

FORM N: DETAILED SPECIFICATIONS 25001

VAN UPFITTING

1. INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS

- 1.1 All items in these specifications should be answered indicating compliance or non-compliance.
- 1.2 **Bidder shall state “yes” for compliance or state “deviation”**, or give a reply where requested to do so. Deviations and/or equivalents shall be clearly stated and fully detailed. Deviations and/or equivalents will be considered subject to evaluation. In every instance where a brand name or design specifications is used, the City will also consider deviations and/or equivalents.
- 1.3 Lengthy explanations of deviations may be included in a separate document and must reference the appropriate Detailed Specification.
- 1.4 Each Proponent is required to fill in every blank. Failure to do so may be used as a basis for rejection of bid.
- 1.5 It will be the responsibility of the Proponent to inform the City of any errors or omissions in these Detailed Specifications, for under this Contract, the Contractor shall be held responsible to ensure that the manufacturer will be responsible for the design, performance, reliability and satisfactory operational function of the unit.

2. DESCRIPTION OF EQUIPMENT

- 2.1 These specifications describe **Van Upfitting** and other equipment and features as specified herein. Van Upfitting will be supplied and installed in a City of Winnipeg owned 2024 Ford Transit Cargo Van.
- 2.2 The **Van Upfitting** shall use only contain new, unused equipment unless otherwise specified.
- 2.3 The **Van Upfitting** and all other items/components shall be the manufacturer's latest model. The equipment shall be furnished complete and ready for operation. Any parts or accessories not specifically mentioned, but which are required to complete and place the equipment and associated attachments in successful operation shall be furnished as though specifically mentioned in these specifications. The equipment and associated attachments, and all parts thereof, shall conform in strength and quality of material and workmanship, to the best standards and engineering practice of the industry.
- 2.4 The ratings specified herein merely state the minimum values acceptable to the City, not implying that those values are sufficient for the design of the particular equipment being bid.

3. OTHER SPECIFICATIONS AND STANDARDS

- 3.1 All applicable SAE Standards form an integral part of the specifications and shall have precedence in any conflict concerning minimum acceptable standards.
- 3.2 Where applicable, the **Van Upfitting** shall comply with the applicable regulations:

Standard - Specification/Regulation

Internet URL

Transport Canada, National Safety Mark, NSM:	http://www.tc.gc.ca/eng/acts-regulations/acts-road.htm
Manitoba Safety and Health Regulation, Parts 12, 16, 22:	http://web2.gov.mb.ca/laws/regs/current/217.06.pdf
Canadian Motor Vehicle Safety Standards C.M.V.S.S.:	http://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._1038/section-sched3.html
Manitoba Highway Traffic Act regulations and requirements including, but not limited to, a Manitoba Government Inspection with Safety Sticker:	http://web2.gov.mb.ca/laws/regs/index.php?act=h60
Canadian Standards Association CSA:	http://www.csagroup.org
Under Writers of Canada U/L:	http://www.ulc.ca

Society of Automotive Engineers SAE:

<http://www.sae.org>

City of Winnipeg Lighting Visibility Standard:

<http://winnipeg.ca/matmgt/pdfs/PublicWorksEquipLightingVisibility.pdf>

Manitoba Building Code:

https://web2.gov.mb.ca/laws/regs/current/_pdf-regs.php?reg=31/2011

3.3 Where applicable, the completed unit shall include a Manitoba Government Inspection with Safety Sticker.

3.4 Where applicable, the manufacturer/installer shall affix their National Safety Mark (NSM) certification sticker on each unit.

State NSM number: _____

4. FUEL

4.1 Where applicable, the equipment shall be fully fuelled upon delivery (no exceptions).

5. REFERENCES

5.1 Provide five (5) references where this equipment is used in a working environment where climatic conditions are similar to the City of Winnipeg.

6. MAKE & MODEL

6.1 State year, make and model being bid:

Model Year: _____

Make: _____

Model: _____

7. PERFORMANCE RELIABILITY

7.1 The responsibility for the design of the **Van Upfitting**, its performance and reliability shall rest upon the Contractor.

