



**Wilkes County Health Department &
Wilkes Community Health Center**

Promoting health and preventing disease in our community

September 2, 2020

To: Vendors

From: Wilkes County Health Department

Re: Request for Bids

Wilkes County Health Department is requesting sealed bids on a 2021 or higher Mobile Health Clinic. Sealed bids will be accepted on or before September 18, 2020 by 2:00 pm. All bids need to be mailed or delivered to Wilkes County Health Department, 306 College Street, Wilkesboro, NC 28697 and attention: Rachel Willard/Mobile Health Unit Bid.

The following specifications are listed in the attached packet. Please list any specifications not met and explanation as to why specification cannot be met.

If you have any questions or concerns, please contact Lindsey Roberts at 336-651-7469.



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VEHICLE, GENERAL SPECIFICATIONS

The van will be constructed on a new, unused 2021 or newer Freightliner model M2 106 chassis, with specifications listed below under 'Front Cabin Specifications'. On the rear of the chassis, the successful vendor will place a new, unused 30 ft. long van body (plus storage area appended to front of rear cabin), with specifications listed below under 'Rear Cabin Specifications'. The driver cabin (front of van) and the van body (rear of van) will be separate from each other. In other words, patients in the health unit shall not be able to see any of the driver compartment from inside the rear van body. See enclosed sketch of the specified interior.

DIMENSIONS OF THE COMPLETED VAN

The total length of the van, including both front driver cabin and rear van body cabin, shall be nominally 40 feet, except for mirrors or other specified appurtenances to the length of the van. The width of the van shall not exceed 8½ feet, except for mirrors or other specified appurtenances on the side of the van. The overall height of the van is to be no more than 13 feet 2 inches. The interior ceiling height of the van body (rear cabin) shall be nominally 8 feet 0 inches. The interior width of the van body (rear cabin) must be a minimum of 7 feet 11½ inches, except for cabinetry specified.

BASIC LAY OUT [FLOOR PLAN] OF THE COMPLETED VAN

As a bidder on this design-build contract, you must provide us a detailed floor plan, including all equipment specified and placement thereof, that best presents your company and production skills. Your drawings, which must be to scale, will be judged for their completeness, their appropriateness to our goals for the mobile unit, and their general professionalism. At a minimum, you must provide detailed scale elevations of the unit that you propose, and a completely detailed scale floor plan, including cabinets, exam equipment, etc., as outlined below. Here is a rough floor plan from which you can design your own precise floor plan for our analysis: *[not to scale]*



SAFETY OF MATERIALS

The vehicle must meet or exceed Federal Motor Vehicle safety standards. Bidders should submit a listing of any other safety features included with their vehicle.

FRONT CABIN SPECIFICATIONS

(number preceding description is quantity to be supplied with the completed van)

Base model Freightliner M2 106

(number preceding description is quantity to be supplied with the completed van)

To include the following, at a minimum:

EACH	ITEM	DETAILED DESCRIPTION, IF ANY
1	12 volt electrical	Outlet for 12-volt appliances.
1	Air cleaner	Dry-type standard filter element
1	Air compressor	Sized for suspension and braking systems
1	Air conditioning	With integral heater and defroster, and fresh air filter



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EACH	ITEM	DETAILED DESCRIPTION, IF ANY
1	Alternator	160 amp, brushless 12 volt, pad-mounted
1	Axle, front	I-beam type, 12,000 lb. capacity
1	Axle, rear	Single reduction 21,000 lb. capacity
1	Base model	M2 106 SBA 4X2 cab to include DOT approved clearance/marker lights; standard premium interior amenities; driver and passenger seat belts; driver/passenger interior sun visors; gauge cluster in English with English electronic speedometer including odometer and standard diagnostic display.
1	Batteries	Dual maintenance-free 12-volt 2,250 cold cranking amperes total. Additional third battery for generator operations.
1	Battery, redundant switch system	Include a special switch that allows vehicle battery to start generator, or generator battery to start vehicle.
1	Block heater	Sized to match engine
1	Brake, retarder	Off/low/high compression, exhaust-type
1	Brakes, air	Antilock 4-channel air brake system with air compressor with standard manufacturer configuration and equipment sized to vehicle GVWR, engine size, axle, and suspension.
1	Bumpers	Full width DOT-compliant, aerodynamic chrome plated steel. Rear bumper to be DOT-compliant steel.
1	Cab, conventional	106" BBC flat roof aluminum
2	Crossmembers, after-frame	At least two after-frame cross members.
1	Electrical system	12-volt standard configuration with OEM custom fuses and equipment installations.
1	Emissions	Federal emissions requirements for all 50 states
1	Engine, diesel	Cummins ISL high torque diesel engine 300 hp @ 2,000 RPM, 860 lb-ft torque @ 1,300 RPM, with all auxiliary equipment required for the vehicle's GVWR, engine size, axle and suspension capacity.
1	Exhaust system	Exhaust system to be single horizontal stainless steel muffler standard to manufacturer specifications and meeting federal emissions requirements for all 50 states
1	Frame rails	Frame rails made from heat treated alloy steel (120,000 PSI yield strength); standard maximum overall length, plus any necessary frame extension for body length according to acceptable vehicle manufacturer specifications.
2	Fuel tanks	Rectangular twin tanks, aluminum, totaling 92 US gallon total capacity plus 6 gallon diesel-exhaust fluid (DEF) capacity, mounted under cab left and right sides.
1	Glass, window	All windows to have tinted glass
1	Grille and hood	Chrome finish grille, with insulation and splash panels under front tilting hood.
1	Gross Vehicle Weight Rating (GVWR)	33,000 lbs.
2	Headlights	Headlights on with wipers, with daytime running lights
1	Horn, electric	Dual-electric
2	Mirror, power with heated heads	Dual west-coast heated mirrors with convex mirrors under primary mirrors
1	Paint	Paint is one-color solid white
1	Radiator	Aluminum radiator system sized to meet standard for the vehicle's engine.
1	Radio, driver	According to manufacturer standard.
1	Safety kit, in cab, DOT triangle, flares, and extinguisher	Kit to meet Federal Motor Carrier Safety Administration regulation 393.95 for emergency equipment on power units, including three 17 in. safety triangles and fire extinguisher in metal case.
1	Seat, driver, air suspension	Manufacturer's standard air suspension high back driver seat with 3-point lap and shoulder belt.
1	Seat, two-man passenger	Passenger seat with integral headrest, vinyl covered with fixed back, including 3-point lap and shoulder belts
1	Steering, power	Power steering with tilting steering wheel
1	Suspension, front	Suspension to be tapered leaf with 12,000-lb capacity; with shock absorbers
1	Suspension, rear air ride	Single-axle ride-optimized suspension, 21,000-lb capacity, with shock absorbers
6	Tires	Six commercial-grade radial tires sized to vehicle GVWR, axle, and suspension capacity.
2	Tow hooks, front	Frame-mounted tow hooks
1	Transmission, automatic	Automatic transmission standard manufacturer sized to match engine.
1	Trim, premium	Trim to include all items noted in the Freightliner Premium trim package.
1	Wheelbase	285.00 inches, cab-to-axle 219.00 in., axle-to-frame: 140.00 in.
1	Wheelbase	Wheelbase range, 238" through 311", six inch intervals



