DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT TECHNICAL SPECIFICATIONS FOR:

FORD TRANSIT WITH ADA OPTION, 5 PASSENGER -2 WHEELCHAIR, 8 PASSENGER -1 WHEEL CHAIR, REAR INTERIOR
WHEELCHAIR LIFT, 12 PASSANGER WITH STANDARD EQUIPMENT NON LIFT
(SKETCH ATTACHED)

WARNING TO BIDDERS: Bidder should complete every item described in detail in the "Specifications Description:" section by either entering a check mark in the space provided to indicate the item being bid is exactly as specified or bidder should enter a written description to indicate any proposed item which will deviate from the specifications.

THIS SPECIFICATION SHOULD BE EXECUTED IN ACCORDANCE WITH THE ABOVE INSTRUCTIONS AND RETURNED ALONG WITH BID AND LITERATURE TO BE CONSIDERED FOR AN AWARD.

1. General:

   a. The first transit van produced under this agreement shall be considered the "prototype" transit van. After inspection of this vehicle LADOTD reserves the right to clarify production build methods that are not specifically addressed in the technical specifications. Contract language will be revised to reflect that these changes and subsequent manufactured vehicles shall include all changes as standard production.
   b. This equipment shall be new, a current year production model that has never been titled, and must meet all CFR, FMVSS, ADA, and state safety standards in effect at time of delivery. Any additions, deletions, or variations from the following specifications must be noted. Any items appearing in the Manufacturer's regular published specifications furnished by the bidder as assumed to be included in the "bidder's proposal". Any additions, deletions, or variations from the manufacturer's regular published specifications must be outlined in the attached letter.
   c. All exposed surfaces and edges shall be smooth, free from burrs and other projections and shall be neatly finished. All fasteners used in the vehicle shall be backed by a certificate of quality by

the manufacturer and have been found to be in accordance with all SAE and ANSI specifications.

d. The vehicle shall conform in all respects to State of Louisiana Motor Vehicle laws, safety rules of the Department of transportation and the American with Disabilities Act, Title 49 code of Federal Regulations, parts 38, accessibility Specifications for Transportation vehicles, Subpart B-Vehicles and Systems. This vehicle shall also comply with 40 CFR Parts 85 & 86 air Pollution and Emission Standards for new Vehicles. Compliance with all applicable Federal Motor Vehicle Safety Standards shall also be required. The successful bidder will be required to provide any and all results of testing accomplished under the final rules issued by the Federal Transit Administration, 49 CFR.

e. The vehicle shall be built to meet all applicable ADA requirements when option is selected. There shall be no modification to any portion of the vehicle roof in meeting the ADA door opening height requirement.

f. The Transit Van shall be aesthetically pleasing in design with attention to the workmanship and details. Also of concern will be the ease in boarding, passenger comfort, visibility, and safety to both passengers and driver. Parts for the body, chassis, and equipment that the vendor proposes to furnish in the vehicle shall be readily available at a convenient source with a minimum of downtime.

- **Workmanship**

a. Any unit delivered under this specification is subject to rejection if there is evidence of poor workmanship, by either the vendor or the original manufacturer. Any defect, so noted must be corrected by the vendor to the satisfaction of La. DOTD or their representative.

- **Vehicle**

A. The vehicle shall be an all window vehicle and be made ADA compliant.

B. Manufacturer will be responsible for delivering vehicles that are properly serviced, clean, and in first class operating condition. Pre-delivery service, at a minimum, shall include the following:

1. Complete lubrication of chassis, engine, and operating mechanisms with
2. manufacturer's recommended grades of lubricants.
3. Check all fluid levels to insure proper fill.

4. The engine shall be in proper operating condition.
5. Inflate tires to proper pressure.
6. Check to insure proper operation of all components, accessories, gauges, lights, and mechanical and hydraulic features.
7. Cleaning of vehicle, and removal of all unnecessary stickers and debris.
8. Full front-end alignment utilizing proper equipment and experienced trained technicians to perform proper alignment. All wheels shall be balanced, including spare tire. This alignment shall be performed only after vehicle is built complete and is at full curb weight. Vehicle shall be delivered with standard OEM front end.

VEHICLE BODY

a. Unibody raised roof van shall meet all stated specifications. The vehicle shall meet the structural integrity of the stated van that is not degraded.
b. Vehicle shall meet all applicable requirements of the American with Disabilities ACT (ADA) as set forth in 49 CFR 37 and 38, issued 9/6/91; and 49 CFR 571,
c. Vehicle shall meet all applicable requirements of the American with Disabilities Act 9ADA) as set forth in 49 CFR 37 and 38, issued 9/6/91; and 49 CFR 571, FMVSS 403 and 404, issued 12/27/02 with respect to the body structure.
d. The raised roof shall be part of a unitized body constructed OEM vehicle.
e. Minimum of 80” center aisle height
f. Must be the OEM high roof

- Capacity:
  a. Shall have a chassis manufacturer’s gross vehicle weight rating (GVWR)
  b. Not less than 10,360 pounds and dual rear wheels.
- Color
  a. Ford OEM Single Color Ingot Silver
- **Engine**
  a. Ford standard engine size is 3.5 L
  b. Required amount of chassis manufacturer base antifreeze to protect the cooling system to 20º.

c. Engine shall have an Intermotive products gateway fast idle with intelligent lift interlock system or approved equal installed. The system shall activate when the battery voltage drops below 12.5 volts or when the OEM or air conditioning compressors are engaged. All controls for this system shall be installed on the vehicle dash in reach of the driver. Engine shall not start when not in park.

d. A 10- speed automatic overdrive with Select shift will be provided on all models.

- **COOLING SYSTEM**

a. Radiator and cooling system shall be OEM standard.

- **EXHAUST SYSTEM**

a. The vehicle shall be equipped with an OEM exhaust system which meets or exceeds FMVSS and EPA noise level and exhaust emission (smoke and noxious gas) requirements.