7.2 The term "repeated failures" as used herein is defined to mean that the same component, subassembly, or assembly develops repeated defects, breakdowns and/or malfunctions rendering the vehicle inoperative, or requiring repeated shop correction, service and/or replacement during the warranty period applicable for said component, subassembly, of assembly. Minor items or ordinary service adjustments are not included, or considered under the scope of "repeated failures", as well as other factors, such as operational damage due to accidents, misuse or lack of proper maintenance, service and lubrication attention by not following the manufacturer's preventative maintenance schedule.

7.3 Where the **Van Upfitting** develops "repeated failures" in service, the Contractor shall make any necessary engineering changes, repairs, alterations or modifications in order to guarantee reliability of performance.

7.4 The equipment shall be capable of consistent top performance in City of Winnipeg Environment.
Note: The City of Winnipeg has four seasons with ambient temperatures ranging from approximately 90°F (32°C) to -40°F (-40°C).

8. SERVICE FACILITY

- 8.1 For the purpose of warranty repairs, the Bidder shall have an authorized service facility. 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

9. QUALIFICATIONS OF MANUFACTURER & CONTRACTOR

- 9.1 The manufacturer / installer of the Van Upfitting shall have five (5) years continuous experience manufacturing / installing Van Upfitting.
- 9.2 The manufacturer / installer shall have in effect a documented quality control program ensuring that the quality of materials and workmanship, including welding, conforms to the best standards and engineering practice of the industry.
- 9.3 The Contractor shall have five (5) years continuous experience servicing, repairing and maintaining Van Upfitting of the type being offered.

10. SPECIFICATIONS

Installation

- 10.1 Vehicle The Contractor shall install the Van Upfitting on the following City owned vehicle: _____

- WW-WSTWTR-SEWER
- Unit Number 1744221
- VIN 1FTBW2XG8RKB04694
- 2024 Ford Transit 350 Cargo Van
- 9,500 lbs. GVWR
- High Roof – Interior Height 81.5 in.
- Cargo Length at floor 143.7 in.
- Gasoline Engine

Drawings

- 10.2 Contractor shall supply: _____
- The Contractor shall supply multi-view CAD drawings to the Contract Administrator upon Award of Contract
 - Drawings will be reviewed and approved as part of the Pre-Production planning stages
 - Contractor to provide a weight analysis after pre-production meetings
 - Drawings are to include all dimensions, materials, and specifications as required
 - Drawings are to be revised as requested by the City
 - Multiple drawing iterations may be required
 - Van upfitting shall not commence until approval is granted

Note: Drawings can be supplied as hard copies, PDF's or electronically

Weigh Scale Ticket

- 10.3 Weigh Scale Ticket: _____
- The Contractor shall provide a certified weigh scale ticket upon delivery of the completed unit
 - The weigh scale ticket shall include front and rear axle weights including two (2) operators, all attachments and full of fuel

Vehicle Storage

- 10.4 Vehicle Storage Vehicle to be stored at the Contractor's facility while work is being completed in a locked compound _____

General Information

- 10.5 Material Aluminum components to be manufactured using minimum 0.100" aluminum 5052-H32 or equivalent, unless otherwise stated, and suited for heavy duty use _____
- 10.6 Dimensions Dimensions are approximate and shall be discussed and confirmed at a pre-production meeting with City personnel _____

Interior Cab Partition

- 10.7 Interior Cab Partition
 - Sliding door partition
 - Aluminum
 - 20-inch wide, polycarbonate window
 - Aluminum angle added to bottom of partition for extra durability
 - Similar to Ranger Design 3067-FTH _____

Cargo Area Partition

- 10.8 Cargo Area Partition
 - Solid partition
 - Aluminum
 - Sliding window – 24-in High x 32-in Wide
 - Lined with Fiberglass Reinforced Plastic (FRP) Panels on both sides
 - Aluminum angle added to bottom of partition for extra durability _____
- State: window size:** _____

