MINIMUM SPECIFICATIONS FOR SOLID WASTE TRANSFER TRAILER(S)

MINIMUM TECHNICAL REQUIREMENTS FOR AN ALUMINUM COMPOSITE OPEN TOP TRANSFER TRAILER

Bidder shall complete each item with either a check mark "____" to indicate the item being bid is exactly as specified, or on the line provided to the right of the item number indicate "SEE ATTACHED LETTER" to indicate any deviation of the item being bid from the specifications. IF EXCEPTIONS ARE MADE TO THESE SPECIFICATIONS, BIDDER MUST STATE IN DETAIL HOW THE VARIED PROPOSAL MEETS OR EXCEEDS THE REQUESTED SPECIFICATIONS. RESPONSE MUST BE ON BIDDER'S LETTERHEAD AND ATTACHED TO BID. ANY BIDDER NOT COMPLYING WITH THIS REQUEST MAY BE SUBJECT TO REJECTION OR CONSIDERED NON-RESPONSIVE.

ITEM: 1. EQUIPMENT:

Min/Max of ___ current year and model production, semi-trailer(s) with the following minimum specifications.
reserves the right to purchase for one year from the award date additional transfer trailers at the stated bid price. Either or the successful bidder may cancel this option for additional transfer trailers at any time during the period in which it is in effect. Any additions, deletions, or variations from these specifications must be noted.

Any standard items listed in the manufacturer's regular published specifications furnished by the offeror are assumed to be included in the offeror's proposal. Any additions, deletions or variations from these specifications must be described in an attached letter.

ITEM: 2. APPLICATION:

These trailer(s) shall be used in refuse disposal operations. The unit(s) shall operate on paved streets & freeways as well as unimproved roads at landfill sites. The truck and semi-trailer combination shall be configured to carry the maximum payload permitted under law (80,000 GCVW).

ITEM: 3. CODE COMPLIANCE:

The unit(s) shall comply with all Federal and State of standards for highway use trailers which are in effect on the date of delivery.

Each unit shall have capacity and identification plates with a statement that the trailer complies with all applicable Federal and State laws and regulations relating to motor vehicle operations, safety, noise abatement and emission control.
ITEM:  4. MODEL:
New current model tandem axle semi-trailer(s) shall not be built-up from a lighter unit to comply with these specifications.

ITEM:  5. GROSS COMBINED WEIGHT:
The allowable gross combined vehicle weight rating (GCWVR) shall not be less than 80,000#.

ITEM:  6. DIMENSIONS:
A) Overall Length:  48'

B) Overall Width:  98" Front, 102" Rear 4" Taper

C) Overall Height:  13'4"

D) Interior Length:  47'6"

E) Interior Width:  92" Front, 96" Rear 4" Taper

F) Interior Height:  104" Front, 115" Rear 11" wedge

G) Capacity:  126 cu. yd. minimum

H) Tare Weight:  Not to Exceed 18,000#

ITEM:  7. CONSTRUCTION:
A) Trailer shall be constructed of aluminum and steel. Sides are to be 5052H32 .125 aluminum with .125 aluminum posts on 15" centers. Posts to be huck bolted with .250 MGPT-R8-10 huck bolts and MGCR8UL collar on 8" centers where the sheets are seamed. Seams are to be single lapped with huck bolts on 4" centers. The side posts must extend down over the outside of the bottom rail not rest on top of it. Posts to be 2.5" body height; 6.5" body width; 1.25" flanges. Posts to have 70 degree front and rear flanges. 6 huck bolts shall attach each post to the bottom rail using MGCR8UL collars, 4 huck bolts attaching the posts to the top rail.

B) Bottom rail:  6.5 x 3.5 7ga formed channel 50,000# min. yield steel

C) Top Rail:  4" x 6" x .375" wall thickness aluminum extruded one piece.
D) Bulkhead: 5052H32.125 aluminum front sheets. 10" diagonal corners, 3 aluminum vertical posts on the exterior of the bulkhead. 1 aluminum horizontal reinforcement on the inside of the bulkhead. Bulkhead and posts to be huck bolted.

E) Cross members: 4" deep (minimum), I-beam. Weight 3.2# per foot on 12" centers, 80,000# minimum yield strength welded to bottom rails.

F) Sidewalls are to be huck bolted to allow for flexibility.

G) King pin: 1/4" DOMEX steel pick up plate with 1/4" pick up plate.

H) Cat Walk with railing: Across front of trailer extending 12" out, 42" below top rail with ladder to bottom of trailer, mounted on the curbside. Vertical ladder mounted on the bulkhead toward curbside to access cat walk.

I) Front Window: 9.5" x 9.5" expanded metal screen, window to be offset on drivers side, center of window should be 6" from center of bulkhead and 46" from 5th wheel plate to center of window.

J) Joints: Front top rail corners, rear header and middle cross bar to be flexible. (MUST BE BOLTED, WELDING NOT ACCEPTABLE)

ITEM: 8. SUSPENSION:
A) Hutch H9700 tandem 3-leaf spring suspension with H365-01 3-leaf low-arch spring, straddle mount hangers, reinforced to the frame. 25,000# per axle.

