# PART A

# **BID SUBMISSION**

## FORM A: BID (See B7)

1.	Project Title	SUPPLY & INSTALLATION	OF DUMP BODIES			
2.	Bidder	Name of Bidder				
		Street				
		City	Province	Postal Code		
	(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 following contact person to r the Bidder for purposes of the Bid.				
		Contact Person	Title			
		Telephone Number	Facsimile Number	e-mail address		
4.	Definitions	All capitalized terms used ascribed to them in the Ger otherwise requires.				
5.	Offer	The Bidder hereby offers to Contract for the price(s), in appended hereto.				
6.	Commencement of the Work	The Bidder agrees that no \ a Purchase Order authorizin				

The City of Winnipeg	
Bid Opportunity No. 372-2007	

Template Ve	rsion: G320040301	
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 Submission.
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	In witness whereof 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 & INSTALLATION OF DUMP BODIES

ITEM NO.	DESCRIPTION	SPEC. REF.	UNIT	APPROX QTY	(ALTERNATIVE 1) AWARD AS A WHOLE	(ALTERNATIVE 2) AWARD BY ITEM
1	S & I of a 13' x 8' Dump Body	07036	Each	2	\$	\$ _
1a	S & I of a 13' x 8' Dump Body w/Option 1: Land- scape Development Package	07036	Each	2	\$	\$ _
2	S & I of an 11' x 8' Dump Body	07037	Each	1	\$	\$ _
3	S & I of a 13' x 8' Dump Body	07042	Each	1	\$	\$ _

Name of Bidder

## FORM N: DETAILED SPECIFICATIONS 07036

#### 13' x 8' DUMP BODY

#### 1.0 <u>SCOPE</u>

- 1.1 These specifications describe the supply and installation of a 13 ft. x 8 ft. clean side style dump body to be installed by the supplier on a City owned cab & chassis. See 18.0 Installation for chassis description.
- 1.2 The unit shall be furnished complete and ready for use. All parts not specifically mentioned, but which are required to complete and place the unit in successful operation, shall be furnished as though specifically mentioned in these specifications. The complete unit, and all parts thereof, shall conform in strength and quality of material and workmanship, to the best standards and engineering practice of the industry.
- 1.3 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 equipment being bid.

#### 2.0 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 All welding shall conform to the CSA/CWB Standards W47.1-03 and W59-03.
- 2.3 The completed unit and all its components shall comply with all C.M.V.S.S. and Manitoba Highway Traffic Act regulations and requirements including, but not limited to, a Manitoba Government Inspection with Safety Sticker.

#### 3.0 QUALIFICATIONS OF MANUFACTURER / CONTRACTOR

- 3.1 The manufacturer of the dump body shall have demonstrated experience manufacturing bodies of the type being offered.
- 3.2 The Contractor shall be a manufacturer or authorized distributor/supplier of dump body equipment.
- 3.3 For the purpose of warranty repairs, 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 dump bodies, and general service capabilities. A description of the service facility shall be provided within 3-Calendar Days upon request of the Contract Administrator.
- 3.4 If a suitable warranty facility is not available within 10 km of the boundaries of the City of Winnipeg, the Bidder may propose that warranty work be performed by the City of Winnipeg

Repair Facilities. Any work performed by City of Winnipeg Repair Facilities shall be charged to the Contractor at the Facility's shop rate in effect at the time the work is performed (for example, shop rate for 2007: \$80.00/hr regular time, \$105.00/hr overtime and callout).

- 3.5 The manufacturer/installer shall be a certified vehicle completer and must affix their National Safety Mark (NSM) certification sticker on each unit.
- 3.5.1 State NSM number:\_\_\_\_\_

#### 4.0 INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS

- 4.1 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.
- 4.2 Each bidder is required to fill in every blank. Failure to do so may be used as a basis for rejection of bid.

## 5.0 PERFORMANCE

5.1	The dump body shall be capable of consistent top performance for
	hauling and dumping during the summer and winter environments
	which are normal to the City of Winnipeg.

#### 6.0 DUMP BODY – DIMENSIONS

6.1	Length, outside – nominal 4.0 m (7	13 ft.).
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- 6.1.1 Length, inside 3.8 m (12' 6") approx.
- 6.2 Width, outside to match chassis track width, nominal 244 cm (8 ft.).
- 6.2.1 Width, inside 229 cm (7' 6") approx.
- 6.3 Height of sides 76 cm (30 in.) approx. measured from the floor, state.
- 6.4 Height of tailgate 97 cm (38 in.) approx. measured from the floor, state.
- 6.5 Height of front to match chassis cab height.

## 7.0 <u>MATERIAL</u>

7.1 All material used in construction to be minimum 10 ga. steel, minimum 50,000 psi yield except where otherwise noted.

## 8.0 <u>FRONT</u>

- 8.1 Construction formed steel construction with horizontal reinforcement rib(s) formed into front of body.
- 8.2 Cab shield formed from a single sheet of steel, bolt-on design, 61 cm (24 in.) deep, sloped @ 15°.

## 8.2.1 Sides of cab shield to be 4.76 mm $(^{3}/_{16}$ in.) plate with heavy duty reinforcement.

8.2.2 Cab shield sides tapered @ 30° to provide adequate clearance for entry and exit of vehicle cab.

## 9.0 <u>SIDES</u>

- 9.1 Clean side style formed sides without vertical reinforcements, welded into a 1-piece design, including self-cleaning bottom rail and formed, self-cleaning centre horizontal rib.
- 9.2 Rear side post formed, one per side.
- 9.3 Plank gussets for 5 cm x 15 cm (2" x 6") planks, with 13 mm ( $\frac{1}{2}$  in.) diameter bolt holes.
- 9.3.1 Planks 5 cm x 15 cm (2" x 6") painted black on all sides, installed and bolted in gussets.
- 9.4 Tie down eyes four (4) required on inside of body, two near top/front of each side, two near top middle of each side.
- 9.5 Access ladders two (2) required, located at front corners of dump body.
- 9.5.1 Ladder rungs traction type rungs, 13 gauge steel, 57 mm (2¼ in.) width, 2 or 4-hole design, Traction Tread Products or equal.
- 9.5.2 First rung to be 46-56 cm (18-22 in.) from ground level, approx 36 cm (14 in.) rung spacing to top of body.
- 9.6 Grab handles located for ergonomic access to top of box.

