-40°C)

#### 8.0 FUEL

8.1 Where applicable, all equipment must be fully fuelled upon delivery (no exceptions).

### 9.0 QUALIFICATIONS OF MANUFACTURER & CONTRACTOR

9.1 The manufacturer of the **Ag Tractor** shall have five (5) years continuous experience manufacturing the equipment.

- 9.2 The manufacturer shall have in effect a documented quality control program ensuring that the quality of materials and workmanship, including welding, conforms to the best standards and engineering practice of the industry.
- 9.3 The Contractor shall have five (5) years continuous experience servicing, repairing and maintaining **Ag Tractor and associated attachments** of the type being offered.

### 10.0 **SPECIFICATIONS:**

#### **ENGINE** 10.1 Engine type Diesel, state manufacturer 10.2 Tier IV interim or final, state Tier 10.3 Engine HP (Gross) Approx. 60 HP 10.4 PTO HP Approx. 50 HP 10.5 Anti-stall feature on engine Protect engine and PTO from stalling when under heavy load 10.6 Auto throttle For synchronizing tractor speed and engine rpm 10.7 Rated speed, RPM State rated RPM Speed 10.8 Air cleaner Dry type air cleaner 10.9 Fuel tank capacity State capacity 10.10 Throttle Hand or foot throttle control, **state** 10.11 Engine block heater Cold weather operation **ELECTRICAL** 10.12 Alternator Approx. 45 Amps, State **DRIVE TRAIN** 10.13 Transmission Hydrostatic transmission 4 wheel drive, (3 speed with hi-low range) 10.14 No. of speeds State, No. of speeds for forward and reverse 10.15 Wet, multi disc Brakes 10.16 Steering Hydrostatic power steering

4x4 (4 wheel drive)

Drive

10.17

10.18	Туре	Full independent of manual	
10.19	Rear (rpm)	Approx. 540 rpm	
	HYDRAULICS		
10.20	Pump gpm	State gpm	
10.21	Total flow	State total gpm flow	
10.22	Mid mount hydraulic couplers	Remote hydraulics with ability to control two separate functions, quick release connectors	
10.23	Rear mount hydraulic couplers	Remote hydraulics with ability to control two separate functions, quick release connectors	
10.24	Hitch lift	State hitch lift capacity	
10.25	Hitch category	Adjustable category I and II (3) point hitch	
10.26	Adjustable stabilizer linkage	To secure rear mounted attachments (check chains not acceptable).	
	OPERATOR STATION		
10.27	Instrumentation	Alternates, warning light- engine oil pressure light. Gauges – water, fuel, tachometer w/ hour meter	
10.28	Hardtop canopy	Over operator station (attached to ROPS	
10.29	Work lights	Front and rear work lights	
10.30	Seat	Adjustable seat, with mechanical suspension	
10.31	Fire extinguisher	2.5 lbs. High volume ABC type, State location	
10.32	Safety lighting	Make and model Hella MLB 100 (12-24 VDC) P/N H27996001. Nonmagnetic (LED Micro Light Bar) wired directly to the ignition, mounted slightly behind top to centered on top of ROPS.	
10.33	Signals and brake lights	Safety flasher and turn signals	
10.34	Slow moving sign	Slow-moving vehicle warning triangle	
10.35	Back-up alarm	State dB	
10.36	Horn	Located on steering wheel or dash panel	

# OPERATOR STATION ERGONOMICS

10.37 Cab or station layout should provide a comfortable seating position for the 5<sup>th</sup> to the 95<sup>th</sup> percentile of personnel. Figure 1 below illustrates the variance between a 5<sup>th</sup> to a 95<sup>th</sup> percentile of North American males and females when seated.

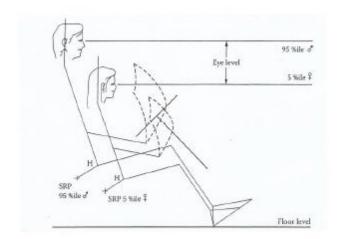
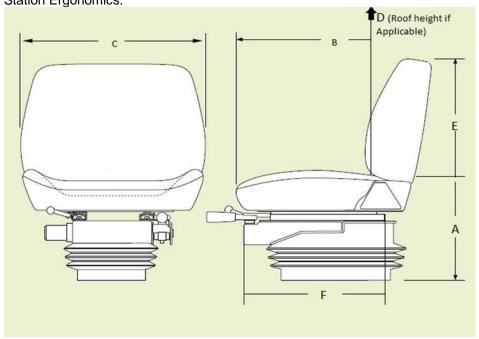


Figure 2: Use the below diagram to answer the specifications for Operator Station Ergonomics.



10.38	Sitting height range from floor (where feet rest) (A)	State, seat height range in inches
10.39	Seat length/depth (B)	State, seat length/depth in inches
10.40	Seat width (C)	State, seat width in inches
10.41	Cab height from seat to roof (if applicable) (D)	State, cab height range in inches
10.42	Back rest height (E)	State, back rest height in inches

10.43	Seat travel range (F)	State, seat travel in inches	
10.44	Include any other relevant ergonomic specifications and applicable range of adjustment		
	ELECTRICAL & REMOTE VALVES		
10.45	Light socket	7 pin connector implement light socket	
10.46	Remote control valves	Two (2) pairs each mid and rear	
10.47	TIRES One (1) set of turf R3 tires	Turf R3 tires, <b>state</b> tire size,	
10.47	One (1) set of turn to thes	make/model, front and rear	
10.48	One (1) set of industrial tractor R4 tires	Industrial tractor R4 tires, <b>state</b> tire size, make/model, front and rear	
	<u>DIMENSIONS</u>		
10.49	Length	State overall length with 3 point hitch	
10.50	Width	State overall width in inches	
10.51	Wheelbase	State wheelbase in inches	
10.52	Height	State height to top of cab in inches	
10.53	Weight	State total operating weight	
10.54	Radius	State turning radius	
	WEIGHT KIT		
10.55	Front Detachable weights	Front bracket assembly with retaining pin, quick attach pin. Seven (17) approx. 55 lbs/each suitcase style weights. Total weight approx. 385 lbs.	
11.0	WARRANTY		
11.1	Basic coverage	(Complete Machine) Warranty 2 years, 2000 hours	
11.2	Powertrain	(Engine, Transmission) Warranty 2 years 2000 hours	
11.3	Hydraulics warranty	(Hydraulics) Warranty 2 years, 2000 hours	
11.4	Batteries warranty	(Batteries) Warranty 1 year	

