FORM A: BID (See B7)

1.	Contract Title	SUPPLY & DELIVERY	OF FRONT END WHEEL LO	ADERS
2.	Bidder			
		Name of Bidder		
		Street		
		City	Province	Postal Code
		Facsimile Number		
	(Mailing address if different)	Street or P.O. Box		
		City	Province	Postal Code
		The Bidder is:		
	(Choose one)	a sole proprietor		
		a partnership		
		a corporation		
		carrying on business ur	nder the above name.	
3.	Contact Person	The Bidder hereby aut the Bidder for purposes	norizes the following contact pof the Bid.	person to represent
		Contact Person	Title	
		Telephone Number	Facsimile Number	E-mail Address
1.	Definitions		used in the Contract shall h General Conditions and D3.	nave the meanings
5.	Offer		ers to perform the Work in a), in Canadian funds, set out	
6.	Commencement of the Work		no Work shall commence un from the Award Authorit Work.	

7.	Contract	The Bidder agrees that the Bid Opportunity in its entirety shall be deemed to be incorporated in and to form a part of this offer notwithstanding that not all parts thereof are necessarily attached to or accompany this Bid.
8.	Addenda	The Bidder certifies that the following addenda have been received and agrees that they shall be deemed to form a part of the Contract:
		No Dated
9.	Time	This offer shall be open for acceptance, binding and irrevocable for a period of sixty (60) Calendar Days following the Submission Deadline.
10.	Signatures	The Bidder or the Bidder's authorized official or officials have signed this day of , 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)

FORM B(R1): PRICES (See B8)

SUPPLY & DELIVERY OF FRONT END WHEEL LOADERS

UNIT PRICES						
ITEM NO.						
1.	2.5 YD ³ Front End Wheel Loaders (Transit, Water & Waste Treatment Plant)	09043	Each	(1)	\$	
2.	4.25 YD ³ Front End Wheel Loaders (Streets)	09042	Each	(7)	\$	
	TOTAL BID PRICE (GST and MRST extra) (in figures) \$ (in words)					
,					Name of Bidder	

FORM N: DETAILED SPECIFICATIONS 09042

4.25 YD³ FRONT END WHEEL LOADERS ITEM # 2

- 1.0 DESCRIPTION OF EQUIPMENT AND PERFORMANCE-
- 1.1 THESE SPECIFICATIONS DESCRIBE THE SUPPLY AND DELIVERY OF 4.25 YD³ FRONT END WHEEL LOADERS AND ASSOCIATED ATTACHMENTS AS SPECIFIED HEREIN. THE 4.25 YD³ FRONT END WHEEL LOADERS AND ALL ASSOCIATED ATTACHMENTS SHALL BE NEW 2010 MODEL YEAR OR NEWER.
- 1.2 Shall be capable of consistent top performance for construction activities, SNOW REMOVAL and other miscellaneous functions such as ground, boulevard and parkland maintenance during the summer and winter environment, which is normal to the City of Winnipeg.
- 1.3 The <u>4.25 YD³ FRONT END WHEEL LOADERS</u> and all other items/components shall be the manufacturer's latest models. The wheel loaders shall be furnished complete and ready for operation. Any parts or accessories not specifically mentioned, but which are required to complete and place the wheel loaders, (including attachments and counterweights) in successful operation shall be furnished as though specifically mentioned in these specifications. The complete wheel loaders and 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.

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 <u>4.25 YD³ FRONT END WHEEL LOADERS</u> and all its components and attachments shall comply with the applicable regulations:

Highway Traffic Act = http://web2.gov.mb.ca/laws/statutes/ccsm/h060e.php

Manitoba Motor Vehicle Act = http://www.tc.gc.ca/acts-regulations/GENERAL/M/mvsa/menu.htm

Canadian Motor Vehicle Safety Standards, CMVSS = http://www.gnb.ca/0062/regs/83-163.htm

<u>Transport Canada = http://laws.justice.gc.ca/en/notice/index.html?redirect=%2Fen%2FM-10.01%2F250448.html</u>

National Safety Mark, NSM = http://www.tc.gc.ca/actsregulations/GENERAL/M/mysa/regulations/mysrq/001/mysr3-5.html

Manitoba/Winnipeg Safety and Health Act =

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://en.wikipedia.org/wiki/Society of Automotive Engineers

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 QUALIFICATIONS OF MANUFACTURER / BIDDER-

- 3.1 The successful bidder and manufacturer must have <u>five (5) continuous years</u> of experience manufacturing and distributing <u>4.25 YD³ FRONT END WHEEL LOADER</u> equipment of the type and brand being offered.
- The Bidder shall be an authorized distributor/supplier of the <u>4.25 YD³ FRONT END WHEEL LOADERS</u> type and brand being offered.

4.0 SERVICE FACILITY-

4.1 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. 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.

	upon request of the Contract Administrator.
5.0	MAKE-
5.1	State make-
6.0	MODEL-
6.1	State model being bid:
7.0	INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS-
7.1	Each bid will be evaluated based on adherence to all terms, conditions and requirements outlined in the Bid Opportunity package.
7.2	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.
7.3	EACH BIDDER IS REQUIRED TO FILL IN EVERY BLANK. FAILURE TO DO SO MAY BE USED AS A BASIS FOR REJECTION OF BID
8.0	WEIGHT & DIMENSIONS-
8.1	Operating weight 40,000 lbs, state-
8.2	Overall width over tires, less bucket, state-
8.3	Overall height (to top of cab, not including warning beacon), state-
8.4	Ground clearance, state-
8.5	Overall length, bucket on ground, state-