B) Axles: Meritor 25,000# capacity top-mounted 30-30 brake chambers. 5" round, 77-1/2" track. Automatic slack adjusters.

C) Landing gear: Fleetcraft J Model with 140,000# static load capacity, 50,000# lift capacity, round cushioned self leveling skid foot, driver's side crank. 78" stance.
(Suspension cont.)

D) Landing gear supports must be attached to a minimum of six (6) crossmembers. Landing gear supports shall be fabricated from 10 gauge 50,000# minimum yield steel. Each support to have a minimum of 7.5 square feet of material. Cross and diagonal bracing shall be 3" channel bolted to landing gear. Landing gear to have extra weld on brackets on the lower outside tube and bolted to the landing gear supports.

E) King pin to center of landing gear: 108"

F) King pin to center of rear axle: 41'6"

G) King pin standard SAE with 36" setting

H) Main subframe: 4"x8"x3/16"x23', 50,000# minimum yield tubular steel, welded to each crossmember and gusset every other crossmember. The drive unit to be placed in between the subframes and welded securely.

I) Rear Bumper Assembly: 7 gauge, 50,000# minimum yield steel. Bumper shall be formed of one piece construction with no ledges for product hang-up.

J) Push Bumpers: Two(2) 4"x8"x.250"x24" mounted vertically and attached directly to the subframes. The push bumper shall extend approximately 5" behind the rear of the trailer. Bumpers shall be adequately welded and braced to withstand pushing from landfill equipment.

K) Tow Hooks: Two(2) tow hooks, 1.25" C1018 round material, extending behind the back of the bumper assembly approximately 6". Tow hooks to have a 4" opening between the legs. Tow hooks to be welded directly to the main subframes sufficiently to withstand towing from the rear by landfill equipment.

ITEM: 9. BRAKES:

Air operated. 16-1/2" x 7" S-cam type on both axles. Q-Plus brake shoes with non-asbestos lining. Automatic slack adjusters. Must comply with FMVSS 121.
ITEM: 10. TIRES AND WHEELS:

A) Tires: (8) Yokahama RY023 255/70R22.5 Load range H 16 ply.

B) Hubs: Aluminum, 10 Bolt Unimount, Centrifuse outboard mount drums.

C) Wheels: 8.25 x 22.5 Unimount steel.

D) Spare: Supply (1) one extra tire and wheel mounted. Shipped loose in trailer.

ITEM: 11. REAR DOOR:

5052H32 .125 aluminum single swing rear door. 4" x 4" x .250 aluminum frame with .125 aluminum sheets. (3) vertical aluminum posts huck bolted to the rear door. (2) inside vertical braces. Single swing with curbside hinges, 5 sets of hinges, hinge straps to be 3/4" x 4" flat welded to vertical tube. Hinge assemblies to be greaseable. (3) heavy duty door locks with door latch pins that do not stick out from the side of the trailer when the door is open. Door locks to be operated by a lever located at the side of the trailer. Door locks to have grease fittings also. Door to swing 270 degrees and lay flat against the trailer side when opened. 5/16" H.D. retainer chain to hold the rear door open and to be used as a safety retainer when the door is closed. Rubber contact bumpers between door and trailer body. Tail lights installed in door. Aluminum rear ladder mounted too door.

ITEM: 12. LIGHTS AND REFLECTORS:

I.C.C. approved, rubber mounted, 12 volt LED. Stop and tail lights: Truck-lite 44302R Turn and tail lights: Truck-lite 60275Y mid-trailer side turn indicator. Marker and I.D. lights: Truck-lite 3025OR & 30385Y LED with 30721 Branch deflector mount kit. Complete system to be a sealed wire harness. Rear lights (stop, tail, turn, identification) installed in rear door. All lights, reflectors, and reflective striping to be in compliance with FMVSS 108. Tail lights to be installed in rear door. License plate to be mounted on rear door with light.
ITEM: 13. PAINTING (state colors available):

A) Surface preparation: All steel surfaces to be painted shall be cleaned of all mill scale, rust, spatter slag, or flux deposits, oil, grease, dirt, or other foreign matter. All steel surfaces must be sandblasted prior to painting. All steel areas to be painted prior to installing the aluminum side sheets and posts.

B) Paint application: The paint shall be applied in dry, dust-free conditions and in temperatures above 65 degrees F. All edges, corners, crevices, and joints shall receive special attention for thorough cleaning and adequate paint thickness.

C) Prime coat: All metal surfaces, interior and exterior, shall be clean and dry. Metal surfaces shall have one coat of epoxy primer applied to obtain a minimum thickness of 1 mil. per coat.

D) Under structure: Crossmembers and subdeck tubing primed before the flooring is installed.

