

# **City of Seward, NE**

**Tuesday, July 7, 2015**

**Regular Session**

## **Item G12**

### **CONSIDERATION FOR APPROVAL OF BID SPECIFICATIONS AND AUTHORIZATION TO BID LEASE OR PURCHASE OF BUCKET TRUCK FOR ELECTRIC DEPT - Larry Ruether**

**Administrative Report: If approved, this vehicle will not be ready for delivery and payment until in the 2015-2016 budget year. The vehicle is included in the current budget year; however, it would need to be carried over into the next budget year.**

**Staff Contact:**

**CITY OF SEWARD**  
**Electric Utility Department**  
**PO Box 38, 537 Main Street**  
**Seward, NE. 68434**

<b><u>Item</u> Quantity</b>	<b><u>Description</u></b>	<b>YES – NO Comply</b>
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**UNIT**

**Three stage telescopic, aerial device with an insulating inner boom and the ISO-Grip system or equal too, an upper control system incorporating high resistance components at the boom tip. Personnel Unit only. Aerial for installation behind the chassis cab, built in accordance to standard specifications and to include the following features:**

- A. **Ground to Bottom of Platform Height: 50 feet**
- B. **Working Height – 55 feet (16.8 m)**
- C. **Maximum Reach to Edge of Platform: 41.3 feet at 11 foot platform height (12.6 m at 3.4 m )**
- B. **Pedestal and Turntable: Box structure design with large service openings.**
- C. **Rotation: continuous rotation provided by worm gear drive, equipped with extended shaft for manual rotation, driving a shear ball bearing rotation gear. The fully adjustable rotation drive assembly includes an external eccentric ring adjustment of the gearbox pinion gear to the main rotation bearing, permitting the **ability to easily adjust backlash**, reduce boom side play and ensure proper tooth contact over the life of the unit.**
- D. **Lift Cylinders: The rod eye is both thread and weld fastened to the rod while the blind end of the cylinder is of cast steel, one piece design, which houses internal (unexposed), cartridge-type, bi-directional counter-balance holding valves. Bronze alloy bushings with grease zerks are used at each end of the cylinder.**
- E. **Outer Boom: Fabricated, reinforced steel with a rectangular section 12" x 16".**

- F. Second Boom: Fabricated, reinforced steel with a square section 10" x 10".
- G. Inner Boom: Square 8.25" x 8.25" fiberglass boom, providing dielectric rating of 46KC category C. The inner surface of the fiberglass boom has acrylic polyurethane applied to provide a dry, smooth inner surface which will cause moisture to bead. The outer surface has a smooth epoxy paint finish.
- H. Platform Leveling System: The platform is leveled by a hydraulic slave type system designed to maintain the dielectric integrity of the aerial device.
- I. Platform: Totally enclosed, fiberglass
- N. ISO-Grip™ System or equal too: This is not a primary protection system.
1. Control Handle: A single handle controller incorporating high electrical resistance components that is dielectrically tested to 40 kV AC with no more than 400 microamperes of leakage. The control handle is green in color to differentiate it from other non-tested controllers. The handle also includes an interlock guard that reduces the potential for inadvertent boom operation.
  2. Auxiliary Control Covers: Non-tested blue silicon covers for auxiliary controls.
  3. Control Console: Non-tested non-metallic control console plate.
  4. Boom Tip Covers: Non-tested non-metallic boom tip covers. The covers are not dielectrically tested, but they may provide some protection against electrical hazards.
- O. Outrigger/Boom Interlock System: Prevents boom from being unstowed until outriggers have been at least partially deployed. (if outriggers are selected)
- P. Outrigger/Unit Selector Control: 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. (if outriggers are selected)
- Q. Outrigger Motion Alarm: Provides audible alarm when any of the outriggers are in motion. (if outriggers are selected)
- R. Hydraulic System: open center, pressure compensating which provides the required flow and pressure on demand resulting in increased fuel savings, reduced heat in the hydraulic system and

less noise pollution

S. Back-up Alarm, installed

T. Manuals: Two (2) Operator's and two (2) Maintenance/ Parts manuals containing instructional markings indicating hazards inherent in the operation of an aerial device.

