

**034100 thru 034980**

TRAILER, LOWBOY, TANDEM AXLE, 35 TON, 96" (034100)

TRAILER, LOWBOY, TANDEM AXLE W/W-L, 35 TON, 96" (034300)

TRAILER, LOWBOY, TRIAXLE, 50 TON, 96" (034500)

TRAILER, LOWBOY, TRIAXLE, W/REAR LIFT AXLE, 50 TON, 96" (034505)

TRAILER, LOWBOY, TRIAXLE W/W-L, 50 TON, 96" (034700)

TRAILER, LOWBOY, TRIAXLE, W/W-L, W/REAR LIFT AXLE, 50 TON, 96" (034705)

TRAILER, LOWBOY, TRIAXLE, 50 TON, 102" (034800)

TRAILER, LOWBOY, TRIAXLE, W/REAR LIFT AXLE, 50 TON, 102" (034805)

TRAILER, LOWBOY, TRIAXLE, W/W-L, 102", 50 TON, (034900)

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II. GENERAL 35 TON TANDEM TRAILER SPECIFICATIONS (034100, 034300):

A. INTENT STATEMENT:

The purpose of these specifications is to describe a drop deck, low bed semi-trailer with hydraulic detachable gooseneck and non-ground engaging to be used in hauling construction machinery without a tractor. The trailer will be rated for a capacity load of 35 U.S. tons in 1/2 of the deck length at highway speeds of 65 MPH. The trailer to be described will be a tandem axle. It shall be equipped with a hydraulic detachable gooseneck so equipment can be loaded over the front of the deck. Tapered main beams shall be provided to permit the entire taper to be lowered as flush to the ground as possible. The mainframe beam hooks and other components on the trailer portion must be flush to the slope front in order to facilitate the loading of rollers, and "all" Department equipment with a limited and reasonable amount of blocking/center ramping.

All vendors should review our fleet with the manufacturer's engineering department and our field personnel prior to bidding to ensure that the trailer manufacturer is aware of the tasks assigned to this unit.

The trailer must be compatible with the Department tandem axle tractor(s) in critical areas as hoses, electrical connectors, fifth wheel clearance and pin size.

NOTE: EQN-253 is offered as reference except for ground to top of deck height which shall not exceed 23 inches to 25 inches and flat deck useable length which shall be 276 inch (+ or - 6 inch).

Special Note:

It shall be the sole responsibility of the successful vendor to ensure compatibility with the Department's tractor(s), to include not surpassing the overall length ruling and meeting all bridge formulas. This is of particular note to those orders received for trailers without tractors. The vendor shall, prior to bid, inspect the Department's tractor/s to ensure this compatibility. For tractor location contact the Equipment Division at 717-783-2371.

Department of General Service PCID NO. 1075 is included as part of this specification. PCID NO. 1075 may be reviewed and downloaded from the Department of General Services website, [www.dgs.state.pa.us](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 **240** days after receipt of the purchase order by the successful bidder.

II. GENERAL 35 TON TANDEM TRAILER SPECIFICATIONS (034100, 034300): (Continued)

B. TRAILER COMPONENTS:

1. AXLE AND SUSPENSION:

The trailer shall be equipped with the following axle and suspension:

AXLE: Two (2) 25,000 LB capacity axles.  
SUSPENSION: Air Ride Suspension. Ref: Turner HT25OU, Neway, Ridewell, or approved equal.

2. BRACKETS: - SIDE:

The main deck shall be equipped with a set of twenty (20) minimum heavy duty side brackets. The side brackets will be cast from ductile iron, D5506, Tensile 80K, Yield 55K specification A-536-72, Grade 80-55-06. There will be required ten (10) each side minimum, to increase the width to 10 feet if desired.

When not in use, they shall be held in place against the side member with spring loaded clips. A full 2 inch x 10 inch (minimum) No. 1 grade oak planks shall be furnished to provide covering full length of the brackets on each side.

3. BRAKES:

The service brake shall be a two-line system with an emergency breakaway feature conforming to ICC and Commonwealth of Pennsylvania Specifications. The complete system shall include necessary tubing, glad hands connectors at the front of the gooseneck, reservoir(s), (minimum 1500 cubic inch capacity), remote drain cock and type 30 air chamber with self adjusting slack adjusters of the clearance sensing type for each brake drum. Air chamber shall be mounted parallel to or below the axles. The brake shoes shall be the two (2) shoe internal expanding type with molded block lining 16.5 inch x 7 inch 4S, 2M ABS anti-lock system.. There shall be a spring parking brakes installed on two (2) trailer axles.

4. DIMENSIONS:

King pin setting will be minimum 15 inch, maximum 16 inch.

Overall width 8 feet.

Deck length less ramp, actual usable flat deck 23 feet (+ or - 6 inch).

Roadway clearance, not less than 9 inch, light dimension

Height from ground to underside of gooseneck fifth wheel plate at kingpin, loaded on level and parallel surface approximately 49 inch to 52 inch.

II. GENERAL 35 TON TANDEM TRAILER SPECIFICATIONS (034100, 034300): (Continued)

B. TRAILER COMPONENTS: (Continued)

5. ELECTRIC SYSTEM:

The battery shall be a minimum of 540 CCA @ 0 degrees F (sealed) with stud type connector with all copper cables.

Shock-mounted battery installation, 0.25 inch rubber.

The trailer shall be furnished with shock proof running lights, directional signals and reflectors, fully complying with ICC minimum requirements, and with the Motor Vehicle Laws and Regulations of the Commonwealth of Pennsylvania. All lights shall be recessed or otherwise provided with adequate guards to prevent accidental damage.

All lights shall be LED.

Rear lights shall be Whelen light kit # PADOTSY11

4-M6BTDD Stop, Tail, Turn lights.

4-M6BRUSH brush guards

1-L31HAFD Strobe light to be mounted on Left rear corner of trailer.

1-L360PMKT pipe mounting kit

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

Manufacture to provide remaining marker and ICC lighting, wiring shall be Grote, Trucklite, or pre-approved equal.

There shall be a "flasher kit" for **all** trailer lights, when disconnected from gooseneck. It shall include a wet cell battery and a recharging feature capable of being connected to a tractor, using a two pole socket and 4 gauge copper wires. Ref. Tectran or pre-approved equal.

Sockets PN#670-22, socket boots PN#670-722.

Male plug PN# 670-19SG shall also be provided.

One (1) socket with boot at front bulkhead of gooseneck.

One (1) socket with boot installed in lower deck to allow connection from gooseneck.

There shall be a switch located in rear bumper, exterior sealed weather proof type, and permanently labeled that will enable on/off of **all** (including strobe) lights on trailer to flash when gooseneck is disconnected for safety in loading /unloading of equipment.

There shall be a separate switch in close proximity, exterior sealed weather proof type, and permanently labeled that will enable on/off of strobe light.

A color-coded electric wiring chart and schematic shall be provided with each unit.

6. ENGINE AND ENGINE COMPARTMENT (034100):

Electric start 11 hp engine minimum, with exterior waterproof controls, Ref. Models Kohler, Briggs & Stratton, Robin/Subaru or Honda.

Exhaust system with muffler routed to exterior of compartment and clear of the operator and framing.

Exhaust leaks will not be acceptable.

Engine oil dipstick. Engine shall be removable by disconnecting 4 bolts for ease of shop maintenance.

Minimum 5 GPM pump (hydraulic).

FAST LUBE OIL CHANGE SYSTEM (FLOCS) (034100):

This system will be installed with all fittings, brackets, clamps and hoses. 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 will be determined at the pre-build meeting.

Ref: EQN-351A.

II. GENERAL 35 TON TANDEM TRAILER SPECIFICATIONS (034100, 034300): (Continued)

B. TRAILER COMPONENTS: (Continued)

7. FRAME:

All longitudinal carrying members shall be high strength low alloy steel. The main-beams shall consist of two (2) 16 inch deep I-Beams. These beams shall have a minimum flange thickness of .625" and a maximum width of 8 inch. The material utilized in the flanges shall be ASTM GR-A514. The flanges shall be welded to a web that shall have a minimum thickness of .3125 inch and a maximum width of 14.75 inch. Material used for the web of these main-beams shall be ASTM A572. These main-beams when completely fabricated shall have a weight of 50# per foot. All welding in the construction of these main-beams will be accomplished by use of a submerged arc with preheating and automatic feed. The main-beams shall be tapered for approximately nine (9) feet running from front to back. The front profile of the deck shall be tapered, and shall not exceed eight (8) inches in height when detached from the gooseneck and in the loading position. The trailer's heavy duty side channels shall be C12 x 20.7# low alloy steel with minimum yield strength of 50K, ASTM A572GR 50 with a section modulus of 21.5. There shall be a minimum of ten (10) cross-members in the trailer deck, pierced through the main-beams. The first and last cross-members shall be MC10 x 20# ASTM A572 GR 50. All other cross-members shall be W10 x 12#.

The beam hooks attached to the main-beams must be designed to follow the sloping contours of the longitudinal main-beams to allow a roller to be loaded without going over a "hump". The beam hooks shall be a minimum of six (6) inches thick, flame cut from ASTM A572 GR42 plate stock. Welding of multiple plates together to equal six (6) inches shall not be acceptable.

