



CITY COUNCIL/ELECTRICAL
ADVISORY COMMITTEE

April 9, 2014 – 6:00 p.m.
Regular Meeting

CITY COUNCIL

Marc Tall, Mayor
Ronald Beauchamp, Mayor Pro-Tem
Patricia Baribeau, Council Member
Ralph Blasier, Council Member
Vacancy, Council Member

ADMINISTRATION

James V. O'Toole, City Manager
Robert S. Richards, CMC, City Clerk
Ralph B.K. Peterson, City Attorney
Mike Furmanski, Electrical Superintendent
Michael Dewar, City Controller

ELECTRICAL ADVISORY COMMITTEE

Tim Wilson, Chairperson
Ann Bissell, Vice Chairperson
Larry Arkens, Committee Member
Glendon Brown, Committee Member
John Anthony, Committee Member
Vacant Seat
Vacant Seat

Escanaba City Council Chambers: 410 Ludington Street - Escanaba, MI 49829

Meeting Agenda

Wednesday, April 9, 2014

CALL TO ORDER
ROLL CALL
APPROVAL/ADJUSTMENTS TO THE AGENDA
CONFLICT OF INTEREST DECLARATION
PUBLIC HEARING

1. **Public Hearing – May 6, 2014 Referendum**

Explanation: Council will conduct a public hearing on the upcoming referendum scheduled for May 6, 2014. If the referendum is approved, the Council will be granted the authority to dispose of the power plant equipment and assets, including up to 40 acres of real property.

NEW BUSINESS

1. **Update - Electric Department –General Operations.**

Explanation: Electrical Superintendent Mike Furmanski will update the City Council, Electrical Advisory Committee and Citizens of Escanaba on the current departmental activities.

2. **Update– Operation and Maintenance of Power Plant – Pro Energy Services, Inc.**

Explanation: Pro Energy Services, Inc. will update the City Council, Electrical Advisory Committee and Citizens of Escanaba on the status of the operation and maintenance of the power plant.

3. **Approval – New Service Truck.**

Explanation: Administration will seek Council approval to purchase a new service truck from Utility Sales and Service of Appleton, WI.

Agenda - April 9, 2014

4. Approval – Coal Purchase.

Explanation: Administration will seek Council approval to purchase coal from the C. Reiss Coal Company.

5. Update – Power Plant Purchase Agreement/Sale.

Explanation: An update on the sale of the power plant will be provided.

GENERAL PUBLIC COMMENT

COMMISSION/STAFF COMMENT AND ANNOUNCEMENTS

ADJOURNMENT

The City of Escanaba will provide all necessary, reasonable aids and services, such as signers for the hearing impaired and audiotapes of printed materials being considered at the meeting to individuals with disabilities at the meeting/hearing upon five days notice to the City of Escanaba. Individuals with disabilities requiring auxiliary aids or services should contact the City of Escanaba by writing or calling City Hall at (906) 786-9402.

Respectfully Submitted,



James V. O'Toole
City Manager

OFFICIAL PROCEEDINGS
CITY COUNCIL
ELECTRICAL ADVISORY COMMITTEE
CITY OF ESCANABA, MICHIGAN
Special Joint Meeting
Wednesday, March 12, 2014

Pursuit to a meeting notice posted March 6, 2014, the meeting was called to order by the Mayor Marc D. Tall at 6:00 p.m. in the Council Chambers of City Hall located at 410 Ludington Street.

Present: Mayor Marc D. Tall, Council Members, Patricia A. Baribeau, Ronald J. Beauchamp, Ralph B. Blasier, and Leo J. Evans

Absent: None

Present: Electrical Advisory Committee (EAC) Members: Chairperson Tim Wilson, Jon Anthony, Larry Arkens, and Ann Bissell.

Absent: Glendon Brown, Two vacancies, and Power Plant Liaison.

Also Present: Electric Superintendent Mike Furmanski, Jack Scott of Pro Energy Services, Inc., Cheryl DeTiege of Escanaba Green Energy (EGE), members of the public and media.

Evans moved, Blasier seconded, **CARRIED UNANIMOUSLY**, to approve the agenda as submitted.

UNFINISHED BUSINESS – None

CONFLICT OF INTEREST – None

PUBLIC HEARING – None

NEW BUSINESS

Update - Electric Department –General Operations.

Electrical Superintendent Mike Furmanski updated the City Council, Electrical Advisory Committee and Citizens of Escanaba on the current departmental activities.

- Crews working on frozen water lines;
- Discussions ongoing regarding the Interconnection Agreement;
- Briefly reviewed cause of last month's outage;
- Pursuing cost of a thermo imaging camera and how it would be used;

Update– Operation and Maintenance of Power Plant – Pro Energy Services, Inc.

Jack Scott of Pro Energy Services, Inc. updated the City Council, Electrical Advisory Committee and Citizens of Escanaba on the status of the operation and maintenance of the

power plant. The following was discussed:

- Unit #1 operated 3 days, #2 unit ran two days during March;
- Discussed emergency coal purchase, and unusable coal sitting on the dock;
- Miscellaneous boiler repairs;
- Combustion Turbine ran for one day last month;
- No accidents or outages during the month.

Update – American Transmission Company.

Brett French from the American Transmission Company, LLC (ATC) provided an update on the transmission system in the area. (See Attachment – A)

Approval – Geosyntec Consultants.

Administration sought Council approval of a Geosyntec proposal to do further environmental work as requested by the Michigan Department of Environmental Quality (MDEQ).

Administration advised the MDEQ required additional site investigation to fully characterize the groundwater discharge of arsenic and to submit a mixing zone of de minimis discharge determination to close the site. Administration additionally reviewed the scope of work required and the need for the installation and survey of two new permanent monitoring wells.

NB-4 After further discussion, Blasier moved, Evans seconded, to approve a proposal from Geosyntec Consultants, for an amount not to exceed \$74,800, to do further environmental work at the Escanaba Generating Station as requested by the MDEQ.

Upon a call of the roll, the vote was as follows:

Ayes: Blasier, Evans, Beauchamp, Baribeau, Tall

Nays: None

MOTION CARRIED.

Approval – Coal Purchase.

Administration reviewed the need to purchase coal from Robindale Energy Services due to the quality of coal currently on the dock. After discussion, the following motion was made:

NB-5 Evans moved, Blasier seconded, to approve to purchase coal from Robindale Energy Services coal at \$123 per ton up to 5,800 tons.

Upon a call of the roll, the vote was as follows:

Ayes: Evans, Blasier, Baribeau, Beauchamp, Tall
Nays: None

MOTION CARRIED.

Update – Power Plant Purchase Agreement/Sale.

An update on the sale of the power plant was provided by Cheryl Detiege. (See Attachment – B)

- The moving of funds were contemplated to occur shortly;
- All closing documents needed in Spain was completed;
- When confirmation of the moving of funds was received, a closing date would be provided.

Discussion – Power Plant Referendum.

The City Clerk provided an update on the referendum for the May 6, 2014, special election, which if approved, would grant authority to the City Council to not only sell the Power Plant for continued plant operations, but allow the City Council to dispose of the Power Plant equipment and assets including up to the 40 acres of real property where said assets are located.

GENERAL PUBLIC COMMENT – None

COUNCIL/COMMITTEE, STAFF REPORTS – None

ADJOURNMENT

Hearing no further public comment, or further reports from the Electrical Advisory Committee or Council, the meeting adjourned at 6:47 p.m.

Respectfully submitted,

Robert S. Richards, CMC
City Clerk

Approved:

Marc D. Tall, Mayor

Contact information

Brett French

External Relations Manager

(906) 779-7902 Office

(906) 396-1148 Cell

bfrench@atcllc.com

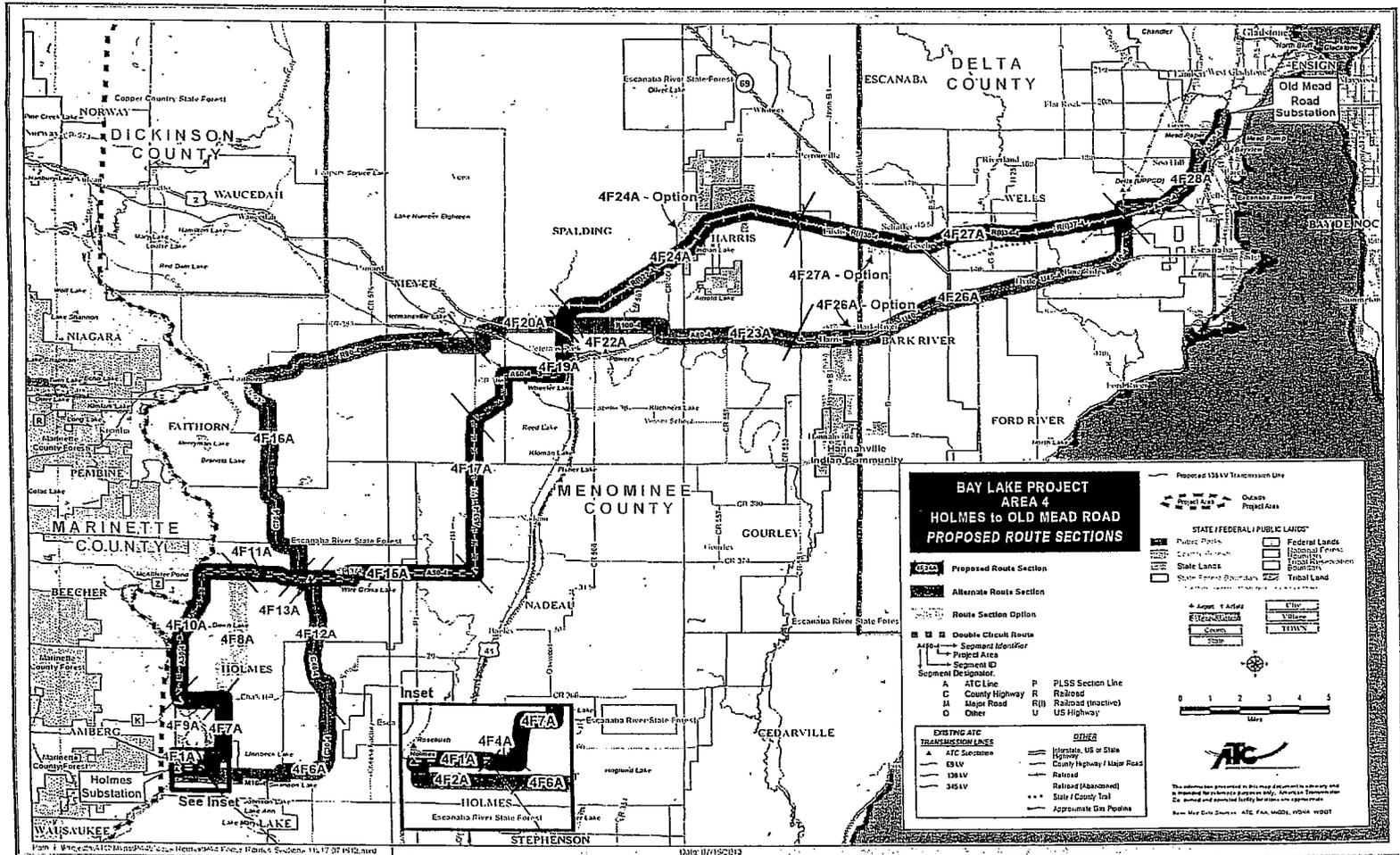


North Appleton – Morgan Benson Lake SVC

- Approved by MISO under MTEP 2012
- New 345-kV and 138-kV transmission lines and related transmission line and substation upgrades
- Static var compensation at Benson Lake Substation
- Routing & siting completed
- CPCN application under development
 - Submission to PSCW planned for March 2014
 - Anticipate PSCW Order in Spring of 2015
- Construction to commence 2017
- Targeted in-service date 2019



HOMR Proposed and Alternative Routes



Holmes – Old Mead Road

- Approved by MISO under MTEP 2012
- Routing & siting completed
- CPCN Approved by MPSC
 - “Proposed Route” was Ordered
- Construction to commence Q4 2014
- Targeted in-service date Q3 2016



Arnold Substation

- Addition of a new 345/138-kV transformer and related substation upgrades
- Provides additional source to Delta County
- Increases operational flexibility
- Increases ability to perform maintenance
- Requires HVDC to manage increased west - east flows
- Targeted in-service date of Q4 2014/Q2 2015



Chandler – Old Mead Road

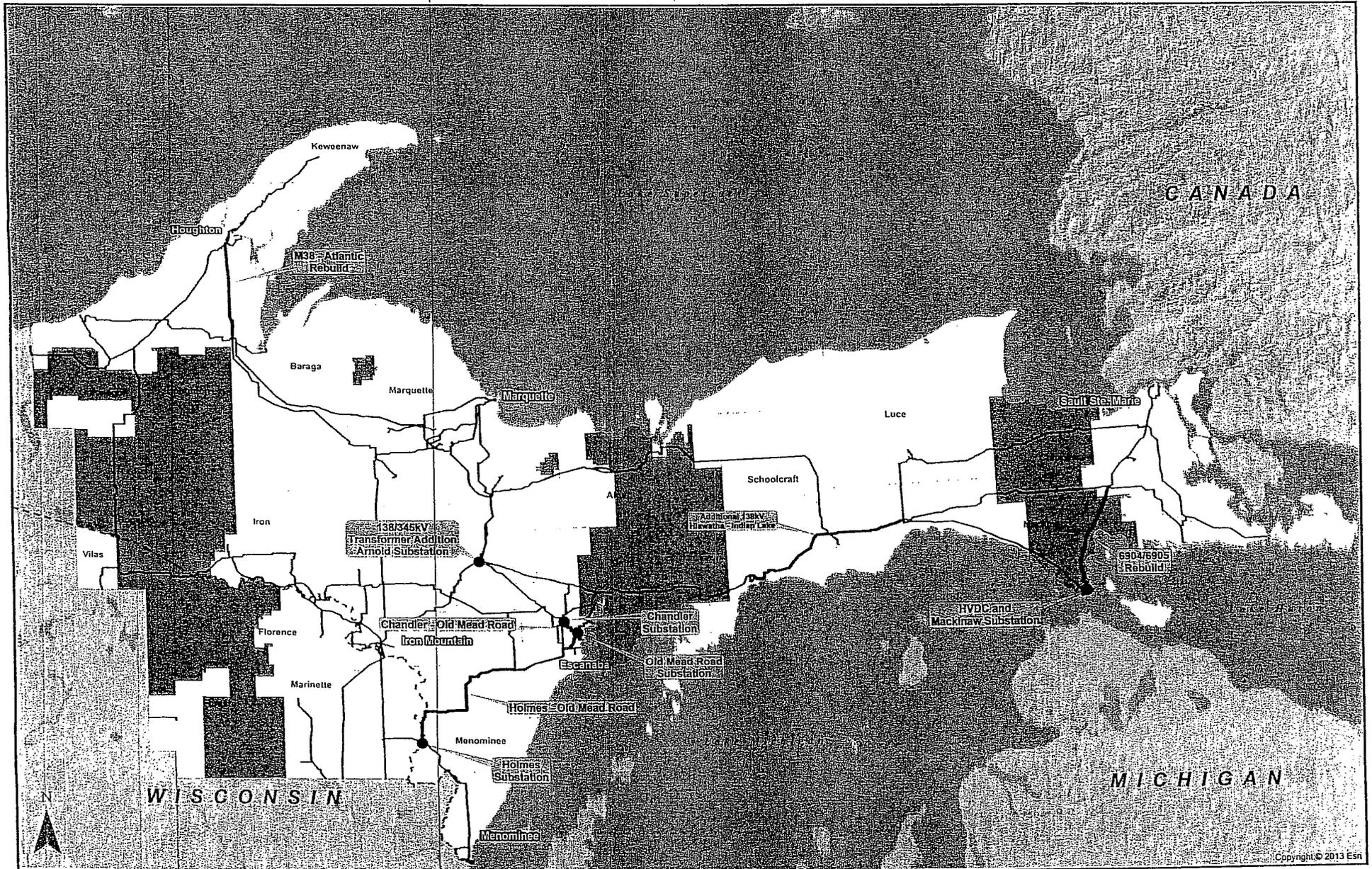
- Construction of a new 138/69-kV “Old Mead Road” substation near the NewPage Paper Mill
- Construction of ~6 miles of new 138/69-kV transmission line between Chandler and Old Mead Road substations
- Construction started Q3 2013
- Targeted in-service date of Q3 2014



HVDC Flow Control

- Installation of high-voltage, direct-current (HVDC) flow control device and related substation equipment
- Necessary to manage excessive system flows
- MISO Board approval conferred June 2011
- Construction started Q2 2012
- Targeted in-service date of July 2014





Project Updates

- Michigan projects:

- HVDC Flow Control
- Chandler – Old Mead Road
- Arnold Substation Expansion
- Holmes – Old Mead Road

- Wisconsin projects:

- North Appleton – Morgan
 - New 345-kV and 138-kV transmission lines and related transmission line and substation upgrades
- Benson Lake Static var compensator





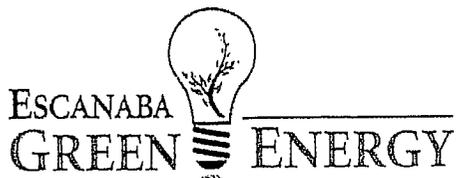
Helping to keep the lights on,
businesses running
and communities strong®

ATC Project Update

March 2014

Brett French, External Relations Manager

atcllc.com



March 6, 2014

Dear Jim:

Here is EGE's latest update.

As you know representatives of Corban/Realty Financial Group went to Spain over the weekend to meet with both the Spanish law firm and the funding banks. These meetings were completed successfully as any last closing conditions and obstacles to having funds sent to the US were checked off. The moving of the funds should take place this week or Monday.

As you also know EGE has received all documents related to the closing and they are now being reviewed by EGE and its counsel. The documents are in large part acceptable so finishing this piece of the closing appears to be able to be accomplished very quickly.

Instructions for Delta Title and the title insurance policy have been outlined. Final arrangements for the lender's compliance engineer - firm responsible for approving work being done on the project and draws - are being completed. EGE has selected two possible compliance firms and Corban RFG will select one. This scope and process have already been established.

Corban and the law firm have suggested that a call is not necessary since EGE has received a letter confirming the funds and will receive a closing date when the funds are in a US account. EGE is able to share the letter with you but it is not a document that can be put on the public record for confidentiality reasons.

RFG anticipates that it will be ready to close in the next two weeks.

As always, if you have questions or concerns, please call me.

Regards.

(original signed)

Charles Detiege

Escanaba Operating Services
Monthly Report
March 2014



Escanaba Generating Station

**Escanaba
Operating
Services**

Executive Summary

The power plant was operated during the month of March 2014, as described in the tables below.

There is **6343** tons of coal on the dock. The OSHA incident, rate for March is zero.

Key Performance Indicators

Measure	Unit of Measure	Month	Year to Date
Steam Plant Gross Electrical Generation	MWH	1421	8459
Unit 1 Net Electrical Generation	MWH	1232	4039
Unit 2 Net Electrical Generation	MWH	0	3389
Unit 1 Hours of Operation	Hours	168	320
Unit 2 Hours of Operation	Hours	0	216.4
Coal Consumption	Tons	728	4835
Coal on Dock	Tons	6343	6343
Steam Plant Net Heat Rate	BTU/KWH	n/a	n/a
Plant Availability	%	100%	88%
Combustion Turbine Gross Electrical Generation	MWH	37	215
Combustion Turbine Station Service	MWH	48.6	158.2
Combustion Turbine Hours of Operation	Hours	7.6	43
Fuel Oil Consumption	Gallons	7236	40195
Combustion Turbine Availability	%	100%	100%

Operations Summary

Unit Starts

Unit 1 was started 1 time during the month. Unit 2 was not started during the month. The CTG was started once during the month.

Unit	Date	On-Line Time	Off-Line Time	Reason
1	03/01	06:14		Miso Request
1	03/09		00:04	Miso Request
2				
2				
CTG	03/03	06:14	10:01	Miso Request

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Unit Trips and Unplanned Outages

There were no unit trips during the month of March.

Unit	Date	Breaker Open Time	Unit Released	Duration (Hours)	Cause
1	None				
2	Note:				
CTG	None				

Planned Outages

Unit	Start Date	Start Time	End Date	End Time	Cause
1	None				
2	None				
CTG	None				

Forced Outages or Load Reduction Events

Unit	Start Date	End Date	End Time	Load Limit	Cause
1	None				
2	None				
CTG	None				

Maintenance Activities

Plant Major Maintenance Activities for March 2014

Unit 1

Routine maintenance and equipment replacements occurred throughout the month. Boiler 1 was not available for 2 days due to leaks in the boiler economizer.

Unit 2

#3 Coal Scale failed. Coal was fed in bypass mode.

Combustion Turbine

There were no repairs required on the Combustion Turbine/Generator.

Balance of Plant Outstanding Issues:

None

Emissions Compliance Overview-Air/Water

- There were no Air Monitoring deviations in the month of March.

Air Monitoring Deviations

Start Date	Start Time	End Date	End Time	Opacity Parameter	Cause
None					

Water – NPDES Permit Deviations

- There were no NPDES violations during the month of March.

Water – Groundwater

- There was one Groundwater deviations during the month of March.

Water Monitoring Deviations

Start Date	End Date	Parameter	Cause
3/31	3/31	pH	Melting of high pH ice.

Occupational Safety and Health Overview

OSHA Summary of Work Related Injuries and Illnesses

1) There were no OSHA work related injuries or illnesses during the month of March in spite of the severely cold weather conditions.

EH&S Incidents – (Near Misses and/or Property Damage)

1) There were no lost time accidents, near misses or property damage during the month.

Labor Statistics

Labor Statistics (Note: These statistics are for the 2014 calendar year from Jan 1 through December 31.)

Item	Month	Year to Date
Total Man-Hours Worked	2737.75	9222.25
Total Number of Standard Time (ST) Hours	2257.5	7574.5
Total Number of Overtime (OT) Hours	216.5	863.25
Total Number of Double Time (DT) Hours	264	784.75

cc/EAC 4/9/14

NB #3

MEMORANDUM

To: Jim O'Toole
From: Mike Furmanski *MF*
Date: 03APR14
Re: Bid Recommendation

Bid Recommendation for one (1) new 2015 single bucket insulated aerial device, utility body, and chassis.

Number of bids sent: 3
Number of bids received: 3

The bid from Utility Sales and Service, Inc of Appleton, WI meets our specifications. Their base bid was in the amount of \$104,365 for one new Ford truck, Brand FX utility body, and a Versalift aerial device.

The bid from DUECO, Inc of Waukesha, WI meets most of our specifications. Their bid was in the amount of \$117,685 for one new Ford truck, Brand FX utility body, and a Terex aerial device.

The bid from Altec Industries, Inc of Indianapolis, IN meets most of our specifications. Their bid was in the amount of \$129,171 for one new Ford truck, Brand FX utility body, and an Altec aerial device.

The Electric Department recommends accepting the base bid from Utility Sales and Service, Inc. of Appleton, WI as well as 2 options for a total of \$105,029. This truck meets all of our specifications, it is the lowest bid, and they have the shortest lead time.

There is \$120,000 in the current Electric Department budget for this truck.

**CITY OF ESCANABA
RECORD OF BIDS**

DATE BIDS OPENED: 26-Mar-14
DESCRIPTION OF ITEM: 2014 Single Bucket Insulated Aerial Device
Utility Body and chassis

NAME OF BIDDER	Aerial Body Access & Installation	CHASSIS	NET Price FOB Escanaba MI	MAKE	MODEL	Deliver Date	Certified Check
Utility Sales and Service ①	63,445	40,920	104,365	Versalift	V036	240 days	Cashiers Check
ALTEC Industries	84,580	44,591	129,171	Altec	L37P	270 days	Bid Bond
DUECO INC	76,615	41,070	117,685	Terex	HR37	290 days	Bid Bond

PRESENT: Bob Richards & Mike Furmanski

① \$600 deduct if pay for chassis when received by USS

Utility Sales &
Service Bid

NOTICE TO BIDDERS

Sealed bids will be received by the City of Escanaba at the office of the City Clerk, on or before 2p.m. e.s.t. on: **TUESDAY, MARCH 25, 2014**

The bids will be publicly opened and read in Room 101 in the City Hall located at 410 Ludington Street, Escanaba, Michigan at said date and time.

Bidder's proposals, and/or specifications may be obtained from the office of the City Clerk, located at 410 Ludington Street, Escanaba, Michigan, 49829. No bids will be considered unless the proposal form and /or specifications (furnished by the City of Escanaba, Michigan), are properly completed and enclosed in a sealed envelope, marked:

NEW 2014 SINGLE BUCKET INSULATED AERIAL DEVICE, UTILITY BODY & CHASSIS

In addition, the City of Escanaba, Michigan will not consider any proposal which has not been received prior to the published time, date and year of bid opening. (FAX transmittals will not be accepted.)

A Certified Check, Cashier's Check, or Bidder's Bond, drawn payable, without condition, to the City of Escanaba, Michigan, in an amount not less than 10% of the bid, will be submitted with each proposal as a guarantee that if the bid is accepted, the bidder will furnish materials or services as stated in his or her proposal. On failure of the successful bidder to fulfill the conditions of his or her proposal, he or she shall forfeit said deposit to the City of Escanaba, Michigan as liquidated damages. The acceptance of the proposal will be contingent upon the bidder's acceptance of this provision.

