

SPECIFICATIONS  
A-04-BU-A-AF  
**056800**  
**TRUCK, HI-LIFT, 26,000 GVW, FLATBED**

I. GENERAL TRUCK SPECIFICATIONS:

- A. Intent Statement
- B. Weight Distribution
- C. Power Train Overview
- D. Vehicle Components
  - 1. Alarm Backup
  - 2. Axle, Front
  - 3. Axle, Rear
  - 4. Brakes
  - 5. Cab
  - 6. Chassis
  - 7. Drive Line
  - 8. Electrical
  - 9. Engine
  - 10. Engine Accessories
  - 11. Exhaust
  - 12. Instrumentation
  - 13. Light Warning
  - 14. Paint
  - 15. Steering
  - 16. Tank - Fuel
  - 17. Tires/Wheels
  - 18. Transmission
  - 19. Safety
- E. Body
- F. Work Platform

II. DRAWINGS:

III. MANUALS

IV. TRAINING

V. WARRANTY

October 17, 2016 GAW

SPECIFICATIONS  
A-04-BU-A-AF  
**TRUCK, HI-LIFT, 26,000 GVW, FLATBED**

I. GENERAL TRUCK SPECIFICATIONS:

A. INTENT STATEMENT:

NOTE: Pennsylvania Department of General Services, PCID No. 1075, "General Requirements for Bidding PENNDOT Vehicles/Equipment", most current version effective at the time and date of bid opening, is included as a part of this specification. PCID No. 1075 may be reviewed and downloaded from the Department of General Services website, <http://www.dgs.state.pa.us>. Delivery as required per Department of General Service PCID NO. 1075 Section "G". All units must be delivered within **200** days after receipt of the purchase order by the successful bidder.

The purpose of these specifications is to describe a vehicle with a 20 foot flatbed with a mounted crane and bucket with a maintenance type payload, engineered, certified and conforming to current ANSI regulations.

B. WEIGHT DISTRIBUTION:

It is understood that the components specified are minimum and if the truck manufacturer's Engineering Department recommends or deems necessary, due to their particular weight distribution, a larger component or a larger GAWR totally, the burden of responsibility is hereby placed upon the Manufacturer's Engineering Department to supply a unit that is totally engineered.

1. Frame
2. Axle
3. Tires
4. Steering components
5. Rims
6. Suspension
7. Brakes
8. Any other items as required

The dynamic and static loads created by the unit, plus operational stresses, must be reviewed to ensure the Commonwealth of a properly designed/engineered unit.

The following information must be supplied with the pilot model:

ACTUAL TRUCK WEIGHT: (LB)

Chassis only

\_\_\_\_\_ Front Axle  
 \_\_\_\_\_ Rear Axle  
 \_\_\_\_\_ Total

"Chassis with body" if applicable, shall be split weighed and total weighed, and signed by a certified weight master.

\_\_\_\_\_ Front Axle  
 \_\_\_\_\_ Rear Axle  
 \_\_\_\_\_ Total

The above may be performed by the body company.

SPECIFICATIONS

A-04-BU-A-AF

I. GENERAL TRUCK SPECIFICATIONS: (Continued)

B. WEIGHT DISTRIBUTION: (Continued)

Truck GAWR's as Built (LB)

|         | <u>Front GAWR</u> | <u>Rear GAWR</u> |
|---------|-------------------|------------------|
| Axle    | _____             | _____            |
| Tires   | _____             | _____            |
| Springs | _____             | _____            |
| Rims    | _____             | _____            |

C. POWER TRAIN OVERVIEW:

The following power train combination is acceptable, no substitute.

ENGINE – CUMMINS Diesel, MIN. 250 HP AT GOVERNED RPM, MIN, 660 LB/FT TORQUE.

TRANSMISSION AUTOMATIC: ALLISION – RDS 6 speed 3500 SERIES, PER APPLICATION.

Automatic transmission cooler lines shall be stainless steel or **pre-approved** rubber wire reinforced type hose with stainless steel crimped fittings.

An Allison approved cooling system shall be installed regardless of whether retarder is incorporated in the system or not. (Water-to-oil type cooler).

NOTE: All vehicles shall have a transmission-operated safety starting switch.  
Opening for power-take-off (PTO).

NOTE: LUBRICANTS FOR FRONT AXLE HUBS AND DIFFERENTIALS, AUTOMATIC TRANSMISSIONS, TRANSFER CASES AND ALL REAR DIFFERENTIALS SHALL MEET OR EXCEED ALL APPROPRIATE MIL AND SAE SPECIFICATIONS FOR SYNTHETIC LUBRICANTS AND SHALL HAVE ALL PLUGS IDENTIFIED AS SYNTHETIC OR PAINTED RED.

