

**SPECIFICATIONS  
AND  
BIDDING DOCUMENTS**

**55' ARTICULATING TELESCOPIC  
AERIAL DEVICE**



**River Falls Municipal Utilities**

# NOTICE TO BIDDERS

**CITY OF RIVER FALLS, WISCONSIN  
55' Articulating Telescopic Aerial Device  
River Falls Utilities Department**

The City of River Falls will receive sealed bids at the City Clerk's office at City Hall until **10:00 a.m. on Wednesday, August 24, 2016** at which time bids will be opened and publicly read aloud in the Kinni Conference Room of City Hall, located at 222 Lewis Street, River Falls, Wisconsin for **A 55' ARTICULATING TELESCOPIC AERIAL DEVICE.**

Said work shall be in accordance with the Plans and Specifications prepared by the City of River Falls. Any questions concerning this project shall be directed to Wayne Siverling, Electric Operations Superintendent, at 715-426-3480.

Digital copies of the Bidding Documents are available at [www.rfcity.org](http://www.rfcity.org) or [www.questcdn.com](http://www.questcdn.com) for a fee of \$10 by inputting QuestCDN eBidDoc #4612383 on the website's Project Search page. For assistance and free membership registration, contact QuestCDN at (952) 233-1632 or [info@questcdn.com](mailto:info@questcdn.com).

All bids shall be in a sealed envelope clearly marked: "55' Articulating Telescopic Aerial Device". The City of River Falls reserves the right to reject any or all bids, to waive informalities, and to accept the bid deemed most advantageous to the City.

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Lu Ann Hecht, City Clerk

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**CITY OF RIVER FALLS**  
(River Falls Municipal Utilities)

**SPECIFICATIONS**  
**55' ARTICULATING TELESCOPIC AERIAL DEVICE**

**SCOPE**

Furnish the City of River Falls /River Falls Municipal Utilities with one fully assembled 55 foot heavy duty insulated articulating and telescopic material handling aerial device with 24" platform elevator and one (1) Brand FX model BFXB-102T fiberglass line body. These items shall be installed on a new 2017 International 4400 SBA 4 x 2 regular cab chassis with 33,000 GVWR, 13,000 lb. front axle capacity, 23,000 lb. rear axle capacity, Cummins 350hp ISL diesel engine, Allison 3500 6-speed automatic transmission with PTO opening and drive gear, 114" CA and dual rear wheels built in accordance to standard and customer specifications and to include the following features:

**DETAILED SPECIFICATIONS**

Detailed specifications are the minimum but are approximate. The City reserves the right to determine whether or not deviations from the specifications are acceptable, and still meet the intent of the specifications.

**BUCKET UNIT**

55' combination, articulating and telescoping insulated aerial lifting device shall be manufactured in accordance with all OSHA and ANSI requirements. Built in accordance to standard specifications and to include the following features:

- Ground to bottom of platform height: 55 ft.
- Working height: 60 ft.
- Horizontal reach to edge of platform: 37 ft. 11 in. @ 27'
- Platform capacity: 650 pounds
- Continuous 360 degree rotation
- Maintenance free non-lube bearings shall be used at all pin locations in lieu of grease fittings. The rotation bearing and the extension chain shall be the only components that require lubricating maintenance.
- The hydraulic reservoir shall be designed as an integral part of the pedestal and shall have anti-splash baffles and easy-to-read fluid level gauges (sight gauges). The hydraulic oil capacity of the reservoir shall be 25 gallons. The reservoir shall be filled with military spec. 5606 hydraulic oil.
- A heavy duty hydraulic platform rotator shall rotate the platform 180-degrees from one side of the upper boom assembly, across the end-hung position, and to the other side of the upper boom assembly. The platform control hoses shall not extend below the bottom of the platform.
- The platform elevator shall lift the platform 24" vertically using a telescopic cylinder. This option adds seven inches of side reach for a total of 38 ft. 6 in. The platform capacity should be 650 pounds with the elevator option.
- Upper Controls: The upper control system includes a full flow hydraulic 4 function proportional joystick upper control and toggle switches
- Lower Controls: A lower control station includes and is located on the turntable. A selector valve is provided to override the upper controls.
- The platform is leveled by hydraulic leveling means, contained within the upper boom and designed to maintain the dielectric integrity of the aerial device. Controls for leveling the

<u>Qty</u>	<u>Amt</u>
1	_____

**BUCKET UNIT (Cont.)**

**Qty**

**Amt**

tilting the platform are located at the platform. Leveling for the platform includes two double acting cylinders incorporating counterbalance load holding valves to lock the platform in the event of hydraulic line failure. Cylinders are located at the platform and at the end of the lower boom. The master-slave action of the cylinders maintains a level platform throughout the full range of boom articulation.

- The outer boom assembly shall include a 12" x 14" fiberglass section at the boom end, which shall provide a 38" clear electrical insulation gap even when the inner boom is fully retracted. Ultra-high molecular weight plastic slide pads shall be mounted on all 4 sides of the inner boom. The electro guard shall be equipped with adjustable screw in type slide pads on the sides and top. A pinned slide pad shall be used at the bottom of the fiberglass section. All inner and outer wear pads shall have the ability to be replaced without removing the inner boom.
- Outrigger/boom interlock system prevents boom from being unstowed until outriggers have been fully deployed. The system prevents the outriggers from being retracted until the boom has been stowed.
- Outrigger/unit selector control is located near the outrigger controls, allows operator to divert hydraulic oil from machine circuit for outrigger operation. This reduces the potential for inadvertent outrigger movement during machine operation if outrigger controls are bumped.
- The complete aerial unit shall be shot-blasted, primed and painted prior to assembly. The aerial shall be urethane painted and gel coated WHITE
- Total of 3 years parts warranty will be provided for the aerial.

Outrigger motion alarm provides audible alarm when any of the outriggers controls are operated. A weather pack connector will be installed at the alarm for ease of replacement.

