FORM A: BID (See B7)

1.	Contract Title	SUPPLY & DELIVERY OF A V. VEHICLE	AN MOUNTED AERIAL DI	EVICE
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 under the	above name.	
3.	Contact Person	The Bidder hereby authorizes the Bidder for purposes of the B		on to represent
		Contact Person	Title	
		Telephone Number	Facsimile Number	E-mail address
4.	Definitions	All capitalized terms used in ascribed to them in the Genera	the Contract shall have I Conditions and D3.	the meanings
5.	Offer	The Bidder hereby offers to p Contract for the price(s), in Ca appended hereto.		

6.	Commencement of the Work	The Bidder agrees that no Work shall commence until he is in receipt of a notice of award from the Award Authority authorizing the commencement of the 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: PRICES (See B8)

SUPPLY & DELIVERY OF A VAN MOUNTED AERIAL DEVICE VEHICLE

UNIT PRICES

ITEM NO.	DESCRIPTION	SPEC. REF.	UNIT	APPROX QTY	UNIT PRICE	AMOUNT
1	9500 lbs. GVWR Cargo Van	11019	Each	1	\$	\$
2	Van Mounted Aerial Device	11019	Each	1	\$	\$
TOTAL BID PRICE (GST and MRST extra) (in figures) \$						
(in words)						

Name of Bidder

FORM N: DETAILED SPECIFICATIONS 11019

SUPPLY & DELIVERY OF A VAN MOUNTED AERIAL DEVICE VEHICLE

(Traffic Signals)

1.0 <u>SCOPE</u>

- 1.1 These specifications describe a hydraulically operated, telescopic aerial device mounted on a 9500 lbs. GVWR Cargo Van.
- 1.2 The aerial device shall be the manufacturer's latest model, as may be modified by these specifications. The aerial device vehicle, including auxiliary equipment, shall be furnished complete and ready for use. All parts not specifically mentioned, but which are required for the complete unit, shall conform in strength, quality of material and workmanship to the best standards and engineering practice of the industry.
- 1.3 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 unit.
- 1.4 The ratings specified herein merely state the minimum values acceptable to the City. There is no intent of implying that these values are sufficient for the design of the particular equipment being bid.

2.0 <u>STANDARDS</u>

- 2.1 Canadian Standards Association Standard CAN/CSA-C225-M00 Vehicle Mounted Aerial Devices forms an integral part of these specifications and shall have precedence in any conflict concerning minimum acceptable standards.
- 2.2 All applicable SAE Standards form an integral part of the chassis specifications and shall have precedence in any conflict concerning minimum acceptable standards.
- 2.3 The completed aerial device vehicle shall comply with all C.M.V.S.S. and Manitoba Highway Traffic Act regulations and requirements.
- 2.4 All welding and welding designs of the load supporting elements shall conform to the requirements of Canadian Standards Association Standard W47.1-03 and W59-03.

3.0 QUALIFICATIONS OF MANUFACTURER

3.1 The manufacturer of the aerial device shall have a minimum of five (5) years continuous experience manufacturing and installing aerial devices of the type being offered. The manufacturer shall have in effect a complete and documented quality control program ensuring compliance with all applicable Standards.

4.0 QUALIFICATIONS OF CONTRACTOR

4.1 The Contractor shall be a manufacturer or authorized distributor/supplier of the aerial device equipment.

- 4.2 The Contractor 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 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 on aerial device equipment, and general service capabilities. A description of the service facility shall be provided within 3-Calendar Days upon request of the Contract Administrator.
- 4.3 The Contractor shall furnish a letter, stamped by a registered professional engineer, indicating that the completed aerial device vehicle complies with CSA Standard CAN/CSA-C225-M00.

5.0 INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS

- 5.1 All items in these specifications must be answered indicating compliance or non-compliance. Bidders shall state "yes" for compliance or state deviation, or give a reply where requested to do so. Deviations shall be clearly stated and fully detailed. Alternatives will be considered subject to evaluation.
- 5.2 Each bidder is required to fill in every blank. Failure to do so may be used as a basis for rejection of bid.