8. GOOSENECK:

The gooseneck shall be a flat, hydraulic detachable type with a scraper-neck profile for additional load maneuverability. It shall be equipped with a non-ground engaging feature.

The gooseneck to deck connection must be accomplished through a mating set of, minimum, 6 inch hooks. The gooseneck connection/disconnection shall be accomplished by the operation of a lever and spring pin which effectively stows two (2) 1.25 inch x 5.50 inch x 11.25 inch steel bars and two (2) safety pins into the gooseneck cavity. The safety pins provided are to be of an automated nature and attachment to the gooseneck in such a manner as to eliminate the need for the operator to reach underneath the structure of the gooseneck to secure them. "Tear drop" type pins are acceptable in lieu of hooks.

The main gooseneck beams (running parallel to the ground) shall be high strength low alloy steel. These beams shall have a minimum flange thickness of .50 inch and a maximum width of six (6) inches. The material used in the flanges shall be ASTM GR A514. The flanges shall be welded to a web that shall have a minimum thickness of .3125 inch and a maximum width of sixteen (16) inches. Material used for the web of the beams shall be ASTM A572. All welding in the construction of these main-beams will be accomplished by use of a submerged arc with preheating and automatic feed. The gooseneck main beams will be tapered the final 33.5 inch (deck end) to form the scraper-neck profile. The remaining length of the gooseneck main beam may be tapered in another fashion to provide maximum strength.

The design of the hydraulic detachable gooseneck shall be adjustable, up or down, to clear road obstacles, under full load, without shifting the load. The hydraulic system for operating this gooseneck shall be complete, consisting of necessary operating valves, relief valve, reservoir and pump, driven by a self contained engine. The operating pressure of the hydraulic system shall not exceed 2,800 PSI. A tool box shall be mounted in/on the gooseneck.

II. GENERAL 35 TON TANDEM TRAILER SPECIFICATIONS (034100, 034300): (Continued)

B. TRAILER COMPONENTS: (Continued)

8. GOOSENECK: (Continued)

The length of the gooseneck must be calculated based on the fifth wheel being placed 6 inch, to the front of the tractor axle using frame dimensions supplied by the truck manufacturer.

The engine, battery, hydraulic filter and other items housed in the gooseneck shall be covered by a full hood to protect these items. The hood shall be hinged for easy access and have a fastener to keep it in the open position. The design shall provide easy access for general maintenance. The hood shall have a handle for lifting, and a lock with keys. This paragraph pertains to 034100 coded trailer(s) only.

NOTE: All items utilized shall be installed in accordance with SAE standards and practices. If hood must be lifted for engine cooling when in operation there must be a visible, weather-proof decal stating so.

9. LASHING RINGS:

Twelve (12) lashing rings shall be provided, five (5) on each side of platform and two (2) on rear. They shall be constructed of 1 inch diameter C1030 steel.

10. PLATFORM SIZE AND CONSTRUCTION:

The platform shall have a minimum 1 ¾" oak or a minimum 1 ¼" Apitong full floor. The trailer decking shall be composed of #1 grade hardwood to carry the rated capacity within any 11 foot section, of the deck, and shall be supported by maximum 24 inch centered cross members (see "Frame") or laminated "Transdeck" (AINSWORTH LUMBER CO. LTD). (NOTE: A nominal 2 inch floor is not acceptable.) **There shall be flooring across the entire width and length of trailer, upper and lower decks.** Two (2) fold down steel framed front ramps with oak inserts shall be provided to form a sloping approach to the deck area. The ramp shall be tapered to afford a 14 degree loading angle. The ramp shall be designed to provide an easy transition from the road surface to the ramp and have a maximum ramp-to-trailer gap of 3 inches (e.g. - loading of a steel wheel roller). All cross members shall be welded to the main frame members. Side channel flange reinforcements are required. The cross members shall be pierced through the main frame longitudinals. Spacing on the cross members shall be on 30 inch centers. Deck attachment shall be secured through the use of countersunk button head carriage bolts and floor clips. There shall be no drilling into cross members for any reason.

Platform to ground height shall not exceed that shown in EQN-253.

11. ACCESS:

Front loading ramps shall have oak inserts to form a maximum angle of 14 degrees slope. The rear riser between the main deck and the rear frame shall not exceed 30 degrees, and be completely covered with a minimum 1 ¾" oak or a minimum 1 ¼" Apitong .

12. RUSTPROOFING/PAINT:

The entire undercarriage shall be coated with black, rustproof undercoating.

Paint: PennDOT yellow, ref. DuPont F9885, PPG 85246, Sherwin Williams 73266 And NAPA 73266 shade only (entire unit, less wood).

All metal surfaces shall have rust preventive treatment or primer.

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

The sides of the trailer and rear shall be per EQN-127A.



II. GENERAL 35 TON TANDEM TRAILER SPECIFICATIONS (034100, 034300): (Continued)

B. TRAILER COMPONENTS: (Continued)

13. REAR FRAME:

The rear frame shall be constructed of fabricated beams, channels and plate. The longitudinal members shall be high strength, low alloy steel. These members shall have a minimum flange thickness of .375 inch and a minimum width of seven (7) inches. The material utilized in the flanges shall be ASTM-A514. The flanges shall be welded to a web that shall have a minimum thickness of .3125 inch and a maximum width of sixteen (16) inches. Material used for the web of these longitudinal members shall be ASTM-A572. All welding in the construction of these main-beams will be accomplished by use of a submerged arc with preheating and automatic feed. Also included in the rear frame is a load bearing formed trunnion outrigger(s) between the tires. The rear frame tires shall be shielded to permit equipment to be set on this area of the trailer. These covers shall permit proper tire clearance and shall be a load-bearing formed frame between the tires of the first and last axles covered with a minimum 1 ¾" oak or a minimum 1 ¼" Apitong for the entire length and width.

Rear mud flaps in accordance with PA State Inspection Laws.

14. TIRES, WHEELS, RIMS, AXLES:

The trailer shall be provided with steel belted radial tires 255/70R 22.5 (H) 16 ply rating mounted on 22.5 x 8.25 rims, hub piloted steel disc, Accuride (no substitute) The tires shall not extend above the bridge beams. Lug wrench shall be provided and stowed with holder on the gooseneck. Spare rim and tire mounted and stowed on the gooseneck, one (1) per trailer with locking tire carrier. The axles shall have a 71 inch track length. Each shall be a through-type design with a 5 inch round outer dimension. They shall be of cast ductile iron, hub piloted design with integral hubs. They shall have detachable drums and shall be equipped with an oil seal assembly. (REF: Webb or equal.

15. MISCELLANEOUS:

There shall be a flag holder welded to each side of the rear frame rail.

There shall be a two piece hinged "OVERSIZED LOAD" sign mounted on the rear. The sign shall be mounted in such a way to afford removal without the use of tools.

There shall be two red flags with each unit.

16. NOTES:

A decal stating the light weight of the trailer shall be attached on the road side near the lift controls. The decal shall be approximately 1.50 inches high and 3 inches long and read L.W. \_\_\_\_\_ LB.

II. GENERAL 35 TON TANDEM TRAILER SPECIFICATIONS (034100, 034300): (Continued)

B. TRAILER COMPONENTS: (Continued)

16. NOTES: (Continued)

A decal stating "(MLWR)" trailers actual load carrying capacity is \_\_\_\_\_, shall be attached in a clearly visible area of the trailer.

A decal stating the recommended tire pressure shall be attached on the roadside above the rear axle, the size shall be approximately 1.50 inches high and 3 inches long and read "\_\_\_PSI". Decal shall read the same rating as the tire.

17. WET LINE (034300):

If stated in the "Invitation to Bid", unit(s) shall be plumbed to accept hydraulic connections from the tractor to make the trailer completely functional as a "wet Unit". Fittings shall be AEROQUIP or prior approved equal, Left side Return PN#0451436, Right side Pressure PN#145135. For information on the hydraulic connectors contact the Equipment Division at (717) 783-2371.

III. GENERAL 50 TON TRI-AXLE TRAILER SPECIFICATIONS (034500, 034505, 034700, 034705, 034800, 034805, 034900, 034905):

A. INTENT STATEMENT:

The purpose of these specifications is to describe a 50-ton, three-axle, drop-deck, low-bed semi-trailer to be used in hauling construction machinery, without a tractor. The trailer will be rated for a capacity load of 50 U.S. tons in 1/2 of the deck length at highway speeds of 65 MPH. It shall be equipped with a self lifting (non ground bearing) hydraulic detachable gooseneck so equipment can be loaded over the front of the deck. Tapered main beams shall be provided to permit the entire taper to be lowered as flush to the ground as possible. The gooseneck beam hooks and other components on the trailer portion must be flush to the slope front in order to facilitate the loading of rollers, and "all" Department equipment with a limited and reasonable amount of blocking/center ramping. The trailer must be new, including all component parts.

All vendors should review our fleet with the manufacturer's engineering department and our field personnel prior to bidding to ensure that the trailer manufacturer is aware of the tasks assigned to this unit.

The trailer must be compatible with the Department's tandem axle tractor(s) in critical areas as hoses, electrical connectors, fifth wheel clearance and pin size.