Floor

- 10.9 Floor
 - ¾-inch composite plywood
 - Rhino Grip Slip-Resistant Additive
 - Black _____

Insulation

- | | | | |
|-------|------------|--|-------|
| 10.10 | Insulation | <ul style="list-style-type: none"> • R6 value foam • Closed cell spray foam • Water resistance • Approximately 1-in thick on walls and ceiling | _____ |
|-------|------------|--|-------|

Walls and Ceiling

- | | | | |
|-------|-------------------|--|-------|
| 10.11 | Walls and Ceiling | <ul style="list-style-type: none"> • Interior walls and ceiling lined with Fiberglass Reinforced Plastic (FRP) Panels • White pebble dash finish • Embossed White • Includes Plastic Joining Strip between each sheet • Lining Kit will be screwed to plywood reinforcing side and ceiling of van | _____ |
|-------|-------------------|--|-------|

Front Work Desk

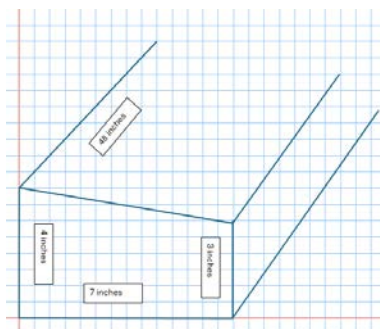
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|-------|------|---|-------|
| 10.12 | Desk | <ul style="list-style-type: none"> • 24-in D x 96-in W x 36-in H • Aluminum base • 1-inch hardwood top | _____ |
|-------|------|---|-------|

- | | | | |
|-------|---------|--|-------|
| 10.13 | Cabinet | <ul style="list-style-type: none"> • Compatible with desk • 5 Drawer • 150 lb. capacity per drawer • 18-in D x 24-in W x 36-in H • Ranger Design 5060-5 or equivalent | _____ |
|-------|---------|--|-------|

- | | | | |
|-------|---------|---|-------|
| 10.14 | Storage | <ul style="list-style-type: none"> • Adjacent to cabinet • 20-in W • One (1) shelf, 12-in from floor | _____ |
|-------|---------|---|-------|

Shelving

- | | | | |
|-------|---------|--|-------|
| 10.15 | Shelves | <ul style="list-style-type: none"> • Aluminum • Quantity two (2) | _____ |
|-------|---------|--|-------|



Rear Work Bench

- | | | | |
|-------|-------|---|-------|
| 10.16 | Bench | <ul style="list-style-type: none"> • 18-in D x 48-in W x 38-in H • Aluminum base • 1.5-inch hardwood top | _____ |
|-------|-------|---|-------|

10.17	Cabinet	<ul style="list-style-type: none">• Compatible with Bench• 5 Drawer• 150 lb. capacity per drawer• 18-in D x 24-in W x 36-in H• Ranger Design 5060-5 or equivalent	_____
10.18	Storage	<ul style="list-style-type: none">• Adjacent to cabinet• One (1) shelf, 12-in from floor or on top of wheel well• Designed to hold water tank	_____
10.19	Water Tank	<ul style="list-style-type: none">• Approximate 25 gallons• To fit in above storage area• Transfer pump included	_____
	Rear Shelving Unit		
10.20	Shelving	<ul style="list-style-type: none">• Aluminum• Approximate 16-in D x 36-in W x 62-in H• 4 Shelves spaced (12, 14, 14, and 14 inches)• Shelf depth 3 inches• Complete with adjustable and lockable doors	_____
	Roof Top Air Conditioner		
10.21	Roof Top Air Conditioner	<ul style="list-style-type: none">• Cooling capacity approximately 13,000 BTU/hr.• Self-contained compressor, evaporator, condenser and fans• Integrated control panel	_____
	Espar Heater		
10.22	Espar Heater	<ul style="list-style-type: none">• Latest version of Espar heating unit suitable for application• Ducted to the front and rear cargo areas divided by the partition• Provide cover for heating unit for protection from impact damage and water• Heating unit should be easily accessible	_____

