



**TENDER 2018-33
FIRE TRUCK - TANKER**

**Content List
for
TENDER 2018-33**

DESCRIPTION: Tender for Fire Truck - Tanker

Title Page

Content List

Section A Information for Tenderer

Section B Form of Tender

Section C Sample Form of Agreement

Section D Tender Checklist

Section E Standard Specifications

1. Register as a Bidder

It is mandatory that you register as a bidder with the Township. Please remit the following information to:

Sandra Moss, Executive Assistant
smoss@whitewaterregion.ca

- Name of Company
- Name of Contact Person
- Tender #
- Phone Number
- E-mail Address

Failure to register will result in non-acceptance of your submission.

2. Submission of Tenders

Tender Submissions for **2018-33 – FIRE TRUCK – TANKER** will be received in a sealed envelope, clearly marked as to its contents using the cover page provided by the Township of Whitewater Region at the end of this document. Proposals will be received at the Administration office of:

The Corporation of the Township of Whitewater Region
44 Main Street, P.O. Box 40
Cobden, ON K0J 1K0

Not later than **1:00 PM local time Wednesday October 31, 2018**

- a) Tenders received later than the time specified will not be accepted regardless of the postal cancel date.
- b) Tenders will be opened in public after 1:00 PM same day.
- c) All "Form of Tender" is to be received on the printed form provided.
- d) The lowest or any tender not necessarily accepted.

3. Tender Documents and Addenda

Tender documents are to be printed by bidder and submitted prior to the closing date in an envelope marked only with the template provided in the Tender documents.

All questions, or requests for clarification must be submitted in writing to Sandra Moss, Executive Assistant at smoss@whitewaterregion.ca on or before 3:00 pm Friday October 19, 2018.

No questions or requests for clarification will be addressed after this time.

Any and all addenda issued will be emailed to all registered bidders. **It is the bidder's sole responsibility to include all addenda issued with the tender submission.**

4. Right to Accept or Reject Offers

The Tender shall be based upon the whole of the Specifications and Contract Documents, without reservation.

The Tender must be submitted on the printed forms provided, which shall be completely filled out in ink or by typewriter and shall be duly executed by signing officer(s) of the corporation. Tenders may be invalidated if the forms are not properly or fully completed. All blanks must be legibly and properly filled in on the printed forms supplied for that purpose.

Tenders which are incomplete, conditional or obscure, or which contain additions not called for, erasures, alterations, or irregularities of any kind, may be rejected.

5. Litigation

No bid or offer will be accepted from any bidder, inclusive of the bidder's subcontractors, who has a claim or has instituted a legal proceeding against the Township, or against whom the Township has a claim or instituted a legal proceeding, without prior approval of Council. For purposes of this provision, where such bidder is a corporation, bidder shall include any non-arms length corporation of the bidder.

Bids from any bidder in any of the above circumstances shall be rejected as informal, irregular and non-compliant.

6. Unacceptable or Unbalanced Tenders

Under no circumstance will an unbalanced tender be considered. The Owner will be the sole judge of such matters, and should any tender be considered to be unbalanced, then the owner will reject it.

7. Execute Contract

Tenders shall be open for acceptance for a period of **ninety (90)** days after the closing date. After this time, the tender can only be accepted with the consent of the successful bidder.

The successful bidder shall execute the contract documents and furnish the required documentation within 10 calendar days of notification of Acceptance of

Tender.

Failure by the successful bidder to meet the above requirements will entitle the owner to cancel the award of the contract. The owner may then elect to award the contract to another bidder or take such action as they choose.

8. Ability and Experience of Bidder and Sub-Contractors

The Owner reserves the right to reject the tender of any bidder who does not furnish satisfactory evidence of sufficient capital, plant and experience to successfully execute and complete the work in the specified time.

9. Interpretation of Tender Documents

Bidders shall carefully examine all documentation that encompasses this request including but not limited to specifications, addenda and drawings in order to satisfy themselves as to all conditions affecting the scope of work. No claim for additional costs will be entertained on the grounds of misrepresentation, nor on the grounds that any promise or guarantee was given or provided by the Township.

If a Bidder finds discrepancies, omissions, irregularities or is in doubt as to the meaning, the Bidder shall contact the Township representative named in this document, by the date specified who may then send an addendum to all Bidders. The Township cannot be held liable for any oral explanation or interpretation provided.

Bidders attempting to contact Township staff or elected officials other than the contact(s) indicated within this request, for whatever reason during the bid process, are advised that such action may result in their disqualification from the process.

10. Tenderers to Investigate

The Tenderer shall be deemed to have satisfied themselves before tendering as to the correctness and sufficiency of their bid for the completion of the Works.

In addition, Tenderer shall obtain their own information on all matters and things that may in any way influence them in making their tender and fixing the rates entered by them in the Schedule of Items and Prices. Tenderer shall also satisfy themselves in all respects as to the risks and obligations to be undertaken under terms of Contract.

11. Delivery Date

The Tenderer shall deliver the Fire Truck no later than July 2019

12. Requirements at Time of Execution/ Prior to Commencement of Work

The successful bidder will be required to submit the following documentation, in form satisfactory to the Township of Whitewater Region, at the time of the execution of the contract.

- a) Executed Agreement

13. Award of Contract

The Township reserves the right to issue the Contract not necessarily to the lowest submission, or any submission not in the Township's best interest.

14. Conditions

The award of this contract is subject to Council Approval and budgetary allocations.

The Township of Whitewater Region reserves the right, in its sole discretion, to reject any or all bids, and the lowest or highest bid, as the case may be, will not necessarily be accepted.

Submitted by:

COMPANY NAME

To: The Corporation of the Township of Whitewater Region
Attention: CAO/Clerk
P.O. Box 40, 44 Main Street
Cobden, ON K0J 1K0

1. Offer

The undersigned Tenderer, hereinafter called "The Supplier" hereby offers to the Township of Whitewater Region, hereinafter called "The Township", to furnish all necessary execute and complete in a careful and workmanlike manner the work set out in the Contract Documents.

Pursuant to and in compliance with the Invitation to Tender and the proposed Contract Documents relating to **Tender 2018-33 – FIRE TRUCK TANKER TENDER**, the undersigned, having become thoroughly familiar with the terms and conditions of the proposed Contract Documents, hereby offers to fully perform the Work including furnishing of any and all labour and materials.

The undersigned also undertakes to do all the work required to construct and complete said Work in accordance with the Contract Documents at the prices tendered as follows:

TENDER PRICE - Dollars (\$ _____) **including H.S.T.** or such other sum as may be ascertained in accordance with the Contract Documents.

2. The Schedule of Items and Prices shall form part of this Tender. If there is any conflict between the Tender Sum entered above and the correct summation of the lump sum prices, the said summation shall take precedence.
3. This Tender is irrevocable for **ninety (90)** calendar days after the closing time, whether or not any other Tender has previously been accepted or not and whether notice of acceptance of another Tender has been given or not.
4. Notice of acceptance, or request for additional information, may be addressed to the undersigned at the address set forth below.

Company Bidding: _____

Address: _____

Telephone: _____

Email: _____

I have the authority to bind the company:

Name: _____

Position: _____

Signature: _____

**SCHEDULE OF SPECIFICATIONS
SPECIAL PROVISIONS – GENERAL**

General Information

- 1.1 **Building Standards:** The tendered fire apparatus will be built according to the latest standard of ULC S515, NFPA 1901, as well as other appropriate electrical, mechanical or other industry standards. The fire apparatus will be built to standards for acceptable use on rural roads, and shall conform to all Ministry of Transportation of Ontario and Canadian Motor Vehicle Safety
- 1.2 Bids may not be considered if the product on which a price is submitted, does not meet all of the requirements or the Bidder does not confirm compliance with all items by marking "YES" in the confirmation column or does not provide the required information where "SPECIFY" is noted in the confirmation column.
- 1.3 Only the major details are listed. It is the supplier's responsibility to deliver a fully equipped unit, with compatible components that will provide dependable, efficient service. Where minimums are given, the unit must meet or exceed the capacity, size and performance specified.
- 1.4 Quoted units must comply with the following specifications in all aspects. Alternative components that meet the requirements but are not identified in the specifications must be approved by the Fire Chief and/or Mechanic, prior to the Tender Closing.
- 1.5 It will be the responsibility of the supplier to obtain any MTO Standards referred to in the following specifications.
- 1.6 The unit must be a current standard production model, for the model year in which it will be delivered and must comply with all Federal and Provincial Legislation in effect, at the time of delivery.
- 1.7 The Tenderer will be responsible to provide travel and accommodations (if necessary) to the manufacturing facility for 2 (two) Township of Whitewater Region Representatives for 2 (two) inspections. One at mid-build and one at pre-delivery.
- 1.8 The Tenderer is responsible for **all Warranty Service**. The successful tenderer shall provide warranty service at all Whitewater Region Municipal Garages and /or on the roadside, for a minimum of one (1) year after delivery.

- 1.9 The vehicle must meet the provisions of the Canada Motor Vehicle Safety Act and the Regulations made there under, which are in effect on the date of manufacturing of the vehicle.
- 1.10 The completed unit shall be delivered to the Township of Whitewater Region, Mineview Patrol Garage, 2271 Mineview Rd, Cobden, On. no later than July 2019