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EACH	ITEM	DETAILED DESCRIPTION, IF ANY
6	Wheels	22.5x8.25 painted steel, 10-stud hub piloted
2	Windows	Power, with power locks on left and right doors (may de-activate with burglar alarm).
2	Wipers, windshield	Standard manufacturer configuration

REAR BODY SPECIFICATIONS

Framing for the body, underbody and roof shall be constructed of steel and aluminum sections. Steel structural members shall be arc welded or riveted and reinforced at joints to fulfill the dynamic and static loading requirements specified herein. Where splices are necessary, they shall be designed to avoid stress concentration. Splice welds shall be continuous. Welding material shall be compatible with the material being welded. Structural member shall be designed to accept the loads imposed by the factors specified. Additional structural members shall be furnished to reinforce door and window openings, the expandable side room opening and other openings.

CROSSMEMBERS

Four inch high-tensile I-beams. 80,000 PSI min. yield on 16 in. centers. Attached with four ¾ in. grade 5 cadmium plated steel bolts. Extra wide 5 in. steel end clips welded to cross members and separated by .020 thick Formica plus Mylar electrolysis barriers between cross members and aluminum lower rail.

DOOR FRAMES, EXT.

Exterior door frames to be made from formed 2 in. by 3 in. 1/8 in. thick aluminum tubing.

FLOOR, GENERAL

A composite floor system consisting of a 1 in. thick polyester-fiberglass mix, with three 5/16 in. diameter heat-treated torque head screws per 12 sq. in. including edge boards on an alternating flange.

FLOOR, STORAGE

A fiberglass reinforced composite floor system in the storage area with 800 lb. storage capacity. Use 54 in. galvaneal and aluminum posts welded at top and bottom, riveted to outside panels with 3/16 in. rivets.

SIDE RAILS

Lower rails are to be riveted with solid buck rivets on 2 in. centers into blade-style heavy duty extruded aluminum 6061-T6. Upper rails are to be riveted with solid buck rivets on 3 in. centers into blade-style heavy duty extruded aluminum 6061-T6.

WALL PANELS

.050 thick aluminum pre-painted white panels attached on 2 in. rivet centers at the lap using 3/16 in. solid rivets, ¾ in. wide weather sealant closed cell PVC foam tape installed at panel laps prior to rivet attachment, in order to provide a barrier between aluminum and steel posts, plus preventing leaks in rivet hole attachments and panel lap joints. Aluminum drip rails over each exterior door, riveted on each end.

SIDE POSTS

Aluminum post construction with 1-1/8 inch square Z-posts on 16 inch centers. Each Z-post is fastened to top rail with three ¼ in. diameter solid aluminum squeezed rivets and into the bottom side rail with three ¼ in. dia. solid aluminum squeezed rivets.

MUD FLAPS

Polypropylene anti-sail, secured to underbody.

REAR BUMPER

A bend and twist resistant ICC 4 x 4 inch bumper tube, braced to upper subframe.



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TOP RAIL Extruded aluminum 6061-T6. Shaped to protect clearance and marker lights.

ROOF BOWS Anti-snag bows on 24 in. centers, 1 in. deep, with one extra at nose for added strength. Attached with ¼ in. solid aluminum squeezed rivets.

ROOF .040 ga. aluminum, must be one-piece, stretched for tension longitudinally and laterally and bonded to roof bows with silicone urethane compound formulated to be a high strength, elastic, carcinogen-free sealant adhesive. Perimeter of roof sheet is sealed, riveted on 1½ in. centers and sealed to top rail to prevent water penetration.

AIR & ELECTRICAL SYSTEM Wiring and plumbing to be harnessed and routed parallel to frame rails. Provide maxi-fuse blocks for 12 volt system, with snap terminals and triple rib rubber seals to prevent corrosion. Electrical lines to be enclosed in protective sheathing section to resist damage and facilitate ease of maintenance and replacement.

PAINT Body side walls are pre-painted oven-baked white enamel. Other painted surfaces are coated with premium grade, non-hardening rust preventative coating.

LIGHTS, SIDE & REAR All sealed beams, recessed combination stop-tail, back-up, and directional. Marker: recessed upper front corners and upper side center for ease of maintenance.

INTERIOR WALL SYSTEM All interior walls are to be constructed using the following method: erect min. 1 in. aluminum channel frame, into which place sheets of non-porous, 3mm thick white closed-cell plastic wall covering over 5/8 in. CFC-free urethane foam inner wall, then covered in the back with another layer of 3mm thick white closed-cell plastic for added strength.