The City of Escanaba, Michigan reserves the right to reject any or all bids, or any part thereof at its discretion, and to waive any irregularities in the bidding. The City of Escanaba, Michigan may also split bids at its discretion. The City further reserves the right to negotiate directly with any and all bidders concerning any matter related to any bid.

All City of Escanaba, Michigan bids are prepared to afford all vendors the equal opportunity for fair and equitable competition. The City of Escanaba, Michigan assumes no liability or responsibility for any errors or oversights in the preparation and/or publication of bids.

Thomas J. Penegor
Purchasing Agent
City of Escanaba

SPECIFICATIONS

ONE (1) NEW 2014 SINGLE BUCKET INSULATED AERIAL DEVICE, UTILITY BODY, AND CHASSIS

INSULATED AERIAL DEVICE

AERIAL DEVICE-Articulating, insulated over-center 36' aerial device with side-by-side boom configuration for lower travel height. The aerial shall be manufactured in accordance with all MiOSHA and ANSI requirements and shall be equipped as follows:

COMPLY YES

REACHES & CAPACITIES

Platform Capacity	350 lbs
Height to Bottom of Platform	36'
Working Height	41'
Stowed Travel Height	10' 0" (+/- 2")
Horizontal Reach	29', 1"

COMPLY YES

PLATFORM-The closed fiberglass platform shall be 24" X 30" X 42" deep with an inside step and two (2) outside steps, one to the front and one to the rear, for easy access. The platform capacity shall be 350 lbs. The platform shall be side mounted and include a 90 degree hydraulic rotator to move to an end-mount position.

COMPLY YES

PLATFORM LINER- A 24" X 30" Platform liner with an inside step shall be provided. It shall be tested and rated for 50 KV AC.

COMPLY YES

PLATFORM ACCESS-Access to the platform shall be via two (2) steel gripstrut steps fabricated and installed, one (1) inside and one (1) on top of the curbside rear of the fiberglass body. A grab rail shall be installed on the curbside of the turret to assist with platform access. *The locations of the platform access components shall be determined at the pre-paint inspection.* The platform access components shall be painted BLACK.

COMPLY YES

SINGLE STICK PLATFORM CONTROL-Single stick control shall be mounted between the platform and boom and consist of a multi-jointed handle which operates the control valve. A safety trigger located on the underside of the single stick handle will not allow boom movement until the trigger is depressed. The control valve shall be full pressure and full flow. The operator can feather between the three control movements to provide multi-function boom action. An emergency stop control shall be provided.

COMPLY YES

PLATFORM LEVELING-Leveling shall be automatic by a totally enclosed #60 chain and ½" diameter fiberglass rod parallelogram system.

COMPLY YES

PLATFORM TILT-This option allows the platform to be tilted for clean out or rescue. A cam lock releases the platform and hydraulic dampeners limit the speed of the platform tilt.

COMPLY YES

ENGINE START/STOP-The start/stop circuit shall be designed so the lift cannot be operated unless the truck ignition switch is in the "RUN" position and the master control is activated. An air cylinder at the platform and a toggle switch at the pedestal shall be provided to actuate the engine start/stop control.

COMPLY YES

EMERGENCY POWER-This system shall consist of a hydraulic pump driven by a 12V DC motor, which is powered by the truck engine battery. The system shall be connected in parallel with the main pump and designed for non-continuous operation. An air cylinder at the platform and a toggle switch at the pedestal shall be used to energize this system.

COMPLY YES

UPPER BOOM ASSEMBLY-The upper boom shall articulate 190 degrees relative to the lower boom. The upper boom shall be actuated at the knuckle by a hydraulic cylinder and a four bar linkage. None-lube bushings shall be used at all pivot points. The hydraulic hoses shall be protected in all areas of boom movement by woven nylon hose protectors. An upper boom support with a ratchet type tie down strap and rubber platform support shall be included. The upper boom shall be tested and certified for electrical work at 46 KV and below in accordance with ANSI A92.2 requirements.

COMPLY YES

LOWER BOOM ASSEMBLY-The lower boom shall consist of a 6" x 8" rectangular steel section. The lower boom shall articulate from horizontal to 40 degrees past vertical for a total range of 130 degrees.

COMPLY YES

CHASSIS INSULATION SYSTEM (Lower Boom Insert)-The fiberglass insert shall provide an insulation gap of 12". The insert shall be mounted on the steel boom sections then adhesive shall be pumped in under pressure to fill all voids. A stainless steel stud shall be provided at each end of the insert to shunt the system during electrical testing. The insert shall be tested per ANSI A92.2

COMPLY YES

PEDESTAL-The pedestal shall be 35" tall and a tubular shape with an access opening on both sides. The top plate shall be 1-1/4" (32mm) thick and machined flat to support the rotation bearing.

COMPLY YES

TURRET-The turret wings shall be 1/2" steel plate. A steel tube shall be welded between the turret wings to increase rigidity. The base plate shall be machined flat to support the rotation bearing. A full coverage continuously welded bearing cover shall be provided to prevent foreign material from interfering with lift rotation.

COMPLY YES

ROTATION-Rotation shall be 370 degrees non-continuous with a mechanical stop. Rotation shall be accomplished by a hydraulically driven worm and spur gear set acting on a shear-ball rotation bearing. The critical bolts holding the turret to the rotation bearing and the bearing to the pedestal shall be SAE grade 8. These critical bolts shall be marked with a torque seal indicator to provide a quick means to inspect for loosening. A slotted adjustment shall be provided for pinion and rotation gear clearances. An external hex drive shall be provided for manual rotation in case of hydraulic failure.

COMPLY YES

LUBRICATION-Non-lube bearings shall be used at all point of motion. The rotation bearing and leveling system shall be the only components that require lubrication.

COMPLY YES

PAINTING-The complete unit shall be primed and painted prior to assembly. The metal portions of the aerial shall be urethane painted school bus yellow to match the chassis cab. The fiberglass portions of the aerial shall be gelcoated white.

COMPLY YES

HYDRAULIC OIL RESERVOIR-The hydraulic oil reservoir shall be an integral part of the pedestal. Sight gauges shall be provided to check the fluid level.

COMPLY YES

HYDRAULIC SYSTEM-The open center hydraulic system shall operate at 3 GPM at 2500 PSI. A 10 micron return line filter with bypass valve and a 100 mesh suction strainer shall be included. The system shall be filled with Mil. Spec. 5606 hydraulic oil. The system shall be powered by a transmission mounted PTO and hydraulic driven pump.

COMPLY YES

OUTRIGGERS-The A-frame outriggers shall be attached to the pedestal. The outriggers shall be equipped with pilot operated check valves, internal thermal relief valves, and separate controls. At maximum extension, the outriggers shall furnish 120" of spread and 9" of penetration and 17" of ground clearance.

COMPLY YES

OUTRIGGER BOOM INTERLOCK AND DOWN MOTION ALARM SYSTEM-The outrigger/boom interlock option is a feature designed to prevent the lift from being operated until the outriggers contact the ground. The interlock also prevents the outriggers from being retracted before the aerial lift is properly stored. An alarm shall sound when the outriggers are lowered.

COMPLY YES

LOWER CONTROL VALVES-Full pressure control levers at the turret control the following: rotation and raise functions on the upper/lower booms. The lower controls shall be equipped with a manual selector valve to override the upper controls.

COMPLY YES

SLOPE INDICATORS-Two (2) slope indicators shall be installed, one (1) on the passenger's side of the body and one (1) on the rear of the truck.

COMPLY YES

HOSES & FITTINGS-The hoses routed through the booms shall be high pressure, non conductive hoses with swaged hose end fittings. Protection shall be provided where hoses might chafe or rub. Plastic or woven nylon sleeves shall be installed over the hoses at all points of movement.

COMPLY YES

CYLINDERS-Cylinders shall be threaded end cap design and equipped with dual holding valves recessed into the base of each cylinder to prevent movement in case of hose failure. Bleed down ports shall be provided in case of hydraulic failure.

COMPLY YES

PINS-Pins shall be high strength alloy steel which are chrome plated and centerless ground for a hard finish and corrosion resistance. Pins shall be bolted in place with a welded pin tab at one end and a pin cap at the other for redundant retention.

COMPLY YES

ONE-YEAR WARRANTY-A one-year warranty for parts and labor shall apply to the aerial.

COMPLY YES

MANUALS-Two (2) operator's manuals and two (2) service manuals shall be included.

COMPLY YES

CONTOURED FIBERGLASS SERVICE BODY

BRAND FX MODEL #BFXB-84DLS FIBERGLASS SERVICE BODY MINIMUM DIMENSIONS-

Overall Length	132"
Overall Width	94"
Compartment Depth	20"
Compartment Height	42"
Load-bed Width	54"
Cab-to-Axle Application	84"

COMPLY YES

CONSTRUCTION

EXTERIOR WALLS & SURFACES-Body side compartments shall include a laminated PVC core to provide sufficient compression for strength and rigidity. Core shall be minimum 3/8" 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. gelcoat and .50 mil. skin coat. Front corners of the side compartments shall be protected with aluminum treadplate rock guards.

COMPLY YES

COMPARTMENT TOPS-The tops of the compartments shall have textured non-skid surfaces.

COMPLY YES

ALUMINUM COMPARTMENT TOP OVERLAYS-The tops of the compartments shall have textured non-skid surfaces.

COMPLY YES

CARGO FLOOR (ALUMINUM)-Loadbed floor shall be constructed of aluminum treadbrite. The loadbed floor shall be flanged up body sidewalls a minimum of 4". The loadbed floor shall be coated with black non-skid coating.

COMPLY YES

UNDERSTRUCTURE (STEEL)-Understructure shall be primed with a premium epoxy primer and finished with acrylic enamel paint.

COMPLY YES

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

COMPLY YES

DOORS-All body compartment doors shall be sandwich-style construction, consisting of a 2" thick lower density PVC core enclosed by a 1/8" fiberglass skin on each side. Structural core material shall have a minimum shear length 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.

COMPLY YES

WEATHERSTRIP-All doors shall be fitted with a specially designed automotive-type weatherstrip, for maximum assurance of weathertight compartmentation. The weatherstrip shall be removable to facilitate its replacement as required.

COMPLY YES

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. The horizontal compartment shall have rubber bumpers to prevent direct contact between the door and body.

COMPLY YES

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

COMPLY YES

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

COMPLY YES

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

COMPLY YES

SHELVING CONSTRUCTION-All shelves and hangar brackets shall be constructed of pultruded fiberglass. Shelves shall have 2" lips. Shelf dividers shall also be constructed of pultruded fiberglass.

COMPLY YES

LIGHTS AND ELECTRICAL-All exterior lights shall be provided in compliance with FMVSS-108 standards. All exterior body lighting shall be Truck-Lite brand (no substitutes). All exterior lights shall be flush-mounted and include rubber grommet shock mount fixtures. A lighted license plate bracket shall be furnished.

NOTE: Rear lights will be installed in the rear of the tailshelf.

COMPLY YES

COMPARTMENTATION

Curb-side – Front to Rear

First vertical, compartment deleted.

- Accessway with gripstrut steps and 2 grab handles.

Second compartment with single door.

- Four (4) adjustable fiberglass shelves with dividers.

Horizontal compartment with single door.

- One (1) Durham 18D small parts cabinet in rear portion of cabinet

Rear vertical compartment with single door.

- Five (5) locking swivel hooks mounted 1-3-1 at the top of the compartment.

COMPLY YES

Street-Side – Front to Rear

First vertical compartment with single door.

- Three (3) adjustable fiberglass shelves with dividers below the hotstick shelf.

Second vertical compartment with single door.

- Four (4) pullout drawers with dividers below the hotstick shelf.

Horizontal compartment with single door.

- One (1) fixed shelf with dividers below the hotstick shelf.

Rear vertical compartment with single door.

- One (1) adjustable fiberglass shelf with dividers below hotstick shelf
- Outrigger cutout towards the front of the compartment.
- Matted wall to the outrigger cutout.

COMPLY YES

COMPARTMENT LIGHTING-All compartments shall be illuminated by LED rope-type compartment lights mounted vertically on both sides of the door opening and horizontally across the top of each compartment. The lights shall be manually activated by an illuminated rocker switch, furnished and mounted on the chassis dash.

COMPLY YES

HOT STICK SHELF- One full-length hot stick shelf shall be provided in the streetside compartments with a rear drop down access door. Shelf surface shall be plywood lined

COMPLY YES

WHEEL WELL LINERS-Stainless steel wheel well liners shall be provided and installed.

COMPLY YES

WHEEL CHOCKS & HOLDERS-Two (2) wheel chock holders shall be provided, formed into the curb-side fender skirt. Two (2) rubber wheel chocks shall also be provided.

COMPLY YES

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

COMPLY YES

PAINTING-The complete unit shall be gelcoated School Bus Yellow to match the chassis cab, A Paint Chip will be provided of the gelcoat for Customer Approval

COMPLY YES

ACCESSORIES

WIRED-RITE SST SYSTEM-One (1) Wired Rite SST-4BX (stop, start & throttle) control system shall be provided and installed.

COMPLY YES

ALUMINUM SADDLE-TYPE TAILSHELF-A saddle-type rear tailshelf shall be furnished to facilitate bucket entry from loadbed level. Tailshelf shall be constructed from minimum 1/8" aluminum treadbrite. Size of tailshelf to be determined by area needed for bucket storage with no overhang past the bumper (24" X 30" bucket). The tailshelf shall include an approximately 6" high (5.5" I.D.) thru-storage shelf with two side compartments (height to be sized to allow the bottom of the tailshelf side compartments to be equal with the bottom of the body's side packs). The side compartments shall include vertically hinged doors and automotive type crimp on gaskets. Latches and hinges shall be stainless steel and keyed to match the body latches. The top of of tailshelf shall be coated with black non-skid paint

COMPLY YES

REAR BUMPER with RECESS-One (1) steel gripstrut rear bumper step shall be fabricated and installed. The bumper shall include a suitable recess for a hitch.

COMPLY YES

TOWING PACKAGE-Provide a towing package to include one 8-ton rated pintle hook, one (1) Cole-Hersee 1235 six-prong trailer socket, and one (1) pair of safety chain eyelets. Hitch shall be reinforced, with suitable channels to the chassis frame.

COMPLY YES

BACK-UP ALARM-One (1) backup alarm provided and installed.

COMPLY YES

MUD FLAPS-One (1) pair of rubber mud flaps shall be provided and installed behind the rear wheels.

COMPLY YES

SWING STEP AND GRAB RAIL-One (1) Sauber Manufacturing Model 8467 safety swing step shall be provided. The swing step shall incorporate an aluminum-bronze support with hot-dipped galvanized finish. A grab rail

shall be fabricated and installed to assist access to the cargo area. The swing step and grab rail shall be mounted at the rear CURBSIDE of the unit.

COMPLY YES

OUTRIGGER PADS AND PAD HOLDERS-Two (2) aluminum outrigger pad holders shall be provided and installed one (1) each under the front streetside and curbside compartments. Two (2) high density polyethylene outrigger pads shall be provided.

COMPLY YES

STROBE LIGHT-One (1) Star 200SD double-flash strobe light shall be provided and installed on streetside pipe mounted on the front of compartment. The light shall be manually activated by an illuminated rocker switch provided and mounted on the chassis dash.

COMPLY YES

LED WARNING LIGHTS-Two (2) STAR model DLXT-121-AA Amber Thinline, quad flash, LED warning lights shall be flush mounted in the top outward edges of the front chassis grille. Two (2) Star model LDHEF-4, 4" round, quad flash, LED warning lights shall be installed in the rear of the tailshelf. These warning lights will be manually activated by a single illuminated rocker switch mounted on the chassis dash.

COMPLY YES

DUAL REMOTE CONTROLLED WIRELESS SPOT LIGHTS-One (1) Go Light model #3067 spotlight shall be provided and installed. One (1) spotlight shall be installed on the curbside of the chassis hood area. The spotlights shall have wireless dash-mount control and hand held programmable remote controls secured by Velcro.

COMPLY YES

CONE HOLDER-One (1) steel single pole style cone holder shall be fabricated and installed on the rear street-side bumper step.

COMPLY YES

PTO HOUR METER-One (1) PTO hour meter shall be provided and installed to monitor the chassis PTO hours.

COMPLY YES

COLOR SCHEME

The body and aerial features shall be finished as follows:

- The metal portions of the aerial shall be Urethane painted **School Bus Yellow** to match the chassis color.
- The fiberglass portions of the aerial shall be gelcoated **White**.
- The body exterior shall be gelcoated **School Bus Yellow** to match chassis color.
- The body's floor and the top of the tail shelf shall be coated with a **black non-skid coating**.
- The compartment interiors and shelving shall be left in **natural fiberglass**.
- All steel surfaces normally painted shall be painted **black**.
- Any stainless steel, chrome or aluminum surfaces shall be left in an **unpainted state**.

COMPLY YES

CHASSIS SPECIFICATIONS

2014 FORD F-550 4X4 SUPER CAB CHASSIS WITH DIESEL ENGINE

POWERTRAIN-6.0L diesel engine * 175 amp alternator * 750 amp 78 amp hours (Ah) HD battery with run down protection * Engine block heater, transmission oil cooler * 6-speed electronic SelectShift automatic transmission with overdrive lock-up, driver selection * Rear-wheel drive * Limited slip differential, driveline traction control, power take-off provision * 4.88 axle ratio * Stainless steel exhaust

COMPLY YES, 6.7 Engine
200AMP Alternator

STEERING & SUSPENSION-Hydraulic power-assist re-circulating ball steering * 4-wheel disc brakes with front and rear vented discs * Firm ride suspension * Mono-beam non-independent front suspension * Front anti-roll bar * HD front coil springs * HD front shocks * Rigid rear axle * rear leaf suspension * Rear anti-roll bar * HD rear leaf springs * HD rear shocks *

Front and rear 19.5" x 6.00" argent steel wheels * LT225/70SR19.5 BSW
AS front tires * AT rear tires * frame mounted full-size steel spare wheel

COMPLY YES

SAFETY-4-wheel anti-lock braking system * Dual airbags, passenger side front-impact cancellable airbag, seat mounted driver and passenger side-impact airbags, curtain 1st row overhead airbag * Front height adjustable seatbelts

COMPLY YES

COMFORT & CONVENIENCE-Air conditioning * AM/FM stereo, clock, seek-scan, 2 speakers, fixed antenna * 2 12V DC power outlets * Analog instrumentation display includes tachometer, oil pressure gauge, engine temperature gauge, transmission fluid temp gauge, engine hour gauge, exterior temp, systems monitor, trip odometer * Warning indicators include oil pressure, engine temperature, battery, lights on, key, low fuel, door ajar, service interval, brake fluid * Steering wheel with tilt and telescopic adjustment * Manual front windows with light tint * Variable intermittent front windshield wiper * Passenger side vanity mirror * Day-night rearview mirror * Interior lights include domoe light with fade, front reading lights * Glove box, front cup holder, instrument panel bin * Upfitter switches

COMPLY YES

SEATING & INTERIOR-Seating capacity of 3 * 40-20-40 split-bench front seat with adjustable head restraints, center armrest with storage * 4-way adjustable driver seat includes lumbar support * 4-way adjustable passenger seat * Vinyl faced front seats with vinyl back * full cloth headliner, full vinyl/rubber floor covering, plastic/rubber gear shift knob, chrome interior accents

COMPLY YES

EXTERIOR FEATURES-Side impact beams, front license plate bracket, fully galvanized steel body material * Black fender flares * Black side window moldings, black front windshield molding * Black door handles * Black grille * 2 doors * Trailer harness, brake controller * Driver and passenger manual adjusting outside mirrors * Front black bumper with front tow hooks * Aero-composite halogen headlamps * Additional exterior lights include cab clearance lights, under hood light * Clearcoat monotone paint * Snow plow provision

COMPLY YES

WARRANTY-

BASIC	36 month/ 36,000 miles
POWERTRAIN	60 month/60,000 miles
CORROSION PERFORATION	60 month/unlimited mileage
ROADSIDE ASSISTANCE	60 month/60,000 miles

COMPLY YES

BUILD SPECIFICATIONS WITH CODES:

2014 FORD F-550 4X4 Regular Chassis w/165 WB, DRW XL (F5G)	660A
50 State Emissions System	425
6.7 L Diesel Engine	
175 Amp Heavy Duty Alternator	INC
750 CCA HD battery w/run down protection	INC
TorqShift 6-spd automatic transmission with OD includes SelectShift	44T
Limited slip rear differential - 4.88 axle ratio	X8L
19,500 lb. GVWR Payload package	68M
Front tires (2) highway tread type 225/70SR19.5 BSW AS	THB
Rear tires (4) max traction, snow & mud type. 225/70SR.19.5 BSW AT	THB
Wheels: 19.5" Argent painted steel	64Z
Spare Tire & Wheels (includes as Standard Option 61J - 6-ton jack)	512
HD Vinyl 40/20/40 Split Bench seat	A
Monotone paint application	PAINT
165" Wheel base, 84.0" Cab-to-Axle	165WB
Snow Plow Prep Package (for added front axle capacity & engine cooling)	473
Engine Block Heater	41H

PLEASE COMPLETE AND RETURN THE SPEC FORMS SUPPLIED.

ANY QUESTIONS SHOULD BE ADDRESSED TO:

MIKE FURMANSKI

CITY OF ESCANABA ELECTRIC DEPTARMENT

(906) 786-0061

PRICE SUMMARY

AERIAL, BODY ACCESSORIES, AND INSTALLATION:

\$ 63,445.00

CHASSIS:

\$ 40,920.00

NET PRICE: FOB, ESCANABA, MI

\$ 104,365.00

BIDDER'S PROPOSAL

DATE: 11-MAR-14

City of Escanaba
Escanaba, MI 49829

We, the undersigned, agree to furnish the City of Escanaba, Michigan ONE (1) NEW 2014 SINGLE BUCKET INSULATED AERIAL DEVICE, UTILITY BODY, AND CHASSIS, in accordance with the attached specifications, which are a part of this proposal, at the following price:

SEE PREVIOUS ATTACHED PRICE SUMMARY/OPTION SHEET

MAKE: Versalift Aerial, with BrandFX body, and Ford Chassis

MODEL: VO36 aerial, and BFXB-84DLS Body, F550 Chassis

DELIVERY DATE: 240 days after receipt of Purchase order

FOB: CITY OF ESCANABA, MI

CERTIFIED CHECK, CASHIER'S CHECK, OR
BIDDER'S BOND ENCLOSED IN THE
AMOUNT OF:

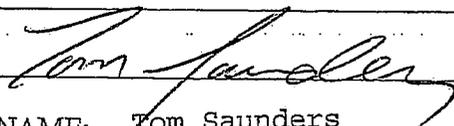
\$ 6,344.50
(must be included to qualify)

SUBMITTED BY:

FIRM: Utility Sales and Service

ADDRESS: 412 Randolph Drive

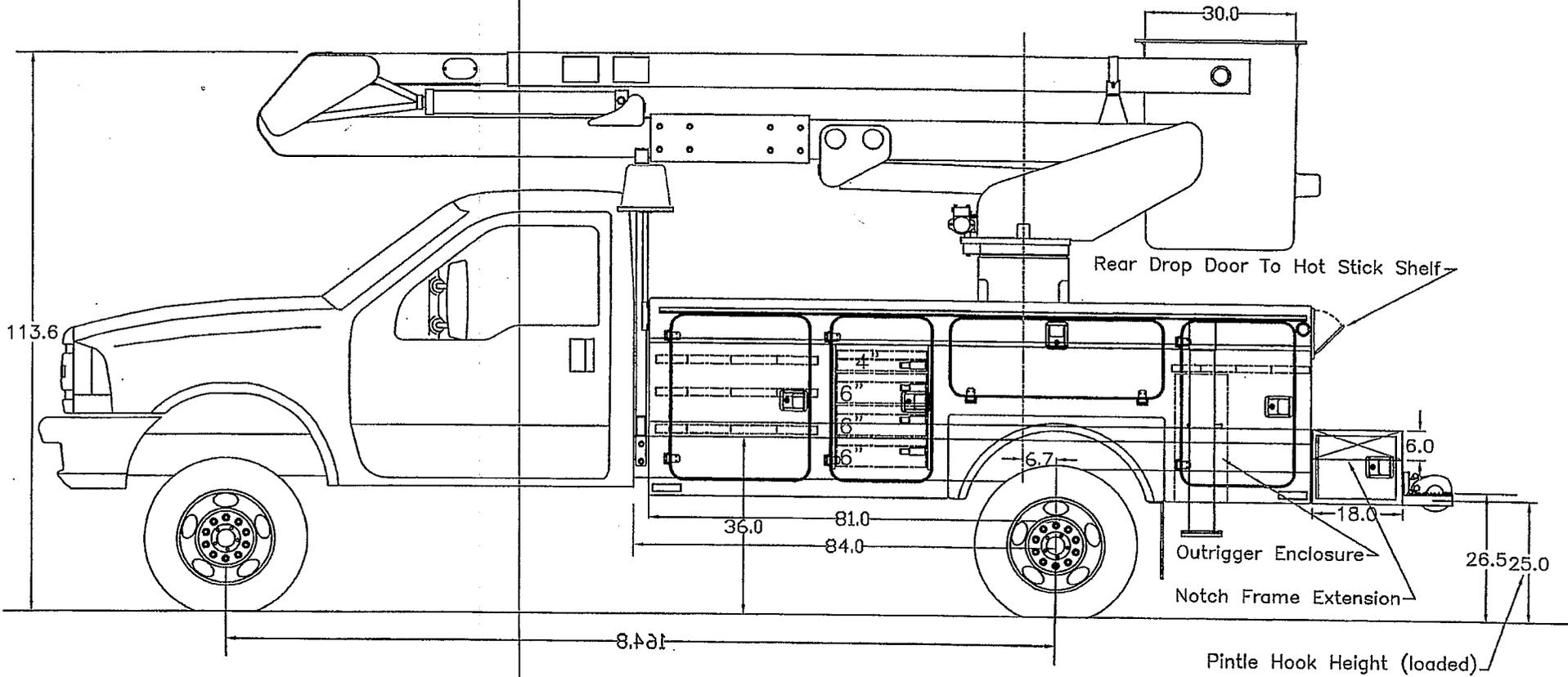
Appleton, WI. 54913

BY: 

PRINTED NAME: Tom Saunders

PHONE NUMBER: 920-788-2699

PRELIMINARY



THE DESIGN AND LOCATION OF THE ITEMS BELOW WILL BE DETERMINED DURING THE PRE-PAINT INSPECTION



Outrigger Pads and Aluminum Racks



Cone Holder



UTILITY
SALES AND SERVICE

SCALE:

UTILITY SALES AND SERVICE, INC.