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Vehicle Configuration</u>			
2018 or newer model year			
Make of unit			
Model of unit			
Set back axle – truck			
Straight truck provision			
Minimum seating for 2			
Minimum tank capacity of 3000 gallons			
Maximum total length of truck 372 inches			
Maximum total height of truck 126 inches			
<u>General Service</u>			
Truck configuration			
Fire service			
Emergency vehicles business segment			
Fixed load commodity			
Medium truck warranty			
Expected front axle(s) load: 16,000 lbs			
Expected rear drive axle(s) load: 46,000 lbs			
Expected gross vehicle weight capacity: 62,000 lbs			
<u>Engineering</u>			
The design of the equipment is in accordance with the best engineering practices. The equipment design and accessory installation shall permit accessibility for use, maintenance and service. All components and assemblies shall be free of hazardous protrusions, sharp edges, cracks or other elements, which might cause injury to personnel or equipment			
All oil, hydraulic, and air tubing lines and electrical wiring shall be located in protective positions properly attached to the frame or body structure and shall have protective loom or grommets at each point where they pass through structural members, except where a through-frame connector is necessary.			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<p>Parts and components will be located or positioned for rapid and simple inspection and recognition of excessive wear or potential failure. Whenever functional layout of operating components determines that physical or visual interference between items cannot be avoided, the item predicted to require the most maintenance shall be located for best accessibility.</p>			
<p><u>On-Line Service Manual Support</u></p>			
<p>As part of the standard delivery manual, a password-protected link allowing access to the manufacturers database on service parts. The internet based system shall allow the end user to access the major component suppliers service parts listing.</p>			
<p><u>Body Specification</u></p>			
<p><u>Low Voltage Electrical System Specifications</u></p>			
<p>The electrical system shall include all panels, electrical components, switches and relays, wiring harnesses and other electrical components. The electrical equipment installed by the apparatus manufacturer shall conform to current automotive electrical system standards, the latest Federal DOT standards, and the requirements of the applicable NFPA standards.</p>			
<p>All wiring shall be stranded copper or copper alloy conductors of a gauge rated to carry 125 percent of the maximum current for the protected circuit. Voltage drops in all wiring from the power source to the using device shall not exceed 10 percent. The wiring and wiring harness and insulation shall be in conformance to applicable SAE and NFPA standards. The wiring harness shall conform to SAE J-1128 with GXL temperature properties. All exposed wiring shall be protected in a loom with a minimum 289 degree Fahrenheit rating. All wiring looms shall be properly supported and attached to body members. The electrical conductors shall be constructed in accordance with applicable SAE standards, except when good engineering practice requires special construction.</p>			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<p>The wiring connections and terminations shall use a method that provides a positive mechanical and electrical connection and shall be installed in accordance with the device manufacturer's instructions. Electrical connections shall be with mechanical type fasteners and large rubber grommets where wiring passes through metal panels.</p>			
<p>The wiring between the cab and body shall be joined using Deutsche type connectors or enclosed in a terminal junction panel area. This system will permit body removal with minimal impact on the apparatus electrical system. All connections shall be crimp-type with insulated shanks to resist moisture and foreign debris such as grease and road grime. Weather-resistant connectors shall be provided throughout to ensure the integrity of the electrical system.</p>			
<p>Any electrical junction or terminal boxes shall be weather resistant and located away from water spray conditions. In addition, the main body junction panel shall house the automatic reset breakers and relays where required.</p>			
<p>There shall be no exposed electrical cabling, harnesses, or terminal connections located in compartments, unless they are enclosed in a junction box or covered with a removable electrical panel. The wiring shall be secured in place and protected against heat, liquid contaminants and damage. Wiring shall be uniquely identified every three-inches (3") by colour coding or permanent marking with a circuit function code and identified on a reference chart or electrical wiring schematic per requirements of applicable NFPA #1901 standards.</p>			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<p>The electrical circuits shall be provided with low voltage overcurrent protective devices. Such devices shall be accessible and located in required terminal connection locations or weather resistant enclosures. The overcurrent protection shall be suitable for electrical equipment shall be automatic reset type and meet SAE standards. All electrical equipment, switches, relays, terminals, and connectors shall have a direct current rating of 125 percent of maximum current for which the circuit is protected. The system shall have electro-magnetic interference suppression provided as required in applicable SAE standards.</p>			
<p>The electrical system shall include the following:</p>			
<ul style="list-style-type: none"> • Electrical terminals in weather exposed areas shall have a non-conductive grease or spray applied. A corrosion preventative compound shall be applicable to all terminal plugs located outside of the cab or body 			
<ul style="list-style-type: none"> • The electrical wiring shall be harnessed or be placed in a protective loom 			
<ul style="list-style-type: none"> • Holes made in the roof shall be caulked with silicone. Large fender washers shall be used when fastening equipment to the underside of the cab roof 			
<ul style="list-style-type: none"> • Any electrical component that is installed in an exposed area shall be mounted in a manner that will not allow moisture to accumulate in it 			
<ul style="list-style-type: none"> • A coil of wire must be provided behind an electrical appliance to allow them to be pulled away from mounting area for inspection and service work 			
<ul style="list-style-type: none"> • All Lights that have their sockets in a weather exposed area shall have corrosion preventative compound added to the socket terminal area 			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<p>The warning lights shall be switched in the chassis cab with labeled switches in an accessible location. Individual rocker switches shall be provided only for warning lights provided over the minimum level of warning lights in either the stationary or moving modes. All electrical equipment switches shall be mounted on a switch panel mounted in the cab convenient to the operator. The warning light switches shall be of the rocker type. For easy nighttime operation, an integral indicator light shall be provided to indicate when the circuit is energized. All switches shall be appropriately identified as to their function.</p>			
<p>A single warning light switch shall activate all required warning lights. This switch will allow the vehicle to respond to an emergency and "call for the right of way". When the parking brake is applied, a "blocking right of way" system shall automatically activate per requirements of the applicable NFPA standards. All "clear" warning lights shall be automatically turned off upon application of the parking brake.</p>			
<p><u>NFPA Required Testing of Electrical System</u></p>			
<p>The apparatus shall be electrically tested upon completion of the vehicle and prior to delivery. The electrical testing, certifications, and test results shall be submitted with delivery documentation per requirements of the applicable NFPA standards. The following minimum testing shall be completed by the apparatus manufacturer:</p>			
<p>1. Reserve capacity test: The engine shall be started and kept running until the engine and engine compartment temperatures are stabilized at normal operating temperatures and the battery system is fully charged. Then engine shall be shut off and the minimum continuous electrical load shall be activated for ten (10) minutes. All electrical loads shall be turned off prior to attempting to restart the engine. The battery system shall then be capable of restarting the engine. Failure to restart the engine shall be considered a failed test.</p>			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<p>2. Alternator performance test at idle: the minimum continuous electrical load shall be activated with the engine running at idle speed. The engine temperature shall be stabilized at normal operating temperature. The battery system shall be tested to detect the presence of battery discharge current. The detection of battery discharge current shall be considered a test failure.</p>			
<p>3. Alternator performance test at full load: The total continuous electrical load shall be activated with the engine running up to the engine manufacturer's governed speed. The test durations shall be a minimum of two (2) hours. Activation of the load management system is permitted during the test. However, if an alarm sounds due to excessive battery discharge, as detected by the system requirements in the NFPA standards, or a system voltage of less than 11.7 volts dc for more than 120 seconds is present, the test has failed.</p>			
<p>4. Low voltage alarm test: Following the completion of the above tests, the engine shall be shut off. The total continuous electrical load shall be activated and shall continue to be applied until the excessive battery discharge alarm activates. The battery voltage shall be measured at the battery terminals. With the load still applied, a reading of less than 11.7 volts dc for a 12-volt system shall be considered a test failure. The battery system shall then be able to restart the engine. Failure to restart the engine shall be considered a test failure.</p>			
<p><u>NFPA Required Documentation</u></p>			
<p>The following documentation shall be provided on delivery of the apparatus:</p>			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
a. Documentation of the electrical system performance tests required above. b. A written load analysis, including: <ol style="list-style-type: none"> 1. The nameplate rating of the alternator. 2. The alternator rating under the conditions. 3. Each specified component load. 4. Individual intermittent loads. 			
<u>Rocker Switch Console</u>			
One (1) switch console with individual rocker switches to control electrical equipment and emergency lighting shall be installed in the chassis cab dash area.			
<u>Battery System</u>			
The battery system shall be supplied with the chassis			
<u>Master Electric Switch</u>			
One (1) battery disconnect switch shall be located conveniently to the driver of the apparatus. The switch shall disconnect the 12-volt power supply from the battery system.			
<u>Battery Charger and Air Compressor</u>			
A battery charger and air compressor system to maintain the air pressure in the chassis brake system whenever the pressure drops below a predetermined level. To be mounted in clean, dry area and be easily accessible for service/maintenance.			
<u>Shore Power Receptacle</u>			
A automatic disconnect device shall be provided and installed on the 110-volt shoreline connection complete with weatherproof cover and matching plug. The Auto-Eject shall be activated by the chassis starter switch to disconnect the plug			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<p><u>Air Horns</u></p> <p>Two (2) Chrome plated air horns shall be mounted on the side of the hood of the commercial chassis. An air protection valve shall be provided in the air horn piping that will not allow the chassis air brake system to drop below 90 PSI</p>			
<p><u>Air Horn Foot Switch</u></p> <p>One (1) foot switch shall be installed to activate the air horn system on the driver's side of the floor</p>			
<p><u>Engine Compartment Light</u></p> <p>One (1) 12-volt LED light with switch shall be mounted in the engine enclosure. The control switch shall be mounted on the light head</p>			
<p><u>Pump Enclosure Lights</u></p> <p>One (1) LED work light shall be provided in the pump enclosure. The control switch shall be mounted on the light head.</p>			
<p><u>Back-Up Alarm</u></p> <p>One (1) an automatic electric back-up alarm shall be wired to the back-up light circuit, and mounted under the rear of the apparatus body.</p>			
<p><u>Marker Lights</u></p> <p>LED marker lights shall be installed on the vehicle in conformance to the Canadian Motor Vehicle Safety Standard requirements</p>			
<p><u>License Plate Bracket</u></p> <p>One (1) stainless steel license plate bracket shall be provided at the rear bumper. The bracket shall have a LED light</p>			
<p><u>Tail Lights</u></p> <p>One (1) pair of tail/brake lights shall be provided on the rear of the apparatus.</p>			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<p>The tail/brake light shall incorporate 12 red Super-LEDs and a red optic hard coated polycarbonate lens. The hard coated lens shall provide extended lift/luster protection against UV and chemical stresses. The conformal coated PC board and sealed lens/reflector assembly shall provide additional protection against environmental elements. The solid state warning light shall be vibration resistant. The tail/brake lights shall be rated IP67 for dust and water resistance. The self-contained flashing light shall have two Scan-Lock flash patterns including steady burn. The tail/brake lights shall meet SAE J595 and J845 requirements. The installation kit includes a mounting frame with rubber cable grommet, a LIM mounting frame seal, and mounting hardware featuring TUFLOCK clips. The tail/brake lights will have the ability to retrofit existing mounting footprint of 600 series light heads, and will contain a 12" non-terminated pigtail.</p>			
<p>A warning light is covered by a five-year factory warranty.</p>			
<p><u>Turn Signals</u></p>			
<p>The solid state warning light shall be vibration resistant. The turn signals shall be rated IP67 for dust and water resistance. The self-contained flashing light shall have six Scan-Lock flash patterns including steady burn. The turn signals will meet SAE J595 and J845 requirements. The installation kit includes a mounting frame with rubber cable grommet, a Lim mounting frame seal and mounting hardware featuring TUFLOCK clips. The signal lights will have the ability to retrofit existing mounting footprint of 600 series light heads and will contain a 12" non-terminated pigtail.</p>			
<p>The warning lights are covered by a five year factory warranty.</p>			
<p><u>Backup Lights</u></p>			
<p>One (1) pair of LED backup lights shall be installed on the rear of the apparatus body</p>			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<p>The backup light shall incorporate 12 Super-LEDs and a clear optic hard coated polycarbonate lens. The hard coated lens shall provide extended life/luster protection against UV and chemical stresses. The conformal coated PC board and sealed lens/reflector assembly shall provide additional protection against environmental elements. The solid state warning light shall be vibration resistant. The backup lights shall be rated IP67 for dust and water resistance. The self-contained flashing light shall have two Scan-Lock flash patterns including steady burn. The backup lights will meet SAE J595 and J845 requirements. The installation kit includes a mounting frame with rubber cable grommet, a Lim mounting frame seal and mounting hardware featuring TUFLOCK clips. The backup lights will have the ability to retrofit existing mounting footprint of 600 series light heads and will contain a 12" non-terminated pigtail.</p>			