(The OEM shall provide written exemption if synthetic oil is not installed.)

SPECIFICATIONS

A-04-BU-A-AF

I. GENERAL TRUCK SPECIFICATIONS: (Continued)

D. VEHICLE COMPONENTS:

1. ALARM - BACKUP:

Alarm shall be a grommet mounted ECCO model 450 **(No substitute, standardization)**.

2. AXLE, FRONT:

A setback front axle shall be used for the tightest turning radius possible and rated at 10,000 lb. Minimum the front axle, drag links and tie rods shall have grease zerks installed. Kingpin or bushings shall be grooved to permit grease flow. Sufficient tire clearance at maximum turning angles. Complete "Stemco" oil seal assembly, including hub, plug type window, and "Guardian" seal, or pre-approved equal. Each unit shall receive a front-end alignment prior to delivery.

OEM shock absorbers compatible with front suspension.

If a handling package is available from OEM as an option, it shall be included.

3. AXLE, REAR:

19,000 lb. minimum

OEM shock absorbers compatible with rear suspension.

ALUMINUM OR LIGHTWEIGHT HOUSING IS NOT ACCEPTABLE.

4. BRAKES: Full air ANTILOCK in compliance with the most current FMVSS requirements.

The ABS shall incorporate a diagnostic fault switch that is capable of illuminating a fault light for diagnostic purposes. The switch shall be easily accessible and can be either dash or under-dash mounted. A dash-mounted display that will show all SAE message descriptions for the ABS is an acceptable means of diagnostics in lieu of the fault switch.

Rear brakes: 16.5 inch x 7 inch "S" cam with quick-change type single or double pin. **(No substitute, standardization)**.

Steer-axle-brake: 16.5 inch x 5 inch or a power front disc brake system providing equal performance. Quick-change type single or double anchor pin if drum type brakes are furnished.

Drum brakes shall have automatic slack adjusters and they shall be clearance-sensing type only, with adjustment on application of the brake. **(No substitute, standardization)**. Backing plates shall be installed on all drum brakes.

Air compressor: Per truck manufacturer's recommendation. Compressor shall be fitted with a safety valve to prevent mechanical failure.

Buzzer-type, low air pressure indicator.

Parking brake: Rear wheel spring-type, MGM E 30/30 or Haldex 30/30 gold seal chambers. Parking brake shall provide modulated emergency braking via the foot valve in the event of a rear service system failure.

All brake chamber shall be positioned for push rods to be directed down to prevent debris from entering chamber.

Air tank: Automatic drain valve, with heater on wet (first) tank. Each of the remaining air tanks shall have a manual drain valve. Manual drain valves shall be provided with easy access, capable of draining from the sides of the body.

Air dryer: With heater, mounted away from road splashing and a minimum of 20 inches above road surface. Dryer shall be compatible with the body company clearance requirements for sub-frame, valve body, etc. Per: Haldex DRYest or Bendix AD-IP installation made in concurrence with the air compressor manufacturer's recommendations.

SPECIFICATIONS

A-04-BU-A-AF

I. GENERAL TRUCK SPECIFICATIONS: (Continued)

D. VEHICLE COMPONENTS: (Continued)

4. BRAKES: (Continued)

**Air dryer shall be placed to accommodate the changing of filter cartridges without disconnecting any hoses or removing dryer base from its mounting location. Final mounting location shall be determined at Pre Build meeting.**

System shall be equipped with anti-compounding valve to prevent mechanical failure of the foundation brakes, slack adjusters, etc.

Automatic moisture ejectors plus heated air dryer.

Dash mounted air gauge (illuminated) and low air pressure buzzer.

Spring loaded, air release, parking brake with indicator (illuminated) and reserve air tank.

5. CAB:

Steel or aluminum cab, shall be a conventional cab manufactured by an OEM.

Deluxe fresh air high output heater with air conditioning.

AM/FM radio with weather band.

Dual windshield defrosters.

Mirrors: Drivers and passengers side power mirrors, west coast style minimum 6 inch X 15.75 inch manufacturers standard heavy-duty breakaway arms. Mirrors shall be heated with a lighted toggle switch mounted within accessible reach of the operator, automatic on/off is acceptable. The wires shall be fitted in such a way that the mirror glass/element can be changed by unplugging the two-wire lead. There shall be a heated convex mirror both sides, minimum 5.5 inch X 8.8 inch or 8" diameter, minimum.