E) Finish coats: All steel surfaces of the trailer shall have two (2) coats of polyurethane enamel, # Aluminum Metallic applied in accordance with the manufacturer's recommendations and shall have a minimum dry film thickness of 1 mil. per coat. Aluminum sheets will be left natural.
ITEM: 14. HYDRAULIC ACTUATED FLIP TOP COVERS:

A) Hydraulic opener shall have an assembly installed as a separate unit of the trailer. (No chains, sprockets, gear boxes, or cables.) Two (2) hydraulic cylinders mounted horizontally on a separate frame. The frame is to be bolted to the trailer (not welded). Each cylinder rod connected to a pivot arm. On the end of the arm, a shaft and roller that travels in a track fastened to the covers. All pivot points shall have grease zerks. The covers will open 270 degrees to lay against the outside trailer sides. There shall be contact bumpers, three per side, mounted on the trailer sides. Operation of the covers shall not open any faster than 16 seconds.

B) Spool Valve: The valve for the opener shall be a dual (2) spool valve capable of operating the flip top covers with primary flow control. The flip top opener and the unloading system shall have the ability to operate simultaneously without assistance from any other valves. The valve shall be adjusted at 1,200 psi. The valving shall be located on the front driver's side corner. The hydraulic hoses for the opener shall be 1/4" double braided wire with tube clamps securing them to the trailer. The opener and the covers shall be painted prior to installing the mesh and mounting to the trailer.

C) Frame is to be made in four sections (front right, front left, rear right, rear left) and clamped together at the center of the trailer to obtain two halves. Sections made from 1-1/2 x 1-1/2 x 11 gauge steel tube with a 50" diagonal tube brace in each corner of each section. There shall be 2 out right supports per section to help support the mesh and a 3/16" coated cable tying each section together and supporting the mesh.

D) There shall be ten (10) hinges per side. Each hinge assembly shall consist of two (2) 1/4" x 2" outside knuckles, one (1) 1/4" x 3" inside knuckle, one 3/4" x 8" pin. Each inside knuckle shall be equipped with a grease fitting. Each Pin shall be secured by a .250" roll pin.
E) Cover Material: Protex material #HN1260L-80
60" wide mesh with a minimum overlap in the
center of the trailer on each side of 10". The
mesh shall be fastened to the framework every
6" to 8" with cable ties.

F) Bidder to furnish Technical information
on the hydraulic flip top opener and covers,
literature, and engineering drawings. The
system must be proven and accepted for operating
in the Solid Waste Industry. Bidder to submit
references of 4 users of this type of system.

G) Bidder to supply extra replacement mesh
for each trailer, and 250 - 3/16"x15.5"
heavy duty cable ties.

ITEM: 15. WALKING FLOOR:

KEITH hydraulic operated, two-way system,
center frame drive, Keith Running Floor II, DX11
with no hydraulic hoses. Available from Keith
Manufacturing Company, PO Box 1, Madras, Or 97741.
Phone #800-547-6161

A) The walking floor unloader is to have
(24) #2301 CWS actuated aluminum floor extrusions.
Each extrusion must have a slot to accommodate
#1212 floor seal.

B) Each floor extrusion must be secured to
the drive mechanism with (6) min. 5/16" x 1"
grade 8 allen head, counter sunk bolts, and
self-locking nuts. Bolt plates to be welded
to the floor slat.

C) The hydraulic cylinder shafts must be
attached to the frame with (8) 5/8" bolts,
and will remain stationary. The 2" x 6"
cross drives are to be clamped directly to
the hydraulic cylinder and must be removable,
independently, for service.
D) The floor extrusions must be supported at each crossmember by 24 high density plastic bearings. Each of these must have 15.45 (minimum) square inches of bearing surface. 10.42 square inches on top between floor extrusion and bearing mount. 5.03 square inches at each side of lower portion, providing bearing surface between the lower foot of the front extrusion and the cross member shall be 2.0 (min) inches in length.

E) Each of the 24 moving floor extrusions With 1” x 1” stock bar at rear of the trailer. Splash bearings over wheels

F) Hydraulic system shall be powered by PTO driven hydraulic pump, mounted on the tractor transmission. Pump rating to be 45 GPM at 1500 RPM at 3,000 psi. Hydraulic components shall meet requirements of manufacturer of walking floor. Hydraulic wet kit not included in the bid.

G) Hydraulic Couplers: Aeroquip Model, Pressure - 5602-16-16S; Return - 5601-16-16S. Couplers to be mounted in the center of the bulkhead approximately 24” above the 5th wheel plate. Couplers to be welded to removable plate bolted to the bulkhead. Lines to be labeled "Pressure" and "Return". 0-5000PSI liquid filled gauge installed in the pressure line directly behind the quick coupler.

ITEM: 16. TECHNICAL DRAWINGS:
Bidder shall submit the BID with drawings displaying the trailer body construction and design, including side, front, rear, and top views. All views shall show general dimensions. Drawings shall also be submitted for the Hydraulic Flip Top Cover System.
ITEM: 17. SERVICE;
   A) One parts and one service manual each.

   B) Name and location of nearest dealer authorized
to supply parts, service, and warranty claims:

   Name:

   Address:

   Contact/Phone #: 

ITEM: 18. WARRANTY:
   Describe the warranty supplied by the manufacturer:

ITEM: 19. List a minimum of four of your transfer trailer
customers we may contact for reference.

1. ___________________________  2. ___________________________

3. ___________________________  4. ___________________________