<p>The warning lights is covered by a five year factory warranty.</p>			
<p><u>Cab Ground Lights</u></p>			
<p>LED ground lights shall be installed under the two (2) cab doors.</p>			
<p><u>Pump Panel Ground Lights</u></p>			
<p>Two (2) LED ground lights shall be installed under the pump panel running boards. One (1) light shall be located on the driver's side and one (1) light located on the officer's side of the apparatus</p>			
<p><u>Rear Step Ground Lights</u></p>			
<p>Two (2) LED ground lights shall be installed under rear step of the apparatus. The ground lights shall automatically activate when the parking brake is applied.</p>			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Rear Tailboard Lights</u>			
Two (2) LED step lights with clear lens shall be installed to illuminate the step surfaces at the rear of the apparatus body. The step/walkway light switch shall be installed and wired to the parking brake.			
<u>Deck Lights</u>			
One (1) 12 volt Code 3 spotlight and one (1) 12 volt Code 3 floodlight, each with nine (9) LED's shall be installed. The lights shall have an "on-off" switch, handle and swivel base.			
<u>Deck Light Mounting</u>			
The deck lights shall be installed at the rear of the hose bed			
<u>Scene Light</u>			
Six (6) scene light(s) shall be provided. The steady burn scene light shall incorporate Linear Super LED and Smart LED technology			
The scene light shall be furnished with a chrome trim ring, a rubber gasket, screws, and screw grommets for installation. The scene lights shall have the ability to be installed as a surface mount scene light			
Voltage: +12V Size: H=6.51", W=10.34", D=1.892" Amp Draw: 6.0 Amps Lens Colour: Clear			
<u>Scene Light Location</u>			
Two (2) scene lights shall be located on the left side of the apparatus body. The scene lights shall be installed on a treadplate mounting plate.			
Two (2) scene lights shall be located on the right side of the apparatus body. The scene lights shall be installed on a treadplate mounting plate			
Two (2) scene light shall be located on the rear of the apparatus body			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Scene Light Switching</u>			
One (1) scene light switch with indicator shall be installed on the cab main switch panel to control the left side scene light(s). The switch shall be labeled "LEFT SCENE"			
One (1) scene light switch with indicator shall be installed on the cab main switch panel to control the right side scene light(s). The switch shall be labeled "RIGHT SCENE"			
One (1) scene light switch with indicator shall be installed on the cab main switch panel to control the rear scene light(s). The switch shall be labeled "REAR SCENE"			
The rear scene lights shall activate automatically upon placing the transmission into reverse			
<u>Door Open Light</u>			
One (1) red flashing, warning light shall be provided and installed in the driver's compartment to indicate an open passenger or apparatus compartment door. The warning light shall also be attached to folding equipment racks and light towers as specified. The light shall be a flashing red LED light and shall be properly marked and identified.			
<u>Electric Siren and Control</u>			
One (1) electronic siren shall be mounted in the cab. This unit shall feature an electronic air horn, wail, yelp, hi-lo and shall have a hard-wired PA microphone			
<u>Speaker</u>			
One (1) speaker with a non-corrosive nylon composite housing, shall be installed. The speaker shall be wired to the electric siren located in the cab.			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Lightbar</u>			
One (1) light bar shall be included with the apparatus cab. The light bar shall be mounted on the roof of the cab, towards the front, above the windshield.			
<u>Lightbar Activation</u>			
The front upper light bar activation shall be wired into the master warning switch.			
<u>Upper Rear Warning Lights</u>			
One (1) pair of Super LED, rotating beacons shall be installed, one each side on the upper rear of the apparatus body.			
The driver side warning light shall be a LED rotator, with a red lens			
The officer side warning light shall be a LED rotator, with a red lens			
<u>Rear Warning Light Mounting</u>			
The upper rear lights shall be mounted on cast aluminum stanchions attached to the apparatus body, one on each side			
<u>Lower Front Warning Lights</u>			
One (1) pair of warning lights shall be installed, on each side on the front of the chassis cab. The warning light shall incorporate six red Super LEDs, a clear non-optic hard coated polycarbonate lens, clear optic collimator and utilize a metalized reflector for maximum output.			
The driver side warning light shall be red LED with clear lens			
The officer side warning light shall be red LED with clear lens			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
Each light shall be surface mounted with a chrome flange			
<u>Intersection Warning Lights</u>			
One (1) pair of LED warning lights shall be installed, one each side of the chassis cab. The warning light shall incorporate six red Super LEDs, a clear non-optic hard coated polycarbonate lens, clear optic collimator and utilize a metalized reflector for maximum output.			
The driver side warning light shall be a red LED with clear lens			
The officer side warning light shall be a red LED with clear lens			
Each light shall be surface mounted with a chrome flange.			
<u>Lower Mid-Body Warning Lights</u>			
One (1) pair of LED warning lights shall be installed, one each side of the apparatus, mid body. The warning light shall incorporate six red Super LEDs, a clear non-optic hard coated polycarbonate lens, clear optic collimator and utilize a metalized reflector for maximum output.			
The driver side warning light shall be a red LED with clear lens			
The officer side warning light shall be a red LED with clear lens			
Each light shall be surface mounted with a chrome flange.			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Lower Rear Side Warning Lights</u>			
One (1) pair of LED warning lights shall be installed, one each side of the apparatus body, towards the rear of the body. The warning light shall incorporate six red Super LEDs, a clear non-optic hard coated polycarbonate lens, clear optic collimator and utilize a metalized reflector for maximum output.			
The driver side warning light shall be a red LED with clear lens			
The officer side warning light shall be a red LED with clear lens			
Each light shall be surface mounted with a chrome flange			
<u>Lower Rear Warning Lights</u>			
One (1) pair of LED warning lights shall be installed, one each side on the lower rear portion of the apparatus body. The warning light shall incorporate six red Super LEDs, a clear non-optic hard coated polycarbonate lens, clear optic collimator and utilize a metalized reflector for maximum output.			
The driver side warning light shall be a red LED with clear lens			
The officer side warning light shall be a red LED with clear lens			
Each light shall be surface mounted with a chrome flange			
<u>Fluid Data Plaque</u>			
One (1) fluid data plaque containing required information shall be provided based on the applicable components for this apparatus, compliant with NFPA Standards: <ul style="list-style-type: none"> • Engine oil • Engine coolant • Chassis transmission fluid • Drive axle lubricant • Power steering fluid • Pump transmission lubrication fluid • Other NFPA applicable fluid levels or data as required 			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
Location shall be in the driver's compartment or on driver's door			
Data & Warning Labels			
HEIGHT LENGTH & WEIGHT			
A highly visible label indicating the overall height, length, and weight of the vehicle shall be installed in the cab dash area			
CAB SEATING POSITION LIMITS			
The label shall also include the seating positions for firefighters. A weight allowance of 250 pounds for each shall be factored into the gross vehicle weight rating of the chassis.			
NO RIDE LABEL			
One (1) "NO RIDERS" label shall be applied on the vehicle at the rear step area or other applicable areas. The label shall warn personnel that riding in or on these areas, while the vehicle is in motion is prohibited.			
CAB SEATING POSITON LIMITS			
One (1) label shall be installed in the cab to indicate seating positions for firefighters. A weight allowance of 250 pounds for each shall be factored into the gross vehicle weight rating of the chassis			
HELMET WARNING TAG			
One (1) label shall be installed in the cab, visible from each seating position. The label shall read "CAUTION: DO NOT WEAR HELMET WHILE SEATED". Helmets must be properly stowed while the vehicle is in motion according to the current edition of NFPA 1901			
Rear Towing Provisions			
There shall be two tow eyes furnished under the rear of the body and attached. There shall be a reinforcement spreader bar connecting the two tow eyes. Tow eyes are to be constructed of 3/8" plate steel with a 4" I.D. hole, large enough for passing through a tow chain end hook.			
The tow plates shall be painted black			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Tire Pressure Indicator</u>			
There shall be a tire pressure indicator at each tire's valve stem on the vehicle that shall indicate if there is insufficient pressure in the specific tire			
<u>Cab Steps</u>			
The existing cab steps on the left side of the commercial 2 door chassis shall be covered with slip resistant aluminum tread plate for compliance to applicable NFPA standards			
<u>Cab Steps</u>			
The existing cab steps on the right side of the commercial 2 door chassis shall be covered with slip resistant aluminum tread plate for compliance to applicable NFPA standards			
<u>Single Stage Pump</u>			
A HM single stage fire pump shall be provided and installed.			
Power to drive the pump shall be provided by the same engine used to propel the apparatus. The pump shall be midship mounted and designed to operate through a hot-shift transmission PTO. The pump is to be placed in gear from the chassis cab with a pump shift mechanism that is clearly labeled			
Pump casing shall be a fine grain cast iron, with a minimum tensile strength of 30,000 PSI. Pump shall contain a cored heating jacket feature that , if selected, can be connected into the vehicle coolant system to protect the pump from freezing in cold climates, and to help reject engine heat from engine coolant, providing longer life for the engine.			
Seal rings shall be renewable, double labyrinth, wrap around bronze type.			
PUMP SHAFT			
The pump shaft shall be splined to receive broached impeller hubs, for greater resistance to wear, torsional vibration, and torque imposed by engine, as well as ease of maintenance and repair.			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
Bearings provide shall be heavy duty, deep groove, radial-type ball bearings. Sleeve bearings on any portion of the pump or transmission shall be prohibited due to wear, deflection, and alignment concerns. The bearing shall be protected at all openings from road dirt and water splash with oil seals and water slingers			
IMPELLER			
The impeller shall be a high strength bronze alloy, splined to the pump shaft for precision fit, durability, and ease of maintenance.			
Impeller shaft oil seals shall be constructed to be free from steel components except for the internal lip spring. The impeller shaft oil seals shall carry a lifetime warranty against damage from corrosion from water and other fire-fighting fluids.			
PUMP TRANSMISSION			
The pump transmission case shall be heavy-duty cast iron with adequate oil reserve capacity to maintain low operating temperature. Pump ratio to be selected by the manufacturers engineering department. Gears shall be helical in design and precision ground for quiet operation and extended life. Gears to be cut from high strength alloy steel, ground, and carburized. Chain drive and/or design requiring extra lubricating pump is not acceptable.			
Pump drive shaft shall be precision ground, heat-treated alloy steel, with a 1 3/8 spline. Gears shall be helical design, and shall be precision ground for quiet operation and extended life			
The pump transmission shall require no further lubrication beyond that provided by the intrinsic action of the gears, to reduce the likelihood of failure due to loss of auxiliary lubrication.			
DRIVELINE INSTALLATION			
The pump drivelines shall be sized for intended application and torque requirements. The installation shall comply with driveline manufacturer's guidelines			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
MANUALS			
Two (2) manuals covering the fire pump transmission and fire pump shall be provided with the apparatus			
<u>500 GPM Fire Pump Specifications</u>			
The centrifugal type fire pump shall be rated with a minimum capacity of 500 GPM. The pump shall meet NFPA 1901 requirements			
The pump shall be certified to meet the following deliveries: <ul style="list-style-type: none"> • 500 GPM @ 150 PSI • 500 GPM @ 165 PSI • 350 GPM @ 200 PSI • 250 GMP @ 250 PSI 			
<u>LEFT SIDE – 4" UNGATED INTAKE</u>			
One (1) 4" un gated suction intake shall be installed on the left side pump panel to supply the fire pump from an external water supply. The threads shall be 4" NST male threads.			
The intake shall be provided with a removable screen			
<u>Mechanical Seal Specifications</u>			
The mechanical seal shall be formed from silicon carbide with welded springs. The stationary face of the mechanical seals shall be made from silicon carbide, an extremely hard and heat dissipative material, which resists wear and dry running damage			
<u>PTO Pump Shift Specifications</u>			
An electric powered PTO pump shift shall be installed in the cab driver's area where not subject to accidental engagement. The pump shift system shall permit stationary pumping operations.			
The following indicator lights shall be included with pump shift:			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
1. A green indicator light, labeled "PUMP ENGAGED" shall indicate pump shift has successfully been completed			
2. A green indicator light labeled "OK TO PUMP" shall indicate the chassis transmission is in proper gear and parking brake is engaged			
3. Pump shift and interlocks shall comply with applicable sections of NFPA standards			
4. The pump shift shall have an instruction label and nameplate to indicate proper pump shift instructions			
<u>Pressure Governor and Engine-Pump Monitoring</u>			
One (1) Fire Research InControl series TGA300 pressure governor and monitoring display kit shall be installed. The kit shall include a control module, intake pressure sensor, discharge pressure sensor, and cables. The control module case shall be waterproof and have dimensions not to exceed 5 ½" high by 10 ½" wide by 2" deep. Inputs for monitored information shall be from a J1939 databus or independent sensors. Outputs for engine control shall be on the J1939 databus or engine specific wiring.			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<p>The following continuous displays shall be provided:</p> <ul style="list-style-type: none"> • Pump discharge; shown with four daylight bright LED digits more than ½" high • Pump Intake; shown with four daylight bright LED digits more than ½" high • Pressure / RPM setting; shown on a dot matrix message display • Pressure and RPM operating mode LEDs • Throttle ready LED • Engine RPM; shown with four daylight bright LED digits more than ½" high • Check engine and stop engine warning LEDs • Oil pressure; shown on a dual colour (green/red) LED bar graph display • Engine coolant temperature; shown on a dual colour (green/red) LED bar graph display • Transmission Temperature: shown on a dual colour (green/red) LED bar graph display • Battery voltage; shown on a dual colour (green/red) LED bar graph display 			