NOTE: EQN-253 is offered as reference except for ground to top of deck height which shall not exceed 23 inches to 25 inches and flat deck useable length which shall be 276 inches (+ or - 6 inches).

Special Note:

It shall be the sole responsibility of the successful vendor to ensure compatibility with the Department's tractor(s), to include not surpassing the overall length ruling and meeting all bridge formulas. This is of particular note to those orders received for trailers without tractors. The vendor shall, prior to bid, inspect the Department's tractor/s to ensure this compatibility. For tractor location contact the Equipment Division at 717-783-2371.

Department of General Service PCID NO. 1075 is included as part of this specification. PCID NO. 1075 may be reviewed and downloaded from the Department of General Services website, [www.dgs.state.pa.us](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 **240** days after receipt of the purchase order by the successful bidder.

III. GENERAL 50 TON TRI-AXLE TRAILER SPECIFICATIONS (034500, 034505, 034700, 034705, 034800, 034805, 034900, 034905): (Continued)

B. TRAILER COMPONENTS:

1. AXLE AND SUSPENSION:

The trailer shall be equipped with the following axle and suspension:

AXLE: Three (3) axles, each axle shall be rated at 25,000 lbs. capacity by the axle manufacturer. The wheel bearings shall be an oil-bathed type. Each shall be a through-type design with a 5 inch round outer dimension. They shall be of cast ductile iron

SUSPENSION: Each of the three axles shall be equipped with an air ride suspension rated at 25,000 lbs. capacity by the suspension manufacturer. The suspension shall require no lubrication.

The suspension shall also include a height control system to mechanically adjust the ride height of the suspension by (3) three inches up or down. This system shall have (5) positions – (2) positions to increase the standard ride height, (1) standard ride height, and (2) positions to decrease the standard ride height.

2. BRACKETS: - SIDE:

The main deck shall be equipped with a minimum set of twenty (20) heavy duty side brackets. The side brackets will be cast from ductile iron, D5506, Tensile 80K, Yield 55K specification A-536-72, Grade 80-55-06. There will be required ten (10) each side minimum, to increase the width to a minimum of 10 feet if desired.

When not in use, they shall be held in place against the side member with spring loaded clips. A full 2 inch x 10 inch (minimum) No. 1 grade oak planks shall be furnished to provide covering full length of the brackets on each side.

Fabricated side brackets shall be deemed unacceptable.

3. BRAKES:

The service brake shall be a two-line system with an emergency breakaway feature conforming to ICC and Commonwealth of Pennsylvania Specifications. The complete system shall include necessary tubing, glad hands connectors at the front of the gooseneck, reservoir(s), (minimum 1500 cubic inch capacity), remote drain cock and type 30 air chamber with self adjusting slack adjusters of the clearance sensing type for each brake drum. Air chamber shall be mounted parallel to or below the axles. The brake shoes shall be the two (2) shoe internal expanding type with molded block lining 16.5 inch x 7 inch 4S, 3M ABS anti-lock system.. There shall be a spring parking brakes installed on two (2) trailer axles.

All precautions shall be taken to prevent the brake mechanism from being damaged by road hazards.

III. GENERAL 50 TON TRI-AXLE TRAILER SPECIFICATIONS (034500, 034505, 034700, 034705, 034800, 034805, 034900, 034905): (Continued)

B. TRAILER COMPONENTS: (Continued)

4. DIMENSIONS:

King pin setting will be minimum 15 inches, maximum 16 inches.

Overall width 96" (034500, 034505, 034700, 034705).

Overall width of 102" (034800, 034805, 034900, 034905).

Deck length less ramp, actual usable flat deck 23 feet (+ or - 6 inches).

Roadway clearance, not less than 9 inches, light dimension

Height from ground to underside of gooseneck fifth wheel plate at kingpin, loaded on level and parallel surface approximately 49 inches to 52 inches.

5. ELECTRIC SYSTEM:

The battery shall be a minimum of 540 CCA @ 0 degrees F (sealed) with stud type connector with all copper cables.

Shock-mounted battery installation, 0.25 inch rubber.

The trailer shall be furnished with shock proof running lights, directional signals and reflectors, fully complying with ICC minimum requirements, and with the Motor Vehicle Laws and Regulations of the Commonwealth of Pennsylvania. All lights shall be recessed or otherwise provided with adequate guards to prevent accidental damage.

All lights shall be LED.

Rear lights shall be Whelen light kit # PADOTSY11

4-M6BTDD Stop, Tail, Turn lights.

4-M6BRUSH brush guards

1-L31HAFD Strobe light to be mounted on Left rear corner of trailer.

1-L360PMKT pipe mounting kit

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

Manufacture to provide remaining marker and ICC lighting, wiring shall be Grote, Trucklite, or pre-approved equal.

There shall be a "flasher kit" for all trailer lights, when disconnected from gooseneck. It shall include a wet cell battery and a recharging feature capable of being connected to a tractor, using a two pole socket and 4 gauge copper wires. Ref. Tectran or pre-approved equal.

Sockets PN#670-22, socket boots PN#670-722.

Male plug PN# 670-19SG shall also be provided.

One (1) socket with boot at front bulkhead of gooseneck.

One (1) socket with boot installed in lower deck to allow connection from gooseneck.

There shall be a switch located in rear bumper, exterior sealed weather proof type, and permanently labeled that will enable on/off of all (including strobe) lights on trailer to flash when gooseneck is disconnected for safety in loading /unloading of equipment.

There shall be a separate switch in close proximity, exterior sealed weather proof type, and permanently labeled that will enable on/off of strobe light.

A color-coded electric wiring chart and schematic shall be provided with each unit.

III. GENERAL 50 TON TRI-AXLE TRAILER SPECIFICATIONS (034500, 034505, 034700, 034705, 034800, 034805, 034900, 034905): (Continued)

B. TRAILER COMPONENTS: (Continued)

6. ENGINE AND ENGINE COMPARTMENT: (034500, 034505, 034800, 034805)

11 hp engine minimum, with exterior waterproof controls, Ref. Models Kohler, Briggs & Stratton, Robin/Subaru or Honda.

Electric start.

Exhaust system with muffler routed to exterior of compartment and clear of the operator and framing.

Exhaust leaks will not be acceptable.

Engine oil dipstick, drain hole and drain plug extension as required to enable proper oil changes. The engine, hydraulic filter and other items housed in the gooseneck shall be covered; the hood shall have a handle for lifting, and a lock with keys. This paragraph is not applicable if units to be supplied are to have wet line(s).

Engine shall be removable by disconnecting 4 bolts for ease of shop maintenance.

Minimum 5 GPM pump (hydraulic).

Fast Lube Oil Change System (FLOCS) (034500, 034505, 034800, 034805)

This system will be installed with all fittings, brackets, clamps and hoses. The system will be compatible with all fittings presently used by the Department. The final placement of the male half of the snap coupler on the equipment will be determined at the pre-build meeting.

RE: AEROQUIP or prior approved equal. Ref: EQN-351A.

7. FRAME:

The frame shall be constructed of two (2) heavy-duty beams and two (2), heavy duty channels. The main beams shall be W16 x 67# low alloy steel rated a minimum of 60,000 PSI ASTM-A 572 GR60 with a section modulus of 117. The main beams shall be tapered for approximately 9 feet, running front to back. The front profile of the deck shall be tapered and no higher than 8 inches when detached from the gooseneck and in the loading position. The trailer's heavy duty side channels shall be C12 x 20.7# low alloy steel rated a minimum of 50,000 PSI, ASTM-A 572 GR50 with a section modulus of 21.5. There shall be ten (10) total cross members in the trailer deck, pierced through the main beams. The first and last cross members shall be MC10 X 25#. The intermediate cross beams shall be W10 x 12#.

The beam hooks must be designed to follow the sloping contours of the longitudinal main beams to allow a roller to be loaded without going over a "hump". The beam hooks shall be minimum 6 inches thick, made from ASTM-A572 GR 42 plate stock. Welding of two or more plates together to equal 6 inches shall not be acceptable.

8. GOOSENECK:

The longitudinal carrying members shall be fabricated, using high-strength, low-alloy steels. The web shall be fabricated using ASTM A572-GR50 50,000 psi minimum yield steel; and the flanges shall be fabricated using ASTM A514, 100,000 psi minimum yield steel.

The gooseneck shall be a tapered, self-lifting, detachable type with a "Scraper-neck" profile for additional load clearance.

It shall be equipped with two (2) 8 inch x 14 inch double acting hydraulic cylinders with 3 inch rods, anchored in a horizontal position in the gooseneck. These cylinders shall push off a lever which, in turn, pushes off the deck of the trailer. The cylinders shall require a maximum of 2,800 psi to operate the gooseneck. The lifting mechanism shall not carry the load in the normal transport of the trailer.

III. GENERAL 50 TON TRI-AXLE TRAILER SPECIFICATIONS (034500, 034505, 034700, 034705, 034800, 034805, 034900, 034905): (Continued)

B. TRAILER COMPONENTS: (Continued)

8. GOOSENECK: (Continued)

The gooseneck must also be equipped with a 2 inch kingpin (conforming to SAEJ700a) properly boxed to prevent cracking and dishing of the fifth wheel plate. The upper fifth wheel plate shall be adequate in size for coupling to a 36 inch fifth wheel or a full oscillation fifth wheel.