1

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Diagnostic Pressure Test Quick Disconnect Couplings: are located at the turntable to allow a mobile service technician to quickly and easily attach a test gauge to verify system and tool circuit pressure. This convenient troubleshooting feature saves time and reduces the risk of high pressure oil sprays.

1

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Manual Upper Boom Stow Securing System with support cradle and tie down strap.

1

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1.5 Man Platform, 24 x 42 x 42, platform stowed off of end of boom with step facing curbside.

1

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Soft vinyl platform and control cover for 1.5 man platform (approx. 24 x 48).

1

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Platform liner 24 x 42, 50 kV rating (minimum) with inside corner step.

1

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Tool circuit at boom tip, One (1) set of hydraulic tool ports shall be provided and installed at the platform. This system shall be designed to use open center hydraulic tools only. The tool circuit shall provide 6 G.P.M. at 2,250 PSI. One (1) set of Parker #FF371-8FP, & FF372-8FP quick disconnect couplers with dust covers shall be provided and installed.

1

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Tool circuit below rotation, One (1) set of hydraulic tool ports shall be provided and installed at the platform. This system shall be designed to use open center hydraulic tools only. The tool circuit shall provide 6 G.P.M. at 2,250 PSI. One (1) set of Parker #FF371-8FP, & FF372-8FP quick disconnect couplers with dust covers shall be provided and installed.

1

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Chassis engine start/stop circuit shall be designed so that the lift cannot be operated unless the truck ignition is in the "run" position and the master control is turned "on". This feature shall make it difficult for unauthorized individuals to operate the lift when the truck is locked. A weather proof toggle switch at the upper controls, lower controls and at the rear of the truck shall be used to energize this system.

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**BUCKET UNIT (Cont.)**

**Qty**      **Amt**

Two speed throttle system shall give the operator a choice of slower engine idle speeds or faster engine speeds with faster lift movements when required. The manual throttle control shall be designed so that it cannot be operated unless the truck ignition is in the "run" position and the master control is turned "on". A weather proof toggle switch at the upper controls, lower controls and at the rear of the truck shall be used to energize this system.

1      \_\_\_\_\_

Emergency power system consists of a hydraulic pump driven by a 12-volt DC motor, which shall be powered by the chassis batteries. The system is connected in parallel with the main pump and is designed for non-continuous operation. A weather proof toggle switch at the upper controls, lower controls and at the rear of the truck shall be used to energize this system.

1      \_\_\_\_\_

One weather proof toggle switch shall be utilized for the start/stop, throttle and emergency power at the rear of the unit to save space. Configured as follows: up for throttle engage/disengage, down for start/stop and emergency power activation.

1      \_\_\_\_\_

A-frame outriggers with pivot shoes installed behind the cab. Includes motion alarm and outrigger interlocks which will not allow the unit to be operated until the outriggers have been deployed.

1      \_\_\_\_\_

Modified A-frame outriggers with pivot shoes installed behind the rear of body

1      \_\_\_\_\_

Fully hydraulic full flow lever actuated outrigger control valves

1      \_\_\_\_\_

Aerial Device Power Painted White

1      \_\_\_\_\_

**UNIT & HYDRAULIC ACC.**

System filled with hydraulic oil - MilSpec 5606.

1      \_\_\_\_\_

Dual sight gauges – Installed to be easily visible on reservoir.

1      \_\_\_\_\_

Standard PTO / Transmission Functionality for Automatic Transmissions – if chassis is in gear, and PTO switch is activated, PTO will not engage. Chassis will remain in gear. If chassis is already in neutral with PTO engaged and operator tries to shift into gear, PTO will disengage and transmission will shift into gear.

1      \_\_\_\_\_

**BODY**

BRAND FX MODEL BFXB-102T FIBERGLASS LINE BODY

**MINIMUM DIMENSIONS**

Overall Length      150 Inches  
Overall Width      94 Inches  
Compartment Height      48 Inches  
Compartment Depth      18 Inches  
Load-bed Width      58 Inches  
Floor Height      30 Inches

1      \_\_\_\_\_

**EXTERIOR WALL AND SURFACE CONSTRUCTION** - Body side compartments shall include a laminated PVC core to provide sufficient compression for strength and rigidity. Core shall be minimum 0.375" thickness, providing a density of 5 to 6 pounds per cubic foot. Minimum 18 mil fiberglass skin shall fully enclose the inner PVC core. All exterior surfaces shall have a minimum 20 mils. gel coat and .50 mil. skim coat. Front corners of the side compartments shall be protected with aluminum tread plate rock guards.

**NON-SKID COMPARTMENT TOPS** – The tops of the compartments shall have textured non-skid surfaces.

## **BODY (Cont.)**

**UNDERSTRUCTURE (Steel)** - A steel understructure shall consist of 4" x 5.4 foot-pound longitudinals. All cross members shall be 4" x 5.4 foot-pound minimum dimension. To insure maximum structural integrity, 6" x 5.4 foot-pound front and rear channels shall be provided. Understructure shall be primed with a premium epoxy primer and finished with acrylic enamel paint.

**CARGO FLOOR (Aluminum)** – Load bed floor shall be constructed of 3/16" aluminum tread brite and shall be painted with a black non-skid coating. Load bed floor shall be flanged up body sidewalls a minimum of 4".

**BULKHEAD (Aluminum)** - A full-width front bulkhead shall be constructed from minimum 3/16" smooth aluminum.

**DOORS** - All body compartment doors shall be sandwich-style construction, consisting of a 1/2" thick lower density PVC core enclosed by a 1/8" fiberglass skin on each side. Structural core material shall have minimum shear strength of 151 PSI and minimum 3,995 PSI shear modulus. All doors shall be manufactured using a closed mold system to provide a high quality automotive finish on both sides and insure structural strength. All compartment doors shall have radius corners to maintain a positive seal and insure maximum weather protection.

**WEATHER STRIP** - All doors shall be fitted with an automotive-type weather strip, for maximum assurance of weather tight compartments. The weather strip shall be crimp-on and removable to facilitate its replacement as required.