REAR WORKING CLINIC AREA SPECIFICATIONS

(number preceding item description is quantity to be supplied with the completed van)

Each	Item	Detailed Specification
1	REAR CABIN	Manufactured from aluminum or steel, not plastic. Exterior side panels are to be buck riveted to side wall structural members. No bonded or laminated fiberglass exterior wall systems are acceptable. Body framing structure shall include at a minimum the following: The street-side and curbside outermost longitudinal members at the roof level shall extend the full length of the health van and shall be utilized to join full width roof bows. Vertical members, consisting of corner and intermediate posts, shall be inserted between and employed to combine the roof structure to the bottom frame; The corner sheets shall be one-piece .035 inch steel, with 4-6 inch corners without splice, between the storage floor structure and bottom frame. The intermediate posts shall be



Wilkes County Health Department & Wilkes Community Health Center

Promoting health and preventing disease in our community

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		continuous without a splice between the roof structure and the chassis frame except at the door and window opening areas. The intermediate posts shall be spaced on not more than 24-inch centers except different intervals shall be permitted at door and window areas.
1	Alarm, rear back-up	92 decibel intermittent alarm, activated in reverse gear.
1	Cabinet, waste drop	Countertop with 6-inch diameter opening to be used to drop waste in to container below. Solid surface lid to be fabricated to cover opening when not in use.
1	Cabinets, Midmark	<p>All casework must be able to pass Joint Commission standards for sanitation and workmanship. Provide healthcare casework which has been manufactured, fabricated and installed to withstand the medical environment and maintain manufacturer's warranted performance without defects, damage, or failure. Each cabinet, upper and lower, must be completely interchangeable to provide either drawers or adjustable shelving, as desired by the Department. Department personnel are to select casework, and colors for cabinets, from items currently manufactured. Casework shall be metal, modular, with each unit being an individual, interchangeable, integral part of assembly for making up desired casework unit. Each sectional unit shall be rigid and depend on no other component part of complete assembly for its rigidity. Internal components such as drawers, glides, shelves, etc. shall be modular and interchangeable.</p> <p>Finish/Color: premium quality powder coat, baked-on epoxy; pearl grey color. Cabinet: 18 gauge cold rolled steel shell; 16 gauge cold rolled steel bottom frames. Deep drawer construction: One piece molded polystyrene drawer bodies with rounded corners; manufacturer's color coordinated with cabinet color. Slide: 88 lb. capacity and heavy duty 150 lb. capacity slide for drawer application. Pulls: Recessed and integrated front panel design, full length; clear snap-on handle with interchangeable vinyl color strips, and optional labeling system. Door construction: Front/Back: Melamine covered vinyl front; melamine back. Core: 45 lb. MDF board, 3/4 inch thick. Hinges: Manufacturer's standard, concealed, self-closing, 110° opening, nickel plated metal. Adjustable shelving: 18 gauge cold rolled steel, painted to match cabinet color; standard reinforced nylon support clips. Door locks: individually mounted, cam style lock or deadbolt orientation with removable lock plug; locks keyed alike. Drawers: central gang lock style orientation with removable lock plug; locks keyed alike. Vertical: Melamine, suede finish. Warranty on cabinetry/casework: repair or replacement, at manufacturer's option, of the parts or the products the defects of which are reported within the applicable warranty period, which must be five (5) years for all casework products and components including door and drawer fronts, casters, and electrical components such as task lights and cords. Three (3) years for task light ballast. One (1) year for plastic laminate top surfaces and accessories.</p>



Wilkes County Health Department & Wilkes Community Health Center

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1	Ceiling, acoustical	Minimum ceiling height of the acoustical ceiling is to be 7'11". No lower ceiling height will be accepted. No duct work or other equipment can intrude below 7'11". A ceiling grid system shall be suspended beneath the roof of the vehicle, constructed of a rigid grid designed for lay-in type ceiling panels having a nominal size of 24 inches x 24 inches. The grid panels shall be constructed of an acoustical vinyl textured face with a fiberglass substrate. The ceiling panel thickness shall be 5/8-inch with a minimum R-value of 2.6. The ceiling shall be supported adequately to have a hanging capacity of not less than 25 pounds on any one square foot of area. The ceiling panel color shall be white. The fiberglass channel ceiling grid system shall be white. The ceiling panels shall be Class C Fired-Rated in accordance with UL.
1	Communications, computer/router, provided by owner, contractor all instal. & wiring	Contractor to install Department's computers, routers, including wiring and peripherals.
1	Communications, computer, software by owner	Provided by owner. Software shall be either pre-installed on owner-supplied hardware, installed by owner after arrival of completed unit, or installed by owner (or manufacturer) at contractor's facility during the manufacturing process at owner's convenience and expense. Contractor does not install software items.
1	Communications, computer, wireless access point, w/ ext antenna	Wireless Access Point provides access capability to wireless local area networks (WLANs) within close proximity to the vehicle for corporate network resources, email, and the Internet. External antenna is included.
1	Countertops, solid surface	Counter surfaces shall be constructed from solid-surface acrylic resin composite without wood shimming. Matte or satin finish 1/4 in. thick solid surface countertop surface, with 1-3/4 in. solid surface edging, must be Class 1 (A) fire-rated, hospital-grade. Must be DuPont Corian or equal. No countertop laminates acceptable.
1	Desk, fold-down counter	Solid surface countertop with fold-down capability. 300 lb. capacity.
4	Door, interior & exterior (except whl chr)	EXTERIOR door to be fiberglass clad with dead bolt lock and window. Exterior door(s) are to be 32 in. wide by 80 in. high, 1-3/4 in. thick, manufactured from fiberglass reinforced polyester (FRP). Doors that are metal or wood with FRP face sheets are strictly excluded. A high-modulus FRP square or rectangular tube subframe with tubular midrail at lock height is to be within the door. Doors shall incorporate chemically-bonded, molded-in FRP edge strips for machining of hardware mortises. No mechanical fasteners allowed. The use or inclusion of aluminum or wood into stile and rail construction is not permitted. A minimum of 900 lbs of pullout strength is required for each hinge screw. Cutout for door window (8 x 30 in.) is to be totally enclosed by internal FRP stiles and rails incorporated into subframe. INTERIOR SWING-TYPE doors to be all-metal construction. All interior