U. ANSI Category C, 46 KV and below dielectric rating

V. Paint: Painted white.

1. 1 Single, two-man end mounted platform. Platform is 24 x 48 x 42 inches high, rated at 500 pounds capacity less man and material. \_\_\_\_\_

**NOTE: This platform needs to have the 180 platform rotation.**

**NOTE: Boom control to be located manf. standard location**

**NOTE: Single step on side of platform**

**NOTE: Platform to stow in the end-hung position**

2. 1 Soft platform cover for one man platform, 24 x 48 inches \_\_\_\_\_

3. 1 Platform Liner – for one-man fiberglass platform, 24 x 48 inches, 50 kV rating (minimum) \_\_\_\_\_

4. 1 Reservoir, 25 gallon capacity. **Reservoir to be located at front SS cargo area. Include a removable reservoir guard, protective cover made of square tubing, bolt down.** \_\_\_\_\_

5. 1 Engine start/stop with Secondary Stowage System, 12 VDC electric powered. Includes auxiliary pump and electric motor, powered by the chassis battery. Control is captive air operated from the platform and toggle switch operated from the lower controls. This option allows the operator to completely stow the booms and platform in a situation wherein the engine, PTO or pump fails. \_\_\_\_\_

**NOTE: Include toggle switches at rear of tail shelf, one each side, near outrigger controls.**

6. 1 Hydraulic tool circuit located at platform. Include HTMA couplers with dust caps. System to supply 6.0 gpm and 2000 psi \_\_\_\_\_

7. 1 A-Frame Primary outrigger installed at front of body with 158" of spread at max. Penetration. \_\_\_\_\_

**NOTE: Outrigger shoes to be approx. 18" x 18" with 45 degree rowed edges.**

- |     |   |   |       |       |
|-----|---|---|-------|-------|
| 8.  | 2 | Fall Protection System to include one extra large (44-52 equivalent jacket size) body harness and six (6) foot fixed length decelerating type lanyard. Harness has tongue buckle type strap for leg, waist and shoulder. Decelerating lanyard has 1.0 inch nylon webbing with rip-stop deceleration device. | _____ | _____ |
| 9.  | 1 | Rubber Wheel chocks, (pair) 10 inches long x 9 inches wide x 5-3/4 inches high installed in body, one each side   | _____ | _____ |
| 10. | 1 | Hydraulic Bucket Dump System: Controls located both the upper platform controls and at the turntable to allow the operator to dump the bucket to remove debris or water.  | _____ | _____ |
| 11. | 1 | Throttle Control Interface for electronic engines, manual 2-speed, increases engine speed when needed for proper hydraulic system operation   | _____ | _____ |

**UNIT AND HYDRAULIC ACCESSORIES**

- |    |   |   |       |       |
|----|---|---|-------|-------|
| 12 | 1 | Scuff pad for 24 x 48 inch platform liners to protect liner floor.<br><b>NOTE: This scuff pad needs to be the Plastic Technique, INC (PTI) brand with built in corner step. No exception. #704-20806</b>  | _____ | _____ |
| 13 | 1 | Lower Boom Stow Protection: To help prevent excessive down pressure by boom structures when stowing.  | _____ | _____ |
| 14 | 1 | Hydraulic oil and lubricants  | _____ | _____ |
| 15 | 1 | Power take-off to be installed in conjunction with automatic transmission   | _____ | _____ |
| 16 | 1 | Hydraulic pump, vane type, for open center hydraulic operations, installed  | _____ | _____ |
| 17 | 1 | Power Distribution Module is a compact self-contained electronic system that provides a standardized interface with the chassis electrical system. The Power Distribution Module (PDM) is composed of a main board, approximately 12.0 x 13.0 inches (305 x 330 mm), designed to be mounted behind the driver's seat, inside the cab. Additional modules plug in to accommodate various options such as engine start/stop, variable throttle control, power take off, interface with Allison World transmission, and engine speed control module for specific engines and chassis. In addition to the above potential options, the PDM also provides up to 16 accessory circuits to be used for controlling other customer specified electrical components. The PDM includes built in test capabilities and diagnostic input, output and status LED's to quickly assess the | _____ | _____ |

PDM's performance. All components are circuit board mounted to facilitate replacement and reduce repair time should it be required.