**DOOR RESTRAINTS (Vinyl-Coated Cables)** - Each vertical and horizontal compartment door shall be equipped with a vinyl-coated stainless steel cable door stop. The horizontal compartment door cables shall be detachable to provide for greater access to the interior of the compartment. Each horizontal compartment shall have rubber bumpers to prevent direct contact between the door and body.

**DOOR LOCKS** - All doors, vertical and horizontal, shall be equipped with a stainless steel, key locking spring loaded rotary latch, to be flush mounted in the door. An adjustable striker plate shall be mated to the door latch.

**HINGES** - Each compartment door shall be equipped with two (2) stainless steel hinges. Piano-type hinges shall not be acceptable.

**BOLTS & FASTENERS** - All bolts and screws shall be stainless steel, and shall include self-locking stainless steel nuts.

**DRIP RAILS** - An extruded aluminum drip rail shall be provided above exterior compartment doors.

**SHELVING CONSTRUCTION** - All shelves shall have 2" lips and hanger brackets and shall be constructed of pultruded fiberglass.

**LIGHTS & ELECTRICAL** - All exterior lights shall be provided in compliance with FMVSS-108 standards. All exterior body lighting shall be LED including the back-up lights. All exterior lights shall be flush-mounted and include rubber grommet shock mount fixtures, installed in the tail shelf. A lighted license plate bracket shall be furnished (*mounting location for license plate bracket to be determined at the pre-paint inspection*).

**NOTE:** Rear lights shall be installed in the rear platform extension.

**CURBSIDE** - Front to Rear

## **BODY (Cont.)**

Front vertical compartment with single door.

- ¾ Transverse compartment.
- Three (3) pullout 5" drawer assembly, with aluminum shelf on the top of transverse rack.
- Egg Crate dividers for bottom 2 drawers only.
- One (1) Adjustable fiberglass shelf below pull out drawers.

Second vertical compartment with single door.

- Three (3) adjustable shelf with dividers.

Third vertical compartment with single door.

- Eight (8) locking swivel hooks mounted 2-4-2.

Horizontal compartment with single drop door.

- Two (2) 8D cabinets with metal dividers (USSI to Fabricate dividers) installed side by side on angled riser pushed back against wall as far as possible.
- One (1) Adjustable shelf with dividers above cabinets.

Rear vertical compartment - Delete

- Access way with grip-strut steps.
- Two grab handles.

**STREETSIDE - Front to Rear**

Front vertical compartment with single door.

- Three (3) adjustable shelves with dividers.

Second vertical compartment with single door.

- Three (3) adjustable shelf with dividers.

Third vertical compartment with single door.

- Eight (8) locking swivel hooks mounted 2-4-2.

Horizontal compartment with single drop door.

- Two (2) 8D cabinets with metal dividers (USSI to Fabricate dividers) installed side by side on angled riser pushed back against wall as far as possible.
- One (1) Adjustable shelf with dividers above cabinets.

Rear vertical compartment with single door.

- Seven (7) locking swivel hooks mounted 2-3-2.

**COMPARTMENT LIGHTING** - All body compartments shall be illuminated by LED Rope lighting mounted vertically on each side of the doors and near the top of each compartment. The lights shall be manually activated by an illuminated rocker switch, mounted on the chassis dash.

**WHEEL CHOCKS & HOLDERS** - Four (4) wheel chock holders shall be provided and formed into the CURBSIDE, and STREETSIDE fender skirt. Four (4) rubber wheel chocks shall be furnished.

**SIDE ACCESS STEP** – One (1) rubber mounted grip-strut side access step shall be installed beneath the side access way.

**NOTE:** Supply truck and body drawings and weight study.

**BODY AND CHASSIS ACCESSORIES**

	<b><u>Qty</u></b>	<b><u>Amt</u></b>
A saddle style rear tail shelf approximately 18" tall x 30" W x 94" L shall be furnished to facilitate bucket entry from load bed level. The tail shelf shall be constructed from minimum 1/8" aluminum tread brite. Size of the tail shelf to be determined by area needed for bucket storage with no overhang past the bumper (24" x 42" bucket). The tail shelf shall include an approximately 6" high (5.5" I.D.) thru-storage shelf with two horizontally hinged drop down doors and automotive type crimp on gaskets. Latches and hinges shall be stainless steel and keyed to match the body latches. The top of the tail shelf shall be coated with black non-skid paint.	1	_____
Platform Access Step From Body Floor	1	_____
U-Shaped Grab Handle	2	_____
ICC style rear step bumper shall be fabricated and installed, extend bumper out an extra 2".	1	_____
Provide a towing package to include one 15-ton spring pintle hook, one 7-blade RV style trailer socket, and one pair of D-ring safety chain keepers.	1	_____
Fabricate and install a post with drop down pinned cone holder at the front bumper and aluminum safety cone holder at the rear curbside of tail shelf.	1	_____
Lower Boom Rest Weldment	1	_____
Fabricate and install 2 stepped sign storage boxes on the front street side outrigger between the body and the chassis cab. Approx. 9 inches W x 9 inches D x 15 inches T.	1	_____
Aluminum heavy duty outrigger single pad holders shall be provided and installed one each under the curbside and street side front vertical compartments and one each under the curbside and street side of tail shelf.	4	_____
18" x 18" x 1" high density polyethylene DICA outrigger pads shall be provided.	4	_____
Wheel Chocks, Rubber with Metal Hairpin Style Handle, 9.75" L x 7.75" W x 5.00" H	4	_____
Mud Flaps	2	_____
10 LB Fire Extinguisher with Heavy Duty Bracket, Installed	1	_____
Triangular Reflector Kit, Installed	1	_____
One first aid kit shall be provided and shipped loose in a compartment.	1	_____
Provide and install Rigid 5" Mechanics vise installed on a plate on a receiver tube with pin on curbside rear outrigger facing outward. Provide vinyl cover for vise.	1	_____
Slope Indicator Assembly for Machine with Outriggers	2	_____
A Tekonsha electronic brake controller shall be provided and installed in the chassis cab.	1	_____
A shovel holder shall be fabricated using two sections of 3" dia. PVC tube approximately 18" in length and two aluminum angle stops shall be provided and installed on the curbside front of body above the outrigger between the body and the cab. Bungee and eyelets in body for securing shovels.	1	_____
One (1) Weather guard EZ Glide model 255 drop down ladder rack on angled brackets shall be provided and mounted at an angle on top of the street side compartments of the body above the material trough on custom brackets.	1	_____
Fabricate and install aluminum 4 compartment bicycle style wire rack mounted on transverse between storage box and chainsaw tray.	1	_____