A blind-spot elimination heated mirror shall be mounted on the right front fender and it shall be 8-inch minimum diameter, stainless steel or aluminum head with mirror. Mirror shall be a conventional convex mirror, and shall not be of the half-round cross view type. All arm/s and hardware shall also be stainless steel. Fender type washers stainless, or aluminum, with rubber pads to be placed on both sides of the fender shall be included. Pedestal system shall be single, double or triple mounting assemblies (stainless steel or aluminum). Mirror shall be mounted in rubber or vinyl. Ref: Grote (800-628-0809)

Inside dome light, door operated.

Driver's arm rest

Dual sun visors

Emergency triangle warning kit (mounting location to be chosen at pre-build meeting).

Wiper length shall provide maximum windshield cleaning area.

Intermittent, variable speed electric windshield wipers with washers and anti-freeze solvent.

Seat (1) shall be vinyl bench-type or split with three-point retractable seat belt (**Seatbelt shall be High Visibility Orange**).

Fire extinguisher: Rechargeable with vehicle mount. Mounted in the cab for easy and quick access. Ref. 3A:40B: C (5 LB).

Steering Column: Steering wheel and column shall be tilt and telescopic, infinitely adjustable to multiple positions.

Anti-slip paint is required on all handholds, for the entire length, (tape is unacceptable). All handrails, ladders, and step configurations shall be built for three points of contact.

Steps: Drivers and passenger entrance steps: Shall be aluminum, serrated. The outer step edge must be serrated in lieu of plain. (Overlay is not acceptable). Step design material must be the same, both left and right side. Top of the first step shall be approximately 21 inch above the ground.

SPECIFICATIONS

A-04-BU-A-AF

I. GENERAL TRUCK SPECIFICATIONS: (Continued)

D. VEHICLE COMPONENTS: (Continued)

5. CAB: (Continued)

Grab handles shall be supplied on all cab entry locations. Three points of contact shall be achievable at all cab entry locations. Handrails shall be coated with non-skid paint (non-skid tape is unacceptable) or have OEM anti-slip rubber inserts, both non-skid paint or rubber inserts must extend the full length of the grab handle.

Wiring Pass Through: All wiring entering the cab shall be made through a rubber boot assembly and be weather tight. There shall be no connectors in the wiring at the pass through point. Wiring shall be protected against sharp edges and from rubbing / chaffing. Boot design shall be pre-approved.

Exterior grab handles shall be supplied if available from OEM.

There shall be a permanent decal, 2 inch high red letters on white back ground affixed by the driver side door handle stating the overall maximum travel height of the completed and unloaded unit.

(Example) HT-\_\_' \_\_" Ref. EQN-552.

There shall be a permanent decal, "Three Point Contact" located at each entry point of the truck cab and at the bed ladder area per EQN – 552-1. Exact location to be determined at pre build meeting.

Cab shall have reflective enhancement per EQN-127A.

Reflectivity enhancement per EQN-127

6. CHASSIS:

26,000 LB maximum GVWR, manufacturer's rating certified on door.

Two (2) front tow hooks.

Front bumper, black or argent in color. Front and rear license plate mounting.

Tinted windshield.

All chassis dimensions shall be determined by the truck manufacturer and Body Company.

7. DRIVE LINE:

Main driveline: Spicer Life XL OR Meritor RPL Series. "Factory balanced". Heavy-duty driveline shall be engineered and be compatible to engine, drive train and transmission torque. Heavy-duty center bearing, if required, with due consideration to drive shaft angles, length, location, proper bolting based upon engine and transmission selection.

8. ELECTRICAL:

Heavy duty 12 volt batteries, maintenance free. Total of 1800 CCA @ 0\* F (min)

Circuit breaker or fuse protected electrical system.

There shall be no splices, other than OEM outside of a sealed box or fixture.

All copper system, negative ground.

Batteries: Three (3) heavy duty 12-volts, maintenance-free, with stud type posts and anti-corrosion treatment on each terminal. 1825 total cold cranking amperes (CCA) at 0 degrees F minimum.

Battery mounting: It shall include the following:

- a. 0.25 inch thick rubber shock pad under the battery.
- b. Box with cover. Cover shall be constructed of fiberglass, poly or aluminum (if aluminum, there shall be an insulating liner).
- c. Mounting bolts grade-8 with self-locking nuts.

