

**STATE OF OKLAHOMA  
BID SPECIFICATIONS  
FOR REAR LIFT  
FULL-SIZE CONVERSION VAN**

**1. GENERAL DESCRIPTION:**

It is the intent of these specifications to set forth minimum standards for the procurement of a light transit vehicle that complies with Title 49 Code of Federal Regulations, part 38, subpart B, entitled "Americans with Disabilities Act (ADA) Accessibility Specifications for Buses, Vans and Systems". All dimensions and equipment shall comply with the standards as set forth within the 49 CFR. The vehicle shall be new, the most current production model available, and must be complete with manufacturer's standard equipment and accessories, fully serviced and ready for operation. The vehicle shall be equipped to meet all Federal Motor Vehicle Safety Standards and Procedures (FMVSSP) that apply. If these specifications contradict any listed in the Federal Regulations, they are superseded by those of the Federal Regulations

To take advantage of administrative and cost savings and to ensure that all federal requirements are met, this procurement is assignable to other agencies, organizations and Tribal Governments funded by the Federal Transit Administration.

**NOTE:**

**Any Brand names and specifications mentioned within this document are for reference only. Bids will only be considered when brochures/specifications are included for each component provided with bid for evaluation.**

**2. DELIVERY:**

Vehicle must be delivered at a maximum of 120 calendar days from the date a Purchase order is issued. Pre-delivery servicing and adjustments: prior to acceptance by the purchaser, the vendor shall service and adjust each vehicle for operation. This process shall include but not be limited to the following:

- The vehicle must have a full tank of fuel when delivered.
- Each bus shall be designed to facilitate the disassembly, reassembly, servicing or maintenance thereof by use of tools and items that are normal and available as commercial standard items. The body and structure shall be designed for ease of maintenance and repair.
- All parts added, as part of the modification process shall be new.
- Headlights properly aligned
- Engine Tuned
- All accessories properly adjusted
- Electrical, braking and suspension systems inspected
- Both batteries Charged

- Front-end aligned, all wheels balanced, including spare
- All lubricants checked, and greased if needed
- Cooling system serviced with permanent type anti-freeze and summer coolant for minus 20 degrees F (-28.888C).
- Warranty papers and owner's guide
- Exterior and interior cleaned and washed.
- Odometer cannot exceed 3,000 miles at the time of delivery of completed buses to the purchasing agency. There will be a charge of one dollar (\$1.00) per mile for each vehicle with an odometer reading in excess of 3,000 miles payable to the purchasing agency at the time of delivery.
- Under no circumstances are tow vehicles to be attached to any buses.
- Each vehicle must be delivered to the agency submitting the P.O.

Copies of the all Certificate of Origins and signed invoices must be sent to the organization named on the purchase order before delivery is made and must be delivered with the vehicle: receipt of these after delivery is not acceptable

**NOTE:**

**If these specifications contradict any listed in the Federal Regulations, they are superseded by those of the Federal Regulations.**

**3. NO PROTOTYPES:**

Vehicle must be a current production Model type van that has been in Production for a minimum of one year.

**4. BODY STRUCTURE:**

Standard van body shall meet all stated specification. The vehicle shall be reinforced such that the structural of the basic van is not degraded.

- Absolutely No cutting, Welding, or drilling will be allowed on high strength chassis structure such as Structural high strength Boron Steel.
- Vehicles shall meet all applicable requirements of the Americans with Disabilities Act (ADA As set forth in CFR 37 and 38, issued September 6, 1991, with respect to the body.

**5. OEM CHASSIS FRAME AND BODY:**

Ford Transit T350-HD Extended Long Wheelbase Wagon with Dual Rear Wheels or Approved Equal. With Deluxe Interior and Exterior trim (XLT Package)

**6. DOORS:**

Vehicle must have a Bus Style Entry Doorway with Dark Deep tinted privacy glass on Bus Doorway.

- A Bus Style Entry Doorway shall be included rear of the Curbside B Pillar.

- The Bus Style Entry Doorway shall be A & M Brand or Approved Equal.
- The Minimum Clear Entry Width Shall be 32”
- The steps shall be a uniform 9” deep and 9” tall and the first step shall be approximately 9” from the ground.
- The Left and right Vertical Sides of the Doorway shall be cut and fit to match the Contour of the Chassis body, protruding outward at the bottom only as necessary for the stepwell. No Metal Edge should extend outward from the Contour of the Chassis Body higher than the Chassis Body Side molding.
- No cutting of Chassis Reinforcing Structural Steel, such as Boron Steel will be allowed.
- Stainless Steel Assist Handrails on the Interior Left and Right of the Doorway Structure shall be Included.
- An L.E.D. Light that automatically illuminates when the Doorway is opened shall be Included.

#### **7. WHEELCHAIR LIFT DOORS:**

Wheel chair lift doors must be at rear of the vehicle

- OEM chassis van doors shall be retained.
- Shall include a Chassis OEM Magnetic Door Holder.
- Doors shall be easily operable from the inside with easily accessible door locks provided.
- Inside door handles shall be provided on inside of each hinged swing-out door for adequate closing of doors when inside.

#### **8. DOOR LOCKS:**

All doors shall be equipped with a lock.

#### **9. DRIVER’S DOOR AND CO-PILOT’S DOOR:**

Must have Power windows and Power door locks

#### **10. RUNNING BOARDS:**

Vehicle must have Extra Heavy-duty Running Boards for Driver door and Co-Pilot’s door.