## 10.0 <u>TAILGATE</u>

- 10.1 Shall be a two-way tailgate able to open from the top and bottom.
- 10.1.1 Tailgate shall not protrude above floor in horizontal or full down position.
- 10.1.2 There shall be no gap between tailgate and the floor and sides when tailgate is in the closed or horizontal position.
- 10.2 Construction formed construction with one or two equally spaced horizontal or vertical ribs, and a self-cleaning bottom rail.
- 10.3 Tailgate shall be reinforced as required with either heavy duty (min.  $\frac{3}{16}$  in.) end plates, or 6.35 mm ( $\frac{1}{4}$  in.) steel tubing.
- 10.4 Top tailgate anchor pins 31.75 mm (1<sup>1</sup>/<sub>4</sub> in.) diameter min., self-locking/ storing to top of side post.
- 10.4.1 If retainer pin is used to lock top tailgate anchor pins, a small steel check chain is required, permanently fastened to the retainer pin.

Support and spreader chains – 9.5 mm (% in.) transport grade 70, adequately fastened c/w chain storage and two (2) removable links per chain.
per chain.

- 10.5.1 Support and spreader chains shall be equipped with a protective cover.
- 10.6 Tailgate locking mechanism in-cab control, air operated with air brake pot operated trip.
- 10.6.1 The locking mechanism shall be adjustable to ensure adequate lock-up with tailgate closed.

## 11.0 <u>FLOOR</u>

- 11.1 Material 4.76 mm ( $^{3}/_{16}$  in.) AR200 or equal, state material.
- 11.2 Floor width nominal 203 cm (80 in.) width, state.
- 11.3 2-piece floor maximum (1-piece preferred). 2-piece floors shall be continuously welded.
- 11.4 Floor to have a 60° slope along the joint to the side wall. Slope shall extend upward approx. 10 cm (4 in.).
- 11.5 Long sills 20-25 cm (8-10 in.) formed long sills, tapered hat section design, continuously welded to the floor.

## 12.0 <u>TARPAULIN</u>

- 12.1 Type Cramaro Slide n' Go or Michel's Gravel Guard w/black mesh tarp, chromed front shaft and 30.5 cm (12 in.) hoops. State make and model being bid.
- 12.2 Tarp system shall be manually driven, operable from a normal standing position.

## 13.0 <u>HOIST</u>

- 13.1 Type double acting, hydraulic scissor lift hoist, Nordic TL1622 or TL1627 as required for specified dump angle.
- 13.2 Dumping angle 50 degrees.

#### 14.0 IN-CAB CONTROLS

14.1 Type – dash mounted single switch dump control, return to centre, electrically actuated International OEM switch preferred. State details of in-cab controls.

#### 15.0 <u>HYDRAULICS</u>

- 15.1 PTO Muncie electric/hydraulic power shift.
- 15.1.1 Electric/Hydraulic power shift, operable from a normal driving position.
- 15.1.2 Warning light to show PTO engaged.
- 15.2 Pump, valve and tank combination Williams W15-6CR-27QT or Nord-Sen X3185 complete with P20 Commercial closed coupled gear pump, double-acting solenoid operated valve mounted directly to reservoir, and 25.5 L (27quart) tank. Reservoir to be right hand side chassis frame mounted c/w sight gauge.
- 15.2.1 Reservoir shall be clearly labelled "Hydraulic Oil" with a permanent type, engraved style label.
- 15.2.2 Level gauge glass sight type, mounted in readily visible location.
- 15.3 Return line filter spin-on type, serviceable without oil loss.
- 15.4 Shut-off valve ball type, located for servicing without oil loss, secured in open position with a bracket and bolt.
- 15.5 Hydraulic hoses wire braid reinforced, rated for system operating pressure with 4 to 1 safety factor for burst pressure.
- 15.5.1 Hydraulic hoses to be protected at wear and scuff locations.
- 15.5.2 Hose fittings hydraulic full flow, crimp-on (non-reusable) type.

#### 16.0 ELECTRICAL & LIGHTING

- 16.1 All lighting to conform to C.M.V.S.S. and Manitoba Highway Traffic Act.
- 16.2 Supplier installed lighting and lighting equipment shall be Truck-Lite (except where otherwise noted) and shall include the following components:
- 16.2.1 Combination turn/stop and taillights P/N 44302R, one (1) per side with 40700 mounting grommets, flash rate 70-90 fpm.
- 16.2.2 Back-up lights P/N 44206C, one (1) per side with 40700 mounting grommets.
- 16.2.3 Light cluster three (3) only P/N 10250R with P/N 10700 mounting grommets, located to be protected from damage.
- 16.2.4 Rear light mounting location taillights, back-up lights and 3-light cluster shall be mounted in the rear sill of the dump body. The lights shall be situated so that no debris contacts the lights while dumping.

16.2.5	Clearance lamps – P/N 10250R and 10250Y with P/N 10700 mounting grommets.	
16.2.6	Clearance lamp mounting locations:	
	i) Front – two (2), located one on each bottom corner.	
	<li>Sides – two (2) per side, located on front and rear bottom corners.</li>	
	iii) Rear – two (2), located one on each bottom or top corner.	
16.3	No clearance light shall protrude beyond the dump body.	
16.4	Taillights and back-up lights shall be fully visible when tailgate is lowered to horizontal position.	
16.5	Licence plate lamp – P/N 15040, complete with licence plate bracket.	
16.6	Harnesses – Truck-Lite 50 Series Harness system, properly routed and secured.	
16.6.1	All harnesses shall be internally grounded, no exceptions.	
16.7	Junction box – P/N 50400, complete with necessary compression fittings, required for all vehicle lighting harness connections, located inside rear of truck frame.	
16.8	All plug-in connectors shall be coated with Truck-Lite NYK compound prior to assembly.	
16.9	Mini light bar – Grote 77163, mounted to top of cab guard, 360° visibility when tarpaulin is in stowed position.	
16.9.1	Branch guard – heavy duty branch guard constructed by 3/8 in. roundbar or equivalent.	
16.9.2	Mini light bar shall be wired through the ignition, wired through a single OEM dash mounted switch, labelled "Beacon" with a permanent type, engraved style label.	
16.10	Trailer connector – 6-pole, Grote 82-1068 or equal, wired through chassis manufacturer's OEM auxiliary circuit, and installed in rear trailer hitch plate.	
16.11	All wiring for warning lights and trailer connector shall be colour coded, loomed and properly secured.	
16.11.1	All electrical connectors shall be <u>crimped and soldered</u> , then sealed using heat shrink tubing.	
16.11.2	All joining of wires shall be <u>soldered</u> and sealed using heat shrink tubing or approved OEM weathertight connections (crimp on electrical connectors for joining wires are not acceptable).	