- **Brakes**

a. Brakes should be capable of stopping a fully loaded vehicle at a deceleration rate equivalent to a 22-foot stop from a speed of 20 miles per hour.

b. Vehicle shall be equipped with a dual hydraulic power assisted system with disc type brakes on the front wheels and disc type on the rear wheels (Factory Anti-Lock Brake system).

c. A factory hand or foot operated parking brake shall be supplied with a warning light on the dashboard. The parking brake shall be capable of holding a fully loaded vehicle on a 15-degree incline. Vehicle must comply with FMVSS 105.

- **TIRES & WHEELS**

a. Tires shall be OEM standard. The combined load rating of the tires shall equal or exceed the GVW of the vehicle. A spare tire shall be furnished and mounted on a spare wheel. All tires shall be the same size and rating.

b. Steel wheels shall be standard.

c. A spare tire: mounted and balanced on the same size and type wheel assembly of the tires mounted on the Transit Vehicle, shall be provided as standard and placed in vehicle.

AXLES AND DRIVE SHAFT

1. Axles shall be manufacturer's standard. Each axle must be load rated for the GAWR of the size Transit vehicle involved.
2. The drive shaft shall be rated capable of transmitting the torque multiplication of the power units to the drive wheels.
3. Protective metal guards for the drive shaft shall be provided to prevent a broken shaft from touching the ground, contact any brake line, or whipping through the floor. The drive shaft guards shall conform to 49 CFR. OEM drive shaft guards will be utilized.

Flooring

The floor system shall be made of aluminum sections interlocked together shall be used to reinforce the OEM floor. The floor extrusions shall with L-track. The modular floor system shall allow for attachable seats, wheelchair securements, and occupant securements to provide for flexible configurations. The aluminum floor system shall be fully tested to all FMVSS requirements for both fixed and folding seats. The floor system must be chemically bonded to the OEM floor and remove the need of welding or excessive drilling and bolting. The floor system should be free of any additional noises due to rattling parts. Seats intended for use with the floor system shall be fully safety tested attachment methods. Bolted to the L track. Safety - Must meet 15g rear and 20g frontal collisions. Must meet all FMVSS regulations, 207, 210 and 302. Low profile cover on L-Track is requires, except where seat frame bolts to track.

STEPS

1. Shall have lettering that reads "WATCH YOUR STEP"

WIRING HARNESS & ROUTING

1. All second stage electrical wiring shall be automotive stranded copper. All circuits shall be properly sized and protected as described by the applicable SAE standards. Each wire is to be color-coded and permanently labeled at least every (18) inches to identify their function. All electrical accessories except the radio and lights shall be wired through the ignition and must shut off when the engine is off. All exposed terminals and wiring shall be protected from the elements using sealed terminals. Exposed wires shall be wrapped or loomed in corrosion and moisture-resistant material. All connectors shall be environmentally sealed high impact plastic pin connectors. Each vehicle shall contain a set of both; OEM chassis and all second stage detailed wiring schematics that indicate the color and function system by system for easy troubleshooting

FMVSS CRASH AND SAFETY TESTING STANDARDS

1. Transit Van shall meet all current FMVSS Crash and safety Testing standards for this type of vehicle.
2. Written certification that the vehicles supplied through this bid proposal will be in compliance must accompany this proposal.

Suspension System

1. Shall be manufacturer's standard. It must be load rated for the GVWR of the transit van involved.

Stabilizer Bar

1. Vehicle shall be equipped with front stabilizer bar and Ford Roll Stability Control.

Electrical System

1. The vehicle shall be equipped with a heavy-duty (12 volt) electrical system. All OEM chassis and second stage electrical components shall be selected and integrated to function in an environment characterized by low engine (alternator) speeds and high amperage draws (due to lights, wheelchair lift/Ramp, 4-way flashers, air conditioning, or heater, and other accessories in constant operation). The entire electrical system, shall comply with CFR 49 sections 393.29, 393.30, 393.31, 393.32, and 393.33 respectively.

2. OEM alternator shall be upgraded 220 amps. Manufacturer shall provide in proposal, total amperage draw with all systems functioning with the exception of momentary circuits.

3. All accessories and electrical equipment except head lights, parking lights, emergency flashers and wheelchair lift shall be wired through the vehicle ignition switch to be operative only with the switch in ON or ACCESSORY position.
4. The vehicle shall have dual OEM 650 CCA batteries (minimum) located in a readily accessible area for maintenance and/or replacement.
5. All battery cable connections shall be coated to prevent corrosion. Battery must be date stamped and be no older than 1 year from delivery date.
6. A reverse direction alarm (BUA) in compliance with SAE J994b with respect to acoustical performance for a Type B device, but emitting at least 97dBA plus or minus 4dBA four (4) feet away with a supply of 14 volts shall be installed.
7. Conformity to the environmental test stipulated by the SAE shall not be required.
8. All vehicles shall include the OEM reverse camera/monitor system as standard

equipment.

9. The vehicle shall be equipped with a CATalert or approved equal. The catalytic converter alarm shall honk the horn, turn on the interior dome lights, and turn on the camera system for recording with any attempt to remove or disable the catalytic converter.

10. The vehicle shall be equipped with a Break Out Box (BOBe) from Intermotive or approved equal to the OEM OBDII or a gateway connector, allowing up to 5 devices to be connected to the vehicle CAN network without conflicts

BUS DIGITAL SECURITY CAMERA SYSTEM

1. A 4 digital cameras system shall be installed with dual hard drives and 1 audio microphone per camera. The location of hard drive and cameras shall be determined during pre-production meeting before any buses are built. Cameras will be located for viewing as follows: front to Back, and back to front. View of the driver, Entry door and wheelchair lift overhead.
2. The digital security camera system shall include all necessary Hardware, licenses and equipment needed for complete operation of the security camera system.
3. Bidders are to provide information of the type/brand of system they will be providing in the vehicle and the reliability of the mobile video security system as used in other public transit bus applications. All information shall be submitted with their bid.