11.5	Tires warranty	(Tires) Warranty 1 year	
11.6	Electrical warranty	(Electrical) Warranty 2 years, 2000 hours	
11.7	All warranty information shall be detailed successful bidder shall provide all public of the equipment. Bidder shall state all	ished warranty information upon delivery	
12.0	DELIVERY		
12.1	applicable) to the WFMA 185 Tecumse	be serviced, ready for operation repaid, including invoice and N.I.V.S. (if sh Street, Winnipeg MB. The successful or Administrator the delivery address prior	
12.2	Delivery Time: Sixteen to eighteen (1 award. Equipment shall be delivered business Days.	6-18) calendar weeks from the date of between 8:00 am and 3:00 pm on	
12.3	Delivery Contact: The Contractor shall prior to delivery of the equipment.	contact the Contract Administrator	
12.4	P.D.I: A pre-delivery inspection shall be equipment. Proof upon inspection include		
13.0	<u>MANUALS</u>		
13.1	Manuals supplied under this Contract. complete equipment including all compavailable.		
13.2	The following manuals shall be supplie	d with the units when delivered:	
	a) Operator's manual – Two (2) per unibe sent to the Equipment Operator Tra		
	b) Parts and service manuals – one (1) maintenance schedules. CDs are preference.		
14.0	PARTS/LABOUR PRICING		
14.1	Bidder to provide City of Winnipeg Part pricing. <b>State percentage discount-</b>	ts Discount % Pricing from retail parts	
14.2	Bidder to provide City of Winnipeg Lab		

### FORM N: DETAILED SPECIFICATIONS 16022 AG TRACTOR (60HP PTO) WITH CAB

#### 1.0 DESCRIPTION OF EQUIPMENT

- 1.1 These specifications describe an <u>Ag Tractor</u> and other equipment and features as specified herein.
- 1.2 The **Ag Tractor** shall be a new 2016 model year or newer.
- 1.3 The <u>Ag Tractor</u> and all other items/components shall be the manufacturer's latest model. The equipment shall be furnished complete and ready for operation. Any parts or accessories not specifically mentioned, but which are required to complete and place the equipment and associated attachments in successful operation shall be furnished as though specifically mentioned in these specifications. The equipment and associated attachments, and all parts thereof, shall conform in strength and quality of material and workmanship, to the best standards and engineering practice of the industry.
- 1.4 It will be the responsibility of the Bidder to inform the City of any errors or omissions in these specifications, for under this Contract the Contractor shall be held responsible for the satisfactory operational function of the equipment.

#### 2.0 OTHER SPECIFICATIONS AND STANDARDS

- 2.1 All applicable SAE standards form an integral part of these specifications and shall have precedence in any conflict concerning minimum acceptable standards.
- 2.2 The **Ag Tractor** shall comply with the applicable regulations:

National Safety Mark, NSM = http://www.tc.gc.ca/eng/acts-regulations/acts-road.htm

Manitoba Safety and Health Act, Parts 12, 22 = http://web2.gov.mb.ca/laws/statutes/ccsm/w210e.php and http://www.gov.mb.ca/labour/safety/

Canadian Standards Association, CSA = http://www.csa.ca/about/Default.asp?language=english

Under Writers of Canada, U/L = http://www.ulc.ca/

Society of Automotive Engineers, SAE = <a href="http://www.sae.org/">http://www.sae.org/</a>

City of Winnipeg Lighting Visibility

Standard=http://winnipeg.ca/matmgt/pdfs/PublicWorksEquipLightingVisibility.pdf.

2.3 It will be the responsibility of the Bidder to inform the City of any deficiencies in these specifications, for under this Contract the Contractor shall be held responsible for the design, performance, reliability and satisfactory operational function of the units.

#### 3.0 SERVICE FACILITY

3.1 For the purpose of warranty repairs, the Bidder shall have an authorized service facility located within 10 km of the boundaries of the City of Winnipeg. The facility, or a portion thereof, shall be dedicated to the service and maintenance of the type equipment being offered. Further to B9.1, Bidders shall provide a description of the service facility including, but not limited to, number of qualified service staff, years of service experience, and general service capabilities within three (3) Business Days upon request of the Contract Administrator.

#### 4.0 REFERENCES

4.1	Provide five (5) Canadian references where this equipment is used in a working environment where climatic conditions are similar to the City of Winnipeg.	
5.0	MAKE & MODEL	
5.1	State make, model and year of the equipment bid	

#### 6.0 <u>INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS</u>

- 6.1 Each bid will be evaluated based on adherence to all terms, conditions and requirements outlined in the Bid Opportunity package.
- All items in these specifications must be answered indicating compliance or non-compliance.

  BIDDERS SHALL STATE "YES" FOR COMPLIANCE OR STATE DEVIATION, or give reply where requested to do so. Deviations shall be clearly stated and fully detailed. Alternatives will be considered subject to evaluation.
- 6.3 EACH BIDDER IS REQUIRED TO FILL IN EVERY BLANK. FAILURE TO DO SO MAY BE USED AS A BASIS FOR REJECTION OF BID

#### 7.0 PERFORMANCE RELIABILITY

- 7.1 The responsibility for the design of the <u>Ag Tractor</u>, its performance and reliability shall rest upon the Contractor.
- 7.2 The term "repeated failures" as used herein is defined to mean that the same component, subassembly, or assembly develops repeated defects, breakdowns and/or malfunctions rendering the vehicle inoperative, or requiring repeated shop correction, service and/or replacement during the warranty period applicable for said component, subassembly, of assembly. Minor items or ordinary service adjustments are not included, or considered under the scope of "repeated failures", as well as other factors, such as operational damage due to accidents, misuse or lack of proper maintenance, service and lubrication attention by not following the manufacturer's preventative maintenance schedule.
- 7.3 Where the <u>Ag Tractor</u> develops "repeated failures" in service, the Contractor shall make any necessary engineering changes, repairs, alterations or modifications in order to guarantee reliability of performance.
- 7.4 The equipment shall be capable of consistent top performance in City of Winnipeg Environment. Note: The City of Winnipeg has four seasons with ambient temperatures ranging from approximately 90°F (32°C) to -40°F (-40°C)