**BODY AND CHASSIS ACCESSORIES (Cont.)**

	<b><u>Qty</u></b>	<b><u>Amt</u></b>
Provide and install chain saw tray on transverse compartment. Dimensions and specifications provided by customer.	1	_____
A possum belly shall be provided which will run under the body up to the aerial sub-frame tube. At the rear, there will be a locking aluminum tread brite drop down door installed with a stainless steel latch to close the drop down door and have automotive style rubber weather strip. Four 4" PVC tubes and PVC caps on front and Four Petersen Products #142-804 plugs on the rear. Pipes to be installed as follows, from left to right 3 pipes at 8'6"Long and one pipe at 6'6"Long, with remaining space to have metal vertical divider separating it from pipes and left open with stop at 10". Provide a rain guard at the top.	1	_____
One 5" H x 18" W x 65" L aluminum tread brite material trough shall be provided and installed on top of the street side compartments. The two sides and the bottom of the trough shall be punched. Exact length to be determined because of the ladder rack that will be installed above it.	1	_____
Provide and install chain saw tray on transverse compartment. Dimensions and specifications provided by customer.	1	_____
Use steel to close off between the rear frame rails. Install an aluminum tread brite rear door with automotive style rubber weather strip and install one custom made floor drawer unit approximately 6" T x 30" W x 44" L at the rear of the truck below the possum belly. Modify and weld dividers in the drawer unit per customer's design.	1	_____
Provide one Hannay model #SGCR-10-17-19 spring rewind grounding reel including 40' of 2/0 Yellow grounding cable with 2 clamps and ferrules, custom wind up posts on rear curbside outrigger.	1	_____
Provide and install 12v power plug at the Rear of the body for portable spotlight.	1	_____
One GoLight model # 20074 LED spot light shall be provided and installed on the front hood of the truck. One Golight model # 79004 LED portable spotlight with 15' power cord permanent mount shoe & suction cup, mounted on the rear curbside outrigger cover. Provide Two (2) Golight model 15420 snap on flood lens for lights.	1	_____
Two grounding lugs shall be provided and installed. One grounding lug is to be installed to the curbside front outrigger. One custom grounding lug is to be installed to the curbside rear outrigger and utilize as a wind up pin.	1	_____
Provide and install Four Lumabar model AY-9500-020 H2O, 20" LED Strip lights. Two on the curbside and two on the street side ( <i>Mounting location to be determined at pre-paint</i> ). Both curbside and street side lights will be manual activated by separate switches mounted on the chassis dash.	1	_____
Two Whelen model #L31HAF, Amber LED strobe lights with model L360BGB brush guards shall be provided, pipe mounted and installed on a crossbar off of the lower boom stow. The lights shall be manually activated by an illuminated rocker switch provided and mounted on the chassis dash.	1	_____
Install customer supplied front and rear strobe lights.	1	_____
Two Truck-Lite #4060C LED 4" flood lights shall be provided and installed on cargo walls to illuminate the cargo area. The cargo area lights will be manually activated by a single illuminated rocker switch mounted on the chassis dash.	1	_____
One Lumabar model AY-9500-20 H2O, 20" Strip light shall be provided and mounted under step to illuminate the cargo access steps.	1	_____
Dual Tone Back-Up alarm with weather pack installed at alarm for easy replacement	1	_____

**BODY AND CHASSIS ACCESSORIES (Cont.)**

**Qty**      **Amt**

Provide one (1) Dimensions model #TMC-12/2400N Pure Sine 12 Volt-to-120 Volt inverter with continuous rated output of 2400 watts. The inverter is equipped with two (2) AC outlets, and operates without the vehicle's engine running. The inverter includes a built-in solid state automatic low battery shutdown at 10.5 volts DC which allows for the truck to be started. The inverter shall be installed upside down as far forward as possible in curbside front compartment above transverse top shelf with plug facing curbside.

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A 110v 3 plug extension cord with two feet of extra wire provided in the cab. The extension cord shall be wired to the inverter. One (1) 6 plug 110v power strip with 110v locking disconnect plug mounted in curbside horizontal compartment along back wall as high as possible and wired to inverter. 110v locking plug to run from inverter to front side of curbside horizontal compartment.

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Fabricate and install post with pin and springs and washers to hold 2 wire reels mounted off the rear of curbside outrigger.

1      \_\_\_\_\_

12" H x 20" W x 68" L aluminum tread brite material storage box shall be provided and installed on top of the CURBSIDE rear compartments of the body (C3 & C4). The box shall have a single lift up lid supported with two gas props and be accessible from inside the cargo area of the body. Automotive type crimp on gaskets and stainless steel latches and hinges shall be provided. The latches shall be keyed to match the body latches.

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Box to be sprayed with rubberized liner.

18" H x 20" W x 50" L aluminum tread brite material storage box shall be provided and installed on top of the CURBSIDE front compartments of the body (C1 & C2). The box shall have a single lift up lid supported with two gas props and be accessible from inside the cargo area of the body. Automotive type crimp on gaskets and stainless steel latches and hinges shall be provided. The latches shall be keyed to match the body latches.

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Box to be sprayed with rubberized liner.

20" H x 20" W x 20" L aluminum tread brite material storage box shall be provided and installed on top of the front transverse mounted to the right. The box shall have a single lift up lid supported with two gas props and be accessible from inside the cargo area of the body. Automotive type crimp on gaskets and stainless steel latches and hinges shall be provided. The latches shall be keyed to match the body latches. Box to be sprayed with rubberized liner.