- The steps shall be constructed of galvanized one inch square 11 gauge steel tubing or angle iron and have cross center braces and be tested at 800 lbs.
- The steps surface shall be made of expanded galvanized steel to allow debris and water run-off.
- The steps shall be properly braced and secured to the van and be capable of supporting a minimum of 800 lbs.

#### **11. HANDRAIL:**

Handrails must be stainless Steel that will not rattle or Flex and mounting bolts shall be bolted into stainless steel.

- Handrails (left and right) of the front passenger door shall be provided. Cross-sectional diameter of handrail shall be between 1 ¼” and 1½”.
- Entrance handrails shall not be padded.
- Must have at minimum a wall thickness of 18 gauge steel.
- Wood mounting is not allowed.

## **12. STEPWELL:**

Stepwell must be made of Galvanized, Primed or Powder Coated steel.

- Must have two steps covered with the same slip resistant floor covering as specified within this document.
- maximum 12” minimum 8” from ground to first step,
- 9” riser, Tread depth minimum 8½”.
- All steps to get up to floor level must be in step well area.

## **13. INTERIOR:**

An OEM (XLT) Chassis Interior Trim System shall be provided.

- Interior wall paneling and door trim shall be OEM
- The headliner shall be OEM.
- The Drivers Side Ejection Mitigation Air Bag Shall be Retained.
- All interior panels, materials, and treatments shall meet all FMVSS 302 requirements.

## **14. STORAGE COMPARTMENT:**

An overhead storage compartment shall be installed over the driver and front passenger interior. The Overhead Storage Compartment shall be Chassis OEM, if available.

## **15. FLOOR ASSEMBLY:**

- The subflooring shall be a minimum of 3/4" thick Plywood securely fastened to the understructure.
- The floor shall be sanded smooth to ensure a proper bonding of the vinyl flooring.
- The floor covering shall be wall-to-wall hard fire-resistant slip-resistant, transit quality flooring securely bonded to the plywood floor with waterproof adhesive.
- Acceptable Flooring Brands are Altro, or other Approved Equal.
- Flooring Color shall be determined by the agency.

## **16. SLIP-RESISTANT FLOOR COVERING:**

Floor covering shall be slip resistant vinyl flooring, constructed with aluminum oxide, silicon carbide and optional PVC chip blended throughout a high quality vinyl wear surface.

- Top coating is not acceptable.

- Backing to be polyester/cellulose material with fiberglass fiber reinforced center scrim for additional durability.
- Bacteriostats will be incorporated providing all exposed surfaces with excellent anti-bacterial properties.
- Must be Altro Chroma with a minimum thickness of 2.2 millimeters or equivalent
- Color to be selected from current Altro color range by each agency.
- The whole floor will be a uniform thickness throughout the vehicle, eliminating the need for ribbed surfaces, while exceeding the ADA minimum slip resistance standard rating of .06 static coefficient of friction under dry or wet conditions.
- Seams must be heat welded to provide a permanent waterproof seal against water penetration leading to premature sub-floor failure or curling leading to possible tripping hazards.
- Landing area and step edgings are to be Altro yellow safety vinyl edging.
- Edging is to be heat welded to the main floor and step tread to provide for a long lasting seam.
- The floor must be installed according to manufacturer's directions using proper tools, accessories and adhesives.
- Step tread and riser are to be a one continuous piece construction eliminating seam at the back of the step. Tread to be supported at the upward bend at the back of the step and up the riser by coving material.

**NOTE:**

**If the flooring is not installed according to the flooring manufacture (heat welded and adhesives) specifications the Van will not be accepted.**

**17. DRIVER CONTROLS:**

Instrument panel, dash controls and features to be included;

- Dash shall be color coordinated with interior trim color.
- Glove box with light and lock to be provided, if available from chassis Mfr.
- All controls and switches shall be within easy reach of the driver.
- Overhead switches or controls must be in easy reach of driver.
- Lights in lieu of gauges are not acceptable except where noted.
- Power door locks with remote entry and Two Keys and Two Fobs are required
- Power windows are required
- Power / Heated mirrors With Turn Signal Flashers are required
- A tilting telescopic steering wheel shall be included
- Chassis OEM Cruise Control is required
- Instrument panel and dash shall be equipped with the following OEM instruments, gauges, and controls:
  - a) Tachometer , Speedometer with odometer and trip odometer
  - b) Oil pressure gauge

- c) Engine coolant temperature
- d) Fuel gauge
- e) Upper beam head lamp indicator (light)
- f) Dual-note horn
- g) Directional signals (light)
- h) Parking brake on (light)
- i) Headlight switch
- j) Inside hood release
- k) Controls for heater, defroster, and air conditioner
- l) 12 Volt Power outlet
- m) OEM chassis mfr's am/fm push button radio
- n) Digital clock
- o) Windshield wiper w/two speed, intermittent, and washer
- p) Emergency flashers

**18. BUMPERS:**

Bumpers Front and rear must be OEM Mfrs standard.

**19. AIR CONDITIONING AND HEATING:**

Vehicle shall have the following;

- OEM chassis front and rear heating and A/C system required.
- Front/Rear heater and front defroster shall be OEM chassis with the maximum BTU rating available from chassis mfr.
- Front/Rear, high capacity A/C system required.
- Dash unit shall be separately controlled from auxiliary system.

**20. SAFETY EQUIPMENT:**

All miscellaneous equipment must be secured to the vehicle and easily accessible.