#### 8.0 <u>FUEL</u>

8.1 Where applicable, all equipment must be fully fuelled upon delivery (no exceptions).

### 9.0 QUALIFICATIONS OF MANUFACTURER & CONTRACTOR

9.1 The manufacturer of the **Ag Tractor** shall have five (5) years continuous experience manufacturing the equipment.

- 9.2 The manufacturer shall have in effect a documented quality control program ensuring that the quality of materials and workmanship, including welding, conforms to the best standards and engineering practice of the industry.
- 9.3 The Contractor shall have five (5) years continuous experience servicing, repairing and maintaining **Ag Tractor and associated attachments** of the type being offered.

## 10.0 **SPECIFICATIONS:**

	<u>ENGINE</u>	
10.1	Engine type	Diesel, <b>state</b> manufacturer
10.2	Tier	Tier IV interim or final, <b>state</b>
10.3	Engine HP (Gross)	Approx. 70 HP
10.4	PTO HP	Approx. 60 HP
10.5	Rated speed, RPM	State rated RPM Speed
10.6	Air cleaner	Dry type air cleaner
10.7	Fuel tank capacity	State capacity
10.8	Throttle	Hand or foot throttle control, <b>state</b>
10.9	Engine block heater	Cold weather operation
	ELECTRICAL	
10.10	Alternator	Approx. 75 Amps, <b>State</b>
	DRIVE TRAIN	
10.11	Transmission	Synchro shift with 12 speeds, wet disc
		clutch.
10.12	No. of speeds	State, No. of speeds for forward and
		reverse
10.13	Brakes	Wet, multi disc
10.14	Steering	Hydrostatic power steering
10.15	Drive	4x4 (4 wheel drive)
	<u>PTO</u>	
10.16	Туре	Full independent of manual
10.17	Rear 540 rpm	Approx. 540/540E (with economy
		operation that lowers engine RPM to

save fuel)

# **HYDRAULICS**

10.18	Pump gpm	State gpm	
10.19	Total flow	State total gpm flow	
10.20	Mid mount hydraulic couplers	Remote hydraulics with ability to control two separate functions, quick release connectors	
10.21	Rear mount hydraulic couplers	Remote hydraulics with ability to control Three separate functions, quick release connectors	
10.22	Hitch lift	State hitch lift capacity	
10.23	Hitch category	Adjustable category I and II (3) point hitch	
10.24	Adjustable stabilizer linkage	To secure rear mounted attachments (check chains not acceptable).	
	CAB		
10.25	Instrumentation	Alternates, warning light- engine oil pressure light. Gauges – water, fuel, tachometer w/ hour meter	
10.26	Cab	Cab with heat and A/C with ROPS with seat belt	
10.27	Cab doors	Two (2) door opening	
10.28	Radio	AM/FM/CD or MP3	
10.29	Work lights	Front and rear work lights	
10.30	Seat	Air ride seat with compressor	
10.31	Wipers	Front and rear wiper/washer	
10.32	Air circulation	Cab air recirculation	
10.33	Rear window defrost	Electric grid on rear windows	
10.34	Roof vent (pop-up style)	Preferred but not required, state	
10.35	Sun visor	Front	
10.36	Cutter/breaker	Combination seat belt cutter and glass breaker	<del></del>
10.37	Fire extinguisher	2.5 lbs. High volume ABC type, State location	

10.38	Safety lighting	Make and Model: Whelen L31 Series Super-LED, SAE Class 1 (or equivalent) Blue/Amber (individual control) Low Dome Beacon, 360 degree visibility. Wired through ignition, lights shall be wired for separate amber and separate blue labelled independently "winter", "off", "summer". The winter mode will turn on both blue and amber, the summer will only turn on the amber lights.	
10.39	Slow moving sign	Slow-moving vehicle warning triangle	
10.40	Signals and brake lights	Safety flasher and turn signals	
10.41	Back-up alarm	State dB	
10.42	Horn	Located on steering wheel or dash panel	

# OPERATOR STATION ERGONOMICS

10.43 Cab or station layout should provide a comfortable seating position for the 5<sup>th</sup> to the 95<sup>th</sup> percentile of personnel. Figure 1 below illustrates the variance between a 5<sup>th</sup> to a 95<sup>th</sup> percentile of North American males and females when seated.

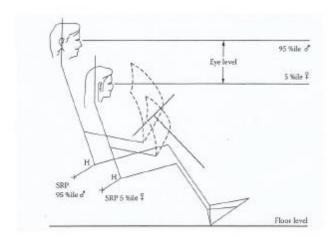


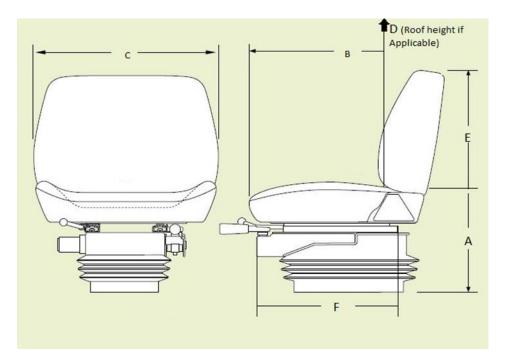
Figure 2: Use the below diagram to answer the specifications for Operator Station Ergonomics.