The design of the hydraulic detachable gooseneck shall be adjustable, up or down, to clear road obstacles, under full load, without shifting the load. The hydraulic system for operating this gooseneck shall be complete, consisting of necessary operating valves, relief valve, reservoir and pump, driven by a self contained engine (unless using a wet-line). A tool box shall be mounted in/on the gooseneck. "Tear drop" type pins are acceptable in lieu of hooks.

The length of the gooseneck must be calculated based on the fifth wheel being placed 6 inch, to the front of the tractor axle using frame dimensions supplied by the truck manufacturer.

NOTE: All items utilized shall be installed in accordance with SAE standards and practices. If hood must be lifted for engine cooling when in operation there must be a visible, weather-proof decal stating so.

9. LASHING RINGS:

Sixteen (16) drop forged lashing D's of 1 inch diameter steel (C1030 steel construction) shall be provided.

They shall be positioned as follows: six on each side of the deck, one on end of each trunnion beam. Bidders shall include test results from an independent testing agency detailing strength and characteristics of the lashing D's to be supplied. Testing shall be done in accordance with the Trailer Cargo Anchoring Devices Test Method 906, Transport Canada.

10. PLATFORM SIZE AND CONSTRUCTION:

The platform shall have a minimum 1 ¾" oak or a minimum 1 ¼" Apitong full floor. The trailer decking shall be composed of #1 grade hardwood to carry the rated capacity within any 11 foot section, of the deck, and shall be supported by maximum 24 inch centered cross members laid longitudinally with the planking secured to the cross members with countersunk button head carriage bolts and floor clips. The hardwood decking shall be fitted to eliminate gaps.

**There shall be flooring across the entire width and length of trailer, upper and lower decks.**

There shall be no drilling into cross members for any reason.

Platform to ground height shall not exceed that shown in EQN-253.

11. ACCESS:

Two (2) 24 inch long by 22 inch wide front fold-down loading ramps with oak inserts shall be provided to form a 13-degree approach to the main deck area. These sliding ramps shall be adjustable from 14 inches out-to-out to 32 inches in-to-in.

The front of the main beams and side beams shall be tapered on the top to permit easy loading. Also the bottom of the main beams and side beams must facilitate the deck resting evenly on the ground for safe loading.

III. GENERAL 50 TON TRI-AXLE TRAILER SPECIFICATIONS (034500, 034505, 034700, 034705, 034800, 034805, 034900, 034905): (Continued)

B. TRAILER COMPONENTS: (Continued)

12. RUSTPROOFING/PAINT:

Prior to welding and assembly the steel shall be shot-blasted and buffed. Prior to painting the steel shall be cleaned and ground to eliminate splatter and scale.

The entire underside of the frame shall be coated with black, rustproof undercoating.

Preparation and Primer

The assembled frame shall be primed with moisture cure urethane primer.

Paint: PENNDOT yellow, ref. DuPont F9885, PPG 85246, Sherwin Williams 73266 And NAPA 73266 for color only (entire unit, less wood). The frame shall be finished with one coat of the manufacturer's lead-free and chromate-free rust preventative coating.

All metal surfaces shall have rust preventive treatment or primer.

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

The sides of the trailer and rear shall be per EQN-127A.

13. REAR FRAME:

The main carrying members of the rear frame shall be fabricated using high-strength, low alloy steel. The flanges shall be fabricated from 130,000 psi material. The web shall be fabricated from ASTM A572 GR50 material.

Access to Rear Frame

The rear riser section shall run at a 33° angle between the main deck and the rear frame area and have an 18 inch drop between these two parts of the trailer. Riser shall be completely covered with a minimum 1 ¾" oak or a minimum 1 ¼" Apitong for the entire length and width.

The rear frame shall include wide trunnion beams between each set of wheels. The trunnions shall be capable of supporting appropriate equipment.

Also included in the rear frame is a load bearing formed trunnion outrigger(s) between the tires. The rear frame tires shall be shielded to permit equipment to be set on this area of the trailer. These covers shall permit proper tire clearance and shall be a load-bearing formed frame between the tires of the first and last axles covered with a minimum 1 ¾" oak or a minimum 1 ¼" Apitong for the entire length and width.

Rear mud flaps in accordance with PA State Inspection Laws.

14. TIRES, WHEELS, RIMS:

The trailer shall be provided with steel belted radial tubeless tires 255/70R 22.5 (H) 16 ply rating mounted on 22.5 x 8.25 hub piloted steel disc rims, Accuride no substitute.

The hubs shall be ten (10) stud, hub-piloted type and made of cast ductile iron.

The tires shall not extend above the bridge beams. Lug wrench shall be provided and stowed with holder on the gooseneck. Spare rim and tire, mounted and stowed on the gooseneck. One (1) per trailer with locking tire carrier.

15. MISCELLANEOUS:

There shall be a flag holder welded to each side of the rear frame rail.

There shall be a two piece hinged "OVERSIZED LOAD" sign mounted on the rear. The sign shall be mounted in such a way to afford removal without the use of tools.

There shall be two red flags with each unit.



III. GENERAL 50 TON TRI-AXLE TRAILER SPECIFICATIONS (034500, 034505, 034700, 034705, 034800, 034805, 034900, 034905): (Continued)

B. TRAILER COMPONENTS: (Continued)

16. NOTES:

A decal stating the light weight of the trailer shall be attached on the road side near the lift controls. The decal shall be approximately 1.50 inches high and 3 inches long and read L.W. \_\_\_\_LB.

A decal stating "(MLWR)" trailers actual load carrying capacity is, \_\_\_\_\_ shall be attached in a clearly visible area of the trailer.

A decal stating the recommended tire pressure shall be attached on the roadside above the rear axle, the size shall be approximately 1.50 inches high and 3 inches long and read "\_\_\_\_ PSI".

Decal shall read the same rating as the tire.

17. WET LINE (034700, 034705, 034900, 034905):

If stated in the "Invitation to Bid", unit(s) shall be plumbed to accept hydraulic connections from the tractor to make the trailer completely functional as a "wet Unit". Fittings shall be AEROQUIP or prior approved equal, Left side Return PN#0451436, Right side Pressure PN#145135. For information on the hydraulic connectors contact the Equipment Division at (717) 783-2371.

18. LIFT AXLE OPTION (034505, 034705, 034805, 034905):

If stated in the "initiation to bid", unit(s) shall be equipped with a lift axle. The lift axle shall be mounted at the rear most axle position. Wheels and tires shall match the existing trailer tires and wheels. Lift Axle shall be equipped with brakes, Section I-3. Shall be in accordance with PA State Inspection Laws.

IV. GENERAL 50 TON PAVER STYLE TRI-AXLE TRAILER SPECIFICATIONS (034940, 034945, 034950, 034955, 034965, 034970034975, 034980):

A. INTENT STATEMENT:

The purpose of these specifications is to describe a "Paver Style" 50-ton, three-axle, drop-deck, low-bed semi-trailer to be used in hauling paver type construction machinery, without a tractor. The trailer will be rated for a capacity load of 50 U.S. tons in 1/2 of the deck length at highway speeds of 65 MPH. It shall be equipped with a self lifting (non ground bearing) hydraulic detachable gooseneck so equipment can be loaded over the front of the deck. Tapered main beams shall be provided to permit the entire taper to be lowered as flush to the ground as possible. The gooseneck beam hooks and other components on the trailer portion must be flush to the slope front in order to facilitate the loading of rollers, and "all" Department equipment with a limited and reasonable amount of blocking/center ramping. The trailer must be new, including all component parts.

All vendors should review our fleet with the manufacturer's engineering department and our field personnel prior to bidding to ensure that the trailer manufacturer is aware of the tasks assigned to this unit.

The trailer must be compatible with the Department's tandem axle tractor(s) in critical areas as hoses, electrical connectors, fifth wheel clearance and pin size.

NOTE: EQN-253 is offered as reference except for ground to top of deck height which shall not exceed 23 inches to 25 inches and flat deck useable length which shall be 288 inches (+ or - 6 inches).

Special Note:

It shall be the sole responsibility of the successful vendor to ensure compatibility with the Department's tractor(s), to include not surpassing the overall length ruling and meeting all bridge formulas. This is of particular note to those orders received for trailers without tractors. The vendor shall, prior to bid, inspect the Department's tractor/s to ensure this compatibility. For tractor location contact the Equipment Division at 717-783-2371.

Department of General Service PCID NO. 1075 is included as part of this specification. PCID NO. 1075 may be reviewed and downloaded from the Department of General Services website, [www.dgs.state.pa.us](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 **240** days after receipt of the purchase order by the successful bidder.

IV. GENERAL 50 TON PAVER STYLE TRI-AXLE TRAILER SPECIFICATIONS (034940, 034945, 034950, 034955, 034965, 034970034975, 034980): (Continued)

B. TRAILER COMPONENTS: (Continued)

1. AXLE AND SUSPENSION:

The trailer shall be equipped with the following axle and suspension:

**AXLE:** Three (3) axles, each axle shall be rated at 25,000 lbs. capacity by the axle manufacturer. The wheel bearings shall be an oil-bathed type. Each shall be a through-type design with a 5 inch round outer dimension. They shall be of cast ductile iron

**SUSPENSION:** Each of the three axles shall be equipped with an air ride suspension rated at 25,000 lbs. capacity by the suspension manufacturer. The suspension shall require no lubrication.