- First aid kit: (24M – National Standard School Bus Metal)
  - a) Must be Certified Safety Mfg. Model S203-045 or equivalent.
- Fire extinguisher – Multi-purpose Stored Pressure Dry Chemical Extinguisher.
  - a) Must be a 5 lb. type 3A:40B: C Pro Line, Kiddie Model # FXBND9 or equivalent.
  - b) Must have a gauge to indicate state of charge and mounted to vehicle using a bracket and having a heavy duty vinyl cover.
- Triangle warning devices (3), with storage container.
  - a) must meet FMVSSP # 125
- Blood borne Pathogens infection control kit.
  - a) Must be Certified Safety Mfg. Model #FK200-931, or equivalent.
  - b) Seat belt cutter

## **21. MIRRORS:**

Vehicle exterior mirrors;

- OEM chassis power /heated dual exterior rearview mirrors shall be included
  - a) Black matt or stainless finish
  - b) For Safety an Integrated Turn signal is Required
  - c) A Convex Lower Mirror shall be Included.

Vehicle interior mirrors;

- Vehicle must have OEM windshield mounted mirror
- OEM chassis driver's and Co-pilot sun visor, rear view mirror, and airbag required.

## **22. SEATS:**

Driver's Seat and Co-pilot Seat:

- Driver's and co-pilot seats shall be (OEM XLT) deluxe high back, fully padded, Cloth contoured bucket types of heavy-duty construction with an armrest.
- The driver's seat shall be easily adjusted forward and backward without the use of tools.
- OEM three point restraint system is required. Upholstery shall be color- keyed to the passenger seats.

### **NOTE:**

**Bidder must supply seating diagram reflecting all listed dimensions for approval.**

## **23. PASSENGER SEATS:**

Seating shall be provided for seven (7) ambulatory passengers and one wheelchair securement station. (See options for additional wheelchair securement station and fold down seats and floor plans).

- All seats shall be cloth. Chassis (OEM XLT)
- Fixed or Folding seats may be Chassis OEM, Freedman, or approved equal and shall be a minimum of 16" wide and 16" deep.
- The seat back cushion shall measure a minimum of 17", shall provide lumbar support and utilize channeling to aid lateral stability.
- When any aftermarket seat is used. Seating shall be Freedman series GO-ES or approved equal, and be compliant with FMVSS 208.
- Bolting seats to plywood floor without bolting into structural steel under floor is NOT ALLOWED.

## **24. PASSENGER RESTRAINT SYSTEM:**

All restraints and retractors must meet all FMVSS 208 regulations.

- Wheelchair occupant restraint systems shall be compliant with FMVSS 49.38.

- Successful Pull Test results from an A2LA Accredited Laboratory, including Pictures shall be included with all RFP Responses.

**25. COLOR OF SEATS:**

Bid must include all colors available

- Successful vendor shall coordinate with the agency issuing this purchase order in the selection of material and color of the seats.

**26. PRIORITY SEATING SIGNS:**

Each vehicle shall contain a sign which indicates that the seats in the front of the vehicle are priority seats for people with disabilities.

- Each wheelchair station location shall be designated as such.
- The signs shall be in compliance with CFR 38, subpart 38.27 and the appendix to it.

**27. LIGHTING:**

Vehicle interior Lightings;

- The interior of the vehicle shall be illuminated by OEM interior lighting.
- The lighting fixtures shall be controlled by the chassis OEM lighting switch.
- The instrument panel must be illuminated to allow the driver to see all the controls at night.
- Chassis OEM instrument panel switch shall control the intensity of the lights.
- All door lights and the side passenger door shall illuminate automatically when doors are opened.
- L.E.D. Lighting shall be required to illuminate on the lift.

Vehicle exterior Lighting;

- Exterior lighting shall meet all State and Federal Regulations.
- A Third High Mounted Center Brake Lamp shall be Included.

**28. ELECTRICAL WIRING:**

Vehicle wiring shall be ran inside the body and be located in a protected area.

- Any wiring that is exposed to the elements shall be non-metallic loomed and securely clipped every 18” for maximum protection.
- Clips shall be rubber or plastic coated to prevent their cutting thru the wiring insulation.
- Protective grommets shall be installed at all points where wiring penetrates metal and other materials.
- Circuit breakers and electrical panels shall be in easily accessible location.
- No lock wire connectors will be allowed.
- Grounding off components shall be thru polarized shielded terminals wired to main structural ground points.

- All accessories and electrical equipment except head and parking lights, emergency flashers, dome light(s), and wheelchair lift shall be wired through the vehicle ignition switch so as to be operative only with the switch in “on” or accessory” position.
- Power wire to Wheelchair lift shall include an In-line circuit breaker with manual reset provided by the Wheelchair Lift Manufacturer.

## **29. WINDOWS:**

Windshield and front most doors: Chassis OEM standard with standard tint and remainder of windows must have;

- Dark OEM deep privacy tint.
- An Electric Defogger shall be included on the rear windows
- OEM chassis safety glass and capable of venting
- FMVSS: All windows (including windshield) and tinting shall meet all applicable FMVSS requirements.

### **NOTE:**

**All windows and emergency exits must meet the performance and operational requirements as outlined in the Federal Motor Vehicle Safety Standards and Procedures.**

## **30. SAFETY BACK-UP EQUIPMENT:**

An Audible Back-up Warning Device shall be included. The following shall be equipped If Chassis OEM, is available;

- A Rear View Camera with Dashboard Monitor that activates when the Transmission is placed in Reverse.
- A Back-Up Sensor System with Audible Alert Warnings.