**DIMENSIONS** 

Length

10.54

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10.44	Sitting height range from floor (where feet rest) (A)	State, seat height range in inches	
10.45	Seat length/depth (B)	State, seat length/depth in inches	
10.46	Seat width (C)	State, seat width in inches	
10.47	Cab height from seat to roof (if applicable) (D)	State, cab height range in inches	
10.48	Back rest height (E)	State, back rest height in inches	
10.49	Seat travel range (F)	State, seat travel in inches	
10.50	Include any other relevant ergonomic specifications and applicable range of adjustment		
	ELECTRICAL & REMOTE VALVES		
10.51	Light socket	7 pin connector implement light socket	
10.52	Remote control valves	Three (3) pairs rear, two (2) pairs mid mount	
	TIRES		
10.53	Tire size, Industrial tractor R4	Industrial tractor R4 tires, <b>state</b> tire size, make/model, front and rear	

State overall length with 3 point hitch

10.55	Width	State overall width in inches	
10.56	Wheelbase	State wheelbase in inches	
10.57	Height	State height to top of cab in inches	
10.58	Weight	State total operating weight	
10.59	Radius	State turning radius	
10.60	Loader	Quick attachment and removal without tools.	
	Weight Kits		
10.61	Front Detachable weights	Front bracket assembly with retaining pin, quick attach pin. Ten (10) approx. 100 lbs/each suitcase style weights. Total weight approx. 1000 lbs.	
11.0	WARRANTY		
11.1	Basic coverage	(Complete Machine) Warranty 2 years, 2000 hours	
11.2	Powertrain	(Engine, Transmission) Warranty 2 years 2000 hours	
11.3	Hydraulics warranty	(Hydraulics) Warranty 2 years, 2000 hours	
11.4	Batteries warranty	(Batteries) Warranty 1 year	
11.5	Tires warranty	(Tires) Warranty 1 year	
11.6	Electrical warranty	(Electrical) Warranty 2 years, 2000 hours	
11.7	All warranty information shall be detailed and include all exclusions. The successful bidder shall provide all published warranty information upon delivery of the equipment. Bidder shall state all warranty information.		
12.0	DELIVERY		
12.1	Delivery Point: The complete unit shall be serviced, ready for operation and delivered F.O.B. with the freight prepaid, including invoice and N.I.V.S. (if applicable) to the WFMA 185 Tecumseh Street, Winnipeg MB. The successful bidder shall be notified by the Contractor Administrator the delivery address prior to issuance of the purchase order		
12.2	Delivery Time: Sixteen to eighteen (16-18) calendar weeks from the date of award. Equipment shall be delivered between 8:00 am and 3:00 pm on Business Days.		
12.3	Delivery Contact: The Contractor shall prior to delivery of the equipment.	contact the Contract Administrator	

12.4	P.D.I: A pre-delivery inspection shall be performed by the Contractor on the equipment. Proof upon inspection including completed check list	
13.0	MANUALS	
13.1	Manuals supplied under this Contract. The manuals shall cover the complete equipment including all components thereof, CD is preferred where available.	
13.2	The following manuals shall be supplied with the units when delivered:	
	a) Operator's manual – Two (2) per unit (one operator manual shall be sent to the Equipment Operator Training Branch	
	b) Parts and service manuals – one (1) complete sets including preventative maintenance schedules. CDs are preferred.	
14.0	PARTS/LABOUR PRICING	
14.1	Bidder to provide City of Winnipeg Parts Discount % Pricing from retail parts pricing. State percentage discount-	
14.2	Bidder to provide City of Winnipeg Labor Discount % Pricing from Retail shop labor rate. <b>State percentage discount-</b>	

#### FORM N: DETAILED SPECIFICATIONS 16023 AG TRACTOR (85-90HP PTO) WITH CAB

#### 1.0 DESCRIPTION OF EQUIPMENT

- 1.1 These specifications describe an <u>Ag Tractor</u> and other equipment and features as specified herein.
- 1.2 The **Ag Tractor** shall be a new 2016 model year or newer.
- 1.3 The <u>Ag Tractor</u> and all other items/components shall be the manufacturer's latest model. The equipment shall be furnished complete and ready for operation. Any parts or accessories not specifically mentioned, but which are required to complete and place the equipment and associated attachments in successful operation shall be furnished as though specifically mentioned in these specifications. The equipment and associated attachments, and all parts thereof, shall conform in strength and quality of material and workmanship, to the best standards and engineering practice of the industry.
- 1.4 It will be the responsibility of the Bidder to inform the City of any errors or omissions in these specifications, for under this Contract the Contractor shall be held responsible for the satisfactory operational function of the equipment.

#### 2.0 OTHER SPECIFICATIONS AND STANDARDS

- 2.1 All applicable SAE standards form an integral part of these specifications and shall have precedence in any conflict concerning minimum acceptable standards.
- 2.2 The **Ag Tractor** shall comply with the applicable regulations:

National Safety Mark, NSM = http://www.tc.gc.ca/eng/acts-regulations/acts-road.htm

Manitoba Safety and Health Act, Parts 12, 22 = http://web2.gov.mb.ca/laws/statutes/ccsm/w210e.php and http://www.gov.mb.ca/labour/safety/

Canadian Standards Association, CSA = http://www.csa.ca/about/Default.asp?language=english

Under Writers of Canada, U/L = http://www.ulc.ca/

Society of Automotive Engineers, SAE =http://www.sae.org/

City of Winnipeg Lighting Visibility

Standard=http://winnipeg.ca/matmgt/pdfs/PublicWorksEquipLightingVisibility.pdf.

2.3 It will be the responsibility of the Bidder to inform the City of any deficiencies in these specifications, for under this Contract the Contractor shall be held responsible for the design, performance, reliability and satisfactory operational function of the units.

#### 3.0 SERVICE FACILITY

3.1 For the purpose of warranty repairs, the Bidder shall have an authorized service facility located within 10 km of the boundaries of the City of Winnipeg. The facility, or a portion thereof, shall be dedicated to the service and maintenance of the type equipment being offered. Further to B9.1, Bidders shall provide a description of the service facility including, but not limited to, number of qualified service staff, years of service experience, and general service capabilities within three (3) Business Days upon request of the Contract Administrator.