The PDM provides benefits to the customer by providing a standardized, centrally located box that greatly reduces troubleshooting time when evaluating ancillary electrical system malfunctions, thereby reducing maintenance costs.

**NOTE: PDM to be installed on back wall of cab, not on floor**

- |     |   |  |       |       |
|-----|---|--|-------|-------|
| 18. | 1 | Hydraulic tool circuit, with one set of quick disconnect HTMA couplings, dust caps, and control valve, installed at tail shelf to supply 6.0 gpm and 2000 psi installed at CS of tail shelf. | _____ | _____ |
| 19. | 1 | Subbase assembly consisting of 4 x 4 inch rectangular tubing on each side for mounting of pedestal and outriggers. The subbase provides torsional stiffness and strength                     | _____ | _____ |

**BODY**

- |    |   |   |       |       |
|----|---|---|-------|-------|
| 20 | 1 | Body, suitable for installing on any chassis with an approximate dimension of <b>128" CLEAN CA</b> , built in accordance with the following specifications, including a walk-in step: (Final CA to be determined) | _____ | _____ |
|----|---|---|-------|-------|

A Body: Fabricated from A60 grade 100% zinc alloy coated steel with the following minimum gauge thickness:

- 16 gauge outside panels
- 16 gauge top panels
- 14 gauge end panels
- 20 gauge inner door panels
- 20 gauge outer door panels
- 18 gauge shelving, spangled steel
- 14 gauge wheel panels
- 12 gauge steel floor, formed checker plate
- Structural channel cross members
- Wheel chock holders installed one each side of body panel
- Drop-in tailboard at rear of cargo area

B Body Dimensions:

- 158 inch overall body length (engineering to determine)
- 93 inch outside width
- 46 inch body height
- 18 inch compartment depth
- 57 inch floor width

C Compartmentation – Right Side - Curbside: \_\_\_\_\_

First Vertical – (26") Seven (7) swivel and hocking material Hooks installed as high as possible. All hooks to be Configurable up-down.

Second Vertical – (24") Four (4) adjustable shelves with dividers on 4" centers.

Third Vertical – (24") One fixed shelf with dividers on 4' center installed 10" down from compartment top. One (1) "Lube Mate" (1-800-400-0124) drawer kit installed below shelf. Drawer kit to have five drawers. Top three drawers to be 3" high and bottom two drawers to be 5" high. Each drawer to 15"D x 23"W. Each drawer to have egg-crate design.

Horizontal – (58") Two (2) "Lube Mate" drawer kits installed side-by-side and center in compartment. Both kits to have two drawers 3" high. Bottom of drawer to be even with door seal. Each kit to be 15D x 23" W. Each drawer to be egg-crate design. One (1) adjustable shelf with dividers on 4" center installed above drawer kits.

Rear Vertical – (26") Seven (7) swivel and locking material Hooks installed as high as possible (2-3-2). All hooks to be Configurable up-down.

D Compartmentation – Left Side – StreetSide:

First Vertical – (26") Four (4) adjustable shelves with dividers on 4" centers.

Second Vertical – (24") Seven (7) swivel and locking and Material hooks installed as high as possible. All hooks to be Configurable up/down. 2-3-3.

Third Vertical – (24") One fixed shelf with dividers on 4' center Installed 10" down from compartment top. One (1) "Lube Mate" (1-800-400-0124) drawer kit installed below shelf. Drawer kit to have five drawers. Top three drawers to be 3" High and bottom two drawers to be 5" high. Each drawer to 15"D x 23"W. Each drawer to have egg-crate design.

Horizontal – (58") One adjustable shelf with dividers on 4" center

Rear Vertical – (26") Seven (7) swivels and locking material hooks installed as high as possible. All hooks to be configurable up/down. (2-3-2).