**Mounting of accessories within the battery box is prohibited.**

SPECIFICATIONS

A-04-BU-A-AF

I. GENERAL TRUCK SPECIFICATIONS: (Continued)

D. VEHICLE COMPONENTS: (Continued)

8. ELECTRICAL: (Continued)

Circuit-breaker-equipped electrical system shall be in an easily accessible location. Fused circuit(s) in battery box, acceptable if so identified by manufacturer as safety factor and must be permanently labeled. Alternator: Delco 36SI (No substitute, Standardization) 160 A minimum, high performance, solid state (brushless).

Dual-drive alternator belt assembly, energy efficient belts, or prior-approved heavy-duty single.

Starter motor: Delco 38 MT (No Substitute, Standardization) with thermal over-crank protection and high torque capacity. Suitable for the diesel engines offered as per starter manufacturer's recommendation. Battery cable from battery negative terminal to starter motor.

Note: Starter shall have (OCP) either built in or controlled by the Vehicle's control system, (if required)

Alternator and starter mounting bolts: Grade 8 minimum.

GPS Combo Radio Antenna: There shall be a pedestal mount base with built-in GPS, PCTEL model GPPB-204-54-12-S1-M1 and a low profile black antenna, PCTEL model BMLPU700. Assembly shall be mounted on pedestal (with mini light bar) with the antenna cable routed to the floor area between the seats. There shall be a minimum of 4 feet of antenna cable coiled at the base of the floor to allow for connection of department radio. Antenna shall be prewired with a MINI - UHF MALE connection. (No substitute, standardization). No mounting in roof. REF. EQN-120Q

Power Distribution Center: There shall be a 4-way power/ground distribution center located on the underside of the dash for connection of department state radio. The lugs shall be configured in the following manner: (1) lug shall be a 30 ampere constant hot circuit, (1) lug shall be a 10 ampere ignition controlled circuit. (2) lugs shall be chassis ground. All connections shall be enclosed in a weatherproof enclosure.

Electrical wiring: Chassis wiring harness protected at areas prone to cause chafing by installing convoluted plastic conduit and clamped using steel band clamps with rubber inserts.

Note: Starter shall have (OCP) either built in or controlled by the Vehicle's control system.

9. ENGINE:

CUMMINS Diesel, MIN. 250 HP AT GOVERNED RPM, MIN, 660 LB/FT TORQUE.

Replaceable fuel filter(s) and oil filter(s) with legible OEM part numbers as recommended by the manufacturer.

Heavy-duty, dry-type, air cleaner.

Largest available engine cooling capacity, for power train and body requirements.

Engine oil cooler, if recommended by OEM.

10. ENGINE ACCESSORIES:

Water filter: OEM's recommended system, if water filter system is recommended by the manufacturer.

Immersion in-block type engine heater for water cooled engines, with water-proof plug and flush mounted in left front sheet metal.

Automatic idle shutdown shall be set to five (5) minutes. An audible warning alarm shall be provided to alert operator prior to engine shutting down. Automatic idle shutdown shall be programmed to be overridden when the PTO Mode is engaged.

ECM shall be set to a maximum of sixty five (65) miles per hour.

SPECIFICATIONS

A-04-BU-A-AF

I. GENERAL TRUCK SPECIFICATION: (Continued)

D. VEHICLE COMPONENTS: (Continued)

10. ENGINE ACCESSORIES: (Continued)

Diesel Fuel Filter: There shall be a DAVCO 382 or a 482 filtration unit installed and mounted (Higher than fuel tank) per manufactures recommendations in a location to accommodate filter replacements, yet be protected from road debris(**No substitute, standardization**). Mounting location to be determined at pre-build meeting.

Davco 382 Unit shall be equipped with engine coolant heat and 120 volt heater circuit. The 120 volt circuit and engine block heater shall be powered via the same electrical connection. (**No substitute, standardization**)

Davco 482 shall be equipped with a 12 volt and 120 volt heater circuit. 12 volt heater circuit will activate with the ignition key switch, the 120 volt heater circuit and engine block heater shall be powered via the same electrical connection. (**No substitute, standardization**)

11. FAST LUBE OIL CHANGE SYSTEM (FLOCS):

This FLOCS system shall be installed with all fittings, brackets, clamps and hoses. Hose from oil pan to FLOCS fitting shall be hydraulic hose with a 100R2 rating and properly secured. The system shall be compatible with all fittings presently used by the Department. The final placement of the male half of the snap coupler, on the equipment, shall be determined at the pre-build meeting. Ref: EQN-351A.

12. EXHAUST:

Horizontal muffler with horizontal tailpipe system or vertical / horizontal muffler with vertical tail pipe with elbow.

Exhaust system shall be installed to provide adequate clearance when the body is fully loaded.