9.0	ENGINE-	
9.1	Type Tier III diesel liquid cooled and turbo charged.	
9.2	Net horsepower as per SAE J1349B - 210 H.P. (156kW), state-	
9.3	Fuel shut-off - electric solenoid type.	
9.4	Fuel filter - spin-on type.	
9.5	Fuel system water separator - required.	
9.5	Oil filter - full flow, spin-on type.	
9.6	Air cleaner - dry two-stage with restriction indicator and pre-cleaner.	
9.7	Exhaust vertical pipe complete with muffler vertical discharge with bend and 40° cut-off.	
9.9	Coolant Ethylene glycol based, protected to -35°F (-37°C).	
9.10	Extended lifelong coolant.	
9.11	Engine block heater - immersion type 1,000 watts, with covered recessed male plug.	
9.12	Automatic De-rating or equivalent for exceeding system parameters - Shall provide visual and audible warning of principal machine systems including engine oil pressure and coolant temperature. Shall provide the ability for the operator to move the machine to a safe location where the machine will not pose a threat to the operator or the public.	
9.13	Automatic De-rating or equivalent for exceeding system parameters - low oil pressure and high water temperature, low fuel pressure shutdown. OEM approved only.	
9.14	Programmable anti-idling system or equivalent required for carbon emission Reduction/fuel consumptions.	
10.0	DRIVE TRAIN-	
10.1	Front Axle- limited slip or hydraulic locking differential. State-	
10.2	Shall have the capability of allowing the operator to select either automatic or manual shifting.	
10.3	Shall have the capability of full power shift with torque converter.	
10.5	Shift control - single lever.	
10.6	Forward gears, state number of speeds-	
10.7	Reverse gears, state number of speeds-	
10.8	Rear Axle- limited slip or hydraulic locking differential, state-	
10.9	Semi-floating or oscillating rear axle.	
10.10	Differential drain plugs - magnetic type.	

11.0	BRAKES, STEERING & TIRES-				
11.1	Service brakes - 4-wheel, hydraulic operated wet disk type.				
11.2	Parking Brake - Spring applied and hydraulically released				
11.3	Two Co	ontrol Pedals:			
11.4	Acceler	rator pedal			
11.5	Dual pu	urpose pedal - transmission disconnect with braking			
11.6	Steering	g - articulated with 35° articulation left and right of center, state-			
11.7	Articula	tion center pin components, state type-			
11.8	Operati	onal Steering and Articulating Requirements:			
	a)	Full steering and articulating capabilities required under full lift capacity at engine idle speed.			
	b)	Steering and Articulation of the machine must be smooth, controlled and continuous, fully raised and loaded at engine idle speed.			
	c)	Steering wheel movement must be smooth, controlled and continuous fully raised and loaded engine speed. There shall be no erratic, pulsating or jerking movement of the steering wheel.			
	d)	Steering equipped with neutralizer valves or equivalent to prevent frame to frame contact at full articulation			
11.9	Steerin	g frame lock - required.			
11.10	Tires:				
	a)	RADIAL-			
	b)	23.5R25 L3, state-			
	c)	Snow style tread, front and rear.			
	d)	Tires shall have a sure grip design.			
	e)	Michelin or Bridgestone, state-			
	State m	nake and model being bid.			
11.11	Rims				
	a)	3-piece design.			

12.0	FRONT END LOADER-	
12.1	Breakout force – 33,000 lbs., state-	
12.2	Tipping Loads:	
	 a) Static straight – 30,000 lbs., (required for Vohl 4000 Front Mounted Snow Blower) state- 	
	b) Full turn – 26,000 lbs., (required for Vohl 4000 Front Mounted Snow Blower) state-	
12.3	Hinge pin height, fully raised – 13 ft., state-	
12.4	Loader Controls:	
	a) One dual function lever that provides lift and curl of the bucket.	
	b) Bucket leveller - automatic with position indicator.	
	c) Automatic "Return to carry" option.	
	d) Boom height control (kick-out) - automatic, adjustable.	
12.5	Ride control system (accumulator) required to attenuate machine bounce during travel. Shall be OEM system. (Aftermarket system unacceptable)	
12.6	The ride control system shall be of the type that automatically engages or disengages, dependent on the machines ground speed.	
12.7	Loader bucket:	
	a) Bucket general purpose. Bucket capacity, SAE – 4.25 yd3.	
12.8	Bucket width to exceed machine width at tires.	
12.9	Cutting edge - bolt-on, heat treated steel, 1, 2 or 3 piece reversible blade acceptable, full width of bucket x 12 inch deep, Bucyrus or equal, state make and model being bid. State make and model of blade supplied-	
12.10	Bottom wear plates - required to prevent bucket heel from rubbing on ground with bolt-on cutting edge in place.	
12.11	Side wear plates - bolt-on, replaceable, Bucyrus or equal, state make and model being bid-	
12.12	OEM approved Loader safety prop bar - required.	
12.13	Hydraulic fluid level indicator - required.	
12.14	Auxiliary hydraulics for attachment growth. Exact quantity shall be determined Upon a pre-production meeting.	

13.0	OPERATOR COMPARTMENT-	
13.1	Type -ROPS roll over protective structure complete with pressurized cab. OSHA certified or equal.	
13.2	Insulation - required for sound suppression, rated as per 13.21	
13.3	Seat - cushioned, adjustable high back bucket type with cloth upholstery, air suspension, armrests and retractable seat belt.	
13.4	Windows - tinted safety glass with appropriate markings for all panes.	
13.5	Sun visor - fold-down type.	
13.6	Door - lockable with keyed lock. Door/window shall latch in fully opened position.	
13.7	Exterior rear view mirrors - one (1) each side.	
13.8	Interior rear view mirror.	
13.9	Windshield wipers – Winter type, two speed, front and rear.	
13.10	Windshield washers - front and rear.	
13.11	Heater/defroster/pressurizer - heavy duty, hot water type with multi-speed fan and filtered air intake.	
13.12	Must have interior cab heater capable of sustaining cab temperature to 20°C at an outside ambient air temperature of - 40°C. Auxiliary heater required to assist factory heater. State make, model and BTU ratting-	
13.13	Defroster - capable of keeping all windows clear at – 40°C.	
13.14	Air conditioning - required.	
13.15	Radio - AM/FM/CD.	
13.16	Steering wheel - tilt type.	
13.17	Rubber floor covering - required throughout.	
13.18	OEM installed rear view camera	
13.19	Instrumentation:	
	Shall be as follows but not limited to:	
	 a) Engine coolant temperature gauge and alarm. b) Engine oil pressure gauge and alarm. c) Transmission oil temperature gauge d) Hour-meter- required. Non-resettable. e) Ammeter, voltmeter, state- f) Fuel gauge- required. g) Tachometer- preferred, state- 	