Hot stick Shelf - Installed 9" down from compartment top, rear drop-down door. Shelf from front of 3<sup>rd</sup> vertical to rear.

E. Standard Features:

Basic body fabricated from A40 grade 100% zinc alloy coated steel

All doors are full, double paneled, self-sealed with built-in drainage. Electro-zinc plated, steel hinge rods extend full length of door. Door hinges are zinc alloy material attached

with rivets

All doors contain flush type, single point type locks with recessed handles, including keyed locks and adjustable two-stage strikers. Door handles are riveted to the outer door panel. Back panel has opening for easy access. Latch cover on horizontal doors.

Heavy-gauge welded steel base construction, with safety tread floor.

Door header drip rail at top for maximum weather protection.

Neoprene fenderettes on fender panels

Automotive underseal applied to entire understructure.

Prime painted.

Automotive type non-porous door seals mechanically fastened to door facing.

22	2	Wheel chock holders installed, one (1) each side of body in fender panel	_____	_____
23	1	"Rope" style compartment lighting installed at top and along sides of each compartment. Master switch in cab.	_____	_____
24	1	Drop-in 2" x 6" pressure treated wooden tailboard installed at rear of body.	_____	_____
25	1	Rigid door holders on all vertical doors, no air cylinders	_____	_____
26	1	Chains on horizontal door	_____	_____
27	1	Stainless steel rotary paddle latches on all doors	_____	_____
28	1	Steel window guard made of square tubing installed in front of body. Guard to be used to hold the strobe and Go-Light brackets.	_____	_____
29	1	Steel tread plate installed on compartment top, both side.	_____	_____
30	1	Security lock system installed to allow left and right side compartments to be padlocked at the rear of the body. Padlocks are to be furnished by the customer.	_____	_____

**BODY ACCESSORIES**

31	1	Bicycle style wire reel rack, 4 tiers, to store tri-plex. Reel to be located at drawing review	_____	_____
32	1	Steel Tread plate Tail shelf, approx. 40" long installed at rear of body. Curbside of tail shelf to have recessed grip strut steps 26" wide for access to cargo area. Include through compartment for shovel storage in tail shelf approx., 65"L x 8"H x wide as possible in access step area; with drop down door on each side with "T" handle	_____	_____



latch.

NOTE: Platform to stow in end-hung position and to be flush with edge of tail shelf. Final dimensions to be determined by engineering.

- |    |   |  |       |       |
|----|---|--|-------|-------|
| 33 | 1 | Fixed Grip strut step installed below access steps. Step to be 2" outside of body.   | _____ | _____ |
| 34 | 1 | Air coupler quick disconnect located at curbside front outrigger. Installed at 45 degrees with dust cap.   | _____ | _____ |
| 35 | 2 | Grab handle installed at access steps, one sloping type on rear of body and one hoop style bolted on side of tail shelf.   | _____ | _____ |
| 36 | 1 | Boom rest installed between cab and front of body.   | _____ | _____ |
| 37 | 1 | Splash aprons, one Altec pair, installed   |       |       |
| 38 | 1 | Rubber Wheel chocks, (pair) 10 inches long x 9 inches wide x 5-3/4 inches high   | _____ | _____ |
| 39 | 1 | Reservoir guard made of square tubing to cover entire reservoir but access to filler cap. Guard to be removable.   | _____ | _____ |
| 40 | 2 | Wooden Outrigger pads, 24" x 24" x 2 1/2", with rope handles.  | _____ | _____ |
| 41 | 2 | Outrigger pad holders for wooden pads to be installed one each side.   | _____ | _____ |
| 42 | 1 | Pipe style cone holder installed on StreetSide front outrigger   | _____ | _____ |
| 43 | 1 | One (1) Steel Rubber Goods Tread plate Box, top opening, carpet lined on bottom and all sides; 132" long x 18"D x 10"H. Installed on CS compartment top at rear of body. Access to box from cargo area. Box to have two (2) gas struts and two (2) evenly spaced grab handles BOLTED to the top of the lid. Box to be installed on 1" spacers. Full lid on all four sides and water tight as possible. Provide two (2) rubber hold down latches. Include non-skid on top of box. | _____ | _____ |
| 44 | 1 | Triangular reflector kit, ship loose   | _____ | _____ |
| 45 | 1 | Ten pound fire extinguisher with heavy duty mounting bracket, shipped loose  | _____ | _____ |
| 46 | 1 | One Punched Steel storage basket installed on top of 1 <sup>st</sup> vertical curbside. Basket to be approx. 10"high x 18"deep x 26 wide installed on 1/2 spacer for cleanout.   | _____ | _____ |