<p>The dot-matrix message display shall show diagnostic and warning messages as they occur. It shall show monitored apparatus information, stored data, and program options when selected by the operator. All LED intensity shall be automatically adjusted for day and night time operation</p>			
<p>The program shall store the accumulated operating hours for the pump and engine to be displayed with the push of a button. It shall monitor inputs and support audible and visual warning alarms for the following conditions:</p> <ul style="list-style-type: none"> • High Battery Voltage • Low Battery Voltage (Engine Off) • Low Battery Voltage (Engine Running) • High Transmission Temperature • Low Engine Oil Pressure • High Engine Coolant Temperature • Out of Water (visual alarm only) • No Engine Response (visual alarm only) 			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<p>The program features shall be accessed via push buttons located on the front of the control panel. There shall be a USB port located at the rear of the control module to upload future firmware enhancements</p>			
<p>Inputs to the control panel from the pump discharge and intake pressure sensors shall be electrical. The discharge pressure display shall show pressures from 0 to 600 psi. The intake pressure display shall show pressures from -30 in Hg to 600 psi</p>			
<p>The governor shall operate in two control modes, pressure and RPM. No discharge pressure or engine RPM variation shall occur when switching between modes. A throttle ready LED shall light when the interlock signal is recognized. The governor shall start in pressure mode and set the engine RPM to idle. In pressure mode the governor shall automatically regulate the discharge pressure at the level set by the operator. In RPM mode the governor shall maintain the engine RPM at the level set by the operator except in the event of a discharge pressure increase. The governor shall limit a discharge pressure increase in RPM mode to a maximum of 30 psi. Other safety features shall include recognition of no water conditions with an automatic programmed response and push button to return the engine to idle.</p>			
<p>The pressure governor, monitoring and master pressure display shall be programmed to interface with a specific engine.</p>			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Primer – Automatic</u>			
An automatic fire pump priming system shall be provided and installed. The system shall be oil-less type and environmentally safe. Once engaged, the system shall be fully automatic and not require any action from the pump operator/engineer when pump draft is lost. This feature provides an additional safety margin by maintaining pump flow from the available water source automatically during drafting operations. When air is introduced during a drafting operation from conditions such as whirlpools or turbulence from porta-tank refill operations, the priming system shall automatically engage to remove the air and stabilize water flow and pump pressure. For additional safety, the entire system shall operate at less than 70dBA of ambient noise.			
The priming system shall engage automatically whenever the pump discharge falls below five (5) psi and shall remain engaged until a pump prime has been achieved. The priming system shall automatically disengage when a positive pump discharge pressure has been established. The electrical current draw from the chassis batteries shall not exceed four (4) amps at any given time of operation and allow for unlimited run time without causing an overheat condition for of any of the system components.			
A single engagement switch shall be provided on the pump control panel that will allow the operator to engage the automatic pump priming system. There shall be a light provided on the pump control panel to indicate when the system is engaged. The pump shall be capable of taking suction and discharging water with a lift of 10 feet in not more than 30 seconds with the pump dry, through 20 feet of suction hose of appropriate size. The priming system shall comply with applicable sections of NFPA standards			
<u>Primer Control</u>			
A rocker switch control shall be provided on the pump operator's panel, for the main pump primer control			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Pump Plumbing System</u>			
The fire pump plumbing system shall be of rigid stainless steel piping or flexible piping with stainless steel fittings. Victaulic couplings shall be installed to permit flexing of the plumbing system and allow for quick removal of piping or valves for service. Flexible hose couplings shall be threaded stainless steel or Victaulic connections			
The fire pump and plumbing shall be hydrostatically tested in compliance to applicable sections of NFPA standards, with test results submit with the delivery documentation			
<u>Stainless Steel Intake Manifold</u>			
The suction manifold assembly shall be fabricated with Schedule #10 type 304 stainless steel. All threaded fittings shall be a minimum of Schedule 10 stainless steel. The suction manifold assembly shall have radiused sweep elbows to minimize water turbulence into the suction volute. The suction manifold shall be welded and pressure tested prior to installation. The stainless steel manifold assembly shall be attached to the pump intake volute with a heavy-duty, flexible Victaulic coupling.			
The stainless steel manifold assembly shall have a ten (10) year warranty			
<u>Stainless Steel Discharge Manifold</u>			
The discharge manifold assembly shall be fabricated with minimum of Schedule #10 Type 304 stainless steel. All threaded fittings shall be a minimum of Schedule #40 stainless steel. The discharge manifold assembly shall have radiused sweep elbows to minimize water turbulence. The manifold shall be welded and pressure tested prior to installation. The stainless steel manifold inlet shall be attached to the pump discharge and have additional brackets as required to support the discharge manifold, valves and related components			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
The stainless steel manifold assembly shall have a ten (10) year warranty			
<u>Pump Anodes</u>			
There shall be sacrificial, zinc anodes in the pump steamer ports which shall protect the pump and piping from electrolysis. These anodes shall also act as screens			
<u>Fire Pump Master Drain</u>			
The fire pump plumbing system and fire pump shall be piped to a single push-pull type master pump drain assembly			
<u>Additional Low Point Drains</u>			
The plumbing system shall be equipped with additional low point manually operated drain valves to allow total draining of the fire pump plumbing system. These valves shall be accessible from the side of the vehicle and labeled			
<u>Stainless Steel Intake Manifold</u>			
The suction manifold assembly shall be fabricated with Schedule #10 type 304 stainless steel. All threaded fittings shall be a minimum of Schedule 10 stainless steel. The suction manifold assembly shall have radiused sweep elbows to minimize water turbulence into the suction volute. The suction manifold shall be welded and pressure tested prior to installation. The stainless steel manifold assembly shall be attached to the pump intake volute with a heavy-duty, flexible Victaulic coupling.			
The stainless steel manifold assembly shall have a ten (10) year warranty			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Stainless Steel Discharge Manifold</u>			
The discharge manifold assembly shall be fabricated with minimum of Schedule #10 Type 304 stainless steel. All threaded fittings shall be a minimum of Schedule #40 stainless steel. The discharge manifold assembly shall have radiused sweep elbows to minimize water turbulence. The manifold shall be welded and pressure tested prior to installation. The stainless steel manifold inlet shall be attached to the pump discharge and have additional brackets as required to support the discharge manifold, valves and related components			
The stainless steel manifold assembly shall have a ten (10) year warranty			
<u>Fire Pump & Plumbing System Painting</u>			
The fire pump and plumbing system shall be painted by the fire apparatus manufacturer. The fire pump and the plumbing shall be painted metallic silver.			
<u>Water Tank to Pump Line</u>			
One (1) 3" water tank to fire pump line shall be provided with a full flow quarter turn ball valve, 3" piping, and with flex hose and stainless steel hose clamps. The tank to pump line shall be equipped with a check valve to prevent pressurization of the water tank.			
The line shall be flow tested during the fire pump testing and shall meet applicable requirements of NFPA standards			
The valve shall be equipped with one (1) manually operated pull rod, with quarter turn locking feature. The handle shall be equipped with a colour-coded name plate.			
The valve shall be a three inch (3") valve with a stainless ball.			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
The valve shall be equipped with one (1) manually operated pull rod, with quarter turn locking feature. The handle shall be equipped with a colour-coded name plate			
<u>Fire Pump to Water Tank Fill Line</u>			
One (1) 2" fire pump to water tank refill and pump bypass cooler line shall be provided. The valve shall be a full flow quarter turn ball valve with 2" piping and flex hose to tank. The valve control handle shall have a nameplate located near the valve control			
One (1) manually operated pull rod, with quarter turn valve, with locking feature shall be provided on the specified discharge. The handle shall be equipped with a colour-coded nameplate label.			
The specified valve shall be a two-inch(2") valve with a stainless ball			
<u>Midship Fire Pump Driveshafts and Installation</u>			
The midship PTO fire pump shall be installed and shall include installation of the fire pump, modification and/or fabrication of new drivelines and all pump-mounting brackets. The PTO drive shaft(s) shall be spin balanced prior to final installation			
<u>Factory Fire Pump Test</u>			
The fire pump shall undergo factory pump certification tests per applicable sections of NFPA standards, prior to delivery of the completed apparatus			
The factory pump testing certificate shall be furnished with the apparatus on delivery			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Fire Pump Cooling</u>			
The fire pump shall be equipped with 3/8" cooling line from the pump to the water tank. This recirculation line shall be controlled by a pump panel control valve with nameplate label noting it as the "fire pump bypass cooler". There shall be a check valve installed in the pump cooler line to prevent tank water from back flowing into the pump when it is not in use.			
<u>Chassis Engine Heat Exchanger Cooling System</u>			
The apparatus shall be equipped with a heat exchanger for supplementary chassis engine cooling during fire pump operations. A manually opened valve, mounted at the operator's panel, shall direct water from the fire pump to the heat exchanger that is mounted in the engine radiator cooling hose. The system shall provide cooling water from the fire pump to circulate around the engine radiator coolant without mixing or coming in direct contact with the engine coolant. The unit shall be installed by the chassis manufacturer and connected to the plumbing system by the fire apparatus manufacturer.			
A nameplate label shall be installed on the pump panel noting "engine cooling system" with "on-off" opening directions noted.			
<u>PUMP COMPARTMENT HEATER</u>			
<u>Pump Compartment Heater System</u>			
The interior of the pump enclosure shall be equipped with a minimum of 30,000 BTU hot water heater system. The unit shall be piped to the chassis radiator system with standard heater hose. The hose shall be properly clamped and secured in place, and be properly protected from engine exhaust or mechanical damage.			
The heater unit shall be equipped with a 12 volt blower fan with control located on the pump operator's panel			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Pump Enclosure Heat Pan</u>			
A removable casing constructed of galvanized steel, completely enclosing the underside of the pump compartment and heated by the engine exhaust shall be provided. The heat pan assembly shall include individual panels that can be easily removed from there mounting locations. The two outer slide-out panels shall be bolted in place			
<u>Body and Pump House Flex Joint Rubber Gasket</u>			
A flexible rubber gasket shall be installed between the pump compartment and the apparatus body. This gasket will be designed to seal the pump compartment to the apparatus body as tightly as practical. This gasket is necessary for inter operation in extremely cold climates.			
<u>Intake/Discharge Rubber Gasket</u>			
All intakes, discharges and specified drain handles extending through the side pump panels shall have a rubber grommet installed for heat retention.			
<u>Left Side Pump Panel 2 ½" Discharge</u>			
Two (2) 2 ½" discharge shall be installed on the left side pump panel area and shall be controlled by a quarter turn ball valve. The discharge shall have 2 ½" NST male hose threads and a chrome plated elbow with rocker lugs with 2 ½" NST swivel female X 2 ½" male hose threads			
A colour coded nameplate label shall be provided adjacent the control handle			
A ¾" cast bronzed quarter-turn drain/bleeder valve shall be installed. The valve shall be complete with a chrome plated bronze ball, reinforced teflon seals, and blow-out proof stem rated to 600 PSI. A chrome plated zinc handle shall be provided on each drain valve complete with a recessed ID label provision. The handle shall lift, to open and push down, to close.			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
Two (2) chrome plated elbow with rocker lugs shall be provided with 2 ½" NST swivel female X 2 ½" CSA male hose threads			
Two (2) 2 ½" CSA rocker lug chrome plated vented cap and cable or chain securement shall be provided			
Two (2) manually operated pull rod, with quarter turn valve, with locking feature shall be provided on the specified discharge. The handle shall be equipped with a colour-coded name-plate label			
The specified valve shall be a two and one half inch (2 ½") valve with a stainless ball			
Two (2) 2 ½" (65mm) diameter pressure gauge with Dual Scale PSI/kPa shall be provided			
The gauges will be located on the pump instrument panel			
<u>Side Mount Pump Panel</u>			
All pump suction and discharge controls are to be mounted on the driver side pump operator's panel so as to permit operation of the pump from a central location. The control panel shall be located in front of the left side lower compartment of the apparatus. Panel shall house pressure gauge and controls for the pump, including throttle. Panel shall have an anodized aluminum shield with adequate illumination for nighttime operation. The lights shall be controlled by the operator's panel light switch. The valve controls shall be neatly arranged for access and visibility. All controls shall be clearly marked with permanent type labels and colour-coded. The electrical wiring and all gauge lines shall be properly tie wrapped to prevent kinking or cutting of the lines			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<p>The following controls and equipment shall be provided on the pump panel.</p> <ul style="list-style-type: none"> • Auto Air primer • Pump and plumbing area service lights • Pressure control device and throttle control • Fire pump and engine instruments • Pump intakes and discharge controls • Master intake and discharge gauges • Tank fill control • Tank suction control • Water tank level gauge • Pump panel lights 			