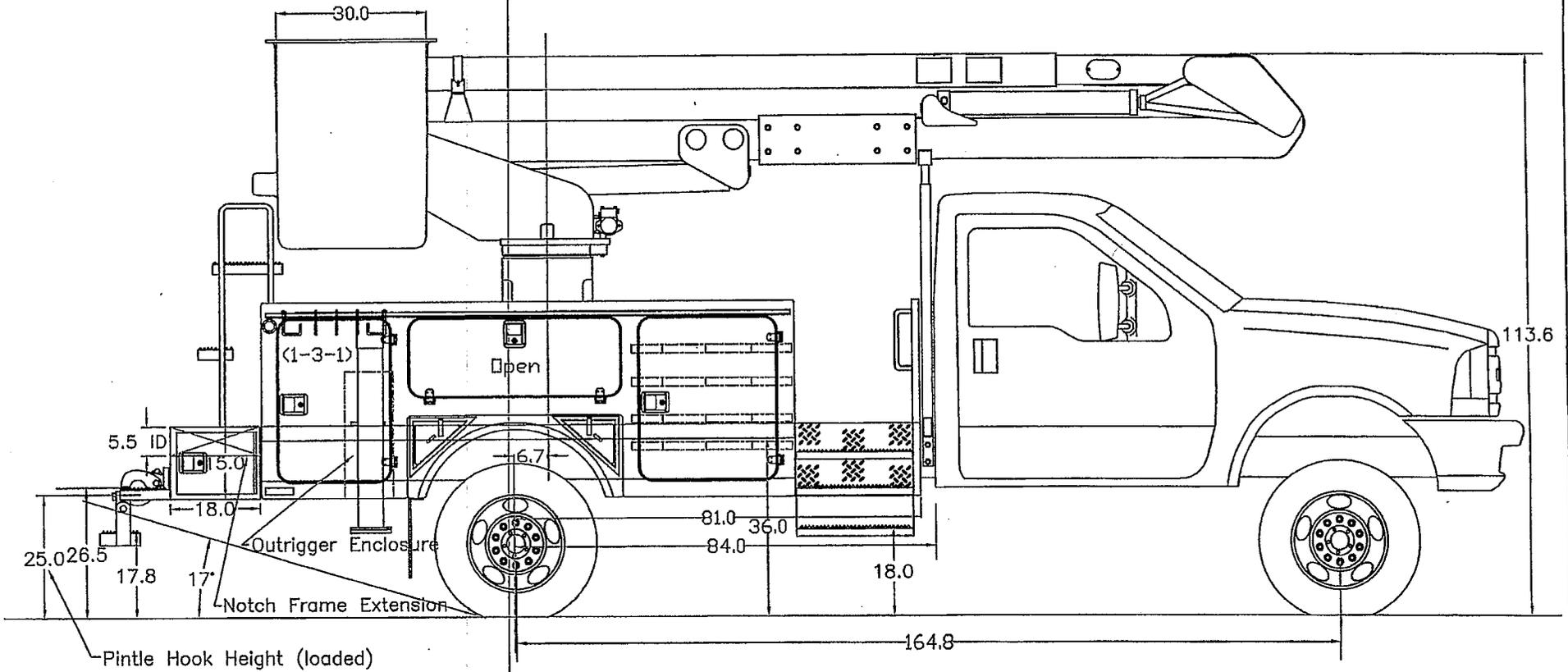
CUST: City of Escanaba

EQUIP: Versalift Model VO-36-1
Brand FX Model FX-84DLP
Ford Model F 550-4x4 Chassis

DATE: 3/10/14 DRAWG. No. ESCANABA-VO361-FX84-SS

REVISED:

PRELIMINARY



THE DESIGN AND LOCATION OF THE ITEMS BELOW WILL BE DETERMINED DURING THE PRE-PAINT INSPECTION



Outrigger Pads and Aluminum Racks



Cone Holder



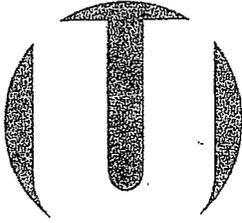
SCALE:

UTILITY SALES AND SERVICE, INC.

CUST: *City of Escanaba*

EQUIP:
Versalift Model VO-36-1
Brand FX Model FX-84DLP
Ford Model F 550-4x4 Chassis

DATE: 3/10/14 DRAWG. No. ESCANABA-VO361-FX84-CS
REVISED:



UTILITY
SALES AND SERVICE

412 RANDOLPH DRIVE APPLETON, WISCONSIN 54913-9297 ~ (920) 788-2699 OFF ~ (920) 788-4699 FAX

March 10, 2014

Mr. Mike Furmanski
City of Escanaba Utilities
1711 Sheridan Rd.
Escanaba, MI. 49829

Sales Quotation: 13-03-06R1

Dear Mr. Furmanski,

UTILITY SALES and SERVICE, INC. is pleased to submit the following **Sales Quotation** for a 36' Over Center Aerial Service vehicle. USSI shall provide and install one (1) **Versalift model VO-36I**, insulated articulating over center aerial device and one (1) **Brand FX model BFXB-84DLS** fiberglass service body mounted on a **2015 Ford F-550 4x2 regular** chassis cab with 19,500 GVWR, 6.0 L diesel engine, automatic transmission with PTO opening and drive gear and 84" Cab-to-Axle and dual rear wheels.

AERIAL DEVICE

VO-36-I GENERAL SPECIFICATIONS

AERIAL DEVICE - Insulated articulating over center 36' aerial device with side-by-side boom configuration for lower travel height. The aerial shall be manufactured in accordance with all OSHA and ANSI requirements, equipped as follows:

REACHES AND CAPACITIES

Height to Bottom of Platform	36'
Working Height	41'
Horizontal Reach	29', 1"
Stowed Travel Height	10', 0" (+/- 2")
Platform Capacity	350 Pounds

PLATFORM - The closed fiberglass platform is 24" x 30" x 42" deep with an inside step and two (2) outside steps, one to the pedestal and one to the rear, for easy access. The platform capacity is 350 lbs. The platform is side mounted and includes a 90 degree hydraulic rotator to move to an end-mount position.

PLATFORM LINER- A 24" x 30" platform liner with an inside step shall be provided. It shall be tested and rated for 50 KV AC.

SINGLE STICK PLATFORM CONTROL – The Unitrol single stick control is mounted between the platform and boom and consists of a multi-jointed handle which operates the control valve. A safety trigger located on the underside of the single stick handle will not allow boom movement until the trigger is depressed. The control valve is full pressure and full flow. The operator can feather between the three control movements to provide multi-function boom action. An emergency stop control is provided.

PLATFORM LEVELING – Leveling is automatic by a totally enclosed #60 chain and 1/2" diameter fiberglass rod parallelogram system.

PLATFORM TILT - This option allows the platform to be tilted for clean out or rescue. A cam lock releases the platform and hydraulic dampeners limit the speed of the platform tilt.

ENGINE START/STOP - The start/stop circuit has been designed so the lift cannot be operated unless the truck ignition switch is in the "RUN" position and the master control is activated. This feature makes it difficult for unauthorized individuals to operate the lift when the truck is locked. An air cylinder at the platform and a toggle switch at the pedestal are provided to actuate the engine start/stop control.

EMERGENCY POWER - This system consists of a hydraulic pump driven by a 12V DC motor, which is powered by the truck engine battery. The system is connected in parallel with the main pump and is designed for non-continuous operation. An air cylinder at the platform and a toggle switch at the pedestal are used to energize this system.

UPPER BOOM ASSEMBLY - The upper boom articulates **190** degrees relative to the lower boom. The upper boom is actuated at the knuckle by a hydraulic cylinder and a four bar linkage. Non-lube bushings are used at all pivot points. The hydraulic hoses are protected in all areas of boom movement by woven nylon hose protectors. An upper boom support with ratchet type tie down strap and rubber platform support are included. The upper boom is tested and certified for electrical work at 46 KV and below in accordance with ANSI A92.2 requirements.

LOWER BOOM ASSEMBLY - The lower boom consists of a **6" x 8"** rectangular steel section. The lower boom articulates from horizontal to **40** degrees past vertical for a total range of **130** degrees.

CHASSIS INSULATION SYSTEM (Lower Boom Insert) - The fiberglass insert provides an **insulation gap of 12"** on the VO-36-1. The insert is mounted on the steel boom sections then adhesive is pumped in under pressure to fill all voids. After curing, 16 bolts are added to assure maximum strength. A stainless steel stud is provided at each end of the insert to shunt the system during electrical testing. The insert is tested per ANSI A92.2.

PEDESTAL - The pedestal is 35" tall and a tubular shape with an access opening on both sides. The top plate is 1-1/4 In. (32 mm) thick and machined flat to support the rotation bearing.

TURRET - The turret wings are 1/2 In. steel plate. A steel tube is welded between the turret wings to increase rigidity. The base plate is machined flat to support the rotation bearing. A full coverage continuously welded bearing cover is provided to prevent foreign material from interfering with lift rotation.

ROTATION - Rotation is 370 degrees non-continuous with a mechanical stop. Rotation is accomplished by a hydraulically driven worm and spur gear set acting on a shear-ball rotation bearing. The critical bolts

holding the turret to the rotation bearing and the bearing to the pedestal are SAE grade 8. These critical bolts are marked with a torque seal indicator to provide a quick means to inspect for loosening. A slotted adjustment is provided for pinion and rotation gear clearances. An external hex drive is provided for manual rotation in case of hydraulic failure.

HYDRAULIC OIL RESERVOIR - The hydraulic oil reservoir is an integral part of the pedestal. Sight gauges are provided to check the fluid level. The capacity of the reservoir is 12 gallons.

HYDRAULIC SYSTEM - The open center hydraulic system operates at 3 GPM at 2500 PSI. A 10 micron return line filter with bypass valve and a 100 mesh suction strainer are included. The system shall be filled with Mil. Spec. 5606 hydraulic oil. The system shall be powered by a transmission mounted PTO and hydraulic driven pump.

OUTRIGGERS - The A-frame outriggers are attached to the pedestal. The outriggers are equipped with pilot operated check valves, internal thermal relief valves, and separate controls. At maximum extension, the outriggers furnish 120-in. of spread and 9 in. of penetration and 17 in. of ground clearance.

OUTRIGGER BOOM INTERLOCK AND DOWN MOTION ALARM SYSTEM - The outrigger/boom interlock option is a feature designed to prevent the lift from being operated until the outriggers contact the ground. The interlock also prevents the outriggers from being retracted before the aerial lift is properly stored. An alarm shall sound whenever the outriggers are lowered.

LOWER CONTROL VALVES - Full pressure control levers at the turret control the following: rotation and raise functions on the upper/lower booms. The lower controls shall be equipped with a manual selector valve to override the upper controls.

SLOPE INDICATORS - Two (2) slope indicators shall be installed, one (1) on the passenger's side of the body and one (1) on the rear of the truck.

LUBRICATION - Non-lube bearings are used at all points of motion. The rotation bearing and leveling system are the only components that require lubrication.

HOSES AND FITTINGS - The hoses routed through the booms are high pressure, non conductive hoses with swaged hose end fittings. Protection is provided where hoses might chafe or rub. Plastic or woven nylon sleeves are installed over the hoses at all points of movement.

CYLINDERS - Cylinders are threaded end cap design and equipped with dual holding valves recessed into the base of each cylinder to prevent movement in case of hose failure. Bleed down ports are provided in case of hydraulic failure.

PINS - Pins are high strength alloy steel which are chrome plated and centerless ground for a hard finish and corrosion resistance. Pins are bolted in place with a welded pin tab at one end and a pin cap at the other for redundant retention.

PAINTING - The complete unit is primed and painted prior to assembly. The metal portions of the aerial shall be urethane painted **SCHOOL BUS YELLOW** to match the chassis cab. The fiberglass portions of the aerial shall be gel-coated **WHITE**.

ONE-YEAR WARRANTY – A 1-Year Time Manufacturing Versalift Warranty for parts and labor applies to the aerial.

MANUALS - Two operator's manuals and two service manuals are included with each V0-36-I aerial.

CONTOURED FIBERGLASS SERVICE BODY

BRAND FX Model BFXB-84DLS FIBERGLASS SERVICE BODY

MINIMUM DIMENSIONS

Overall Length	132"
Overall Width	94"
Compartment Depth	20"
Compartment Height	42"
Load-bed Width	54"
Cab-to-Axle Application	84"

EXTERIOR WALLS & SURFACES - Body side compartments shall include a laminated PVC core to provide sufficient compression for strength and rigidity. Core shall be minimum 3/8" 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. gelcoat and .50 mil. skin coat. Front corners of the side compartments shall be protected with aluminum treadplate rock guards.

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

ALUMINUM COMPARTMENT TOP OVERLAYS – The compartment side pack tops on both the curbside and streetside shall have 1/8" aluminum treadbrite overlay installed for reinforcement.

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

UNDERSTRUCTURE (Steel) - A steel understructure shall consist of 4" x 5.4 foot-pound longitudinals. All crossmembers 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 an acrylic enamel coating.

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 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 a specially designed automotive-type weatherstrip,

for maximum assurance of weather tight compartmentation. The weatherstrip shall be removable to facilitate its replacement as required. The weatherstrip shall incorporate a built-in rain diverter which eliminates the need for a drip rail.

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. The 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.

SHELVING CONSTRUCTION - All shelves and hanger brackets shall be constructed of pultruded fiberglass. Shelves shall have 2" lips. Shelf dividers shall also 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 **L.E.D.** Truck-Lite brand (**no substitutes**). All exterior lights shall be flush-mounted and include rubber grommet shock mount fixtures. A lighted license plate bracket shall be furnished. **The stop, tail, turn and marker lights shall be LED including the backup lights.** **NOTE: The rear lights shall be installed in the rear of the tailshelf.**

COMPARTMENTATION

CURBSIDE - FRONT TO REAR

First vertical compartment with single door.

- Accessway with grip-strut steps.
- Two (2) grab handles,

Second vertical compartment deleted.

- Four (4) adjustable fiberglass shelves with dividers.

Horizontal compartment with single door.

- OPEN.
- One (1) 18D Durham small parts cabinet in rear portion of cabinet.

Rear vertical compartment with single door.

- Outrigger cutout towards the front of the compartment.
- Five (5) locking swivel hooks mounted 1-3-1. The two (2) back wall hooks shall be mounted aft the outrigger cutout. The front and rear sidewall hooks shall be mounted as normal.

STREETSIDE - FRONT TO REAR

First vertical compartment with single door.

- Three (3) adjustable fiberglass shelves with dividers below the hotstick shelf.

Second vertical compartment with single door.

- Four (4) pullout drawers with dividers below the hotstick shelf.
Horizontal compartment with single door.
- One (1) fixed shelf with dividers below the hotstick shelf.
Rear vertical compartment with single door.
- Outrigger cutout towards the front of the compartment.
- One (1) adjustable fiberglass shelf with dividers below hot stick shelf.
- Matted wall to the outrigger cutout.

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

HOT STICK SHELF – One (1) full length hot stick shelf shall be provided in the **STREETSIDE** compartments with a rear drop down access door. Shelf surface shall be plywood lined.

WHEEL WELL LINERS - Stainless steel wheel well liners shall be provided and installed.

WHEEL CHOCKS AND HOLDERS - Two (2) wheel chock holders shall be formed into the **CURBSIDE** fender skirt. Two (2) **rubber** wheel chocks shall also be provided.

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

PAINTING - The complete unit shall be gelcoated **School Bus Yellow** to match the chassis cab, **A Paint Chip will be provided of the gelcoat for Customer Approval.**

ACCESSORIES

PLATFORM ACCESS – Access to the platform shall be via two (2) steel gripstrut steps fabricated and installed, one (1) inside and one (1) on top of the curbside rear of the fiberglass body. A grab rail shall be installed on the curbside of the turret to assist with platform access. *The locations of the platform access components shall be determined at the pre-paint inspection.* The platform access components shall be painted **BLACK**.

WIRED-RITE SST SYSTEM - Provide and install one (1) Wired Rite SST-4BX (stop, start & throttle) control system.

ALUMINUM SADDLE-TYPE TAILSHELF - A saddle-type rear tailshelf shall be furnished to facilitate bucket entry from loadbed level. Tailshelf shall be constructed from minimum **1/8" aluminum** treadbrite. Size of the tailshelf to be determined by area needed for bucket storage with no overhang past the bumper (24" x 30" bucket). The tailshelf shall include an approximately **6" high (5.5" I.D.)** thru-storage shelf with two side compartments (height to be sized to allow the bottom of the tailshelf side compartments to be equal with the bottom of the body's side packs). The side compartments shall include **vertically** hinged 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 tailshelf shall be coated with **black non-skid paint**.

REAR BUMPER with RECESS - One (1) steel gripstrut rear bumper step shall be fabricated and installed. The bumper shall include a suitable recess for a hitch.

TOWING PACKAGE - Provide a towing package to include one (1) 8-ton rated pintle hook, one (1) Cole Hersee 1235 6-blade prong socket and one (1) pair of safety chain eyelets. Hitch shall be reinforced with suitable channels to the chassis frame.

BACK-UP ALARM - One (1) electronic backup alarm shall be provided and installed.

MUD FLAPS - One pair of rubber mud flaps shall be provided and installed behind the rear wheels.

SWING STEP AND GRAB RAIL - One (1) Sauber Manufacturing Model 8467 safety swing step shall be provided. The swing step shall incorporate an aluminum-bronze support with hot-dipped galvanized finish. A grab rail shall be fabricated and installed to assist access to the cargo area. The swing step and grab rail shall be mounted at the rear CURBSIDE of the unit.

OUTRIGGER PADS and PAD HOLDERS - Two (2) aluminum outrigger pad holders shall be provided and installed one each under the front streetside and curbside compartments. Two (2) high density polyethylene outrigger pads shall be provided.

STROBE LIGHT - One (1) **Star 200SD** double-flash strobe lights shall be provided and installed on streetside pipe mounted on the front of compartment. The lights shall be manually activated by an illuminated rocker switch provided and mounted on the chassis dash.

LED WARNING LIGHTS - Two (2) **STAR model DLXT-121-AA Amber Thinline**, quad flash, LED warning lights shall be flush mounted in the top outward edges of the front chassis grille. Two (2) **Star model LDHEF-4**, 4" round, quad flash, LED warning lights shall be installed in the rear of the tailshelf. These warning lights will be manually activated by a single illuminated rocker switch mounted on the chassis dash.

DUAL REMOTE CONTROLLED WIRELESS SPOT LIGHTS - One (1) **Go Light model #3067 spot lights** shall be provided and installed. One (1) spot light shall be installed on a off the curbside of the chassis hood area. The spot lights shall have wireless dash-mount controls and hand held programmable remote controls secured by Velcro

CONE HOLDER - Fabricate and install steel single pole style cone holder of the rear street-side bumper step.

PTO HOUR METER - One (1) PTO hour meter shall be provided and installed to monitor the chassis PTO hours.

COLOR SCHEME

The body and aerial features shall be finished as follows:

- The metal portions of the aerial shall be Urethane painted **School Bus Yellow** to match the chassis color.
- The fiberglass portions of the aerial shall be gelcoated Time Mfg's **WHITE**.

- The body exterior shall be gelcoated **School Bus Yellow** to match chassis color.
- The compartment interiors and shelving shall be left in *natural* fiberglass.
- The top of the tailshelf and the floor of the body shall be painted with a **BLACK non-skid coating**.
- All steel surfaces normally painted shall be painted **BLACK**.
- Any stainless steel, chrome or aluminum surfaces shall be left in an *unpainted* state.

CHASSIS SPECIFICATIONS

2015 Ford F-550 4 x 4 Super Chassis Cab with Diesel Engine

Powertrain

6.7L diesel engine * 200 amp alternator * 750 amp 78 amp hours (Ah) HD battery with run down protection * Engine block heater, transmission oil cooler * 6-speed electronic SelectShift automatic transmission with overdrive, lock-up, driver selection * Part Time four-wheel drive with manual transfer case, manual locking hubs* Limited slip differential, driveline traction control, power take-off provision * 4.88 axle ratio * Stainless steel exhaust

Steering and Suspension

Hydraulic power-assist re-circulating ball steering * 4-wheel disc brakes with front and rear vented discs * Firm ride suspension * Mono-beam non-independent front suspension * Front anti-roll bar * HD front coil springs * HD front shocks * Rigid rear axle * Rear leaf suspension * Rear anti-roll bar * HD rear leaf springs * HD rear shocks * Front and rear 19.5" x 6.00" argent steel wheels * LT225/70SR19.5 BSW AS front tires * AT rear tires * Frame mounted mounted full-size steel spare wheel

Safety

4-wheel anti-lock braking system * Dual airbags, passenger side front-impact cancellable airbag, seat mounted driver and passenger side-impact airbags, curtain 1st row overhead airbag * Front height adjustable seatbelts

Comfort and Convenience

Air conditioning * AM/FM stereo, clock, seek-scan, 2 speakers, fixed antenna * 2 12V DC power outlets * Analog instrumentation display includes tachometer, oil pressure gauge, engine temperature gauge, transmission fluid temp gauge, engine hour meter, exterior temp, systems monitor, trip odometer * Warning indicators include oil pressure, engine temperature, battery, lights on, key, low fuel, door ajar, service interval, brake fluid * Steering wheel with tilt and telescopic adjustment * Manual front windows with light tint * Variable intermittent front windshield wipers * Passenger side vanity mirror * Day-night rearview mirror * Interior lights include dome light with fade, front reading lights * Glove box, front cup holder, instrument panel bin * Upfitter switches

Seating and Interior

Seating capacity of 3 * 40-20-40 split-bench front seat with adjustable head restraints, center armrest with storage * 4-way adjustable driver seat includes lumbar support * 4-way adjustable passenger seat * Vinyl faced front seats with vinyl back material * Full cloth headliner, full vinyl/rubber floor covering, plastic/rubber gear shift knob, chrome interior accents

Exterior Features

Side impact beams, front license plate bracket, fully galvanized steel body material * Black fender flares * Black side window moldings, black front windshield molding * Black door handles * Black grille * 2 doors * Trailer harness, brake controller * Driver and passenger manual black folding manual extendable trailer outside mirrors * Front black bumper with front tow hooks * Aero-composite halogen headlamps * Additional exterior lights include cab clearance lights, under hood light * Clearcoat monotone paint * Snow plow provision

Warranty

Basic 36 month/36,000 mile
 Powertrain 60 month/60,000 miles
 Corrosion Perforation 60 month/unlimited mileage
 Roadside Assistance 60 month/60,000 miles

BUILD SPECIFICATIONS WITH CODES:

2015 FORD F-550 4 x 4 regular chassis w/165 WB; DRW XL (F5G)	660A
50 State Emmissions System	425
6.7 L Diesel engine.	
200 Amp Heavy Duty alternator.	INC
750 CCA HD battery w/ run down protection	INC
TorqShift 5-Speed automatic transmission with OD includes SelectShift.	44T
Limited slip rear differential - 4.88 axle ratio.	X8L
19,500 lb. GVWR Payload package	68M
Front tires (2) highway tread type. 225/70SR19.5 BSW AS	THB
Rear tires (4) max traction, snow and mud type. 225/70SR19.5 BSW AT	" "
Wheels: 19.5" Argent painted steel	64Z
Spare Tire & Wheels (Includes as Standard Option 61J – 6-ton jack)	512
HD Vinyl 40/20/40 Split Bench seat.	A
Monotone paint application	PAINT
<hr/>	
165" Wheel base, 84.0" Cab-to-Axle.	165WB
Snow Plow Prep Package (for added front axle capacity & engine cooling).	473
Engine Block Heater	41H
6-Ton Hydraulic Jack	61J
Transmission Power Take-Off Provision and drive gear. (PTO)	62R
Trailer Brake Controller.	52B
Radio: ETR AM/FM Stereo w/ Digital Clock.	587
Air conditioning. Included	572
Interior colors for Primary w/ XL: STEEL	AS
Primary colors for Primary w/ XL: School Bus Yellow	
Single 40 gallon fuel tank aft of rear axle.	65Z

Clean Idle Decal	63B
Dash mounted switch pack (Upfitter switches).	INC
Front bumper with two (2) front tow hooks.	INC
Delete carpet - Rubber floor covering.	INC

PRICE SUMMARY

AERIAL, BODY, ACCESSORIES AND INSTALLATION:	<u>\$ 63,445.00</u>
CHASSIS (2015 FORD F-550 4x4 Regular Cab with Diesel Engine):	<u>\$ 40,920.00</u>
(See <i>NOTES</i> Section #5 for Net 10 Day payment <u>\$600.00</u> chassis discount)	
NET PRICE F.O.B. Escanaba, MI:	<u>\$ 104,365.00</u>

OPTIONS

PERSONNEL RESTRAINT SYSTEM – One (1) safety harness and lanyard shall be provided. The safety harness shall be a single D-ring, single-pass friction buckle design and shall comply with ANSI Class I, OSHA Type I.

