

**OGLE COUNTY HIGHWAY DEPARTMENT
1989 South IL Route 2
Oregon, Illinois 61061**

The County Highway Department is requesting bids in conformance with the requirements established by the specifications herewith:

BIDS MUST BE SUBMITTED ON OR BEFORE FRIDAY, MARCH 8th, 2019, AT 2:00 P.M.

TO: Ogle County Highway Department
1989 South IL Route 2
Oregon, Illinois 61061

ATTENTION: Jeremy A. Ciesiel, Ogle County Engineer

TIME AND PLACE OF BID OPENING: The Road & Bridge Committee of the Ogle County Board will receive sealed bids for the equipment described herein at the office of the County Engineer, Oregon, Illinois until 2:00 P.M. on Friday, March 8, 2019. The proposals will be opened and publicly read at that time. The Road & Bridge Committee will act on the bids at their meeting held at 8:00 A.M. on Tuesday, March 12, 2019 in Room 100 of the Ogle County Courthouse, 105 South 5th St, Oregon, Illinois.

INSTRUCTIONS TO BIDDERS: Specifications and proposal forms may be obtained at the office of the County Engineer and all bids/quotations must be submitted on these forms. The Bid Form must be filled in, executed by the bidder, and submitted in a sealed envelope, which should be CLEARLY MARKED as "One (1) New 2019 Model Tandem Truck".

BIDDER QUALIFICATIONS: The successful bidder and providing Body Company shall have a reputable service garage.

REJECTION OF BIDS: Ogle County reserves the right to reject any and all bids and to waive any or all informalities in connection with the bids.

RETAILER'S OCCUPATION TAX: Sales of any kind to Ogle County and other governmental bodies are exempt from the Illinois Retailer's Occupation Tax and the Service Use Tax.

CERTIFICATION OF BIDDER: The undersigned hereby certifies that he has read, understands, and agrees that acceptance by Ogle County of the bidder's offer, will create a binding contract. Further, he agrees to fully comply with all terms and conditions as set forth by the Ogle County Highway Department, together with the specifications and other documentary forms herewith made a part of this specific procurement.

NAME OF BIDDER _____

BY _____

ADDRESS _____

ONE (1) NEW 2019/2020 MODEL TANDEM TRUCK

THE FOLLOWING SPECIFICATIONS ARE ALL MINIMUM UNLESS OTHERWISE STATED IN THIS PROPSAL.

IF VEHICLE BID DOES NOT MEET ALL THE SPECIFICATIONS, ANY DEVIATIONS FROM THESE SPECIFICATIONS MUST BE NOTED OR THE BID WILL BE REJECTED.

GENERAL REQUIREMENTS:

The intent of this specification is to aid Ogle County Highway Department in the purchase of one (1) efficient and dependable tandem drive truck for maintenance operations. The use will include materials hauling and heavy duty snow and ice removal.

The County is requesting bids for two (2) Options:

Option 1: The net price of one (1) new truck as per specifications including the trade-in of two (2) used tandem axle dump trucks as listed below.

Option 2: The net price of one (1) new truck as per specifications including the trade-in of one (1) used tandem axle dump truck as listed below.

SIZE SPECIFICATIONS:

G.V.W.R. – 56,000 Lbs. Minimum

G.A.W.R. - Front – 16,000 Lbs. Minimum

G.A.W.R. - Rear – 40,000 Lbs. Minimum

CAB TO CENTER OF TANDEM AXLE (CT):

Dimension: 102 inches to 106 inches

BUMPER TO BACK OF CAB (BBC):

Dimension: 106 inches, min

WHEELBASE:

As required for suitable operation as a tandem axle truck, 186” max and a min of 174”.

DIESEL ENGINE & ACCESSORIES:

Air Filter - Dry type – Dual element or element with pre cleaner, with dash mounted in cab control to provide air flow from outside the truck or under the hood as selected by the operator. The control shall be labeled for Winter or Summer locations and shall include an in-dash air cleaner restriction indicator.

Oil Filter - Removable cartridge mounted on the engine block.

A combination fuel moisture separator and fuel heater, filter/water separator.

In-Block Type Engine Heater – minimum 110 volt with receptacle mounted under the driver's door or other suitable location approved by the Department of Transportation.

Emissions Catalyst Heater/Cooler (if available) – Trucks need to be capable of operating during extreme weather conditions where ambient temperatures may be above 100 deg. F or below - 10 deg. F.

Non-Corrosive Oil Pan – A heavy duty oil pan or an oil pan that is designed for use in corrosive environments where road salt is present shall be provided. It can be Factory or Dealer installed.

Manufacturer's current production, electronically controlled, turbo-charged, charge air cooled diesel engine, weighing no more than 1,700 pounds (dry weight). Engines considered must provide a minimum 300 horsepower with 1,000 foot pounds of torque at an RPM within the governed operating range of the engine, equivalent to L9 Cummins.

Cooling System - As needed for continuous low-gear operation with loads of rated capacity. Radiator must be front-to-back style with minimum 1,200 sq. in. of surface area.

Coolant shall be "long-life" type anti-freeze requiring minimal maintenance.

The cooling fan shall be a rear tethered, air controlled, ON/OFF style, activated by coolant temperature with a manual, operator controlled over-ride. Horton Drivemaster, Borg Warner or equivalent.

Fuel Tank - **The tank shall be aluminum or stainless steel.** The tank(s) shall be safety step type, located under the cab skirts providing 70 gallons total capacity. The tank steps shall be constructed with manufacturer's standard open-grated, anti-skid material. The steps and straps shall be stainless steel, aluminum, or powder coated steel. Each tank shall be lettered with "ULTRA LOW SULFUR DIESEL FUEL ONLY". Letters to be a minimum of 1 inch high, block type. If truck is equipped with a Urea/DEF tank, it shall be clearly labeled as such. A drain plug shall be provided in the bottom and end section of the tank(s). An additional step shall be placed at or just below the bottom of single step type fuel tanks. Surface area to be not less than that provided with standard tank step and covered with open-grated, anti-skid material. The step shall be Stainless steel, aluminum or powder coated steel.

In-Tank Fuel heater - The truck shall be equipped with a thermostatically controlled fuel heater. The fuel will be heated by coolant circulation through a heat exchanger mounted in the tank, similar to an Arctic Fox or approved equal. Circulation of coolant shall cease when fuel reaches temperature or when outside temperature does not require use.