## **31. WHEELCHAIR LIFT AND EQUIPMENT:**

An electric powered hydraulic wheelchair lift shall be installed inside the vehicle at the rear of the vehicle.

- Bus must meet FMVSS 403-404 lift installation requirements.
- Wheelchair lift shall meet the following MINIMUM requirements.

Lift to be a Braun wheel chair Lift NL919FIB-2 with Handrail Safety Belt (Millennium-2 Series) or equivalent.

- 800 pound load capacity lifts assembly.
- An electric hydraulic pump, powered by vehicle’s electrical system.
- Platform dimensions 34” wide by 51” long.
- Platform to be constructed of 11 gauge expanded metal.

- Platform shall be stored in an upright position within the vehicle.
- Powered operation for (1) unfolding and folding the platforms and (2) raising and lowering the platform.
- Emergency platforms release to permit the platform to be unfolded manually and lowered by gravity.
- To prevent the wheelchair from rolling off, a barrier 1 ½” at minimum shall be provided on the outer edges of the platform and have an outboard roll stop that engages and locks before the platform leaves the ground to form a safety barrier when platform is raised or lowered
- A free floating bridge plate will be replaced between the lift platform and the vehicle. This bridge plate will be hinged in a manner to permit upward movement should a person’s foot become entangled.
- Lift shall be securely bolted to the floor and floor reinforced as necessary to support the load.
- To permit the lift platform to be raised without electrical power, a hand pump that allows the operator to raise the platform shall be installed.
- An interior light shall be provided to illuminate the lift area;
- All moving parts likely to cause personal injury shall be shielded.
- Working parts, such as cables, pulleys, and shafts, which can be expected to wear, and upon which the lift depends for support of the load, shall have a safety factor of at least six, based on the ultimate strength of the material. Nonworking parts, such as platform, frame, and attachment hardware, which would not be expected to wear, shall have a safety factor of a least three, based on the ultimate strength of the material.
- Lift shall be installed as specified by the manufacturer and shall be thoroughly tested prior to delivery.
- Repair manual, parts list and instructions for adjusting hydraulic valves and electrical equipment shall be provided.
- Lift controls shall be interlocked with the vehicle brakes, transmission, or door, or shall provide other appropriate mechanisms or systems to ensure that the vehicle cannot be moved when the lift is not stowed and so the lift cannot be deployed unless the interlocks or systems are engaged.
- The left control cord must be secured in a manner not to interfere with the door being closed.

Use by standees;

- Lift shall accommodate persons using walkers, crutches, canes or braces or who otherwise have difficulty using steps. The platform may be marked to indicate a preferred standing position.

Lift handrails;

- Platform on lift shall be equipped with handrails on two sides, which move in tandem with the lift, and which shall be graspable and provide support to standees throughout the entire lift operation.

- Handrails shall have a usable component at least 8” long with the lowest portion a minimum 30” above the platform and the highest portion a maximum 38” above the platform.
- Capability of withstanding a force of 100 pounds concentrated at any point on the handrail without permanent deformation of the rail or its supporting structure required.
- Cross-sectional diameter of handrail shall be between 1 ¼” and 1½”, and shall have eased edges with corner radii of not less than 1/8”.
- Handrails shall not interfere with wheelchair or mobility aid maneuverability when entering or leaving the vehicle.

#### Wheelchair securement;

- Wheelchair parking space shall have clear floor area of 30” wide by 52” long and be equipped with a four-point wheelchair securement tie-down.
- Occupant restraint system must be Q’Straint Q-8306-SC or equivalent. Shall have a Retractable lap/shoulder belt combo with a Retractable height adjuster that are anchored to floor and wall that meet SAE J2249 and ADA requirements.
- Slide N Click anchors must be bolted to structural steel.
- Bolting to plywood floor without bolting into structural steel under floor IS NOT ALLOWED.
- Wheel Chair Securement system must be Q’Straint QRT MAX Automatic Retractor System Q-8306-SC with Slide N Click anchorage system and J-Hooks, or equivalent.
- There must be 52” at minimum and 54” maximum measured from center to center between front and rear Slide N Click anchor points. And be fully assembled and ready to use.
- A metal Storage bin shall be provided to store belts when not in use
- Must include eight (8) Q’Straint Q5-7580 Webbing Loops or equivalent for Securing Scooters. Wheelchair location must be in the rear of bus, one beside the other.

#### Wheelchair Stations;

- At a minimum, one wheelchair station shall be provided in each vehicle. (See options for additional wheelchair securement station and fold down seats and floor plans)
- Wheelchair stations are the spaces inside the vehicle for transporting people in wheelchairs and are to be provided on all vehicles.
- Each wheelchair station shall consist of usable floor area in which a passenger in a wheelchair may be positioned and where the wheelchair occupant restraint systems and wheelchair securement devices are located.
- Wheelchair stations will secure wheelchairs in a forward facing position only.

**NOTE:**

Each wheelchair securement location shall have sign designating it as such. Lettering size and type on these signs shall comply with the Americans with disabilities Act Regulations.

**32. WHEELCHAIR ACCESSIBILITY SYMBOL:**

The vehicle will display the international wheelchair accessibility symbol of a person in a wheelchair that is outlined in white on blue background.