13.20	Gauges shall be mounted in the control panel (dashboard), or in a location that is easily observed by the operator from the seat.	
13.21	Noise level, interior - 85 dB (A), measured in accordance with SAE J336, state noise level-	
13.22	Rear sun shade require	
13.23	(10) lbs ABC Type Fire Extinguisher, First Aid Kit, Flare Kit mounted as per Manufacture's OEM recommendation, state location-	
13.24	Steps and handrails to provide safe cleaning of front windshield	
13.25	Left and right cab doors preferred, complete with a full length ladder to provide safe exit if required. State emergency exit-	
13.27	Self cleaning steps for safe entry and exit	
14.0	ELECTRICAL & LIGHTING-	
14.1	Type - 24 volt, negative ground electrical system.	
14.2	Electric starter - required.	
14.2.1	Electric starter thermally and over spin protected.	
14.3	Starter switch key type.	
14.3.1	Three (3) sets of keys required.	
14.4	Batteries - two (2), maintenance free 1100 CCA capacities each.	
14.4.1	Battery disconnect switch - required.	
	a) Battery disconnect switch, protected from the elements.	
14.5	Alternator - 55 amps, state output-	
14.6	LED, Combination stop and tail lights - two (2), protected from damage.	
14.7	LED, Signal lights with warning flashers - two (2), visible front and rear.	
14.8	Headlights - two (2), mounted immediately below cab roof.	
14.9	Work lights:	
	a) Heavy Duty work lights required.	
	b) Front - two (2), adjustable, mounted near top pivot of loader lift arms.	
	c) Rear - two (2). Must be fully adjustable.	
	d) Independent on/off switch for each pair of work lights.(front and rear) Dash mounted, wired through ignition.	

14.10	Full set of Manitoba Highways provincially approved highway lights (wigwag lights).	
14.11	Shall be independently controlled through a separate switch.	
14.12	Highway lights not to extend past cab.	
14.12	Cab interior (dome) light.	
14.13	Horn.	
14.14	Warning Beacons:	
	a) Blue/Amber with Clear Lens L360 Series Super LED Beacon: L31HABF Branch Guard: L360BGB	
	b) Both beacons to be independently switched.	
14.15	Roof mounted with ramped, bolt-on metal guard	
14.16	Complete with dash mounted on/off switch wired through ignition.	
14.17	(97 dba) Back-up alarm - mounted at rear of unit, located to be protected from damage.	
14.18	Radio installation provision - 12 volt, 20-amp circuit available at a spare circuit breaker, suitable for installation of a 2-way mobile radio.	
14.19	Radio to be wired on an independent circuit.	
14.20	Wiring:	
	a) All electrical functions (except warning flashers, and 2-way radio circuit) shall be wired through the ignition.	
	b) Wiring for all locally installed equipment shall be colour coded, loomed and properly secured.	
	c) All joining of wires and electrical connectors shall be soldered and sealed with heat shrink tubing or with sealed weather tight connectors	
	d) No splices shall be made into OEM or after market wiring harnesses.	
	e) All additional circuits are to be run from a power distribution box.	
	f) All fuses, relay's and circuit breakers to be made easily accessible.	

15.0	MISCE	LLANEOUS-			
15.1	Fenders – Full width, required front and rear with anti-skid tape on step surfaces where applicable.				
15.2	Engine				
15.3	Drawba	ar hitch with pin.			
15.4	Access	ladder with non-skid step surfaces.			
15.5	Grab ha	andles - supplied as required at all appropriate locations.			
15.6	Toolbox	c - lockable, state location.			
15.7	Slow m	oving vehicle emblem.			
15.8.	Groene	veld Twin Automatic Greasing System., state quantity of grease points-			
15.9	Activate	ed by release of the parking brake or daytime running lights.			
15.10	Reservoir capacity – The reservoir capacity shall be sufficient as to allow the machine to run for 250 hours before being refilled				
15.11	Welco E	Beales Quick Coupler attachment for the use of Vohl DV4000 Blowers			
15.12	OEM A	nti-theft security safety system required, state type-	_		
15.13	Oil sampling valves for engine, transmission and hydraulic system				
15.14	Electric	fuel priming pump to eliminate fuel contamination			
16.0	MATER	RIAL WEIGHING SYSTEM (BUCKET SCALE) AND ACCESSORIES-			
16.1	Materia	l Weighing System (Bucket Scale)			
16.2	State M	lake and Model of "Material Weighing System" being offered.			
16.3	The "Ma	aterial Weighing System" shall have the following features:			
	a) b)	Digital display LCD readout. Auto tare function – The operator can recall a truck's tare weight from memory.			
	c)	Unit conversion-The operator can view the lifted weight in either imperial or metric measurements.			
	d)	Converts weight to a volumetric measure. Multiple batching modes- Enables the operator to mix different products together and retrieve a new total of the end product.			
	e)	Language toggle – Allows the operator to switch between two languages at the push of a button.			
	f)	Features that will allow the printer to produce hardcopies of all the required features.			