TRANSMISSION:

Shall be an Allison MD 3000 RDS or equivalent automatic. The operating ranges shall include - 1, 2, 3, 4, 5, 6, neutral, and reverse. The truck shall be equipped with an external transmission fluid cooler (separate from the radiator). The transmission controller (ECM) shall be interior cab mounted or mounted under the hood on firewall in an area that is protected from the weather.

Note: All transmission default settings shall be reviewed with Ogle County representatives and the successful bidder prior to ordering chassis.

The transmission shall include vehicle interface module with access provided to a technician through the shift control.

Shift and Indicator mounting shall be located on the dash or steering column. Floor mountings will *not* be acceptable.

Handle or stalk type control with lighted position indicator. Indicator must clearly indicate all ranges as listed, or they shall be displayed electronically in the dash board.

Transmission oil filter shall be an internal, replaceable, element style. The fill tube shall be mounted on the passenger side of the transmission.

ELECTRICAL:

System - 12 volt, negative ground.

Alternator - Heavy-duty, brushless pad mounted Ampere Rating - 180 ampere Minimum.

Batteries - The truck chassis manufacturer shall provide three (3) batteries. They shall be a long life, maintenance-free, SAE Cold Cranking Ampere Rating of 1950 minimum. The batteries shall include external jump studs and must meet or exceed engine manufacturer's requirements at -17C. (0° F).

Circuit Breakers - Manual reset breakers should be used in place of fuses whenever possible. Shall not reset until overload has been corrected.

Cold Weather Starting Aid – Grid type heater or equivalent with electric cab control, with ECU or ECM and shall not require the use of starting fluid.

CAB:

Shall be manufacturer's standard air suspended, all-weather, insulated, with cloth or vinyl headliner, ventilated with all metal portions treated with rust or corrosion prohibitive material.

Minimum cab dimensions: Shoulder room 70" minimum. Inside height from highest point of floor to ceiling of cab 56.5" minimum.

Windshield and side glass shall be tinted, safety type.

Windshield shall be heated

12 Volt Powerpoint

Power Windows

Power Locks

Dome light

Dual arm rests

Dual sun visors

Interior grab handles

Exterior grab handle with anti-slip feature (driver's side)

Air Horn: Manufacturer's standard operator controlled air horn(s) with snow shields (only required if exterior mounted). Air horn mounting shall not interfere with the light bar mounting by the body company. Under hood mounting is acceptable.

Steering Wheel: Maximum diameter 18" with tilt and telescopic adjustment features.

Front Fenders & Hood Assembly: Shall be constructed of fiberglass or high strength composite and include front fender extensions and flares. Front fenders and hood assembly shall be a forward tilting assembly with stationary chrome grille. Access shall be provided for routine maintenance without removal of the hood assembly or the snowplow push frame. A hood hatch shall be included for easy access.

Front Wheel Splash Guards: Flexible rubber hanging type splash guards shall be hung from lower rear of the front fenders. The splash guards shall be braced to prevent damage during snow and ice conditions.

Seats, Seat Belts, & Reels: Driver's seat shall be high-back, air suspension type with operator adjustable lumbar support with arm rest on inside of seat. Passenger seat shall be standard stationary or fixed, unless air is called for in optional accessories.

Instruments and Warning Systems - The following instruments and warning systems shall be furnished:

1. Speedometer
2. Odometer
3. Tachometer
4. Fuel gauge
5. DEF/Urea gauge if equipped
6. Hour meter - Must be oil pressure activated or an electric model activated by engine RPM.
7. Engine-coolant temperature gauge with high temperature warning light and buzzer

8. Air pressure gauge with low-pressure warning light and buzzer
9. Engine oil pressure gauge with low-pressure warning light and buzzer
10. Transmission temperature gauge
11. Electronic cruise control
12. Engine air filter restriction

Radio: Factory installed, standard AM-FM radio. Bluetooth hands-free phone calling system encouraged.

Rear View Mirrors: Dual, electrically heated, outside, rear vision, rustproof, and break away type. Glass mounting –frame mounted. Size-Approximately 16" high, 7"wide minimum with heated minimum 6" convex mirror mounted below. Adjustment - Vertical and horizontal. Fender mounted mirrors of size recommended by the manufacturer for chassis and completed truck. They shall include a minimum 6" electrically heated convex mirror, switched on/off with rear view mirrors.

Heater & Defroster: Heavy-duty, hot water, fresh air type with all controls for effective heating and/or defrosting under cold weather conditions. Controls shall be furnished to provide for circulation of "in-cab" air.

Air Conditioning: Manufacturer's standard air conditioning with standard manual controls. Controls shall be capable of circulating "in-cab" air without outside "makeup" air.

Windshield Wipers: Dual, heavy-duty, electric, two-speed windshield wipers with intermittent speed control. Blades - Rubber covered components or beam technology for winter use. If a heavy duty wiper package for snow & ice applications is offered by the manufacturer, it shall be included. All chassis lights shall turn on when wipers are in use.

AXLES AND SUSPENSION:

Front Axle: Single I-Beam type, rated at 16,000 lbs minimum and shall be wide tract type.

Front Suspension: Taper leaf type, multi-leaf or two-stage type with a total capacity at ground of 16,000 lbs. minimum. Front suspension shall include shock absorbers and 2,000 lb. overload auxiliary front springs.

Note: The truck covered by this specification will be subjected to higher-than-normal front axle loading when equipped with front-mounted snowplows. Equipment weighing 2,500 pounds may be carried forward of the front axle during snow removal operations. The high-capacity axle and suspension are required to offset the effects of this additional load and reduce the number of front spring and axle failures incurred in this type of operation. Auxiliary front rubber springs shall be included with the front springs. The front axle and suspension capacities must be met if the proposed truck is to be considered.

Single speed with two (2) differentials with operator controlled, dash mounted, power divider lock and a capacity at ground of 40,000 lbs. minimum.

Axle Ratio: Shall be of sufficient ratio to acquire speeds of 64 MPH. The minimum drive line rating with this combination shall be 1810 long life SPL type or equivalent.

Note: Axle ratio and drive line rating will be discussed with the successful bidder prior to production. Only manufacturer's *standard production* ratios will be considered.

Hendrickson HMX 400-52" rear suspension with a rating of 40,000 lbs. minimum and shall include shock absorbers.