DPF (diesel particulate filter) and exhaust system shall meet the latest EPA emission requirements.

Exhaust system shall neither interfere with body nor will it be close to any fluid tank.

The muffler and tail pipe shall be shielded or insulated to protect personnel from burns when entering or exiting the cab. The shield shall be 180 degrees of non-rusting material.

13. INSTRUMENTATION:

All standard instruments shall be supplied, including but not limited to the following:

All instruments dash-mounted.

1. Oil pressure gauge.
2. Water temperature gauge.
3. Fuel gauge.
4. Speedometer with odometer.
5. Voltmeter/ammeter.
6. Parking brake light.
7. Hour meter that works only when engine is running.



SPECIFICATIONS

A-04-BU-A-AF

I. GENERAL TRUCK SPECIFICATION: (Continued)

D. VEHICLE COMPONENTS: (Continued)

14. LIGHT - WARNING:

Whelen light package PASYS17 shall be used:

1-R10PADOT Beacon light.

4-M6BTDD Stop, Tail, Turn lights.

2-M6AD Amber warning lights

8-M6BRUSH Brush guards.

2-M6BUD Back-up lights.

4-LINZ6AD Flush mounted amber warning lights.

4-RGOMET Flush mount amber grommets.

The light package is supplied with male and female Deutsch connectors that shall be utilized to connect the vendor supplied harness to each light source.

There shall be a Truck-Lite Model# 36140C LED license plate light with light bracket PN# 36710 (Installed).

License plate bracket rear, securely mounted to prevent damage.

Body wiring shall be Grote, Trucklite, or Prior Approved Equal.

All Body lighting shall be LED. Body builder to supply remaining marker and ICC lighting, they shall be protected against damage and shall also be shock mounted. There shall be no splices outside of a sealed box or fixture. Connections shall be water tight.

A color-coded electrical wiring chart and schematic shall accompany each body.

15. PAINT:

Cab shall be painted PennDOT yellow Ref: DuPont F9885, PPG 85246, Sherwin Williams 73266, Sikkens 4017 and NAPA 73266 for shade only. Entire unit except for glass, rubber and those metallic accessories or fixtures constructed of rust-resistant or plated material not normally painted.

Bumpers, body and frame shall be painted black, aluminum or stainless steel fixtures: handles, hinges etc. shall not be painted.

Entire bed surface that can be walked on shall be black with non-skid paint. Non-skid tape will not be accepted.

Prior to painting all metal shall be cleaned and ground to eliminate splatter and scale and shot blasted.

All metal surfaces shall be cleaned prior to primer and final painting.

All metal surfaces shall have rust preventive treatment and urethane primer (aluminum or stainless steel need not be painted).

All steel attachments must be cleaned, primed and painted with a minimum of one coat of primer and two coats of urethane color paint (with hardener) low VOC with the manufacturer's lead-free coating.

Cab and flatbed rails, left and right side, shall have conspicuity per EQN-127A.

Aerial boom platform manufacture standard color.

Filters shall not be painted over and will display the OEM part number(s) and all component tags must be readable.

Hoses shall not be painted.

16. STEERING:

Power steering

Steering Column: Steering wheel and column shall be tilt and telescopic, infinitely adjustable to multiple positions.

SPECIFICATIONS

A-04-BU-A-AF

I. GENERAL TRUCK SPECIFICATIONS: (Continued)

D. VEHICLE COMPONENTS: (Continued)

17. TANK - FUEL:

Safety- type fuel tank as per the requirements of FMVSS. **Dual tanks are unacceptable.** Trucks shall have one (1) 60 GAL minimum total capacity tank, frame mounted, under the left door. Tank mounting hardware and brackets shall be for "severe duty" applications. Heavy-duty aluminum or stainless steel, minimum 1.9-inch wide straps with rubber shims/liners shall be utilized. The fill pipe shall be accessible with the dump body in the down position; pipe can be located at either end of tank to avoid interference with steps.

Tank filler shall be positioned in such a way to ensure that filler nozzle can be set on automatic and nozzle will support itself, with unrestricted flow.

Aluminum or stainless steel, unpainted.

Heavy duty aluminum or stainless steel mounting straps with rubber shims/liners.

18. TIRES/WHEELS:

The truck shall be equipped with hub piloted steel disc wheels for tubeless tires. The wheel end shall be equipped with outboard cast brake drums, and 15 degree tubeless steel wheels, hub piloted, 10 hole - 285.75mm bolt circle with 22mm two-piece flange nuts.