Wilkes County Health Department & Wilkes Community Health Center

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		<p>doors, except accordion-type doors detailed below, shall consist of a frame, face panels and inner core. The frame shall be constructed of 0.10-inch minimum steel or aluminum with all fasteners of aluminum or stainless steel. The door shall be clad with smooth steel or aluminum face panels. The panels shall have an 18 gage (0.0478 inch) minimum thickness. The panels shall be rigidly connected and reinforced inside with vertical stiffeners. Top and bottom steel or aluminum ledger panels shall be welded to each face panel. The top and bottom panels shall have a 16 gage (0.0598 inch) minimum thickness. Each door shall be insulated with a non-moisture absorbent material to meet a noise transmission class of 20db(A), or greater. The door thickness shall be 1-3/4 inches, plus or minus 1/8 inch. The body structure of the vehicle shall be reinforced at the rough opening. Each interior door, except any accordion doors, shall be mortised and reinforced with at least 12 gage (0.1046 inch) steel at the hinge areas. The interior doors shall be equipped with at least three hinges, except accordion doors. The interior door(s) shall be provided with gaskets and be tightly fitted to insure a seal against the entrance of light and dust. Privacy, entrance or passage cylindrical locksets with lever handles shall be furnished for each door, as applicable. The locksets shall comply with the applicable Americans with Disabilities Act (ADA). All door hardware shall have a satin chrome finish. Each swing door shall be primed and painted as specified. INTERIOR ACCORDION door(s) must be manufactured with 5-ply laminated impact-resistant covers on both sides, with inner steel lining to deaden sound and increase durability. Adjustable lead carrier must keep lead post plumb with wall for tight acoustical seal. Carrier to be nylon-covered steel ball bearing type. Door covers must be completely replaceable without returning door to factory. Minimum sound transmission class 20db(A) or above.</p>
1	Electrical, healthcare wiring (NEC 517)	<p>The vehicle shall be equipped with a 120-volt, single-phase, 60-Hertz, 3-wire and a 240-volt, single-phase, 60-Hertz, 3-wire electrical system of sufficient ampacity to meet all the electrical loads imposed. The electrical system supply shall be from the on board diesel engine generator or the shore power cord. The system shall consist of the following: wiring, main distribution panel board, shore power system, branch circuits, receptacles, lighting and switches as specified herein. The vehicle shall be wired from the main distribution panel board, located in storage attic on straight-truck models, through armored cable or electrical mechanical tubing (EMT conduit). All wiring and cable conductors shall be stranded copper. Wiring shall be color-coded at junction boxes and at the main distribution panel board for identification purposes. The wiring shall be recessed within the body wall or ceiling, supported with straps, clamps and hangers having chafe-proof faces and so installed to prevent vibration. Wiring shall be of sufficient size and gauge to accept the loads imposed in</p>



Wilkes County Health Department & Wilkes Community Health Center

Promoting health and preventing disease in our community

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		operating the electrical system without loss of dielectric strength. Joints shall be threaded with connections at all lamps and junction boxes. Junction boxes shall be accessible for service and provided with junction box covers. The electrical installation and power distribution shall be in accordance with the National Electrical Code (NEC). A 120/240 volt alternating current, 3 wire, single-phase panel board shall be furnished. The panel board shall be rated for not less than 100 amperes. The panel board shall be equipped with at least 24 spaces for circuit breakers. Circuit breakers shall be of the plug-in type. The green wire and the white wire shall be separate and shall be identified. The panel board shall be equipped with main circuit breaker and bus bar, with a hinged door and flush cover. A branch circuit distribution diagram shall be furnished and affixed to the inside of the panelboard. A transfer switch or isolating safety system shall be installed to prevent an electrical overload from occurring by an accidental combination of the generator and the shore power systems. The isolation system shall have distinct positions to activate either power source, and an "off" position that shall disconnect all power. Receptacles within six feet of any water source shall be of the ground fault interrupter type. The receptacles shall be UL Hospital Grade Listed. Rating-20 ampere/125 volts. Type-2 pole, 3 wire. Each receptacle shall be recessed into the wall and enclosed in a galvanized steel box. The color of the receptacles shall be white. Each receptacle shall be provided with brushed stainless steel cover plate. Receptacle location and type is at the discretion of the contractor, in compliance with NEC, unless specified by owner. Owner-specific receptacle preference must be provided before construction begins.
1	Extinguisher, fire, in storage loft	Extinguisher to be ABC type, UL and ULC listed, 2¾ lb. suitable for temperature range -40°F to 120°F (-40°C to 49°C). Cylinder to be epoxy coated steel to resist corrosion, dents and punctures. Corrosion-resistant aluminum valve and handle with universal pictorial labels with operator instructions.
1	Floor mat, recessed	Slatted mat to be installed at entry door, recessed flush with tile floor. Mat to be removable for cleaning, with water resistant pan under mat to catch water drips from visitors' footwear.
1	Flooring, acoustical sub-floor	Sub-floor must be from structural polyester foam reinforced with fiberglass, laid flat across floor beams, then bolted to I-beams under floor. Minimum compression to be 1,252 pounds per square inch (psi); shear strength at 705 psi; and flex modulus at 69,850 psi. All ASTM testing methods.
1	Flooring, hospital-grade tile flooring	Finish floor of fire retardant, tile floor covering resistant to alkali, grease, and spills.
1	Freight & delivery charges	Unit must be delivered to Department location, FOB
1	Generator, compartment	Undercarriage compartment with generator mounted on high capacity slides for easy pull out maintenance or replacement.