16.4	Printer:	State Make and Model of "Printer" being offered- and optional price \$\$	
16.5	The printer shall have the following features: A standard docket that provides the following productivity data:		
	a)	Date and time.	
	b)	Company name.	
	c)	Loader operator identification.	
	d)	Loader identification.	
	e)	Truck identification.	
	f)	Docket identification.	
	g)	Customer name.	
	h)	Product loaded and total truck load weight.	
	i)	Individual bucket load weights.	
	j)	Weight units (lb, ton, kg).	
16.6	Detailed	d reports:	
	a)	Shift, daily or weekly accumulated totals.	
	b)	Product identification.	
16.7	Daily pr	oduct totals:	
	a) b)	Daily customer totals – summary of total product loaded for customer (customer report). Daily truck totals – summary of total product loaded for	
		trucks (truck report).	
16.8	Suitable	e for single or duplicate paper.	
16.9	Materia	l Management Add-on System — (Data Module)	
16.10		ake and Model of "Material Management Add-on System Module) being offered-	
16.11	downloa	are Required — Office hardware (Data Module), that permits the ading of information from the Material Weighing System into e computer.	
16.12	Software Required — Software, that allows staff to produce various activity reports that can be outputted through an office computer in either "Word" or "Excel" format, for further documentation.		

17.0 **TRAINING**-

17.1 The Contractor shall be required to provide training (at the Contractor's expense) for the City of Winnipeg maintenance and operating personnel. The training shall be divided into two separate sessions, one for maintenance personnel and one for operating personnel. The training shall be conducted in separate or combined sessions for each group of personnel.

The duration of the sessions shall be as long as required for adequate familiarization and orientation of the equipment to the satisfaction of the Contract Administrator.

The training shall be conducted within two (2) calendar weeks from the date of delivery and shall be coordinated through the Contract Administrator.

The training shall be conducted in Winnipeg at a time and location designated by the Contract Administrator.

Pricing should be based on four (4) business days for maintenance personnel and four (4) business days for operating personnel.

Note: The first payment of the contract on the equipment will not be issued until successful completion of training has been conducted to the satisfaction of the Contract Administrator

b) For major attachments (if applicable):

	conducted to the satisfaction of the Contract Administrator.		
17.2	Training Aides:		
17.2.1	Training aids to be included.		
	a) On the type of equipment being offered, state if VHS videotape or CD Rom training aides are available-		
17.2.2	State if other training aides are available and state type.		
17.3	What is the recommended minimum training duration for:		
	a) Primary unit:		
	b) For major attachments (if applicable):		
17.4	State what other training aids are available (videos CDs)		
17.4	State what other training aids are available (videos, CDs).		
	a) For the primary unit:		

17.5 Training Materials and applicable manuals or on-line training material information must be provided to the Operator Training Branch of Public Works at the earliest possible opportunity, no later than (4) weeks prior to delivery, when supplying vehicles, equipment and related attachments. Send these materials, preferably in both electronic format and hard copy (training videos are to be supplied on either CD or DVD) to:

the date the equipment is put into service by the City of

Winnipeg.

	Public Works Safety and Operator Training Division Operator Training Branch 2nd Floor, Building "B", 1500 Plessis Road R2C 5G6	
	E-mail: pwd-opertrain@winnipeg.ca	
	Attn: Equipment Training Coordinator - Pending Equipment Delivery	
17.6	State acknowledgement of item 17.5-	
17.7	State manufacturer's accreditation or certification for training	
\18.0	WARRANTY-	
18.1	Upon request, complete details of warranties shall be made available within twenty-four (24) hours of the request of the Contract Administrator.	
18.2	The Contractor shall warrant all equipment and all parts thereof, against any defects of workmanship, construction and materials, and agrees to repair or replace, without cost to the City, any article that has become defective and not proven to have been caused by negligence on the part of the user within five (5) years from the date the equipment is put into service by the City of Winnipeg.	
18.2.1	Notwithstanding 18.2 above, the Contractor shall warrant all major components including, but not limited to, engine, transmission, final drives, all wheel drive system (and all components thereof), pumps and motors, axle assemblies, tandem drives, etc. against any defects of workmanship, construction and materials, and agrees to repair or replace without cost to the City, articles that have become defective and not proven to have been caused by negligence on the part of the user within five (5) years or 7500 hours from the date the equipment is put into service by the City of Winnipeg.	
18.2.2	Notwithstanding 18.2 above, the Contractor shall warrant all attachments, and all parts thereof, against any defects of workmanship, construction and materials, and agrees to repair or replace, without cost to the City, any article that has become defective and not proven to have been caused by negligence on the part of the user within one (1) year from	

18.3	or any i	arranty shall not include regular maintenance items item deemed as a consumable that is subject to ay wear and tear, during the regular operation of t.	
18.3.1	Exampl	les of items not covered under warranty:	
	a)	Ground engaging tools such as bolt cutting edges or bucket teeth.	
	b)	Maintenance items such as filters, oils, belts etc Miscellaneous items such as wiper blades, lights.	
18.3.2	If the equipment provided by the Contractor contains any part manufactured by an outside source, that falls under the description in any one of the Clauses 18.3.1 above, and has a standard manufacture's warranty, the term's contained in the manufacture's warranty shall apply.		
	specific	ne event of contradiction, the requirements of cation 18.3.2 shall take precedence over those of cation 18.3.1.	
18.4	The foll	lowing shall be covered under manufacture's warranty:	
	a)	Batteries.	
	b)	Tires.	
18.5	to, Con in exec	dental warranty related costs (including, but not limited stractor's travel, mileage, deductibles, towing costs etc.) suting any part of the warranty shall be the sole sibility of the Contractor.	
18.6		ranty work performed by the contractor is to be accompanied with a warranty invoice showing a zero balance minus any deductibles.	

19.0 ONLINE DEALER SUPPORT-

The following information shall be available live web based on line at the time of delivery of the equipment and shall be included in the Form B Bid prices. On-line dealer support shall be for a (9) year life cycle.