#### 4.0 REFERENCES

4.1	Provide five (5) Canadian references where this equipment is used in a working environment where climatic conditions are similar to the City of Winnipeg.	
5.0	MAKE & MODEL	
5.1	State make, model and year of the equipment bid	

#### 6.0 INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS

- 6.1 Each bid will be evaluated based on adherence to all terms, conditions and requirements outlined in the Bid Opportunity package.
- 6.2 All items in these specifications must be answered indicating compliance or non-compliance. BIDDERS SHALL STATE "YES" FOR COMPLIANCE OR STATE DEVIATION, or give reply where requested to do so. Deviations shall be clearly stated and fully detailed. Alternatives will be considered subject to evaluation.
- EACH BIDDER IS REQUIRED TO FILL IN EVERY BLANK. FAILURE TO DO SO MAY BE 6.3 **USED AS A BASIS FOR REJECTION OF BID**

#### 7.0 PERFORMANCE RELIABILITY

- 7.1 The responsibility for the design of the **Ag Tractor**, its performance and reliability shall rest upon the Contractor.
- The term "repeated failures" as used herein is defined to mean that the same component, 7.2 subassembly, or assembly develops repeated defects, breakdowns and/or malfunctions rendering the vehicle inoperative, or requiring repeated shop correction, service and/or replacement during the warranty period applicable for said component, subassembly, of assembly. Minor items or ordinary service adjustments are not included, or considered under the scope of "repeated failures", as well as other factors, such as operational damage due to accidents, misuse or lack of proper maintenance, service and lubrication attention by not following the manufacturer's preventative maintenance schedule.
- 7.3 Where the Ag Tractor develops "repeated failures" in service, the Contractor shall make any necessary engineering changes, repairs, alterations or modifications in order to guarantee reliability of performance.
- 7.4 The equipment shall be capable of consistent top performance in City of Winnipeg Environment. Note: The City of Winnipeg has four seasons with ambient temperatures ranging from approximately 90°F (32°C) to -40°F (-40°C)

#### 8.0 **FUEL**

Where applicable, all equipment must be fully fuelled upon delivery (no exceptions). 8.1

#### 9.0 QUALIFICATIONS OF MANUFACTURER & CONTRACTOR

9.1 The manufacturer of the Ag Tractor shall have five (5) years continuous experience manufacturing the equipment.

- 9.2 The manufacturer shall have in effect a documented quality control program ensuring that the quality of materials and workmanship, including welding, conforms to the best standards and engineering practice of the industry.
- 9.3 The Contractor shall have five (5) years continuous experience servicing, repairing and maintaining **Ag Tractor and associated attachments** of the type being offered.

## 10.0 **SPECIFICATIONS:**

	<u>ENGINE</u>	
10.1	Engine type	Diesel, <b>state</b> manufacturer
10.2	Tier	Tier IV interim or final, state
10.3	Engine HP (Gross)	Approx. 95-100 HP
10.4	PTO HP	Approx. 85-90 HP
10.5	Rated speed, RPM	State rated RPM Speed
10.6	Air cleaner	Dry type air cleaner
10.7	Fuel tank capacity	State capacity
10.8	Throttle	Hand or foot throttle control, state
10.9	Engine block heater	Cold weather operation
	ELECTRICAL	
10.10	Alternator	Approx. 90 Amps, <b>State</b>
	DRIVE TRAIN	
10.11	Transmission	Multi speed power shift with at least 6 speeds.
		•
10.12	No. of speeds	State, No. of speeds for forward and reverse
10.13	Brakes	Wet, multi disc
10.14	Steering	Hydrostatic power steering
10.15	Drive	4x4 (4 wheel drive)
	<u>PTO</u>	
10.16	Туре	Full independent of manual
10.17	Rear (rpm)	Approx. 540/1000 rpm

### **HYDRAULICS**

10.18	Pump gpm	State gpm
10.19	Total flow	State total gpm flow
10.20	Mid mount hydraulic couplers	Remote hydraulics with ability to control two separate functions, quick release connectors
10.21	Rear mount hydraulic couplers	Remote hydraulics with ability to control three separate functions, quick release connectors
10.22	Hitch lift	State hitch lift capacity
10.23	Hitch category	Category II (3) point hitch
10.24	Implement hook up	Swinging drawbar with clevis required
10.25	Adjustable stabilizer linkage	To secure rear mounted attachments (check chains not acceptable).
	CAB	
10.26	Instrumentation	Alternates, warning light- engine oil pressure light. Gauges – water, fuel, tachometer w/ hour meter
10.27	Cab	Cab with heat and A/C with ROPS with seat belt
10.28	Cab doors	Two (2) door opening
10.29	Radio	AM/FM/CD or MP3
10.30	Work lights	Front and rear work lights
10.31	Driver's Seat	Air ride seat with compressor
10.32	Passenger Seat	For passenger/Instructor use, mounted on wheel well beside driver's seat with folding seat back and seat belt
10.33	Wipers	Front and rear wiper/washer
10.34	Air circulation	Cab air recirculation
10.35	Rear window defrost	Electric grid on rear windows
10.36	Roof vent (pop-up style)	Preferred but not required, state
10.37	Sun visor	Front
10.38	Cutter/breaker	Combination seat belt cutter and glass breaker
10.39	Fire extinguisher	2.5 lbs. High volume ABC type, Statelocation

10.40	Safety lighting	Make and Model: Whelen L31 Series Super-LED, SAE Class 1 (or equivalent) Blue/Amber (individual control) Low Dome Beacon, 360 degree visibility. Wired through ignition, lights shall be wired for separate amber and separate blue labelled independently "winter", "off", "summer". The winter mode will turn on both blue and amber, the summer will only turn on the amber lights.	
10.41	Signals and brake lights	Safety flasher and turn signals	
10.42	Slow moving sign	Slow-moving vehicle warning triangle	
10.43	Back-up alarm	State dB	
10.44	Horn	Located on steering wheel or dash panel	

# OPERATOR STATION ERGONOMICS

10.45 Cab or station layout should provide a comfortable seating position for the 5<sup>th</sup> to the 95<sup>th</sup> percentile of personnel. Figure 1 below illustrates the variance between a 5<sup>th</sup> to a 95<sup>th</sup> percentile of North American males and females when seated.