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One Provision model TV-205A Rear View Camera System with a 5" LCD monitor and one additional Provision model PC-1116 Recessed Body/Bumper Bullet Style Rear camera for trailer hitch hook up shall be provided and installed. Camera monitor to be installed in cab mounted below radio area, Both Cameras to work from the one monitor with the capability to switch from one camera to the other. Cameras to be installed at the rear tail shelf locations to be determined.

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One (1) 6" H recycled plastic tailboard (secured in aluminum channels mounted to the inside of the body) shall be provided and installed to contain cargo hauled in the cargo area of the body.

1      \_\_\_\_\_

**FINISHING DETAILS**

Delivery of Completed Unit

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The body and aerial features shall be finished as follows:

- The metal portions of the aerial shall be Urethane painted Mfg's standard WHITE.
- The fiberglass portions of the aerial shall be gel coated Mfg's standard WHITE.
- The exterior of the gel coated Brand FX's standard WHITE.
- The compartment interiors and shelving shall be left in *natural* fiberglass.
- Any stainless steel, chrome or tread brite surfaces will remain in an *unpainted* state.

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**FINISHING DETAILS (Cont.)**

- All steel surfaces normally painted shall be painted BLACK.
- The top of the tail shelf and the cargo floor shall be painted with a BLACK non-skid coating.

	<u>Qty</u>	<u>Amt</u>
Apply Non-Skid Paint to all walking surfaces	1	_____
English Safety and Instructional Decals	1	_____
Vehicle Height Placard – Installed in Cab	1	_____
Dielectric test unit according to ANSI requirements.	1	_____
Stability test unit according to ANSI requirements.	1	_____
DOT Certification Required – River Falls Municipal Utilities	1	_____
Customer Inspection Required	1	_____

**CHASSIS**

Chassis	1	_____
Vendor Supplied Chassis	1	_____
Use separate attached chassis specs and codes as minimum required	1	_____

**MISCELLANEOUS**

Warranty: Three year parts warranty, one year labor warranty, one year warranty for travel charges, limited lifetime structural warranty.	1	_____
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**OPTIONS (include separate pricing)**

OPTION #1 – RAM MOUNT – Ram model RAM-VB-168-SW1 no drill universal computer mount shall be provided and installed. This No-Drill Laptop Stand System installs quickly and easily into the specified vehicles using the existing hardware of the passenger side seat rails. This configuration provides a telescoping feature that ranges from 12 to 18 inches. The triple swing arm provides articulation and 18 inches of reach for passenger and driver access to the mounted device. Patented rubber ball and socket joint provides additional adjustment as well as shock and vibration isolation. The RAM Tough Tray is spring loaded to accommodate 10" to 16" wide laptops & (17" wide screens). The tray features four adjustable retaining arms with rubber grip feature. These arms can be moved both vertically and horizontally. This allows for a custom fit for varying thicknesses of laptops and the freedom of not blocking ports or drives. A screen support and USB light are also available to accessorize the tray. Hole patterns on perimeter of tray facilitate the mounting of additional RAM systems to support GPS or other electronics.	1	_____
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OPTION #2 -12V POWER POINT – Provide and install 12v power plug at the computer mount.	1	_____
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**VENDOR RESPONSIBILITY**

Shall meet all State and Federal Regulations.	1	_____
Bids shall be itemized.	1	_____
Supply a delivery date to City of River Falls, Failure to deliver the completed and satisfactory (to River Falls expectations) unit to River Falls by this date is subject to refusal of unit and or payment or customer determined penalties.	1	_____

**QUOTE TO BE VALID FOR 60 DAYS FROM BID ENDING DATE**

Bid Ending Date: August 24, 2016

**NOTE:**

NO DEVIATION FROM THE TERMS OF THIS SPECIFICATION IS ACCEPTABLE. THE UNDERSIGNED BIDDER PROPOSES TO FURNISH EQUIPMENT TOTALLY IN ACCORDANCE WITH THESE SPECIFICATIONS

THE ABOVE ARE MINIMUM SPECIFICATIONS. IF THERE IS A MANUFACTURER'S LISTED STANDARD SPECIFICATION FOR ANY ITEM OR EQUIPMENT THAT IS GREATER THAN THE ABOVE SPECIFIED, THE MANUFACTURER SHALL BE FURNISHED AND INCLUDED IN THE PROPOSAL. IF ANY FEDERAL REGULATIONS REQUIRE ADDITIONAL OR ALTERNATE EQUIPMENT THAN PROPOSED, THEN SUCH EQUIPMENT SHALL BE INCLUDED ON THE PROPOSAL FORM.