ADD TO NET PRICE: **\$ 120.00**

SINGLE STICK CONTROLS WITH TOOL POWER – USSI shall provide Unitrol single stick controls platform with hydraulic tool power added in lieu of the Unitrol single stick controls platform. This system shall be designed to use open center hydraulic tools only and one (1) set of hydraulic tool ports shall be installed at the platform. The tool circuit shall provide **5 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.

ADD TO NET PRICE: **\$ 584.00**

CONTINUOUS ROTATION - Rotation is continuous and unrestricted in either direction. An electric and hydraulic collector assembly provides a path for hydraulic oil and electric signals from the pedestal to turret.

ADD TO NET PRICE: **\$ 958.00**

VINYL PLATFORM and CONTROLS COVER - A soft vinyl platform cover for the 24" x 30" platform and controls shall be provided and installed.

ADD TO NET PRICE: **\$ 103.00**

REAR TOW HOOKS – One set of tow hooks shall be provided and installed on the rear of the truck (*mounting locations to be determined at the pre-paint inspection*).

ADD TO NET PRICE:

\$ 80.00

NOTES

1. Your terms if this were an order: **Net 30 days.**
2. If ordered, days from receipt of order at USSI to delivery: **Approximately 210-240 days.**
3. If this were a quotation it would be valid for: **60 Days.**
4. **Brand FX, Inc. and USSI** do not guarantee to match the color of the body to the chassis cab or other painted components.
<A close match can be achieved by the customer providing an **approved, non-metallic** dry sample of paint, prior to ordering gelcoated materials.
<When metallic paint is used, the closest possible match can only be achieved by painting the body with metallic paint.
<Contact **USSI** for cost of painting the body, if desired.
5. If USSI supplies a chassis and the chassis' paid for on a **Net 10 Day basis** at the time of delivery to USSI: **DEDUCT: \$ 600.00 from the chassis price.**
6. CLARIFICATION:
When Utility Sales and Service, Inc. (USSI) is requested to provide a chassis in response to a bid specification we do so as a service to our valued customer. USSI **does not** assume the chassis manufacturer's warranty. In addition, USSI **does not** provide transportation to or from our customer's preferred chassis dealer. USSI **is** responsible for assuring that the chassis conforms to the letter of the written specification (if said spec. is appropriate, available and feasible) in the bid request provided by our customer. USSI administers all equipment and body manufacturer's warranties applicable to components we install onto the chassis and provides a one year warranty (from the date of delivery of the completed unit) on USSI workmanship.

Thank you for considering **UTILITY SALES & SERVICE, INC.** to meet your needs in utility equipment. We look forward to serving you.

Sincerely,



Tom Saunders
Sales Manager

NOTICE TO BIDDERS

ALTEC
Industries
Bid

Sealed bids will be received by the City of Escanaba at the office of the City Clerk, on or before 2p.m. e.s.t, on: **TUESDAY, MARCH 25, 2014**

The bids will be publicly opened and read in Room 101 in the City Hall located at 410 Ludington Street, Escanaba, Michigan at said date and time.

Bidder's proposals, and/or specifications may be obtained from the office of the City Clerk, located at 410 Ludington Street, Escanaba, Michigan, 49829. No bids will be considered unless the proposal form and /or specifications (furnished by the City of Escanaba, Michigan), are properly completed and enclosed in a sealed envelope, marked:

**NEW 2014 SINGLE BUCKET INSULATED AERIAL DEVICE, UTILITY
BODY & CHASSIS**

In addition, the City of Escanaba, Michigan will not consider any proposal which has not been received prior to the published time, date and year of bid opening. (FAX transmittals will not be accepted.)

A Certified Check, Cashier's Check, or Bidder's Bond, drawn payable, without condition, to the City of Escanaba, Michigan, in an amount not less than 10% of the bid, will be submitted with each proposal as a guarantee that if the bid is accepted, the bidder will furnish materials or services as stated in his or her proposal. On failure of the successful bidder to fulfill the conditions of his or her proposal, he or she shall forfeit said deposit to the City of Escanaba, Michigan as liquidated damages. The acceptance of the proposal will be contingent upon the bidder's acceptance of this provision.

The City of Escanaba, Michigan reserves the right to reject any or all bids, or any part thereof at its discretion, and to waive any irregularities in the bidding. The City of Escanaba, Michigan may also split bids at its discretion. The City further reserves the right to negotiate directly with any and all bidders concerning any matter related to any bid.

All City of Escanaba, Michigan bids are prepared to afford all vendors the equal opportunity for fair and equitable competition. The City of Escanaba, Michigan assumes no liability or responsibility for any errors or oversights in the preparation and/or publication of bids.

Thomas J. Penegor
Purchasing Agent
City of Escanaba

SPECIFICATIONS

ONE (1) NEW 2014 SINGLE BUCKET INSULATED AERIAL DEVICE, UTILITY BODY, AND CHASSIS

INSULATED AERIAL DEVICE

AERIAL DEVICE-Articulating, insulated over-center 36' aerial device with side-by-side boom configuration for lower travel height. The aerial shall be manufactured in accordance with all MiOSHA and ANSI requirements and shall be equipped as follows:

COMPLY ✓

REACHES & CAPACITIES

Platform Capacity	350 lbs
Height to Bottom of Platform	36'
Working Height	41'
Stowed Travel Height	10' 0" (+/- 2")
Horizontal Reach	29', 1"

COMPLY ✓

PLATFORM-The closed fiberglass platform shall be 24" X 30" X 42" deep with an inside step and two (2) outside steps, one to the front and one to the rear, for easy access. The platform capacity shall be 350 lbs. The platform shall be side mounted and include a 90 degree hydraulic rotator to move to an end-mount position.

COMPLY ✓

PLATFORM LINER- A 24" X 30" Platform liner with an inside step shall be provided. It shall be tested and rated for 50 KV AC.

COMPLY ✓

PLATFORM ACCESS-Access to the platform shall be via two (2) steel gripstrut steps fabricated and installed, one (1) inside and one (1) on top of the curbside rear of the fiberglass body. A grab rail shall be installed on the curbside of the turret to assist with platform access. *The locations of the platform access components shall be determined at the pre-paint inspection.* The platform access components shall be painted BLACK.

COMPLY ✓

SINGLE STICK PLATFORM CONTROL-Single stick control shall be mounted between the platform and boom and consist of a multi-jointed handle which operates the control valve. A safety trigger located on the underside of the single stick handle will not allow boom movement until the trigger is depressed. The control valve shall be full pressure and full flow. The operator can feather between the three control movements to provide multi-function boom action. An emergency stop control shall be provided.

COMPLY ✓

PLATFORM LEVELING-Leveling shall be automatic by a totally enclosed #60 chain and ½" diameter fiberglass rod parallelogram system.

COMPLY ✓

PLATFORM TILT-This option allows the platform to be tilted for clean out or rescue. A cam lock releases the platform and hydraulic dampeners limit the speed of the platform tilt.

COMPLY ✓

ENGINE START/STOP-The start/stop circuit shall be designed so the lift cannot be operated unless the truck ignition switch is in the "RUN" position and the master control is activated. An air cylinder at the platform and a toggle switch at the pedestal shall be provided to actuate the engine start/stop control.

COMPLY ✓

EMERGENCY POWER-This system shall consist of a hydraulic pump driven by a 12V DC motor, which is powered by the truck engine battery. The system shall be connected in parallel with the main pump and designed for non-continuous operation. An air cylinder at the platform and a toggle switch at the pedestal shall be used to energize this system.

COMPLY ✓

UPPER BOOM ASSEMBLY-The upper boom shall articulate 190 degrees relative to the lower boom. The upper boom shall be actuated at the knuckle by a hydraulic cylinder and a four bar linkage. None-lube bushings shall be used at all pivot points. The hydraulic hoses shall be protected in all areas of boom movement by woven nylon hose protectors. An upper boom support with a ratchet type tie down strap and rubber platform support shall be included. The upper boom shall be tested and certified for electrical work at 46 KV and below in accordance with ANSI A92.2 requirements.

COMPLY ✓

LOWER BOOM ASSEMBLY-The lower boom shall consist of a 6" x 8" rectangular steel section. The lower boom shall articulate from horizontal to 40 degrees past vertical for a total range of 130 degrees.

COMPLY ✗ 98 Degrees of articulation

CHASSIS INSULATION SYSTEM (Lower Boom Insert)-The fiberglass insert shall provide an insulation gap of 12". The insert shall be mounted on the steel boom sections then adhesive shall be pumped in under pressure to fill all voids. A stainless steel stud shall be provided at each end of the insert to shunt the system during electrical testing. The insert shall be tested per ANSI A92.2

COMPLY ✗ 7" Insulation Gap

PEDESTAL-The pedestal shall be 35" tall and a tubular shape with an access opening on both sides. The top plate shall be 1-1/4" (32mm) thick and machined flat to support the rotation bearing.

COMPLY ✓

TURRET-The turret wings shall be ½" steel plate. A steel tube shall be welded between the turret wings to increase rigidity. The base plate shall be machined flat to support the rotation bearing. A full coverage continuously welded bearing cover shall be provided to prevent foreign material from interfering with lift rotation.

COMPLY ✓

ROTATION-Rotation shall be 370 degrees non-continuous with a mechanical stop. Rotation shall be accomplished by a hydraulically driven worm and spur gear set acting on a shear-ball rotation bearing. The critical bolts holding the turret to the rotation bearing and the bearing to the pedestal shall be SAE grade 8. These critical bolts shall be marked with a torque seal indicator to provide a quick means to inspect for loosening. A slotted adjustment shall be provided for pinion and rotation gear clearances. An external hex drive shall be provided for manual rotation in case of hydraulic failure.

COMPLY ✓ Continuous Rotation

LUBRICATION-Non-lube bearings shall be used at all point of motion. The rotation bearing and leveling system shall be the only components that require lubrication.

COMPLY ✓

PAINTING-The complete unit shall be primed and painted prior to assembly. The metal portions of the aerial shall be urethane painted **school bus yellow** to match the chassis cab. The fiberglass portions of the aerial shall be gelcoated **white**.

COMPLY ✗ Powder Coated

HYDRAULIC OIL RESERVOIR-The hydraulic oil reservoir shall be an integral part of the pedestal. Sight gauges shall be provided to check the fluid level.

COMPLY ✗ Located in front SS corner of cargo area.

HYDRAULIC SYSTEM-The open center hydraulic system shall operate at 3 GPM at 2500 PSI. A 10 micron return line filter with bypass valve and a 100 mesh suction strainer shall be included. The system shall be filled with Mil. Spec. 5606 hydraulic oil. The system shall be powered by a transmission mounted PTO and hydraulic driven pump.

COMPLY X Operates at 6GPM

OUTRIGGERS-The A-frame outriggers shall be attached to the pedestal. The outriggers shall be equipped with pilot operated check valves, internal thermal relief valves, and separate controls. At maximum extension, the outriggers shall furnish 120" of spread and 9" of penetration and 17" of ground clearance.

COMPLY X 140" spread, 8" of Penetration

OUTRIGGER BOOM INTERLOCK AND DOWN MOTION ALARM SYSTEM-The outrigger/boom interlock option is a feature designed to prevent the lift from being operated until the outriggers contact the ground. The interlock also prevents the outriggers from being retracted before the aerial lift is property stored. An alarm shall sound when the outriggers are lowered.

COMPLY ✓

LOWER CONTROL VALVES-Full pressure control levers at the turret control the following: rotation and raise functions on the upper/lower booms. The lower controls shall be equipped with a manual selector valve to override the upper controls.

COMPLY ✓

SLOPE INDICATORS-Two (2) slope indicators shall be installed, one (1) on the passenger's side of the body and one (1) on the rear of the truck.

COMPLY ✓

HOSES & FITTINGS-The hoses routed through the booms shall be high pressure, non conductive hoses with swaged hose end fittings. Protection shall be provided where hoses might chafe or rub. Plastic or woven nylon sleeves shall be installed over the hoses at all points of movement.

COMPLY ✓

CYLINDERS-Cylinders shall be threaded end cap design and equipped with dual holding valves recessed into the base of each cylinder to prevent movement in case of hose failure. Bleed down ports shall be provided in case of hydraulic failure.

COMPLY ✓

PINS-Pins shall be high strength alloy steel which are chrome plated and centerless ground for a hard finish and corrosion resistance. Pins shall be bolted in place with a welded pin tab at one end and a pin cap at the other for redundant retention.

COMPLY ✓

ONE-YEAR WARRANTY-A one-year warranty for parts and labor shall apply to the aerial.

COMPLY ✓

MANUALS-Two (2) operator's manuals and two (2) service manuals shall be included.

COMPLY ✓

CONTOURED FIBERGLASS SERVICE BODY

BRAND FX MODEL #BFXB-84DLS FIBERGLASS SERVICE BODY MINIMUM DIMENSIONS-

Overall Length	132"
Overall Width	94"
Compartment Depth	20"
Compartment Height	42"
Load-bed Width	54"
Cab-to-Axle Application	84"

COMPLY ✓

CONSTRUCTION

EXTERIOR WALLS & SURFACES-Body side compartments shall include a laminated PVC core to provide sufficient compression for strength and rigidity. Core shall be minimum 3/8" 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. gelcoat and .50 mil. skin coat. Front corners of the side compartments shall be protected with aluminum treadplate rock guards.

COMPLY ✓

COMPARTMENT TOPS-The tops of the compartments shall have textured non-skid surfaces.

COMPLY ✓

ALUMINUM COMPARTMENT TOP OVERLAYS-The tops of the compartments shall have textured non-skid surfaces.

COMPLY ✓

CARGO FLOOR (ALUMINUM)-Loadbed floor shall be constructed of aluminum treadbrite. The loadbed floor shall be flanged up body sidewalls a minimum of 4". The loadbed floor shall be coated with black non-skid coating.

COMPLY ✓

UNDERSTRUCTURE (STEEL)-Understructure shall be primed with a premium epoxy primer and finished with acrylic enamel paint.

COMPLY ✓

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

COMPLY ✓

DOORS-All body compartment doors shall be sandwich-style construction, consisting of a 2" thick lower density PVC core enclosed by a 1/8" fiberglass skin on each side. Structural core material shall have a minimum shear length 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.

COMPLY ✓

WEATHERSTRIP-All doors shall be fitted with a specially designed **automotive-type** weatherstrip, for maximum assurance of weathertight compartmentation. The weatherstrip shall be removable to facilitate its replacement as required.

COMPLY ✓

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. The horizontal compartment shall have rubber bumpers to prevent direct contact between the door and body.

COMPLY ✓

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

COMPLY ✓

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

COMPLY ✓

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

COMPLY ✓

SHELVING CONSTRUCTION-All shelves and hangar brackets shall be constructed of pultruded fiberglass. Shelves shall have 2" lips. Shelf dividers shall also be constructed of pultruded fiberglass.

COMPLY ✓

LIGHTS AND ELECTRICAL-All exterior lights shall be provided in compliance with FMVSS-108 standards. All exterior body lighting shall be Truck-Lite brand (**no substitutes**). All exterior lights shall be flush-mounted and include rubber grommet shock mount fixtures. A lighted license plate bracket shall be furnished.

NOTE: Rear lights will be installed in the rear of the tailshelf.

COMPLY ✓

COMPARTMENTATION

Curb-side – Front to Rear

First vertical, compartment deleted.

- Accessway with gripstrut steps and 2 grab handles.

Second compartment with single door.

- Four (4) adjustable fiberglass shelves with dividers.

Horizontal compartment with single door.

- One (1) Durham 18D small parts cabinet in rear portion of cabinet

Rear vertical compartment with single door.

Five (5) locking swivel hooks mounted 1-3-1 at the top of the compartment.

COMPLY ✓

Street-Side – Front to Rear

First vertical compartment with single door.

- Three (3) adjustable fiberglass shelves with dividers below the hotstick shelf.

Second vertical compartment with single door.

- Four (4) pullout drawers with dividers below the hotstick shelf.

Horizontal compartment with single door.

- One (1) fixed shelf with dividers below the hotstick shelf.

Rear vertical compartment with single door.

- One (1) adjustable fiberglass shelf with dividers below hotstick shelf
- Outrigger cutout towards the front of the compartment.
- Matted wall to the outrigger cutout.

COMPLY ✓

COMPARTMENT LIGHTING-All compartments shall be illuminated by LED rope-type compartment lights mounted vertically on both sides of the door opening and horizontally across the top of each compartment. The lights shall be manually activated by an illuminated rocker switch, furnished and mounted on the chassis dash.

COMPLY ✓

HOT STICK SHELF- One full-length hot stick shelf shall be provided in the streetside compartments with a rear drop down access door. Shelf surface shall be plywood lined

COMPLY ✓

WHEEL WELL LINERS-Stainless steel wheel well liners shall be provided and installed.

COMPLY ✓

WHEEL CHOCKS & HOLDERS-Two (2) wheel chock holders shall be provided, formed into the curb-side fender skirt. Two (2) rubber wheel chocks shall also be provided.

COMPLY ✓

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

COMPLY ✓

PAINTING-The complete unit shall be gelcoated School Bus Yellow to match the chassis cab, A Paint Chip will be provided of the gelcoat for Customer Approval

COMPLY ✓

ACCESSORIES

WIRED-RITE SST SYSTEM-One (1) Wired Rite SST-4BX (stop, start & throttle) control system shall be provided and installed.

COMPLY ✓ PDM

ALUMINUM SADDLE-TYPE TAILSHELF-A saddle-type rear tailshelf shall be furnished to facilitate bucket entry from loadbed level. Tailshelf shall be constructed from minimum **1/8" aluminum** treadbrite. Size of tailshelf to be determined by area needed for bucket storage with no overhang past the bumper (24" X 30" bucket). The tailshelf shall include an approximately 6" high (5.5" I.D.) thru-storage shelf with two side compartments (height to be sized to allow the bottom of the tailshelf side compartments to be equal with the bottom of the body's side packs). The side compartments shall include **vertically** hinged doors and automotive type crimp on gaskets. Latches and hinges shall be **stainless steel** and keyed to match the body latches. The top of of tailshelf shall be coated with **black non-skid paint**

COMPLY ✓

REAR BUMPER with RECESS-One (1) steel gripstrut rear bumper step shall be fabricated and installed. The bumper shall include a suitable recess for a hitch.

COMPLY ✓

TOWING PACKAGE-Provide a towing package to include one 8-ton rated pintle hook, one (1) Cole-Hersee 1235 six-prong trailer socket, and one (1) pair of safety chain eyelets. Hitch shall be reinforced, with suitable channels to the chassis frame.

COMPLY ✓

BACK-UP ALARM-One (1) backup alarm provided and installed.

COMPLY ✓

MUD FLAPS-One (1) pair of rubber mud flaps shall be provided and installed behind the rear wheels.

COMPLY ✓

SWING STEP AND GRAB RAIL-One (1) Sauber Manufacturing Model 8467 safety swing step shall be provided. The swing step shall incorporate an aluminum-bronze support with hot-dipped galvanized finish. A grab rail

shall be fabricated and installed to assist access to the cargo area. The swing step and grab rail shall be mounted at the rear CURBSIDE of the unit.

COMPLY ✓

OUTRIGGER PADS AND PAD HOLDERS-Two (2) aluminum outrigger pad holders shall be provided and installed one (1) each under the front streetside and curbside compartments. Two (2) high density polyethylene outrigger pads shall be provided.

COMPLY ✓

STROBE LIGHT-One (1) **Star 200SD** double-flash strobe light shall be provided and installed on streetside pipe mounted on the front of compartment. The light shall be manually activated by an illuminated rocker switch provided and mounted on the chassis dash.

COMPLY ✓

LED WARNING LIGHTS-Two (2) **STAR model DLXT-121-AA Amber Thinline**, quad flash, LED warning lights shall be flush mounted in the top outward edges of the front chassis grille. Two (2) **Star model LDHEF-4, 4"** round, quad flash, LED warning lights shall be installed in the rear of the tailshelf. These warning lights will be manually activated by a single illuminated rocker switch mounted on the chassis dash.

COMPLY ✓

DUAL REMOTE CONTROLLED WIRELESS SPOT LIGHTS-One (1) Go Light model #3067 spotlight shall be provided and installed. One (1) spotlight shall be installed on the curbside of the chassis hood area. The spotlights shall have wireless dash-mount control and hand held programmable remote controls secured by Velcro.

COMPLY ✓

CONE HOLDER-One (1) steel single pole style cone holder shall be fabricated and installed on the rear street-side bumper step.

COMPLY ✓

PTO HOUR METER-One (1) PTO hour meter shall be provided and installed to monitor the chassis PTO hours.

COMPLY ✓

COLOR SCHEME

The body and aerial features shall be finished as follows:

- The metal portions of the aerial shall be Urethane painted **School Bus Yellow** to match the chassis color.
- The fiberglass portions of the aerial shall be gelcoated **White**.
- The body exterior shall be gelcoated School Bus Yellow to match chassis color.
- The body's floor and the top of the tail shelf shall be coated with a **black non-skid coating**.
- The compartment interiors and shelving shall be left in **natural** fiberglass.
- All steel surfaces normally painted shall be painted **black**.
- Any stainless steel, chrome or aluminum surfaces shall be left in an **unpainted** state.

COMPLY ✓

CHASSIS SPECIFICATIONS

2014 FORD F-550 4X4 SUPER CAB CHASSIS WITH DIESEL ENGINE

POWERTRAIN-6.0L diesel engine * 175 amp alternator * 750 amp 78 amp hours (Ah) HD battery with run down protection * Engine block heater, transmission oil cooler * 6-speed electronic SelectShift automatic transmission with overdrive lock-up, driver selection * Rear-wheel drive * Limited slip differential, driveline traction control, power take-off provision * 4.88 axle ratio * Stainless steel exhaust

COMPLY ✓

STEERING & SUSPENSION-Hydraulic power-assist re-circulating ball steering * 4-wheel disc brakes with front and rear vented discs * Firm ride suspension * Mono-beam non-independent front suspension * Front anti-roll bar * HD front coil springs * HD front shocks * Rigid rear axle * rear leaf suspension * Rear anti-roll bar * HD rear leaf springs * HD rear shocks *

Front and rear 19.5" x 6.00" argent steel wheels * LT225/70SR19.5 BSW AS front tires * AT rear tires * frame mounted full-size steel spare wheel

COMPLY ✓

SAFETY-4-wheel anti-lock braking system * Dual airbags, passenger side front-impact cancellable airbag, seat mounted driver and passenger side-impact airbags, curtain 1st row overhead airbag * Front height adjustable seatbelts

COMPLY ✓

COMFORT & CONVENIENCE-Air conditioning * AM/FM stereo, clock, seek-scan, 2 speakers, fixed antenna * 2 12V DC power outlets * Analog instrumentation display includes tachometer, oil pressure gauge, engine temperature gauge, transmission fluid temp gauge, engine hour gauge, exterior temp, systems monitor, trip odometer * Warning indicators include oil pressure, engine temperature, battery, lights on, key, low fuel, door ajar, service interval, brake fluid * Steering wheel with tilt and telescopic adjustment * Manual front windows with light tint * Variable intermittent front windshield wiper * Passenger side vanity mirror * Day-night rearview mirror * Interior lights include domoe light with fade, front reading lights * Glove box, front cup holder, instrument panel bin * Upfitter switches

COMPLY ✓

SEATING & INTERIOR-Seating capacity of 3 * 40-20-40 split-bench front seat with adjustable head restraints, center armrest with storage * 4-way adjustable driver seat includes lumbar support * 4-way adjustable passenger seat * Vinyl faced front seats with vinyl back * full cloth headliner, full vinyl/rubber floor covering, plastic/rubber gear shift knob, chrome interior accents

COMPLY ✓

EXTERIOR FEATURES-Side impact beams, front license plate bracket, fully galvanized steel body material * Black fender flares * Black side window moldings, black front windshield molding * Black door handles * Black grille * 2 doors * Trailer harness, brake controller * Driver and passenger manual adjusting outside mirrors * Front black bumper with front tow hooks * Aero-composite halogen headlamps * Additional exterior lights include cab clearance lights, under hood light * Clearcoat monotone paint * Snow plow provision

COMPLY ✓

WARRANTY-

BASIC	36 month/ 36,000 miles
POWERTRAIN	60 month/60,000 miles
CORROSION PERFORATION	60 month/unlimited mileage
ROADSIDE ASSISTANCE	60 month/60,000 miles

COMPLY ✓

BUILD SPECIFICATIONS WITH CODES:

2014 FORD F-550 4X4 Regular Chassis w/165 WB, DRW XL (F5G)	660A
50 State Emissions System	425
6.7 L Diesel Engine	
175 Amp Heavy Duty Alternator	INC
750 CCA HD battery w/run down protection	INC
TorqShift 6-spd automatic transmission with OD includes SelectShift	44T
Limited slip rear differential – 4.88 axle ratio	X8L
19,500 lb. GVWR Payload package	68M
Front tires (2) highway tread type 225/70SR19.5 BSW AS	THB
Rear tires (4) max traction, snow & mud type. 225/70SR 19.5 BSW AT	THB
Wheels: 19.5" Argent painted steel	64Z
Spare Tire & Wheels (includes as Standard Option 61J – 6-ton jack)	512
HD Vinyl 40/20/40 Split Bench seat	A
Monotone paint application	PAINT
165" Wheel base, 84.0" Cab-to-Axle	165WB
Snow Plow Prep Package (for added front axle capacity & engine cooling)	473
Engine Block Heater	41H

PLEASE COMPLETE AND RETURN THE SPEC FORMS SUPPLIED.