6.0 **PERFORMANCE**

6.1 The aerial device vehicle shall be capable of operating safely and efficiently without the use of outriggers in any working position and in confined areas, and shall be suitable for repairing traffic signal lights, during summer and winter conditions normal to the City of Winnipeg.

7.0 MAKE AND MODEL

- 7.1 State year, make and model of aerial device unit being bid._____
- 7.2 State year, make and model of cargo van being bid._____

8.0 CARGO VAN

- 8.1 GVWR 9500 lbs., state.
- 8.1.1 Front GAWR 4600 lbs., **state**.
- 8.1.2 Rear GAWR 5400 lbs., **state**.
- 8.1.3 Rear suspension 7800 lbs., **state**.
- 8.2 Wheelbase 138 in. approx., **state**.
- 8.3 Engine V8, EFI, gasoline, **state size**.
- 8.4 Block heater required with cord through grille.
- 8.5 Coolant extended life, antifreeze to -35°C.
- 8.6 Alternator 200 Amps approx., **state**.

8.7	Battery – 750 CCA.	
8.8	Transmission – automatic.	
8.8.1	Transmission cooler – auxiliary transmission cooler.	
8.9	Steering – power.	
8.10	Brakes – power, 4-wheel disk with ABS.	
8.11	Tires, front and rear – BSW, LT245/75R16E, load rating to match GVWR and to maintain proper aerial device stability requirements, state make and model being bid.	
8.11.1	Spare wheel and tire – same as front and rear wheels and tires, complete with carrier.	
8.12	Floor covering – rubber matting in seating and cargo area with two (2) throw-in rubber floor mats.	
8.13	Mirrors – interior and dual exterior.	
8.14	Windshield – tinted.	
8.15	Windshield wipers – intermittent.	
8.16	Wiper blades – winter blades with heavy duty rubber boot.	
8.17	Ignition keys – three (3) sets required.	
8.18	Air conditioning – required.	
8.19	Rear auxiliary heater – required.	
8.20	Seats – two (2), high back bucket seats, cloth upholstery.	
8.21	Windows – required in side and rear doors.	
8.22	Radio – AM/FM w/CD, factory installed.	
8.23	Air bags – dual front.	
8.24	12-Volt power point – required, state amperage capacity.	
8.25	User defined switches – four (4) upfitter switches on instrument panel.	
8.26	Fuel tank – fully fuelled upon delivery.	
8.27	Colour, interior – blue or grey.	
8.27.1	Colour, exterior – white.	
8.28	Fire extinguisher – 10 lb. ABC type with permanent mount support	

	bracket. Exact location to be determined at time of installation.	
8.29	First aid kit – required, Provincial 1 approved kit.	
9.0	AERIAL DEVICE	
9.1	Type – centre-mounted, steel or fibreglass telescopic aerial device with a raised platform height of 30 ft., and a side reach of approx. 20 ft.	
9.2	Working height – 35 ft.	
9.3	Overall travel height (completed unit) – 130 in. approx., state.	
9.4	Rotation – approx. 360° non-continuous.	
9.5	Boom lift cylinders shall have externally adjustable counterbalance holding valves.	
9.6	Safety belt attachment – located at end of boom.	
9.7	Personnel platform – one (1) side-hung, single-man side-mounted fibreglass platform.	
9.7.1	Nominal platform dimensions – 24" x 24" x 42", state.	
9.7.2	Platform capacity – 350 lbs. approx., state .	
9.8	Platform levelling system – automatic, mechanical type.	
9.9	Platform dump system – platform to hydraulically tilt (pivot) minimum 100°.	
9.10	Angle gauge – required, state location.	
10.0	STABILITY	
10.1	Stability requirements – shall meet CSA Standard CAN/CSA-C225-M00 without the use of outriggers.	
10.2	The Contractor shall perform a stability test of the completed unit in accordance with CSA Standard CAN/CSA-C225-M00 and shall provide a stability certificate showing the date and results of the test prior to final inspection.	
11.0	CONTROLS	
11.1	Platform controls – individual toggle switches, return-to-centre for raise/lower, telescoping in/out, rotation clockwise/counter-clockwise, and bucket stow.	
11.1.1	Emergency stop button – instantaneously stops all motion, required at upper and lower controls (engine shutdown not acceptable).	