Front: Wheels: 22.5 x 9.00, 10 hole - 285.75mm bolt circle with 220mm bore, tubeless steel disc wheel rated at 10,000 LBS at a maximum inflation pressure of 120 PSIG. Accuride part number 29039. **(No substitute, standardization).**

Rear: Wheels: 22.5 x 8.25, 10 hole - 285.75mm bolt circle with 220mm bore, tubeless steel disc wheel rated at 7,500 LBS at a maximum inflation pressure of 120 PSIG. Accuride part number 28828. **(No substitute, standardization).**

The dual rear wheel/tire assembly shall have clearance between the tires, which permits the use of dual tire chains.

Wheel-Guard Separators: The wheel ends shall be equipped with the Accuride part number 5903 Wheel Guard Separator as follows:

Front axle - between the wheel and the brake drum.

Rear axle - between the inner dual and the brake drum and between the inner and outer duals.

Paint: The wheels shall be topcoat painted with TGIC Polyester Powder Paint MLD-82008 High Gloss Gray or equal applied over Cathodic Electro-Disposition Gray Primer.

Tires: All tires shall be radials.

Front Tires: 315/80R22.5 (Load Range L).

Rear Tires: 12R22.5 (Load Range H).

MANUFACTURER

Goodyear

Michelin

FRONT TIRE

G-751

XZY3

REAR TIRE

G-622

XDN-2

SPECIFICATIONS

A-04-BU-A-AF

I. GENERAL TRUCK SPECIFICATIONS: (Continued)

D. VEHICLE COMPONENTS: (Continued)

19. TRANSMISSION:

Dash mounted console with push button shift selector. There shall be an external oil cooler. An Allison approved (Water to oil type cooler) cooling system shall be installed regardless of whether retarder is incorporated in the system or not.

Automatic transmission cooler lines shall be stainless steel or **pre-approved** rubber wire reinforced type hose with stainless steel crimped fittings.

TRANSMISSION AUTOMATIC: ALLISION – RDS 6 speed 3500 SERIES, PER APPLICATION.

Automatic transmission cooler lines shall be stainless steel or **pre-approved** rubber wire reinforced type hose with stainless steel crimped fittings.

NOTE: All vehicles shall have a transmission-operated neutral safety starting switch.

Opening for power-take-off (PTO).

20. SAFETY:

Steps, (2) minimum curbside and drivers side shall be furnished with Bustin No. NST4 full size or Ohio Grating No. JA 2119SG4 serrated or IKG Industries Type BS4 serrated swage lock, with end band. All steps shall be built to provide three points of contact. All handrails shall be painted with anti-slip paint, anti-slip tape will not be accepted.

The above details shall be reviewed at the prior-to-order meeting with the successful vendor and further verified as to the manufacturer's compliance at the actual pilot model inspection.

The vehicle shall meet all the requirements set for the in EQN-118.

There shall be wheel chocks and holders per EQN-82. Chocks (2) shall be mounted together on the left side of the vehicle.

NOTE: The boom shall be securely fastened to the vehicle with a restraining device to prevent its movement or shifting during transit. Ref: HB 347, section 4903.

There shall be a fire extinguisher rechargeable, mounted in the truck cab. Ref: 3A:4OB:C.51b.

First aid kit (10 person) with vehicle mount. Outside first aid door decal shall be supplied, placement to be completed by end user once kit installation is completed.

Emergency triangle warning kit, secured in the cab.

There shall be a permanent decal, 2 inch high red letters on white back ground affixed by the driver side door handle stating the overall maximum travel height of the completed and unloaded unit.

(Example) HT-\_\_' \_\_" Ref. EQN-552.

There shall be a permanent decal, "Three Point Contact" located at each entry point of the truck cab and at the bed ladder area per EQN – 552-1.

Conspicuity tape Per EQN-127A

SPECIFICATIONS  
A-04-BU-A-AF

I. GENERAL TRUCK SPECIFICATIONS: (Continued)

E. BODY:

There shall be a 20 feet long flatbed min. with steel floor, minimum 4 inch cross-members on 12 inch centers.

There shall be a minimum 48 inch height steel bulkhead with screen (in line with truck cab rear window).

There shall be mud flaps, front and rear of rear wheels.

There shall be spray suppression between the mud flaps (long enough to overlap the tires).

F. WORK PLATFORM:

Crane shall be mounted behind the cab, centerline with outriggers and controls as per current OSHA and ANSI regulations. Referenced Model: Elliott G45F

Total working height 50 feet with a 5900 LB. maximum lift capacity and a 36-foot working side reach.