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

#### 17.0 WELDING

- 17.1 All welds shall be continuous welds.
- 17.2 All welding performed shall conform to CSA Standard W47.1-03 and W59-03.
  - <u>Note</u>: All welds are subject to inspection by a City of Winnipeg Qualified Inspector.

#### 18.0 INSTALLATION

- 18.1 Any holes required in the chassis frame web must be drilled and reamed to fit bolts.
- 18.1.1 Drilling on chassis frame flanges is not permitted.
- 18.1.2 Welding on the chassis frame is not permitted, with the exception of installation of dump body pivot support.
- 18.2 Tire clearance min. 8 cm (3<sup>1</sup>/<sub>4</sub> in.) with rear suspension air bags lowered.
- 18.3 Clearance between dump body and back of truck cab shall be 8 cm  $(3\frac{1}{4} \text{ in.})$ .
- 18.4 The dump body shall be installed on the following cab & chassis vehicle:

#### 2008 International 4300

- 29,000 lbs. GVWR
- 108 in. CA
- 750,000 in-lb RBM double rail frame, outside frame clear
- DT466 in-line 6 cyl. diesel engine, 7.6 L
- Allison 2500 RDS Series automatic transmission
- Horizontal discharge exhaust
- Hydraulic brake system with air provision
- Air ride suspension
- 18.4.1 The chassis will be available for pick-up on or before July 3, 2007. The Contractor is responsible for pick-up and delivery of the unit as stated in Section 21.0 below.

#### 19.0 MISCELLANEOUS

- 19.1 Rear hitch plate 12.7 mm (½ in.) thick solid steel, (laminated plates unacceptable) installed to chassis frame.
- 19.1.1 "A" frame hitch reinforcement 76 mm x 76 mm x 9.5 mm ( $3" \times 3" \times 3"$ ) angle iron, welded to back of hitch plate and bolted to chassis frame web.

19.2	Combination hitch – Premier 150 w/2 in. ball or approved equivalent
	hitch, installed on hitch plate at a 61 cm (24 in.) height.

- 19.3 Lunette eyes for trailer safety chains one (1) each side of hitch, Buyers Products B56730 or equal.
- 19.4 Mudflaps black rubber, no-name, required front and rear of back tires c/w anti-sail bracket on each mud-flap.
- 19.4.1 Rear mudflaps shall not contact the ground when the dump body is at maximum dump angle.
- 19.5 Dump body prop double prop design, steel tubing construction, to support dump body in raised position and permit servicing of hoist, operable by a single person, designed so as not to interfere with hoist cylinder or surroundings.
- 19.5.1 Dump body prop to be complete with receiving bracket.
- 19.6 Grease fittings required on tailgate release mechanisms, pivot points and tailgate as required.
- 19.7 Automatic greasing system complete dump body and chassis shall be supplied with a Groeneveld/CPL Systems Inc. automatic greasing system including all required grease points on dump body, approx. twenty-six (26) points on cab & chassis, and automatic low level shutoff with in-cab red light indicator.

#### 20.0 <u>FINISH</u>

- 20.1 Complete dump body, hitch plate, reservoir, steel brackets, etc. (with the exception of inside of the floor) shall be <u>sandblasted</u>, properly cleaned, primed and finished with the Endura paint process as follows:
- 20.1.1 Primer Endura EP32 Intermix Epoxy Primer.
- 20.1.2 Paint 3-5 mils of Endura EX-2C Topcoat, black.

## 21.0 PICK-UP AND DELIVERY

- 21.1 Pick-up the Contractor shall be responsible for picking-up the cab & chassis vehicles from the City upon commencement of the Contract. The vehicles will be available for pick-up at the Winnipeg Fleet Management Agency, 185 Tecumseh St., Winnipeg, Manitoba. Pick-up times will be between 8:00 am and 3:00 pm on any business day. The Contractor shall be responsible for any related fuel and insurance costs to and from their facility.
- 21.2 Delivery the unit shall be serviced, ready for operation, fully fuelled and delivered F.O.B. with the freight prepaid to the Winnipeg Fleet Management Agency, 185 Tecumseh Street, Winnipeg, Manitoba within **eighteen (18) calendar weeks** from the date of official notification of award of Contract. The Contractor shall contact the

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Contract Administrator prior to delivery of the equipment. Equipment shall be delivered within 8:00 am and 3:00 pm on Business Days.

21.3 A pre-delivery inspection shall be performed by the Contractor on all equipment.

## 22.0 PERFORMANCE RELIABILITY

- 22.1 The responsibility for the design of the complete dump body, 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 complete dump body and attachments 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.

- 23.2 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" (22.0 <u>Performance Reliability</u>). The new warranty period shall be effective from the date of acceptance of the repaired or replaced article.
- 24.0 OPTIONS

Note: Options to be priced only as indicated on Form B: Prices.

- 24.1 Option 1: Landscape Development Package
- 24.1.1 High mounted tailgate height of tailgate to be 122 cm (48 in.) measured from the floor in lieu of tailgate height specified in 6.4 above. Top tailgate hinge pin approx. 127 cm (50 in.) above floor.
- 24.1.2 Planks 5 cm x 25 cm (2" x 10") painted black on all sides, installed and

bolted in gussets in lieu of planks specified in 9.3.1 above.

- 24.1.3 Toolbox  $\frac{1}{6}$  in. aluminum checkerplate construction, 76 cm W x 61 cm H x 46 cm D (30"W x 24"H x 18" D) approx., bottom hinged door c/w gas shocks, a lockable stainless steel T-handle and bulb type, automotive style weather stripping. Aluminum box to be mounted on driver's side frame rail ahead of rear wheels, installed in a 5 cm x 5 cm (2" x 2") steel angle iron frame. Toolbox frame to include a 1.5 mm ( $\frac{1}{16}$  in.) rubber or neoprene insulator between steel and aluminum to prevent Galvanic corrosion.
- 24.1.4 Tarp rail 6.35 mm x 51 cm (1/4" x 2") steel flatbar, welded to exterior of sides, full length in lieu of tarp specified in 12.1 and 12.2 above.
- 24.1.5 Electric trailer brake controller required, in-cab mounted.