Camera systems

4. System shall have a recording capacity minimum of 30 frames per second from a maximum of one (2) color video cameras.
5. A minimum 30 days or up to 300 hours recording time shall be available.
6. Recording media shall be hard drive based.
7. System shall be capable of easy recording media hard drive swapping from one transit vehicle to another without requiring user intervention to reformat the hard drive. Programmable recording start/end times or after bus has been idles for longer than a set period of time.
8. System shall be synchronized audio/video multi-channel video viewing from the

installed video cameras and microphones.

9. The cameras must maximize image quality and automatically adjust through the changing lighting conditions including extremely low light and night time operations.
10. The cameras shall be mounted in a tamper resistant housing.
11. Digital recording unit shall power down at a user selectable time after switched power is removed. If unable to power down automatically, the unit shall tolerate having power removed suddenly with no negative effect on the recording unit, system hardware, operating system, stored date/video/audio, or on the system's ability to function normally once power is restored.
12. Vibration resistant recording unit capable of rigorous demands associated with public transit vehicles.
13. Capable of GPS automated time/date stamp and auto-updating for daylight savings time.
14. System shall be capable of recording events while transit vehicle ignition is OFF for a preprogrammed time period.
15. System shall be capable of optional event recording such as transit vehicle speedometer.
16. From existing dashboard mounted event trigger button, a simple steady-ON or OFF warning light to notify bus operator that system is active or has failed.
17. Digital recording unit must support continuous "loop" recording.
18. The system shall be adequately installed to withstand the rigors (starts/stops, shocks and vibration) of a public transit vehicle as well as temperature changes from summer highs of 100 plus degrees to winter lows of 40 degrees Fahrenheit.
19. The system should be encased in a key-operated locking enclosure.

Video Playback Minimum Requirements*:*

1. Captured video shall not require a specialized Personal Computer (PC) or other proprietary PC equipment to access and view recorded events.
2. Tamper proof recording format, recorded data shall be deemed acceptable as evidence in legal proceedings.
3. Captured incident clip/event shall be date and time stamped.
4. Captured video shall have a zoom function to allow the system user to zoom in on

a particular area of the recorded video.

5. System shall have industry standard video format for playback on standard purchase Windows PC.
6. System shall have video manipulation with ability to clip segments and capture still images.
7. Ability to easily transfer video clips and still images to industry standard CD-ROM, USB flash memory stick or DVD formats.
8. Capable of recording incident clips/events in a format that does not require additional software to playback on a standard PC.
9. Video playback from removable hard drive recording media shall take no more than 60 seconds to access and view on PC.
10. Playback must allow watching a selected camera or cameras while listening to the mic from a different camera.

CONTROL AND SWITCHES

1. All controls and switches added as part of the second stage process shall be permanently labeled for quick and unmistakable identification. Glued identification decals are not acceptable. All controls and switches shall be lighted for night time operation in such a way as to prevent glare in the windshield or driver's side windows.
2. The panel shall be equipped with at least the following:
    a. Speedometer and odometer.
    a. Ammeter or voltmeter.
    b. Oil pressure gauge or warning light.
    c. Fuel capacity gauge.
    d. Water temperature gauge.
    e. High beam lamp indicator light.
    f. Turn indicator and flasher indicator lights.
    g. OEM AM/FM clock stereo radio with factory installed speakers.
    h. The instrument panel shall have lamps sufficient to illuminate all instruments and be OEM standard.

b. DOORS

1. The Mini Bus shall have standard OEM driver and passenger front doors; and one dual swing passenger entry door.

c. Doors must maintain seal to prevent the entrance of air, water and other elements and must be capable of being opened from the inside.

d. The W/C lift/ Ramp Door, if equipped with option, shall have an Interlock System.

DUAL SWING ENTRY DOOR

1. Passenger entry door shall be a dual, electric swing out type with two glass windows. Clear door opening shall be a minimum of 30 inches wide by a minimum 76 Inches in height.

2. All entry doors shall utilize long – life friction reducing materials and or methods at upper and lower door-leaf pivot points. All door header linkages and rotation points shall incorporate similar long life friction reducing materials/methods in their construction.

3. If vehicle proposed has a passenger cab door, then the passenger entry door shall be located in the middle of the OEM cargo door opening, which is dictated by the curvature of the front of the vehicle, with the entry door located behind the curvature of the OEM roof.

4. The entry door shall be fully encompassed by an integrally welded steel door surround. The entire door surround shall be fully welded to the steel substructure (cage) and floor cross members and become an integral part of the vehicle structure. Entry doors shall incorporate gaskets and or seals to provide a barrier against intrusion by wind, water, and dust around their perimeter. The seal at the center of the door shall be by means of full height overlapping rubber seals, and shall include a barrier or sweep at the bottom of both doors.

5. The passenger entry door shall function through the use of an electric door operator. This door operator shall be modular in design for easy installation and reliable performance. The door operator shall develop sufficient force to close the doors and keep closed during normal operation, while at the same time provide slam free operation. The door operator shall either close or open the door in approximately 2.5 seconds.

6. For emergency situations, a manual door release control shall be provided adjacent to the door, and shall be designed to permit simple operations to override the electric door operator. This manual door release control shall be quickly identified for emergency exit only. For normal operations, the door operator shall

not open the passenger door until the transmission lever is placed in *PARK*. With the door in the open position, the transmission will remain locked in the *Park* position until the door is totally closed. The entry door shall be equipped with a sensitive edge as standard that will reopen the door when closed on a passenger or object in the doorway. The double-out transit style door has a safety feature built into the gear of the door closure. It is set to reopen if resistance is encountered, and is in lieu of the sensitive edge.

7. Vehicles proposed with the transit style door which has the curbside side curtain airbag disabled will be accepted, with the understanding that the manufacturer will test the functioning of the airbag with the transit style door installed and provide La. DOTD the results.

GLASS

1. All glass shall meet all FMVSS requirements that pertain to this vehicle.

***NOTE: Maximum tinting shall be 31% light transmittance.**

EXTERIOR LIGHTS

1. All exterior lighting shall be OEM.

INTERIOR LIGHTS

1. All vehicle lighting shall conform to ADA 49 CFR, Part 38, Subpart B.

REFLECTORS

1. Reflectors shall be size, type color and location required to comply with the requirements of FMVSS-108.

SEATING

1. All seats shall be forward facing including wheelchair. (For DOTD purposes, the driver is NEVER counted as a passenger.)