The Front End Wheel Loader shall have an OEM factory Installed Equipment Management System which provides the following:

Wireless communications designed to deliver:

- Location
- Utilization
- Performance
- Maintenance data
- Fault codes
- Service history
- Preventative Maintenance schedules
- Fuel data.
- On-line support shall be 24 hours/ 7days a week /365 days a year
- (PDF versions not acceptable)

19.1	Operational (Operator manual) information- Shall consist of the following:
	 On line or CD comprehensive technical and operational information preferred On-line support shall be 24 hours/ 7days a week /365 days a year Preferred

- 19.2 Parts/technical/service/repair information- Shall consist of the following:
 - Parts/technical/service/repair information
 - On-line equipment electrical diagnostic information
 - The ability to purchase parts from an on-line catalogue is preferred.
 - Ordered parts lists, ie; PM service kits.
 - Parts recalls
 - Ability to order parts on line 24 hours/ 7days a week /365 days a year preferred
 - (PDF versions not acceptable)
- 19.3 Preventative maintenance schedules- Shall consist of the following:
 - Provide on-line detailed checklists that outline critical steps in the PM process
 - Detailed fluid analysis reports which include present and past results preferred.
 - The ability to view frequently ordered parts lists, ie PM Service kits.
 - (PDF versions not acceptable)

delivery of the information shall be included in the cost.

19.4 State Website address -19.5 Website subscriptions that is necessary in providing

21.4

19.6	The information contained in the website must be deemed acceptable by the City's equipment inspector. In the event that the City inspector finds the that the information contained on the website.		
	 Does not provide enough detail Is too difficult to navigate (PDF versions not acceptable) 		
	At the inspectors discretion, the Contractor shall instead, supply the required manuals/CD's/paper bound copies.		
19.7	All necessary computer software, cables etc. shall be included		
20.0	FULL MAINTENANCE QUOTATION-		
20.1	Please provide quotation on a guaranteed maintenance contract as per manufactures maintenance guidelines for the following:		
20.2	(7) years 1500 hours a year full maintenance-	\$\$	
20.3	(8) years 1500 hours a year full maintenance-	\$\$	 _
20.4	(9) years1500 hours a year full maintenance-	\$\$	 _
21.0	DELIVERY-		
21.1	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. applicable) to the WFMA 185 Tecumseh Street, Winnipeg MB.	V.S. (if	
21.2	Delivery Time- Within <u>sixteen (16) calendar weeks</u> from the date of of notification of award of contract. Equipment shall be delivered between 8:00 am and 3:00 pm on Business Days.		
21.3	Delivery Contact- The Contractor shall contact the Contract Administrat prior to delivery of the equipment.	or	

P.D.I- A pre-delivery inspection shall be performed by the Contractor on the equipment. Proof upon inspection including completed check list

FORM N: DETAILED SPECIFICATIONS 09043

2.5 YD³ FRONT END WHEEL LOADERS ITEM # 3

- 1.0 DESCRIPTION OF EQUIPMENT AND PERFORMANCE-
- 1.1 THESE SPECIFICATIONS DESCRIBE THE SUPPLY AND DELIVERY OF A 2.5 YD³ FRONT
 END WHEEL LOADER AND ASSOCIATED ATTACHMENTSAS SPECIFIED HEREIN. THE 2.5
 YD³ FRONT END WHEEL LOADER AND ALL ASSOCIATED ATTACHMENTS SHALL BE
 NEW 2010 MODEL YEAR OR NEWER.
- 1.2 Shall be capable of consistent top performance for construction activities, snow removal work and other miscellaneous functions such as ground, boulevard and parkland maintenance during the summer and winter environment, which is normal to the City of Winnipeg.
- 1.3 The <u>2.5 YD³ FRONT END WHEEL LOADER</u> and all other items/components shall be the manufacturer's latest models. The wheel loader shall be furnished complete and ready for operation. Any parts or accessories not specifically mentioned, but which are required to complete and place the wheel loader, (including attachments and counterweights) in successful operation shall be furnished as though specifically mentioned in these specifications. The complete wheel loaders and 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.

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 <u>2.5 YD³ FRONT END WHEEL LOADER</u> and all its components and attachments shall comply with the applicable regulations:

Highway Traffic Act = http://web2.gov.mb.ca/laws/statutes/ccsm/h060e.php

Manitoba Motor Vehicle Act = http://www.tc.gc.ca/acts-regulations/GENERAL/M/mvsa/menu.htm

Canadian Motor Vehicle Safety Standards, CMVSS = http://www.gnb.ca/0062/regs/83-163.htm

<u>Transport Canada = http://laws.justice.gc.ca/en/notice/index.html?redirect=%2Fen%2FM-10.01%2F250448.html</u>

National Safety Mark, NSM = http://www.tc.gc.ca/actsregulations/GENERAL/M/mysa/regulations/mysrq/001/mysr3-5.html

Manitoba/Winnipeg Safety and Health Act =

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://en.wikipedia.org/wiki/Society of Automotive Engineers

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 QUALIFICATIONS OF MANUFACTURER / BIDDER-

- 3.1 The successful bidder and manufacturer must have <u>five (5) continuous years</u> of experience manufacturing and distributing <u>2.5 YD³ FRONT END WHEEL LOADER</u> equipment of the type and brand being offered.
- The Bidder shall be an authorized distributor/supplier of the **2.5 YD³ FRONT END WHEEL LOADERS** type and brand being offered.

4.0 SERVICE FACILITY-

4.1 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. 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.

5.0	MAKE-
5.1	State make-
6.0	MODEL-
6.1	State model being bid:

7.0 INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS-

- 7.1 Each bid will be evaluated based on adherence to all terms, conditions and requirements outlined in the Bid Opportunity package.
- 7.2 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.
- 7.4 <u>EACH BIDDER IS REQUIRED TO FILL IN EVERY BLANK. FAILURE TO DO SO MAY BE</u> USED AS A BASIS FOR REJECTION OF BID