#### DETAILED SPECIFICATIONS 07037

## 11' x 8' DUMP BODY

(Cemeteries)

#### 1.0 <u>SCOPE</u>

- 1.1 These specifications describe the supply and installation of an 11 ft. x 8 ft. clean side style dump body to be installed by the supplier on a City owned cab & chassis. See 17.0 Installation for chassis description.
- 1.2 The unit shall be furnished complete and ready for use. All parts not specifically mentioned, but which are required to complete and place the unit in successful operation, shall be furnished as though specifically mentioned in these specifications. The complete unit, and all parts thereof, shall conform in strength and quality of material and workmanship, to the best standards and engineering practice of the industry.
- 1.3 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 equipment being bid.

#### 2.0 <u>STANDARDS</u>

- 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 All welding shall conform to the CSA/CWB Standards W47.1-03 and W59-03.
- 2.3 The completed unit and all its components shall comply with all C.M.V.S.S. and Manitoba Highway Traffic Act regulations and requirements including, but not limited to, a Manitoba Government Inspection with Safety Sticker.

#### 3.0 QUALIFICATIONS OF MANUFACTURER / CONTRACTOR

- 3.1 The manufacturer of the dump body shall have demonstrated experience manufacturing bodies of the type being offered.
- 3.2 The Contractor shall be a manufacturer or authorized distributor/supplier of dump body equipment.
- 3.3 For the purpose of warranty repairs, 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 dump bodies, and general service capabilities. A description of the service facility shall be provided within 3-Calendar Days upon request of the Contract Administrator.
- 3.4 If a suitable warranty facility is not available within 10 km of the boundaries of the City of Winnipeg, the Bidder may propose that warranty work be performed by the City of Winnipeg

Repair Facilities. Any work performed by City of Winnipeg Repair Facilities shall be charged to the Contractor at the Facility's shop rate in effect at the time the work is performed (for example, shop rate for 2007: \$80.00/hr regular time, \$105.00/hr overtime and callout).

- 3.5 The manufacturer/installer shall be a certified vehicle completer and must affix their National Safety Mark (NSM) certification sticker on each unit.
- 3.5.1 State NSM number:\_\_\_\_\_

## 4.0 INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS

- 4.1 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.
- 4.2 Each bidder is required to fill in every blank. Failure to do so may be used as a basis for rejection of bid.

## 5.0 PERFORMANCE

5.1	The dump body shall be capable of consistent top performance for
	hauling and dumping during the summer and winter environments
	which are normal to the City of Winnipeg.

## 6.0 DUMP BODY – DIMENSIONS

- 6.1 Length, outside nominal 3.35 m (11 ft.).
- 6.1.1 Length, inside 3.2 m (10' 6") approx.
- 6.2 Width, outside to match chassis track width, nominal 244 cm (8 ft.).
- 6.2.1 Width, inside 229 cm (7' 6") approx.
- 6.3 Height of sides 61 cm (24 in.) approx. measured from the floor, state.
- 6.4 Height of tailgate 81 cm (32 in.) approx. measured from the floor, state.
- 6.5 Height of front to match chassis cab height.

## 7.0 <u>MATERIAL</u>

7.1 All material used in construction to be minimum 10 ga. steel, minimum 50,000 psi yield except where otherwise noted.

#### 8.0 <u>FRONT</u>

- 8.1 Construction formed steel construction with horizontal reinforcement rib(s) formed into front of body.
- 8.2 Cab shield formed from a single sheet of steel, bolt-on design, 61 cm (24 in.) deep, sloped @ 15°.

## 8.2.1 Sides of cab shield to be 4.76 mm $(^{3}/_{16}$ in.) plate with heavy duty reinforcement.

8.2.2 Cab shield sides tapered @ 30° to provide adequate clearance for entry and exit of vehicle cab.

## 9.0 <u>SIDES</u>

- 9.1 Clean side style formed sides without vertical reinforcements, welded into a 1-piece design, including self-cleaning bottom rail and formed, self-cleaning centre horizontal rib.
- 9.2 Rear side post formed, one per side.
- 9.3 Plank gussets for 5 cm x 15 cm (2" x 6") planks, with 13 mm ( $\frac{1}{2}$  in.) diameter bolt holes.
- 9.3.1 Planks 5 cm x 15 cm (2" x 6") painted black on all sides, installed and bolted in gussets.
- 9.4 Tie down eyes four (4) required on inside of body, two near top/front of each side, two near top middle of each side.
- 9.5 Access ladders two (2) required, located at front corners of dump body.
- 9.5.1 Ladder rungs traction type rungs, 13 gauge steel, 57 mm (2¼ in.) width, 2 or 4-hole design, Traction Tread Products or equal.
- 9.5.2 First rung to be 46-56 cm (18-22 in.) from ground level, approx 36 cm (14 in.) rung spacing to top of body.
- 9.6 Grab handles located for ergonomic access to top of box.
- 9.7 Tarp rail 6.35 mm x 5 cm (¼" x 2") steel flatbar, welded to exterior of sides, full length.

#### 10.0 TAILGATE

- 10.1 Shall be a two-way tailgate able to open from the top and bottom.
- 10.1.1 Tailgate shall not protrude above floor in horizontal or full down position.
- 10.1.2 There shall be no gap between tailgate and the floor and sides when tailgate is in the closed or horizontal position.
- 10.2 Construction formed construction with one or two equally spaced horizontal or vertical rib(s), and a self-cleaning bottom rail.
- 10.3 Tailgate shall be reinforced as required with either heavy duty (min.  $\frac{3}{16}$  in.) end plates, or 6.35 mm ( $\frac{1}{4}$  in.) steel tubing.
- 10.4 Top tailgate anchor pins  $31.75 \text{ mm} (1\frac{1}{4} \text{ in.})$  diameter min., self-locking/ storing to top of side post.