## **CITY OF RIVER FALLS 2016 AERIAL TRUCK CHASSIS SPECIFICATION MINIMUM**

### **2017 INTERNATIONAL 4400 SBA 4x2 REGULAR CAB CHASSIS**

<b>MA03500</b>	Base Chassis, Model 4400 SBA 4X2 with 185.00 Wheelbase, 113.9 CA and 96.00 Axle to Frame.
<b>1570</b>	TOW HOOK, FRONT (2) Frame Mounted
<b>1CEM</b>	FRAME RAILS Heat Treated Alloy Steel (120,000 PSI Yield); 10.375" x 0.438" (263.5mm x 94.1mm x 11.1mm); 456.0" (11582mm) Maximum OAL Limited to 33,000 lb Maximum GCWR
<b>1LLD</b>	BUMPER, FRONT Full Width, Aerodynamic, Steel; 0.142" Material Thickness BUMPER, FRONT Powder Coated Gray (Argent) Color
<b>1SAL</b>	CROSSMEMBER, REAR, AF (01)
<b>1WEH</b>	WHEELBASE RANGE 134" (340cm) Through and Including 197" (500cm)
<b>2ATG</b>	AXLE, FRONT NON-DRIVING {Meritor MFS-13-143A} Wide Track, I-Beam Type, 13,000-lb Capacity
<b>3770</b>	SPRINGS, FRONT AUXILIARY Rubber
<b>3AGS</b>	SUSPENSION, FRONT, SPRING Parabolic, Taper Leaf; 13,000-lb Capacity; With Shock Absorbers. SPRING PINS Rubber Bushings, Maintenance-Free
<b>4091</b>	<p>BRAKE SYSTEM, AIR Dual System for Straight Truck Applications BRAKE LINES Color and Size Coded Nylon DRAIN VALVE Twist-Type GAUGE, AIR PRESSURE (2) Air 1 and Air 2 Gauges; Located in Instrument Cluster PARKING BRAKE CONTROL Yellow Knob, Located on Instrument Panel PARKING BRAKE VALVE For Truck QUICK RELEASE VALVE Bendix On Rear Axle for Spring Brake Release: 1 for 4x2, 2 for 6x4 SLACK ADJUSTERS, FRONT Automatic SLACK ADJUSTERS, REAR Automatic SPRING BRAKE MODULATOR VALVE R-7 for 4x2, SR-7 with relay valve for 6x4</p> <p><u>Notes:</u> Front and rear dust shields not included Rear Axle is Limited to 19,000-lb GAWR with Code 04091 BRAKE SYSTEM, AIR and Code 04NCL BRAKES, REAR, AIR CAM regardless of Axle/Suspension Ordered. Rear Axle is Limited to 20,000-lb GAWR with Code 04091 BRAKE SYSTEM, AIR and Code 04NCG BRAKES, REAR, AIR CAM regardless of Axle/Suspension Ordered. Rear Axle is Limited to 23,000-lb GAWR with Code 04091 BRAKE SYSTEM, AIR and Standard Rear Air Cam Brakes Regardless of Axle/Suspension Ordered.</p>
<b>4732</b>	DRAIN VALVE {Berg} Manual; With Pull Chain, for Air Tank Includes: DRAIN VALVE Mounted in Wet Tank
<b>4AZA</b>	AIR BRAKE ABS {Bendix AntiLock Brake System} Full Vehicle Wheel Control System (4-Channel)
<b>4EBT</b>	AIR DRYER {Bendix AD-IP} with Heater. AIR DRYER LOCATION Inside Left Rail, Back of Cab
<b>4EXP</b>	BRAKE CHAMBERS, FRONT AXLE {Bendix} 20 Sq In

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- 4EXU** BRAKE CHAMBERS, REAR AXLE {Bendix EverSure} 30/30 Spring Brake
- 4JCJ** BRAKES, FRONT, AIR CAM S-Cam; 16.5" x 5.0"; Includes 20 Sq. In. Long Stroke Brake Chambers. Front Axle with 14,000-lb GAWR is Limited to 13,200-lb GAWR when used in Conjunction with 15" BRAKES, FRONT, AIR CAM.
- 4NDB** BRAKES, REAR, AIR CAM S-Cam; 16.5" x 7.0"; Includes 30/30 Sq. In. Long Stroke Brake Chamber and Spring Actuated Parking Brake
- 4SPA** AIR COMPRESSOR {Cummins} 18.7 CFM Capacity
- 4VJE** AIR TANK LOCATION (2) Mounted inline under Left Rail, Back of Cab
- 4VGA** AIR DRYER LOCATION Mounted Outside Right Rail, Forward of Front Wheel
- 4WBX** DUST SHIELDS, FRONT BRAKE for Air Brakes
- 4WDM** DUST SHIELDS, REAR BRAKE for Air Brakes
- 4WZL** AIR TANK LOCATION (2) One Mounted Under Each Frame Rail, Front of Rear Suspension Parallel to Rail
- 5708** STEERING COLUMN Tilting
- 5CAL** STEERING WHEEL 2-Spoke, 18" Diam., Black
- 5PSM** STEERING GEAR {Sheppard HD94} Power
- 7BEP** EXHAUST SYSTEM Switchback Horizontal After treatment Device, Frame Mounted Right side Under Cab; Includes Single Vertical Tail Pipe, Frame Mounted Right Side Back of Cab
- 8000** ELECTRICAL SYSTEM 12-Volt, Standard Equipment  
Includes  
BATTERY BOX Steel  
DATA LINK CONNECTOR For Vehicle Programming and Diagnostics In Cab  
FUSES, ELECTRICAL SAE Blade-Type  
HAZARD SWITCH Push On/Push Off, Located on Top of Steering Column Cover  
HEADLIGHT DIMMER SWITCH Integral with Turn Signal Lever  
HORN, ELECTRIC Single  
JUMP START STUD Located on Positive Terminal of Outermost Battery  
PARKING LIGHT Integral with Front Turn Signal and Rear Tail Light  
STARTER SWITCH Electric, Key Operated  
STOP, TURN, TAIL & B/U LIGHTS Dual, Rear, Combination with Reflector  
TURN SIGNAL SWITCH Self-Cancelling for Trucks, Manual Cancelling for Tractors, with Lane Change Feature  
TURN SIGNALS, FRONT Includes Reflectors and Auxiliary Side Turn Signals, Solid State Flashers; Flush Mounted  
WINDSHIELD WIPER SWITCH 2-Speed with Wash and Intermittent Feature (5 Pre-Set Delays), Integral with Turn Signal Lever  
WINDSHIELD WIPERS Single Motor, Electric, Cowl Mounted  
WIRING, CHASSIS Color Coded and Continuously Numbered
- 8541** HORN, ELECTRIC (2) Disc Style