<u>Pump Panel – Side Mount</u>			
<p>The left hand pump panel shall be constructed of black Line X coating aluminum material and be fastened to the pump enclosure with ¼" stainless steel bolts</p>			
<p>The instrument area shall have a stainless steel continuous hinge that shall swing for easy access to gauges</p>			
<u>Left Side Pump Panel – Bolted</u>			
<p>The pump panel installed on the left hand side of the pump enclosure shall be fastened to the pump enclosure with ¼" stainless steel bolts.</p>			
<u>Labels</u>			
<p>Safety, information, data, and instruction labels for apparatus shall be provided and installed at the operator's instrument panel</p>			
<p>The labels shall include rated capacities, pressure ratings, and engine speeds as determined by the certification tests. The no-load governed speed of the engine, as stated by the engine manufacturer, shall also be included</p>			
<p>The labels shall be provided with all information and be attached to the apparatus prior to delivery</p>			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Colour Coded Pump Panel Labeling and Nameplates</u>			
Discharge and intake valve controls shall be colour coded in compliance to guidelines of applicable sections of NFPA standards			
Permanent type nameplates and instruction panels shall be installed on the pump panel for safe operation of the pumping equipment and controls			
<u>Midship Pump Panel Lights – Left Side</u>			
Three (3) LED lights with clear lenses shall be installed under an instrument panel light hood on the left side pump panel. The lights shall be controlled by a switch located on the operator's instrument panel			
<u>Pump Panel Lights</u>			
One (1) of the pump panel lights shall be illuminated at the time the fire pump is engaged into operation. The remaining lights shall be controlled by a switch located on the operator's instrument panel			
<u>Test Taps</u>			
Test taps for pump intake and pump pressure shall be provided on the pump instrument panel and be properly labeled			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Water Tank Level Gauge – Pump Panel</u>			
<p>The apparatus shall be equipped with one (1) Innovative Controls, part number 3030385-04, SL Series Tank Level Monitor System shall be installed. The system shall include an electronic display module, a pressure transducer-based sender unit, and a 15' connection cable. The display module shall show the volume of water in the tank using 14 super bright easy-to-see LEDs to easily distinguish the tank level at a glance. Tank level indication is enhanced by the use of green LEDs at the full and near-full levels, amber LEDs between $\frac{3}{4}$ and $\frac{1}{4}$ tank levels, and red LEDs at the near-empty and empty levels. The electronic display module shall be waterproof and shock resistant being encapsulated in a urethane-based potting compound. The potted display module shall be mounted to a chrome plated panel-mount bezel with a durable easy-to-read polycarbonate insert featuring blue graphics and a water icon</p>			
<p>All programming functions shall be accessed and performed from the front of the display module. The programming includes self-diagnostics, manual or self-calibration, and networking capabilities to connect remote slave displays. Low tank level warnings shall include flashing red LEDs starting below the $\frac{1}{4}$ level and an output for an audible alarm</p>			
<p>The display module shall receive an input signal from a pressure transducer. This stainless steel sender unit shall be installed on the outside of the water tank near the bottom. All wiring, cables and connectors shall be waterproof without the need for sealing grease</p>			
<p>Location of water tank level monitor shall be at the pump panel</p>			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Water Tank Level Gauge – Rear</u>			
<p>The apparatus shall be equipped with one (1) Innovative Controls SL Series Tank Level Slave Display installed on the rear of the apparatus body. The display module shall show the volume of water in the tank using 14 super bright easy-to-see LEDs arranged to form an inverted "V" pattern to easily distinguish the tank level at a glance. Tank level indication is enhanced by the use of green LEDs at the full and near-full levels, amber LEDs between $\frac{3}{4}$ and $\frac{1}{4}$ tank levels, and red LEDs at the near-empty and empty levels. The electronic display module shall be waterproof and shock resistant being encapsulated in a urethane-based potting compound. The potted display module shall be mounted to a chrome plated panel-mount bezel with a durable easy-to-read polycarbonate insert featuring blue graphics and a water icon.</p>			
<p>All programming functions shall be accessed and performed from the front of the display module. The programming includes self-diagnostics, manual or self-calibration, and networking capabilities to connect remote slave displays. Low tank level warning shall include flashing red LEDs starting below the $\frac{1}{4}$ level and an output for an audible alarm</p>			
<p>The display module shall receive an input signal from a pressure transducer. This stainless steel sender unit shall be installed on the outside of the water tank near the bottom. All wiring, cables and connectors shall be waterproof without the need for sealing grease.</p>			
<p>Location of water tank level monitor shall be at the pump panel</p>			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Water Tank Level Gauge – Rear</u>			
The apparatus shall be equipped with one (1) Innovative Controls SL Series Tank Level Slave Display installed on the rear of the apparatus body. The display module shall show the volume of water in the tank using 14 super bright easy-to-see LEDs arranged to form an inverted "V" pattern to easily distinguish the tank level at a glance. Tank level indication is enhanced by the use of green LEDs at the full and near-full levels, amber LEDs between ¾ and ¼ tank levels, and red LEDs at the near-empty and empty levels. The electronic display module shall be waterproof and shock resistant being encapsulated in a urethane-based potting compound. The potted display module shall be mounted to a chrome plated panel-mount bezel with a durable easy-to-read polycarbonate insert featuring blue graphics and a water icon.			
<u>Water Tank – 3000 Gallon</u>			
The apparatus shall be equipped with a three thousand (3000) gallon polypropylene water tank			
The tank shall be equipped with a six-inch (6") overflow pipe			
<u>Water Tank Fill Tower</u>			
A fill tower measuring approximately 10" X 10" square shall be provided on the water tank up to and including 3500 gallons total capacity.			
<u>Direct Tank Fill</u>			
One (1) 4" stainless steel, semi automatic fill shall be provided, including a 4" male NH with screen			
The valve shall be located and controlled on the rear of the body			
One (1) colour coded 30 degree adapter shall be provided. Threads shall be 4" Storz with lugs with manual locks X 4" swivel female NST			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
One (1) colour coded locking 4" Storz cap shall be provided. A chain or cable attachment shall be also supplied			
Quick Dump – Rear			
One (1) 10" quick dump valve shall be provided and externally mounted. The location shall be at the center rear of the apparatus.			
One (1) single electric operated control shall be provided to open and close the rear dump valve			
The switch shall be conveniently located on the apparatus body near the valve			
The dump valve installed on the water tank shall be painted grey			
One (1) swivel dump shall be fabricated with 125" aluminum and attached to the quick dump			
The swivel dump shall have the ability to dump water from the driver's side or the officer's side and any point in between. The swivel dump is 70 inches long when fully extended. The swivel dump shall have an extension that is hinged and can be folded up when the dump is not in use. The dump shall have the ability to be stowed on either the driver's side or the officer's side of the truck. The latch that holds the extension in the stowed position shall also help support the swivel dump extension. When the extension is in the down and extended position, there shall be no less than a 34 inch clearance from level ground to the bottom of the dump to ensure that there is enough clearance for the swivel dump to offload into all portable drop tanks. The dump shall meet NFPA requirements for water delivery on three sides of the vehicle			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Aluminum Hosebed Grating</u>			
The hose bed compartment deck shall be constructed entirely from maintenance-free, extruded aluminum slats. The slats shall have an anodized, radiused ribbed top surface. The slats shall be of widths approximately ¾" high X 6" wide and shall be assembled into a one-piece grid system to prevent the accumulation of water and allow ventilation to assist in drying hose.			
The apparatus hose body shall be properly reinforced without the use of angles or structural shapes and free from all projections that might injure the fire hose			
The main apparatus hose body shall run the full length of the apparatus body from behind the pup panel area to the rear face of the body			
The upper rear interior of the hose body on the right and left sides shall be overlaid with brushed stainless steel to protect the painted surface from damage by hose couplings.			
<u>Hose Bed Storage Capacity</u>			
The hose bed shall be designed to have a storage capacity for a minimum of 55 cubic feet of fire department supplied fire hose			
HOSEBED COVERS AND DIVIDERS			
<u>Aluminum Hosebed Cover</u>			
The hosebed shall be equipped with a reinforced hinged .125" aluminum diamond plate cover. The covers shall be of the sloped design for proper water runoff. Positive hold-open devices shall be provided to hold the door in the open position.			
The cover, approximately 49" to 74" wide with a center opening, shall be installed the full length of the hose bed, and have a cutout for the booster tank fill tower			
The hosebed cover shall be labeled, "Not a Standing or Walking Surface", per NFPA			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Main Hosebed Divider</u>			
One (1) stationary hosebed divider shall be provided in the main hosebed			
The hosebed divider shall be fabricated of ¼" smooth aluminum sheet stock, pressed into a "T" shaped aluminum extrusion for added strength along the bottom and front edges of the divider			
Divider shall be bolted in place, front and rear, to allow for ease of removal or relocation			
<u>Rear Vinyl flaps For Aluminum Cover</u>			
There shall be a vinyl flap attached to each aluminum hosebed cover. The vinyl flap shall cover the area on the rear of the hosebed from top to bottom. The flap shall be independent of each other but attachable with Velcro in the center. The bottom edge of the flap shall be secured utilizing a hook and loop fastening system			
<u>Hosebed LED Lights</u>			
Four (4) 48" long LED lights shall be installed and produce approximately 10050 lumens per light. The light stick shall be rated at 100,000 hours of service and shall be provided with a 5 year free replacement warranty. The light shall have a 5/8" LEXAN polycarbonate tube enclosure for severe duty applications. The light stick shall be waterproof and be connectible via a jumper wire to add additional lights in series if required			
The LED lights shall be recessed into the underside of the hinged aluminum hosebed covers to provide illumination for repacking of fire hose. The 12volt LED lights shall be automatically controlled by a switch which activates upon opening of the door. The lights shall also be connected to the hazard light in the chassis cab to indicate when the hose bed covers are in the open position.			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>1/8" Aluminum Body</u>			
The body shall be fabricated of aluminum extrusions, smooth aluminum sheet and aluminum treadplate.			
The aluminum extrusion alloy shall be 6061 with a temper rating of T6, and have a tensile strength of 45,000 PSI and yield strength of 40,000 pounds. The aluminum extrusions shall 3" X 3" aluminum tubing, 1 3/4" X 3" aluminum tubing and 3" X 3: aluminum angle and specially designed extrusions, up to .250" wall thickness where applicable			
The smooth aluminum sheet material alloy shall be 5052 with a temper rating of H32, and have a tensile strength of 33,00 PSI and yield strength of 28,000 pounds			
The aluminum treadplate alloy shall be 3003 with a temper rating of H22, and have a tensile strength of 30,000 PSI and yield strength of 28,000 pounds			
The extrusions shall be designed as structural-framing members with the smooth aluminum and treadplate fabricated to form compartments, hosebeds, and floors. All aluminum material shall be welded together using the latest mig spray pulse arc welding system			
Compartment floors shall be of the sweep out design with the floor higher than the compartment door lip and to be water and dust proof. All compartments shall be made to the maximum practical dimensions to provide maximum storage capacity. To ensure maximum storage space, the apparatus shall be constructed without any void spaces between the body and the compartment walls. Double wall construction does not meet this requirement.			
All exterior compartments shall have polished aluminum drip moldings installed above the doors where necessary to prevent water from entering the compartments			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
Wheel well panels shall be formed aluminum that is welded in place. There shall be no visible bolt heads, retention nuts or fasteners on the exterior surface of the panel. To fully protect the wheel well area from road debris and to aid in cleaning, a full depth radius wheel well liner shall be provided. The frame side of the wheel well area on each side of the opening shall be attached to the frame side of the front and rear compartments. All seams on the frame side of the body shall be welded and caulked to prevent moisture from entering the compartments.			
The rear wheel wells shall be radius cut for a streamlined appearance. A fenderette shall be furnished at each rear wheel well opening, held in place with stainless steel fasteners.			
FASTENERS			
All aluminum and stainless steel components shall be attached using stainless steel fasteners.			
Compartment door hinges, handrails and running boards shall be attached using minimum ¼" diameter machine bolt fasteners.			
3/16" diameter fasteners shall only be used in non-structural areas such as; door handles, trim moldings, gauge mounting, etc.			
<u>Compartment Floors</u>			
The compartment floors shall be constructed of smooth aluminum material, to match the compartment interior walls			
<u>Galvanized Sub-Frame</u>			
The apparatus body subframe shall be constructed entirely of heavy steel structural channel material.			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