ANY QUESTIONS SHOULD BE ADDRESSED TO:

MIKE FURMANSKI

CITY OF ESCANABA ELECTRIC DEPTARMENT

(906) 786-0061

PRICE SUMMARY

AERIAL, BODY ACCESSORIES, AND INSTALLATION:

\$ 84,580.00

CHASSIS:

\$ 44,591.00

NET PRICE: FOB, ESCANABA, MI

\$ 129,171.00

BIDDER'S PROPOSAL

DATE: 3/23/2014

City of Escanaba
Escanaba, MI 49829

We, the undersigned, agree to furnish the City of Escanaba, Michigan **ONE (1) NEW 2014 SINGLE BUCKET INSULATED AERIAL DEVICE, UTILITY BODY, AND CHASSIS**, in accordance with the attached specifications, which are a part of this proposal, at the following price:

SEE PREVIOUS ATTACHED PRICE SUMMARY/OPTION SHEET

MAKE: Altec

MODEL: L37P

DELIVERY DATE: 270 Days (ARO)

FOB: CITY OF ESCANABA, MI

**CERTIFIED CHECK, CASHIER'S CHECK, OR
BIDDER'S BOND ENCLOSED IN THE
AMOUNT OF:**

\$ 12,920.00 (10%)
(must be included to qualify)

SUBMITTED BY:

FIRM: Altec Industries, Inc.

ADDRESS: 1550 Aerial Ave.

Creedmoor, NC 27522

BY: 

PRINTED NAME: Kevin Stogner

PHONE NUMBER: 919-423-9544



March 24, 2014
Our 85th Year

CITY OF ESCANABA
1719 SHERDAIN RD
ESCANABA, MI 49829
US

Altec Quotation Number: 247757 - 1
Account Manager: Andrew M Johnson
Inside Sales Rep: Kevin L Stogner

Bill To:
CITY OF ESCANABA
1719 SHERDAIN RD
ESCANABA, MI 49829
United States
Altec Sales Order(s):

<u>Item</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>
	<u>Unit</u>		
1.	Altec Model L37M Articulating Overcenter Aerial Device with a fiberglass upper boom and fiberglass insulator in the lower boom and a proportional joystick upper control and toggle switches. Built in accordance to ALTEC's standard specifications and to include the following features: L37P ILO L37M	1	
	A. Ground to Bottom of Platform Height: 37.1 ft (11.3 m)		
	B. Working Height: 42.0 ft (12.8 m)		
	C. Maximum reach to edge of platform: 29.6 ft at ft platform height (9 m at 0 m)		
	D. Rotation: Continuous		
	E. Upper Boom Articulation: 0 to 205 degrees. Insulator provides a minimum of 124.8 in (3169.9 mm) of isolation.		
	F. Lower Boom Articulation: 0 to 98 degrees. Insulator provides a minimum of 7.0 in (177.8 mm) of isolation.		
	G. Side by side boom configuration		
	H. Upper Controls: The upper controls system includes a proportional joystick upper control and toggle switches.		
	I. Lower Controls: A lower control station includes and is located on the of the turntable. A selector valve is provided to override the upper controls.		
	J. The platform leveling system consists of a hydraulic and mechanical leveling system. A master-slave hydraulic cylinder combination is used in the lower boom to provide the lower link of the leveling system. The slave cylinder is connected via a lever to the elbow transfer tube. The upper boom side of the transfer tube is fitted with a roller chain sprocket. The upper boom leveling is provided by chain and sprockets contained completely within the upper boom and designed to maintain the dielectric integrity of the upper boom.		
	K. Hydraulic platform tilt controls are located at the platform to hydraulically tilt the platform aiding in emergency removal of an operator and removal of debris or water. System can also be used to fine tune platform leveling position.		
	L. 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.		
	M. Tool circuit system relief pressure to be set to 2250 psi at 5.5 GPM.		
	N. Unit meets or exceeds ANSI 92.2 standards.		
2.	Manual Upper Boom Stow Securing System with support cradle and tie down strap.	1	
3.	Upper boom stow positioned so that upper boom is at -0 degrees relative to the lower boom	1	
4.	Pedestal	1	



<u>Item</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>
5.	Steel Reservoir, 15 gallon capacity, triangular, 17" L x 17" W x 24" H, and includes breather caps and dipsticks	1	
6.	Custom Platform Configuration Single 1-Man Platform, 24" x 30" x 42", Side Mount, 90 Degree Rotation, Shaft-Mounted Controls, (No Jib)	1	
7.	Custom Platform Step Two (2) Platforms, one (1) toward the front, and one (1) on the rear of the platform.	1	
8.	Platform Cover - soft vinyl, 24 x 30 inches (610 x 762 mm)	1	
9.	Platform Liner - for one-man fiberglass platform, 24 x 30 x 42 inches (610 x 762 x 1067 mm), 50 kV rating (minimum)	1	
10.	Platform Floor Liner (Scuff Pad) with Step, 24 x 30 inches (610 x 762 mm)	1	
11.	Hydraulic Tool Circuit at Platform: One set of quick disconnect couplings at the boom tip for open center tools. Tool system relief pressure set at 2,250 psi.	1	
12.	Engine Start/Stop & Secondary Stowage System: 12 VDC powered motor and pump assembly for temporary operation of the unit in a situation wherein the primary hydraulic source fails. Electric motor is powered by the chassis battery. This feature allows the operator to completely stow the booms, platform, and outriggers. Secondary Stowage & Start/Stop is activated with an air plunger at the platform or momentary switch at the lower control station and outriggers.	1	
13.	Slip Ring: Required for engine start/stop, secondary stowage system, and throttle control options	1	
14.	Primary A-Frame Outriggers, swivel shoe, provides 140 inch (3556 mm) spread. Includes motion alarm and outrigger interlocks, which will not allow the unit to be operated until the outriggers have been deployed. For installation on a 30 to 40 inch chassis frame height.	1	
15.	Hydraulic Outrigger Control Valves	1	
16.	Insulating Aerial Device, ANSI Category C, 46kV and Below	1	
17.	Cylinders - 1000 hour Salt Spray	1	
18.	Manual, Extra Operators and Maintenance/Parts	1	
19.	Fall Protection System to include one body harness and decelerating type lanyard. Harness has adjustable slide buckle on shoulder straps, Velcro chest strap, interlocking buckles on leg straps and nylon web loop fall arrest attachment on back. Lanyard has built in shock absorber that allows 28 inches (711 mm) of automatic adjustability	1	
20.	Sight and Temperature gauge for hydraulic reservoir	1	
21.	Bolt On Grab Handle for Turntable	1	
22.	Winch load line swivel hook	1	
23.	Custom unit color (specify color code). School Bus Yellow	1	
24.	Custom Above Rotation Color School Bus Yellow	1	
25.	Custom Pedestal/Tower Color School Bus Yellow	1	
26.	Custom Inner Outrigger Leg Color School Bus Yellow	1	



<u>Item</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>
27.	Custom Outrigger Housing Color School Bus Yellow	1	
<u>Unit & Hydraulic Acc.</u>			
28.	Subbase Weldment	1	
29.	Kendall Glacial Blue Hydraulic Oil (Meets MilSpec 5606).	25	
30.	Standard Pump For PTO	1	
31.	Electric Shifted PTO	1	
32.	Standard PTO/Transmission Functionality for Small Ford and Dodge Chassis	1	
<u>Body</u>			
33.	BrandFX Body	1	
34.	Fiberglass Body	1	
35.	Low-Side General Service With Step (LGSS)	1	
36.	Custom Body Specifications Details: a) Body side compartments shall include laminated PVC core to provide sufficient compression for strength and rigidity. b) Core shall be min 3/8" thickness, providing a density of 5 - 6 pounds per cubic foot. c) Minimum 18 mil fiberglass skin shall fully enclose the inner PVC core. d) All exterior surfaces shall have a minimum 20 mills gelocoat and .50 mil skin coat. e) Understructure shall be primed with premium epoxy primer and finished with acrylic enamel paint. f) Bulkhead to be 1/8" smooth aluminum. g) Doors shall be sandwich-style construction, consisting of a 2" thick density PVC core enclosed by 1/8" fiberglass skin on each side. Structural core material shall have a minimum shear length of 151 PSI and minimum 3995 PSI shear modulus. All doors shall be manufactured using a closed mold system to produce a high quality automotive finish on both sides and insure structural strength. All compartment doors shall have radius corners to maintain positive seal and insure maximum weather protection. h) All doors shall be fitted with a specially designed automotive-type weather strip, for maximum assurance of weather tight compartmentation. The weather strip shall be removable to facilitate its replacement as required. i) Stainless hinges (Non Piano Style). j) Stainless hardware. k) Shelves and hanger brackets shall be constructed of pultruded fiberglass. Shelves to have 2" lips. Shelf dividers shall be constructed of pultruded fiberglass.	1	
37.	Approximate Body Length (Engineering to Determine Final Length) 132"	1	
38.	Custom Body Width 94"	1	
39.	Custom Body Compartment Height 42"	1	
40.	Custom Body Compartment Depth 20"	1	
41.	Gelcoat Finish Entire Body. School bus yellow	1	
42.	Custom Body Cargo Retaining Option Detail: 2 Inch x 6 Inch Drop-In Composite Retaining Board At Top Of Side Access 2 Inch x 6 Inch Drop-In Composite Retaining Board At Rear of Body	1	



<u>Item</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>
43.	Treadplate On Streetside Compartment Tops (Not a Walking Surface) Aluminum	1	
44.	Treadplate On Curbside Compartment Tops (Not a Walking Surface) Aluminum	1	
45.	Custom Body Compartment Top Surface Grip strut on top of curb side Horizontal & Rear Vertical (Platform Access)	1	
46.	Rope Lights (LED) Around Top And Sides Of Compartment Door Facings	1	
47.	Stainless Steel Rotary Paddle Latches With Keyed Locks	1	
48.	Cable Holders On All Horizontal Doors	1	
49.	Custom Body Door Holders Cable Holders On All Vertical Doors	1	
50.	Standard Master Body Locking System (Standard Placement Is At Rear. Sidepacks With A Throughshelf/Hotstick Door At Rear, Standard Placement Is At The Front)	1	
51.	One Chock Holder On Each Side of Body With Retaining Lip In Fender Panel (Rear Of Wheel Or Opposite Fuel Fill)	1	
52.	Hotstick Shelf Extending Full Length Of Body On Streetside	1	
53.	Plywood Lining For Hotstick Shelf On Streetside	1	
54.	Standard Drop-Down Hotstick Door For One (1) Shelf On Streetside, Stainless Steel Slam Paddle Latch With Keyed Lock	1	
55.	1st Vertical (SS) - Adjustable Shelf With Removable Dividers On 4 Inch Centers	3	
56.	2nd Vertical (SS) - 4 Inch High Pull-Out Drawer On Slides, As Wide As Possible, Latched, Modular Dividers (Egg Crate Style On 2 Inch Centers, Removable, And Configurable) Installed under hotstick shelf.	4	
57.	1st Horizontal (SS) - Fixed Shelf With Removable Dividers On 4 Inch Centers Evenly spaced between hotstick shelf and the bottom of the compartment.	1	
58.	Rear Vertical (SS) - Adjustable Shelf With Removable Dividers On 4 Centers	1	
59.	Rear Vertical (SS) - Outrigger Housing, With Outrigger Pin Access As Needed With matted wall.	1	
60.	1st Vertical (CS) - Treadplate Access Steps w/ Two (2) Sloped Grab Handles, Vented Chain/Battery Storage (Keyed Lock)	1	
61.	2nd Vertical (CS) - Adjustable Shelf With Removable Dividers On 4 Inch Centers	4	
62.	Custom 1st Horizontal (CS) Compartmentation One (1) Durham 18D small parts cabinet in the rear portion of cabinet.	1	
63.	Rear Vertical (CS) - Locking Swivel Hooks On An Adjustable Rail - Left Wall	1	
64.	Rear Vertical (CS) - Locking Swivel Hooks On An Adjustable Rail - Rear Wall	3	
65.	Rear Vertical (CS) - Locking Swivel Hooks On An Adjustable Rail - Right Wall	1	
66.	Rear Vertical (CS) - Outrigger Housing, With Outrigger Pin Access As Needed With matted wall.	1	



<u>Item</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>
67.	Additional Body Option Rock Guards: - Front corners of the side compartments shall be protected with aluminum Treadplate rock guards.	1	
68.	Additional Body Option Floor: - Floor to be Aluminum treadbrite with a 4" toe kick around the perimeter of the cargo area.	1	
69.	Additional Body Option Wheel Wells: - Provide stainless wheel well liners.	1	
<u>Body and Chassis Accessories</u>			
70.	30" L Aluminum Tailshelf, Width To Match Body Features: - Fabricated from 1/8" aluminum treadbrite. - Storage Box Built Into Curbside Of Tailshelf, with vertically hinged doors to open toward the front And Stainless Keyed Latch, to be flush with the bottom of the body side packs. Approx dimensions 18"H X 18"W X 20"D (Located in front of the cross storage) - Storage Box Built Into Streetside Of Tailshelf, with vertically hinged doors to open toward the front And Stainless Keyed Latch, to be flush with the bottom of the body side packs. Approx dimensions 18"H X 18"W X 20"D (Located in front of the cross storage)	1	
71.	Cross Storage Located Between Top Of Chassis Frame Rail And Tailshelf Floor. Drop Down Doors With Keyed Latches Streetside and Curbside. Approximately 6"H X 10"W, Include stainless latches keyed to match the body.	1	
72.	Sauber Breakaway Step Installed At Rear Model 8467, Located on CS.	1	
73.	Rubber Belted Step Mounted Beneath Side Access Steps (Installed To Extend Approx. 2" Outward)	1	
74.	Compartment Top Access Step from Body Floor Installed behind the CS horizontal.	1	
75.	Platform Access Step From Top of Body Compartment	1	
76.	U-Shaped Grab Handle located CS rear of tailshelf (3 pt access)	1	
77.	Small Grab Handle Installed At Rear located CS rear of tailshelf (3 pt access)	1	
78.	ICC (Underride Protection) Bumper Installed At Rear	1	
79.	Combination 2 Ball (10,000 LB MGTW) And Pintle Hitch (16,000 LB MGTW)	1	
80.	Set Of D-Rings for Trailer Safety Chain, installed one each side of towing device mount.	1	
81.	Post Style Cone Holder Installed on SS of tailshelf.	1	
82.	Platform Rest, Rigid with Rubber Tube	1	
83.	Lower Boom Rest Weldment	1	
84.	Pendulum Retainers For Outrigger Pad Holders	2	
85.	Plastic Outrigger Pad, 18" x 18" x 1", Black With Handle	2	
86.	Custom Outrigger Pad Holder Aluminum Outrigger Pad Holder, 20" L x 20" W x 3" H, Fits 19.5" x 19.5" x 2" And Smaller Pads, Bolt-On, Bottom Washout Holes, 3/4" Lip Retainer	2	



<u>Item</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>
87.	Wheel Chocks, Rubber with Metal Hairpin Style Handle, 9.75" L X 7.75" W X 5.00" H (Pair)	1	
88.	Mud Flap Without Altec Logo (Pair)	1	
89.	Driveaway Safety Kit	1	
90.	Timbren Springs	1	
91.	Slope Indicator Assembly For Machine With Outriggers	1	
92.	Vinyl manual pouch for storage of all operator and parts manuals	1	

Electrical Accessories

93.	Install secondary stowage system.	1	
94.	Install Remote Start/Stop system in Final Assembly.	1	
95.	Install Outrigger Interlock System	1	
96.	Compartment Lights Wired To Dash Mounted Master Switch	1	
97.	Custom Lighting Package Vehicle Lighting: - Lights And Reflectors Per FMVSS 108 (Complete LED) - Truck Light Brand Only	1	
98.	Custom Strobe Light Lights: - Beacon: Star Model SD200 beacon installed on post at the front of the body SS, wired to switch in the dash. - 4 Corner Strobe, wired to switch on dash. a) two (2) flush mount in grill (outer top edge), Star DLXT-121-AA b) two (2) round grommet mount in rear tailshelf, Star LDHEF-4	1	
99.	Custom Spot Light Details: - Go Light Mode: 3067 - Installed on CS of chassis hood. - Controls to be mounted in the dash, wireless remote attached with Velcro to the dash.	1	
100.	Dual Tone Back-Up With Outrigger Motion Alarm	1	

101.	PTO Hour Meter, Digital With 10,000 Hour Display	1	
102.	Custom Electric Trailer Plug Cole Hersee 1235 six-prong trailer socket.	1	
103.	Dash panel rocker switches supplied with Ford Chassis, 4 auxiliary switches supplied in up fitting package from Ford	1	
104.	Power Distribution Module Is A Compact Self-Contained Electronic System That Provides A Standardized Interface With The Chassis Electrical System. (Includes Operator's Manual)	1	

Finishing Details

105.	Focus Factory Build	1	
106.	Delivery Of Completed Unit	1	
107.	Custom Unit Color School Bus Yellow	1	



<u>Item</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>
108.	Custom Above Rotation Color School Bus Yellow	1	
109.	Custom Pedestal Color School Bus Yellow	1	
110.	Custom Inner Outrigger Leg Color School Bus Yellow	1	
111.	Custom Outrigger Housing Color School Bus Yellow	1	
112.	Altec Standard; Components mounted below frame rail shall be coated black by Altec. i.e. step bumpers, steps, frame extension, pintle hook mount, dock bumper mounts, D-rings, receiver tubes, accessory mounts, light brackets, under-ride protection, etc. Components mounted to under side of body shall be coated black by Altec. i.e. Wheel chock holders, mud flap brackets, pad carriers, boxes, lighting brackets, steps, and ladders.	1	
113.	Apply Non-Skid Paint to all walking surfaces Include compartment tops.	1	
114.	English Safety And Instructional Decals	1	
115.	Vehicle Height Placard - Installed In Cab	1	
116.	Dielectric test unit according to ANSI requirements.	1	
117.	Stability test unit according to ANSI requirements.	1	
118.	Placard, Kendall Glacial Blue Hydraulic Oil	1	
119.	Inbound Freight	1	
120.	Additional Finishing Detail Apply torque seal to all rotation bearing bolts after final torque.	1	
121.	Additional Finishing Detail Color Scheme: - Metal portions of the aerial shall be painted school bus yellow - Fiberglass portions of the aerial shall be white. - The body exterior shall be gelcoated school bus yellow. - Compartment interiors shall be natural fiberglass. - Body floor and top of tailshelf shall be coated with black non-skid. - Stainless steel, chrome and aluminum surfaces shall remain un-painted. (1	
122.	Installation - L37M	1	

Chassis

123.	Chassis	1	
124.	Altec Supplied Chassis	1	
125.	2014 Model Year	1	
126.	Ford F550	1	
127.	4x4	1	
128.	Chassis CA Length - 84"	1	
129.	Super Cab	1	
130.	Chassis Color - Yellow School Bus Yellow	1	



<u>Item</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>
131.	Ford 6.7L Power Stroke Diesel	1	
132.	Ford 6R140 6-Speed Automatic Transmission (w/PTO Provision)	1	
133.	GVWR 19,500 LBS	1	
134.	7,000 LBs Front Axle Rating	1	
135.	14,706 LBs Rear Axle Rating	1	
136.	225/70R19.5 Front Tire	1	
137.	225/70R19.5 Rear Tire (Traction)	1	
138.	Hydraulic Brakes	1	
139.	Park Brake In Rear Wheels	1	
140.	Single Horizontal Exhaust Right Hand	1	
141.	98R - Operator Commanded Regeneration (OCR)	1	
142.	No Idle Engine Shut-Down Required	1	
143.	Transmission Oil Cooler	1	
144.	Air Conditioning	1	
145.	AM/FM Radio	1	
146.	Jack Assembly	1	
147.	Spare Tire	1	
148.	Tilt Steering Wheel	1	
149.	Block Heater	1	
150.	Snow Plow Package	1	
151.	Engine Oil Cooler	1	

152.	Vinyl Split Bench Seat 40-20-40	1	
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Miscellaneous

153.	Standard Altec Warranty: One (1) year parts warranty, one (1) year labor warranty, ninety (90) days warranty for travel charges, limited lifetime structural warranty	1	
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Total 129,171.00

Altec Industries, Inc.

BY 

Kevin L. Stogner

We Wish To Thank You For Giving Us The Pleasure
And Opportunity of Serving You
UTILITY EQUIPMENT AND BODIES SINCE 1929

Notes:

1 OPTIONS AND ACCESSORIES: These options are not included in the quote total price. Selected options will change the quote total. Any options added after initial order will be re-quoted.

Option 1: Material Handling (Jib / Winch) Add \$1025.00

2 Altec Standard Warranty:

One (1) year parts warranty.

One (1) year labor warranty.

Ninety (90) days warranty for travel charges.

Warranty on structural integrity of the following major components is to be warranted for so long as the initial purchaser owns the product: Booms, boom articulation links, hydraulic cylinder structures, outrigger weldments, pedestals, subbases and turntables.

Bidder is to supply a self-directed, computer based training (CBT) program. This program will provide basic instruction in the safe operation of this aerial device. This program will also include and explain ANSI and OSHA requirements related to the proper use and operation of this unit.

Altec offers its standard limited warranty with the Altec supplied components which make up the Altec Unit and its installation, but expressly disclaims any and all warranties, liabilities, and responsibilities, including any implied warranties of fitness for a particular purpose and merchantability, for any customer supplied parts

3 Altec designs and manufactures to applicable Federal Motor Vehicle Safety and DOT standards
Altec takes pride in offering solutions that provide a safer work environment for our customers. In an effort to focus on safety, we would like to ensure that the following items are offered to you as part of the attached quotation package:

- Outrigger pads (When Applicable)
- Fall Protection System
- Fire extinguisher/DOT kit
- Platform Liner (When Applicable)
- Back up alarm
- Wheel Chocks

The aforementioned equipment is traditionally offered in our new equipment quotations, unless requested otherwise by the customer. If you find that any of these items have not been listed as priced options in the body of your quotation and are required by your company, we would encourage you to contact your Altec Account Manager and have an updated quotation developed for you. These options must be listed as individual options in the body of the quotation for them to be supplied by Altec.

4 Unless otherwise noted, all measurements used in this quote are based on a 40 inch (1016mm) chassis frame height and standard cab height for standard configurations.

5 F.O.B. - Customer Site

6 Changes made to this order may affect whether or not this vehicle is subject to F.E.T. A review will be made at the time of invoicing and any applicable F.E.T. will be added to the invoice amount.

7 Price does not reflect any local, state or Federal Excise Taxes (F.E.T.). The quote also does not reflect any local title or licensing fees. All appropriate taxes will be added to the final price in accordance with regulations in effect at time of invoicing.

8 Interest charge of 1/2% per month to be added for late payment.

9 Delivery: 240-270 days after receipt of order PROVIDING:

A. Order is received within 14 days from the date of the quote. If initial timeframe expires, please contact your Altec representative for an updated delivery commitment.

B. Chassis is received a minimum of sixty (60) days before scheduled delivery.

- C. Customer approval drawings are returned by requested date.
- D. Customer supplied accessories are received by date necessary for compliance with scheduled delivery.
- E. Customer expectations are accurately captured prior to releasing the order. Unexpected additions or changes made at a customer inspection will delay the delivery of the vehicle.

10 Altec reserves the right to change suppliers in order to meet customer delivery requirements, unless specifically identified, by the customer, during the quote and or ordering process.
Trade-in offer is contingent upon equipment being maintained to DOT (Department of Transportation) operating and safety standards. This will include, but not limited to tires, lights, brakes, glass, etc. If a trade-in is not maintained to DOT standards, additional transportation expenses will apply and could be invoiced separately.

All equipment, i.e., jibs, winches, pintle hooks, trailer connectors, etc., are to remain with the vehicle unless otherwise agreed upon in writing by both parties. Altec Industries reserves the right to re-negotiate its trade-in offer if these conditions are not met.

Customer may exercise the option to rescind this agreement in writing within sixty (60) days after receipt of purchase order. After that time Altec Industries will expect receipt of trade-in vehicle upon delivery of new equipment as part of the terms of the purchase order.

Titles for trade-in equipment should be given to the appropriate Altec Sales associate or forwarded to Altec Nueco at address 1730 Vanderbilt Road, Birmingham, AL 35234.

11 This quotation is valid until MAY 19, 2014. After this date, please contact Altec Industries, Inc. for a possible extension.

12 After the initial warranty period, Altec Industries, Inc. offers mobile service units, in-shop service and same day parts shipments on most parts from service locations nationwide at an additional competitive labor and parts rate. Call 877-GO-ALTEC for all of your Parts and Service needs.

13 Please email Altec Capital at finance@altec.com or call 888-408-8148 for a lease quote today.

14 Please direct all questions to Andrew M Johnson at (919) 528-2535

Altec Industries, Inc. Provides the Following Warranties to the Original Purchase of an Altec Aerial Device Or Digger Derrick



ALTEC AERIAL & DIGGER DERRICK UNITS STRUCTURAL

Aerials and derricks designed and manufactured by Altec Industries, Inc., are warranted to be free from defects in material and workmanship at the time of initial delivery. This does not apply if the product has been modified or altered in any way by anyone other than an approved Altec representative.