- 47 1 Prime Design ladder Rack for use with extension customer supplied extension ladder. Rack to be horizontal stow on StreetSide compartment top; with access from rear of body. \_\_\_\_\_
- 48 1 T-125 style heavy duty pintle hook with spring, with chassis frame reinforcement and two (2) safety "D" rings installed 28" (+/-1) \_\_\_\_\_
- 49 1 Wire spool rack. Rack to hold four (4) 15" diameter by 5" wide reels. Include pins to hold reels in place. Rack to be bolted to cargo floor. Location to be determined at drawing review \_\_\_\_\_

**ELECTRICAL ACCESSORIES**

- 50 1 Lights and reflectors in accordance with FMVSS #108 lighting package, installed. All lights including reverse lights to be LED. \_\_\_\_\_
- 51 1 Compartment lights installed in each compartment. Wiring installed in loom with master switch in cab. \_\_\_\_\_
- 52 1 Trailer Receptacle, installed at rear. Berg 7-way (RV style) \_\_\_\_\_
- 53 1 Electric Trailer Brake Controller, To be installed in cab to the right side of the steering wheel. \_\_\_\_\_
- 54 2 Two Amber strobes installed at left and right side of boom rest/cab guard with master switch and indicator light in cab. Strobe light is to be visible from the front and rear of the vehicle. Location to be determined at drawing review. \_\_\_\_\_
- 55 1 4-Corner strobe lighting, one Amber and one Blue LED front grille surfaced mounted lights and rear grommet mounted lights in tail shelf. \_\_\_\_\_  
 Grill Blue - 970649551.....installed on street side  
 Grill Amber - 970363839.....installed on curbside  
 Rear Blue - 970410843.....SS  
 Rear Amber - 970031306.....CS
- 56 1 All SIX (6) strobes to be wired to one (1) master switch with indicator light in cab. Wired battery hot. \_\_\_\_\_
- 57 1 One (1) Aero-Motive spring loaded grounding reel, Model GR-900 with 40 feet of 1/0 yellow jacketed cable with "C" clamp. Reel to be installed on CS front outrigger. NOTE: Include (2) stainless steel grounding lug. One at CS rear of \_\_\_\_\_

tail shelf installed off chassis frame and one at CS front outrigger leg.

- |    |   |  |       |       |
|----|---|--|-------|-------|
| 58 | 3 | Utility work lights, LED type. One installed off boom rest to light cargo area. Two lamps in fender panel, one each side. Master switch inside of cab.   | _____ | _____ |
| 59 | 2 | Go-Light Stryker-HID Model #30003 Portable Magnetic mounts light. Includes wireless hand-held controller. White in color. Include two (2) brackets to be determined at drawing review; include 12v power points near each bracket.   | _____ | _____ |
| 60 | 1 | Power Distribution Module (PDM) for electronic system – to be installed behind on wall of cab chassis, not on floor.   | _____ | _____ |
| 61 | 1 | Outrigger Motion Alarm: Provides audible alarm when any of the outriggers are in motion.   | _____ | _____ |
| 62 | 1 | Backup alarm, installed at rear. Backup alarm adjusts automatically to provide from 87 to 112 decibels alarm, depending on ambient noise conditions. Alarm is installed in 4.5 inch diameter hole with rubber grommet and is wired to chassis backup lights. Installation at rear provides a protected environment for alarm, free from damage from road spray and debris. | _____ | _____ |
| 63 | 1 | Start/Stop and Secondary Stow toggle switch located at rear of tail shelf, one each side.  | _____ | _____ |
| 64 | 1 | Hour meter installed to record PTO operating hours   | _____ | _____ |
| 65 | 1 | Directional Light Bar, LED type, Signal Master 42" installed on rear of tail shelf; include tread plate eyebrow over bar. Controls inside of cab.  | _____ | _____ |
| 66 | 1 | Magnum Dimensions Pure Sign Inverter, 2400 watt installed in bottom of 1 <sup>st</sup> vertical curbside with master switch in cab. Include two GFIC 120 receptacle; one at CS front of body as high as possible and one at SS rear of tail shelf installed on side of tail shelf.   | _____ | _____ |
| 67 | 1 | Back-up Camera, 7", LED backlighting with anti-glare screen. Sun-shield; auto-dimmer. Camera kit includes camera, monitor, and all cable for install. Monitor to be determined at drawing review. (p/n 9703-12497)   | _____ | _____ |
| 68 | 1 | Install three (3) lighted rocker switches labeled as "spare". Each switch to be 20 amp and tied into the PDM box   | _____ | _____ |