Two full frame lengths, three-inch (3") 3.4 pound per foot longitudinal steel channels shall form the sides of the body subframe and sides of the water tank cradle. Subframe crossmembers shall be fabricated with three inch (3") 3.4 pound per foot heavy steel channel cross members welded to the longitudinal body subframe sides and the full length frame pads			
Two full frame length ½" X 3" flat steel frame pads shall be attached to the body subframe and rest on top of the chassis frame rails for proper frame weight distribution			
The steel frame pads, longitudinal steel channels and subframe crossmembers shall be attached to the chassis frame rails using heavy "U" bolt fasteners to allow removal of the subframe and body assembly from the chassis. There shall be a barrier provided between the subframe and body to prevent electrolysis.			
The rear subframe and lower body platform support members shall be of the "two piece" design, fabricated of 3.4 lb. Per foot heavy channel and welded to the full length subframe channel liners at the rear.			
A minimum of two rear platform support channels shall be provided and constructed to 3.4 lb. Per foot heavy steel material. Each support channel shall have welded in gusset where the support meets the rear subframe rails.			
After fabrication the entire subframe assembly shall be hot dip galvanized to prevent corrosion. The hot dip galvanized subframe shall have a lifetime warranty against failure due to corrosion			
This steel subframe shall carry the weight of the apparatus body, tank, water and equipment. This method of apparatus construction gives an excellent strength/weight ratio			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Body Configuration</u>			
The aluminum apparatus body shall be up to 220" long, reference the drawing for actual body length			
<u>Tandem Axle Wheel Area</u>			
For ease of accessibility and maintenance, wheel well panels shall be double break formed painted smooth plate that is welded in place.			
To fully protect the wheel well area from road debris and to aid in cleaning, a full depth (minimum of 25") radius wheel well liner shall be provided. Wheel well liner shall be smooth aluminum to prevent corrosion			
<u>Fenderettes</u>			
The rear wheel wells shall be radius cut for a streamlined appearance. A polished aluminum fenderette shall be furnished at each rear wheel well opening, held in place with concealed stainless steel fasteners			
<u>Hosebed Width</u>			
The width of the pumper body hosebed shall be 95".			
<u>Compartment Height</u>			
The left side body compartments shall be 39" high			
<u>Compartment Height</u>			
The right side body compartments shall be 39" high			
<u>Roll Up Door Construction</u>			
The roll up doors shall be fabricated from aluminum extrusions and be manufactured and assembled in North America			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<p>The door slats shall be double-wall extrusions with dimensions of 1.366" high X .315" thick. The exterior surface shall be flat and the interior surface concave to deflect loose equipment to prevent the door from jamming. Each slat shall have interlocking end shoes to prevent the slat from moving side to side resulting in binding of the door. Each slat shall be separated by a co-extruded PVC and rubber inner seal to prevent metal to metal contact and minimize dirt and moisture from entering the compartment. The inner seal shall not be visible from the exterior to maintain a clean appearance of door. The slats shall have interlocking joints with a folding locking flange to provide security and prevent penetration by sharp objects.</p>			
<p>The track shall be a one (1) piece aluminum assembly that has an attaching flange and finishing flange incorporated into the design that facilitates installation and provides a finished look to the door without additional trim or caulking. A low profile seal shall be utilized to maximize usable compartment space.</p>			
<p>A drip rail designed to prevent water from dripping into the compartment shall be provided. The drip rail shall have a built in replaceable non-contacting seal to eliminate scratching of the surface of the door</p>			
<p>Bottom rail extrusion must have smooth back to prevent loose equipment from jamming the door and have "V" shaped double seal to prevent water and debris from entering the compartment. The door latch system shall be a full width one (1) piece lift bar that enables the user to operate with one hand</p>			
<p>The roll mechanism shall have a clip system that connects the curtain slats to the operator drum to allow for easy tension adjustment without tools. A four (4) inch diameter counterbalanced operator drum to shall be incorporated to assist in lifting the door</p>			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Left Front Compartment</u>			
There shall be one (1) low compartment located ahead of the rear wheels. The compartment shall be equipped with a low single natural finished roll up door			
The left front compartment shall be equipped with the following:			
<u>Compartment Light</u>			
Two (2) vertically mounted LED strip lights shall be installed inside the compartment. The lights shall have a polycarbonate lens to eliminate breadage from impact and eliminate heat build up and each light shall be approximately 12" in length			
The compartment light will be controlled by a magnetic "On-Off" switch located on each compartment door.			
<u>Left Rear Compartment</u>			
There shall be one (1) low compartment located behind the rear wheels. The compartment shall be equipped with a low single natural finish roll up door			
The left rear compartment shall be equipped with the following:			
<u>Compartment Light</u>			
Two (2) vertically mounted LED strip lights shall be installed inside the compartment. The lights shall have a polycarbonate lens to eliminate breakage from impact and eliminate heat build up and each light shall be approximately 12" in length			
The compartment light will be controlled by a magnetic "On-Off" switch located on each compartment door.			
<u>Right Front Compartment</u>			
There shall be one (1) low compartment located ahead of the rear wheels. The compartment shall be equipped with a low single natural finish roll up door			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
The right front compartment shall be equipped with the following:			
<u>Compartment Light</u>			
Two (2) vertically mounted LED strip lights shall be installed inside the compartment. The lights shall have a polycarbonate lens to eliminate breakage from impact and eliminate heat build up and each light shall be approximately 12" in length			
The compartment light will be controlled by a magnetic "On-Off" switch located on each compartment door.			
<u>Right Rear Compartment</u>			
There shall be one (1) low compartment located behind the rear wheels. The compartment shall be equipped with a low single natural finish roll up door			
The right rear compartment shall be equipped with the following:			
<u>Compartment Light</u>			
Two (2) vertically mounted LED strip lights shall be installed inside the compartment. The lights shall have a polycarbonate lens to eliminate breakage from impact and eliminate heat build up and each light shall be approximately 12" in length.			
The compartment light will be controlled by a magnetic "On-Off" switch located on each compartment door.			
<u>Rear Body Configuration</u>			
The rear of the apparatus body shall be of the flat back design			
<u>Rear Compartment</u>			
There shall be no compartment located on the rear of the body			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Rear Step – 24" Bolt-On</u>			
A 24" deep step surface shall be provided at the rear of the apparatus body, bolted in place and easily removable for replacement or repair. The tailboard shall be constructed of .188" aluminum diamond plate or equal non-slip surface in compliance with NFPA #1901 standards			
A label shall be provided warning personnel that riding on the rear step while the apparatus is in motion is prohibited			
<u>Adjustable Shelf</u>			
Three (3) adjustable shelves shall be constructed of .188" smooth aluminum plate with 1.5" formed vertical lip front & back. Shelf supports on each side to be constructed of .188" aluminum and bolted to an aluminum extrusion (mounted vertically) by use of 3/8" bolts and spring-loaded cam locks. If shelf is longer than 40" reinforcement by aluminum gusset is to be placed full-length on bottom of shelf			
The shelves shall be fitted with removable vinyl Turtle Tile matting. The matting shall be interlocking modules approximately 12" square by 9/16" thick. This material shall be resistant to heat, cold, ultra-violet radiation, mechanical impacts, and chemical actions and is corrosion resistant.			
<u>600# Rollout Tray</u>			
One (1) mid profile telescoping equipment tray shall be installed in a standard depth compartment. The tray assembly shall have a silver powder coated steel slide frame with sealed roller bearings rated to 600 pounds. A tray constructed of .190" smooth aluminum plate with four 3" sides shall be mounted to the slide frame. The slide frame shall extend 100% allowing the tray to be completely accessible from outside the compartment. The slide shall have a 3 ¼" deck height.			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
An integrated manual quarter turn "gravity" lock shall hold tray in both the "in" and "out" positions. The "gravity lock" manually rotates a rod with a tab to engage the bottom frame			
The tray shall be fitted with removable vinyl Turtle Tile matting. The matting shall be interlocking modules approximately 12" square by 9/16" thick. This material shall be resistant to heat, cold, ultra-violet radiation, mechanical impacts, and chemical actions and is corrosion resistant.			
The outer edge and both sides of each slide-out tray shall have alternating red and white reflective DOT (Department of Transportation) stripe material applied for safety.			
<u>Hard Suction Mounting Rack</u>			
One (1) hard suction hose compartment shall be provided in the booster tank. The design shall allow the hose to be individually removed from the rear of the apparatus. The hard suction hose compartment shall have a hinged door with push to latch door catches			
The hinged door shall be constructed of smooth material, with chevron striping applied to match the rear of the apparatus body.			
<u>Suction Hose</u>			
Two (2) 4.0" X 10 foot length of PVC flexible suction hose shall be supplied by the Dealer or Purchaser or Fire Department. The suction hose shall have light weight couplings provided			
<u>Hose Couplings</u>			
Light weight aluminum couplings shall be provided on the Dealer/Purchaser/Fire Department supplied suction hose. A long handle female swivel shall be provided on one end and a rocker lug male shall be provided for the other end.			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Portable Water Tank Mounting Bracket</u>			
One (1) horizontal storage area shall be provided through the booster tank designed to carry a portable folding tank. Compartment shall be provided with poly slides on each side to hold the folding tank in position. There shall be a hinged door with latch on rear for ease in loading and removing the folding tank			
<u>Extruded Aluminum Rub Rails</u>			
Full body length polished aluminum rub rails shall be bolted in place on the right and left body sides and in the pump panel area. The rub rails shall extend outward beyond the body sides for protection of the compartments and doors. There shall be a bolt on aluminum corner casting on each rear corner to blend the rear tailboard assembly with the side rub rails			
The side rub rails shall be a heavy extruded aluminum "C" channel.			
<u>Front Body Protection Panels</u>			
Aluminum tread plate overlays and panels shall be installed on the front of the body compartment from the lower edge to the top of the compartment doors.			
<u>Rear Body Protection Panels</u>			
The rear body panels of the body shall be a smooth material, to allow for the proper application and installation of a "Chevron" stripe on the rear			
<u>Handrail Rear Step</u>			
Two (2) extruded aluminum non-slip handrails, approximately 48" in length, shall be provided and vertically mounted on the rear access ladder, one (1) on each side			
One (1) extruded aluminum non-slip handrail, approximately 48" in length, shall be installed on the rear of the apparatus body, on the opposite side from the rear access ladder			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Handrail Below Hosebed</u>			
One (1) extruded aluminum non-slip handrail, approximately 48" in length, shall be provided and horizontally mounted below the hosebed on the rear of the apparatus			
<u>Access Ladder – EZ Climb - Rear</u>			
There shall be a swing out and down access ladder supplied and installed on the apparatus, for accessing the top of the apparatus. It shall be of an all aluminum design and shall incorporate treads six (6") inches deep and no more that eighteen (18") inches apart. The ground to the first step dimension, on level ground, shall be no more than eighteen (18") inches. When in the deployed position the ladder shall have an angle of approximately 75-degrees to facilitate ascending and descending the ladder. The ladder shall be retained in the stowed and deployed position by two (2) gas cylinders and shall not require the use of lathes to hold it in position.			
<u>Body Paint Process</u>			
All bright metal fittings, if unavailable in stainless steel shall be heavily chromed plated. Iron fittings shall be copper plated prior to chrome plating.			
All seams shall be caulked both inside and along the exterior edges with a urethane automotive sealant to prevent moisture from entering between any body panel			
The body and all parts shall be thoroughly washed with a grease cutting solvent prior to any sanding. After the body has been sanded and the weld marks and minor imperfections are filled and sanded, the body shall be washed again to remove any contaminants on the surface			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<p>The next two to four coats (depending on need) shall be a PPG DelFleet F4936 High Solids Epoxy Gray Primer. The film build shall be 4-6 mils when dry. The primer surfacer coat, after appropriate dry time, shall be sanded with 320-600 grit sandpaper to ensure maximum gloss of the paint. The last step is the application of at least three coats of PPG Delfleet polyurethane two-component colour (single stage). The film build being 2-3 mils dry. The single stage polyurethane, when mixed with corresponding catalyst shall provide a UV barrier to prevent fading and chalking</p>			
<p>All products and technicians are certified by PPG every two (2) years</p>			
<p><u>Apparatus Colour</u></p>			
<p><u>Interior Compartment Finish</u></p>			
<p>The apparatus side compartment interiors are to be painted with a spatter finish material. The compartments shall be cleaned with a grease remover, and then the surface sanded and prepared for painting. The compartment shall be provided with two (2) coats of white epoxy. The compartments are then coated with a splatter paint top coat.</p>			
<p>Compartment interiors that are wrinkle finished or are topcoat web painted do not meet the intent nor durability of this requirement and are not acceptable</p>			
<p><u>Touch-Up Paint</u></p>			
<p>One (1) two (2) ounce bottle of touch-up paint shall be furnished with the completed truck at final delivery</p>			
<p><u>Cab And Body Stripe</u></p>			
<p>A straight Scotchlite reflective stripe, 4" minimum in width, shall be applied horizontally around the cab and body in compliance with applicable NFPA 1901 standards. The purchaser shall specify the colour and location of the stripe</p>			