2. The seating floor plans shall be as shown on sketch. The vendor with the bid will submit an alternate sketch if seating floor plan is not as shown on sketch.

3. All seats shall be Freedman GO ES three point seats or approved equal. All seats shall be equipped with Sanitized® protection molded grab rails.

4. Foam padded grab rails are not acceptable.

5. The front driver and passenger seat shall be OEM and made of durable type materials that can be cleaned easily.

6. The TRANSIT VAN shall have a center aisle with seats made of durable type materials that can be cleaned easily.

7. All seats shall be mounted on seat tracks system welded to wall and floor body structure. Seat track must meet FMVSS 207 and a copy of the latest certification shall be submitted with bid.

8. All Seats shall be upholstered with heavy duty vinyl material, minimum of 36-ounce per linear yard,

and meet or exceed all FMVSS and FTA Docket 90 requirements. All seats shall be Freedman GO ES three (3) point seats with CRS-225 hardware, or approved equal. These seats shall be FMVSS 225 compliant to attach removable child seats. Seat foam padding shall be neoprene compound cushioning (CR Safeguard XL Fire-resistant Cushioning or equal).

9. Each passenger seat position shall have integrated three (3) point seat belts, or approved equal. The seat belts must meet all applicable FMVSS Standards. Two (2) 18" seatbelt extensions must be supplied. If the manufacturer does not offer 18" seatbelt extensions, the longest extensions offered by the manufacturer shall be supplied.

10. All Mini Bus seats, including the rear row, must have adjustable recliner mechanisms (except fold-away seats in wheelchair positions).
11. All Mini Bus seats must have adjustable headrests (if available) and fold-up armrests.
12. All seats must be removable from the base frame.
13. All seats frames must be coated in order to provide resistance from corrosion and salt.
14. Two seat belt extensions are to be provided as standard.
15. Fold-away seats shall be accepted when wheelchair lift/ramp option is selected
16. All seats must be forward facing.
17. Rear row seating shall not be full row, to allow for emergency exiting out rear door.

INTERIOR FINISH

1. All interior panels shall be OEM. Panel fastening devices shall match the color of the panels. The interior shall provide a pleasant atmosphere, be aesthetically pleasing, and contain smooth finishes without any unprotected sharp edges.
All interior materials must comply with FMVSS-302.

CONTROLS AND SWITCHES

1. All controls and switches added as part of the second stage process shall be permanently labeled for quick and unmistakable identification. Glued identification decals are not acceptable. All controls and switches shall be lighted for night time operation in such a way as to prevent glare in the windshield or driver's side windows.

HEATER/DEFROSTER

1. The OEM and passenger heater unit(s) must achieve a 65 degree interior temperature with an empty coach when the ambient temperature is "32" degrees Fahrenheit within 30 minutes (measured at front mid-vehicle and rear in the vehicle).

OEM heater hoses are acceptable unless modified or relocated in the second stage process.

2. Second stage hoses shall be protected and supported by OEM equivalent clamps in all locations where they are close to or pass through metal frame members to prevent chafing. Hoses shall be shielded against heat at any location where they pass over or near any part of the exhaust system.

MIRRORS

1. Left and Right exterior mirrors shall be power adjustable from the driver's seat.
2. One 10" Day/Night OEM rear view mirror shall be windshield mounted.
3. All mirror mountings shall be OEM chassis standard and exterior mirror mountings shall permit moving out of position to prevent mirror damage from automatic vehicle washers or designed in such a manner that would prevent damage.

EXTERIOR FINISH

1. All welds shall be chipped to remove slag. Welding procedures and materials shall be in accordance with standards of the American Society of Testing Materials and the American Welding Society. All metal parts shall be de-greased and properly cleaned and sanded in preparation for painting. All metal surfaces shall be sprayed with primer. Parts and surfaces that will be covered in the finished vehicle shall be given a second coat of primer to prevent corrosion. If any parts are pre-primed prior to assembly and should any welding be done during assembly then the weld shall be chipped. The weld and the surrounding area shall be primed again.
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RUST PROOFING

1. The entire underbody, including wheel housings shall be rust proofed with PPG D822 Corrosion Resistant Primer. Undercoating will not be permitted.
2. Proper care shall be taken to prevent any coating from being deposited on grease fittings, moving parts, brake hoses, and drive shaft.

BUMPERS

1. Front and Rear bumpers shall be OEM impact resistant.

AIR CONDITIONING

1. The air conditioning equipment **must** be capable of cooling the vehicle to meet or surpass the minimum requirements.

WHEEL CHAIR LIFT

1. The wheel chair Lift, its design, installation and operation shall comply with the Americans with Disabilities Act (ADA), Regulations and Requirements, as amended (Title 49 Code of Federal Regulations, Part 38, Subpart B, Section 38.23) and 49 CFR Part 571

2. Vehicle shall be equipped with a Lift or Ramp with a minimum usable width of 30" and meets the requirements of ADA, 49 CFR.

3. Lift shall be a Braun lift with a rated capacity of 1000 lbs. (Minimum).

4. The Lift components, including the platform, shall be easily disassembled to facilitate repairs and replacement of parts.

5. Each side of the Lift/ramp shall have protective barriers at least two (2) inches high and a Wheel Chair Lift belt to be standard to prevent mobility aids from rolling off the ramp edge. Ramp shall also have a strip of two (2) inch reflective tape on each side of the ramp.

6. An audible warning signal shall be activated in the vehicle in the event that the lift/ ramp doors are opened and the interlock is not engaged.