- This symbol will be placed on all four sides of the bus.

**33. VEHICLE COLORS:**

Vendor to supply list of colors and prices available.

**34. VEHICLE FLOOR PLAN:**

A proposed floor plan including all pertinent interior dimensions such as overall length, width, distance between seats, etc.

- Shall be submitted with the bid proposal.

**35. CHASSIS SPECIFICATIONS:**

Bidder must list chassis specs must be listed the spaces provided below:

Overall vehicle length:	235"	minimum	_____
	267"	maximum	_____
Width:	Exterior 80"	minimum	_____
	Interior 70"	minimum	_____
Height	Exterior 100"	minimum	_____
	120"	maximum	_____
	Interior 73"	minimum	_____
Wheelbase:	146"	minimum	_____
	150"	maximum	_____

GVWR, axle, spring and tire:  
9,250 lb. GVWR minimum

**NOTE:**

It is the bidder's responsibility to calculate the actual loaded weight, spring and axle ratings so that the vehicle is engineered for safety.

### **36. WHEELS AND TIRES:**

Wheel rim shall be mfr's standard for GVWR.

- Tires – Seven (7, inc. full spare) steel belted, all season radial, to meet GVWR.
- All tires shall be the same make or brand, shall be mounted on rims, and shall be balanced.
- Hubcaps – Set of 2 required for front wheels.

### **37. ENGINE: GASOLINE:**

The engine shall be an electronically fuel injected six cylinder gasoline powered engine with the minimum displacement of 3.5 liters.

- The engine shall be designed to have a useful life of at least 100,000 miles.
- The engine shall be equipped with the largest external oil cooler available from the OEM MFR of the base van.

### **NOTE:**

**The engine shall have a CNG/LPG gaseous engine prep package.**

### **38. RADIATOR:**

Heavy-duty radiator with capacity to prevent engine overheating while operating in stop and go transit operation in ambient temperatures as high as 110 degrees F and provide protection to -30 degrees F.

### **39. TRANSMISSION:**

Vehicle transmission shall be heaviest duty transmission available from OEM.

- OEM auxiliary transmission oil-to-air cooling.
- Dipstick and add oil filler tube shall be easily identifiable.
- Automatic 6-speed with overdrive.

### **40. DRIVE SHAFT:**

The driveshaft shall be rated and capable of transmitting the torque multiplication of the engine/transmission to the drive wheels.

- The chassis OEM shall balance the drive-shaft.
- To prevent the driveshaft from hitting the ground a driveshaft guard shall be provided. A Chassis OEM guard is preferred.

### **41. BRAKES:**

Two (2) braking systems are required for the vehicle. Service brakes shall be dual hydraulic, disc front and disc rear.

- The parking brake system shall be operated by a cable to the rear wheels, or Drive Shaft Drum Brake.
- The braking system shall be adequate for the GVWR of the vehicle.

**42. GEAR RATIO:**

OEM Standard gear ratio

**43. FUEL CAPACITY:**

Fuel capacity must be largest available from chassis manufacture.

**44. SUSPENSION SYSTEM:**

Suspension system shall be heavy duty and load rated for GVWR of the vehicle.

- Shock absorbers shall be extra heavy duty gas and load rated, capable of controlling the ride when empty, as well as when loaded to maximum GVWR.
- Independent MacPherson-strut
- Leaf with Rear stabilizer bar required if available from OEM
- A Chassis OEM Electronic Anti-Rollover System shall be included.

**45. STEERING:**

Must have power-assisted steering

**46. AIR CLEANER:**

Must have a heavy duty, dry type air cleaner

**47. OIL FILTER:**

Must have a heavy duty, throw away type oil filter.

**48. ALTERNATOR:**

Vehicle shall have OEM 220-amp Alternator.

**49. BATTERIES:**

Two (2) heavy duty, maintenance free, OEM Batteries

**50. STABILIZER BAR:**

Heavy Duty Front and rear

**51. HORN:**

Must have a dual, electric horn.

**52. SIGNAL:**

Directional and self-canceling with hazard warning flashers.

**53. WINDSHIELD WIPERS:**

Minimum two speeds with intermittent feature and washer.

**54. KEYS:**

Vehicle must include two (2) sets of keys and fobs.

**55. RADIO:**

Must have an AM & FM CD radio

- Radio must be of same manufacture as chassis. Radio must be mounted in the Chassis OEM Location in dash.

**56. PAINTING, DECALS AND MONOGRAMS:**

All signs required by State and federal law shall be affixed to each vehicle exterior and interior.

- It is up to the bus dealer/manufacture to add such signs and decals upon delivery of vehicle.
- No decals, name plates, or painted identification of the bus dealer/manufacture are to be added to the vehicle.

**57. WARRANTY REQUIREMENTS:**

The contractor warrants and guarantees to the original Agency submitting PO, each complete bus and specific subsystem and components for 100% parts and labor as follows:

- OEM standard factory warranties for chassis and engine.
- Add-on components shall have component manufacture's standard warranty.
- Warranty shall begin on the date that the vehicle delivery is accepted by the agency issuing the purchase order.

**58. GENERAL:**

All equipment cataloged as standard for the basic vehicle, unless superseded by these specifications, must be furnished and included in the purchase price of each vehicle. Complete printed specifications, published literature, and photos, or illustrations of the basic units that the bidder proposes to furnish with this bid must accompany each bid.