If retainer pin is used to lock top tailgate anchor pins, a small steel check chain is required, permanently fastened to the retainer pin.	
Support and spreader chains – 9.5 mm (¾ in.) transport grade 70, adequately fastened c/w chain storage and two (2) removable links per chain.	
Support and spreader chains shall be equipped with a protective cover.	
Tailgate locking mechanism – in-cab control, air operated with air brake pot operated trip.	
The locking mechanism shall be adjustable to ensure adequate lock-up with tailgate closed.	
FLOOR	
Material – 4.76 mm ( $^{3}$ / <sub>16</sub> in.) AR200 or equal, state material.	
Floor width – nominal 203 cm (80 in.) width, state.	
2-piece floor maximum (1-piece preferred). 2-piece floors shall be continuously welded.	
Floor to have a 60° slope along the joint to the side wall. Slope shall extend upward approx. 10 cm (4 in.).	
Long sills – 20-25 cm (8-10 in.) formed long sills, tapered hat section design, continuously welded to the floor.	
HOIST	
Type – double acting, hydraulic scissor lift hoist, Nordic TL1622 or TL1627 as required for specified dump angle.	
Dumping angle – 50 degrees.	
IN-CAB CONTROLS	
Type – dash mounted single switch dump control, return to centre, electrically actuated International OEM switch preferred. State details	

- 14.1 PTO Muncie electric/hydraulic power shift.
- 14.1.1 Electric/Hydraulic power shift, operable from a normal driving position.

14.1.2	Warning light to show P	TO engaged.
	maining light to onom i	i o ongugou.

14.2	Pump, valve and tank combination – Williams W15-6CR-27QT or Nord-Sen X3185 complete with P20 Commercial closed coupled gear pump, double-acting solenoid operated valve mounted directly to reservoir, and 25.5 L (27quart) tank. Reservoir to be right hand side chassis frame mounted c/w sight gauge.	
14.2.1	Reservoir shall be clearly labelled "Hydraulic Oil" with a permanent type, engraved style label.	
14.2.2	Level gauge – glass sight type, mounted in readily visible location.	
14.3	Return line filter – spin-on type, serviceable without oil loss.	
14.4	Shut-off valve – ball type, located for servicing without oil loss, secured in open position with a bracket and bolt.	
14.5	Hydraulic hoses – wire braid reinforced, rated for system operating pressure with 4 to 1 safety factor for burst pressure.	
14.5.1	Hydraulic hoses to be protected at wear and scuff locations.	
14.5.2	Hose fittings – hydraulic full flow, crimp-on (non-reusable) type.	
15.0	ELECTRICAL & LIGHTING	
15.1	All lighting to conform to C.M.V.S.S. and Manitoba Highway Traffic Act.	
15.2	Supplier installed lighting and lighting equipment shall be Truck-Lite (except where otherwise noted) and shall include the following components:	
15.2.1	Combination turn/stop and taillights – P/N 44302R, one (1) per side with 40700 mounting grommets, flash rate 70-90 fpm.	
15.2.2	Back-up lights – P/N 44206C, one (1) per side with 40700 mounting grommets.	
15.2.3	Light cluster – three (3) only P/N 10250R with P/N 10700 mounting grommets, located to be protected from damage.	
15.2.4	Rear light mounting location – taillights, back-up lights and 3-light cluster shall be mounted in the rear sill of the dump body. The lights shall be situated so that no debris contacts the lights while dumping.	
15.2.5	Clearance lamps – P/N 10250R and 10250Y with P/N 10700 mounting grommets.	
15.2.6	Clearance lamp mounting locations:	
	i) Front – two (2), located one on each bottom corner.	

	ii) Sides – two (2) per side, located on front and rear bottom corners.
	iii) Rear – two (2), located one on each bottom or top corner.
15.3	No clearance light shall protrude beyond the dump body.
15.4	Taillights and back-up lights shall be fully visible when tailgate is lowered to horizontal position.
15.5	Licence plate lamp – P/N 15040, complete with licence plate bracket.
15.6	Harnesses – Truck-Lite 50 Series Harness system, properly routed and secured.
15.6.1	All harnesses shall be internally grounded, no exceptions.
15.7	Junction box – P/N 50400, complete with necessary compression fittings, required for all vehicle lighting harness connections, located inside rear of truck frame.
15.8	All plug-in connectors shall be coated with Truck-Lite NYK compound prior to assembly.
15.9	Trailer connector – 6-pole, Grote 82-1068 or equal, wired through chassis manufacturer's OEM auxiliary circuit, and installed in rear trailer hitch plate.
15.10	All wiring for trailer connector shall be colour coded, loomed and properly secured.
15.10.1	All electrical connectors shall be <u>crimped and soldered</u> , then sealed using heat shrink tubing.
15.10.2	All joining of wires shall be <u>soldered</u> and sealed using heat shrink tubing or approved OEM weathertight connections (crimp on electrical connectors for joining wires are not acceptable).
15.10.3	Any holes required to run wires through shall be drilled (not punched), grommeted and sealed as required.
16.0	WELDING
16.1	All welds shall be continuous welds.
16.2	All welding performed shall conform to CSA Standard W47.1-03 and W59-03.
	Note: All welds are subject to inspection by a City of Winnipeg Qualified Inspector.
17.0	INSTALLATION
17.1	Any holes required in the chassis frame web must be drilled and reamed to fit bolts.

17.1.1	Drilling on chassis frame flanges is not permitted.	
17.1.2	Welding on the chassis frame is not permitted, with the exception of installation of dump body pivot support.	
17.2	Tire clearance – min. 8 cm ( $3\frac{1}{4}$ in.) with rear suspension air bags lowered.	
17.3	Clearance between dump body and back of truck cab shall be 8 cm $(3\frac{1}{4} \text{ in.})$ .	
17.4	The dump body shall be installed on the following cab & chassis vehicle:	
2	2008 International 4300	
	<ul> <li>29,000 lbs. GVWR</li> <li>84 in. CA</li> <li>750,000 in-lb RBM double rail frame, outside frame clear</li> <li>DT466 in-line 6 cyl. diesel engine, 7.6 L</li> <li>Allison 2500 RDS Series automatic transmission</li> <li>Horizontal discharge exhaust</li> <li>Hydraulic brake system with air provision</li> <li>Air ride suspension</li> </ul>	
17.4.1	The chassis will be available for pick-up on or before July 3, 2007. The Contractor is responsible for pick-up and delivery of the unit as stated in Section 20.0 below.	
18.0	MISCELLANEOUS	
18.1	Rear hitch plate – 12.7 mm ( $\frac{1}{2}$ in.) thick solid steel, (laminated plates unacceptable) installed to chassis frame.	
18.1.1	"A" frame hitch reinforcement – 76 mm x 76 mm x 9.5 mm (3" x 3" x ¾") angle iron, welded to back of hitch plate and bolted to chassis frame web.	
18.2	Combination hitch – Premier 150 w/2 in. ball or approved equivalent hitch, installed on hitch plate at a 61 cm (24 in.) height.	
18.3	Lunette eyes for trailer safety chains – one (1) each side of hitch, Buyers Products B56730 or equal.	
18.4	Mudflaps – black rubber, no-name, required front and rear of back tires c/w anti-sail bracket on each mud-flap.	
18.4.1	Rear mudflaps shall not contact the ground when the dump body is at maximum dump angle.	
18.5	Dump body prop – double prop design, steel tubing construction, to support dump body in raised position and permit servicing of hoist, operable by a single person, designed so as not to interfere with hoist cylinder or surroundings.	