11.2 Master control group – remote type controls located at pedestal with

approx. 25 ft. of cable.	Controls shall be equipped for all bucket
functions and emergen	cy stop button.

11.2.1	Lower controls capable of positively overriding the platform controls.	
11.3	Engine start/stop – required at upper and lower controls.	
11.4	All controls must be clearly identified with manufacturer's standard labels.	
12.0	HYDRAULICS	
12.1	Pump – DC pump, supplied as per aerial device manufacturer's recommendation to meet aerial device requirements. State make and model being bid.	
12.1.1	Pump hourmeter – non-resettable type, installed to record aerial device operating hours.	
12.2	Hydraulic oil reservoir – steel construction, baffled as required, complete with breather type filler cap with filter, filler strainer and sight gauge.	
12.2.1	Suction strainer – 100 micron, replaceable, in tank mounted.	
12.3	Return line filter – 10 micron spin-on type, serviceable without oil loss.	
12.4	Shut-off valve – ball type, located between reservoir and pump, secured in open position with a bracket and bolt.	
12.5	Relief valve – located prior to aerial device functions, set at system pressure. Relief in outrigger isolation valve to be set 200 psi above aerial device system pressure.	
12.6	Pressure gauge – glycerine filled, located at lower operating station.	
12.7	Hydraulic oil – Esso J13 or equivalent, state hydraulic oil.	
12.8	Emergency operating system – 12 Volt auxiliary power pack, must provide hydraulic power to all functions including elevation and rotation.	
12.9	Emergency lowering – manual lowering valve or equivalent system to lower boom with gravity, without electrical or hydraulic power.	
12.10	Steel hydraulic tubing – plated type, required where practical except where flexibility is required. Tubing shall be guarded as required.	
12.10.1	Hydraulic hoses – burst rated at 4 times working pressure, protected at all wear and scuff locations.	
13.0	BOOM SUPPORT AND STORAGE	
13.1	Boom support – heavy duty bracket mounted to rear bumper, padded	

cradle to prevent boom damage.

Note: Roof mounted boom support not acceptable.

13.2 Rear boom stow assembly shall include an over-centre latching mechanism to ensure an automatic boom stowage when the boom is lowered into the cradle. State details of boom stowage.

14.0 <u>REAR BUMPER</u>

- 14.1 Rear bumper heavy duty step bumper, approx. 32 in. depth with grip type step surface and tapered ends.
- 14.1.1 Bumper shall have a heavy duty tubular steel frame, designed and constructed to withstand severe use.
- 14.2 Access step grip type step mounted on passenger side-rear, below rear bumper, for access to rear bumper area.
- 14.3 Bucket access step heavy duty steel construction with a grip strut step surface, required for ergonomic access to personnel platform.
- 14.4 Grab handle located for ergonomic access to rear bumper area.

15.0 ELECTRICAL AND LIGHTING

- 15.1 All vehicle lighting shall conform to CMVSS and Manitoba Highway Traffic Act requirements.
- 15.2 Centre mounted stop light one (1) oval light, Truck-Lite 60213R or equal, mounted in rear bucket access step.
- 15.3 Mini lightbars two (2) Whelen R2LPPA light bars, mounted near rear of pedestal, one on each side of the boom.
- 15.3.1 Lightbar guards steel round bar construction on each beacon.
- 15.3.2 Strobe lights, front two (2) Whelen 3 TIR LED Amber lights, front facing in or behind front grille.
- 15.3.2 Strobe lights, rear two (2) Whelen 5GA00FAR oval warning lights, rear facing one rear bumper, installed in metal enclosures.
- 15.3.3 Warning beacons and strobe lights shall be actuated by one switch located on the dash, fused, wired through ignition and accessories circuit.
- 15.4 Traffic advisor one (1), roof mounted at rear, Whelen TAD8 Amber c/w in-cab controller and cabling.
- 15.5 Back-up alarm STAR 99901, 97 dB(A), installed near rear of unit, located to be protected from damage.

15.6	Boom warning light – red lens mounted on instrument panel, normally
	"on" when boom is not in fully stored position. Grote 44421, DAP52-4000
	or Preco equivalent micro switch is required.