For so long as the initial purchaser owns the product, Altec will, at its option, repair or replace any of the following major components found by Altec to be structurally impaired due to defects in material or workmanship which existed at the time of initial delivery: booms, boom articulation links, hydraulic cylinder structures, outrigger weldments, pedestals, sub bases, turntables, and reel lifting arms. No charge for parts or labor shall be made for such repair or replacement when performed at an Altec service facility. This warranty does NOT cover wear components.

APPLICABLE TO ALL ALTEC AERIAL & DIGGER DERRICK UNITS:

COMPONENTS

For 1 year following initial delivery of the product, Altec will, at its option, repair or replace any part found by Altec to be defective in material or workmanship at the time of initial delivery. During the first 90 days following initial delivery, no charge for parts, labor or travel to the customer's location shall be made for such repair or replacement at the customer's location. During the remainder of such 1 year, no charge for parts or labor shall be made for such repair or replacement at an Altec service facility.

ELIGIBILITY

- Warranty period begins at the time of initial delivery from Altec.
- All products must be properly installed, maintained, and serviced during the duration of the warranty coverage.
- This warranty is not transferable beyond the original owner.

EXCLUSIONS

This warranty does not cover:

- (a) products which have not been operated and maintained in accordance with Altec operators and maintenance manuals, programs, and bulletins;
- (b) products which have not been mounted in accordance with Altec installation procedures;
- (c) products not manufactured by Altec which are supplied by Altec on special order;
- (d) products which are repaired without using original Altec parts; or
- (e) transportation or delivery to an Altec service facility or the customer's location.
- (f) replacement of rental charges, misuse, abuse, accidents, alteration or use in any way not recommended by Altec.

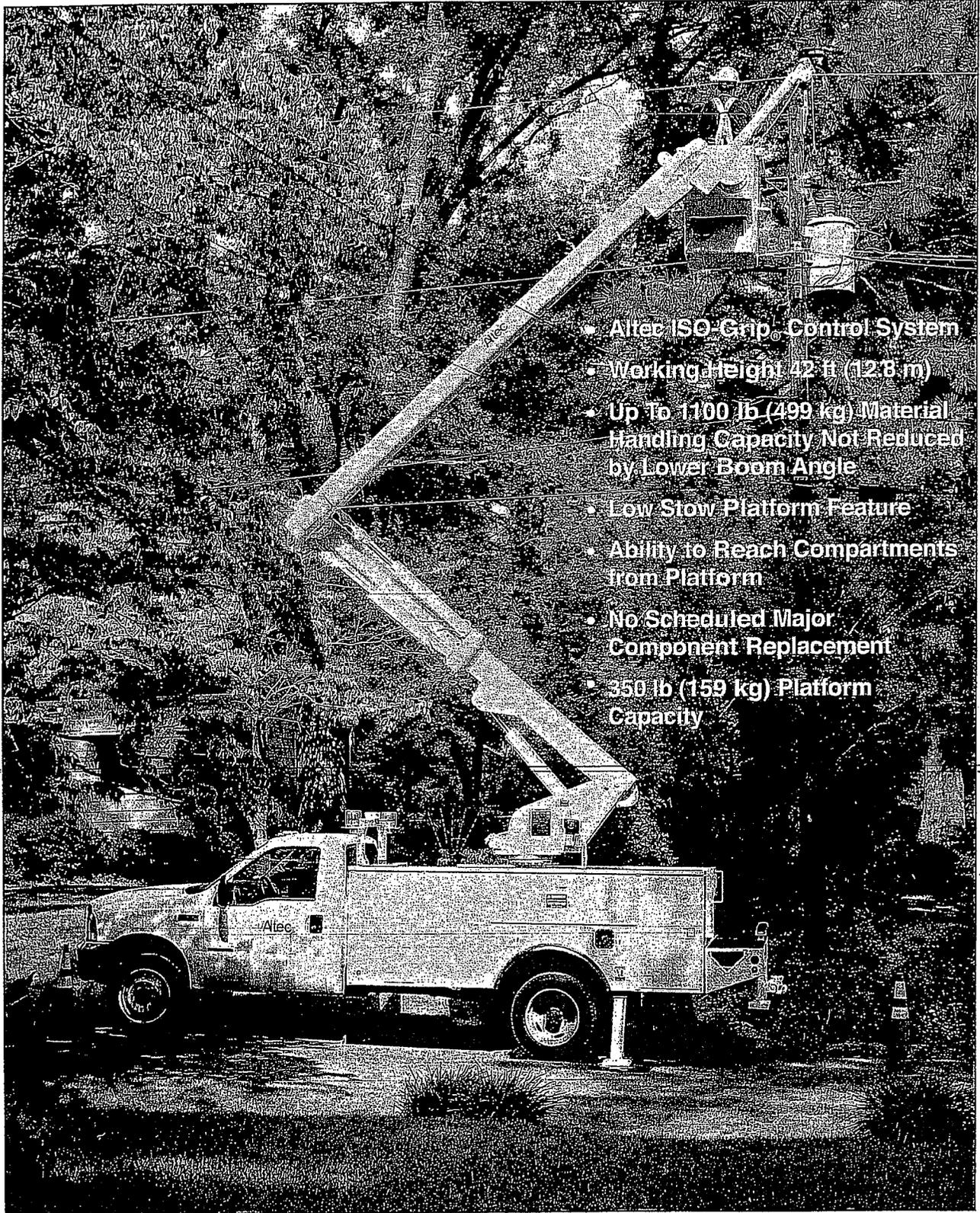
Any and all accessory items that are added to the body but not manufactured by Altec, such as inverters, compressors, liftgates, generators, corner mount cranes, etc., will be covered, if at all, by the accessory products manufacturer's warranty in effect at the time of delivery and will not be covered by any warranty extended by Altec.

This limited warranty is expressly in lieu of any other warranties, express or implied, including, but not limited to, any warranty of merchantability or fitness for a particular purpose. Except as specified above, no associate, agent or representative of Altec is authorized to extend any warranty on Altec's behalf. Remedies under this limited warranty are expressly limited to the provision and installation of parts and labor, as specified above, and any claims for other loss or damages of any type (including, but not limited to, loss from failure of the product to operate for any period of time, other economic or moral loss, or direct, immediate, special, indirect, incidental or consequential damage) are expressly excluded.





Altec L37M Overcenter Material Handling Aerial Device



- Altec ISO-Grip Control System
- Working Height 42 ft (12.8 m)
- Up To 1100 lb (499 kg) Material Handling Capacity Not Reduced by Lower Boom Angle
- Low Stow Platform Feature
- Ability to Reach Compartments from Platform
- No Scheduled Major Component Replacement
- 350 lb (159 kg) Platform Capacity



Altec L37M Specifications

STANDARD FEATURES

- Altec ISO-Grip® Control System
- Overcenter Articulating Aerial Device
- Material Handling System with Hydraulic Tilting, Manual Extend Jib
- Insulated, ANSI Category C, 46 kV and Below
- Lower Boom Insulator, 7 in (18 mm)
- Low Stow Platform
- Altec Patented Walking Link
- Continuous Rotation
- Side Mounted Platform 24 x 30 x 42 in (610 x 762 x 1067 mm)
- Platform Capacity 350 lb (159 kg)
- Hydraulic/Mechanical Platform Leveling System
- Hydraulic Platform Tilt
- Full Pressure Open Center Hydraulic System
- Hydraulic Tool Circuit at Boom Tip
- A-Frame Outriggers, One Set
- Outrigger Boom Interlock System
- Outrigger Motion Alarm
- Back Up Alarm

OPTIONS

- Diagnostic Test Kit
- Throttle Control
- Secondary Stowage
- Engine Start/Stop
- Lower Boom Lifting Eye
- Platform Cover
- Tool Circuit at the Tail Shelf
- Insulated ANSI Category B, 46 kV and below
- Hydraulically Extendible Jib
- Platform Rotator

RECOMMENDED FEATURES

- Fall Protection System
- Platform Liner
- Wheel Chocks
- Outrigger Pads

GENERAL SPECIFICATIONS

Platform Height*	37.1 ft	11.3 m
Maximum Side Reach	29.2 ft	3.9 m
Maximum Side Reach Non-Overcenter	25 ft	7.6 m
Stowed Travel Height	9.3 ft	2.8 m
Platform Capacity	350 lb	159 kg
Boom Articulation		
Upper		205°
Lower		98°
Rotation		Continuous

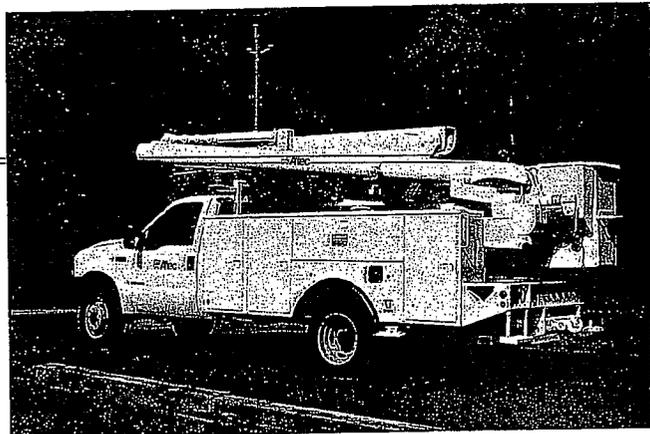
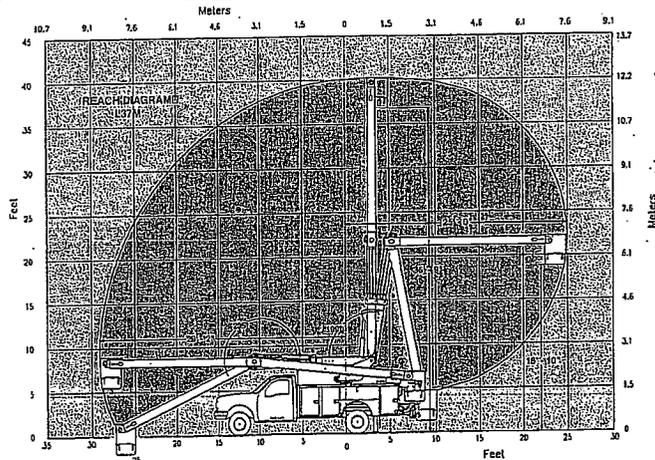
*Based on 40 in (1016 mm) Chassis Frame Height

Altec Aerial Devices meet or exceed all applicable ANSI Standards as of the date of manufacture. Altec reserves the right to improve models and change specifications without notice or obligation.



Altec L37M offers easy body compartment access from the platform.

REACH DIAGRAM



Low stow feature, low center of gravity and low travel height offers operator easy platform access, a stable driving unit and the ability to maneuver in low overhead areas.

Altec Sales and Service



Manufacturing and Service Facilities Located Throughout the United States and Canada
www.altec.com

Altec Industries, Inc.

Post Office Box 10264
Birmingham, Alabama 35202
Phone 205/991-7733
Fax 205/991-9993

ALT3003001
L37M-3M-5/07

DUECO Inc
Bid

NOTICE TO BIDDERS

Sealed bids will be received by the City of Escanaba at the office of the City Clerk, on or before 2p.m. e.s.t, on: **TUESDAY, MARCH 25, 2014**

The bids will be publicly opened and read in Room 101 in the City Hall located at 410 Ludington Street, Escanaba, Michigan at said date and time.

Bidder's proposals, and/or specifications may be obtained from the office of the City Clerk, located at 410 Ludington Street, Escanaba, Michigan, 49829. No bids will be considered unless the proposal form and /or specifications (furnished by the City of Escanaba, Michigan), are properly completed and enclosed in a sealed envelope, marked:

NEW 2014 SINGLE BUCKET INSULATED AERIAL DEVICE, UTILITY BODY & CHASSIS

In addition, the City of Escanaba, Michigan will not consider any proposal which has not been received prior to the published time, date and year of bid opening. (FAX transmittals will not be accepted.)

A Certified Check, Cashier's Check, or Bidder's Bond, drawn payable, without condition, to the City of Escanaba, Michigan, in an amount not less than 10% of the bid, will be submitted with each proposal as a guarantee that if the bid is accepted, the bidder will furnish materials or services as stated in his or her proposal. On failure of the successful bidder to fulfill the conditions of his or her proposal, he or she shall forfeit said deposit to the City of Escanaba, Michigan as liquidated damages. The acceptance of the proposal will be contingent upon the bidder's acceptance of this provision.

The City of Escanaba, Michigan reserves the right to reject any or all bids, or any part thereof at its discretion, and to waive any irregularities in the bidding. The City of Escanaba, Michigan may also split bids at its discretion. The City further reserves the right to negotiate directly with any and all bidders concerning any matter related to any bid.

All City of Escanaba, Michigan bids are prepared to afford all vendors the equal opportunity for fair and equitable competition. The City of Escanaba, Michigan assumes no liability or responsibility for any errors or oversights in the preparation and/or publication of bids.

Thomas J. Penegor
Purchasing Agent
City of Escanaba

SPECIFICATIONS

ONE (1) NEW 2014 SINGLE BUCKET INSULATED AERIAL DEVICE, UTILITY BODY, AND CHASSIS

INSULATED AERIAL DEVICE

AERIAL DEVICE-Articulating, insulated over-center 36' aerial device with side-by-side boom configuration for lower travel height. The aerial shall be manufactured in accordance with all MiOSHA and ANSI requirements and shall be equipped as follows:

COMPLY YES

REACHES & CAPACITIES

Platform Capacity		350 lbs
Height to Bottom of Platform	37.8 FT	36'
Working Height	42.8 FT	41'
Stowed Travel Height	10 FT 11 INCHES	10' 0" (+/- 2")
Horizontal Reach	29.9 FT	29', 1"

COMPLY YES

PLATFORM-The closed fiberglass platform shall be 24" X 30" X 42" deep with an inside step and two (2) outside steps, one to the front and one to the rear, for easy access. The platform capacity shall be 350 lbs. The platform shall be side mounted and include a 90 degree hydraulic rotator to move to an end-mount position.

COMPLY YES

PLATFORM LINER- A 24" X 30" Platform liner with an inside step shall be provided. It shall be tested and rated for 50 KV AC.

COMPLY YES

PLATFORM ACCESS-Access to the platform shall be via two (2) steel gripstrut steps fabricated and installed, one (1) inside and one (1) on top of the curbside rear of the fiberglass body. A grab rail shall be installed on the curbside of the turret to assist with platform access. *The locations of the platform access components shall be determined at the pre-paint inspection.* The platform access components shall be painted BLACK.

COMPLY YES

SINGLE STICK PLATFORM CONTROL-Single stick control shall be mounted between the platform and boom and consist of a multi-jointed handle which operates the control valve. A safety trigger located on the underside of the single stick handle will not allow boom movement until the trigger is depressed. The control valve shall be full pressure and full flow. The operator can feather between the three control movements to provide multi-function boom action. An emergency stop control shall be provided.

COMPLY YES

PLATFORM LEVELING-Leveling shall be automatic by a totally enclosed #60 chain and 1/2" diameter fiberglass rod parallelogram system.

COMPLY YES

PLATFORM TILT-This option allows the platform to be tilted for clean out or rescue. ~~A cam lock releases the platform and hydraulic dampeners limit the speed of the platform tilt.~~

CLARIFY: HYDRAULICALLY CONTROLLED FROM PLATFORM CONTROLS

COMPLY YES

ENGINE START/STOP-The start/stop circuit shall be designed so the lift cannot be operated unless the truck ignition switch is in the "RUN" position and the master control is activated. An air cylinder at the platform and a toggle switch at the pedestal shall be provided to actuate the engine start/stop control. CLARIFY: "PUSH" BUTTON ILO TOGGLE

COMPLY YES

EMERGENCY POWER-This system shall consist of a hydraulic pump driven by a 12V DC motor, which is powered by the truck engine battery. The system shall be connected in parallel with the main pump and designed for non-continuous operation. An air cylinder at the platform and a toggle switch at the pedestal shall be used to energize this system.

CLARIFY: "PUSH" BUTTON ILO TOGGLE

COMPLY YES

UPPER BOOM ASSEMBLY-The upper boom shall articulate **190** degrees relative to the lower boom. The upper boom shall be actuated at the knuckle by a hydraulic cylinder and a four bar linkage. None-lube bushings shall be used at all pivot points. The hydraulic hoses shall be protected in all areas of boom movement by woven nylon hose protectors. An upper boom support with a ratchet type tie down strap and rubber platform support shall be included. The upper boom shall be tested and certified for electrical work at 46 KV and below in accordance with ANSI A92.2 requirements.

COMPLY YES

LOWER BOOM ASSEMBLY-The lower boom shall consist of a **6" x 8"** rectangular steel section. The lower boom shall articulate from horizontal to **40** degrees past vertical for a total range of **130** degrees. CLARIFY: 100 DEGREES

COMPLY YES

CHASSIS INSULATION SYSTEM (Lower Boom Insert)-The fiberglass insert shall provide an insulation gap of **12"**. The insert shall be mounted on the steel boom sections then adhesive shall be pumped in under pressure to fill all voids. A stainless steel stud shall be provided at each end of the insert to shunt the system during electrical testing. The insert shall be tested per ANSI A92.2 CLARIFY: 18" INSULATION GAP

COMPLY YES

PEDESTAL-The pedestal shall be **35"** tall and a tubular shape with an access opening on both sides. The top plate shall be **1-1/4"** (32mm) thick and machined flat to support the rotation bearing.

CLARIFY: HEIGHT AS REQUIRED FOR UNIT AND LOWEST TRAVEL HEIGHT

COMPLY YES

TURRET-The turret wings shall be ½" steel plate. A steel tube shall be welded between the turret wings to increase rigidity. The base plate shall be machined flat to support the rotation bearing. A full coverage continuously welded bearing cover shall be provided to prevent foreign material from interfering with lift rotation.

COMPLY YES

ROTATION-Rotation shall be 370 degrees ~~non-continuous with a mechanical stop~~. Rotation shall be accomplished by a hydraulically driven worm and spur gear set acting on a shear-ball rotation bearing. The critical bolts holding the turret to the rotation bearing and the bearing to the pedestal shall be SAE grade 8. These critical bolts shall be marked with a torque seal indicator to provide a quick means to inspect for loosening. A slotted adjustment shall be provided for pinion and rotation gear clearances. An external hex drive shall be provided for manual rotation in case of hydraulic failure. CLARIFY: 360 DEGREE ROTATION PROVIDED

COMPLY YES

LUBRICATION-Non-lube bearings shall be used at all point of motion. The rotation bearing and leveling system shall be the only components that require lubrication. CLARIFY: BEARING LUBRICATION RECOMMENDED AT ALL POINTS OF MOTION TO ALLOW FOR EASIER MAINTENANCE IN THE EVENT PIVOT PINS OR BEARINGS REQUIRE REPLACEMENT

COMPLY YES

PAINTING-The complete unit shall be primed and painted prior to assembly. The metal portions of the aerial shall be urethane painted ~~school bus yellow~~ to match the chassis cab. The fiberglass portions of the aerial shall be gelcoated ~~white~~.

COMPLY YES

HYDRAULIC OIL RESERVOIR-The hydraulic oil reservoir shall be an ~~integral part of the pedestal~~. Sight gauges shall be provided to check the fluid level. CLARIFY: TANK IS MOUNTED EXTERNALLY TO BACK OF PEDESTAL

COMPLY YES

HYDRAULIC SYSTEM-The open center hydraulic system shall operate at 3 GPM at 2500 PSI. A 10 micron return line filter with bypass valve and a 100 mesh suction strainer shall be included. The system shall be filled with Mil. Spec. 5606 hydraulic oil. The system shall be powered by a transmission mounted PTO and hydraulic driven pump.

COMPLY YES

OUTRIGGERS-The A-frame outriggers shall be attached to the pedestal. The outriggers shall be equipped with pilot operated check valves, internal thermal relief valves, and separate controls. At maximum extension, the outriggers shall furnish 120" of spread and 9" of penetration and 17" of ground clearance.

COMPLY YES

OUTRIGGER BOOM INTERLOCK AND DOWN MOTION ALARM SYSTEM-The outrigger/boom interlock option is a feature designed to prevent the lift from being operated until the outriggers contact the ground. The interlock also prevents the outriggers from being retracted before the aerial lift is properly stored. An alarm shall sound when the outriggers are lowered.

COMPLY YES

LOWER CONTROL VALVES-Full pressure control levers at the turret control the following: rotation and raise functions on the upper/lower booms. The lower controls shall be equipped with a manual selector valve to override the upper controls.

COMPLY YES

SLOPE INDICATORS-Two (2) slope indicators shall be installed, one (1) on the passenger's side of the body and one (1) on the rear of the truck.

COMPLY YES

HOSES & FITTINGS-The hoses routed through the booms shall be high pressure, non conductive hoses with swaged hose end fittings. Protection shall be provided where hoses might chafe or rub. Plastic or woven nylon sleeves shall be installed over the hoses at all points of movement.

COMPLY YES

CYLINDERS-Cylinders shall be threaded end cap design and equipped with dual holding valves recessed into the base of each cylinder to prevent movement in case of hose failure. Bleed down ports shall be provided in case of hydraulic failure.

COMPLY YES

PINS-Pins shall be high strength alloy steel which are chrome plated and centerless ground for a hard finish and corrosion resistance. Pins shall be bolted in place with a welded pin tab at one end and a pin cap at the other for redundant retention.

COMPLY YES

ONE-YEAR WARRANTY-A one-year warranty for parts and labor shall apply to the aerial.

COMPLY YES

MANUALS-Two (2) operator's manuals and two (2) service manuals shall be included.

COMPLY YES

CONTOURED FIBERGLASS SERVICE BODY

BRAND FX MODEL #BFXB-84DLS FIBERGLASS SERVICE BODY MINIMUM DIMENSIONS-

Overall Length	132"
Overall Width	94"
Compartment Depth	20"
Compartment Height	42"
Load-bed Width	54"
Cab-to-Axle Application	84"
	COMPLY <u> </u> YES

CONSTRUCTION

EXTERIOR WALLS & SURFACES-Body side compartments shall include a laminated PVC core to provide sufficient compression for strength and rigidity. Core shall be minimum 3/8" 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. gelcoat and .50 mil. skin coat. Front corners of the side compartments shall be protected with aluminum treadplate rock guards.

COMPLY YES

COMPARTMENT TOPS-The tops of the compartments shall have textured non-skid surfaces.

COMPLY YES

ALUMINUM COMPARTMENT TOP OVERLAYS-The tops of the compartments shall have textured non-skid surfaces.

COMPLY YES

CARGO FLOOR (ALUMINUM)-Loadbed floor shall be constructed of aluminum treadbrite. The loadbed floor shall be flanged up body sidewalls a minimum of 4". The loadbed floor shall be coated with black non-skid coating.

COMPLY YES

UNDERSTRUCTURE (STEEL)-Understructure shall be primed with a premium epoxy primer and finished with acrylic enamel paint.

CLARIFY: PRIMER & POWDER COAT BLACK PROVIDED

COMPLY YES

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

CLARIFY: 1/8" SMOOTH ALUMINUM

COMPLY YES

DOORS-All body compartment doors shall be sandwich-style construction, consisting of a 2" thick lower density PVC core enclosed by a 1/8" fiberglass skin on each side. Structural core material shall have a minimum shear length 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.

COMPLY YES

WEATHERSTRIP-All doors shall be fitted with a specially designed **automotive-type** weatherstrip, for maximum assurance of weathertight compartmentation. The weatherstrip shall be removable to facilitate its replacement as required.

COMPLY YES

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.
~~The horizontal compartment shall have rubber bumpers to prevent direct contact between the door and body.~~

COMPLY YES

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

COMPLY YES

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

COMPLY YES

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

COMPLY YES

SHELVING CONSTRUCTION-All shelves and hangar brackets shall be constructed of pultruded fiberglass. Shelves shall have 2" lips. Shelf dividers shall also be constructed of pultruded fiberglass.

COMPLY YES

LIGHTS AND ELECTRICAL-All exterior lights shall be provided in compliance with FMVSS-108 standards. All exterior body lighting shall be Truck-Lite brand (**no substitutes**). All exterior lights shall be flush-mounted and include rubber grommet shock mount fixtures. A lighted license plate bracket shall be furnished.

NOTE: Rear lights will be installed in the rear of the tailshelf.

COMPLY YES

COMPARTMENTATION

Curb-side – Front to Rear

First vertical, compartment deleted.

- Accessway with gripstrut steps and 2 grab handles.

Second compartment with single door.

- ~~Four (4) adjustable fiberglass shelves with dividers.~~

Horizontal compartment with single door.

- One (1) Durham 18D small parts cabinet in rear portion of cabinet

Rear vertical compartment with single door.

Five (5) locking swivel hooks mounted 1-3-1 at the top of the compartment.

COMPLY YES

Street-Side – Front to Rear

First vertical compartment with single door.

- Three (3) adjustable fiberglass shelves with dividers below the hotstick shelf.

Second vertical compartment with single door.

- Four (4) pullout drawers with dividers below the hotstick shelf.

Horizontal compartment with single door.

- One (1) fixed shelf with dividers below the hotstick shelf.

Rear vertical compartment with single door.

- One (1) adjustable fiberglass shelf with dividers below hotstick shelf
- Outrigger cutout towards the front of the compartment.
- Matted wall to the outrigger cutout.