DESCRIPTION	YES	NO	If "NO" indicate alternative and specify how alternative meets the specification
<u>Chevron Striping</u>			
The entire rear portion of the body shall have a 3M red/amber reflective chevron stype striping, applied at a 45-degree upward angle pointing towards the center upper portion of the rear panel.			
<u>Yellow Safety Tape – Standing & Walking Surfaces</u>			
The apparatus shall be NFPA standard 15.7.1.6 designating any horizontal standing or walking surface higher than 48 inch (1220 mm) from the ground and not guarded by railing or structure at least 12 inches (300 mm) high shall have at least a 1 inch (25 MM) wide safety yellow line delineation that contrasts with the background to mark the outside perimeter of the designated standing or walking surface area, excluding steps and ladders.			
<u>Equipment</u>			
<u>Suction Hose</u>			
Two (2) 4.0" X 10 foot length of PVC flexible suction hose shall be supplied by the Dealer or Purchaser or Fire Department. The suction hose shall have light weight couplings provided			
<u>Hose Couplings</u>			
Light weight aluminum coupling shall be provided on the Dealer/Purchaser/Fire Department supplied suction hose. A long handle female swivel shall be provided on one end and a rocker lug male shall be provided for the other end			
<u>Folding Portable Water Tank</u>			
One (1) 3500 gallon portable water tank 22 ox vinyl sides, with 28 oz base shall be provided. The tank shall include an aluminum support frame, easy lift handles mounted on the floor, and a reflective edge			