7. The lift shall be equipped with a safety belt, mounted to the handrail, and belt will be interlocked when available

8. A sidewall folded wheelchair carrier shall be offered an as option.

9. When the wheelchair lift option is selected, an emergency roof hatch will be provided as standard for that option.

SECUREMENT DEVICES

1. The retractor securement system shall meet the following requirements:
   a. 30MPH/20G impact test criteria per SAE J2249; and
   b. 49 CFR Part 38 Americans with Disabilities Act (ADA).

2. The occupant restraint system shall meet the following requirements when used in conjunction with the retractor system:
   a. Federal Motor Vehicle Safety Standards (FMVSS209 & MVSS302);
   b. 49 CFR Part 38 Americans with disabilities Act (ADA); and
   c. 30MPH/20G impact test criteria SAE J2249.
   d. Floor attachments shall be installed according to appendix F in SAE J2249.

3. In vehicles with securement device or system for mobility aid devices shall face toward the front of the vehicle.

4. Retractors shall be heavy duty with heat treated components and a metal or impact resistant plastic housing.

5. The retractor shall be complete with combination retractor straps with height and vertical adjustment for securing the wheelchair or mobility aid and two retractors for the occupant restraint system.

6. The wheel chair mobility aid retractors shall be equipped with self-adjusting tension controllers for tightening and have the ability for quick release.
7. The wheelchair or mobility aid retractors shall be equipped with "S" or "J" hooks to simplify operation.
8. The wheel chair or mobility aid retractors shall be capable of being mounted directly to the vehicle structure using a retractor mounting kit.
9. The occupant restraint system shall be equipped with a height adjuster for the shoulder belt, having a vertical adjustment of approximately 12 inches.
10. The tie-down system shall be able to secure a standard wheelchair or mobility aid in less than 10 seconds. A set of four (4) "webbing loops" is to be provided at each station. If a floor track tie down system is installed, the tracks and corresponding retractor shall be clearly marked to identify the proper location and placement for each position provided.
11. Storage containers for restraint system belts and instructions for use of restraint system shall be included and mounted in safe and convenient location.
12. Manufacturer shall install all restraint hardware according to the instructions provided by the restraint supplier.
13. WC-18 compliant occupant restraint system shall be provided as an Option.

SAFETY EQUIPMENT

1. Each vehicle shall be equipped with the following equipment as standard:

    a. Provide a Deluxe Medical Truck Kit mounted in an accessible location.
    b. Provide a Fire Extinguisher, 5-pound rechargeable ABC type, with charge status gauge and decal noting most recent charge date. This unit shall be mounted in an easily accessible interior location near the driver's position and/or vestibule areas.
    c. Provide Warning Triangles, reflective type, three (3) unit kit, secured in a location readily accessible to the driver.
    d. Provide two (2) Seat Belt Cutters, mounted in an accessible location, one near the wheelchair ramp and the other accessible to the driver.
    e. Provide a Blood Pathogen/Bodily Fluid Spill Kit, secured in a location readily accessible to the driver, and manufactured by the First Aid Only Company, or approved equal. The Kit must meet federal OSHA regulation 29CFR1910.1030(d)(3)(i).

    f. An Oxygen Holder/GO2 model number FE201122 must be installed.

A red warning reflector kit with not less than three reflectors shall be furnished and mounted in the vehicle. Mounting shall not interfere with passenger entry or exit.

i. Each vehicle shall have a factory installed, hot-water type, combination fresh air and/or recirculating type heating system. Heating system shall incorporate windshield defrosters. All controls for the heating system shall be located in the driver's compartment. Combustion heaters will not be allowed.

e. Miscellaneous Technical Specification:

a. All metal shall be thoroughly cleaned, paint lock process or acid etched, and primed. All exterior visible metal shall be painted in addition to priming. All welded joints shall be cleaned and primed.

b. There shall be no sharp corners on the unit that will cause injury to passengers. All corners that could cause injury to passengers shall be slightly rounded and filed smooth.

c. All welds shall be relatively free of slag inclusions and undercut. Filet weld sizes shall be equal to the thickness of the least of the joined plates.

d. All material installed shall be new and free of rust.

e. No wires shall be visible on the exterior or interior of the unit.

f. Weather stripping shall have no coating of any type.

g. The body shall be free of all cracks, dents, and defects due to metal fatigue or physical damage.

h. All switches shall be permanently labeled.

i. All windows shall be free of any defects due to welding slag or assembly damage.

j. All units shall be thoroughly cleaned and weather sealed prior to inspection.

k. All interior and exterior signs may be painted or decals. All ADA decals shall be REFLECTIVE and affixed to vehicle. Vehicle shall also have two (2) reflective 9" x 17" Caution signs as list in yellow with black lettering (2" inch lettering): CAUTION! Vehicle All interior and exterior signs may be painted or decals. Vehicle will be delivered with all appropriate ADA handicap decals and signs inside and out. Vehicle shall also have two (2) reflective 9" x 17" yellow and black caution signs with 2" lettering inch lettering that state:

l.

i. "CAUTION! Vehicle makes sudden and frequent stops"
ii. "CAUTION! Vehicle stops for all Railroad Crossings"

m. Burn marks, cuts, or scuff marks will not be allowed on the interior or exterior of the unit.

n. All hoses supplies in assembling the unit described in these specifications shall have temperature and p.s.i. ratings in excess of maximum operating temperatures and pressure of fluids or materials being transferred.

o. The component parts of the unit shall be of the proper size and design to safely withstand maximum stresses imposed by a capacity load.

p. The entire unit shall be watertight and tested for any water leaking into the interior of the vehicle prior to delivery.

q. All vehicles shall be completely road tested prior to delivery.

r. All vehicles shall be delivered with a minimum of ½ take of fuel.

f. <u>Change Orders:</u>

a. Any modification or amendment will be set forth in a Purchase Order Change. All Change Orders will be issued by the Division of Administration's Purchasing Section by written Addendum.

g. Descriptive Literature:

UPON REQUEST TWO (2) COPIES OF DESCRIPTIVE PROJECT ADVERTISEMENT LITERATURE (BROCHURES) MUST BE FURNISHED WITHIN TEN (10) DAYS TO BE CONSIDERED FOR AN AWARD.

h. Product Support Literature:

EACH PIECE OF EQUIPMENT WILL BE ACCOMPANIED BY COPIES OF THE FOLLOWING LITERATURE:

1. Certificate of Origin (one copy)
2. Manufacturer Service Policy (one copy)
3. Owners/Operators Manual (one copy)
4. Service Manual (one copy)

To include Service/Repair information as applicable for:

a. Chassis/understructure
b. Engine
c. Transmission
d. Passenger Body

5. A wiring diagram of all components installed by the vendor shall be furnished with each unit.
6. Miscellaneous Manuals (on copy each) including:

i. Safety Manual describing operator "do's & don'ts" for safe vehicle operation.
ii. Tire maintenance/Tire Car Manual

26. Warranty:

Copies of all Manufacturers' standard product warranties along with warranties covering any equipment sub-systems (engines, tires, accessories, etc.) attached to the principal equipment.