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- 18.5.1 Dump body prop to be complete with receiving bracket.
- 18.6 Grease fittings required on tailgate release mechanisms, pivot points and tailgate as required.
- 18.7 Automatic greasing system complete dump body and chassis shall be supplied with a Groeneveld/CPL Systems Inc. automatic greasing system including all required grease points on dump body, approx. twenty-six (26) points on cab & chassis, and automatic low level shutoff with in-cab red light indicator.

#### 19.0 <u>FINISH</u>

- 19.1 Complete dump body, hitch plate, reservoirs, steel brackets, etc. (with the exception of inside of the floor) shall be <u>sandblasted</u>, properly cleaned, primed and finished with the Endura paint process as follows:
- 19.1.1 Primer Endura EP32 Intermix Epoxy Primer.
- 19.1.2 Paint 3-5 mils of Endura EX-2C Topcoat, black.

## 20.0 PICK-UP AND DELIVERY

- 20.1 Pick-up the Contractor shall be responsible for picking-up the cab & chassis vehicles from the City upon commencement of the Contract. The vehicles will be available for pick-up at the Winnipeg Fleet Management Agency, 185 Tecumseh St., Winnipeg, Manitoba. Pick-up times will be between 8:00 am and 3:00 pm on any business day. The Contractor shall be responsible for any related fuel and insurance costs to and from their facility.
- 20.2 Delivery the unit shall be serviced, ready for operation, fully fuelled and delivered F.O.B. with the freight prepaid to the Winnipeg Fleet Management Agency, 185 Tecumseh Street, Winnipeg, Manitoba within **eighteen (18) calendar weeks** from the date of official notification 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.
- 20.3 A pre-delivery inspection shall be performed by the Contractor on all equipment.

#### 21.0 PERFORMANCE RELIABILITY

- 21.1 The responsibility for the design of the complete dump body, it's performance and reliability shall rest upon the Contractor.
- 21.2 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",

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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.

21.3 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.

## 22.0 <u>WARRANTY</u>

22.1 The warranty on the complete dump body and attachments 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.

22.2 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" (21.0 <u>Performance Reliability</u>). The new warranty period shall be effective from the date of acceptance of the repaired or replaced article.

#### DETAILED SPECIFICATIONS 07042

#### 13' x 8' DUMP BODY

(Forestry)

#### 1.0 <u>SCOPE</u>

- 1.1 These specifications describe the supply and installation of a 13 ft. x 8 ft. clean side style dump body to be installed by the supplier on a City owned cab & chassis. See 17.0 Installation for chassis description.
- 1.2 The unit shall be furnished complete and ready for use. All parts not specifically mentioned, but which are required to complete and place the unit in successful operation, shall be furnished as though specifically mentioned in these specifications. The complete unit, and all parts thereof, shall conform in strength and quality of material and workmanship, to the best standards and engineering practice of the industry.
- 1.3 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 equipment being bid.

#### 2.0 <u>STANDARDS</u>

- 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 All welding shall conform to the CSA/CWB Standards W47.1-03 and W59-03.
- 2.3 The completed unit and all its components shall comply with all C.M.V.S.S. and Manitoba Highway Traffic Act regulations and requirements including, but not limited to, a Manitoba Government Inspection with Safety Sticker.

#### 3.0 QUALIFICATIONS OF MANUFACTURER / CONTRACTOR

- 3.1 The manufacturer of the dump body shall have demonstrated experience manufacturing bodies of the type being offered.
- 3.2 The Contractor shall be a manufacturer or authorized distributor/supplier of dump body equipment.
- 3.3 For the purpose of warranty repairs, 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 dump bodies, and general service capabilities. A description of the service facility shall be provided within 3-Calendar Days upon request of the Contract Administrator.
- 3.4 If a suitable warranty facility is not available within 10 km of the boundaries of the City of Winnipeg, the Bidder may propose that warranty work be performed by the City of Winnipeg

Repair Facilities. Any work performed by City of Winnipeg Repair Facilities shall be charged to the Contractor at the Facility's shop rate in effect at the time the work is performed (for example, shop rate for 2007: \$80.00/hr regular time, \$105.00/hr overtime and callout).

- 3.5 The manufacturer/installer shall be a certified vehicle completer and must affix their National Safety Mark (NSM) certification sticker on each unit.
- 3.5.1 State NSM number:\_\_\_\_\_

#### 4.0 INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS

- 4.1 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.
- 4.2 Each bidder is required to fill in every blank. Failure to do so may be used as a basis for rejection of bid.

## 5.0 PERFORMANCE

5.1	The dump body shall be capable of consistent top performance for
	hauling and dumping during the summer and winter environments
	which are normal to the City of Winnipeg.

## 6.0 DUMP BODY – DIMENSIONS

6.1	Length, outside – nominal 4.0 m (13 ft.).
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- 6.1.1 Length, inside 3.8 m (12' 6") approx.
- 6.2 Width, outside to match chassis track width, nominal 244 cm (8 ft.).
- 6.2.1 Width, inside 229 cm (7' 6") approx.
- 6.3 Height of sides 102 cm (40 in.) approx. measured from the floor, state.
- 6.4 Height of tailgate 81 cm (32 in.) approx. measured from the floor, state.
- 6.5 Height of front to match chassis cab height.

## 7.0 <u>MATERIAL</u>

7.1 All material used in construction to be minimum 10 ga. steel, minimum 50,000 psi yield except where otherwise noted.

## 8.0 <u>FRONT</u>

- 8.1 Construction formed steel construction with horizontal reinforcement rib(s) formed into front of body.
- 8.2 Cab shield formed from a single sheet of steel, bolt-on design, 61 cm (24 in.) deep, sloped @ 15°.