COMPLY _____ YES _____

COMPARTMENT LIGHTING-All compartments shall be illuminated by **LED** rope-type compartment lights mounted vertically on both sides of the door opening and horizontally across the top of each compartment. The lights shall be manually activated by an illuminated rocker switch, furnished and mounted on the chassis dash.

COMPLY _____ YES _____

HOT STICK SHELF- One full-length hot stick shelf shall be provided in the streetside compartments with a rear drop down access door. Shelf surface shall be plywood lined

COMPLY _____ YES _____

WHEEL WELL LINERS-Stainless steel wheel well liners shall be provided and installed.

COMPLY _____ YES _____

WHEEL CHOCKS & HOLDERS-Two (2) wheel chock holders shall be provided, formed into the curb-side fender skirt. Two (2) **rubber** wheel chocks shall also be provided.

COMPLY _____ YES _____

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

COMPLY _____ YES _____

PAINTING-The complete unit shall be gelcoated School Bus Yellow to match the chassis cab, A Paint Chip will be provided of the gelcoat for Customer Approval

COMPLY _____ YES _____

ACCESSORIES

WIRED-RITE SST SYSTEM-One (1) Wired Rite SST-4BX (stop, start & throttle) control system shall be provided and installed.

CLARIFY: HARTFIEL CONTROL SYSTEM ILO WIRED RITE COMPLY YES

ALUMINUM SADDLE-TYPE TAILSHELF-A saddle-type rear tailshelf shall be furnished to facilitate bucket entry from loadbed level. Tailshelf shall be constructed from minimum **1/8" aluminum** treadbrite. Size of tailshelf to be determined by area needed for bucket storage with no overhang past the bumper (24" X 30" bucket). The tailshelf shall include an approximately **6" high (5.5" I.D.)** thru-storage shelf with two side compartments (height to be sized to allow the bottom of the tailshelf side compartments to be equal with the bottom of the body's side packs). The side compartments shall include **vertically** hinged doors and automotive type crimp on gaskets. Latches and hinges shall be **stainless steel** and keyed to match the body latches. The top of of tailshelf shall be coated with **black non-skid paint**

COMPLY YES

REAR BUMPER with RECESS-One (1) steel gripstrut rear bumper step shall be fabricated and installed. The bumper shall include a suitable recess for a hitch.

COMPLY YES

TOWING PACKAGE-Provide a towing package to include one 8-ton rated pintle hook, one (1) Cole-Hersee 1235 six-prong trailer socket, and one (1) pair of safety chain eyelets. Hitch shall be reinforced, with suitable channels to the chassis frame.

COMPLY YES

BACK-UP ALARM-One (1) backup alarm provided and installed.

COMPLY YES

MUD FLAPS-One (1) pair of rubber mud flaps shall be provided and installed behind the rear wheels.

COMPLY YES

SWING STEP AND GRAB RAIL-One (1) Sauber Manufacturing Model 8467 safety swing step shall be provided. The swing step shall incorporate an aluminum-bronze support with hot-dipped galvanized finish. A grab rail

shall be fabricated and installed to assist access to the cargo area. The swing step and grab rail shall be mounted at the rear CURBSIDE of the unit.

COMPLY _____ YES _____

OUTRIGGER PADS AND PAD HOLDERS-Two (2) aluminum outrigger pad holders shall be provided and installed one (1) each under the front streetside and curbside compartments. Two (2) high density polyethylene outrigger pads shall be provided.

COMPLY _____ YES _____

STROBE LIGHT-One (1) ~~Star 200SD~~ double-flash strobe light shall be provided and installed on streetside pipe mounted on the front of compartment. The light shall be manually activated by an illuminated rocker switch provided and mounted on the chassis dash.

CLARIFY: 200S CURRENT MODEL (SUPERSEDES 200SD)
AND CAN DUE SINGLE, DOUBLE AND QUAD

COMPLY _____ YES _____

LED WARNING LIGHTS-Two (2) **STAR model DLXT-121-AA Amber Thinline**, quad flash, LED warning lights shall be flush mounted in the top outward edges of the front chassis grille. Two (2) ~~Star model LDHEF-4~~, 4" round, quad flash, LED warning lights shall be installed in the rear of the tailshelf. These warning lights will be manually activated by a single illuminated rocker switch mounted on the chassis dash.

CLARIFY: DLXT-HR-4-A (SUPERSEDES LDHEF-4)

COMPLY _____ YES _____

DUAL REMOTE CONTROLLED WIRELESS SPOT LIGHTS-One (1) Go Light model #3067 spotlight shall be provided and installed. One (1) ~~spotlight shall be installed on the curbside of the chassis hood area.~~ The spotlights shall have wireless dash-mount control and hand held programmable remote controls secured by Velcro.

COMPLY _____ YES _____

CONE HOLDER-One (1) steel single pole style cone holder shall be fabricated and installed on the rear street-side bumper step.

COMPLY _____ YES _____

PTO HOUR METER-One (1) PTO hour meter shall be provided and installed to monitor the chassis PTO hours.

COMPLY _____ YES _____

COLOR SCHEME

The body and aerial features shall be finished as follows:

- The metal portions of the aerial shall be Urethane painted **School Bus Yellow** to match the chassis color.
- The fiberglass portions of the aerial shall be gelcoated **White**.
- The body exterior shall be gelcoated School Bus Yellow to match chassis color.
- The body's floor and the top of the tail shelf shall be coated with a **black non-skid coating**.
- The compartment interiors and shelving shall be left in **natural** fiberglass.
- All steel surfaces normally painted shall be painted **black**.
- Any stainless steel, chrome or aluminum surfaces shall be left in an **unpainted** state.

COMPLY YES

CHASSIS SPECIFICATIONS

2014 FORD F-550 4X4 SUPER CAB CHASSIS WITH DIESEL ENGINE

POWERTRAIN-6.0L diesel engine * 175 amp alternator * 750 amp 78 amp hours (Ah) HD battery with run down protection * Engine block heater, transmission oil cooler * 6-speed electronic SelectShift automatic transmission with overdrive lock-up, driver selection * Rear-wheel drive * Limited slip differential, driveline traction control, power take-off provision * 4.88 axle ratio * Stainless steel exhaust

CLARIFY: 6.7L DIESEL ENGINE ILO 6.0L

COMPLY YES

STEERING & SUSPENSION-Hydraulic power-assist re-circulating ball steering * 4-wheel disc brakes with front and rear vented discs * Firm ride suspension * Mono-beam non-independent front suspension * Front anti-roll bar * HD front coil springs * HD front shocks * Rigid rear axle * rear leaf suspension * Rear anti-roll bar * HD rear leaf springs * HD rear shocks *

COMPLY _____ YES _____

WARRANTY-

BASIC	36 month/ 36,000 miles
POWERTRAIN	60 month/60,000 miles
CORROSION PERFORATION	60 month/unlimited mileage
ROADSIDE ASSISTANCE	60 month/60,000 miles

COMPLY _____ YES _____

BUILD SPECIFICATIONS WITH CODES:

2014 FORD F-550 4X4 Regular Chassis w/165 WB, DRW XL (F5G)	660A
50 State Emissions System	425
6.7 L Diesel Engine	
175 Amp Heavy Duty Alternator	INC
750 CCA HD battery w/run down protection	INC
TorqShift 6-spd automatic transmission with OD includes SelectShift	44T
Limited slip rear differential – 4.88 axle ratio	X8L
19,500 lb. GVWR Payload package	68M
Front tires (2) highway tread type 225/70SR19.5 BSW AS	THB
Rear tires (4) max traction, snow & mud type. 225/70SR 19.5 BSW AT	THB
Wheels: 19.5" Argent painted steel	64Z
Spare Tire & Wheels (includes as Standard Option 61J – 6-ton jack)	512
HD Vinyl 40/20/40 Split Bench seat	A
Monotone paint application	PAINT
165" Wheel base, 84.0" Cab-to-Axle	165WB
Snow Plow Prep Package (for added front axle capacity & engine cooling)	473
Engine Block Heater	41H

PLEASE COMPLETE AND RETURN THE SPEC FORMS SUPPLIED.

ANY QUESTIONS SHOULD BE ADDRESSED TO:

MIKE FURMANSKI

CITY OF ESCANABA ELECTRIC DEPTARMENT

(906) 786-0061

PRICE SUMMARY

AERIAL, BODY ACCESSORIES, AND INSTALLATION:

\$ 76,615.00

CHASSIS:

\$ 41,070.00

NET PRICE: FOB, ESCANABA, MI

\$ 117,685.00

LISTED BELOW PLEASE FIND ADDITIONAL OPTION:

OPTION #1: Hydraulic platform tilt at lower controls \$ 469.00

BIDDER'S PROPOSAL

DATE: March 21, 2014

City of Escanaba
Escanaba, MI 49829

We, the undersigned, agree to furnish the City of Escanaba, Michigan **ONE (1) NEW 2014 SINGLE BUCKET INSULATED AERIAL DEVICE, UTILITY BODY, AND CHASSIS**, in accordance with the attached specifications, which are a part of this proposal, at the following price:

SEE PREVIOUS ATTACHED PRICE SUMMARY/OPTION SHEET

MAKE: OVER-CENTER AERIAL TRUCK

MODEL: HR37 OVER-CENTER AERIAL DEVICE / BFXB.84DSW1 BODY / 2015 FORD F550 4X4

DELIVERY DATE: 290 DAYS ARO

FOB: CITY OF ESCANABA, MI

**CERTIFIED CHECK, CASHIER'S CHECK, OR
BIDDER'S BOND ENCLOSED IN THE
AMOUNT OF:**

**\$ 10% OF BID PRICE
(must be included to qualify)**

SUBMITTED BY:

FIRM: DUECO, INC.

ADDRESS: N4 W22610 BLUEMOUND ROAD

WAUKESHA, WI 53187

BY: *Donna R. Bruss*

PRINTED NAME: DONNA R. BRUSS

PHONE NUMBER: 1-800-558-4004

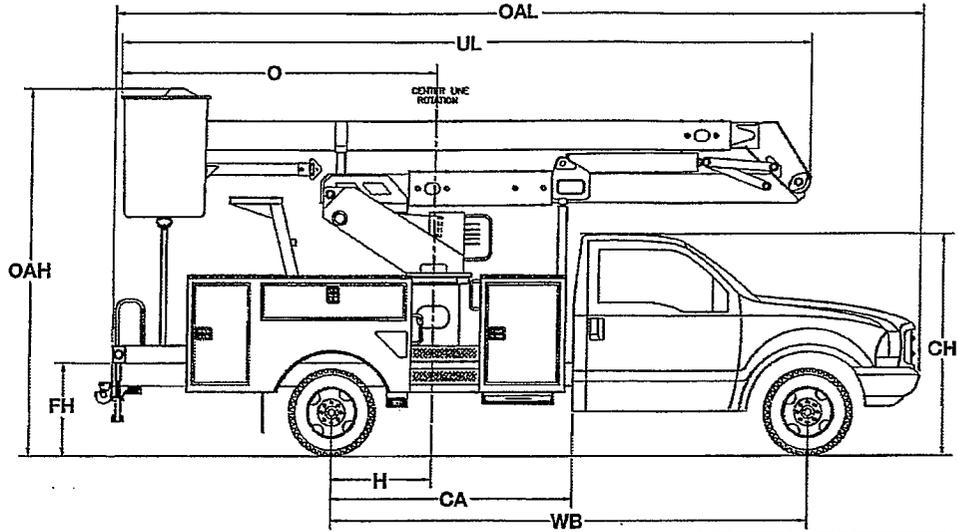


TEREX®

HR SERIES Hi-Ranger Overcenter Material Handling Aerial Device

AERIAL DEVICES

Terex® Hi-Ranger Aerial Devices are known throughout the industry. They come with a long history featuring quality and innovative design.



Measurements	HR37	HR40
	ORA	ORA
Typical Frame Height (FH)	32 in. (81 cm)	32 in. (81 cm)
Typical Cab Height (CH)	78 in. (198.1 cm)	78 in. (198.1 cm)
Offset (O)	109.5 in. (278.1 cm)	109.5 in. (278.1 cm)
Overall Height (OAH)	10' 11" (3.3 m)	10' 11" (3.3 m)
Overall Length (OAL)	21' 1" (6.7 m)	22' 1" (6.7 m)
Unit Length (UL)	19' 11" (6.1 m)	21' 6" (6.6 m)
Center-of-Rotation (H)	34.5 in. (87.6 cm)	34.5 in. (87.6 cm)
Cab to Axle (CA)	84 in. (213.4 cm)	84 in. (213.4 cm)
Wheel Base (WB)	165 in. (419.1 cm)	165 in. (419.1 cm)
Front Axle (FA)	6,000 lb. (2,722 kg)	6,500 lb. (2,948 kg)
Rear Axle (RA)	11,000 lb. (4,990 kg)	13,500 lb. (6,124 kg)
Gross Vehicle Weight Rating (GVWR)	16,000 lb. (7,258 kg)	19,000 lb. (8,618 kg)
Recommended Weight for Stability	12,800 lb. (5,811 kg)	14,000 lb. (6,356 kg)
Frame Section Modulus	10.0 in ³	10.0 in ³
Frame Yield Strength	36,000 psi	36,000 psi
Frame RBM	360,000 in-lbs	360,000 in-lbs



TEREX®

500 Oakwood Drive
PO BOX 1150
Watertown, SD 57201-6150
USA

Phone: (605) 882-4000
Facsimile: (605) 882-1842
www.terexutilities.com
E-mail: utilities.info@terex.com

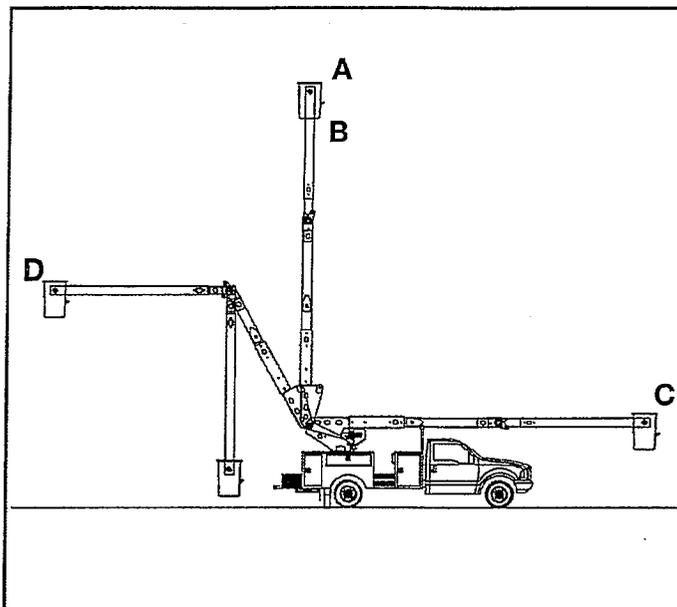
Distributed By:

HR SERIES

Hi-Ranger Overcenter Material Handling Aerial Device

STANDARD EQUIPMENT

- Side Mount 24" x 30" x 42" One-Person Platform
- Platform Capacity up to 350 lbs. (159 kg)
- Control-Plus "3-D" Single Stick Control at Platform
- Safety Harness With Attached Lanyard
- Continuous Unrestricted Worm Gear Rotation
- Category "C" Rating Per ANSI A92.2
- Rectangular, Bi-Axial Epoxy Resin, Filament Wound Fiberglass Booms
- Individual Lever Lower Controls
- Mechanical Platform Leveling System
- Two Speed Throttle Control at Upper Controls
- 200° of Upper Boom Articulation
- 102° of Lower Boom Articulation
- Full Pressure, Open-Center Hydraulic System
- 20 Gallon Hydraulic Oil Reservoir
- Padded Boom Rests with Upper Boom Tie Down
- Boom Interlock
- Moving Outrigger Alarm
- Truck Level Indicator



CAPACITIES & DIMENSIONAL DATA (Based on a 40 Inch Frame Height)

	A	B	C	D
	Bottom of Platform Height	Working Height	Side Reach (Overcenter)	Side Reach (Non-Overcenter)
HR37	37.8 ft (11.5 m)	42.8 ft (13.0 m)	29.9 ft (9.11 m)	27.1 ft (8.3 m)
HR40	40.8 ft (12.4 m)	45.8 ft (14.0 m)	33.0 ft (10.1 m)	28.9 ft (8.8 m)

OPTIONAL EQUIPMENT

- Various Platform Covers
- Liners With Or Without Steps
- Hydraulic Platform Rotator
- 24" Platform Lifter
- Hydraulic Platform Tilt
- Jib Options
 - Hydraulic Jib Extension Systems
 - Hydraulic Articulating Jib/Winch, Side Mt. Or Underslung 1000 lbs.
 - Single Wire/46 Kv Insulated Single Line Lifter / Multi-Phase Attachments
- Category "B" Rating Per ANSI A92.2
- Lower Boom Lifting Eye
- Automatic Boom Latch
- Hydraulic Tool Outlets
- Engine Stop/Start
- Auxiliary Power
- Auxiliary Let Down System
- Demand Throttle
- Boom Overstow Protection
- Boom/Boom Stow Interlock
- Boom Storage Warning Light
- Outrigger Sag Light
- Various Types of Outriggers
- Truck Grounding Cable and Clamp
- Hybrid Enable
- HyPower™ Hybrid System by Terex®

Effective Date: March, 2010. Product specifications and prices are subject to change without notice or obligation. The photographs and/or drawings in this document are for illustrative purposes only. Refer to the appropriate Operator's Manual for instructions on the proper use of this equipment. Failure to follow the appropriate Operator's Manual when using our equipment or to otherwise act irresponsibly may result in serious injury or death. The only warranty applicable to our equipment is the standard written warranty applicable to the particular product and sale and Terex makes no other warranty, express or implied. Products and services listed may be trademarks, service marks or trade-names of Terex Corporation and/or its subsidiaries in the USA and other countries. All rights are reserved. Terex® is a registered trademark of Terex Corporation in the USA and many other countries. Copyright 2010 Terex Corporation.

Badger Truck Center

Presents...



The 2015 Ford F-550 Chassis XL

4x4 SD Regular Cab 165" WB DRW



Prepared For:

Prepared By: Matt Dierksmeier

Prepared On: March 17, 2014

Prepared For:
Dueco, Inc.
N4 W22610 Bluemound Road
Waukesha, West Virginia, 53186

Prepared By:
Matt Dierksmeier
Badger Truck Center
2326 W. Saint Paul Ave.
P.O. Box 1530
Milwaukee, Wisconsin, 53233

Ship To:
43527 City of Escanaba, Michigan
Dueco, Inc.
N4 W22610 Bluemound Road
Waukesha, WI, 53186



Table of Contents

2015 Ford F-550 Chassis

4x4 SD Regular Cab 165" WB DRW XL (F5H)

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Vehicle Profile

2015 Ford F-550 Chassis

4x4 SD Regular Cab 165" WB DRW XL (F5H)

Powertrain

Powerstroke 6.7L V-8 OHV direct diesel injection 32 valve intercooled turbo diesel engine * 200 amp HD alternator * 750 amp (total) 78 amp hours (Ah) (total) battery dual batteries with run down protection * Engine block heater * 6-speed electronic SelectShift automatic transmission with overdrive, lock-up, driver selection * Part-time four-wheel drive with manual transfer case shift, manual locking hubs * Limited slip differential, driveline traction control, power take-off provision * 4.88 axle ratio * Stainless steel exhaust

Steering and Suspension

Hydraulic power-assist re-circulating ball steering * 4-wheel disc brakes with front and rear vented discs * Firm ride suspension * Mono-beam non-independent front suspension * Front anti-roll bar * HD front coil springs * HD front shocks * Rigid rear axle * Rear leaf suspension * Rear anti-roll bar * HD rear leaf springs * HD rear shocks * Front and rear 19.5" x 6.00" argent steel wheels * LT225/70SR19.5 BSW AS front tires * AT rear tires * Frame mounted mounted full-size steel spare wheel

Safety

4-wheel anti-lock braking system * Dual airbags, passenger side front-impact cancellable airbag, seat mounted driver and passenger side-impact airbags, curtain 1st row overhead airbag * Front height adjustable seatbelts

Comfort and Convenience

Air conditioning * AM/FM stereo, clock, seek-scan, 2 speakers, fixed antenna * 2 12V DC power outlets * Analog instrumentation display includes tachometer, engine temperature gauge, turbo/supercharger boost gauge, transmission fluid temp gauge, engine hour meter, exterior temp, systems monitor, trip odometer * Warning indicators include oil pressure, engine temperature, battery, lights on, key, low fuel, door ajar, service interval, brake fluid * Steering wheel with tilt and telescopic adjustment * Manual front windows with light tint * Variable intermittent front-windshield-wipers * Passenger-side vanity mirror * Day-night-rearview-mirror * Interior lights include dome light with fade, front reading lights * Glove box, front cupholder, instrument panel bin, dashboard storage * Upfitter switches

Seating and Interior

Seating capacity of 3 * 40-20-40 split-bench front seat with adjustable head restraints, center armrest with storage * 4-way adjustable driver seat includes lumbar support * 4-way adjustable passenger seat * Vinyl faced front seats with vinyl back material * Full cloth headliner, full vinyl/rubber floor covering, urethane gear shift knob, chrome interior accents

Exterior Features

Side impact beams, front license plate bracket, fully galvanized steel body material * Black fender flares * Black side window moldings, black front windshield molding * Black door handles * Black grille * 2 doors * Trailer harness, brake controller * Driver and passenger manual black folding manual extendable trailer outside mirrors * Front black bumper with front tow hooks * Aero-composite halogen headlamps * Additional exterior lights include cab clearance

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Vehicle Profile Continued

Prepared For:
Prepared By: Matt Dierksmeier
Dealership: Badger Truck Center

Exterior Features (Continued)

lights, underhood light * Clearcoat monotone paint * Snow plow provision

Warranty

Basic	36 month/36,000 miles	Powertrain	60 month/60,000 miles
Corrosion Perforation	60 month/unlimited mileage	Roadside Assistance	60 month/60,000 miles
Diesel Engine	60 month/100,000 miles		

Dimensions and Capacities

Output	300 hp @ 2,800 rpm	Torque	660 lb.-ft. @ 1,600 rpm
1st gear ratio	3.974	2nd gear ratio	2.318
3rd gear ratio	1.516	4th gear ratio	1.149
5th gear ratio	0.858	6th gear ratio	0.674
Reverse gear ratio	3.128	Curb weight	8,104 lbs.
GVWR	19,500 lbs.	Front	7,000 lbs.
Rear GAWR	14,706 lbs.	Payload	11,529 lbs.
Front curb weight	4,770 lbs.	Rear curb weight	3,334 lbs.
Front axle capacity	7,000 lbs.	Rear axle capacity	14,706 lbs.
Front spring rating	7,000 lbs.	Rear spring rating	15,000 lbs.
Front tire/wheel capacity	7,500 lbs.	Rear tire/wheel capacity	15,000 lbs.
Towing capacity	16,000 lbs.	5th-wheel towing capacity	16,900 lbs.
Front legroom	41.1 "	Front headroom	40.7 "
Front hiproom	67.6 "	Front shoulder room	68.0 "
Passenger area volume	65.9 cu.ft.	Length	250.5 "
Body width	93.9 "	Body height	80.7 "
Wheelbase	165.0 "	Cab to axle	84.0 "
Axle to end of frame	47.6 "	Front tread	74.8 "
Rear tread	74.0 "	Turning radius	24.3 '1
Fuel tank	40.0 gal.	Rear frame height loaded	27.9 "
Rear frame height unloaded	33.4 "		

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Selected Options

2015 Ford F-550 Chassis

4x4 SD Regular Cab 165" WB DRW XL (F5H)

Vehicle Snapshot	Engine: 6.7L 4V OHV Power Stroke Diesel V8 B20 Transmission: TorqShift 6-Speed Auto w/OD Rear Axle Ratio: Limited Slip w/4.88 GVWR: 19,500 lb Payload Plus Upgrade Package
-------------------------	---

Code	Description	Class
F5H	Base Vehicle Price (F5H)	STD
Packages		
660A	Order Code 660A <i>(99Y) Engine: 6.8L 3-Valve SOHC EFI NA V10; (44T) Transmission: TorqShift 5-Speed Auto w/OD : Includes SelectShift.; (X48) 4.88 Axle Ratio; (STDGV) GVWR: 18,000 lbs Payload Package; (TFB) Tires: 225/70Rx19.5G BSW AS (6); (64Z) Wheels: 19.5" Argent Painted Steel (6); (A) HD Vinyl 40/20/40 Split Bench Seat : Includes driver side manual lumbar support, center armrest, cupholder and storage.; (587) Radio: AM/FM Stereo w/Digital Clock : Includes 2 speakers.</i>	OPT
Emissions		
425	50 State Emissions System	OPT
Powertrain		
99T	Engine: 6.7L 4V OHV Power Stroke Diesel V8 B20 <i>200 Amp Extra Heavy Duty Alternator; (X41) 4.10 Axle Ratio; Dual 78 AH Batteries. Includes clean idle decal and intelligent oil life minder. Torque: 660 ft.lbs. @ 1600 rpm.</i>	OPT
44W	Transmission: TorqShift 6-Speed Auto w/OD <i>Includes SelectShift.</i>	OPT
X8L	Limited Slip w/4.88 Axle Ratio	OPT
68M	GVWR: 19,500 lb Payload Plus Upgrade Package <i>Includes upgraded frame, upgraded springs and low deflection/high capacity. Increases max RGAWR to 14,706. NOTE: See Order Guide Supplemental Reference for further details on GVWR.</i>	OPT
Wheels & Tires		