The suspension shall also include a height control system to mechanically adjust the ride height of the suspension by (3) three inches up or down. This system shall have (5) positions – (2) positions to increase the standard ride height, (1) standard ride height, and (2) positions to decrease the standard ride height.

2. BRACKETS: - SIDE:

The main deck shall be equipped with a minimum set of twenty (20) heavy duty side brackets. The side brackets will be cast from ductile iron, D5506, Tensile 80K, Yield 55K specification A-536-72, Grade 80-55-06. There will be required ten (10) each side minimum, to increase the width to a minimum of 10 feet if desired.

When not in use, they shall be held in place against the side member with spring loaded clips. A full 2 inch x 10 inch (minimum) No. 1 grade oak planks shall be furnished to provide covering full length of the brackets on each side.

Fabricated side brackets shall be deemed unacceptable.

3. BRAKES:

The service brake shall be a two-line system with an emergency breakaway feature conforming to ICC and Commonwealth of Pennsylvania Specifications. The complete system shall include necessary tubing, glad hands connectors at the front of the gooseneck, reservoir(s), (minimum 1500 cubic inch capacity), remote drain cock and type 30 air chamber with self adjusting slack adjusters of the clearance sensing type for each brake drum. Air chamber shall be mounted parallel to or below the axles. The brake shoes shall be the two (2) shoe internal expanding type with molded block lining 16.5 inch x 7 inch 4S, 3M ABS anti-lock system.. There shall be a spring parking brakes installed on two (2) trailer axles.

All precautions shall be taken to prevent the brake mechanism from being damaged by road hazards.

IV. GENERAL 50 TON PAVER STYLE TRI-AXLE TRAILER SPECIFICATIONS (034940, 034945, 034950, 034955, 034965, 034970034975, 034980): (Continued)

B. TRAILER COMPONENTS: (Continued)

4. DIMENSIONS:

King pin setting will be minimum 15 inches, maximum 16 inches.

Overall width of 102" (034950, 034955, 034975, 034980)

Overall width of 96" (034940, 034945, 034965, 034970)

Deck length less ramp, actual usable flat deck 24 feet (+ or - 6 inches).

Roadway clearance, not less than 9 inches, light dimension

Height from ground to underside of gooseneck fifth wheel plate at kingpin, loaded on level and parallel surface approximately 49 inches to 52 inches.

5. ELECTRIC SYSTEM:

The battery shall be a minimum of 540 CCA @ 0 degrees F (sealed) with stud type connector with all copper cables.

Shock-mounted battery installation, 0.25 inch rubber.

The trailer shall be furnished with shock proof running lights, directional signals and reflectors, fully complying with ICC minimum requirements, and with the Motor Vehicle Laws and Regulations of the Commonwealth of Pennsylvania. All lights shall be recessed or otherwise provided with adequate guards to prevent accidental damage.

All lights shall be LED.

Rear lights shall be Whelen light kit # PADOTSY11

4-M6BTDD Stop, Tail, Turn lights.

4-M6BRUSH brush guards

1-L31HAFD Strobe light to be mounted on Left rear corner of trailer.

1-L360PMKT pipe mounting kit

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

Manufacture to provide remaining marker and ICC lighting, wiring shall be Grote, Trucklite, or pre-approved equal.

There shall be a "flasher kit" for **all** trailer lights, when disconnected from gooseneck. It shall include a wet cell battery and a recharging feature capable of being connected to a tractor, using a two pole socket and 4 gauge copper wires. Ref. Tectran or pre-approved equal.

Sockets PN#670-22, socket boots PN#670-722.

Male plug PN# 670-19SG shall also be provided.

One (1) socket with boot at front bulkhead of gooseneck.

One (1) socket with boot installed in lower deck to allow connection from gooseneck.

There shall be a switch located in rear bumper, exterior sealed weather proof type, and permanently labeled that will enable on/off of **all** (including strobe) lights on trailer to flash when gooseneck is disconnected for safety in loading /unloading of equipment.

There shall be a separate switch in close proximity, exterior sealed weather proof type, and permanently labeled that will enable on/off of strobe light.

A color-coded electric wiring chart and schematic shall be provided with each unit.

IV. GENERAL 50 TON PAVER STYLE TRI-AXLE TRAILER SPECIFICATIONS (034940, 034945, 034950, 034955, 034965, 034970034975, 034980): (Continued)

B. TRAILER COMPONENTS: (Continued)

6. ENGINE AND ENGINE COMPARTMENT: (034940, 034945, 034950, 034955)

11 hp engine minimum, with exterior waterproof controls, Ref. Models Kohler, Briggs & Stratton, Robin/Subaru or Honda.

Electric start.

Exhaust system with muffler routed to exterior of compartment and clear of the operator and framing.

Exhaust leaks will not be acceptable.

Engine oil dipstick, drain hole and drain plug extension as required to enable proper oil changes. The engine, hydraulic filter and other items housed in the gooseneck shall be covered; the hood shall have a handle for lifting, and a lock with keys. This paragraph is not applicable if units to be supplied are to have wet line(s).

Engine shall be removable by disconnecting 4 bolts for ease of shop maintenance.

Minimum 5 GPM pump (hydraulic).

Fast Lube Oil Change System (FLOCS) (034940, 034945, 034950, 034955)

This system will be installed with all fittings, brackets, clamps and hoses. The system will be compatible with all fittings presently used by the Department. The final placement of the male half of the snap coupler on the equipment will be determined at the pre-build meeting.

RE: AEROQUIP or prior approved equal. Ref: EQN-351A.

7. FRAME:

The frame shall be constructed of two (2) heavy-duty beams and two (2), heavy duty channels. The main beams shall be W16 x 67# low alloy steel rated a minimum of 60,000 PSI ASTM-A 572 GR60 with a section modulus of 117. The front top and bottom of the main beams shall be tapered, running front to back. The bottom beam shall have a minimum taper of 9 feet front to back to ease loading. The front profile of the deck shall be tapered and no higher than 8 inches when detached from the gooseneck and in the loading position. The trailer's heavy duty side channels shall be C12 x 20.7# low alloy steel rated a minimum of 50,000 PSI, ASTM-A 572 GR50 with a section modulus of 21.5. There shall be ten (10) total cross members in the trailer deck, pierced through the main beams. The first and last cross members shall be MC10 X 25#. The intermediate cross beams shall be W10 x 12#.

The beam hooks must be designed to follow the sloping contours of the longitudinal main beams to allow a roller to be loaded without going over a "hump". The beam hooks shall be minimum 6 inches thick, made from ASTM-A572 GR 42 plate stock. Welding of two or more plates together to equal 6 inches shall not be acceptable.

8. GOOSENECK:

The longitudinal carrying members shall be fabricated, using high-strength, low-alloy steels. The web shall be fabricated using ASTM A572-GR50 50,000 psi minimum yield steel; and the flanges shall be fabricated using ASTM A514, 100,000 psi minimum yield steel.

The gooseneck shall be a tapered, self-lifting, detachable type with a "Scraper-neck" profile for additional load clearance.

It shall be equipped with two (2) 8 inch x 14 inch double acting hydraulic cylinders with 3 inch rods, anchored in a horizontal position in the gooseneck. These cylinders shall push off a lever which, in turn, pushes off the deck of the trailer. The cylinders shall require a maximum of 2,800 psi to operate the gooseneck. The lifting mechanism shall not carry the load in the normal transport of the trailer.

IV. GENERAL 50 TON PAVER STYLE TRI-AXLE TRAILER SPECIFICATIONS (034940, 034945, 034950, 034955, 034965, 034970034975, 034980): (Continued)

B. TRAILER COMPONENTS: (Continued)

8. GOOSENECK: (Continued)

The gooseneck must also be equipped with a 2 inch kingpin (conforming to SAEJ700a) properly boxed to prevent cracking and dishing of the fifth wheel plate. The upper fifth wheel plate shall be adequate in size for coupling to a 36 inch fifth wheel or a full oscillation fifth wheel.

The design of the hydraulic detachable gooseneck shall be adjustable, up or down, to clear road obstacles, under full load, without shifting the load. The hydraulic system for operating this gooseneck shall be complete, consisting of necessary operating valves, relief valve, reservoir and pump, driven by a self contained engine (unless using a wet-line). A tool box shall be mounted in/on the gooseneck. "Tear drop" type pins are acceptable in lieu of hooks.

The length of the gooseneck must be calculated based on the fifth wheel being placed 6 inch, to the front of the tractor axle using frame dimensions supplied by the truck manufacturer.

**NOTE:** All items utilized shall be installed in accordance with SAE standards and practices. If hood must be lifted for engine cooling when in operation there must be a visible, weather-proof decal stating so.

9. LASHING RINGS:

Sixteen (16) drop forged lashing D's of 1 inch diameter steel (C1030 steel construction) shall be provided.

They shall be positioned as follows: six on each side of the deck, one on end of each trunnion beam. Bidders shall include test results from an independent testing agency detailing strength and characteristics of the lashing D's to be supplied. Testing shall be done in accordance with the Trailer Cargo Anchoring Devices Test Method 906, Transport Canada.