8.0	WEIGHT & DIMENSIONS-	
8.1	Operating weight 24,000 lbs, state-	
8.2	Overall width over tires, less bucket, state-	
8.3	Overall height should not exceed 10' 5" w/o the beacon, state-	
8.4	Ground clearance, state-	
8.5	Overall length, bucket on ground, state-	
9.0	ENGINE-	
9.1	Type Tier III diesel liquid cooled and turbo charged.	
9.2	Net horsepower as per SAE J1349 B - 128 H.P. (95kW), state-	
9.3	Fuel shut-off - electric solenoid type.	
9.4	Fuel filter - spin-on type.	
9.5	Fuel system water separator - required.	
9.6	Oil filter - full flow, spin-on type.	
9.7	Air cleaner - dry two-stage with restriction indicator and pre-cleaner.	
9.8	Exhaust vertical pipe complete with muffler vertical discharge with bend and 40° cut-off.	
9.9	Coolant Ethylene glycol based, protected to –35°F (-37°C).	
9.10	Extended lifelong coolant.	
9.11	Engine block heater - immersion type 1,000 watts, with covered recessed male plug.	
9.12	Automatic De-rating or equivalent for exceeding system parameters - shall provide visual and audible warning of principal machine systems including engine oil pressure and coolant temperature. Shall provide the ability for the operator to move the machine to a safe location where the machine won't pose a threat to the operator or the public.	
9.13	Automatic De-rating or equivalent for exceeding system parameters - low oil pressure and high water temperature, low fuel pressure shutdown. OEM approved only.	
9.14	Programmable anti-idling system or equivalent required for carbon emission Reduction/fuel consumptions.	
10.0	DRIVE TRAIN-	
10.1	Front Axle- limited slip or hydraulic locking differential. State-	
10.2	Shall have the capability of allowing the operator to select either automatic or manual shifting.	
10.3	Shall have the capability of full power shift with torque converter.	
10.5	Shift control - single lever.	
10.6	Forward gears, state number of speeds-	

10.7	Revers	e gears, state number of speeds-	
10.8	Front A	xle- limited slip or hydraulic locking differential, state-	
10.9	Semi-fl	oating or oscillating rear axle.	
10.10	Differer	ntial drain plugs - magnetic type.	
11.0	BRAKI	ES, STEERING & TIRES-	
11.1	Service	brakes - 4-wheel, hydraulic operated wet disk type.	
11.2		Brake - spring applied and hydraulically released	
11.3	Two Co	ontrol Pedals:	
11.4	Accelei	rator pedal	
11.5	Dual pu	urpose pedal - transmission disconnect with braking	
11.6	Steerin	g - articulated with 35° articulation left and right of center, state-	
11.7	Articula	tion center pin components, state type-	
11.8	Operati	onal Steering and Articulating Requirements:	
	a)	Full steering and articulating capabilities required under full lift capacity at engine idle speed.	
	b)	Steering and Articulation of the machine must be smooth, controlled and continuous, fully raised and loaded at engine idle speed.	
	c)	Steering wheel movement must be smooth, controlled and continuous fully raised and loaded engine speed. There shall be no erratic, pulsating or jerking movement of the steering wheel.	
	d)	Steering equipped with neutralizer valves or equivalent to prevent frame to frame contact at full articulation	
11.9	Steerin	g frame lock - required.	
11.10	Tires		
	a)	RADIAL-	
	b)	17.5R 25, state-	
	c)	Snow style tread, front and rear.	
	d)	Tires shall have a sure grip design.	
	e)	Michelin or Bridgestone, state-	
	State ~	nake and model being hid	
	State II	nake and model being bid.	

11.11	Rims	
	a) 3-piece design.	
12.0	FRONT END LOADER-	
12.1	Breakout force – 18,000 lbs., state-	
12.2	Tipping Loads:	
	a) Static straight – 20,000 lbs., state-	
	b) Full turn – 17,500 lbs., state-	
12.3	Hinge pin height, fully raised – 11' 10", state-	
12.4	Loader Controls:	
	a) One dual function lever that provides lift and curl of the bucket.	
	b) Bucket leveller - automatic with position indicator.	
	c) Automatic "Return to Carry" option.	
	d) Boom height control (kick-out) - automatic, adjustable.	
12.5	Ride control system (accumulator) required to attenuate machine bounce during travel. Shall be OEM system. (Aftermarket system unacceptable)	
12.6	The ride control system shall be of the type that automatically engages or disengages, dependent on the machines ground speed.	
12.7	Loader bucket:	
	a) Bucket general purpose. Bucket capacity, SAE – 2.5 yd3.	
12.8	Bucket width to exceed machine width at tires.	
12.9	Cutting edge - bolt-on, heat treated steel, 1, 2 or 3 piece reversible blade acceptable, full width of bucket x 12 inch deep, Bucyrus or equal, state make and model being bid. State make and model of blade supplied.	
12.10	Bottom wear plates - required to prevent bucket heel from rubbing on ground with bolt-on cutting edge in place.	
12.11	Side wear plates - bolt-on, replaceable, Bucyrus or equal, state make and model being bid.	
12.12	OEM or Engineer approved Loader safety prop bar - required.	
12.13	Hydraulic fluid level indicator - required.	
12.14	Auxiliary hydraulics for attachment growth. Exact quantity shall be determined Upon a pre-production meeting.	

13.0	OPERATOR COMPARTMENT-	
13.1	Type -ROPS roll over protective structure complete with pressurized cab. OSHA certified or equal.	
13.2	Insulation - required for sound suppression rated as per 13.21	
13.3	Seat - cushioned, adjustable high back bucket type with cloth upholstery, air suspension, armrests and retractable seat belt.	
13.4	Windows - tinted safety glass with appropriate markings for all panes.	
13.5	Sun visor - fold-down type.	
13.6	Door - lockable with keyed lock. Door/window shall latch in fully opened position.	
13.7	Exterior rear view mirrors - one (1) each side.	
13.8	Interior rear view mirror.	
13.9	Windshield wipers - two speed, front and rear.	
13.10	Windshield washers - front and rear.	
13.11	Heater/defroster/pressurizer - heavy duty, hot water type with multi-speed fan and filtered air intake.	
13.12	Must have interior cab heater capable of sustaining cab temperature to 20°C at an outside ambient air temperature of - 40°C	
13.13	Defroster - capable of keeping all windows clear at – 40°C.	
13.14	Air conditioning - required.	
13.15	Radio - AM/FM/CD.	
13.16	Steering wheel - tilt type.	
13.17	Rubber floor covering - required throughout.	
13.18	Factory installed rear view camera, state optional price-	
13.19	Instrumentation:	
	Shall be as follows but not limited to:	
	 a) Engine coolant temperature gauge and alarm. b) Engine oil pressure gauge and alarm. c) Transmission oil temperature gauge d) Hour-meter- required. Non-resettable. e) Ammeter, voltmeter, state- f) Fuel gauge- required. g) Tachometer- preferred, state- 	