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Selected Options Continued

Prepared For:
 Prepared By: Matt Dierksmeier
 Dealership: Badger Truck Center

Code	Description	Class
THB	Tires: 225/70Rx19.5G BSW Traction <i>Includes 4 traction tires on the rear and 2 all-season tires on the front. Optional spare is BSW all-season.</i>	OPT
64Z	Wheels: 19.5" Argent Painted Steel (6)	INC
512	Spare Tire & Wheel <i>(61J) 6-Ton Hydraulic Jack. Excludes carrier. REQUIRED in Rhode Island.</i>	OPT
Seats & Seat Trim		
A	HD Vinyl 40/20/40 Split Bench Seat <i>Includes driver side manual lumbar support, center armrest, cupholder and storage.</i>	INC
Other Options		
PAINT	Monotone Paint Application	STD
165WB	165" Wheelbase/84" Cab to Axle	STD
473	Snow Plow Prep Package <i>Includes pre-selected springs (see Order Guide Supplemental Reference for springs/FGAWR of specific vehicle configurations). NOTE 1: Restrictions apply; see Supplemental Reference or Body Builders Layout Book for details. NOTE 2: Also allows for the attachment of a winch.</i>	OPT
41H	Engine Block Heater (Regional) <i>Standard in Alaska, Colorado, Iowa, Idaho, Massachusetts, Maine, Michigan, Minnesota, Montana, Nebraska, North Dakota, New Hampshire, New York, South Dakota, Vermont, Wisconsin and Wyoming.</i>	OPT
61J	6-Ton Hydraulic Jack <i>REQUIRED in Rhode Island.</i>	INC
62R	Transmission Power Take-Off Provision	OPT
52B	Trailer Brake Controller <i>Verified to be compatible with electronic-actuated drum brakes only.</i>	OPT
587	Radio: AM/FM Stereo w/Digital Clock <i>Includes 2 speakers.</i>	INC
Interior Colors For : Primary w/XL (regs)		
AS	Steel	OPT
Primary Colors For : Primary w/XL (regs)		

Z1	Oxford White	OPT
----	---------------------	-----

Accessories and Aftermarket Options

Paint	School Bus Yellow <i>School Bus Yellow</i>
-------	--

Vehicle Subtotal

Destination

Vehicle Subtotal (including Destination)

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 Waukesha, WI, 53186



Dimensions & Capacities

2015 Ford F-550 Chassis

4x4 SD Regular Cab 165" WB DRW XL (F5H)

Description	Value
-------------	-------

Dimensions and Capacities

Output	300 hp @ 2,800 rpm
Torque	660 lb.-ft. @ 1,600 rpm
1st gear ratio	3.974
2nd gear ratio	2.318
3rd gear ratio	1.516
4th gear ratio	1.149
5th gear ratio	0.858
6th gear ratio	0.674
Reverse gear ratio	3.128
Curb weight	8,104 lbs.
GVWR	19,500 lbs.
Front	7,000 lbs.
Rear GAWR	14,706 lbs.
Payload	11,529 lbs.
Front curb weight	4,770 lbs.
Rear curb weight	3,334 lbs.
Front axle capacity	7,000 lbs.
Rear axle capacity	14,706 lbs.
Front spring rating	7,000 lbs.
Rear spring rating	15,000 lbs.
Front tire/wheel capacity	7,500 lbs.
Rear tire/wheel capacity	15,000 lbs.
Towing capacity	16,000 lbs.
5th-wheel towing capacity	16,900 lbs.
Front legroom	41.1 "
Front headroom	40.7 "
Front hiproom	67.6 "
Front shoulder room	68.0 "
Passenger area volume	65.9 cu.ft.
Length	250.5 "
Body width	93.9 "
Body height	80.7 "
Wheelbase	165.0 "
Cab to axle	84.0 "
Axle to end of frame	47.6 "

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Dimensions & Capacities Continued

Prepared For:
Prepared By: Matt Dierksmeier
Dealership: Badger Truck Center

Description	Value
Dimensions and Capacities	
Front tread	74.8 "
Rear tread	74.0 "
Turning radius	24.3 '
Fuel tank	40.0 gal.
Rear frame height loaded	27.9 "
Rear frame height unloaded	33.4 "

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Performance Tests

2015 Ford F-550 Chassis

4x4 SD Regular Cab 165" WB DRW XL (F5H)

Performance predictions in this report represent an estimate of vehicle performance based on standard operating conditions. Variations in customer equipment, load configuration, ambient conditions, and/or operator driving techniques can cause significant variations in vehicle performance. These values are not representative of results that may be shown in actual dynamometer tests. This report should therefore be used as a guide for comparative vehicle performance.

Performance Start Tests	Calculated	Desired
Start grade capability in gear 1	37.6 %	.0 %
Start grade capability in reverse	29.6 %	.0 %

Performance Grade Tests	Calculated	Desired
Maximum grade in gear 3	15.1 %	3.0 %
Maximum grade in gear 4	11.4 %	3.0 %
Maximum grade in gear 5	8.5 %	3.0 %
Maximum grade in gear 6	6.7 %	3.0 %

Performance Speed Tests

Given your requirement to go 75 mph, you need a maximum axle ratio of 6.18.
 Given your requirement to go 55 mph at a grade of 3.0%, you need a minimum of 128 hp.
 The calculated cruise speed is 65 mph, your desired cruise speed is 60 mph.
 The engine RPM at 60 mph cruise speed is 2,121 rpm

Performance Tests Variables in Use

Rear axle ratio:	4.88	Worst road surface	Typical Highway
Gear 1 ratio:	3.97	Final Drive Ratio:	0.67
Gear reverse ratio:	3.13	Rear axle ratio:	4.88
Tire size:	225/70R19.5 (645rev/mile)	Drag Coefficient	0.80
Gross vehicle weight (GVW):	19,500 lbs		
Clutch engagement torque:	330 ft.lbs.		
Torque conversion ratio:	1.9		
Gear 3 ratio:	1.52		
Gear 4 ratio:	1.15		
Gear 5 ratio:	0.86		
Gear 6 ratio:	0.67		
Peak engine torque:	660 ft.lbs.		
Engine Power:	300 hp @ 2,800 rpm		
Governed RPM:	3,360 rpm		
Frontal Area:	46.8 Sq.Ft.		
Cruising RPM	2,300 rpm		

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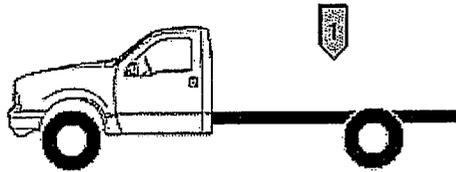
Performance Tests Continued

Prepared For:
 Prepared By: Matt Dierksmeier
 Dealership: Badger Truck Center

Performance Weight Tests

Variables	Front Axle	Rear Axle	Totals
Chassis	4,765 lbs	3,334 lbs	8,099 lbs
Body	0 lbs	0 lbs	0 lbs
Occupants	300 lbs	150 lbs	450 lbs
Fuel	187 lbs	93 lbs	280 lbs
1 Max. Payload	1,449 lbs	9,222 lbs	10,671 lbs
TOTAL	6,701 lbs	12,799 lbs	19,500 lbs

Weights



Ratings	Front Axle	Rear Axle	GVWR
GAWR	7,000 lbs	14,706 lbs	19,500 lbs
Wheels/Tires	7,500 lbs	15,000 lbs	
Suspension	7,000 lbs	15,000 lbs	
Axle	7,000 lbs	14,706 lbs	
Legal Limit	0 lbs	0 lbs	

Weight Summary	Calculated	GAWR	Legal Limits
Front axle load is	6,701 lbs	7,000 lbs	0 lbs
Rear axle load is	12,799 lbs	14,706 lbs	0 lbs

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Warranty

2015 Ford F-550 Chassis
4x4 SD Regular Cab 165" WB DRW XL (F5H)
Months/Distance

Description	Months/Distance
Basic	36 month/36,000 miles
Powertrain	60 month/60,000 miles
Corrosion Perforation	60 month/unlimited mileage
Roadside Assistance	60 month/60,000 miles
Diesel Engine	60 month/100,000 miles

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LIMITED PRODUCT WARRANTY

TEREX Utilities, Inc., TEREX-Telelect, Inc. (each a "Seller"), warrants its new equipment and parts manufactured and sold worldwide, to be free, under normal use and service, of any defects in manufacture or materials for a period of 12 months from date of delivery to the first end user, but in no event longer than 18 months from date of shipment from the factory; provided that (1) Seller receives written notice of the defect within thirty (30) days of its discovery and Buyer establishes that (i) the equipment has been maintained and operated within the limits of rated and normal usage; and (ii) the defect did not result in any manner from the intentional or negligent action or inaction by Buyer, its agents or employees and (2) a new machine registration certificate has been completed, signed and delivered to Seller within thirty (30) days of the equipment's "in-service" date. If requested by Seller, Buyer must return the defective equipment to Seller's manufacturing facility, or other location designated by Seller, for inspection, and if Buyer cannot establish that conditions (1) (i) and (1) (ii) above have been met, then this warranty shall not cover the alleged defect.

Seller's obligation and liability under this warranty is expressly limited to, at Seller's sole option, repairing or replacing, with new or remanufactured parts or components, any part, which appears to Seller upon inspection to have been defective in material or workmanship. Such parts shall be provided at no cost to the owner, FOB Seller's parts facility. If requested by Seller, components or parts for which a warranty claim is made shall be returned to Seller at a location designated by Seller. All components and parts replaced under this limited product warranty become the property of Seller. This warranty shall be null and void if parts (including wear parts) other than genuine OEM Seller parts are used in the equipment.

Accessories, assemblies and components included in the Seller equipment, which are not manufactured by Seller, are subject to the warranty of their respective manufacturers. Normal maintenance, adjustments, or maintenance/wear parts, including without limitation friction plates, glass, clutch and brake linings, filters, wire rope and paint, are not covered by this warranty and are the sole maintenance responsibility of Buyer.

The following structural members have a "LIFETIME" parts only warranty for the original owner after date of shipment from Seller and are excluded from the warranty described above: Sub frame, Pedestal, Turntable, Steel and Fiberglass Booms. The LIFETIME warranty requires an annual service inspection by an authorized Seller distributor and all replacement parts to be original equipment parts from Seller. The above listed components shall have a five (5) year parts only warranty if the annual service inspection is performed by an approved entity other than an authorized Seller distributor. All replacement parts are to be original equipment parts from Seller. (Excludes fiberglass jibs, seals, gaskets, hoses, and exterior coatings.)

SELLER MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

No employee or representative is authorized to modify this warranty unless such modification is made in writing and signed by an authorized officer of Seller.

Seller's obligation under this warranty shall not include duty, taxes, environmental fees, including without limitation, disposal or handling of tires, batteries, petrochemical items, or any other charges whatsoever, or any liability for direct, indirect, incidental, or consequential damages.

Improper maintenance, improper use, abuse, improper storage, operation beyond rated capacity, operation after discovery of defective or worn parts, accident, sabotage or alteration or repair of the equipment by persons not authorized by Seller shall render this warranty null and void. Seller reserves the right to inspect the installation of the product and review maintenance procedures to determine if the failure was due to improper maintenance, improper use, abuse, improper storage, operation beyond rated capacity, operation after discovery of defective or worn parts, or alteration or repair of the equipment by persons not authorized by Seller.

Parts Warranty: Seller warrants the parts ordered from the Seller's parts department to be free of defect in material or workmanship for either (1) a period of 12 months after date of shipment from the factory or (2) the balance of the remaining new equipment warranty, whichever occurs first. With respect to parts ordered from the Seller's parts department for equipment that is no longer covered under this limited product warranty due to lapse of time, Seller warrants such parts to be free of defect in material or workmanship for a period of 12 months after date of shipment from the factory.

NO TRANSFERABILITY OF WARRANTY: This warranty is limited to the original purchaser or original end-user if sold to a distributor, and is not assignable or otherwise transferable without the written agreement of Seller. Please contact your local distributor for additional details if needed.

ITEMS NOT COVERED BY SELLER WARRANTY

The following items are NOT covered under the Seller Warranty (the following list is not exhaustive):

1. Items sold by any individual, corporation, partnership or any other organization or legal entity that is not an authorized Seller distributor.
2. Components which are not manufactured by Seller are not covered by Seller's warranty. Such components are covered only by the warranty that is provided by the manufacturer of such components. Such components may include, but are not limited to, chassis, engines, air compressors, batteries, tires, customer supplied products.
3. Replacement of assemblies: Seller has the option to repair or replace any defective part or assembly. It is Seller's policy to refuse claims for the replacement of a complete assembly that is field repairable by the replacement or repair of defective part(s) within the assembly.
4. Normal Operational Maintenance Services and Wear Parts: Maintenance services and wear parts are excluded from warranty claims. Maintenance services and wear parts not covered include, but are not limited to, such items as: seals, gaskets, hoses, friction plates, glass, clutch and brake linings, filters, wire rope, exterior coatings, proper tightening of bolts, nuts and fittings, adding or replacing of fluids, filter, breathers, belts, nozzles, adjustments of any kind, services supplies, hand cleaners, towels and lubricants, inspections, diagnostic time, travel time.
5. Transportation cost and/or damage: Any damage caused by carrier handling is a transportation claim and should be filed immediately with the respective carrier.
6. Deterioration: Repairs, work required or parts exposed as the result of age, storage, weathering, lack of use, demonstration use, or use for transportation of corrosive chemicals.
7. Secondary Failures: Should the owner or operator continue to operate a machine after it has been noted that a failure has occurred, Seller will not be responsible under the warranty for resultant damage to other parts due to that continued operation.
8. Workmanship of Others: Seller does not accept responsibility for improper installation or labor costs or costs of any kind from personnel other than authorized Seller distributor personnel.
9. Stop and Go Warranty: Seller does not recognize "Stop and Go" warranties.
10. Incidental or Consequential Damage: **SELLER SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, LOSS OF PRODUCTION, INCREASED OVERHEAD, LOSS OF BUSINESS OPPORTUNITY, DELAYS IN PRODUCTION, COSTS OF REPLACEMENT COMPONENTS AND INCREASED COSTS OF OPERATION THAT MAY ARISE FROM THE BREACH OF THIS WARRANTY.** Customer's sole remedy shall be limited to (at Seller's sole option) repair or replacement of the defective part.

THIS WARRANTY IS EXPRESSLY IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, EXPRESS OR IMPLIED (INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) AND ALL OTHER OBLIGATIONS OR LIABILITY ON SELLER'S PART. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE LIMITED WARRANTY CONTAINED HEREIN. Seller neither assumes nor authorizes any other person to assume for Seller any other liability in connection with the sale of Seller's equipment. This warranty shall not apply to any of Seller's equipment or any part thereof which has been subject to misuse, alteration, abuse, negligence, accident, acts of God or sabotage. No action by any party shall operate to extend or revive this limited warranty without the prior written consent of Seller. In the event that any provision of this warranty is held unenforceable for any reason, the remaining provisions shall remain in full force and effect.

IN THE EVENT OF ANY BREACH OF THE WARRANTY BY SELLER, SELLER'S LIABILITY SHALL BE LIMITED EXCLUSIVELY TO THE REMEDIES (AT SELLER'S SOLE OPTION) OF REPAIR OR REPLACEMENT OF ANY DEFECTIVE EQUIPMENT COVERED BY THE WARRANTY. IN NO EVENT SHALL SELLER, OR ANY SUBSIDIARY OR DIVISION THEREOF BE LIABLE FOR INCIDENTAL, INDIRECT, CONSEQUENTIAL OR OTHER DAMAGES OR LOSSES RESULTING FROM A BREACH OF WARRANTY INCLUDING, WITHOUT LIMITATION, LABOR COSTS, LOSS OF USE OF OTHER EQUIPMENT, THIRD PARTY REPAIRS, LOST PROFITS, LOST TIME, TOWING OR HAULING OF EQUIPMENT, RENTAL COSTS, PERSONAL INJURY, EMOTIONAL OR MENTAL DISTRESS, IMPROPER PERFORMANCE OR WORK, PENALTIES OF ANY KIND, LOSS OF SERVICE OF PERSONNEL, OR FAILURE OF EQUIPMENT TO COMPLY WITH ANY FEDERAL, STATE OR LOCAL LAWS.



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P.O.Box 177, Waukesha, WI 53187
P: (262) 547-8500 / F: (262) 547-8407
E-mail: info@dueco.com
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WARRANTY

New Installations and Parts Warranty. DUECO, Inc. warrants the materials and workmanship supplied by it to be free from material defect at the time of shipment from DUECO. DUECO will repair or replace, at its sole discretion, any equipment which shall be found to be defective within one year after delivery to the original Customer, and which is determined by DUECO to have been defective at the time of original shipment from DUECO.

Body Warranty: Exclusive 5-year guarantee to first owner/user covering no rust through on body shell, no failure of the standard continuous hinges, no failure of the latches or lock cylinders, and no bending of the shelves under maximum rated load of 250 pounds.

Warranty on Service Work and Refurbished Parts. DUECO warrants the materials and workmanship supplied by it to be free from material defect at the time of shipment from DUECO. DUECO will repair or replace, at its sole discretion any equipment which shall be found to be defective within ninety (90) days after delivery to the original Customer, and which is determined by DUECO to have been defective at the time of original shipment from DUECO.

Used Equipment and Used Parts are not covered by any Warranty from DUECO, and are sold "as is, where is."

DISCLAIMER. THESE WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND ARE ALSO IN LIEU OF ANY OTHER OBLIGATIONS ON THE PART OF DUECO. No agent, employee, or representative of DUECO is authorized to bind DUECO to any other warranty. Any product misuse or operation beyond rated capacities, including but not limited to the operator's failure to follow any of the instructions accompanying the equipment; substitution of parts not approved by DUECO; any alterations or repairs not authorized by DUECO; or damage during shipment or other accident, which in DUECO'S sole discretion materially and adversely affects the equipment, shall void this warranty.

LIMITATION OF LIABILITY. DUECO'S LIABILITY FOR ANY LOSSES AND DAMAGES RESULTING FROM ANY CAUSE WHATSOEVER, INCLUDING WITHOUT LIMITATION DUECO'S NEGLIGENCE OR FROM DEFECTIVE EQUIPMENT, WHETHER OR NOT SUCH DEFECTS ARE DISCOVERABLE, SHALL IN NO EVENT EXCEED THE PURCHASE OR SERVICE COSE CHARGED FOR THE PARTICULAR EQUIPMENT TO WHICH REPLACEMENT OF THE DEFECTIVE EQUIPMENT SUPPLIED BY DUECO. **IN NO EVENT SHALL DUECO BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES, INCLUDING WITHOUT LIMITATION, COMMERCIAL LOSSES OR SPECIAL COSTS OF ANY KIND, OR FOR ANY DAMAGES FOR WHICH THE BUYER MAY BE LIABLE TO OTHER PERSONS. DUECO MAKES NO WARRANTY REPRESENTATION OF ANY KIND, EXPRESS OR IMPLIED, AND MAKES NO WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ANY OTHER WARRANTY EXCEPT AS SPECIFICALLY SET FOR HEREIN.**

DUECO makes no warranty covering components, parts, accessories, or services supplied by or performed by others. Such warranties as may be furnished to DUECO by the suppliers of components, parts, accessories, or services shall be extended to Customer by DUECO. DUECO makes no warranty of any kind after the first year. Transportation costs associated with warranty work shall be borne by Customer unless otherwise provided by DUECO or one of its suppliers. DUECO reserves the right to make changes in design or construction of its equipment at any time without obligating itself to make sure changes on equipment previously supplied. In the event any provision of this warranty is for any reason held ineffective, the remaining provisions shall remain in full force and effect.

MEMORANDUM

To: Jim O'Toole, City Manager
From: Mike Furmanski, Electrical Superintendent
Date: April 7, 2014
Re: Coal Purchase Memo

Due to the uncertainty currently surrounding the plant sale and no knowledge of how often the plant will run in the upcoming year, I would like arrange some flexibility in purchasing coal.

Currently, the City of Escanaba owns approximately 6000 tons of coal which is being stored in Gladstone. We also have an agreement in place with the Robindale Coal Company to purchase up to 3900 tons of coal at a rate of \$123 per ton plus a delivery surcharge. This coal is also being stored in Gladstone and is being purchased by the truckload on a "when needed" basis.

In an effort to find the best priced coal, I have been gathering quotes from other companies. Recently, the C. Reiss Coal Company provided prices for coal that could be purchased under various scenarios.

The first scenario would be to purchase coal from the C. Reiss Coal Company which would be delivered to their Dock #1 (Power Plant). In using this option the City would take ownership of all the coal once dumped onto the dock and would be subject to a future storage surcharge. The FOB price quoted under this scenario would be \$104.15 per ton. This is with the City taking ownership of 2,000 tons upon delivery.

The second scenario would be to purchase coal from the C. Reiss Coal Company which would be stored on their Dock #2 (Near Basic Marine) at an FOB price of \$107 per ton with an additional \$1 - \$1.50 per ton surcharge for additional trucking from the dock to the power plant. This option is attractive given the City of Escanaba would not take ownership of the coal until it is used and brought to the power plant.

In closing, I am seeking Council approval to purchase coal on an as needed basis at the rate of \$107.00 per ton, plus delivery, not to exceed \$1,000,000. from the C. Reiss Coal Company.

City of Escanaba Coal Quotation

P. 1

No. 0475 Specifications (As received - Typical)

	<u>Escanaba #1</u>	<u>Escanaba #2</u>	
Moisture	7.0%	7.0%	
Ash	9.5%	9.5%	Max 12%
Volatile	36.5%	36.5%	
Sulfur	9.5%	9.5%	
BTU	12,500	12,500	Standard BTU P/P (+/- 100). Prem or Penalty from 12,500 . No adjustment if 12400 - 12600.
Price FOB dock (Price includes FSC)	<u>\$ 104.15</u>	<u>\$ 107.00</u>	

Sheboygan, WI
4/1/2014

Apr. 2. 2014 4:35PM



Analysis Report

January 23, 2014

EASTMAN CHEMICAL CO
 PO BOX 431
 BUILDING 280
 KINGSPORT TN 37662

Page 1 of 8

Client Sample ID:	I085	Sample ID By:	SPURLOCK
Date Sampled:	Jan 21, 2014	Sample Taken At:	SPURLOCK
Date Received:	Jan 21, 2014	Sample Taken By:	SGS
Product Description:	COAL	SAMPLE TYPE I:	Mechanical
		SAMPLE TYPE II:	Cartop for Screen
		Plant:	Building 253
		Permit #:	I085
		No. of Cars:	80
		Freeze Conditioning:	YES
		SGS Reference Number:	49-391992
		Total Tons:	9166.375

Rail Car List: CSXT-397915, CSXT-398323, CSXT-397129, CSXT-300968, CSXT-390574, CSXT-302823, CSXT-398043, CSXT-300239, CSXT-301005, CSXT-301753, CSXT-302298, CSXT-300035, CSXT-397920, CSXT-397715, CSXT-398826, CSXT-398364, CSXT-300005, CSXT-398381, CSXT-398814, CSXT-397033, CSXT-397796, CSXT-300353, CSXT-300949, CSXT-301561, CSXT-300461, CSXT-300835, CSXT-302353, CSXT-300746, CSXT-302703, CSXT-302451, CSXT-301512, CSXT-398236, CSXT-300268, CSXT-300988, CSXT-300905, CSXT-300613, CSXT-397103, CSXT-398937, CSXT-302683, CSXT-397071, CSXT-300544, CSXT-398012, CSXT-398896, CSXT-301137, CSXT-397017, CSXT-398099, CSXT-302018, CSXT-302930, CSXT-301837, CSXT-302538, CSXT-397689, CSXT-302772, CSXT-300624, CSXT-398715, CSXT-302349, CSXT-302127, CSXT-397387, CSXT-301120, CSXT-301430, CSXT-398572, CSXT-399000, CSXT-301391, CSXT-301312, CSXT-300061, CSXT-398063, CSXT-300950, CSXT-302081, CSXT-398775, CSXT-300891, CSXT-302833, CSXT-390144, CSXT-397271, CSXT-302644, CSXT-301502, CSXT-302677, CSXT-397205, CSXT-398743, CSXT-302515, CSXT-301645, CSXT-301299

SGS Minerals Sample ID: 550-1448973-001

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>	<u>DAF</u>
Moisture, Total %	ASTM D3302	7.04		
Ash %	ASTM D3174	9.67	10.40	
Volatile Matter %	ASTM D3175	36.60	39.38	
Fixed Carbon %	ASTM D3172 (by diff)	46.69	50.22	
Sulfur %	ASTM D4239 (A)	0.95	1.02	
Gross Calorific Value Btu/lb	ASTM D5865	12535	13484	15049

Edward Pendleton
 Branch Manager

SGS North America Inc. Minerals Services Division
 248 Harrogate Industrial Drive Harrogate TN 37752 t (423) 869-5383 f (423) 869-9391

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cc/EAC 4/1/14
NR #5



April 3, 2014

Dear Mike Dewar:

Here is EGE's latest update.

EGE has been given confirmation that all of the funds are now available and in the United States. Final loan documentation is being completed for EGE signature by Reality Financial Group's US based law firm. Closing will begin after signing the documents. I am looking forward to attending next week's EAC meeting.

As always, if you have questions or concerns, please call me.

Regards.

(original signed)

Charles Detiege