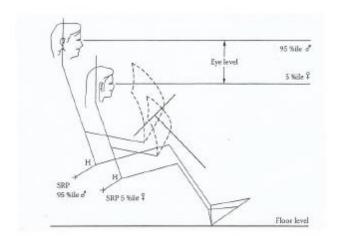
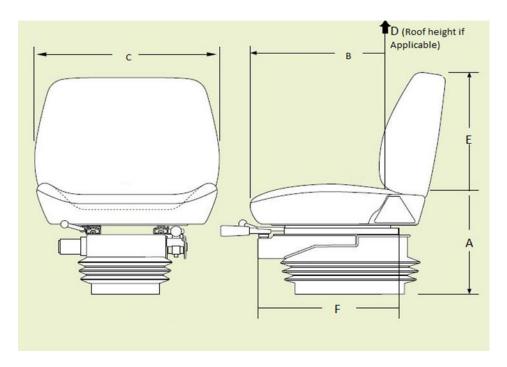


Figure 2: Use the below diagram to answer the specifications for Operator Station Ergonomics.

10.57

Width



10.46	Sitting height range from floor (where feet rest) (A)	State, seat height range in inches	
10.47	Seat length/depth (B)	State, seat length/depth in inches	
10.48	Seat width (C)	State, seat width in inches	
10.49	Cab height from seat to roof (if applicable) (D)	State, cab height range in inches	
10.50	Back rest height (E)	State, back rest height in inches	
10.51	Seat travel range (F)	State, seat travel in inches	
10.52	Include any other relevant ergonomic specifications and applicable range of adjustment		
	ELECTRICAL & REMOTE VALVES		
10.53		7 pin connector implement light socket	
10.53 10.54	VALVES	7 pin connector implement light socket Three (3) pairs rear, two (2) pairs mid	
	VALVES Light socket		
	VALVES  Light socket  Remote control valves		
10.54	Light socket  Remote control valves  TIRES	Three (3) pairs rear, two (2) pairs mid  Industrial tractor R4 tires, <b>state</b> tire size,	

State overall width in inches

10.58	Wheelbase	State wheelbase in inches	
10.59	Height	State height to top of cab in inches	
10.60	Weight	State total operating weight	
10.61	Radius	State turning radius	
	WEIGHT KIT		
10.62	Front Detachable weights	Front bracket (approx. 160 lbs.) assembly with retaining pin, quick attach pin. Holds Twelve approx. 100 lbs/each suitcase style weights. Total weight approx. 1360 lbs.	
11.0	WARRANTY		
11.1	Basic coverage	(Complete Machine) Warranty 2 years, 2000 hours	
11.2	Powertrain	(Engine, Transmission) Warranty 2 years 2000 hours	
11.3	Hydraulics warranty	(Hydraulics) Warranty 2 years, 2000 hours	
11.4	Batteries warranty	(Batteries) Warranty 1 year	
11.5	Tires warranty	(Tires) Warranty 1 year	
11.6	Electrical warranty	(Electrical) Warranty 2 years, 2000 hours	
11.7	All warranty information shall be detailed successful bidder shall provide all public of the equipment. Bidder shall state all	ished warranty information upon delivery	
12.0	DELIVERY		
12.1	Delivery Point: The complete unit shall be serviced, ready for operation and delivered F.O.B. with the freight prepaid, including invoice and N.I.V.S. (if applicable) to the WFMA 185 Tecumseh Street, Winnipeg MB. The successful bidder shall be notified by the Contractor Administrator the delivery address prior to issuance of the purchase order		
12.2	Delivery Time: Sixteen to eighteen (16-18) calendar weeks from the date of award. Equipment shall be delivered between 8:00 am and 3:00 pm on Business Days.		
12.3	Delivery Contact: The Contractor shall contact the Contract Administrator prior to delivery of the equipment.		
12.4	P.D.I: A pre-delivery inspection shall be equipment. Proof upon inspection incl		

13.0	<u>MANUALS</u>
13.1	Manuals supplied under this Contract. The manuals shall cover the complete equipment including all components thereof, CD is preferred where available.
13.2	The following manuals shall be supplied with the units when delivered:
	a) Operator's manual – Two (2) per unit (one operator manual shall be sent to the Equipment Operator Training Branch
	b) Parts and service manuals – one (1) complete sets including preventative maintenance schedules. CDs are preferred.
14.0	PARTS/LABOUR PRICING
14.1	Bidder to provide City of Winnipeg Parts Discount % Pricing from retail parts pricing. State percentage discount-
14.2	Bidder to provide City of Winnipeg Labor Discount % Pricing from Retail shop labor rate. State percentage discount-

### FORM N: DETAILED SPECIFICATIONS 16024 AG TRACTOR (20HP PTO) WITH CAB

#### 1.0 DESCRIPTION OF EQUIPMENT

- 1.1 These specifications describe an <u>Ag Tractor</u> and other equipment and features as specified herein.
- 1.2 The **Ag Tractor** shall be a new 2016 model year or newer.
- 1.3 The <u>Ag Tractor</u> and all other items/components shall be the manufacturer's latest model. The equipment shall be furnished complete and ready for operation. Any parts or accessories not specifically mentioned, but which are required to complete and place the equipment and associated attachments in successful operation shall be furnished as though specifically mentioned in these specifications. The equipment and associated attachments, and all parts thereof, shall conform in strength and quality of material and workmanship, to the best standards and engineering practice of the industry.
- 1.4 It will be the responsibility of the Bidder to inform the City of any errors or omissions in these specifications, for under this Contract the Contractor shall be held responsible for the satisfactory operational function of the equipment.

#### 2.0 OTHER SPECIFICATIONS AND STANDARDS

- 2.1 All applicable SAE standards form an integral part of these specifications and shall have precedence in any conflict concerning minimum acceptable standards.
- 2.2 The **Ag Tractor** shall comply with the applicable regulations:

National Safety Mark, NSM = http://www.tc.gc.ca/eng/acts-regulations/acts-road.htm

Manitoba Safety and Health Act, Parts 12, 22 = http://web2.gov.mb.ca/laws/statutes/ccsm/w210e.php and http://www.gov.mb.ca/labour/safety/

Canadian Standards Association, CSA = http://www.csa.ca/about/Default.asp?language=english

Under Writers of Canada, U/L = http://www.ulc.ca/

Society of Automotive Engineers, SAE =http://www.sae.org/

City of Winnipeg Lighting Visibility

Standard=http://winnipeg.ca/matmgt/pdfs/PublicWorksEquipLightingVisibility.pdf.