10. PLATFORM SIZE AND CONSTRUCTION:

The platform shall have a minimum 1 3/4" oak or a minimum 1 1/4" Apitong full floor. The trailer decking shall be composed of #1 grade hardwood to carry the rated capacity within any 11 foot section, of the deck, and shall be supported by maximum 24 inch centered cross members laid longitudinally with the planking secured to the cross members with countersunk button head carriage bolts and floor clips. The hardwood decking shall be fitted to eliminate gaps.

**The decking shall be the full width and length of the trailer, upper and lower decks with no gaps to allow easy loading of rollers and other like style equipment.**

Platform to ground height shall not exceed that shown in EQN-253.

11. ACCESS:

Two (2) 41 inch long by 22 inch wide front fold-down loading ramps with oak inserts shall be provided to form a 7.2-degree approach to the main deck area. These sliding ramps shall be adjustable to 56" inches in-to-in, double hinged and wood filled.

The front top of the main beams and side beams shall be tapered and front bottom of main beam and side beams shall be tapered at minimum the first nine (9) feet to permit easy loading.

IV. GENERAL 50 TON PAVER STYLE TRI-AXLE TRAILER SPECIFICATIONS (034940, 034945, 034950, 034955, 034965, 034970034975, 034980): (Continued)

B. TRAILER COMPONENTS: (Continued)

12. RUSTPROOFING/PAINT:

Prior to welding and assembly the steel shall be shot-blasted and buffed. Prior to painting the steel shall be cleaned and ground to eliminate splatter and scale.

The entire underside of the frame shall be coated with black, rustproof undercoating.

Preparation and Primer

The assembled frame shall be primed with moisture cure urethane primer.

Paint: PENNDOT yellow, ref. DuPont F9885, PPG 85246, Sherwin Williams 73266 And NAPA 73266 for color only (entire unit, less wood). The frame shall be finished with one coat of the manufacturer's lead-free and chromate-free rust preventative coating.

All metal surfaces shall have rust preventive treatment or primer.

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

The sides of the trailer and rear shall be per EQN-127A.

13. REAR FRAME:

The main carrying members of the rear frame shall be fabricated using high-strength, low alloy steel. The flanges shall be fabricated from 130,000 psi material. The web shall be fabricated from ASTM A572 GR50 material.

The rear riser section shall run at a 3:1 ratio for a maximum of 18° between the main deck and the rear frame area and have a maximum of 18 inch drop between the deck and the rear load platform of the trailer with a full width oak, or apitong wood covering.

Rear deck shall be shall have a full 1-1/2" oak or apitong covering with a roller stop at the rear of the third axle.

Rear mud flaps in accordance with PA State Inspection Laws. Rubber splash guards shall be unmarked.

14. TIRES, WHEELS, RIMS:

The trailer shall be provided with steel belted radial tubeless tires 255/70R 22.5 (H) 16 ply rating mounted on 22.5 x 8.25 hub piloted steel disc rims, Accuride no substitute.

The hubs shall be ten (10) stud, hub-piloted type and made of cast ductile iron.

The tires shall not extend above the bridge beams. Lug wrench shall be provided and stowed with holder on the gooseneck. Spare rim and tire, mounted and stowed on the gooseneck. One (1) per trailer with locking tire carrier.

15. MISCELLANEOUS:

There shall be a flag holder welded to each side of the rear frame rail.

There shall be a two piece hinged "OVERSIZED LOAD" sign mounted on the rear. The sign shall be mounted in such a way to afford removal without the use of tools.

There shall be two red flags with each unit.

IV. GENERAL 50 TON PAVER STYLE TRI-AXLE TRAILER SPECIFICATIONS (034940, 034945, 034950, 034955, 034965, 034970, 034975, 034980): (Continued)

B. TRAILER COMPONENTS: (Continued)

16. NOTES:

A decal stating the light weight of the trailer shall be attached on the road side near the lift controls. The decal shall be approximately 1.50 inches high and 3 inches long and read L.W. \_\_\_\_LB.

A decal stating "(MLWR)" trailers actual load carrying capacity is, \_\_\_\_\_ shall be attached in a clearly visible area of the trailer.

A decal stating the recommended tire pressure shall be attached on the roadside above the rear axle, the size shall be approximately 1.50 inches high and 3 inches long and read " \_\_\_\_\_ PSI".  
Decal shall read the same rating as the tire.

17. WET LINE (034965, 034970, 034975, 034980):

If stated in the "Invitation to Bid", unit(s) shall be plumbed to accept hydraulic connections from the tractor to make the trailer completely functional as a "wet Unit". Fittings shall be AEROQUIP or prior approved equal, Left side Return PN#0451436, Right side Pressure PN#145135. For information on the hydraulic connectors contact the Equipment Division at (717) 783-2371.

18. LIFT AXLE OPTION (034945, 034955, 034970, 034980):

If stated in the "initiation to bid", unit(s) shall be equipped with a lift axle. The lift axle shall be mounted at the rear most axle position. Wheels and tires shall match the existing trailer tires and wheels. Lift Axle shall be equipped with brakes, Section I-3. Shall be in accordance with PA State Inspection Laws.



V. DRAWINGS:

EQN-81A	dated	Rev.	03-30-00	1 sheet	7 WAY TRAILER CONNECTOR
EQN-127A	dated	Rev.	01-02-09	1 sheet	CONSPICUITY TAPE STRIPING REQUIREMENTS
EQN-253	dated	Rev.	02-12-07	1 sheet	LOWBOY TRAILER TANDEM
EQN-351A	dated	Rev.	10-20-06	2 sheets	FAST LUBE OIL CHANGE SYSTEM (FLOCS)

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 pre-build meeting.

**NOTE: DRAWINGS APPEAR AT THE END OF THE SPECIFICATION.**

VI. 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.

VII. TRAINING:

Mechanic:

The successful vendor shall provide services of qualified factory trained technicians for not more than \_\_\_0\_\_\_ training session(s) of not more than \_\_\_0\_\_\_ hours at \_\_\_0\_\_\_ PENNDOT location(s) 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 \_\_\_0\_\_\_ training session(s) of not more than \_\_\_0\_\_\_ hours at \_\_\_0\_\_\_ PENNDOT location(s) to train personnel in the proper operation, safety and servicing of the equipment.

The successful vendor shall submit a training plan to the Equipment Division for approval within 45 days after receipt of the Purchase Order. The training plan shall consist of course outline and class schedule. Training must be completed within 60 days after the dates established in the approved training plan.

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.

VIII. WARRANTY:

Per PCID No. 1075

Trailer per section E 1, Construction Equipment – (2 years).

Trailer per section E. 3 plus the additional specific warranty items.

SPECIFICATIONS  
M-57-FJ-L

**036105**

TRAILER, 10,000 LB, DUMP

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SPECIFICATIONS

M-57-FJ-L

I. GENERAL TRAILER SPECIFICATIONS:

A. INTENT STATEMENT:

The purpose of these specifications is to describe a 10,000 LB GVWR, dump trailer, payload capacity rated at 65 MPH. Reference: BRIMAR DT712LP-10.

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 **240** days after receipt of the purchase order by the successful bidder.

NOTE: Trailers must be delivered at ground level (stacking is unacceptable).

Trailers shall be delivered with current PA State Inspection Sticker.

Pre-delivery trailer plug and circuit compatibility testing with Department owned trucks shall be performed. (Ref: EQN-80A for guidance).

Warranty per PCID 1075, Section E 1, Construction Equipment – (2 years).

B. TRAILER COMPONENTS:

PLATFORM DUMP BED:

Minimum 81.5 inches wide x 12 foot long (useable).

FLOOR/SIDESTAILGATE:

To be constructed of minimum 10 gauge steel and have a minimum of nine (9) 2" inch x 4" stake pockets.

TAILGATE:

Shall be dump design.

FENDERS

Shall be properly supported to ensure the ability to support a 200 lb man's weight. Upper portion of fender shall be coated with non-skid paint.

HITCH:

3-inch Lunette eye - minimum 4 vertical positions (18 inch – 32 inch).

Actual delivered height requirement to be determined at pre-build meeting. Ref. EQN-84

TIE DOWNS: Minimum four (4) D-rings per side.

SAFETY CHAINS:

Two (2), minimum .3750-inch size, non-rusting, coil-proof, high tensile chains (rated at GVWR of trailer). Forged steel hooks with safety hasp to fit a minimum 5/8 inch D-ring (from tow vehicle) at the end of chain and the other end of the chain shall be permanently mounted to trailer. Chains shall be a minimum of four foot long and must extend three foot beyond pintle. Per EQN-84.

SPECIFICATIONS

M-57-FJ-L

I. GENERAL TRAILER SPECIFICATIONS: (Continued)

B. TRAILER COMPONENTS: (Continued)

LIGHTS: 12 volt. All lights shall be LED, rubber mounted, with sealed wiring harness. Grote Ultra Blue, or equal (Ref: EQN-80A for guidance). Grote Ultra Link 500 power cord (87020), with one end severed and hard wired into a weatherproof box. Power cord shall extend 8 feet in length beyond pintle. There shall be a Cole Hersee No. 11750 stor-a-way trailer connector plug-holder located in the tongue area. All harness pass-through locations shall be protected by a grommet. All wiring shall be protected within a frame-rail, metal enclosure or conduit. Wiring shall not be exposed within a wheel-well. The license plate bracket shall be illuminated and properly mounted to accept a full size license plate. There shall be no connections outside of a sealed box. 3M type crimp connectors and heat shrink are unacceptable. All electrical connection shall be coated with dielectric grease.