Wilkes County Health Department & Wilkes Community Health Center

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		Sound isolation and rear and underside ventilation provided. Operation capable while in transit. Rear cabin sound levels less than 60db.
1	Generator, diesel, 12 kw	Generator to be 60 Hz, 120/240 volt, 100.0/50.0 amp single phase, computer-controlled constant speed operation. Special sound-control housing to enclose cooling system and muffler. Genset to produce 12,000 watts of pure sine wave electrical output, with 3-point mounting system to reduce vibration. Top-mounted switches and coolant level check/fill and automatic glow plug preheating. Self-diagnostic capability, with easily accessible maintenance points and switches. Noise level with maximum load is to be 68 dBA or lower inside vehicle. Weight to be 660 lbs. measuring 41.4 in. long, 24.5 in. wide, and 27 in. high. Engine to be 4-cycle, liquid cooled 3-cylinder 1,496 cc 23.1 hp diesel, with brush-type AC alternator, digital voltage regulation, bottom air inlet and outlet, integral enclosed muffler with stationary exhaust pipe connection point, USDA-approved spark arrestor, internal radiator, sound insulated cover with cooling air inlet and outlet ducts, intake silencer, heavy-duty air cleaner, maintenance-free electronic governor, fused DC circuits, automotive type starter, hour meter. To meet 1999 U.S. EPA and California emissions standards. Waterproof connector for remote operation, focalized mounting system, overvoltage, low oil pressure, overtemp, overspeed, and overload safeties. Bulkhead type connections for fuel and battery. Terminal block connection for AC output. Electric fuel pump, fuel filter, full flow oil filter, instant one-touch stop control system with microprocessor control. Integrated generator and engine control, user and service personnel accessible diagnostics. Insulation System: Class F per NEMA MGI-1.65 and BS 2757, insulating varnish conforms to MIL-1-24092, Grade CB, Class 155C. Performance to be as follows: voltage Regulation No Load to Full Load: $\pm 1\%$; Frequency Regulation No Load to Full Load: $\pm 0.1\%$; Random Frequency Variation for Constant Loads: $\pm 0.5\%$; Random Voltage Variation for Constant Loads: $\pm 2\%$; Maximum Operating Ambient: Efficient radiator cooling system to permit operation at ambient temperatures to 120 deg. F.
1	Graphics, exterior, custom vinyl Percentage of rear cabin coverage: <u>100 percent</u> Percentage of cab coverage (zero percent if cab accents only):	Department personnel to select a graphics package for the exterior of the van using 3M or Avery Dennison exterior grade vinyls. Body décor is to be rendered in a combination of premium exterior grade vinyl and/or paint. Four-color process printed vinyl is to be 3M Controltac Plus Graphic Film w/Comply Performance, number 180C. All printed vinyl must be coated with 3M Scotchcal luster-finish overlamine to provide outdoor graphics with protection against the elements, including UV rays. Solid color vinyl, if used, is to be vinyl film that is 2.0 mil opaque high-gloss high-performance cast film with 1.0 mil acrylic adhesive with liner of 78 lb. white bleached kraft. Some large color block areas of the design may be rendered onto the properly-prepared body sheathing in



Wilkes County Health Department & Wilkes Community Health Center

Promoting health and preventing disease in our community

Each	Item	Detailed Specification
	<u>100 percent</u>	automotive paint that is a fast-drying single stage polyurethane finish designed suitable for vehicle refinishing. Various preparation chemicals, such as hardeners and dry additives, can be used to prepare and cure the paint to a gloss finish. Allowance amount is an estimate, which may vary when actual graphics package is approved by owner. Exact lettering, size and layout shall be provided to the contractor within 30 days after award of the contract.
1	Height, rear cabin inside	8 feet, 0 inches nominally
3	Hook, clothing	Provide dual robe hooks for patient garments.
1	HVAC - air conditioning 3 ton wall mount modular	High efficiency commercial quality 3-ton air conditioning system. Unit to have twin multi-speed blowers and aluminum finned copper coils for maximum heat transfer and energy efficiency. Compressor must be Copeland scroll type. Built-in off-delay timer. Electrical components must be easily accessible for routine inspection and maintenance through a service panel opening with lockable, hinged access cover to the circuit breaker or pull disconnect switch. Unit to have 1-inch disposable air filter on inside of vehicle clinic.
1	HVAC - HVAC cowl	Aesthetic covering of sides and center of HVAC to expand graphics coverage on around HVAC systems. Maintains full access to HVAC units for maintenance and service.
3	HVAC - heating, diesel	Exterior self-contained, diesel-fired heating units. No roof-top blower air conditioners are acceptable. Each heating unit shall have a 9,000 BTU/h rated capacity. The unit shall be designed and constructed for use in mobile vehicle operations, mounted and insulated to prevent transfer of vibration. The system shall be furnished with under-cabinet heat diffusers to provide forced air heating from floor level when necessary. The system shall be provided with a rheostat for each heating unit.
1	HVAC - undercarriage heating system	Exterior self-contained, diesel-fired heating units; 9,000 BTU/h rated capacity. The unit shall be designed and constructed for use in mobile vehicle operations, mounted to prevent transfer of vibration. The system shall be furnished with heat diffusers to provide forced air heating. The system shall be provided with a rheostat for each heating unit.
1	Insulation, rear cabin, triple foam by Dow	Insulation shall be installed to fill the cavities in the walls and ceilings. Walls shall have a R-value of not less than 20; ceilings shall have a R-value of not less than 30. All insulation shall not support combustion or sustain flame, mold, rot, support vermin, corrode metals, absorb odors, and shall be essentially odorless. The insulation shall not disintegrate under exposed operational or storage temperatures, or settle and leave voids. Means shall be provided to drain condensation to the ground but not allow road splash to enter the insulation cavities. Fiberglass batt insulation shall not be used. The product to be used is a 5/16 in. layered insulation comprised of an outer aluminum foil shielding barrier, then an inner core of closed cell poly, and a third outer layer of foil. The layers are to provide