## 8.2.1 Sides of cab shield to be 4.76 mm $(^{3}/_{16}$ in.) plate with heavy duty reinforcement.

8.2.2 Cab shield sides tapered @ 30° to provide adequate clearance for entry and exit of vehicle cab.

## 9.0 <u>SIDES</u>

- 9.1 Clean side style formed sides without vertical reinforcements, welded into a 1-piece design, including self-cleaning bottom rail and formed, self-cleaning centre horizontal rib.
- 9.2 Rear side post formed, one per side.
- 9.3 Top of sides heavy duty 76 mm x 76 mm (3" x 3") structural or formed steel tubing without plank gussets. Top of sides shall accommodate a City owned and supplied chipper body top that can be bolted to the top of the sides and front of the body.
- 9.4 Tie down eyes four (4) required on inside of body, two near top/front of each side, two near top middle of each side.
- 9.5 Access ladders two (2) required, located at front corners of dump body.
- 9.5.1 Ladder rungs traction type rungs, 13 gauge steel, 57 mm (2¼ in.) width,
  2 or 4-hole design, Traction Tread Products or equal.
- 9.5.2 First rung to be 46-56 cm (18-22 in.) from ground level, approx 36 cm (14 in.) rung spacing to top of body.
- 9.6 Grab handles located for ergonomic access to top of box.

#### 10.0 REAR DOORS

- 10.1 Type two (2) swing-out doors, hinged on rear side posts, centre latched. The right side door shall overlap the left side door.
- 10.2 Inside formed from single sheets of steel.
- 10.3 Top rails full box structural steel section, min. 76 mm x 76 mm x  $3.175 \text{ mm} (3" \times 3" \times 1\%")$ .
- 10.4 Horizontal rails heavy duty, one (1) centred on each door, one (1) self-cleaning bottom rail per door.
- 10.5 Side and centre vertical rails full box section, min. 76 mm x 76 mm x  $3.175 \text{ mm} (3" \times 3" \times 1\%")$  or equivalent design.
- 10.6 Hinges two (2) per side, greaseable, severe service with min. 1 in. pin diameter.
- 10.7 Rear latch spring loaded latch mounted to the right side door. The spring loaded pin shall latch into the rear of the floor.

10.8	Door stays – required to secure rear doors in the fully open position
	while dumping.

## 11.0 <u>FLOOR</u>

- 11.1 Material 4.76 mm ( $^{3}/_{16}$  in.) AR200 or equal, state material.
- 11.2 Floor width nominal 203 cm (80 in.) width, state.
- 11.4 2-piece floor maximum (1-piece preferred). 2-piece floors shall be continuously welded.
- 11.4 Floor to have a 60° slope along the joint to the side wall. Slope shall extend upward approx. 10 cm (4 in.).
- 11.5 Long sills 20-25 cm (8-10 in.) formed long sills, tapered hat section design, continuously welded to the floor.

#### 12.0 <u>HOIST</u>

- 12.1 Type double acting, hydraulic scissor lift hoist, Nordic TL1622 or TL1627 as required for specified dump angle.
- 12.2 Dumping angle 50 degrees.

## 13.0 IN-CAB CONTROLS

13.1 Type – dash mounted single switch dump control, return to centre, electrically actuated International OEM switch preferred. State details of in-cab controls.

## 14.0 <u>HYDRAULICS</u>

14.1	PTO – Muncie electric/hydraulic power shift.	
14.1.1	Electric/Hydraulic power shift, operable from a normal driving position.	
14.1.2	Warning light to show PTO engaged.	
14.2	Pump, valve and tank combination – Williams W15-6CR-27QT or Nord-Sen X3185 complete with P20 Commercial closed coupled gear pump, double-acting solenoid operated valve mounted directly to reservoir, and 25.5 L (27quart) tank. Reservoir to be right hand side chassis frame mounted c/w sight gauge.	
14.2.1	Reservoir shall be clearly labelled "Hydraulic Oil" with a permanent type, engraved style label.	

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14.2.2	Level gauge – glass sight type, mounted in readily visible location.	
14.3	Return line filter – spin-on type, serviceable without oil loss.	
14.4	Shut-off valve – ball type, located for servicing without oil loss, secured in open position with a bracket and bolt.	
14.5	Hydraulic hoses – wire braid reinforced, rated for system operating pressure with 4 to 1 safety factor for burst pressure.	
14.5.1	Hydraulic hoses to be protected at wear and scuff locations.	
14.5.2	Hose fittings – hydraulic full flow, crimp-on (non-reusable) type.	
15.0	ELECTRICAL & LIGHTING	
15.1	All lighting to conform to C.M.V.S.S. and Manitoba Highway Traffic Act.	
15.2	Supplier installed lighting and lighting equipment shall be Truck-Lite (except where otherwise noted) and shall include the following components:	
15.2.1	Combination turn/stop and taillights – P/N 44302R, one (1) per side with 40700 mounting grommets, flash rate 70-90 fpm.	
15.2.2	Back-up lights – P/N 44206C, one (1) per side with 40700 mounting grommets.	
15.2.3	Light cluster – three (3) only P/N 10250R with P/N 10700 mounting grommets, located to be protected from damage.	
15.2.4	Rear light mounting location – taillights, back-up lights and 3-light cluster shall be mounted in the rear sill of the dump body. The lights shall be situated so that no debris contacts the lights while dumping.	
15.2.5	Clearance lamps – P/N 10250R and 10250Y with P/N 10700 mounting grommets.	
15.2.6	Clearance lamp mounting locations:	
	i) Front – two (2), located one on each bottom corner.	
	ii) Sides – two (2) per side, located on front and rear bottom corners.	
	iii) Rear – two (2), located one on each bottom or top corner.	
15.3	No clearance light shall protrude beyond the dump body.	
15.4	Taillights and back-up lights shall be fully visible when tailgate is lowered to horizontal position.	

15.5 Licence plate lamp – P/N 15040, complete with licence plate bracket.

15.6	Harnesses – Truck-Lite 50 Series Harness system, properly routed
	and secured.

15.6.1 All harnesses shall be internally grounded, no exceptions.

15.7	Junction box – P/N 50400, complete with necessary compression
	fittings, required for all vehicle lighting harness connections, located
	inside rear of truck frame.