2.3 It will be the responsibility of the Bidder to inform the City of any deficiencies in these specifications, for under this Contract the Contractor shall be held responsible for the design, performance, reliability and satisfactory operational function of the units.

#### 3.0 SERVICE FACILITY

3.1 For the purpose of warranty repairs, the Bidder shall have an authorized service facility located within 10 km of the boundaries of the City of Winnipeg. The facility, or a portion thereof, shall be dedicated to the service and maintenance of the type equipment being offered. Further to B9.1, Bidders shall provide a description of the service facility including, but not limited to, number of qualified service staff, years of service experience, and general service capabilities within three (3) Business Days upon request of the Contract Administrator.

#### 4.0 REFERENCES

4.1	Provide five (5) Canadian references where this equipment is used in a working environment where climatic conditions are similar to the City of Winnipeg.
5.0	MAKE & MODEL
5.1	State make, model and year of the equipment bid

#### 6.0 INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS

- 6.1 Each bid will be evaluated based on adherence to all terms, conditions and requirements outlined in the Bid Opportunity package.
- All items in these specifications must be answered indicating compliance or non-compliance.

  BIDDERS SHALL STATE "YES" FOR COMPLIANCE OR STATE DEVIATION, or give reply where requested to do so. Deviations shall be clearly stated and fully detailed. Alternatives will be considered subject to evaluation.
- 6.3 EACH BIDDER IS REQUIRED TO FILL IN EVERY BLANK. FAILURE TO DO SO MAY BE USED AS A BASIS FOR REJECTION OF BID

#### 7.0 PERFORMANCE RELIABILITY

- 7.1 The responsibility for the design of the <u>Ag Tractor</u>, its performance and reliability shall rest upon the Contractor.
- 7.2 The term "repeated failures" as used herein is defined to mean that the same component, subassembly, or assembly develops repeated defects, breakdowns and/or malfunctions rendering the vehicle inoperative, or requiring repeated shop correction, service and/or replacement during the warranty period applicable for said component, subassembly, of assembly. Minor items or ordinary service adjustments are not included, or considered under the scope of "repeated failures", as well as other factors, such as operational damage due to accidents, misuse or lack of proper maintenance, service and lubrication attention by not following the manufacturer's preventative maintenance schedule.
- 7.3 Where the <u>Ag Tractor</u> develops "repeated failures" in service, the Contractor shall make any necessary engineering changes, repairs, alterations or modifications in order to guarantee reliability of performance.
- 7.4 The equipment shall be capable of consistent top performance in City of Winnipeg Environment. Note: The City of Winnipeg has four seasons with ambient temperatures ranging from approximately 90°F (32°C) to -40°F (-40°C)

#### 8.0 <u>FUEL</u>

8.1 Where applicable, all equipment must be fully fuelled upon delivery (no exceptions).

#### 9.0 QUALIFICATIONS OF MANUFACTURER & CONTRACTOR

9.1 The manufacturer of the **Ag Tractor** shall have five (5) years continuous experience manufacturing the equipment.

- 9.2 The manufacturer shall have in effect a documented quality control program ensuring that the quality of materials and workmanship, including welding, conforms to the best standards and engineering practice of the industry.
- 9.3 The Contractor shall have five (5) years continuous experience servicing, repairing and maintaining **Ag Tractor and associated attachments** of the type being offered.

## 10.0 **SPECIFICATIONS:**

	ENGINE		
10.1	Engine type	Diesel, <b>state</b> manufacturer	
10.2	Tier	Tier IV interim or final, state	
10.3	Engine HP (Gross)	Approx. 24-25 HP	
10.4	PTO HP	Approx. 18-20 HP	
10.5	Rated speed, RPM	State rated RPM Speed	
10.6	Air cleaner	Dry type air cleaner	
10.7	Fuel tank capacity	State capacity	
10.8	Throttle	Hand or foot throttle control, <b>state</b>	
10.9	Engine block heater	Cold weather operation	
	ELECTRICAL		
10.10	Alternator	Approx. 40 Amps, <b>State</b>	
	DRIVE TRAIN		
10.11	Transmission	Hydrostatic transmission 4 wheel drive	
10.12	No. of speeds	State, No. of speeds for forward and reverse	
10.13	Brakes	Wet, multi disc	
10.14	Steering	Hydrostatic power steering	
10.15	Drive	4x4 (4 wheel drive)	
	PTO		
10.16	Туре	Full independent of manual	
10.17	Rear (rpm)	Approx. 540 rpm	
10.18	Mid PTO (rpm)	Approx. 2000 rpm	

### **HYDRAULICS**

10.19	Pump gpm	State gpm	
10.20	Total flow	State total gpm flow	
10.21	mid mount hydraulic couplers	Remote hydraulics with ability to control two separate functions, quick release connectors	
10.22	Hitch lift	State hitch lift capacity	
10.23	Hitch category	Category I (3) point hitch	
10.24	Adjustable stabilizer linkage	To secure rear mounted attachments (check chains not acceptable).	
	CAB		
10.25	Instrumentation	Alternates, warning light- engine oil pressure light. Gauges – water, fuel, tachometer w/ hour meter	
10.26	Cab	Cab with heat with ROPS with seat belt	
10.27	Cab doors	Two (2) door opening	
10.28	Radio	AM/FM/CD or MP3	
10.29	Work lights	Front and rear work lights	
10.30	Seat	Adjustable seat, with mechanical suspension	
10.31	Wipers	Front and rear wiper/washer	
10.32	Air circulation	Cab air recirculation	
10.33	Rear window defrost	Electric grid on rear windows	
10.34	Roof vent (pop-up style)	Preferred but not required, state	
10.35	Sun visor	Front	
10.36	Cutter/breaker	Combination seat belt cutter and glass breaker	
10.37	Fire extinguisher	Two (2.5) lbs. High volume ABC type, <b>State</b> location	
10.38	Safety lighting	Make and Model: Whelen L31 Series Super-LED, SAE Class 1 (or equivalent) Blue/Amber (individual control) Low Dome Beacon, 360 degree visibility. Wired through ignition, lights shall be wired for separate amber and separate blue labelled independently "winter", "off", "summer". The winter mode will turn on both blue and amber, the summer will only turn on the amber lights.	
10.39	Signals and brake lights	Safety flasher and turn signals	

10.40	Slow moving sign	Slow-moving vehicle warning triangle	
10.41	Back-up alarm	State dB	
10.42	Horn	Located on steering wheel or dash panel	

# OPERATOR STATION ERGONOMICS

10.43 Cab or station layout should provide a comfortable seating position for the 5<sup>th</sup> to the 95<sup>th</sup> percentile of personnel. Figure 1 below illustrates the variance between a 5<sup>th</sup> to a 95<sup>th</sup> percentile of North American males and females when seated.