13.20	Gauges shall be mounted in the control panel (dashboard), or in a location that is easily observed by the operator from the seat.	
13.21	Noise level, interior - 85 dB (A), measured in accordance with SAE J336, state noise level-	
13.22	State optional deduct \$ price without air conditioning-	
13.23	Rear sun shade require	
13.24	(10) lbs ABC Type Fire Extinguisher, First Aid Kit, Flare Kit mounted as per Manufacture's OEM recommendation, state location-	
13.25	Steps and handrails to provide safe cleaning of front windshield	
13.26	Left and right cab doors preferred, complete with a full length ladder to provide safe exit if required. State emergency exit-	
13.27	Self cleaning steps for safe entry and exit	
14.0	ELECTRICAL & LIGHTING-	
14.1	Type - 24 volt, negative ground electrical system.	
14.2	Electric starter - required.	
14.2.1	Electric starter thermally and over spin protected.	
14.3	Starter switch key type.	
14.3.1	Three (3) sets of keys required.	
14.4	Batteries - two (2) maintenance free, 1100 CCA capacities each.	
14.4.1	Battery disconnect switch - required.	
	a) Battery disconnect switch, protected from the elements.	
14.5	Alternator - 80 amps, state output-	
14.6	LED, Combination stop and tail lights - two (2), protected from damage.	
14.7	LED, Signal lights with warning flashers - two (2), visible front and rear.	
14.8	Headlights - two (2), mounted immediately below cab roof.	
14.9	Work lights:	
	a) Heavy Duty work lights required.	
	b)Front - two (2), adjustable, mounted near top pivot of loader lift arms.	
	c) Rear - two (2). Must be fully adjustable.	
	d)Independent on/off switch for each pair of work lights.(front and rear) Dash mounted, wired through ignition.	

14.10	Full set of Manitoba Highways provincially approved highway lights (wigwag lights).	
14.11	Shall be independently controlled through a separate switch.	
14.12	Highway lights not to extend past cab.	
14.13	Cab interior (dome) light.	
14.14	Horn.	
14.15	Warning Beacons:	
	a) Blue/Amber with Clear Lens L360 Series Super LED Beacon: L31HABF Branch Guard: L360BGB	
	b) Both beacons to be independently switched.	
14.16	Roof mounted with ramped, bolt-on metal guard	
14.17	Complete with dash mounted on/off switch wired through ignition.	
14.18	Back-up alarm - mounted at rear of unit, located to be protected from damage.	
14.19	Radio installation provision - 12 volt, 20-amp circuit available at a spare circuit breaker, suitable for installation of a 2-way mobile radio.	
14.19.1	Radio to be wired on an independent circuit.	
14.20	Wiring:	
	a) All electrical functions (except warning flashers, and 2-way radio circuit) shall be wired through the ignition.	
	b) Wiring for all locally installed equipment shall be colour coded, loomed and properly secured.	
	c) All joining of wires and electrical connectors shall be soldered and sealed with heat shrink tubing or with sealed weather tight connectors	
	d) No splices shall be made into OEM or after market wiring harnesses.	
	e) All additional circuits are to be run from a power distribution box.	
	f) All fuses, relay's and circuit breakers to be made easily accessible.	

15.0	MISCELLANEOUS-	
15.1	Fenders - Full width required front and rear with anti-skid tape on step surfaces where applicable.	
15.2	Engine side covers - hinged (if lockable, all locks must keyed alike).	
15.3	Drawbar hitch with pin.	
15.4	Access ladder with non-skid step surfaces.	
15.5	Grab handles - supplied as required at all appropriate locations.	
15.6	Toolbox - lockable, state location.	
15.7	Slow moving vehicle emblem.	
15.8.	Groeneveld Twin Automatic Greasing System. , state quantity of grease points and optional \$ price-	
15.9	Activated by release of the parking brake or daytime running lights.	
15.10	Reservoir capacity – The reservoir capacity shall be sufficient as to allow the machine to run for 250 hours before being refilled	
15.11	Couple for connecting City of Winnipeg attachment part # JRB SN0990-8566a Standard Hydraulic Quick Coupler (sweeper broom) no substitutes.	
15.12	EM Anti-theft security safety system required, state type-	
15.13	Oil sampling valves for engine, transmission and hydraulic system	
15.14	Electric fuel priming pump to eliminate fuel contamination	

16.0 TRAINING-

16.1 The Contractor shall be required to provide training (at the Contractor's expense) for the City of Winnipeg maintenance and operating personnel. The training shall be divided into two separate sessions, one for maintenance personnel and one for operating personnel. The training shall be conducted in separate or combined sessions for each group of personnel.

The duration of the sessions shall be as long as required for adequate familiarization and orientation of the equipment to the satisfaction of the Contract Administrator.

The training shall be conducted within two (2) calendar weeks from the date of delivery and shall be coordinated through the Contract Administrator.

The training shall be conducted in Winnipeg at a time and location designated by the Contract Administrator.