Inverter

10.23 Inverter

- 7500W Pure Sine Wave Power Inverter
- Continuous Power: 7500 watts
- Input Voltage: 12V DC
- Output Voltage: 120V AC
- AC Outlets: 2 standard outlets
- USB Ports: 2 USB ports
- Display: Backlit LCD showing battery level, input voltage, output wattage, and fault conditions

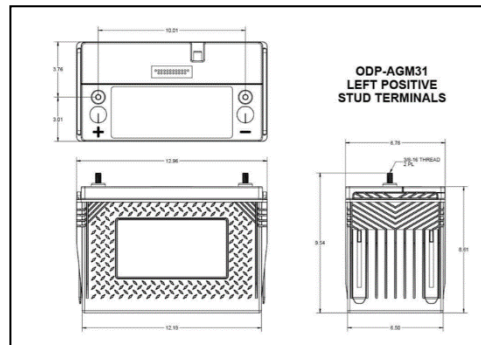
State:

Make: _____

Model: _____

10.24 Deep Cycle Battery

- Group 31, approximately 900 CCA or equivalent Model AGM Battery/Deep Cycle
- Mounted in a battery box with cover to provide protection for their terminals, and unintentional shock hazards
- Battery - Operating temperature range- 40°F / -40°C to 140°F / +60°C
- Battery Cold Start Performance S.A.E J537



10.25 Installation

All exposed terminals shall be: _____

- Coated with a dielectric grease
- Completely covered with adhesive-sealant-lined shrink tubing must be used to guarantee joint integrity, waterproofing and strain relief or rubber fittings

10.26	Wiring	<ul style="list-style-type: none"> • Inverter wired through ignition at the dash. Ensure to mounted inverter manufacturer remote switch • Labeled • Inverter to be complete with suitable solenoid and battery isolator • The wiring should have the capability to carry approximately 14 volts of alternator charging voltage from the engine compartment (when engine running) to the deep cycle battery connected to the inverter. 	
Wireless Network Connectivity			
10.27	Router	<ul style="list-style-type: none"> • High Performance • Multi-Network 5G /Wi-Fi 6 • Sierra AirLink® XR80 5G or equivalent 	_____
Video Distribution Amplifier			
10.28	Video Distribution Amplifier	<ul style="list-style-type: none"> • Delivers Video Signal to 4 Destinations • Composite Connections on BNC Connectors • 110 MHz Bandwidth • Complete with coaxial cables 	_____
Electrical			
10.29	Electrical Package	<ul style="list-style-type: none"> • 120VAC electrical package • CSA certified 	_____
10.30	Electrical Panel	<ul style="list-style-type: none"> • Electrical panel with main breaker • CSA approved • 30 amp • 4 - Spaces • 8 - Circuit • Complete with door • Equipped with a Surge Protective Device 	_____
Interior Lighting			
10.31	Ceiling	<ul style="list-style-type: none"> • Recessed LED lighting in the cargo areas • The lights shall be wired through the door switches and front driver actuated interior light switch 	_____
10.32	Work Desk	<ul style="list-style-type: none"> • LED task lighting is required over the work desk • Light(s) to be complete with a separate switch located at desk • Wired through ignition 	_____

- | | | | |
|-------|------------|--|-------|
| 10.33 | Work Bench | <ul style="list-style-type: none">• LED task lighting is required over the work bench• Light(s) to be complete with a separate switch located at workbench• Wired through ignition | _____ |
|-------|------------|--|-------|

Electrical Outlets

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|-------|--------------------|---|-------|
| 10.34 | Electrical Outlets | Ensure the bid submission includes provisions for the supply and installation of up to six (6) electrical outlets | _____ |
|-------|--------------------|---|-------|