FRAME:

Straight channel with a minimum section modulus of 20.93.

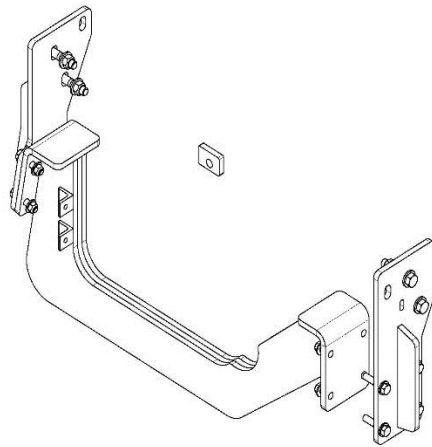
Resistance to Bending Moment – Minimum 2,500,000 for entire length of frame.

Reinforcement – Shall extend forward through both front spring hangers to front snow plow hitch mounting points.

Note: Wrapped or channel reinforced rails are not acceptable with these specifications.

The frame shall have holes punched for a frame reinforcement bar. Mounting holes shall be punched forward of the transmission and to the rear of the engine.

The Frame Reinforcement member shall consist of an additional crossmember constructed of heavy-duty, laminated steel plate, similar to that depicted in the illustration below.



BRAKES:

The air brake system shall be manufacturer's standard heavy duty, full air style, with two painted aluminum reserve tanks. One tank shall be equipped with auxiliary bung for use by Department at a later time.

All brake dust covers shall be included.

Front shall be a minimum 16.5 X 6 - 24 sq. inch brake chambers, rear shall be 16.5 X 7 - 30/30 sq. inch brake chambers or equal.

The compressor for the air brake system shall provide a minimum of 13.2 CFM capacity.

Heated automatic reservoir drain valve. Bendix DV-2, Meritor or equivalent.

Automatic slack adjusters shall be stroke sensing style, front and rear shall be Haldex/Eaton, Gunite, Meritor or equivalent.

Emergency Brake - Air operated with cab control emergency air supply valve and remote air reservoir. Audible alarm shall sound if driver's door opens and brake is not applied.

Trailer Brake - An air brake trailer control package shall be provided. It shall include control lever and air lines mounted in a block or at the pintle plate at the rear of the frame. Both non-

abs and abs electrical plugs shall be included. Glad hands with a 6" flexible mount or equal shall be installed at the rear pintle plate. An electric brake control wiring shall be provided by the chassis manufacturer for use in connecting to trailers with electric brakes. The brake controller shall be provided and installed by the body company. The location shall be confirmed at the completed truck pilot inspection. The wiring for the trailer plug shall be as described under the heading "**Special Trailer Harness**" later in this specification.

POWER STEERING:

Manufacturer's standard assembly required

TIRES:

Front Tires - Tubeless, radial, over-the-road type truck tire. Size – 315/80R22.5 Load Range L or as needed to meet G.V.W.R.

Rear Tires - Tubeless, radial, non-directional, drive tire designed primarily for on highway use. Size - 11R22.5 Load Range G or as needed to meet G.V.W.R.

WHEELS:

Front Wheels shall be steel, hub piloted, disc type, 9.00 DC wide. The wheels shall be powder coated white.

Rear Wheels shall be dual, steel, hub piloted, disc type, 8.25 DC wide with mylar inserts between wheels. The wheels shall be powder coated white.

PAINT /CAB PAINTED:

Color – Green, similar to the following:

- International - #5047

Manufacturers' standard painting application processes shall be practiced. These may include the use of base coat/clear coat application. Other applications will be considered if discussed and agreed to prior to production. Ogle County will be the only source to approve any other alternative to the products listed above. Any proposed product must be lead free with low VOC levels. Prior to their approval for color match.

Areas Painted: Cab shall be painted green. Frame and running gear shall be painted or powder coated manufacturer's standard black. The cab paint shall match the body paint.

Rust/Corrosion/Oxidation Proofing - High Performance solvent based coatings to provide protection against moisture, salt and alkalis.

Method of application - Standard commercial procedures meeting GSA specification A-A-59295, ASTM B-117 Salt spray test and SAE J2334 lab test. (1,000 hrs. min.) **Note:** Exterior coating color shall be black.

Areas of truck cab to be covered:

Complete underside of cab (All Manufacturers)

All areas of the truck cab listed below shall be covered unless these areas are made of fiberglass, high strength composite or other rust, corrosion or oxidation proof material.

Inside door panels
Inside door posts
Inside rocker panels
Under cab roof (inside cab head liner)
Inside of cab rear wall
Inside light wells
Inside fender wells
Inside hood

Areas of dump body to be coated:

- Underside of dump body
- Rear corner post of body
- Longsills of dump body

SPECIAL TRUCK WIRING & LIGHTING:

Special Emergency Lighting, Truck Wiring and Switches:

Emergency lighting and wiring is a critical component of the Department Snow Removal and Maintenance Trucks. It is the intent of the Department that for the safety of IDOT personnel and general traveling public that the complete unit be installed as a system, to offer the most reliable and adequately illuminated truck possible. It is imperative that the system be installed with the highest industry standards.

General Requirements:

1. All wiring terminal connections shall be crimped and soldered. All wiring must be uninterrupted and completed without splices of any kind.
2. All auxiliary wiring from the truck cab console shall pass through a romex type connector on the floor of the cab. The wiring shall be made continuous from cab to all lights and backup alarm as described below. Quick-disconnect type lead splices are *not* acceptable. All lights and backup alarm shall have a common ground lead returning to the in-cab junction box. This ground shall be a buss style with a #4 strap run to truck batteries. All body company wiring shall be grounded from this source. All ground wires in **Special Body Wiring** harnesses are to be 14 gauge.
3. All body and cab shield-mounted lights, wiring, and junction boxes shall combine to form a sealed waterproof system for commercial vehicles, utilizing standard production wiring harnesses where practical
4. Locations and installations of all wiring are subject to approval from Ogle County.
5. The successful bidder shall furnish a simple wiring diagram of the special wiring installation to each engineer at each of the delivery destinations.
6. All lamp connections and all junction box post connections, along with all internal and external pins in wiring couplers or receptacles shall be treated with a non-conductive, corrosion inhibitor.
7. A ground strap of #4 battery cable with eyelets shall be run from a stud welded to the body longitudinal member and bolted to a clean suitable location at the rear of the truck frame. The wiring harness shall be continuous and include color coded wire. Each wire in the harness shall be embossed with the function it services through the length of the harness. All conductors within the harness shall be 14 gauge wire. Routing, Clipping, and Grommeting shall be as required to effectively protect the various leads and harnesses from sagging, possible cuts, abrasion and/or vibration.
8. Size – 12 gauge wire.
9. Routing, Clipping, and Grommeting - As required to effectively protect the various leads and harnesses from possible cuts or vibration.