PAINT/PREPERATION:

Prior to painting, all metal surfaces shall be cleaned utilizing a phosphate wash procedure, sandblasted or shot beaded to insure proper paint adherence and rust prevention, with all edges and holes de-burred, and all weld splatter removed. The unit shall receive a minimum of (2) coats of paint, (1) shall be a zinc based epoxy primer, and (1) coats of finish paint.

COLOR: Trailer and landing gear shall be construction yellow, wood not need be painted. Wheels can be white, black, yellow, silver or argent. Conspicuity per EQN-127A. The undercarriage shall be painted either yellow or black.

Option: Paint Penn Dot yellow. Reference DuPont F9885, PPG 85246, Sherwin Williams 73266 and NAPA 73266 shade only.

RUNNING GEAR, TIRE SIZE, HUBS:

As required to meet net – 10,000 LB payload capabilities.

WHEELS: One piece rims. (Mobile home type wheels are unacceptable). There shall be one spare wheel and tire assembly, mounted on a lockable bracket assembly (not to interfere with useable deck space). Wheels shall be properly sized within all requirements and ranges to meet the specification.

SUSPENSION: Slipper spring with equalizer, or rubber bushed. Dual dropped axles are acceptable.

AXLES: Tandem axles shall be rated as (2) 5,000 LB. (minimum). All axles, if applicable, shall be equipped with EZ lube system.

BRAKES: Hydraulic surge brake system properly rated for GVWR. Brakes shall be “free backing” (per Dico, or equal). Ref: EQN-84

OVERALL WIDTH: 102-inch maximum.

SPECIFICATIONS

M-57-FJ-L

I. GENERAL TRAILER SPECIFICATIONS: (Continued)

B. TRAILER COMPONENTS: (Continued)

DECK HEIGHT:

Top of deck to ground, 27" maximum height.

DECK LENGTH, MIN:

12 feet minimum useable cargo area.

BODY HOIST: Dump hoist shall be a five U.S. ton hydraulic fully self-contained power up and gravity or power down system. There shall be a safety upright strut for body support in the raised position. All controls shall be remotely operated. The hydraulic system shall be battery activated. The battery shall be adequately sized and automatically recharged by a solar panel. The trailer shall be self-contained for the purpose of the hoist power and not accept power via the tow vehicle.

LANDING GEAR:

Properly rated and capable of swinging back or up for travel. The landing gear shall be centerline mounted.

ACCESSORIES:

(4)-way lug wrench.

OTHER FEATURES:

Hi-strength low alloy steel mainframe.

Battery box and motor/pump assembly shall be recessed under main frame to provide clearance when towed with dump truck with mounted spreader.

Left, Right and front sides shall have 2 inch x 10 inch (wood) extended sides, metal corners and side supports.

Shall have tarp (manual) mounted at top front of bed capable of covering entire length and width of box.

\*NOTE: A decal stating, "(MLWR) Trailers actual load carrying capacity is \_\_\_\_\_" shall be posted on the trailer in minimum 1 inch lettering.

"Tire Pressure \_\_\_\_\_" shall be stenciled in close proximity to the tires (both left and right side).

A metal identification tag stating manufacturer's information, model number, serial number and date of build shall be mounted within the tongue area.

All pivot points shall be of the "heavy duty" design and shall incorporate easily accessible zerk fittings. Zerk fitting location/s shall be stenciled on the trailer.

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II. DRAWINGS:

EQN-80A	dated	Rev.	11-12-09	1 sheet	WIRING DIAGRAM
EQN-84	dated	Rev.	05-16-07	1 sheet	TRAILER, FRONT END SPECIFICATIONS
EQN-127A	dated	Rev.	01-02-09	1 sheet	CONSPICUITY TAPE STRIPING REQUIREMENTS

The above referenced drawings shall become part of these specifications. These drawings reflect the intent of the Department. Any discrepancies shall be resolved at the Pre-build meeting between the vendor and the Equipment Division.

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



SPECIFICATIONS  
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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.

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IV. TRAINING

Mechanic:

The successful vendor shall provide services of qualified factory trained technicians for not more than   0   training sessions of not more than   0   hours at   0   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   0   training sessions of not more than   0   hours at   0   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 Equipment 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 Equipment 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.

V. WARRANTY:

Per PCID No. 1075

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**036710 7,000 LB. 12' Enclosed**  
**036810 7,000 LB. 14' Enclosed**  
**036715 7,000 LB. 16' Enclosed**

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SPECIFICATIONS

M-57-FJ-L

I. GENERAL TRAILER SPECIFICATIONS:

A. INTENT STATEMENT:

The purpose of these specifications is to describe a tandem axle 7,000 LB GVWR, 12, 14 and 16 foot enclosed trailer which is rated at 65 MPH.

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 **240** days after receipt of the purchase order by the successful bidder.

NOTE: Trailers must be delivered at ground level (stacking is unacceptable).

Trailers shall be delivered with current PA State Inspection Sticker.

Pre-delivery trailer plug and circuit compatibility testing with Department owned trucks shall be performed. (Ref: EQN-80A for guidance).

Warranty per PCID 1075, Section E 1, Construction Equipment – (2 years).

B. TRAILER COMPONENTS:

FLOOR: Single ¾ inch plywood flooring.

WALL / INTERIOR: Minimum thickness ¼ inch plywood.

ENCLOSED TRAILER BOX: Minimum 81 inches wide x 73 inches minimum height x approximately 12 (036710), 14(036810) and 16(036715) foot long useable interior, maximum platform height 19 inches.

ROOF Shall be one-piece aluminum.

HITCH: Heavy-duty bumper pull type, 2 5/16 inch ball or 3 inch pintle, minimum (4) four vertical positions (18 inch – 32 inch). Actual delivered height requirement to be determined at pre-build meeting. Ref. EQN- 84

DOORS: Rear ramp type door, with cam lock closures. Curbside door shall be 48 inches wide and minimum 5 foot 10 inches in height, with a cam lock and grab handle on side of trailer to provide "Three Points of Contact".

SAFETY CHAINS: Two (2), minimum .3750-inch size, non-rusting, coil-proof, high tensile chains (rated at GVWR of trailer). Forged steel hooks with safety hasp to fit a minimum 5/8 inch D-ring (from tow vehicle) at the end of chain and the other end of the chain shall be permanently mounted to trailer. Chains shall be a minimum of four foot long and must extend three foot beyond pintle. Per EQN-84.

SPECIFICATIONS

M-57-FJ-L

I. GENERAL TRAILER SPECIFICATIONS: (Continued)

B. TRAILER COMPONENTS: (Continued)

LIGHTS: 12 volt. All lights shall be LED, rubber mounted, with sealed wiring harness. Grote Ultra Blue, or equal (Ref: EQN-80A for guidance). Grote Ultra Link 500 power cord (87020), with one end severed and hard wired into a weatherproof box. Power cord shall extend 8 feet in length beyond pintle. There shall be a Cole Hersee No. 11750 stor-a-way trailer connector plug-holder located in the tongue area. All harness pass-through locations shall be protected by a grommet. All wiring shall be protected within a frame-rail, metal enclosure or conduit. Wiring shall not be exposed within a wheel-well. The license plate bracket shall be illuminated and properly mounted to accept a full size license plate. There shall be no connections outside of a sealed box. 3M type crimp connectors and heat shrink are unacceptable. All electrical connection shall be coated with dielectric grease.

INTERIOR LIGHTS: 12-volt LED lights mounted in the ceiling evenly spaced front to back. All lights shall be operated by one (1) switch.

Minimum two (2) in 12' (036710).

Three (3) in 14' (036810) and 16' (036715).

PAINT/PREPERATION:

Prior to painting, all metal surfaces shall be cleaned utilizing a phosphate wash procedure, sandblasted or shot beaded to insure proper paint adherence and rust prevention, with all edges and holes de-burred, and all weld splatter removed. The unit shall receive a minimum of (2) coats of paint, (1) shall be a zinc based epoxy primer, and (1) coats of finish paint.

COLOR: Trailer frame shall be painted silver or black. The main box compartment shall be white aluminum. Wheels can be white, silver, black or argent. Wood interior need not be painted. There shall be a 2-inch red/white conspicuity tape across the entire length of the trailer, (both sides per: EQN-127A).

Option: Paint Penn Dot yellow. Reference DuPont F9885, PPG 85246, Sherwin Williams 73266 and NAPA 73266 shade only. Pricing shall also be provided for manufactures standard yellow paint.

RUNNING GEAR, TIRE SIZE, HUBS:

As required to meet net – 7,000 LB payload capabilities.

WHEELS: One piece rims. (Mobile home type wheels are unacceptable). There shall be one spare wheel and tire assembly, mounted on a lockable bracket assembly (not to interfere with useable deck space). Wheels shall be properly sized within all requirements and ranges to meet the specification.