Exterior Lighting

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|-------|-----------------|---|-------|
| 10.35 | Traffic Advisor | <ul style="list-style-type: none">• Arrow head style• SWS 57748-2 Traffic Arrow or equivalent• Complete with all mounting and electrical hardware• Controller• Traffic Arrow mounted at the rear of the vehicle <p>State:
Make: _____
Model: _____</p> | _____ |
|-------|-----------------|---|-------|

- | | | | |
|-------|----------------|---|-------|
| 10.36 | Mini Light Bar | <ul style="list-style-type: none">• Whelen R2LPPA Series Amber LED Mini Light Bar or equivalent• Mounted to centre top of van• Protected by Branch Guard – heavy duty construction• Mini Light Bar shall be wired “Hot” (i.e. able to use without the key on), wired through a single OEM dash mounted switch or on the control panel enclosure, labelled “Light Bar” with a permanent type, engraved style label. | _____ |
|-------|----------------|---|-------|

- | | | | |
|-------|---------------|--|-------|
| 10.37 | Strobe Lights | <ul style="list-style-type: none">• Six (6) total• Whelen TIR3 or equivalent• Front:<ul style="list-style-type: none">○ Two (2) front facing or behind grille• Rear:<ul style="list-style-type: none">○ Four (4) rear facing on rear doors• Strobe Lights shall be wired “Hot” (i.e. able to use without the key on) wired through a single OEM dash mounted switch or on the control panel enclosure, labelled “Strobes” with a permanent type engraved style label | _____ |
|-------|---------------|--|-------|

- 10.38 Rear Work Lights
- Grote 63981 or equivalent
 - Two (2) total
 - Installed on roof at rear of van
 - Work lights to be wired through neutral safety switch, panel actuated
 - Labelled "Work Lights"

- 10.39 Scene Lights
- Whelen 900 Series Large Surface Mount LED Perimeter Light - 9SC0ENZR or equivalent
 - Quantity two (2)
 - one (1) each side of van
 - top centre, near roofline
 - Switch panel actuated on two (2) separate switches
 - Labelled "Curb Work Lights" and "Street Work Lights"
 - Include spacer and gasket for surface mounting

State:

Make: _____

Part Number: _____

Back-Up Alarm

- 10.40 Back-Up Alarm
- SWS model 99202 or equivalent functionality product
 - Protected from damage and road spray

Lighting and Electrical Standards

- 10.41 Conformance:
- Class 2
 - LED Lighting
 - C.M.V.S.S.
 - Manitoba Highway Traffic Act.
 - City of Winnipeg Lighting Visibility Standard
- <http://winnipeg.ca/matmgt/pdfs/PublicWorksEquipLightingVisibility.pdf>
- 10.42 Lighting:
- Supplier installed
 - High count LED
- 10.43 Visibility:
- Taillights, back-up lights and warning lights to be fully visible when tailgate is lowered to horizontal position
 - No clearance light shall protrude beyond dump body

10.44 Identification:

- All dash mounted warning lights and switches to be identified with permanent, engraved type labels
- Mounting of labels with 3M VHB Tape or equivalent. To ensure adhesion to interior surfaces 3M Adhesion Promoter 06396 is a convenient liquid primer for enhancing the adhesion of 3M™ Acrylic Foam Tapes in automotive applications. This adhesion promoter works with most LSE plastics used for interior and exterior automotive trim and parts
- No labels to be located on upper surface of dash

10.45 Connection System:

- Weather Pack Sealed Connection System or equivalent system having same industry specifications.
- Genuine OEM connectors, terminals, and wire seals are used to guarantee quality and 100% fitment.
- ("J-Box" and shrink tube acceptable)



10.46 Grommets:

- Rubber grommets are to be utilized for passing or running wiring through holes in the chassis of panels, unless stated otherwise.