Special Trailer Harnesses - Continuous color coded, 7-conductor from truck cab to end of truck frame for operation of trailer lights and electric trailer brakes. Non ABS and ABS with combination Stop/Turn/Tail lights.

Connector – Green ABS 7-way ATA approved socket with weather cap.

Black Non ABS 7-way ATA approved socket with weather cap.

Conductor Use:

1. Ground to towing vehicle.
2. Clearance and identification lights.
3. Left turn signal and disability lights.
4. Stop lights.
5. Right-turn signal and disability lights.
6. Tail lamps, three-bar marker lamps and other clearance or marker lamps.
7. Anti-lock brake device / Battery.

Note: Lighting conductors to be continuous to in-cab junction block. Brake conductors to be continuous to under dash area with ample lead for later installation of electric brake controller by the Department of Transportation. Brake conductor leads shall be labeled, coiled, and secured in an accessible location under the truck dash area. Specific wiring instruction will be provided by the Department of Transportation prior to final assembly.

The Switch Panel shall be in the dash configuration or equivalent.

Switches:

Panel Switches shall be programmable and include the following:

- Day-Night (Switch for LED Warning Lights)
- Front LED
- Side LED
- Body LED
- Spreader Light(s)
- Air Tailgate w/guard
- Wing Light
- Auxiliary switch (spare)

The above switch functions shall be back lit in the panel by LED and increase in brightness when activated. All switches shall carry a manufacturer's warranty. Warning indicators for Hydraulic Oil Low (Blue) and Body Height (Red) shall be displayed in the operator's station. The warning indicators shall flash when activated and the body height indicator shall include an audible alarm when activated.

The switches shall be self-protecting and must not reset until the short circuit or over-load condition is corrected.

A 50 amp thermal breaker with manual reset shall be provided in the wire between the power source and the switch panel. The breaker shall be located within 18" of the battery source prior to entering the cab and in a protected location.

A lug capable of supporting a constant 20 amp current draw without fuse protection shall be provided within the console for installation of an IDOT owned FM radio equipment.

One wire shall be run from the switch to accessory and one wire from the battery to the switch panel.

Special Power Distribution and Mounting Center:

The Power Distribution Center shall consist of the installation of a constant duty relay, LED warning light power module, air tailgate valve, spreader control module, and power distribution center. All modules shall be individually sealed (potted) units with protected, weather-proof connectors. Location for this Power Distribution Center shall be between seats along the back wall of the cab, under passenger seat and have the capability to protect all components from possible damage.

Requirements:

A minimum 75 ampere constant-duty magnetic type relay shall be provided to remove specified accessory circuits from the ignition key switch to prevent switch overloads, yet retaining key switch on-off control. The relay shall be a Bosch-75 amp relay or a Department of Transportation approved equivalent. Circuit breaker board with minimum of (6) accessible terminals for connection of IDOT radio, spreader and joystick control power module, LED warning light module, and the electric trailer brake control if required with either resettable or ATC fuses sized appropriately. The air tailgate valve for control of dump body tailgate latch mechanism will also be located here.

Accessible terminals shall also be available for controlling additional IDOT installed electrical equipment.

Installation and the use of alternative products will be subject to prior approval of the Illinois Department of Transportation.

A 150 amp Thermal breaker with manual reset shall be provided for the Dump Body Vibrator. Any additional relays or wiring needed for proper connections shall be included.

Auxiliary Snow Removal Headlights with Park/Turn Lamps:

The auxiliary headlights shall be fully LED including outboard mounted park/turn, and rear view light – ABL 3830-0080 or equivalent. To be considered equal, the lights must provide the same level of light, and be designed utilizing tempered glass lens so it will not fade or fog. The design of the light shall enhance the transfer of the heat generated by the LED(s) to the lens to keep them free of snow and ice build-up. Lights including wire type heating elements will not be considered equal.

Shock mount adjustable sockets attached to heavy 304 stainless steel support brackets or factory fender mirror mounts. Support brackets shall be securely mounted providing a minimum height-to-center of light shall be 70" above road surface. Mounting through the fiberglass will require an isolation type mounting. Final location and installation of these components shall be subject to Department of Transportation approval during completed truck's pilot inspection.

Headlights (LEDs) shall be clear - Park/turn lights and rear view light (LED's) - amber.

Headlight/Plow light switching control shall be located in the dash and provided by the truck manufacturer. Wiring for the plow lights shall be furnished and routed by the truck manufacturer to a location near the front grill area. There shall be weather tight connections for attachment of the plow light/turn signals. **Note:** If the Plow light controls are integrated in the factory body control module the vendor or manufacturer shall make available to Ogle County the proper diagnostic tools, personnel, or parts to test and repair the system during a snow emergency.

Auxiliary park/turn lamps to operate in unison with standard park/turn lamps.

Operation in Auxiliary Mode requires a combination light control switch and dimmer switch control for auxiliary headlights so standard headlights are **not** on.

The high beam indicator in the dashboard shall function in either mode of headlight operation.

LED Light Bar - The light bar shall be 72" in length with a maximum height of 3.75 inches, a depth of 12", and designed for aerodynamic efficiency. The main structure shall be of heavy gauge extruded aluminum. The light bar's outer lens shall be clear and constructed of polycarbonate. Each section must be completely sealed and attached to the base with screws. Each lens must be easily removable without removal of the light bar from the roof. The light bar shall contain one (1) control module I/O board which shall contain all the electronics required to operate all six (6) internal Super-LED amber light modules. The LED light modules will be located at each of the four corners of the bar with the additional (2) located inboard forward facing, or to the Department's requirements. Each light module shall be independent and shall be easily removable without removal of the light bar from the roof of the cab. The light bar must have Hi/Low power control of all LED modules. Location - Mounted to the cab roof. Mounting brackets shall include a minimum 7" cast aluminum riser with an aluminum angle mounting bracket for the two-way, radio antenna. Mounting brackets to be securely fastened using

stainless steel cap screws. **Note:** Roof to be adequately reinforced by the truck manufacturer and all mounting subject to IDOT approval.