	Pricing should be based on four (4) business days for maintenance personnel and four (4) business days for operating personnel.						
	Note: The first payment of the contract on the equipment will not be issued until successful completion of training has been conducted to the satisfaction of the Contract Administrator.						
16.2	Training Aides:						
16.2.1	Training aids to be included.						
	a) On the type of equipment being offered, state if VHS videotape or CD Rom training aides are available-						
16.2.2	State if other training aides are available and state type.						
16.3	What is the recommended minimum training duration for:						
	a) Primary unit:						
	b) For major attachments (if applicable):						
16.4	State what other training aids are available (videos, CDs).						
	a) For the primary unit:						
	b) For major attachments (if applicable):						
16.5	Training Materials and applicable manuals or on-line training material information must be provided to the Operator Training Branch of Public Works at the earliest possible opportunity, no later than (4) weeks prior to delivery, when supplying vehicles, equipment and related attachments. Send these materials, preferably in both electronic format and hard copy (training videos are to be supplied on either CD or DVD) to:						
	Public Works Safety and Operator Training Division Operator Training Branch 2nd Floor, Building "B", 1500 Plessis Road R2C 5G6						
	E-mail: pwd-opertrain@winnipeg.ca						
	Attn: Equipment Training Coordinator - Pending Equipment Delivery						
16.6	State acknowledgement of item 17.5-						
16.7	State manufacturer's accreditation or certification for training						

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17.1	Upon request, complete details of warranties shall be made available within twenty-four (24) hours of the request of the Contract Administrator.	
17.2	The Contractor shall warrant all equipment and all parts thereof, against any defects of workmanship, construction and materials, and agrees to repair or replace, without cost to the City, any article that has become defective and not proven to have been caused by negligence on the part of the user within five (5) years from the date the equipment is put into service by the City of Winnipeg.	
17.2.1	Notwithstanding 17.2 above, the Contractor shall warrant all major components including, but not limited to, engine, transmission, final drives, all wheel drive system (and all components thereof), pumps and motors, axle assemblies, tandem drives, etc. against any defects of workmanship, construction and materials, and agrees to repair or replace without cost to the City, articles that have become defective and not proven to have been caused by negligence on the part of the user within five (5) years or 7500 hours from the date the equipment is put into service by the City of Winnipeg.	
17.2.2	Notwithstanding 17.2 above, the Contractor shall warrant all attachments, and all parts thereof, against any defects of workmanship, construction and materials, and agrees to repair or replace, without cost to the City, any article that has become defective and not proven to have been caused by negligence on the part of the user within one (1) year from the date the equipment is put into service by the City of Winnipeg.	
17.3	The warranty shall not include regular maintenance items or any item deemed as a consumable that is subject to everyday wear and tear, during the regular operation of the unit.	_
17.3.1	Examples of items not covered under warranty:	
	 a) Ground engaging tools such as bolt cutting edges or bucket teeth. b) Maintenance items such as filters, oils, belts etc c) Miscellaneous items such as wiper blades, lights. 	
17.3.2	If the equipment provided by the Contractor contains any part manufactured by an outside source, that falls under the description in any one of the Clauses 17.3.1 above, and has a standard manufacture's warranty, the term's contained in the manufacture's warranty shall apply.	
	a) In the event of contradiction, the requirements of specification 17.3.2 shall take precedence over those of specification 17.3.1.	

17.4	The following shall be covered under manufacture's warranty:							
	a)	Batteries.						
	b)	Tires						
175	All incid	dental warranty related costs (including, but not limited						
17.5	to, Con in exec	dental warranty related costs (including, but not limited stractor's travel, mileage, deductibles, towing costs etc.) suting any part of the warranty shall be the sole sibility of the Contractor.						
17.6		ranty work performed by the contractor is to be accompanied with a warranty invoice showing a zero balance minus any deductibles.						
18.0	ONLIN	E DEALER SUPPORT-						
	The following information shall be available live web based on line at the time of delivery of the equipment and shall be included in the Form B Bid prices. On-line dealer support shall be for a (9) year life cycle.							
		ont End Wheel Loader shall have an OEM factory Installed Equipment ement System which provides the following:						
	Wireless communications designed to deliver:							
		Location Utilization Performance Maintenance data Fault codes Service history Preventative Maintenance schedules Fuel data. On-line support shall be 24 hours/ 7days a week /365 days a year (PDF versions not acceptable)						
18.1	Operati	ional (Operator manual) information- Shall consist of the following:						
	•	On line or CD comprehensive technical and operational information preferred On-line support shall be 24 hours/ 7days a week /365 days a year Preferred						
18.2	Parts/te	echnical/service/repair information- Shall consist of the following:						
	•	Parts/technical/service/repair information On-line equipment electrical diagnostic information The ability to purchase parts from an on-line catalogue is preferred. Ordered parts lists, ie; PM service kits. Parts recalls Ability to order parts on line 24 hours/ 7days a week /365 days a year preferred						

(PDF versions not acceptable)

18.3	18.3 Preventative maintenance schedules- Shall consist of the following:					
	 Provide on-line detailed checklists that outline critical steps in the Detailed fluid analysis reports which include present and past results preferred. The ability to view frequently ordered parts lists, ie PM Service k (PDF versions not acceptable) 		ocess			
18.4	State Website address -					
18.5	Website subscriptions that is necessary in providing delivery of the information shall be included in the cost.					
18.6	The information contained in the website must be deemed acceptable by the City's equipment inspector. In the event that the City inspector finds the that the information contained on the website.					
	 Does not provide enough detail Is too difficult to navigate (PDF versions not acceptable) 					
	At the inspectors discretion, the Contractor shall instead, supply the required manuals/CD's/paper bound copies.					
18.7	All necessary computer software, cables etc. shall be included					
19.0	FULL MAINTENANCE QUOTATION-					
19.1	Please provide quotation on a guaranteed maintenance contract as per manufactures maintenance guidelines for the following:					
19.2	(7) years 1500 hours a year full maintenance-	\$\$				
19.3	(8) years 1500 hours a year full maintenance-	\$\$				
19.4	(9) years1500 hours a year full maintenance-	\$\$				
20.0	DELIVERY-					
20.1	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 applicable) to the WFMA 185 Tecumseh Street, Winnipeg MB.	.S. (if				
20.2	Delivery Time- Within sixteen (16) calendar weeks from the date of official notification of award of contract. Equipment shall be delivered between 8:00 am and 3:00 pm on Business Days.					
20.3	Delivery Contact- The Contractor shall contact the Contract Administrato prior to delivery of the equipment.	r				

20.4 P.D.I- A pre-delivery inspection shall be performed by the Contractor on the equipment. Proof upon inspection including completed check list