Wilkes County Health Department & Wilkes Community Health Center

Promoting health and preventing disease in our community

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		condensation, radiant and thermal barriers that excel over typical fiberglass batt or foam insulation.
1	Insulation, winterizing, underfloor	Insulation shall be installed in areas below the subfloor and below the floor of any expandable side rooms. The floor shall be undercoated with 2 to 3 in. of insulating CFC-free foam to R-15 or better. Insulation in these areas shall be spray-in-place urethane foam having a minimum thickness of 2 inches. Spray-in-place urethane foam insulation shall have a Class-A fire retardancy under ASTM test procedure E-84.
1	Landing gear, 4 pt. bi-axis, hydraulic push button	Stabilizing gear must be completely computer-controlled, with no joystick control, and able to be deployed and retracted with hydraulics, and no manual systems. Operating power shall be provided by truck engine on straight truck models and generator power on semi-trailer units. At no time will the gear allow a single leg to operate independently, but rather two legs will always operate in tandem, to avoid racking or twisting the health van. Provide safety lock-out of the system through the ignition system. The system shall automatically level the vehicle through the use of a built-in leveling light display. The system shall be capable of side-to-side and fore and aft leveling that keeps the vehicle within a common plane to minimize twisting. The system shall consist of the following: four hydraulic leveling jacks, pump, 12-volt hydraulic power unit, control panel, reservoir, hydraulic hoses, valving and fittings. The control of the system shall be from a single centralized location, which is protected from the weather. The jacks shall be of the single acting type with spring return. Two jacks shall be mounted on the front of the vehicle and two jacks shall be mounted on the rear. The jacks shall be equipped with self-leveling sand pads. The jacks and components, accessories, and attachments shall withstand, without damage and deformation, the combined static and dynamic forces due to the portion of the gross weight sustained. Each jack shall be mounted to mounting plates to resist forward and rearward thrust on the jacks. When placed in the travel position, the jacks shall remain positively locked. Clearance under the rear jacks shall be such that the jacks do not reduce the normal rear departure angle of the vehicle.
1	Lavatory, eye wash attachment	The stainless steel sink shall have an emergency eye wash attachment on the faucet. Attachment to be activated by turning on water at faucet and pulling actuator pin, with water pressure keeping actuator pin open for water flush treatment to eyes. Pipe and fittings are chrome-plated brass with high-visible dust caps. Unit to operate with varying water supply conditions from 30-90 psi.
4	Lavatory, w/towel, soap disp, mirror	Each stainless steel lavatory must be equipped with nearby stainless steel z-fold towel and liquid soap dispenser. Mirrors in exam and rest room locations.
1	Lighting, ceiling, rear cabin, LED	LED fixtures and track lighting must be supplied in accordance with Department personnel's wishes. Exact placement of the fixtures is to be approved by Department personnel with the vendor. The lamp fixtures shall be of the



Wilkes County Health Department & Wilkes Community Health Center

Promoting health and preventing disease in our community

Each	Item	Detailed Specification
		commercial recessed type, mounted into the ceiling and be flush with the ceiling. The light fixtures shall be switched at an easily accessible location in each room. All fixtures shall be securely anchored to prevent loosening or damage due to excessive vibrations caused by rough transit. Light fixtures shall be provided, in such numbers, that a light intensity of 50 foot-candles minimum at 30 inches above the floor is achieved everywhere in the vehicle, except in the storage loft.
3	Lighting, exterior, scene,	Provide high intensity light at location(s) specified by owner to illuminate parking area when van is on location at night.
1	Lighting, simulated sky light, 60 inch	Provide 60-inch round simulated back-lit sky scene.
7	Lighting, task, over counter	Provide task lights at each counter top location where overhead cabinets allow. Each built-in, flush mounted, 115-volt fluorescent task shall have a switch. A light intensity of 70 foot-candles minimum (with task light on) shall be required at each workstation.
1	Manual, operating	Full set of operating manuals for every major component on the van.
1	Microwave, for break time	850 watts, English/French/Spanish language conversions, child safety lock, digital display, adjustable power settings, auto reheat, auto defrost, specialty functions, 21-7/8" x 16-3/4" x 12".
4	Photo panels	High-resolution photos decoratively mounted to the wall. Photos sealed in clear acrylic frame.
1	Receptacle, 110 vac, exterior	At least two 110 vac receptacles, with complete weather protection, mounted undercarriage. Department to specify location.
1	Refrigerator, 2.6 cf-110vac	Refrigeration must be compressor-driven. No absorption units permitted. Minimum 2.5 cu. ft. under-counter refrigerator(s) for samples must be provided. Owner to specify location. Unit must run on 110 volt power, and match casework as specified above.
1	Rooms built with interlocking panels	Interior wall construction shall be custom-formed panels sandwiched between a 14 gauge extruded aluminum. Straight walls, without curved ceiling-wall junctions, must be provided to provide specified headroom. The wall panels shall be constructed of either .075 inch fiberglass reinforced plastic laminated to both sides of a 1 inch thick closed-cell expanded polystyrene foam substrate, or 3mm expanded PVC, laminated to both sides of a 5/8 inch CFC-free urethane foam substrate. The wall panels shall be held in place by a two-piece (base and trim) division bar system. The wall panels must be easily removable without cutting or damaging the panel. The system shall be designed so that no rivets, screws or fasteners shall be visible. The division bars shall be oriented vertically and spaced to support cabinets, doors and windows. An aluminum channel base shall be furnished to protect the wall panels. The wall panels shall have a matte finish; a gloss finish is not acceptable.