The system shall meet or exceed SAE J845 Class 1A, June 2013. Omnidirectional Light bar shall be certified by an AMECA-accredited testing lab to meeting these requirements in the appropriate specified safety colors. The Amber shall meet or exceed Amber J845 Class 1S (130), the Clear shall meet or exceed Clear J845 Class 1S (120), the Amber Vertical shall meet or exceed Amber J845 Class 1S (40), the Clear Vertical shall meet or exceed Clear J845 Class 1S (40) June 2013. Certification document to be included with bid.

LED-Combination Tail/Stop and Rear Signal:

Type - Dual combination 4 1/8" X 6 1/2" Class A, LED, sealed, shock mounted, capable of flash alert pattern before steady burn.

Location - Rear of truck chassis mounted to pintle plate.

Lens color - Red.

Taillight control - Combination light control switch.

Brake light control - Brake control.

Turn signal control - Turn signal control switch and 4-way hazard warning switch.

Additional Body-Mounted Rear Stop/Tail and Turn Signal LED Lights:

Type - Dual, oval 2" x 6" single-face, sealed, shock mounted, High Intensity LED capable of flash alert pattern before steady burn.

Location - In the dump body rear corner braces.

Lens color - Red.

Control - In series with standard stop/tail and turn signal lights.

Additional Body-Mounted Rear LED Lights:

Type - Sealed LED designed with 180° light pattern, mounted in a 7 gauge heavy-duty stainless steel narrow aerodynamic angled leading edge housing not to exceed 2 9/16" in width. Stainless steel housing to accommodate three (3) Linear Super LED's approximately 1 5/8" x 5" in size. All warning lights to be wired into a single central encapsulated flasher unit.

Location – Along each side of the rear of the dump body rear corner positioned in front of the rear marker light and mounted as high as possible, while remaining within the limits of the rear corner.

Flashing sequence – Flashing light sequence to flash high and low LED and then center LED with opposing flash sequence on each side.

Color – Amber - Top & bottom (2 each light – heads per housing). White - center.

Wiring – All cabling shall be salt, chemical, and oil resistant TPR style. All connections shall be "Deutsch" or "Weather Pack".

Control - Special circuits with power supplied through the switches on the console.

Warranty – All LED warning lights and flashers to be warranted for a minimum of 5 years.

Additional Cab Shield-Mounted Rear Stop/Tail and Turn Signal LED Lights:

Type – Dual, 4 1/8"H x 6 1/2"W, LED, single-face, sealed, shock mounted, High Intensity LED S/T/T lights, capable of flash alert pattern before steady burn.

Location - Top of cab shield at each end.

Lens color - Red.

Control - In series with standard stop/tail and turn signal lights.

Special guards - Heavy steel with enclosed back and sides and removable top for access designed to protect light assembly from heavy shocks, yet provide a clear view of lights from the rear at all dump body angles. The wiring for each light shall be in conduit or tube along the inside front of the cab shield.

Additional Cab Shield-Mounted LED Warning Lights:

Type – Dual 4 5/16”H x 6 3/4”W x 1 3/8”D warning lights. The warning lights shall incorporate Linear

Super-LED and Smart technology. Each light head shall be populated with a minimum of (18) amber and (18) white Super LED’s and be covered with a clear optic hardened automotive lens. The lens shall seal against moisture, dust and other environmental conditions. The light pc board shall be conformal coated and mounted in the light base. The light head shall include approximately 160 different flash patterns.

Location - Top of cab shield at each end next to the S/T/T lights on the special guards.

Special guards - Heavy steel with enclosed back and sides and removable top for access designed to protect light assembly from heavy shocks, yet provide a clear view of lights from the rear at all dump body angles. The wiring for each light shall be in conduit or tube along the inside front of the cab shield.

LED-Rear Identification Lights (3-Bar):

Type - Three, single-face, LED, sealed, and shock mounted with grommet approximately 2 1/2” in diameter.

Location - Rear of dump body.

Lens color - Red.

Control - Combination light control switch.

LED-Body Clearance Lights:

Type - Single-face, LED, sealed, and shock mounted with grommet approximately 2 1/2” in diameter.

Location - As required.

Reflectors

As required by Illinois State law.

All LED warning lights along with the LED S/T/T lights shall be hard coated polycarbonate and be warranted for a period of 5 years.

Spreader Light:

Location – Dual square LED type lights mounted under the right and left rear dump body corner posts. The lights provide a diffused light at spinner assembly of a conventional under-the-tailgate or slide-in hopper body material spreader.

Lens color – White/Clear

Control - Switch and circuit shall originate in the dash console.

Body Height Indicator:

Type - Electric.

Indicator Light(s) - Dash mounted or spreader control display with appropriate labeling.

Minimum Actuation Height 13', measured to top of cab shield.

Sensing Device Location - Body subframe or rear corner post.

Sensing Device Enclosure - Watertight, shock and corrosion resistant.

Wiring - Continuous with polyvinyl or equal insulation.

Radio Antenna Cable:

Vendor shall install agency-provided TAD mount roof antenna and coaxial wire in configuration similar to those on present agency trucks. Installation shall also include silicone caulking and sealing the bottom of antenna. Final routing of antenna cable shall be in the overhead console.

Backup Alarm:

Type - Electric, Preco 1040, Ecco, Whelen or equivalent.

Sound level – Self adjusting 87 to 112 decibels ± 5 , measured at 4'.

Location - Inside of frame near the rear of the chassis.

Wiring - Continuous to the backup light terminal of the special junction box described herein.

HYDRAULIC SYSTEMS:**Hydraulic System for Dump Trucks/Snowplows:****General Requirements:**

A complete hydraulic system for operation of dump body hoist, hydraulically powered ice control spreaders, and hydraulically operated snowplows. The system shall be comprised of a variable displacement load-sensing pump supplying flow to a multi-section tie bolt stacks of load sensing control valve sections. The combined system shall be rated at 3000 PSI operating pressure. All sections will be fully pressure and flow compensated, and provide hydraulic power to all functions simultaneously if called for.