SUSPENSION: Adequate suspension for “low loading”. Dual dropped axles are acceptable.

AXLES: Tandem axles shall be rated as two (2) 3,500 LB. (minimum). All axles, if applicable, shall be equipped with EZ lube system.

SPECIFICATIONS

M-57-FJ-L

I. GENERAL TRAILER SPECIFICATIONS: (Continued)

B. TRAILER COMPONENTS: (Continued)

BRAKES: Hydraulic surge brake system properly rated for GVWR. Brakes shall be "free backing" (per Dico, or equal). Ref: EQN-84

OVERALL WIDTH:

102-inch maximum.

LANDING GEAR:

Properly rated and capable of swinging back or up for travel. The landing gear shall be centerline mounted.

ACCESSORIES:

(4)-way lug wrench.

A minimum of (6) six recessed D-ring tie downs shall be mounted in the floor and anchored to frame/cross member. Location to be determined at pre-build meeting.

Unit shall be equipped with a stone guard, which shall be mounted to the front of the trailer.

OTHER FEATURES:

Hi-strength low alloy steel mainframe.

\*NOTE: A decal stating, "(MLWR) Trailers actual load carrying capacity is \_\_\_\_\_" shall be posted on the trailer in minimum 1 inch lettering.

"Tire Pressure \_\_\_\_\_" shall be stenciled in close proximity to the tires (both left and right side).

A metal identification tag stating manufacturer's information, model number, serial number and date of build shall be mounted within the tongue area.

All pivot points shall be of the "heavy duty" design and shall incorporate easily accessible zerk fittings. Zerk fitting location/s shall be stenciled on the trailer.

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M-57-FJ-L

II. DRAWINGS:

EQN-80A	dated	Rev.	11-12-09	1 sheet	WIRING DIAGRAM
EQN-84	dated	Rev.	05-16-07	1 sheet	TRAILER, FRONT END SPECIFICATIONS
EQN-127A	dated	Rev.	01-02-09	1 sheet	CONSPICUITY TAPE STRIPING REQUIREMENTS

The above referenced drawings shall become part of these specifications. These drawings reflect the intent of the Department. Any discrepancies shall be resolved at the Pre-build meeting between the vendor and the Equipment Division.

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

SPECIFICATIONS  
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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

M-57-FJ-L

IV. TRAINING

Mechanic:

The successful vendor shall provide services of qualified factory trained technicians for not more than   0   training sessions of not more than   0   hours at   0   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   0   training sessions of not more than   0   hours at   0   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 Equipment 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 Equipment 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.

V. WARRANTY:

Per PCID No. 1075

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**036815**

TRAILER, 16,200 LB, 4 FOOT STATIONARY 16 FOOT TILT DECK, WITH 2' TAIL(RAMP)

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## SPECIFICATIONS

M-57-FJ-L

### I. GENERAL TRAILER SPECIFICATIONS:

#### A. INTENT STATEMENT:

The purpose of these specifications is to describe a 16,200 LB GVWR, 4' Stationary 16' foot tilt deck 2' integrated ramp trailer, payload capacity rated at 65 MPH. Reference: CRONKHITE 3612EHA.

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 **240** days after receipt of the purchase order by the successful bidder.

NOTE: Trailers must be delivered at ground level (stacking is unacceptable).

Trailers shall be delivered with current PA State Inspection Sticker.

Pre-delivery trailer plug and circuit compatibility testing with Department owned trucks shall be performed. (Ref: EQN-80A for guidance).

Warranty per PCID 1075, Section E 1, Construction Equipment – (2 years).

#### B. TRAILER COMPONENTS:

DECKING: 1.50-inch minimum pressure treated wood, oak or apitong flooring with a 4-inch minimum headboard installed the full width across the front of the load deck.

FENDERS Shall be properly supported to ensure the ability to support a 200 lb man's weight- unless an over-deck unit is quoted. Upper portion of fender shall be coated with non-skid paint.

HITCH: 5-foot tongue with a 3-inch Lunette eye - 28 inch fixed hitch height.

TIE DOWNS: Minimum four (4) D-rings per side.

SAFETY CHAINS: Two (2), minimum .3750-inch size, non-rusting, coil-proof, high tensile chains (rated at GVWR of trailer). Forged steel hooks with safety hasp to fit a minimum 5/8 inch D-ring (from tow vehicle) at the end of chain and the other end of the chain shall be permanently mounted to trailer. Chains shall be a minimum of four foot long and must extend three foot beyond pintle. Per EQN-84.

LIGHTS: 12 volt. All lights shall be LED, rubber mounted, with sealed wiring harness. Grote Ultra Blue, or equal (Ref: EQN-80A for guidance). Grote Ultra Link 500 power cord (87020), with one end severed and hard wired into a weatherproof box. Power cord shall extend 8 feet in length beyond pintle. There shall be a Cole Hersee No. 11750 stor-a-way trailer connector plug-holder located in the tongue area. All harness pass-through locations shall be protected by a grommet. All wiring shall be protected within a frame-rail, metal enclosure or conduit. Wiring shall not be exposed within a wheel-well. The license plate bracket shall be illuminated and properly mounted to accept a full size license plate. There shall be no connections outside of a sealed box. 3M type crimp connectors and heat shrink are unacceptable. All electrical connection shall be coated with dielectric grease.

SPECIFICATIONS

M-57-FJ-L

I. GENERAL TRAILER SPECIFICATIONS: (Continued)

B. TRAILER COMPONENTS: (Continued)

PAINT/PREPERATION:

Prior to painting, all metal surfaces shall be cleaned utilizing a phosphate wash procedure, sandblasted or shot beaded to insure proper paint adherence and rust prevention, with all edges and holes de-burred, and all weld splatter removed. The unit shall receive a minimum of (2) coats of paint, (1) shall be a zinc based epoxy primer, and (1) coats of finish paint.

COLOR: Trailer, toolbox and landing gear shall be construction yellow, wood not need be painted. Wheels can be white, black, yellow, silver or argent. Conspicuity per EQN-127A. The undercarriage shall be painted either yellow or black.

Option: Paint Penn Dot yellow. Reference DuPont F9885, PPG 85246, Sherwin Williams 73266 and NAPA 73266 shade only.

RUNNING GEAR, TIRE SIZE, HUBS:

As required to meet net – 16,200 LB payload capabilities.

WHEELS: One piece rims. (Mobile home type wheels are unacceptable). There shall be one spare wheel and tire assembly, mounted on a lockable bracket assembly (not to interfere with useable deck space). Wheels shall be properly sized within all requirements and ranges to meet the specification.

SUSPENSION:

Slipper spring with equalizer, or rubber bushed.

AXLES: Tandem axles shall be rated as (2) 8,100 LB. (minimum). All axles, if applicable, shall be equipped with EZ lube system.

BRAKES: Hydraulic surge brake system properly rated for GVWR. Brakes shall be “free backing” (per Dico, or equal). Ref: EQN-84

OVERALL WIDTH:

81 inches of useable deck.

DECK HEIGHT:

Top of deck to ground, 34” maximum height.

DECK LENGTH, MIN:

4 feet of stationary 16 feet tilt deck 2 feet of tail (ramp).

SPECIFICATIONS

M-57-FJ-L

I. GENERAL TRAILER SPECIFICATIONS: (Continued)

B. TRAILER COMPONENTS: (Continued)

LANDING GEAR:

Properly rated and capable of swinging back or up for travel. The landing gear shall be centerline mounted.

TOOL BOX: Steel toolbox mounted in the tongue area, lockable, not to interfere with trailer operation.

ACCESSORIES:

(4)-way lug wrench and four (4) .3750 inch x 10 foot grade 70 transport tie down chains and .3750 inch ratchet screw type binders. All items to be stored in toolbox.

OTHER FEATURES:

Hi-strength low alloy steel mainframe.

\*NOTE: A decal stating, "(MLWR) Trailers actual load carrying capacity is \_\_\_\_\_" shall be posted on the trailer in minimum 1 inch lettering.

"Tire Pressure \_\_\_\_\_" shall be stenciled in close proximity to the tires (both left and right side).

A metal identification tag stating manufacturer's information, model number, serial number and date of build shall be mounted within the tongue area.

All pivot points shall be of the "heavy duty" design and shall incorporate easily accessible zerk fittings. Zerk fitting location/s shall be stenciled on the trailer.

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M-57-FJ-L

II. DRAWINGS:

EQN-80A	dated	Rev.	11-12-09	1 sheet	WIRING DIAGRAM
EQN-84	dated	Rev.	05-16-07	1 sheet	TRAILER, FRONT END SPECIFICATIONS
EQN-127A	dated	Rev.	01-02-09	1 sheet	CONSPICUITY TAPE STRIPING REQUIREMENTS

The above referenced drawings shall become part of these specifications. These drawings reflect the intent of the Department. Any discrepancies shall be resolved at the Pre-build meeting between the vendor and the Equipment Division.

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

SPECIFICATIONS  
M-57-FJ-L

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

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IV. TRAINING

Mechanic:

The successful vendor shall provide services of qualified factory trained technicians for not more than   0   training sessions of not more than   0   hours at   0   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   0   training sessions of not more than   0   hours at   0   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 Equipment 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 Equipment 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.

V. WARRANTY:

Per PCID No. 1075