Wilkes County Health Department & Wilkes Community Health Center

Promoting health and preventing disease in our community

Each	Item	Detailed Specification
1	Seat, chair securement system	Wall-mounted chair hold down to secure chairs when vehicle is in transit.
1	Seat, custom bench, vinyl or fabric, double	Color/upholstery choices by Department. Floor mounted, storage underneath. Double seat (each 34" x 12" x 31").
1	Seat, custom bench, vinyl or fabric, single	Color/upholstery choices by Department. Floor mounted, storage underneath. Single seat (each 17" x 12" x 31").
1	Seats, drafting	Provided by owner
1	Seat, flip-up, vinyl or fabric, double	Color/upholstery choices by Department, fully seat belted to FMVS standards, floor mounted, sprung to store in upright position. Double seat (each 34" x 12" x 31") required. Department to select covering for seat(s) from either vinyl or cloth selections.
1	Shore power cord, 75 ft.	80 ampere, single phase, main shore power cable shall be provided with 100 amp rated connectors to power all rear cabin equipment. The electrical system shall be GFCI protected at every receptacle within 6 feet of a water source. The receptacles shall be weather-resistant. The cable shall be rated SO by the National Electrical Code. The wire gauge shall provide for a rating of 80 amperes minimum. The electrical panel in the health van shall be provided with an access door, latch and key lock and sized to contain the power cable.
1	Shore power, aluminum reel & box	A rewind reel to handle live electric cable shall be equipped with four-way roller assembly, large bending radius, and non-sparking ratchet assembly to lock the reel when the desired length of cable has been played out. A 100 amp 4-conductor collector assembly with wiring from the collector ring to the junction box. Brushes to be copper graphite with copper alloy rings. A cable stop shall be used to prevent damage to rollers and connectors and to permit adjustment of free cable length.
2	Smoke detector, battery	Provide battery operated DC voltage smoke alarm(s) so that vehicle is protected if electricity fails, provided the batteries are fresh and correctly installed. Unit to emit an 85 decibel alarm for an early warning of fire.
1	Stairs, entry, manual	Solid aluminum construction, with diamond plate stair treads with static coefficient of friction (COF) 0.70 wet and 0.80 dry. Tread surface to surpass ADA, NFPA, and OSHA requirements. No r.v. electric step systems allowed. Each stairway shall be constructed using aluminum channels and aluminum I-beam stringers to form the frame. The frame components shall be welded or bolted. The width of each stairway shall be a minimum of 33 inches. The stairway tread depth shall be 8 inches, plus or minus 1 inch. The stairway riser height shall be 8 inches, plus or minus 1 inch. The construction of the stairway shall be without riser panels. A portable step stand shall be furnished to mitigate against a non-uniform riser height between the bottom stairway step and the ground. Each step stand shall be min. 11 inches wide x 33 inches long x 3 inches (+/- 1 in.) high from ground. Each step stand shall be capable of supporting 500 pounds without permanent deformation or breakage. The top of the step



Wilkes County Health Department & Wilkes Community Health Center

Promoting health and preventing disease in our community

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		stand shall have a matching aluminum diamond plate surface. The weight of each step stand shall not exceed 15 pounds.
1	Stairs, handrail storage compartment	Solid aluminum construction with diamond plate door and locking system. Storage compartment to contain stair system handrail while in transit. The components of the compartment shall be welded or bolted.
1	Stairs, high-traction tread covers	Step covers are fit over existing steps. Slightly rounded for snug fit on Bull Nose leading edges of stairs. Doubles OSHA's 0.5 guideline and exceeds ADA's 0.6 measure for Coefficient of Friction values. Exceeds guidelines even in wet or oily conditions.
1	Storage compartment, undercarriage	Individual 3/16 in. thick diamond plate aluminum doors on the curbside and streetside of the vehicle shall be furnished to provide access to holding tanks and equipment. The doors shall be hinged at the top. Means shall be provided to positively retain the doors in the open position. Doors shall be provided with replaceable weather seals to protect materials stored inside from weather. Each door shall be equipped with recessed, paddle type latches and key operated locks. Latches and locks shall be stainless steel.
1	Undercoating, entire chassis	The entire underside of the body, including floor components, sides and panels below floor level and exterior compartments, shall be coated with fire-resistant and rust resistant material composed of asphalt, rubber, or other approved material applied by spray method.
1	Video, rear view system with in-cab monitor	High resolution rear vision system for wide field-of-view to facilitate backing and merging into traffic. On-screen distance grid to assist driver in judging distance. Camera must function in very bright to minimal ambient light, with field of view of 115 degrees horizontal and 84 degrees vertical.
1	Wall, slide out, level floor	Each expandable side room shall extend out at least 30 inches or more. The interior height shall be 76 inches minimum. Each expandable side room shall consist of a rigidly constructed single assembly consisting of front, rear and sidewalls, floor and roof; all integrated to form a 5-sided, self-supporting box structure. The expandable room floors shall be level with the rear cabin floor, plus or minus 1/8 inch. An automatically expanding and retracting awning shall be furnished to protect each of the expandable side rooms from rain and snow infiltration. A gasket and wiper system shall be installed to prevent rain and snow infiltration. The expansion and retraction of the expandable side room shall be by use of two systems, one by manual cranking from the exterior and the other by a hydraulic system.
1	Water heater, undercounter	Tank-type water heater. No in-line heaters.
1	Water level monitoring system	Remote readings on digital instrument pad for water levels in all tanks, in 10 percent increments.
1	Water tanks & pump, 50 gal. ea.	Potable water pump to be self-priming, thermally protected, and include check valves rated to 200 psi to prevent cycling and backflow. Pump must run dry without damage for up to 200 hours. The water tanks shall be of proper capacity listed,