The **warranty** of each unit shall include chassis, engine, drive train, modifications, etc., and shall be for a minimum of **three (3) years or 36,000 miles** from date the Department of Transportation and Development puts the units into service or within 90 days after acceptance, whichever is sooner.

Any and all materials, specialties, equipment or accessories that prove defective in normal operation within the above period will be replaced or repaired by the manufacturer free of any and all cost to the vehicle operator, including material and labor.

The manufacturer will state where warranty maintenance work may be obtained in Louisiana. Warranty replacements and/or repairs will be furnished promptly by the successful bidder.

Belts, brake pads, filters, tires, fluids, light bulbs, etc., will not be included in the warranty (normal everyday wear and tear items).

The bidder will provide written assurances and warranty certifications with bid packages regarding warranty repairs.

Wiring and Cabling:

The Vendor shall submit wiring and cabling diagram of

video/camera equipment with the bid.

All connectors and sockets shall be of positive locking design and shall be equipped with gold contacts or similar other rust or oxidation inhibiting contacts.

Plug in connectors shall have industry standard crimp wiring. Connections shall be made at terminal block ends or be soldered.

Wiring shall be uniformly color coded and tagged.

The power source wires must be sized appropriately to meet specified requirements for unit start up and normal operation and should prevent unacceptable voltage drops.

Wherever there is a possibility of interference, wiring and interconnecting cables shall be properly shielded.

Video and audio cables shall be gauged to minimize signal loss.

A protective plastic or rubber grommet must be installed in every hole that provides passage for conduit or wiring to avoid chaffing or cutting of the conduit or wiring.

Conduit shall be installed and secured in all vehicles.

All wires and cabling shall to be concealed in a vandal resistant manner.

Warranty:

Vendor shall provide a minimum standard warranty on all equipment and shall maintain this equipment during the warranty period.

All vendors must provide a list of recommended spare parts,

including unit costs.

5. DECALS:

The Louisiana transit decal with parish name and phone number shall be installed on both sides of vehicles for all vehicles before deliver to DOTD. See below for sizes and dimensions. Locations of decals to be determine during preproduction meetings. The colors and materials required are 3M Brand 3650-53 Cardinal Red (Louisiana); 3M Brand 7725-37 Sapphire Blue (Parish Name, Number, Transit and State of Louisiana) and 3m Brand 7725-12 Black (State of Louisiana). The parish names and phone numbers will be supplied to vendor by LADOTD. See Examples below:

Parish Name & Phone # 3" x 68" Example: 3M Brand 7725-37 Sapphire Blue

West Baton Rouge Parish (225) 225-1234

Minivans – 11"x 53.75"

Buses – 18"x 87"

Modified vans – 22.25"x 126.5"

. Louisiana Safety Inspection:

Safety inspections shall be performed on each vehicle prior to delivery and a Louisiana State safety sticker properly affixed.

28. Miscellaneous Requirements:

A mileage certification form as required by the Louisiana Public Safety Department should be completed by the vendor and furnished upon delivery of the vehicles.

Modification to the vehicles may be performed by the second-stage manufacturer.

Vehicle shall comply with Louisiana State and Federal emission requirements in effect at time of delivery.

Note: Time of delivery may be considered in determining successful bidder.

Invoices will not be accepted until the delivered unit passes inspection for specification compliance.

A notarized Bill of Sale must be furnished with each unit upon acceptance.

Vendor/Contractor shall be ISO 9001:2000 Certified and provide certification with bid.

Converted Minivan must have been submitted to Altoona Bus Test Center for testing. A copy of test report shall be made available to the state upon request.

27. Additional Equipment

The following items are supplementing if necessary, those items already cataloged as standard shall be furnished and installed:

a. Shall have a front and rear bumper.

b. A 2 A-10 B: C fire extinguisher shall be furnished and mounted in the vehicle. The operating mechanism shall be sealed with a type of seal which will not interfere with the use of the fire extinguisher and pressure gauge shall be mounted on the extinguisher so as to be easily read without

removing the extinguisher from its mounted position. Mounting of the unit shall not interfere with passenger entry or exit. A 5 lb (pound) fire extinguisher is acceptable.

c. A 16 unit first aid kit and a blood borne pathogens clean up kit shall be furnished and mounted in the vehicle. Mounting shall not interfere with passenger entry or exit.

d. A red warning reflector kit with not less than three reflectors shall be furnished and mounted in the vehicle. Mounting shall not interfere with passenger entry or exit.

e. There shall be sufficient interior lighting for night operation to illuminate the driver and passenger entry area and interior aisle. Overhead and lower lighting shall be installed in the interior center seat row of the vehicle at the entrance area. System shall automatically illuminate when doors are open. All vehicle lighting shall conform to ADA 49 CFR.

f. A tire lug wrench and jack shall be furnished with provisions for storage.