15.6.1	All dash mounted warning lights and switches to be identified with
	permanent, engraved type labels. No labels allowed on upper surface
	of dash.

15.7	Inverter - 110 Volt, 1800 Watts minimum, true-sine type, supplied and
	installed as per manufacturer's recommendations. State make and
	model being bid.

15.7.1	Duplex receptacle – one (1) required in rear cargo area, GFI, CSA
	approved, weatherproof type, with hinged cover, exact location to be
	determined at time of installation.

15.7.2	Auxiliary battery – one (1), 750 CCA min., required with isolator for
	inverter installation. State location of auxiliary battery.

- 15.8 All wiring for locally installed accessories shall be colour coded, loomed and properly secured.
- 15.9 All electrical connectors shall be <u>crimped and soldered</u>, then sealed using heat shrink tubing.

15.10	All joining of wires shall be <u>soldered</u> and sealed using heat shrink
	tubing (crimp-on electrical connectors for joining of wires are not
	acceptable).

15.11 Any holes required to run wires through shall be drilled (not punched), grommeted and sealed as necessary.

16.0 INSTALLATION

- 16.1 Aerial device shall be installed in accordance with CSA Standard CAN/CSA-C225-M00 and in accordance with the aerial device manufacturer's guidelines.
- 16.2 Welding to the van chassis frame is not permitted.
- 16.3 Mounting brackets shall be bolted to chassis frame using Grade 8 fasteners.
- 16.4 Any holes required in chassis frame web must be drilled and reamed to fit bolts.
- 16.5 Departure angle of completed unit **state** angle.

17.0 MISCELLANEOUS

- 17.1 Safety belt two (2) required.
- 17.2 Mudflaps black rubber mudflaps installed aft of front and rear tires.

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- 17.3 Wheel chocks two (2), rubber.
- 17.4 Ladder rack required, roof mounted, curb-side access, located to safely transport an extension ladder.
- 17.5 Isolators all interfaces between aluminum and steel shall be separated by a minimum of $1/_{16}$ in. thick rubber or neoprene sheet and are to be bolted through with stainless steel bolts and non-conductive bushings.
- 17.6 Rear cargo area to be left unfinished. The City of Winnipeg shall be responsible for shelving, insulation, interior lighting, etc.
- 17.7 Weigh scale ticket the Contractor shall provide a certified weight scale ticket at the time of delivery. The weight shall include the unit fully fuelled plus two (2) operators. The completed unit (including the two (2) operators and fully fuelled) shall provide for approx. 1000 lbs. of payload.

18.0 PAINT AND FINISH

- 18.1 Aerial device steel sections all steel components shall be powder coated, white or yellow, inside and out, then high temperature cured prior to assembly *OR* properly sandblasted, primed and finished with Endura EP32 Intermix Epoxy Primer and 3-5 mils of Endura EX-2C Topcoat, white, or equivalent Dupont Imron 5000 paint process.
- 18.1.1 Fibreglass sections to be white Gel-Coat.
- 18.2 Ladder rack, bumper, boom rests, hydraulic tank, pedestal, etc. sandblasted, properly cleaned, primed and finished with Endura EP32 Intermix Epoxy Primer and 3-5 mils of Endura EX-2C Topcoat, white, or equivalent Dupont Imron 5000 paint process.
- 18.3 Top surface of rear bumper to be properly prepared, then painted with black Surefoot by David Frost, P/N SPOX97 non-skid coating.

19.0 TECHNICAL DOCUMENTS AND MANUALS

- 19.1 Bidders shall supply the following within three (3) working days of request of the Contract Administrator:
- 19.1.1 Two (2) sets of three view drawings showing complete unit including chassis and aerial device.
- 19.1.2 Service facility description (see 4.2).
- 19.2 Prior to final inspection of the unit, the Contractor shall provide the following:
- 19.2.1 Certified weigh scale ticket of completed unit, fully fuelled.
- 19.2.2 Certification letter (see 4.3).