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<b>8GGN</b>	ALTERNATOR {Bosch LH 160} Brush Type; 12 Volt 160 Amp. Capacity, Pad Mount,
<b>8HAB</b>	BODY BUILDER WIRING Back of Standard Cab at Left Frame or Under Extended or Crew Cab at Left Frame; Includes Sealed Connectors for Tail/Amber Turn/Marker/ Backup/Accessory Power/Ground and Sealed Connector for Stop/Turn
<b>8HAG</b>	ELECTRIC TRAILER BRAKE/LIGHTS Accommodation Package to Rear of Frame; for Separate Trailer Stop, Tail, Turn, Marker Light Circuits; Includes Electric Trailer Brake accommodation package With Cab Connections for Mounting Customer Installed Electric Brake Unit, Less Trailer Socket
<b>8MEZ</b>	BATTERY SYSTEM {International} Maintenance-Free, (2) 12-Volt 1850CCA Total
<b>8RMA</b>	RADIO AM/FM/WB/Clock /Bluetooth/USB Input. MP3, Apple Device Play & Control, Bluetooth for Phone & Music with Multiple Speakers
<b>8WCL</b>	HORN, Air Black, Single Trumpet, Air Solenoid Operated
<b>8WTK</b>	STARTING MOTOR {Delco Remy 38MT Type 300} Thermal Over-Crank Protection
<b>8WWJ</b>	INDICATOR, LOW COOLANT LEVEL With Audible Alarm
<b>8WZK</b>	HEADLIGHTS Halogen; Composite Aero Design for Two Light System
<b>8XAH</b>	CIRCUIT BREAKERS Manual-Reset (Main Panel) SAE Type III With Trip Indicators, Replaces All Fuses Except For 5-Amp Fuses
<b>8XDU</b>	BATTERY BOX Steel, With Aluminum Cover, 14" Wide, 3 Battery Capacity, Mounted Left Side Under Cab
<b>9HAD</b>	GRILLE Chrome
<b>9WAY</b>	FRONT END Tilting, Fiberglass, With Three Piece Construction
<b>10060</b>	PAINT SCHEMATIC, PT-1 Single Color, Design 100 PAINT SCHEMATIC ID LETTERS "GA"
<b>10761</b>	PAINT TYPE Base Coat/Clear Coat, 1-2 Tone
<b>11001</b>	CLUTCH Omit Item (Clutch & Control)
<b>12849</b>	BLOCK HEATER, ENGINE 120V/1000W, for Cummins ISB/ISL Engines
<b>12EHK</b>	ENGINE, DIESEL {Cummins ISL9 300} EPA 10, 300 HP @ 2000 RPM, 860 lb-ft Torque @ 1300 RPM, 2200 RPM Governed Speed, 300 Peak HP (Max)
<b>12THT</b>	FAN DRIVE {Horton Drivemaster} Direct Drive Type, Two Speed With Residual Torque Device for Disengaged Fan Speed FAN Nylon
<b>12UAW</b>	RADIATOR Aluminum; 2-Row, Cross Flow, Over Under System, 1045 Sq In Louvered, With 373 Sq In CAC, With in Tank Oil Cooler
<b>12UNY</b>	FEDERAL EMISSIONS {Cummins ISL9} EPA, OBD and GHG Certified for Calendar Year 2016;

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- 12VBR** AIR CLEANER With Service Protection Element GAUGE, AIR CLEANER RESTRICTION  
Air Cleaner Mounted
- 12VXU** THROTTLE, HAND CONTROL Engine Speed Control for PTO; Electronic, Stationary  
Pre-Set, Two Speed Settings; Mounted on Steering Wheel
- 12WZE** EMISSION COMPLIANCE Federal, Does Not Comply With California Clean Air Idle  
Regulations
- 12XAT** ENGINE CONTROL, REMOTE MOUNTED Provision for; Includes Wiring for Body  
Builder Installation of PTO Controls; With Ignition Switch for Cummins ISB or ISL Engines
- 13AVR** TRANSMISSION, AUTOMATIC {Allison 3000\_RDS\_P} 5th Generation Controls; Close  
Ratio, 6-Speed, With Overdrive; On/Off Hwy; Includes Oil Level Sensor, With PTO  
Provision, Less Retarder, With 80,000-lb GVW & GCW Max.
- 13WBL** TRANSMISSION SHIFT CONTROL {Allison} Push-Button Type; for Allison 3000 & 4000  
Series Transmission
- 13WLP** TRANSMISSION OIL Synthetic; 29 thru 42 Pints
- 13WUA** AUTOMATIC NEUTRAL Allison WT Transmission shifts to Neutral When Parking Brake  
is Engaged and Remains In Neutral When Parking Brake is Disengaged
- 13WUS** ALLISON SPARE INPUT/OUTPUT for Rugged Duty Series (RDS); General Purpose  
Trucks, Modified for Single Input Auto Neutral
- 13XAL** PTO LOCATION Left Side of Transmission
- 14ARY** AXLE, REAR, SINGLE {Meritor RS-23-186} Single Reduction, 23,000-lb Capacity, 200  
Wheel Ends, Driver Controlled Locking Differential . Gear Ratio: 5.63
- 14VAH** SUSPENSION, RR, SPRING, SINGLE Vari-Rate; 23,500-lb Capacity, With 4500 lb  
Auxiliary Rubber Spring
- 15LKG** FUEL/WATER SEPARATOR with Thermostatic Fuel Temperature Controlled Electric  
Heater, and Filter Restriction/Charge Indicator, Includes Standard Equipment Water-in-  
Fuel Sensor
- 15SXJ** FUEL TANK Top Draw; Non Polished Aluminum, 24" Deep, 50 U.S. Gal., 189 L Capacity,  
Mounted Left Side Under Cab
- 15WCN** DEF TANK 5 U.S. Gal Capacity; Frame Mounted Outside Left Rail Under Cab
- 16030** CAB Conventional  
ARM REST (2) Molded Plastic; One Each Door  
CLEARANCE/MARKER LIGHTS (5) Flush Mounted  
COAT HOOK, CAB Located on Rear Wall, Centered Above Rear Window  
CUP HOLDERS Two Cup Holders, Located in Lower Center of Instrument Panel  
DOME LIGHT, CAB Rectangular, Door Activated and Push On-Off at Light Lens, Timed  
Theater Dimming, Integral to Console, Center Mounted  
GLASS, ALL WINDOWS Tinted  
GRAB HANDLE, CAB INTERIOR (1) "A" Pillar Mounted, Passenger Side  
GRAB HANDLE, CAB INTERIOR (2) Front of "B" Pillar Mounted, One Each Side  
INTERIOR SHEET METAL Upper Door (Above Window Ledge) Painted Exterior Color  
STEP (4) Two Steps Per Door