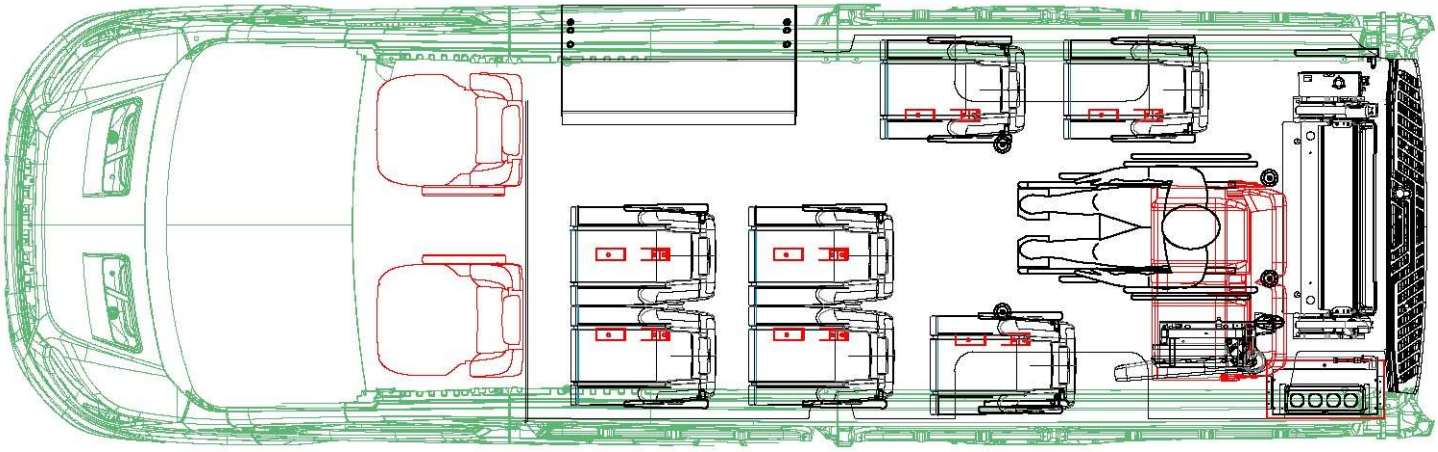
g. An interior operated hood release is required.

h. The entire underside of the body and chassis including floor member, side panels below floor level, and fender wells shall be coated with a non-flammable material specifically designed for undercoating and comply with current Federal and State Standards. All openings in the floorboards and firewall shall be sealed.

i. An OEM Rearview Camera with Monitor Shall be Provided

j. Vehicle shall have back up alarm installed.

FORD OEM SINGLE COLOR INGOT SILVER



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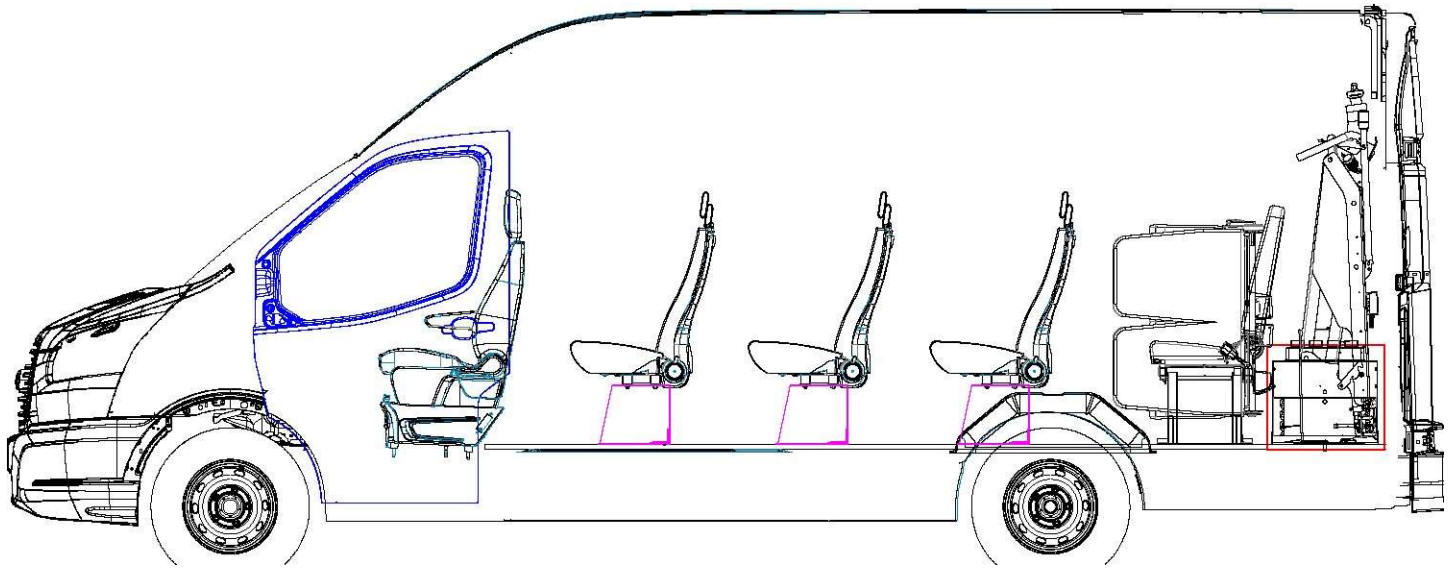