Central Hydraulic System:

- Constant Mesh PTO
- Load Sense Hydraulic Pump
- Pneumatic controlled hydraulic valve to operate hoist, plow auger/spinner
- Spreader controller
- 30 gallon carbon steel hydraulic tank with intank return filter
- Stainless valve enclosure
- Low oil / High temperature auto shut down system
- All required plumbing

Console:

- Pneumatic style console
- 7 warning light panel with 11 switches
- Control levers
- Hoist
- Dual axis – Plow lift / angle
- Force SSC3100 Electric spreader controller

Note: All items not specified but required to power the following: Dump body, plow lift, plow reverse, mid mount wing, spreader must be supplied. Spreader must not stop when other functions are used.

TRUCK DUMP BODY:**General:**

The dump body shall be a “Western” or “cross-memberless” style body with top rail, bottom rail and two bottom tubular structures. The dump body shall include a “D” ring or other lifting attachment on the dump body, at the location of the hoist. All body sides, cab protector, floor, and tailgate bracing shall be 100% continuous welded. The dump body shall be fabricated of minimum 7 gauge 201 or 304 stainless steel, with the exception of the floor which shall be a minimum of 7 gauge A570 grade steel with a minimum rating of 50ksi yield strength, and a 65ksi tensile strength.

All vertical and horizontal channels on the body will be welded completely. Longitudinal understructure members shall be of a formed trapezoid shape running the length of the body. They shall be formed from a minimum ¼ inch 105,000ksi tensile steel. Longsills to be welded a 100% to the floor of the dump body.

The only crossmembers shall be as required for front and rear reinforcing and to mount the dump body vibrator.

Dump body shall have fabricated full depth Austenitic 201 or 304 stainless steel rear corner posts constructed of minimum 7 gauge material. The corner posts shall be internally reinforced to withstand any stress imposed during normal usage.

All wiring shall be within posts or longitudinals or when exposed shall be clamped and supported at 8" intervals.

The dump body shall have a nominal (water level) capacity of 9 cu. yd. near to the following dimensions:

- Inside length 13'
- Inside width 84"
- Overall width 96"
- Rub rail width of 4 1/2"
- Front bulkhead height of 50"
- Side height of 34"
- Tailgate height of 42"

Note: The bottom inside corner of the dump body shall be of a radius design to allow for maximum corner width.

| | | |
|------------------------|-------|-------------|
| Inside length: | _____ | inches |
| Inside width: | _____ | inches |
| Overall width: | _____ | inches |
| Rub rail width: | _____ | inches |
| Front bulkhead height: | _____ | inches |
| Water level capacity: | _____ | cubic yards |
| Side Height | _____ | inches |
| Tailgate Height | _____ | inches |

The top rub rail shall be fully boxed and sloped to the outside and shall not include any provisions for additional sideboards.

The front bulkhead shall be constructed to be seamless inside and outside of the dump body. It shall be adequately reinforced.

The body will be constructed with front corner posts. The corner posts will have open bottoms to allow complete drainage.

The lower rub rail shall be sloped and welded to the body. A 3/8" x 1 ½" steel flat strap supported every 24" shall run the full length of the rub rail. The top edge of the flat shall be even with the top angle of the rub rail.

A full width rear skirt shall be provided. The inside and outside corners shall be cut out to allow drainage.

All linkage points shall be greaseable and points of adjustment shall be easily accessible.

Tailgate:

Type - Offset hinge, double-acting with separate spread control chains including keyhole eyes for 3/8" chain. The chain to be grade 43 and covered with a nylon or plastic cover. The keyhole eyes shall be of sufficient size to accept the entire chain link and prevent the chain from being unattached during normal operations.

Height – Approximately same height as the dump body corner posts.

Reinforcement - Minimum of two vertical and one horizontal brace.

Construction – Fixture welded. Each tailgate shall be interchangeable with same make and model dump body.

The tailgate shall have two (2) sets of bushings continuously welded through the vertical outer tube of the tailgate to allow 3/8" cap screws to pass through. The fasteners will allow the attachment of anti-spill shields.

Tailgate pins shall be tapered and comply with the dump body specifications for round stock. The pins shall be greaseable.

The tailgate shall be air operated and shall include grease fittings. The tailgate linkage cross shaft shall be greaseable and accessible from the outside of the corner post.

Note: The operator shall be able to manually operate the cross shaft in the event of an air failure.

The tailgate shall have a "D" ring or welded loop attached in the center for removal of the tailgate.

Note: When tailgate is lowered parallel to body floor, the inside surface of the tailgate shall provide a smooth level joint between the tailgate and the body floor.

The hinge assembly at the rear of the body shall include individual stainless steel pins machined from hardened 416 stainless steel. The pins shall pivot thru a one piece pillow block style hinge pad and be removable. The pins shall also be capable of being greased.

The tailgate shall be equipped with a 201 or 304 stainless steel telescopic metering slip gate measuring 18" X 12" located in the center of the tailgate. It shall be lever adjustable with a locking handle nut to secure the opening position.

The slides or guides the slip gate operates in shall be constructed of 201 or 304 stainless steel. The control lever and the locking nut may be mild steel.

The outer guide shall be constructed of a formed stainless steel angle. It shall provide for adjustment of the door within the guides by means of adjustment bolts in the tailgate reinforcing structure.

The inner slide shall be stainless steel and welded to the tailgate reinforcing.

Rear Wheel Mud Shields:

Type - Heavy anti-sail rubber.

Location - Attached to underside of dump body in front of the rear wheels supported by brackets.

Purpose - Prevent splashing of frame-mounted attachments, fuel tanks, and cab area and shall be free of any lettering.

Rear Wheel Splash Guards:

Type - Flexible rubber hanging type.

Location – Attached to underside of dump body behind rear wheels, supported by brackets.

Ground Clearance - 8" with truck loaded to maximum legal limit. Maximum allowable deviation from vertical plane - 30 degrees.

Color - Black.

Other Requirements: Shall not "roll up" rear tires during dumping operations.

Shall conform to all State regulations.

Shall be free of any lettering.

Cab Shield:

Type - 1/2 cab type.

Construction - Not less than 7 gauge 201 or 304 stainless steel.

Installation - Continuously welded to the dump body or integral extension of the front wall and shall be tapered on each outside corner to allow for more visibility of emergency lighting and not interfere with the exhaust stack. There shall be heavy brackets constructed into the corners of the cabshield for the mounting of the required S/T/T lights along with the LED warning lights. The housing containing the lights shall have a removable access cover to allow access to wiring cables and connections.