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- 16HBA** GAUGE CLUSTER English With English Electronic Speedometer  
GAUGE CLUSTER (5) Engine Oil Pressure (Electronic), Water Temperature (Electronic), Fuel (Electronic), Tachometer (Electronic), Voltmeter ODOMETER DISPLAY, Miles, Trip Miles, Engine Hours, Trip Hours, Fault Code Readout WARNING SYSTEM Low Fuel, Low Oil Pressure, High Engine Coolant Temp, and Low Battery Voltage (Visual and Audible)
- 16HKT** IP CLUSTER DISPLAY On Board Diagnostics Display of Fault Codes in Gauge Cluster
- 16JNT** SEAT, DRIVER {National 2000} Air Suspension, High Back With Integral Headrest, Vinyl, Isolator, 1 Chamber Lumbar, With 2 Position Front Cushion Adjust, -3 to +14 Degree Angle Back Adjust Includes SEAT BELT 3-Point, Lap and Shoulder Belt Type
- 16RPV** SEAT, PASSENGER {National 2000} Air Suspension, High Back With Integral Headrest, Vinyl, Isolated, 1 Chamber Lumbar, 2 Position Front Cushion Adjustment, -3 to +14 Degree Back Adjust Includes SEAT BELT 3-Point, Lap and Shoulder Belt Type
- 16SDT** MIRRORS (2) {Lang Mekra} Styled; Rectangular, Power Both Sides Flat Glass Only, Thermostatically Controlled Heated Heads, Clearance Lights LED, Black Heads, Brackets and Arms, Breakaway Type, 7.09" x 15.75" Integral Convex Both Sides, 102" Inside Spacing
- 16VSL** WINDSHEILD Heated, Single Piece
- 16WBY** ARM REST, RIGHT, DRIVER SEAT
- 16WBZ** ARM REST, LEFT, PASSENGER SEAT
- 16WCT** AIR CONDITIONER {Blend-Air} With Integral Heater & Defroster  
HEATER HOSES Premium  
HOSE CLAMPS, HEATER HOSE Mubea Constant Tension Clamps  
REFRIGERANT Hydrofluorocarbon HFC-134A
- 16WJS** INSTRUMENT PANEL Center Section, Flat Panel
- 16WJU** WINDOW, POWER (2) and Power Door Locks, Left and Right Doors, Includes Express Down Feature
- 16WLE** STORAGE POCKET, DOOR Molded Plastic, Full Width; Mounted on Passenger Door
- 16WRX** CAB INTERIOR TRIM Deluxe  
"A" PILLAR COVER Molded Plastic  
CAB INTERIOR TRIM PANELS Cloth Covered Molded Plastic, Full Height; All Exposed Interior Sheet Metal is Covered Except for the Following: with a Two-Man Passenger Seat or with a Full Bench Seat the Back Panel is Completely Void of Covering  
CONSOLE, OVERHEAD Molded Plastic; With Dual Storage Pockets with Retainer Nets and CB Radio Pocket  
DOOR TRIM PANELS Molded Plastic; Driver and Passenger Doors  
FLOOR COVERING Rubber, Black  
HEADLINER Soft Padded Cloth  
INSTRUMENT PANEL TRIM Molded Plastic with Black Center Section  
STORAGE POCKET, DOOR (1) Molded Plastic, Full-Length; Driver Door  
SUN VISOR (2) Padded Vinyl with Driver Side Toll Ticket Strap, Integral to Console

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- 27DMA** WHEELS, FRONT {Accuride} DISC; 22.5 x 8.25 Rims, Painted Steel, 2-Hand Hole, 10-stud, 285.75mm BC, Hub Piloted, Flanged Nut, with Steel Hubs Includes PAINT IDENTITY, FRONT WHEELS White
- 28DMB** WHEELS, REAR DUAL DISC; 22.5"x 8.25 Rims, Non Polished Aluminum, 10 stud 285.75mm BC, Hub Piloted Flanged Nut with Steel Hubs
- 29580** WHEEL SEALS, FRONT {International} Oil-Lubricated Wheel Bearings
- 60AAG** BDY INTG, REMOTE POWER MODULE Mounted Inside Cab behind Driver Seat; Up to 6 Outputs & 6 Inputs, Max. 20 amp. per Channel, Max. 80 amp. Total (Includes 1 Switch Pack With Latched Switches)
- 60ABD** BDY INTG, REMOTE START/STOP To Start and Stop Vehicle Engine, Will Start Emergency Pump Motor, Programmable Time Intervals
- 60ABE** BDY INTG, PTO ACCOMMODATION for Electric over Hydraulic PTO, Does Not Include Solenoids, With Latched Switch Mounted on Dash Includes Audible Alarm and Indicator Light in Gauge Cluster (Requires 1 Remote Power Module input & 1 output)
- 60AJG** BDY INTG, THROTTLE CONTROL Accommodation for Single Customer Mounted External Engine Speed Control Switch, for Utility Applications, Programmable Mode for Various Switch Actions and Engine Speed Control Option, Only with Vehicle Stopped and Park Brake is Applied (requires 1 Remote Power Module input)  
Includes: NOTE: Default Parameters: Input is Momentary Ground = Engine Speed Toggles Between Preset Speed and Idle each Time the Input is Grounded
- 7382130162** (4) TIRE, REAR 11R22.5 UNISTEEL G177 (GOODYEAR) 493 rev/mile, load range H, 16 ply
- 7382138108** (2) TIRE, FRONT 11R22.5 G662 FUEL MAX (GOODYEAR) 497 rev/mile, load range H, 16 ply
- SERVICES:**
- 40116** WARRANTY Standard for Durastar 1000/4000 Series, Effective with Vehicles Built January 2, 2015 or Later, CTS-2475P