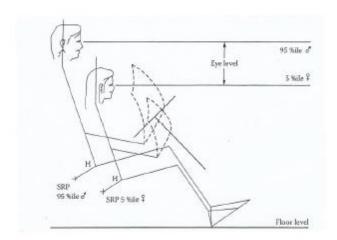
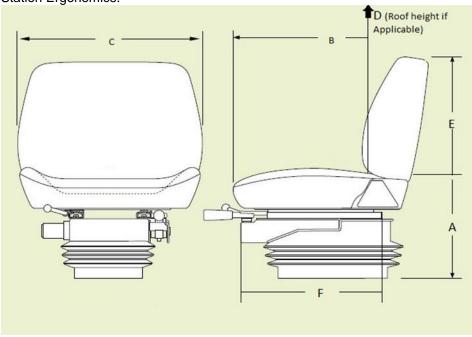


Figure 2: Use the below diagram to answer the specifications for Operator Station Ergonomics.



10.45	Seat length/depth (B)	State, seat length/depth in inches	
10.46	Seat width (C)	State, seat width in inches	
10.47	Cab height from seat to roof (if applicable) (D)	State, cab height range in inches	
10.48	Back rest height (E)	State, back rest height in inches	
10.49	Seat travel range (F)	State, seat travel in inches	
10.50	Include any other relevant ergonomic specifications and applicable range of adjustment		
	ELECTRICAL & REMOTE VALVES		
10.51	Light socket	7 pin connector implement light socket	
10.52	Remote control valves	Two (2) pairs	
	<u>TIRES</u>		
10.53	Tire size, industrial tractor R4	Industrial tractor R4 tires, <b>state</b> tire size, make/model, front and rear	
	DIMENCIONS		
	<u>DIMENSIONS</u>		
10.54	Length	State overall length with 3 point hitch	
10.54 10.55	<u> </u>	State overall length with 3 point hitch State overall width in inches	
	Length	•	
10.55	Length Width	State overall width in inches	
10.55 10.56	Length Width Wheelbase	State overall width in inches State wheelbase in inches	
10.55 10.56 10.57	Length Width Wheelbase Height	State overall width in inches  State wheelbase in inches  State height to top of cab in inches	
10.55 10.56 10.57 10.58	Length Width Wheelbase Height Weight Radius	State overall width in inches  State wheelbase in inches  State height to top of cab in inches  State total operating weight	
10.55 10.56 10.57 10.58 10.59	Length Width Wheelbase Height Weight Radius	State overall width in inches State wheelbase in inches State height to top of cab in inches State total operating weight State turning radius	
10.55 10.56 10.57 10.58	Length Width Wheelbase Height Weight Radius	State overall width in inches  State wheelbase in inches  State height to top of cab in inches  State total operating weight	
10.55 10.56 10.57 10.58 10.59	Length Width Wheelbase Height Weight Radius	State overall width in inches State wheelbase in inches State height to top of cab in inches State total operating weight State turning radius  Two stage PTO driven, width approx. 48	
10.55 10.56 10.57 10.58 10.59	Length Width Wheelbase Height Weight Radius  ATTACHMENTS Snow blower (front mount)	State overall width in inches  State wheelbase in inches  State height to top of cab in inches  State total operating weight  State turning radius  Two stage PTO driven, width approx. 48 inches, state  Category 1, with adjustable top hook	
10.55 10.56 10.57 10.58 10.59	Length Width Wheelbase Height Weight Radius  ATTACHMENTS Snow blower (front mount)  Rear Quick Attach hitch	State overall width in inches State wheelbase in inches State height to top of cab in inches State total operating weight State turning radius  Two stage PTO driven, width approx. 48 inches, state  Category 1, with adjustable top hook mounted to rear 3-point hitch of tractor	

11.2	Powertrain	(Engine, Transmission) Warranty 2 years 2000 hours	
11.3	Hydraulics warranty	(Hydraulics) Warranty 2 years, 2000 hours	
11.4	Batteries warranty	(Batteries) Warranty 1 year	
11.5	Tires warranty	(Tires) Warranty 1 year	
11.6	Electrical warranty	(Electrical) Warranty 2 years, 2000 hours	
11.7	All warranty information shall be detailed successful bidder shall provide all public of the equipment. Bidder shall state all	ished warranty information upon delivery	
12.0	DELIVERY		
12.1	applicable) to the WFMA 185 Tecumse	be serviced, ready for operation epaid, including invoice and N.I.V.S. (if the Street, Winnipeg MB. The successful or Administrator the delivery address prior	
12.2	Delivery Time: Sixteen to eighteen (1 award. Equipment shall be delivered business Days.	6-18) calendar weeks from the date of between 8:00 am and 3:00 pm on	
12.3	Delivery Contact: The Contractor shall prior to delivery of the equipment.	contact the Contract Administrator	
12.4	P.D.I: A pre-delivery inspection shall be equipment. Proof upon inspection include		
13.0	MANUALS		
13.1	Manuals supplied under this Contract. complete equipment including all compavailable.		
13.2	The following manuals shall be supplie	d with the units when delivered:	
	a) Operator's manual – Two (2) per uni be sent to the Equipment Operator Tra		
	b) Parts and service manuals – one (1) maintenance schedules. CDs are prefe		
14.0	PARTS/LABOUR PRICING		
14.1	Bidder to provide City of Winnipeg Part pricing. <b>State percentage discount-</b>	s Discount % Pricing from retail parts	
14.2	Bidder to provide City of Winnipeg Labor rate. State percentage discount		