Dump Body Vibrator:

Electric 12 volt type Cougar Model DC-3200, Vibco DC-3500 or equivalent. The vibrator shall be installed per manufacturer's recommendations on western style dump bodies. A 150 amp thermal breaker shall be included in installation.

Air Tailgate:

Dump body to be equipped with an air trip mechanism for latching the tailgate. The air cylinder shall be a tie-bolt design, 3.5" diameter with approximately 6" of stroke. The electric over air valve will be located in the cab, in the power distribution panel. The switch will be located in the switch panel and equipped with a guard to prevent accidental activation. A mechanical over-ride shall be provided in case of an air system malfunction.

Note: The operator shall be able to manually operate the cross shaft in the event of an air failure.

Body Hoist:

The hoist shall be a double acting telescopic design and trunion mounted with oscillation built into the cylinder mount. The hoist shall be capable of operating at 2500 psi and be self-bleeding. The hoist shall be internally sealed by a seal of u-cup design. The cylinder shall be nitride coated for superior wear and corrosion resistance. The hoist cylinder must be a minimum of NTEA Class 50 rated. The hoist shall consist of (3) sections and have the ability to hold the load in a raised position for road operation. The hoist shall raise the body to a minimum 50 degree dump angle.

Dump angle-50° minimum Angle: _____ degrees

Number of telescopic sections: _____

Safety Prop(s):

Type – Dual manufacturer's steel safety props.

Location - Under side of body, attached to body sub-frame or rear truck frame. The props shall support the dump body in a raised position for maintenance.

Rust/Corrosion/Oxidation Undercoat Requirements:

The entire underside of the dump body shall be thoroughly coated.

PINTLE HOOK & PLATE:

Pintle Hook Model: Holland PH-T-60-AOL-8.

Location - As near as possible to rear of truck frame.

Clearance - Minimum 1" from tailgate or under-tailgate spreader, with the dump body in an elevated position.

Working height of pintle hook from ground approximately 25".

Pintle hook and all required bracing shall be assembled and attached to the truck frame in accordance with the manufacturer's recommendations.

The hook, connections and mounting structure must meet and exceed the capacities for the pintle hook described above.

The pintle hook mounting plate shall be a minimum of 1" thick steel filling the area between the frame rails, and extending below the frame as required.

A 2" diameter draw shall be located below the plate. The bar shall be approximately 26.5" long and shall be located so that the top of the bar is 17.5 inches above the ground surface. Draw bar is used for connection to Ogle County equipment.

The mounting plate shall provide for the connection of two (2) safety chains, providing a minimum of 50,000 lbs. capacity to the frame members of the truck should the coupler fail. This mounting shall not weaken the truck frame in any manner.

The ABS and Non-ABS trailer plugs shall also be incorporated in the pintle plate. The plugs shall be removable and replaceable.

SNOWPLOW PUSH FRAME:**General:**

Type - Custom Heavy-Duty Pin & Loop Style Hitch

Plow use - Reversible, one-way, and V-type snowplows.

Hydraulic Lift Ram:

Type - Single acting

Ram size – minimum 3" diameter, nitride coated rod

Stroke - 10" minimum

Ram and packing - Gland type ram with chevron type packing and locking nut

Hose - High-pressure type hydraulic hose Connection – cylinder port to be ORB

Snowplow Lift Arm:

The snow plow lift arm shall be constructed of formed pieces of bar stock and shall provide reinforcement to the lifting assembly, and reasonable lateral stability for a one-way, reversible, or "V" type snow plow.

Front Bumper:

Truck shall be equipped with heavy full width steel channel or angle bumper. The bumper shall be a minimum ½" material fully welded to the hitch and located to replace the standard manufacturer's front bumper.

SNOWPLOW WING:

9' Full Trip Mid-mount Wing:

Mid mount patrol wing
Lift post mounted under body
Toe cylinder stroke of 14" (10" Max Benching)
Buffer brace support located between tandems
Trip mechanism: Trip edge moldboard
Cutting edge length: 9'-0"
Cutting edge type: High carbon steel
No discharge end curb shoe
Heel cylinder mounting: Rear Heel Cylinder
Buffer brace manually extended 24" (Std)
Lock valve
Moldboard color: Orange

SPREADER:

Stainless Steel Under Tailgate Spreader:

Constructed of 201 or 304 Stainless Steel
Direct Drive
6" Auger
96" Wide, Far Left Drop
Quick Mount Kit
18" Polymer Disc Spinner
Two hydraulic motor operation: one at auger and one at spinner

Note: Spreader hoses shall be securely mounted and ran to a manifold plate located under the dump body and near the rear hinge area. From the manifold plate the lines shall be split and extended to the rubrail manifold near each corner post. The left side manifold shall contain the pressure and return for the spinner. The right manifold shall contain the pressure and return for the auger. All manifold plates will use removable JIC bulkhead connections. Weld-in fittings will not be acceptable. The quick connections shall be recessed under the rear body corner post in a horizontal position for ease of maintenance and connecting with gloved hands. All required quick couplers, caps, and plugs shall be furnished even if a spreader is not installed.

TARP SYSTEM:

Electric dump body covering system, Aero Industries Easy Cover Model 575 or approved equal, with a cab operated rocker switch. Length to be adequate to properly cover the dump body.

The arms are powered by (2) PowerPack spring assemblies mounted on the side of the dump body. The springs must be fully encased, for safety and protection, in a polished aluminum two-piece casting. For replacement purposes, the spring/arm assemblies must be universal to eliminate the need for driver-side and passenger-side components. The springs must have the ability to be pre-loaded with tension by simply rotating the pivot post without adding additional mounting holes to the dump body.

The arm assembly shall consist of four (4) pieces of high strength 6061 T6 aluminum extrusions with at least a minimum wall thickness of .188 for the ends of the tube for strength purposes. All arm components must be polished. The arm sections shall telescope to allow for length and width adjustment, and must be easily replaceable. Arms should be angled at approximately 26

degrees to allow the arms to be recessed in the open position. To minimize friction and wear within the tarp pocket, the rear cross tube shall be round.