Wilkes County Health Department & Wilkes Community Health Center

Promoting health and preventing disease in our community

Each	Item	Detailed Specification
		<p>with all internal plumbing lines to be rigid plastic pipe suitable for drinking water. All runs shall slope to low points to facilitate draining of the system. The runs shall be made in the sub-floor area to the maximum extent possible to minimize the risk of freezing. All other runs shall be freeze protected with a thermostatically controlled heating system. All drains shall be properly vented out to the side of the health van with louvered covers over the openings. The water supply system shall be designed and constructed to assure pure drinking water conforming to the following: National Sanitation Foundation International Standard 14 for ingredients, materials, products, quality assurance, and marking, National Sanitation Foundation International Standard 61 for taste, impurities and harmful chemicals in the system components. Freeze-stabile tubing shall be furnished to conduct water throughout the system. Tubing shall be in accordance with NSF, ASTM F876 and ASTM F877. All fittings shall comply with ASTM F877 and CSA B137.5. Tubing shall withstand freezing without leaking or breaking. Tubing shall have a rated working pressure of 100 psi at 180 degrees Fahrenheit. All tubing joints shall be easily accessible for repairs through access panels. The tubing shall be installed behind the finished walls or below the sub-floor. No visible tubing in public areas shall be permitted. All other tubing runs shall be protected with a thermostatically controlled freeze protection heating system with accessible test points for each circuit. All drain pipes shall be A.B.S or P.V.C rigid plastic pipes. Drainage pipes shall be pitched for gravity flow to final disposal. All drain pipes shall be installed behind the finished walls or below the sub-floor. No visible pipes in public areas shall be permitted. Drain pipes shall be properly vented out to the side of the vehicle with louvered covers over the openings. Each plumbing fixture that has a drain shall be provided with a water trap. The water supply system shall be designed so that all contained water in the potable water holding tank and associated tubing can be drained. Drainage of the waste water shall be through a 3-inch gate type dump valve. The vehicle shall be provided with a flexible sewage hose having a 20-foot length and a 3-inch diameter. The holding tanks shall be constructed of a corrosion resistant material. All holding tanks shall be securely mounted and supported. Tank level gauges shall be provided and located in the clinic area.</p>
1	Wheelchair lift, undercarriage	<p>An under-floor type wheelchair lift shall be furnished. The wheelchair lift shall stow under the clinic floor, leaving the doorway into the clinic clear. The enclosure shall protect the wheelchair lift from rain, snow and dirt. The wheelchair lift shall be constructed of steel and aluminum. The useable platform width shall be 30 inches minimum. The useable platform length shall be 45 inches minimum. Lifting capacity shall be at least 700 lbs. The wheelchair lift shall be hydraulic powered using a 12-volt direct current motor. A manual</p>



Wilkes County Health Department & Wilkes Community Health Center

Promoting health and preventing disease in our community

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		hydraulic pump back-up system shall be provided in case of electrical failure. The wheelchair lift shall have dual hand rails. Safety interlocks shall be provided to prevent operation of the wheelchair lift, when the wheelchair door is closed. The wheelchair lift shall be furnished with a four button pendant control. The wheelchair lift shall comply with the Americans with Disability Act requirements.
1	Wheels, deluxe chrome liners	Wheels are to be trimmed with stainless steel covers, DOT approved, so that exterior wheels have finished appearance.
1	Wheels, rear tire inflation extenders	Provide a 4-hose air system designed for easy access to both inner and outer dual rear wheels for checking pressure or inflating tires. Hoses to be protected by flexible braided stainless steel and mounted to valve stems and outer chrome liners. All mounting brackets to be made of 304L stainless steel.
4	Windows, safety glass	Sliding windows with screens shall be furnished in all openings except entry doors. Window assemblies shall be properly aligned with complete seals to preclude water leakage and wind noise from entering the health van. Sliding window operation shall be smooth, with a maximum force of fifteen pounds required to move the sash in either direction. Latch operation shall be smooth with positive locking latches. At least one streetside side window shall allow for emergency escape, by means of durable, heavy-duty release latches located on each side of the window and below the window centerline. The window construction shall include exterior sash drains to prevent the entrance or backup of water into the clinic area or sidewalls. Drains of sufficient size shall be incorporated at the bottom of each sash that will allow drainage of the interior condensation to the exterior of the mobile health van. Window openings shall have reinforced structural headers and vertical uprights around the perimeter to maintain structural integrity of the body. The window openings shall have reinforced structural headers and vertical uprights around the perimeter for additional strength. Each window shall be gray tinted tempered safety glass, integral gutter and water drain hole, and have a 31 percent maximum light transmission tint. Each window, except the entry door, shall have a top-mounted, pleated pull-down blind that covers the entire window.
3	Window, décor valance	Upholstered covers for blind mechanism add decorative element to rooms with windows. Color/upholstery choices by Department.

MEDICAL EQUIPMENT SPECIFICATIONS

(number preceding item description is quantity to be supplied with the completed van)

Each	Item	Detailed Description
1	Curtain, privacy, fabric, white	Exam privacy curtain must be mounted on ceiling rail to sweep across room between patient and doorway. Curtain must be removable for cleaning.



Wilkes County Health Department & Wilkes Community Health Center

Promoting health and preventing disease in our community

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1	Exam, table, general, Ritter 204	Ritter model 204 exam table with upholstery. Height to be 33.13 inches. Table length with foot rest extended is to be 76 inches. Patient load capacity 500 lbs. Table width: 28.5". Foot extension length: 19.75". Paper roll storage for one under the pillow with storage for 4 rolls under back section. Electrical requirements to be total unit rating 115 VAC, 60 Hz, 5 amperes, with hospital-grade duplex electrical receptacle, UL 60601-1, Can/CSA 601.1-M90, Standard for Safety CE Mark
1	Otoscope/ophthalmoscope, wall mount, Welch-Allyn	Wall transformer with handle-based rheostats for light-intensity adjustments; contoured; and ABS housing. Optical sensor must automatically turn handles on when removed from cradles. Internal halogen lamp to provide light output. Lifetime warranty against manufacturing defects. Coiled cords to carry 10-year warranty against breakage during normal use. Entire unit to conform to UL 544; CAN/CSA C22.2 No. 125.
1	Oximeter	Plus, MD300A, High resolution LCD display; Display SpO2, PR, Plethysmogram, Pulse bar ; 24-hours record storage; Audible & visual alarm; battery-low indicator; Rubber jacket providing external protection; 4 AA Alkaline Batteries
1	Scale, adult, digital	Professional doctor's scale, with non-slip top, vacuum formed flat-form cover and 500-lb. capacity in 1/4-lb. increments.
1	Sphygmomanometer, w/cuff holder, Welch-Allyn	Unit to be manufactured with precision jeweled bearings; dial face individually laser-engraved white graphics on charcoal gray scale. Latex-free aneroid bellows to be phosphor-bronze with recessed dial to eliminate parallax. Must meet AAMI accuracy standard of ± 3 mm Hg. Built-in basket for storage of the inflation system, with 40° side-to-side swivel for clear viewing at all angles. Include one-piece blood pressure cuff, pre-treated with antimicrobial agent to resist bacterial growth. Luer lock to permit quick interchanges among various cuff sizes.
1	Stadiometer	Seca 2221814009
2	Stool, without back, pneu., MidMark 425	Provided by owner