Sub-Total	\$
HST	\$
Grand Total	\$

SUBCONTRACTOR INFORMATION

Check here _____ if **NO Subcontracting**

The **Bidder** shall list below, the Subcontractors which will assist in the completion of the work.

Name of Subcontractor	Address of Subcontractor	Work Type to be Subcontracted	Scope of Work & Experience

Note: If additional space is required please include extra pages as required.

Bidder: _____ **Date** _____

Signature: _____

TENDERER'S EXPERIENCE IN SIMILAR WORK
(To be completed and returned with tender)

1. For whom work performed _____

Year completed _____

Value of work _____

Description of work _____

2. For whom work performed _____

Year completed _____

Value of work _____

Description of work _____

3. For whom work performed _____

Year completed _____

Value of work _____

Description of work _____

AGREEMENT

THIS AGREEMENT made as of the _____ day of _____, 2018.

BETWEEN: The Corporation of the Township of Whitewater Region
(hereinafter called "the Township")

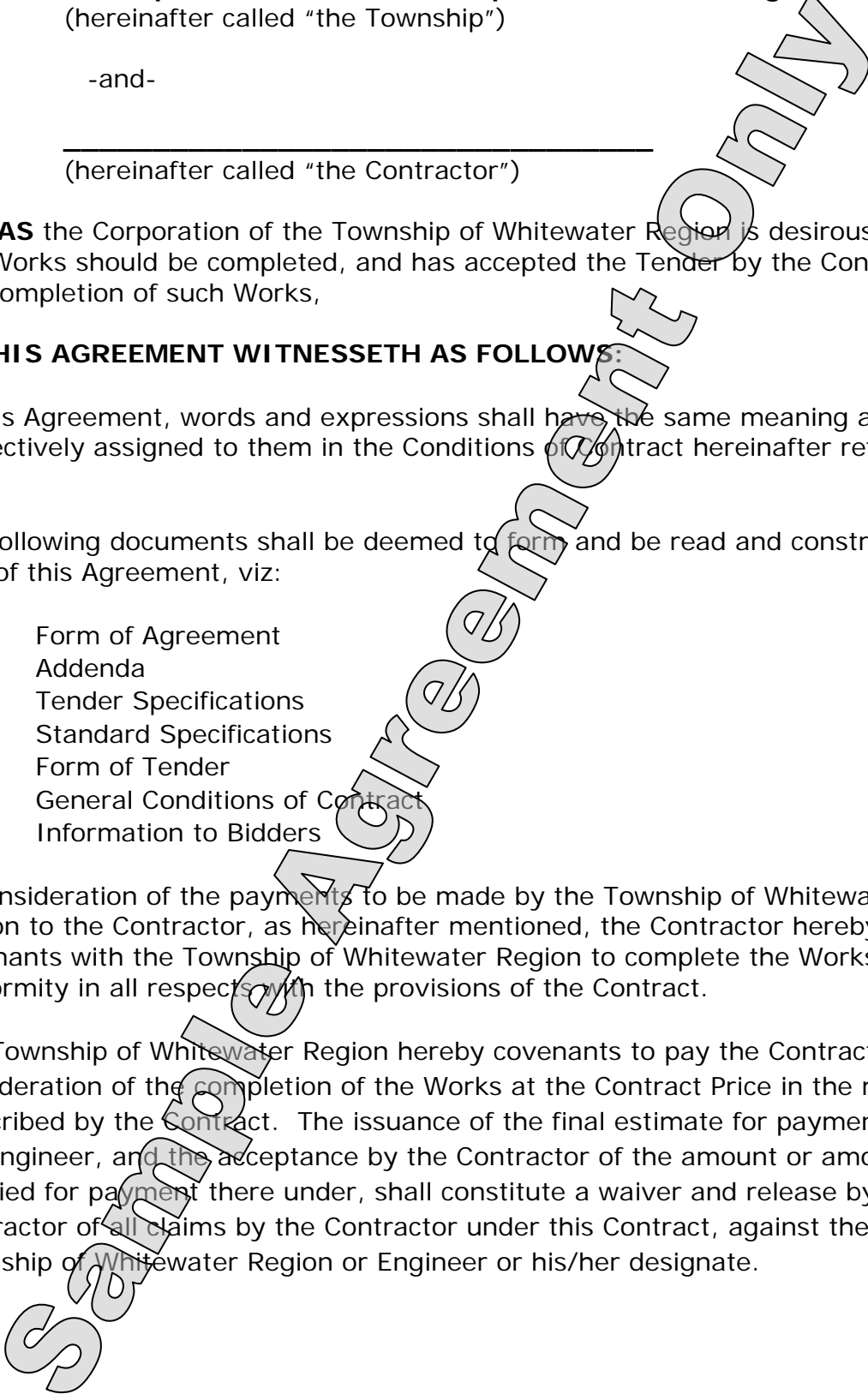
-and-

(hereinafter called "the Contractor")

WHEREAS the Corporation of the Township of Whitewater Region is desirous that certain Works should be completed, and has accepted the Tender by the Contractor for the completion of such Works,

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- 1) In this Agreement, words and expressions shall have the same meaning as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
- 2) The following documents shall be deemed to form, and be read and construed as part of this Agreement, viz:
 - i) Form of Agreement
 - ii) Addenda
 - iii) Tender Specifications
 - iv) Standard Specifications
 - v) Form of Tender
 - vi) General Conditions of Contract
 - vii) Information to Bidders
- 3) In consideration of the payments to be made by the Township of Whitewater Region to the Contractor, as hereinafter mentioned, the Contractor hereby covenants with the Township of Whitewater Region to complete the Works in conformity in all respects with the provisions of the Contract.
- 4) The Township of Whitewater Region hereby covenants to pay the Contractor in consideration of the completion of the Works at the Contract Price in the manner prescribed by the Contract. The issuance of the final estimate for payment by the Engineer, and the acceptance by the Contractor of the amount or amounts certified for payment there under, shall constitute a waiver and release by the Contractor of all claims by the Contractor under this Contract, against the Township of Whitewater Region or Engineer or his/her designate.



5) This Agreement shall be binding on the heirs, successors and assigns of the parties hereto.

IN WITNESS WHEREOF the parties hereto have hereunto set their hands and seals.

SIGNED, SEALED AND DELIVERED in the presence of

) _____
)
) I/We have the authority to bind
) the corporation
)
) Per:
) _____

) **Township of Whitewater Region**

) I/We have the authority to bind
) the corporation
)
) Per:

Hal Johnson, Mayor

Robert Tremblay, CAO/Clerk

Sample Agreement Only

TENDER CHECKLIST

Tender Due Date: **WEDNESDAY OCTOBER 31, 2018 1:00 PM
LOCAL TIME**

Contract Number: **2018-33**

Contract For: **FIRE TRUCK - TANKER**

This checklist is provided for the convenience of the Tenderer to ensure that all required tender documents have been completed and enclosed in the tender envelope. Please check items required and return with your tender.

- _____ Correct Forms (as provided)
- _____ Properly Signed
- _____ All Items Confirmed
- _____ All Addendum Returned with Tender (if applicable)
- _____ Completed Form of Tender Returned

SECTION E

Standard Specifications

1. Order of Precedence

In case of any inconsistency of conflict between the provisions of this Agreement and the Plans or Specifications or General Conditions or Tender or any other document or writing the provisions of such documents shall take precedence and govern in the following order.

- a) Form of Agreement
- b) Addenda
- c) Tender Specifications
- d) Standard Specifications
- e) Form of Tender
- f) General Conditions of Contract
- g) Information to Bidders

2. No Increase in Rates

No Claim for increase in rates in the Form of Tender, or other prices quoted in the Contract will be entertained, nor shall the Bidder be entitled to make any claim on the grounds of misrepresentation, nor on the grounds that they were given any promise or guarantee by the Township or their agents or employees or any other persons.

3. Payments

Progress payments will be made as per OPS General Conditions, including applicable holdbacks. Final payment will be made subject to OPS General Provisions of Contract, and the following conditions if applicable.

- a) Submission of material testing results indicating conformity with the applicable specifications.

4. Supply of Materials

The Bidder shall be responsible for the supply of all temporary and permanent materials required to complete the project in every detail. All materials, unless specified, must conform to the applicable industry standard.

The Township of Whitewater Region reserves the right to reject any supplier and or materials at the sole discretion of the Township of Whitewater Region.

Tender Submission Label

From: _____

Contact: _____
Telephone: _____

Deliver to:

**The Township of Whitewater Region
Administration Office
P.O. Box 40, 44 Main Street
Cobden, ON KOJ 1K0**

TENDER NUMBER: 2018-33

CLOSING DATE AND TIME: Wednesday October 31, 2018 1:00 PM Local Time

DESCRIPTION: FIRE TRUCK - TANKER