**59. QUALITY OF MATERIALS:**

All materials and equipment used shall be built and/or attached in accordance with all applicable safety codes and design standards including but not limited to;

- Society of Automotive Engineers (Electrical components and wiring, hydraulic components, fasteners)
- American National Standards Institute (Chain drive and wire rope components)
- American Welding Society (Welding code and recommended practices)
- FMVSS
- All parts shall be new.
- All necessary servicing and adjustments shall be made on the equipment prior to delivery of the vehicle.
- All exposed metal surfaces shall be painted or shall be corrosion-resistant.
- All Wheelchair Lift components wiring located on the underside of the vehicle shall be fully loomed.

**60. PUBLICATIONS AND PRINTED MATERIALS:**

Each vehicle shall have a complete set of operation, quality assurance, and warranty publications. The information shall be organized in a three ring binder format with each sections clearly identified.

- As built wiring diagram and as built parts manuals for body and all auxiliary equipment.
- Maintenance and inspection schedule incorporating the required maintenance and inspection of the basic vehicle and its sub-systems.
- Operator's manual: A complete operations manual and troubleshooting guide with a detailed manufacturer's parts list that covers the conversion features on the vehicle as listed in this specification. The manual will provide complete, comprehensive instructions for the wheelchair accessories, wheelchair list deployment, air conditioning system, tie downs, heater, deployment of seats, wiring diagram and related equipment.
- Warranty papers for chassis, body, and additional equipment.
- Warranty Information: Each vehicle must have a published listing of contractor warranty repair locations, including address, telephone number, and contact names for the State of Oklahoma.

**61. PRE-AWARD AUDIT:**

The vehicles are not considered delivered to the purchasing agency until the required FTA documents are completed by an ODOT staff member. A Pre-Award Audit shall be conducted to determine if the bid proposal specifications. The bidder shall submit documents, which include certification of the manufacturer's compliance with the Federal Transit Administration (FTA) Pre-Award Buy America Audit Requirements. The document submitted shall include the following information for each major component used on vehicle bid:

- Name and address of each supplier.
- Cost of each major component and subcomponent. In order to protect proprietary information, the document may reflect the percentage of total cost each item represents instead of the actual cost.
- Country of origin of each major component and subcomponent.
- Name and address of company where final assembly occurs.
- Cost of final assembly
- Signature of authorized representative of vehicle manufacturer.

**62. POST-DELIVERY AUDIT:**

A Post Delivery Audit of the vehicle(s) shall be conducted at the purchaser's facility, to determine that the completed vehicle(s) meets specifications. Once this process has been satisfactorily completed, the vehicle(s) shall be considered acceptable.

**63. ACCESSIBILITY REQUIREMENTS:**

When submitting a bid for an accessible vehicle for the disabled, the vendor shall provide a list of the vehicle related equipment illustrating the component cost and related installation charges. The purpose of this list is to reflect an accurate cost for those vehicle related items, which are required to make the vehicle accessible to the disabled.

**64. ACCEPTANCE OF VEHICLES:**

Upon delivery at the designed location specified within this document the final acceptance will occur after the vehicles have been inspected, road tested and all FTA required post audit delivery requirements have been meet.

- All vehicles shall be insured by the bidder until the post audit delivery has been conducted at minimum.

## **SPECIFICATIONS FOR OPTIONAL ITEMS:**

### **A. TWO-WAY RADIO SYSTEM - UHF:**

ICOM F6021 UHF two-way Radio System with a PCTEL MUF4505 UHF antenna and coax or approved equal.

- Antenna shall be mounted on an L bracket on fender opposite of OEM AM/FM radio antenna.
- Radio must be mounted in an easy accessible location for the driver.
- Radio must be programmed with the correct Frequencies and the antenna tuned for the agency issuing this purchase.

### **B. TWO-WAY RADIO SYSTEM - VHF:**

ICOM F5021 VHF two-way Radio System with a PCTEL MHB5800 VHF antenna and coax or approved equal.

- Antenna shall be mounted on an L bracket on fender opposite of OEM AM/FM radio antenna.
- Radio must be mounted in an easy accessible location for the driver.
- Radio must be programmed with the correct Frequencies and the antenna tuned for the agency issuing this purchase.

### **C. TWO-WAY RADIO SYSTEM - 800 MHZ:**

Kenwood TK-980 800 mhz two-way Radio System with a PCTEL MUF8003 antenna and coax or approved equal.

- Antenna shall be mounted on an L bracket on fender opposite of OEM AM/FM radio antenna.
- Radio must be mounted in an easy accessible location for the driver.
- Radio must be programmed with the correct Frequencies and the antenna tuned for agency issuing this purchase.

### **D. BODY STRIPE:**

4" Body Strip, painted or vinyl.

### **E. OUTSIDE PASSENGER DOOR SWITCH:**

Outside keyed electric passenger door switch outside. Switch must be water proof.

### **F. BUS CAMERA SYSTEM:**

REI Bus-Watch R4001 with 500GB Hard drive and four cameras or approved equal. Successful vendor shall coordinate with the agency issuing this purchase for location of Camera's.

### **G. INTEGRATED CHILD SEAT:**

Integrated Child Restraint Seat must be a Freedman Seating ICS-10 or equivalent

- Must have an integrated 4-point safety harness. for children 22-78 Lbs with under seat retractor seat belts for adults

**H. VINYL SEATS DELETE:**

This will be a price deduction from the durable transit style cloth fabrics.