69 1 Install Speaker Wire in conduit with 2' pig-tail at each end. One end in cab and one at CS of window guard. \_\_\_\_\_

70 1 Install Altec MP System for in-cab accessory switch panel. Includes dual lit switches for function identification and function activation. \_\_\_\_\_

NOTE: All switches to be installed in overhead console of chassis

**INSTALLATION**

71 1 Mounting Aerial Device \_\_\_\_\_

72 1 Aerial Device painted white (power-coat paint process) \_\_\_\_\_

73 1 Mounting body and accessories \_\_\_\_\_

74 1 Complete under-coating of body. (Black) \_\_\_\_\_

75 1 Painting body and accessories white \_\_\_\_\_

76 1 Black Martex non-skid paint to be applied to all flat surfaces including cargo floor, tail shelf, and compartment tops. \_\_\_\_\_

77 1 Safety and Instructional Signs, installed \_\_\_\_\_

78 1 Vehicle height placard is to be placed in view of driver \_\_\_\_\_

79 1 Delivery of completed vehicle to: \_\_\_\_\_

City of Seward  
1345 River Street  
Seward, NE. 68434  
ATTN: Jared Hochstein  
402-643-3151 (office)

80 1 DOT certification of completed vehicle \_\_\_\_\_

**MISCELLANEOUS**

81	1	One (1) year parts warranty	_____	_____
82	1	One (1) year labor warranty	_____	_____
83	1	Ninety (90) days travel warranty	_____	_____
84	1	For so long as the initial purchaser owns the product, major components warranty at an service facility	_____	_____
85	1	SVP Systems Group Center Console, Model 10-AEP Tall12 (p/n9703-98260)	_____	_____

**CHASSIS**

2016 Freightliner M2-106, Regular Cab, white  
4 x 2 drive  
33,000 GVWR  
196" wheel base with 130 CLEAN CA, 100" AF  
Allison 3000 RDS Automatic Transmission  
Cummins engine, 285 hp, geared at 66 mph  
Axle, front: 13,000 pounds capacity min. with 14,000 suspension  
Axle, rear: 20,000 pound capacity min. with 21,000 lb. suspension  
11 R22.5 H Highway tread front tires, Goodyear G662RSA or equal  
11 R22.5 H Traction tread rear tires, Goodyear G182RDS or equal  
Horizontal muffler with CS horizontal tailpipe  
50 gal fuel tank driver side with 6 gal DEF tank  
Driver Controlled Locking Differential  
Positive /Negative for jump start  
Engine Block Heater  
Air Rider Driver Seat including dual arm rest  
Air Ride Passenger Seat including dual arm rest  
Air Brakes  
Air Dryer  
Two (2) External Power Points in cab  
External Grab Handles on both driver and passenger side  
Dual West Coast Style Mirrors, with convex  
160 Amp Alternator  
Air Conditioning  
Power Windows  
Power Locks  
Fm Radio