- 15.8 All plug-in connectors shall be coated with Truck-Lite NYK compound prior to assembly.
- 15.9 Mini light bar Grote 77163, cab-mounted on a Stealth (by Carr) roof rack.
- 15.9.1 Strobe lights two (2) Grote P/N 77363, rear facing, one in each rear corner pillar.
- 15.9.2 Mini light bar and strobe lights shall be wired through the ignition, wired through a single OEM dash mounted switch, labelled "Beacon" with a permanent type, engraved style label.
- 15.10 Trailer connector 6-pole, Grote 82-1068 or equal, wired through chassis manufacturer's OEM auxiliary circuit, and installed in rear trailer hitch plate.
- 15.11 All wiring for warning lights and trailer connector shall be colour coded, loomed and properly secured.
- 15.11.1 All electrical connectors shall be <u>crimped and soldered</u>, then sealed using heat shrink tubing.
- 15.11.2 All joining of wires shall be <u>soldered</u> and sealed using heat shrink tubing or approved OEM weathertight connections (crimp on electrical connectors for joining wires are not acceptable).
- 15.11.3 Any holes required to run wires through shall be drilled (not punched), grommeted and sealed as required.

#### 16.0 WELDING

- 16.1 All welds shall be continuous welds.
- 16.2 All welding performed shall conform to CSA Standard W47.1-03 and W59-03.
  - <u>Note</u>: All welds are subject to inspection by a City of Winnipeg Qualified Inspector.

#### 17.0 INSTALLATION

17.1 Any holes required in the chassis frame web must be drilled and reamed to fit bolts.

- 17.1.1 Drilling on chassis frame flanges is not permitted.
- 17.1.2 Welding on the chassis frame is not permitted, with the exception of installation of dump body pivot support.
- 17.2 Tire clearance min. 8 cm (3<sup>1</sup>/<sub>4</sub> in.) with rear suspension air bags lowered.
- 17.3 Clearance between dump body and back of truck cab shall be 8 cm  $(3\frac{1}{4} \text{ in.})$ .
- 17.4 The dump body shall be installed on the following cab & chassis vehicle:

## 2008 International 4300

- 29,000 lbs. GVWR
- 108 in. CA
- 750,000 in-lb RBM double rail frame, outside frame clear
- DT466 in-line 6 cyl. diesel engine, 7.6 L
- Allison 2500 RDS Series automatic transmission
- Horizontal discharge exhaust
- Hydraulic brake system with air provision
- Air ride suspension
- 17.4.1 The chassis will be available for pick-up on or before July 3, 2007. The Contractor is responsible for pick-up and delivery of the unit as stated in Section 20.0 below.

## 18.0 MISCELLANEOUS

- 18.1 Rear hitch plate 12.7 mm ( $\frac{1}{2}$  in.) thick solid steel, (laminated plates unacceptable) installed to chassis frame.
- 18.1.1 "A" frame hitch reinforcement 76 mm x 76 mm x 9.5 mm (3" x 3" x 3%") angle iron, welded to back of hitch plate and bolted to chassis frame web.
- 18.2 Combination hitch Premier 150 w/2 in. ball or approved equivalent hitch, installed on hitch plate at a 61 cm (24 in.) height.
- 18.3 Lunette eyes for trailer safety chains one (1) each side of hitch, Buyers Products B56730 or equal.
- 18.4 Mudflaps black rubber, no-name, required front and rear of back tires c/w anti-sail bracket on each mud-flap.
- 18.4.1 Rear mudflaps shall not contact the ground when the dump body is at maximum dump angle.
- 18.5 Dump body prop double prop design, steel tubing construction, to support dump body in raised position and permit servicing of hoist, operable by a single person, designed so as not to interfere with hoist cylinder or surroundings.

- 18.5.1 Dump body prop to be complete with receiving bracket.
- 18.6 Toolbox  $\frac{1}{6}$  in. aluminum checkerplate construction, 76 cm W x 61 cm H x 46 cm D (30"W x 24"H x 18" D) approx., bottom hinged door c/w gas shocks, a lockable stainless steel T-handle and bulb type, automotive style weather stripping. Aluminum box to be mounted on driver's side frame rail ahead of rear wheels, installed in a 5 cm x 5 cm (2" x 2") steel angle iron frame. Toolbox frame to include a 1.5 mm ( $\frac{1}{16}$  in.) rubber or neoprene insulator between steel and aluminum to prevent Galvanic corrosion.
- 18.7 Grease fittings required on all bushings, pivot points and tailgate as required.
- 18.8 Automatic greasing system complete dump body and chassis shall be supplied with a Groeneveld/CPL Systems Inc. automatic greasing system including all required grease points on dump body, approx. twenty-six (26) points on cab & chassis, and automatic low level shutoff with in-cab red light indicator.

## 19.0 <u>FINISH</u>

- 19.1 Complete dump body, hitch plate, reservoir, steel brackets, etc. (with the exception of inside of the floor) shall be <u>sandblasted</u>, properly cleaned, primed and finished with the Endura paint process as follows:
- 19.1.1 Primer Endura EP32 Intermix Epoxy Primer.
- 19.1.2 Paint 3-5 mils of Endura EX-2C Topcoat, black.

#### 20.0 PICK-UP AND DELIVERY

- 20.1 Pick-up the Contractor shall be responsible for picking-up the cab & chassis vehicles from the City upon commencement of the Contract. The vehicles will be available for pick-up at the Winnipeg Fleet Management Agency, 185 Tecumseh St., Winnipeg, Manitoba. Pick-up times will be between 8:00 am and 3:00 pm on any business day. The Contractor shall be responsible for any related fuel and insurance costs to and from their facility.
- 20.2 Delivery the unit shall be serviced, ready for operation, fully fuelled and delivered F.O.B. with the freight prepaid to the Winnipeg Fleet Management Agency, 185 Tecumseh Street, Winnipeg, Manitoba within **eighteen (18) calendar weeks** from the date of official notification 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.
- 20.3 A pre-delivery inspection shall be performed by the Contractor on all equipment.

#### 21.0 PERFORMANCE RELIABILITY

21.1 The responsibility for the design of the complete dump body, it's

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performance and reliability shall rest upon the Contractor.

- 21.2 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.
- 21.3 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.

## 22.0 WARRANTY

22.1 The warranty on the complete dump body and attachments 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.

22.2 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" (21.0 <u>Performance Reliability</u>). The new warranty period shall be effective from the date of acceptance of the repaired or replaced article.