- 19.2.3 Stability certificate (see 10.2).
- 19.3 Operator's manuals for aerial device and cargo van three (3) total.
- 19.3.1 Parts and maintenance manuals two (2) complete sets required, CD format preferred, required with the following comprising a set:
 - i) Aerial unit lubrication chart;
 - ii) Maintenance manual;
 - iii) Unit parts book;
 - iv) Electric wiring diagram; and
 - v) Hydraulic circuit diagram.
- <u>Note</u>: The manuals supplied with this contract must be in English and shall be specifically for the unit supplied. General purpose manuals <u>will not be acceptable</u>. The Contract will not be considered complete until these have been delivered. Manuals must be supplied at the time the unit is delivered.

20.0 DELIVERY

- 20.1 The unit shall be serviced, ready for operation and delivered F.O.B. with the freight prepaid to the City of Winnipeg, Winnipeg Fleet Management Agency, 185 Tecumseh Street, Winnipeg, Manitoba within **twenty-four (24) calendar weeks** from the date of official notifycation of award of Contract. The Contractor shall contact the Contract Administrator prior to delivery of the equipment. Equipment shall be delivered within 8:00 am and 3:00 pm on Business Days.
- 20.2 The Contractor shall fax all equipment serial numbers and hourmeter readings to the Contract Administrator one (1) calendar week prior to delivery.
- 20.3 A pre-delivery inspection shall be performed by the Contractor on all equipment.

21.0 TRAINING

- 21.1 Operator training the Contractor shall be required to provide **two (2) Business Days** of training, in Winnipeg by qualified staff, for City of Winnipeg operating personnel. All costs associated with the training shall be at the Contractor's expense. The training sessions shall be sufficient in duration and shall provide adequate familiarization and orientation of the equipment to the satisfaction of the Contract Administrator.
- 21.2 Mechanical training the Contractor shall be required to provide **two (2) Business Days** of training, in Winnipeg by qualified staff, for City of Winnipeg mechanical personnel. All costs associated with the training shall be at the Contractor's expense. The training sessions shall be sufficient in duration and shall provide adequate familiarization and orientation of the equipment to the satisfaction of the Contract Administrator.

- 21.3 Additional training aides state if additional DVD or computer based training aides are available.
- 21.4 Training materials and applicable manuals or on-line training information shall be provided by the Contractor to the Operator Training Branch of Public Works at the earliest possible opportunity, no later than 4-weeks prior to delivery of the equipment and related attachments. The training materials shall be sent preferably in electronic format and hard copy. Training videos shall be supplied on DVD format.
- 21.4.1 Training materials shall be sent to:

Public Works Department, Human Resources Division Equipment Operator Training Branch 102-1155 Pacific Ave. Wpg. MB R3E 3P1

Attn: Leanne Chetyrbok Equipment Operator Training Consultant Ph: (204) 986-6825 Cel: (204) 451-3793 E-mail: <u>lchetyrbok@winnipeg.ca</u>

22.0 PERFORMANCE RELIABILITY

- 22.1 The responsibility for the design of the complete aerial device vehicle, it's performance and reliability shall rest upon the Contractor.
- 22.2 The term *"repeated failures"* as used herein is defined to mean that the same component, assembly, or sub-assembly develops repeated defects, breakdowns and/or malfunctions rendering the unit inoperative, or requiring repeated shop correction, service and/or replacement during the warranty period applicable for said component, assembly, or sub-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 schedules.
- 22.3 Where the unit develops "repeated failures" in service, the Contractor shall make any necessary engineering changes, repairs, alterations or modifications in order to guarantee reliability of performance.

23.0 WARRANTY

- 23.1 The warranty on the **cargo van** shall include 100% replacement parts and labour at no cost to the City and shall cover the complete equipment and all parts thereof against defects of workmanship, construction and materials for **three (3) years or 60 000 km** from the date the equipment is put into service by the City of Winnipeg.
- 23.2 The warranty on the **aerial device** shall include 100% replacement parts and labour at no cost to the City and shall cover the complete equipment and all parts thereof against defects of workmanship,

construction and materials for **two (2) years** from the date the equipment is put into service by the City of Winnipeg.

Note: See Supplemental Conditions for additional Warranties.

A new two (2) year warranty period shall be provided for any article that is repaired or replaced under the terms of the "repeated failures" clause (Section 22.0 <u>Performance Reliability</u>). The new warranty period shall be effective from the date of acceptance of the repaired or replaced article. ______