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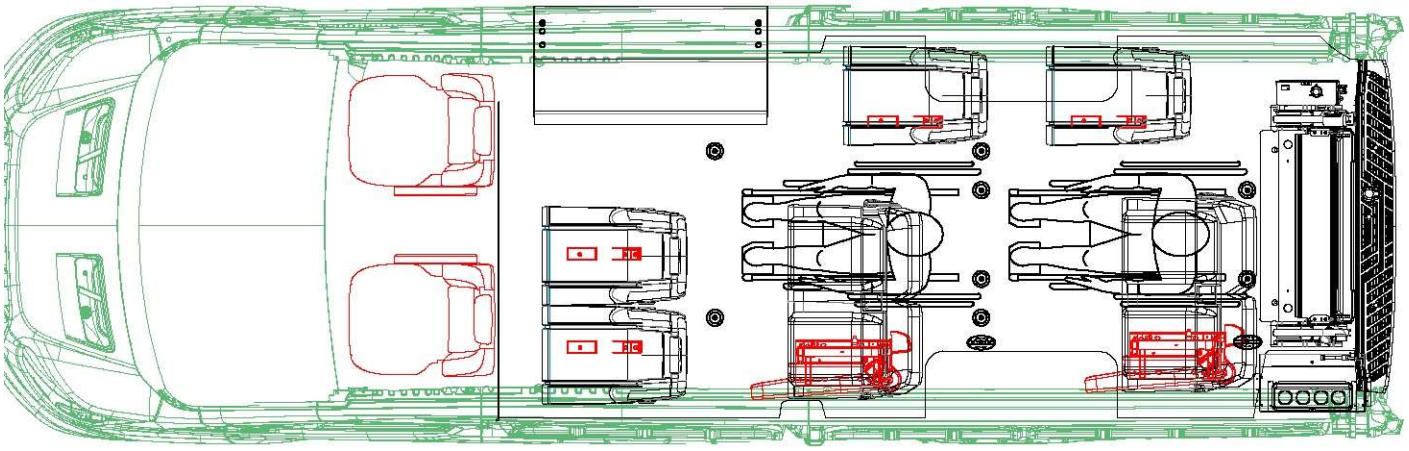

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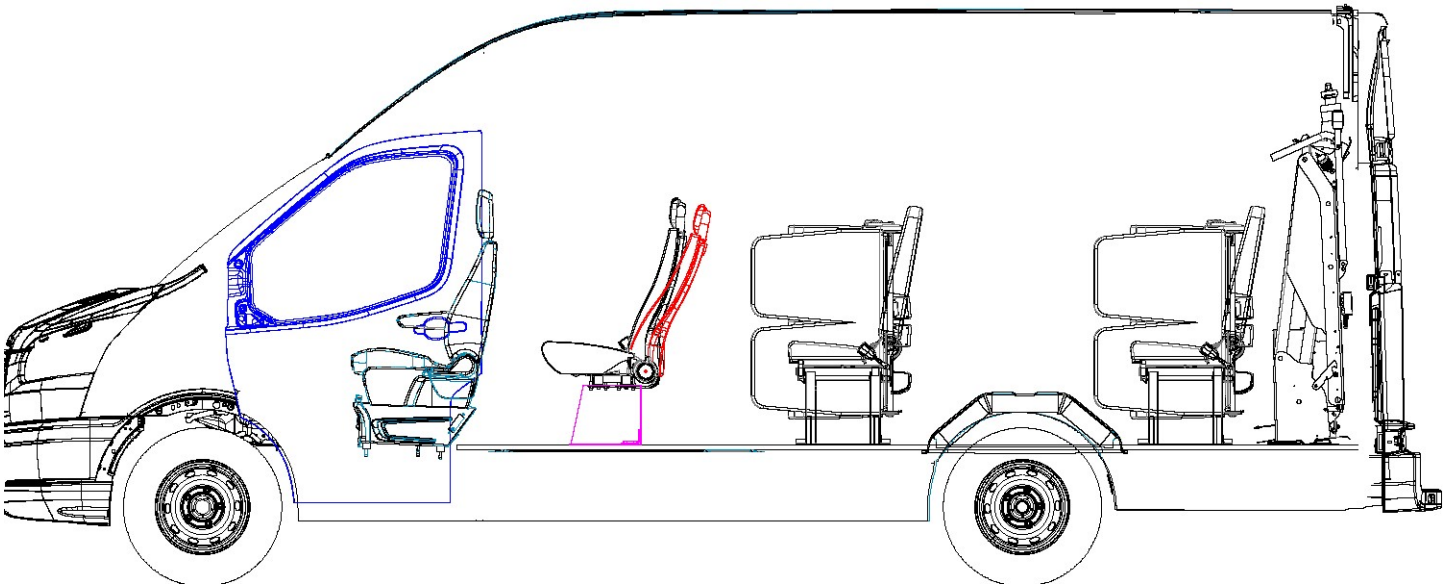

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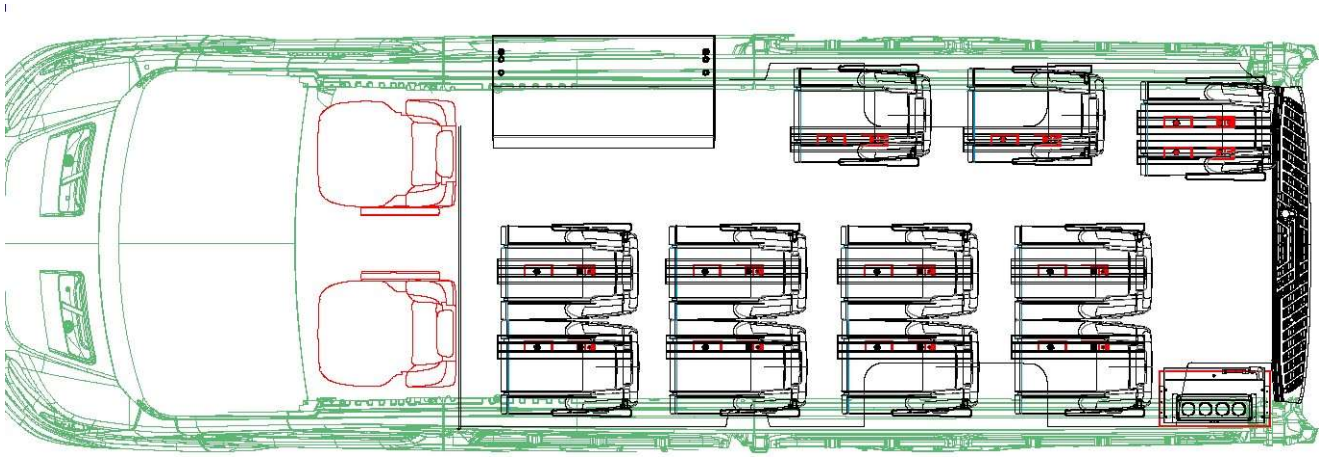
12 passenger



12 passenger