- Vinyl deduction is for passenger seats only
- Pilot and co-pilot seats shall be XLT OEM cloth fabric

**I. DIESEL ENGINE:**

3.2L Turbo Diesel I5 with Manual Regen Initiation with or without Active Regen inhibitor.

**J. WHEELCHAIR LIFT:**

1000 lb. capacity Wheelchair lift

**K. ADDITIONAL WHEELCHAIR POSITION:**

Include additional wheelchair position including securement system and occupant restraints.

**L. 2 PASS. CLOTH BENCH:**

2 passenger cloth bench seat with 3 point occupant restraints

**M. 1 PASS. CLOTH BENCH:**

1 passenger cloth bench seat with 3 point occupant restraints

**N. 2 PASS. FOLDING CLOTH BENCH SEAT:**

2 passenger forward facing folding cloth bench seat with 3 point occupant restraints

**O. 1 PASS. FOLDING CLOTH BENCH SEAT:**

1 passenger forward facing folding cloth bench seat with 3 point occupant restraints

**P. OEM EXTERIOR COLOR OTHER THAN WHITE:**

**Q. LIMITED SLIP AXLE:**

**R. 10 WAY POWER DRIVERS SEAT:**

**S. CNG CONVERSION FORD CHASSIS:**

OEM engine shall be converted to operate on dedicated CNG. A World NGV or approved equal shall be provided. System shall be CARB and EPA certified, OBDII compliant, and fully integrated into the OEM powertrain control system. No additional control module will be accepted. Dual fuel systems will not be accepted. System must comply with the following;

- Closed-loop fuel control
- Sequential fuel injection (SFI)
- Optimized ignition timing

- Must maintain original fault codes (DTCs)
- Diagnostics accessed through DLC using original scan tool or any generic OBD-II scanner
- CNG system shall be covered by 3 year/50,000 mile warranty and cannot void the OEM powertrain warranty.
- The minimum CNG tank capacity on the conversion vans should be at least 19 Gasoline Gallon Equivalent.
- Must provide a detailed floor plan of the placement of the CNG tanks and any seats that have to be deleted.
- System must be installed by a Qualified Vehicle Modifier (QVM), and installation must meet or exceed OEM requirements. This system shall also be installed by the system manufacture.

**T. 2 ADDITIONAL KEYS WITH REMOTE FOBS:**

**U. DELETE BUS STYLE DOORWAY:**

Supply the van with **OEM sliding side doorway** in lieu of bus style doorway. Include a 40” long, 9” wide galvanized expanded steel step. All other specifications must be met.

**V. SUPPLY 20' T350 MODEL X2X WAGON WITH SLIDING DOOR OR APPROVED EQUAL:**

Insert credit to be given for using this chassis with Single rear wheels 9,250 GVWR, OEM SLIDING SIDE DOORWAY and standard 3.7L engine in lieu of base chassis 22’ with bus style doorway and Dual rear wheels. Include a 40” long, 9” wide galvanized expanded steel step. All other specifications must be met including seating capacity.

**W. SUPPLY 20' T350 MODEL X2X WAGON WITH BUS STYLE DOORS OR APPROVED EQUAL:**

**X.** Insert credit to be given for using this chassis with Single rear wheels 9,250 GVWR, with BUS STYLE DOORWAY and standard 3.7L engine in lieu of base chassis 22’ with Dual rear wheels. All other specifications must be met including seating capacity.

**FOR REAR LIFT  
FULL-SIZE CONVERSION VAN**

**BASE  
VEHICLE**

**COST PER  
UNIT**

Transit Van (gas engine) \$ \_\_\_\_\_ / ea.

Specify Overall Vehicle Length (outside of front bumper to outside of Rear bumper): \_\_\_\_\_

**OPTIONAL ITEMS**

**COST/DEDUCTION**

- |  |                |
|--|----------------|
| A. Two-way radio (UHF)                                 | \$ _____ /ea.  |
| B. Two-way radio (VHF)                                 | \$ _____ /ea.  |
| C. Two-way radio (800 MHZ)                             | \$ _____ /ea.  |
| D. Body Stripe   | \$ _____ /ea.  |
| E. Outside Passenger Door Switch                       | \$ _____ /ea.  |
| F. Bus Camera System:                                  | \$ _____ /ea.  |
| G. Integrated Child Seats                              | \$ _____ /ea.  |
| H. Vinyl Seats (Price Deduction)                       | \$- _____ /ea. |
| I. Diesel Engine:                                      | \$ _____ /ea.  |
| J. Wheelchair Lift 1000 Lb                             | \$ _____ /ea.  |
| K. Additional Wheelchair position                      | \$ _____ /ea.  |
| L. 2 passenger cloth bench seat                        | \$ _____ /ea.  |
| M. 1 passenger cloth bench seat                        | \$ _____ /ea.  |
| N. 2 passenger forward facing folding cloth bench seat | \$ _____ /ea.  |
| O. 1 passenger forward facing folding cloth bench seat | \$ _____ /ea.  |

**OPTIONAL ITEMS**

**COST/DEDUCTION**

P.	OEM exterior color other than white	\$_____ /ea.
Q.	Limited Slip Axle	\$_____ /ea.
R.	10 Way Power Drivers Seat	\$_____ /ea.
S.	CNG Conversion	\$_____ /ea.
T.	2 Additional Keys with Remote Fobs	\$_____ /ea.
U.	Delete Bus Style Doorway (Price Deduction)	\$-_____ /ea.
V.	Supply 20' T350 with Sliding Door	\$_____ /ea.
W.	Supply 20; T350 with Bus Style Doors	\$_____ /ea.