Work platform shall have a 600 LB capacity Approximate 40"X60" with manual rotation

Rotation shall be 360 degree continuous, with 360 full capacity work area.

Platform shall be detachable, hydraulic self-leveling, equipped with necessary safety chains at openings with a min. of two safety lanyard attachment loops.

There shall be two (2) full body, safety harnesses provided.

Platform controls shall be individually proportional electric controllers with adjustable ramping. All necessary controls shall be provided.

Boom ground controls shall be mounted on the turret assembly curbside.

There shall be a removable remote control box provided at the platform.

The hydraulic system shall be capable of operating hydraulic tools that require 8 g/m flow, operating the boom/lift, and have a reservoir sized accordingly. Tool circuit connections shall be made at the Aerial platform.

Operating pressure approximately 2500 PSI.

Pump vane or gear type, direct mounted to the PTO with a transmission neutral lockout.

The PTO hot shift control and master control switch mounted in the cab with indicator lights.

There shall be an engine speed control Hi/Low range and start/kill switch installed with control switches in the platform/remote box and in the lower control box.

Unit shall include a twelve (12) volt emergency lowering system.

There shall be minimum of two storage box's provided (location to be determined at pre-build meeting), bed mounted. 48" X 20" X 18".

Manufacture standards steps for the body shall be provided.

Steps shall be furnished with material provided in I.D.20.

SPECIFICATIONS  
A-04-BU-A-AF

II. DRAWINGS:

|           |       |      |          |          |   |
|-----------|-------|------|----------|----------|---|
| EQN-66    | Dated | Rev. | 07-20-09 | 2 sheets | SPLASH GUARDS TRUCK & TRAILER             |
| EQN-66A   | Dated | Rev. | 07-20-09 | 1 sheet  | TRIANGLE BOX & BRACKET                    |
| EQN-82D   | Dated | Rev. | 07-22-15 | 1 sheet  | CHOCK & HOLDER                            |
| EQN-118   | Dated | Rev. | 06-29-09 | 1 sheet  | UNDER RIDE PROTECTION                     |
| EQN-120Q  | Dated | Rev. | 08-06-12 | 1 sheet  | UNIVERSAL TRUCK LIGHTING                  |
| EQN-127   | Dated | Rev. | 03-01-07 | 1 sheet  | CONSPICUITY TAPE                          |
| EQN-127A  | Dated | Rev. | 01-02-09 | 1 sheet  | CONSPICUITY TAPE STRIPING<br>REQUIREMENTS |
| EQN-351A  | Dated | Rev. | 06-19-13 | 2 sheets | FAST LUBE OIL CHANGE SYSTEM               |
| EQN-552   | Dated | Rev. | 05-29-13 | 1 sheet  | MAX. TRAVEL HEIGHT STICKER                |
| EQN-552-1 | Dated | Rev. | 03-23-15 | 1 sheet  | TRHEE POINTS OF CONTACT                   |

The above referenced drawings shall become part of these specifications.

These drawings reflect the intent of the Department and any discrepancies shall be resolved at the line setting ticket meeting between the vendor and the Equipment Chief, or the pre-production inspection of the truck.

**DRAWINGS APPEAR AT THE END OF THE SPECIFICATIONS.**

SPECIFICATIONS  
A-04-BU-A-AF

III. MANUALS:

The successful vendor shall furnish all applicable manuals per unit:

- 1 Operator's
- 1 Parts
- 1 Service
- 1 Engine
- 1 Transmission (Automatic or Manual)
- 1 Body and Sub-frame (Parts and Service)
- 1 Complete set of manuals for any additional items/equipment added to a piece of equipment.

The manuals listed shall be official O.E.M. publications supplemented with technical manuals for all components as published by sub-vendors/manufacturers.

Parts Manual presented must be a relative to "all" items utilized to build these units, with appropriate part numbers.

Delivery of these manuals shall be completed within a maximum of 90 days after the pilot model is accepted.

Manuals may be supplied on CD Disc in lieu of paper manuals.

SPECIFICATIONS  
A-04-BU-A-AF

IV. TRAINING:

Mechanic:

The successful vendor shall provide services of qualified factory trained technicians for not more than \_\_1\_\_ training sessions of not more than \_\_3\_\_ hours at \_\_1\_\_ PennDOT locations to train personnel for in-depth preventive maintenance, overhaul and review of the proper usage of parts and service manuals, as well as component/system adjustments that need to be monitored at specified service intervals.

Operator:

The successful vendor shall provide services of qualified factory trained technicians for not more than \_\_1\_\_ training sessions of not more than \_\_3\_\_ hours at \_\_1\_\_ PennDOT locations to train personnel in the proper operation, safety and servicing of the equipment.