10.47 Harnesses:

- Harness system, properly routed and secured.
- All harnesses shall be internally grounded, no exceptions
- Colour coded or numbered

10.48 Junction Box:

- Complete with necessary compression fittings, required for all vehicle lighting harness connections
- Securely located
- Readily accessible for servicing
- Waterproof
- Protected from road spray

10.49 All Plug-In Connectors:

- All plug-in connectors shall be coated with Truck-Lite NYK Corrosion Preventive Compound prior to assembly

10.50 Wiring:

- All wiring to be colour coded, loomed and properly secured.
- Genuine OEM connectors, terminals, and wire seals are used to guarantee quality and 100% fitment

10.51 Electrical Connectors: _____

- All electrical connectors to be crimped, soldered and then sealed using adhesive-sealant-lined shrink tubing must be used to guarantee joint integrity, waterproofing and strain relief or rubber fittings



- Pictures above showing acceptable crimping and sealant using adhesive-sealant-lined shrink tubing must be used to guarantee joint integrity, waterproofing

10.52 Joining of Wires: _____

- All joining of wires to be soldered and sealed using heat shrink tubing or approved OEM weather tight connections

Note: Crimp on electrical connectors for joining wires are not acceptable

10.53 Wiring Routing: _____

- Any holes required to run wires through shall be drilled/deburred (not punched), grommeted and sealed

11.0 **WARRANTY:**

11.1 All warranty information shall be detailed and **include all exclusions.** _____

The Contractor shall provide all published warranty information upon delivery of the equipment.

Bidder shall state all warranty information.

11.2 The warranty for the **Van Upfitting** shall cover the complete equipment, and all parts thereof against any defects of workmanship, construction and materials. _____

Any equipment that has become defective during said warranty period and has not proven to have been caused by negligence on the part of the user shall be repaired or replaced at no cost to the City.

The warranty shall be effective from the date the equipment is put into service by the City of Winnipeg

11.3 Parts and Labour **State:** Terms: _____

11.4 Installation **State:** Terms: _____

12.0 **DELIVERY:**

12.1 **Delivery Point:** _____

The complete unit shall be serviced, ready for operation and delivered F.O.B. with the freight prepaid, including invoice and N.V.I.S. (if applicable) to the WFMA 185 Tecumseh Street, Winnipeg MB.

12.2 **Delivery Time:** _____

Equipment shall be delivered between 8:00 am and 2:00 pm on Business Days.

State: earliest delivery time from date of award: _____

12.3 **Delivery Contact:** _____

The Contractor shall contact the Contract Administrator prior to delivery of the equipment.

12.4 **P.D.I.:** _____

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

12.5 **Installation:** _____

- The contractor shall install fuel dispensers at the fuel site locations specified in Section 10 of the detailed specifications
- The Contractor shall provide a schedule for the removal of existing dispensers/ installation of new dispensers during a preproduction meeting.

13.0 **MANUALS:**

13.1 **Manuals:** _____

The manuals shall cover the complete equipment including all components

The following manuals shall be supplied with the units when delivered:

a) Operator's Manual – Three (3) per unit (one operator manual shall be sent to the Equipment Operator Training Branch

b) Parts and Service Manuals – one (1) complete sets including preventative maintenance schedules.

USB flash drive is preferred.

14.0 **PARTS/LABOUR PRICING:**

14.1 Bidder to provide City of Winnipeg Parts Discount % Pricing from retail parts pricing. _____

State: percentage discount: _____

14.2 Bidder to provide City of Winnipeg Labor Discount % Pricing from retail shop labor rate. _____

State: percentage discount: _____

15.0 **FIRST SERVICE PREVENTATIVE MAINTENANCE KIT:**

15.1 If applicable, in order to assure minimum downtime of the Equipment in future service, the Contractor must provide one (1) complete replacement set of new OEM filters for each unit purchased. The set of required filters shall include (if applicable to the equipment type) air, fuel, oil, transmission, cab and hydraulic, or otherwise all known necessary common replacement filters required for the first preventative maintenance servicing and first transmission service. _____

15.2 The Contractor must provide a list of factory recommended lubricants to be used with the equipment, as well as a complete cross reference guide for all warranty approved lubricants and filters that can be used during Preventative Maintenance servicing. _____