The roll-up tube assembly is to be a 6061 T6 aluminum extrusion with zinc plated steel machined end shafts. It shall be a telescoping design so the width can be adjusted without cutting the roll-up tube. The roll-up tube shall be designed so the tarp can easily be attached without drilling any holes. The roller assembly mounting plates shall be polished aluminum with high-speed flanged, pre-lubricated bearings. A one-pieced polished aluminum wind deflector is to be secured to the roller assembly mounting plates. To minimize installation, the wind deflector must be designed so no cutting (to length) or drilling is required.

The 12-volt electric motor shall have a right-angle gearbox with a removable chrome plastic cover. The gears must be hardened and ground steel, encased in a metal housing, and shall be designed to ensure the tarp cannot back-drive. The cab installed rocker switch is to be self-centering, constructed of metal. A reverse DC contactor and all necessary wire fasteners and electric hardware shall be furnished. The motor shall carry a three (3) year non-prorated warranty.

The systems shall include a Double-Arm that is attached to the primary swing arms. The second arm shall pivot freely on the primary swing arm and be orientated opposite the rear cross tube to provide gravity assisted downward force to hold the tarp behind the cab shield and minimize tarp lifting or sailing.

To prevent the rear swing arms from lifting or bouncing when the tarp in the closed position, the system shall be equipped with locks near the rear cross tube that automatically engage when the tarp is fully closed, and immediately automatically unlock when the process to open the tarp is initiated. The lock and unlock processes must be accomplished through the normal course of operating the rocker switch in the cab- no additional steps by the operator are permitted to secure the rear cross tube and swing arms to the tailgate.

The tarp material shall be a RFL dipped, chemically treated fabric, suitable for covering asphalt. The tarp is to finish nine (9) feet wide. The tarp shall have a series of shock cords attached to the tarp, so the tarp's width will constrict enough to fit on the roll-up bar. All sewing is to be lock-stitched; chain stitching is not acceptable. A minimum of two (2) polyester web reinforcements are to be sewn or welded to the tarp longitudinally for stability.

WARRANTY:

60 months 100,000-mile engine, engine electronics with injector's warranty

60 months 100,000-mile transmission warranty

All warranty and dealer service policy information shall be included with the quotation. This shall include duration of coverage, optional extended warranty coverage and pricing available, service call charges and hourly mechanic charges. Owner's manuals, parts and service manuals shall be included also.

SAFETY COMPONENTS:

The truck shall be furnished complete with all safety components that are required by Federal safety standards for the size of truck proposed to be furnished. It will be the responsibility of the successful truck vendor to guarantee delivery within the quoted delivery time and to require all manufactures or suppliers to complete installation of auxiliary equipment in accordance with delivery time. Failure may result in removing bidder from future bidding and a \$50.00 a day penalty.

Note:

Please submit descriptive literature, showing specifications and computer printout of chassis equipment and sale codes for unit bid along with the proposal.

THE OGLE COUNTY ROAD AND BRIDGE COMMITTEE RESERVES THE RIGHT TO ACCEPT OR REJECT ANY OR ALL BIDS.

IF VEHICLE BID DOES NOT MEET ALL THE ABOVE SPECIFICATIONS, ANY DEVIATIONS FROM THESE SPECIFICATIONS MUST BE NOTED OR THE BID WILL BE REJECTED. THE SPACE BELOW MAY BE USED TO NOTE DEVIATIONS.

OPTION 1

EQUIPMENT PROPOSAL

ONE (1) NEW 2019/2020 MODEL TANDEM AXLE DUMP TRUCK, as per SPECIFICATIONS

Year, Make & Model of Bid Machine

NET DELIVERED PRICE for one (1) new 2019/2020 Model Tandem Truck as specified above. F.O.B. Ogle County Highway Department, Oregon, IL.

\$ _____

TRADE - IN TRUCKS (2)

**1 – #37 2006 INTERNATIONAL 7400 TANDEM
AXLE DUMP TRUCK WITH PLOW
AND SPREADER 164,000 MILES
VIN1HTWHAAR16J370112**

\$ _____

**2 - #10 2008 INTERNATIONAL 7400 TANDEM
AXLE DUMP TRUCK WITH PLOW
AND SPREADER 153,000 MILES
VIN 1HTWHAAR28J635820**

\$ _____

NET DELIVERED PRICE FOR ONE (1) NEW 2019/2020 MODEL TANDEM TRUCK AS SPECIFIED, LESS TRADE-INS (2):

\$ _____

WHEN THE TRUCK ARRIVES AT THE DEALER AND PRIOR TO GOING TO THE BODY COMPANY, THE COUNTY WILL INSPECT THE VEHICLES TO MAKE SURE THE CAB AND CHASSIS MEET SPECIFICATIONS.

ONCE THE TRUCK IS DELIVERED TO THE BODY COMPANY AND PRIOR TO THEM DOING ANY WORK ON THE TRUCKS, THE COUNTY WILL GO OVER THE VEHICLE WITH THEM TO MAKE SURE THEY CAN MEET ALL SPECIFICATIONS.

Delivery of complete unit shall be made within _____ days following receipt of the order.

The undersigned bidder certifies that the item bid herein meets or exceeds the above specifications or all deviations are noted above.

SUBMITTED BY _____
NAME

ADDRESS

PHONE NO. DATE

SIGNATURE OF BIDDER

OPTION 2

EQUIPMENT PROPOSAL

ONE (1) NEW 2019/2020 MODEL TANDEM AXLE DUMP TRUCKS, as per SPECIFICATIONS

Year, Make & Model of Bid Machine

NET DELIVERED PRICE for one (1) new 2019/2020 Model Tandem Truck as specified above. F.O.B. Ogle County Highway Department, Oregon, IL.

\$ _____

TRADE - IN TRUCK (1)

**1 – #37 2006 INTERNATIONAL 7400 TANDEM
AXLE DUMP TRUCK WITH PLOW
AND SPREADER 164,000 MILES
VIN 1HTWHAAR16J370112**

\$ _____

NET DELIVERED PRICE FOR ONE (1) NEW 2019/2020 MODEL TANDEM TRUCK AS SPECIFIED, LESS TRADE-IN (1):

\$ _____

WHEN THE TRUCK ARRIVES AT THE DEALER AND PRIOR TO GOING TO THE BODY COMPANY, THE COUNTY WILL INSPECT THE VEHICLES TO MAKE SURE THE CAB AND CHASSIS MEET SPECIFICATIONS.

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NAME

ADDRESS

PHONE NO. DATE

SIGNATURE OF BIDDER