**The successful vendor shall submit a training plan to the Fleet Management Division for approval within 45 days after receipt of the Purchase Order. The training plan shall consist of course outline and class schedule.**

**All training must be completed within 60 days after the dates established in the approved training plan unless an extension is mutually agreed to in writing by the Chief of the Fleet Management Division.**

**All training shall be coordinated with the District Equipment Managers, with the exception of Asphalt related training, which must be coordinated with the Statewide Training Coordinator (717) 787-4836, Fax (717) 783-4438.**

SPECIFICATIONS  
A-04-BU-A-AF

V. WARRANTY:

Per PCID No. 1075. And the additional specific warranty items stated below.

This warranty is in effect as follows, starting from date of acceptance by the Department. Warranty shall not be voided due to Department operation as explained in the Intent Statement. It is understood that the components specified are minimum and if the manufacturer's Engineering Department recommends or deems necessary a more robust component, other than specified, be installed to meet the vehicles intent statement and to not void the warranty, it shall be the bidders/vendors responsibility.

**NOTE:** WARRANTY REPAIRS SHALL BE COMPLETED AT THE MANUFACTURER'S LOCATION OR IN-HOUSE FIELD REPAIR COMPLETED BY PENNDOT. IT SHALL BE THE DEPARTMENTS DISCRETION TO REPAIR INTERNALLY OR TRANSPORT THE UNIT TO THE DEALERSHIP. THE MANUFACTURER SHALL REIMBURSE THE DEPARTMENT AT THE MANUFACTURERS STANDARD PUBLISHED IN-HOUSE LABOR RATE. THE LABOR RATE SHALL BE MUTUALLY AGREED UPON BETWEEN THE DEPARTMENT AND VENDOR/BIDDER. ALL IN-HOUSE WARRANTY DOCUMENTATION SHALL BE DELIVERED WITH THE PILOT MODEL. ALL WARRANTY DOCUMENTATION SHALL BE DELIVERED WITH THE PILOT MODEL.

BUMPER-TO-BUMPER WARRANTY:

1 year starting from the Departments acceptance date.

BRAKE WARRANTY:

Manufacturer's service and warranty policy for automatic slack adjusters shall be for two (2) years 100% parts only.

RADIATOR WARRANTY:

Manufacturer's service and warranty policy for radiator shall be for two (2) years, 100% parts and labor plus an additional three (3) years, 100% parts only.

ENGINE WARRANTY:

The successful vendor and or supplying OEM shall provide the Department with a 100% parts and labor engine warranty FOR 60 months / 150,000 miles / 5,400 hours minimum. In addition to the engine warranty, the engine block shall be warranted against external perforation from corrosion for 60 months, 100% parts and labor.

**NOTE:** The oil pan shall be warranted against corrosion, rust, rust thru etc. regardless of atmospheric conditions for 60 months, 100% parts and labor.

EMISSION WARRANTY: The successful vendor and or supplying OEM shall provide the Department with a 100% parts and labor warranty for all emission related components to include the diesel particulate filter (DPF) FOR 60 months / 150,000 miles / 5,400 hours minimum. Shall be warranted against corrosion, rust, rust thru etc. regardless of atmospheric conditions.



SPECIFICATIONS  
A-04-BU-A-AF

V. WARRANTY: (continued)

Manufacturer's service and warranty policy for automatic and manual transmissions shall be 60 months 100% parts and labor. This warranty shall include all internal and external components related to the automatic or manual transmission. This warranty shall also include, but not limited to, the transmission cooler, cooler hoses or lines, and all electronic transmission controls (harnesses, connections and modules) regardless of atmospheric conditions.

DIFFERENTIAL/AXLE WARRANTY:

Manufacturer's service and warranty policy for differential and axles shall be for three (3) years 100% parts and labor.

BODY WARRANTY:

Constructability and durability of body shall be guaranteed for five (5) years, parts and labor. A decal shall be affixed to the driver's door, on the inside, stating the company's name, address and phone number.

Hoist assembly 3 years, 100% parts and labor.

HYDRAULIC SYSTEM:

Complete Central Hydraulic system and components 1-year 100% parts and labor.

HYDRAULIC PUMP

Manufacturer's service and warranty policy for hydraulic pump shall be three (3) year 100% parts and labor.

BODY ELECTRICAL/LIGHTING:

Wiring harness shall be 60 months 100% parts. First year shall include 100% labor.  
All LED lights shall be 60 months 100% parts.