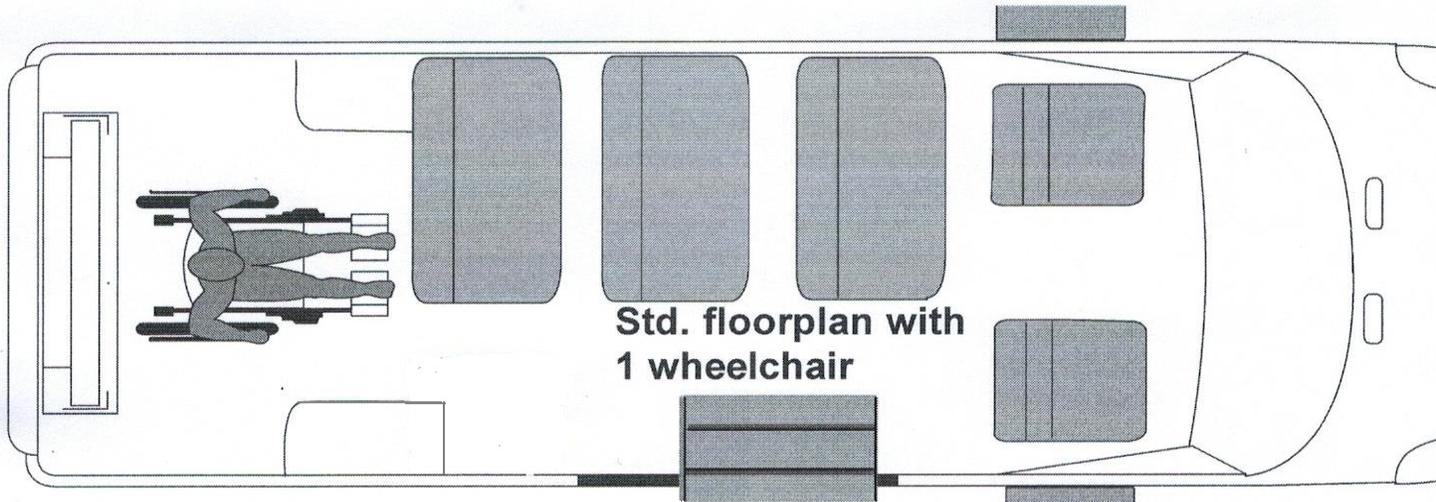
A list of optional equipment and/or accessories shall be provided. The list must contain:

- Item
  - Description and functionality detail
  - Cost of item installed in final delivery of vehicle
- Any changes to listed specifications as outlined above to accommodate options

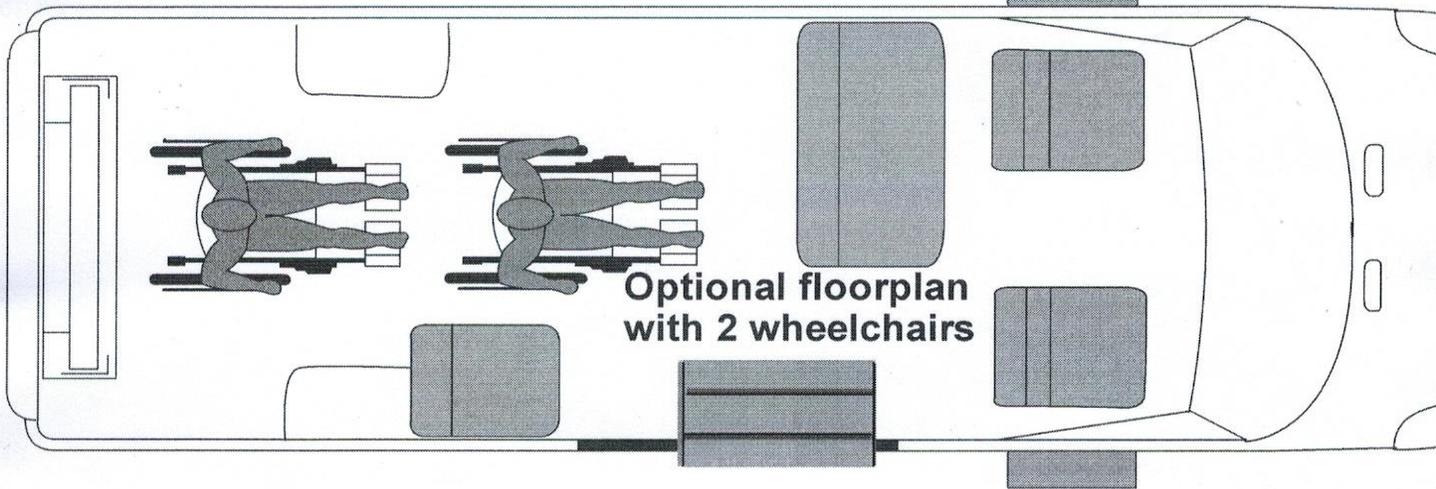
**BID EXCEPTIONS:**

**Proposal must list any exceptions here to be part of the bid, evaluation, and analysis. Please list the section number and/or letter when listing any bid exceptions.**

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**Std. floorplan with  
1 wheelchair**



**Optional floorplan  
with 2 wheelchairs**

### **With Bus Style Doors**

## Optional 20' Floorplan With Sliding Door

