

Attachment D

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PART I
GENERAL INFORMATION
INTRODUCTION

1. The Wisconsin Department of Transportation is acting as an agent for a group of private, nonprofit organizations and public entities in this transaction in support of federally funded Section 5310 program. The Department will supply vendors with the information needed to prepare titling and registration papers, as well as delivery instructions, for each vehicle. (5310 vehicle delivery destinations are shown on page 34).
2. Funding for this project is 80% from State or Federal funds and 20% from private, nonprofit agencies or local units of government receiving the equipment. The equipment will be used by all of the 5310 agencies to provide specialized transportation services to elderly and/or disabled persons.
3. A payment will be made to vendors by the Wisconsin Department of Transportation for the entire bid price when the vehicle is delivered and accepted. Correspondingly, all purchase orders will be issued by the Department of Transportation, and all bills or invoices are to be directed to the Department of Transportation. Further details are given in section F, "Conditions of Sale."
4. All of the specified vehicles (except line item 00001 and 00002 – Taxi and Mini-Van) will be operated as "**Human Services Vehicles.**" All of the vehicles must therefore conform with the design and construction standards as stated in TRANS 301, Wisconsin Administrative Code. Note the inspection requirements in Parts F9 and F10(c) below.
5. **All** equipment must meet applicable Federal Motor Vehicle Safety Standards (FMVSS) at the time of vehicle delivery including FMVSS 403 and 404 regarding lift interlock devices.
6. Various certifications are required to be submitted with this bid, including one showing compliance with the FTA's Altoona Bus Testing requirements for mini buses, small buses, and medium and large buses not originally built as a school bus.
7. **A vendor whose response to this request for bids includes buses subject to the Altoona Bus Testing requirements must submit a copy of the test report for the vehicle(s) bid.**

A. GOALS FOR PARTICIPATION BY DISADVANTAGED BUSINESS ENTERPRISES (DBE'S)

The program under which these vehicles are being procured is subject to Federal regulations that seek to increase the amount of goods or services that are purchased from certain small businesses, using State and Federal financial aids. This section contains some formal statements of policies and goals, and it describes the specific actions which a bidder must take in order to make its bid valid.

1. Statement of Policy 49 C.F.R. 23.43(a)(1)
It is the policy of the U.S. Department of Transportation and the Wisconsin Department of Transportation that disadvantaged business enterprises (DBE's) as defined in Title 49, Code of Federal Regulations, Part 23 (49 C.F.R. 23) shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with Federal funds under this program. Consequently, the DBE requirements of 49 C.F.R. 23 will apply to this program.
2. DBE Obligation 49 C.F.R. 23.43(a)(2)
The Wisconsin Department of Transportation or its contractor shall agree to ensure that DBE's as defined in 49 C.F.R. 23 have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds provided under this program. In this regard, the Wisconsin Department of Transportation or its contractors shall take all necessary and reasonable steps in accordance with 49 C.F.R. 23 to ensure that DBE's have the maximum opportunity to compete for and perform contracts. The Wisconsin Department of Transportation and its contractor shall not discriminate on the basis of race, color, national origin or sex in the award and performance of United States DOT assisted contracts.
3. Goal for Participation by Disadvantaged Business Enterprises
Where subcontracting opportunities exist in this procurement, the Wisconsin Department of Transportation's goal is for DBE's to receive subcontracts valued at 10% of the total value of all subcontracts.
4. Definitions
 - a. Disadvantaged Business Enterprise. A small business concern, as defined in Section 3 of the Small Business Act and implementing regulations which 1) is at least 51% owned by one or more socially and economically disadvantaged individuals, or, in the case of any publicly owned business, at least 51% of the stock of which is owned by one or more socially and economically disadvantaged individuals, and 2) whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.

- b. Socially and Economically Disadvantaged Individuals. A group comprised of the following four categories of persons:
- 1) Individuals who are citizens of the United States (or lawfully admitted permanent residents) and who are Black Americans; Hispanic Americans; Native Americans; Asian-Pacific Americans; and Asian-Indian Americans.
 - 2) Individuals found to be disadvantaged by the Small Business Administration, U.S. Department of Commerce, pursuant to Section 8(a) of the Small Business Act.
 - 3) Individuals whom the Wisconsin Department of Transportation has determined on a case-by-case basis to be socially and economically disadvantaged based on federal guidance contained in Title 49, Code of Federal Regulations, Subpart D, Appendix C.
 - 4) Women.

5. Application of DBE Goals to this Procurement; Vendor Requirements

Vendors must submit along with their bids a "DBE Certificate" and a "Declaration of DBE Participation in Subcontracts."

a. DBE Certificate.

Federal regulations permit the Wisconsin Department of Transportation to obtain vehicles under this program only from manufacturers, which have goals and plans for DBE participation, which have been approved by the Federal Transit Administration. Vendors who respond to this request for bids must include with their bid a certification that the manufacturer of the basic vehicles offered has complied with federal law and regulations covering DBE participation. The certificates are included ahead on pages 7-9.

NOTES:

*The DBE certification may be made either by the manufacturer itself or by its distributor or dealer. Use the appropriate certificate.

*Certifications covering each separate manufacturer of vehicles offered in a bid must be submitted. If there are three different manufacturers of vehicles, three certifications must be submitted.

*A dealer or distributor should not assume that the manufacturer or final stage manufacturer of the vehicle, which it is offering, has a FTA-approved DBE program and goal. Check the manufacturer to make sure this is true.

*A bid lacking DBE certifications will not be accepted.

b. Declaration of DBE Participation in Subcontracts.

A dealer that wishes to respond to this solicitation must determine whether or not subcontracting opportunities exist. These opportunities exist if a dealer must purchase materials, manufactured parts or services from an outside supplier in order to make additions or modifications to the basic vehicles as delivered from the manufacturers. These opportunities exist regardless of whether a formal contract or a simple purchase order is used.

The following items are examples, which could give rise to subcontracting opportunities:

- o *Additions of roof vents or hatches.*
- o *Additions of running boards or extra steps.*
- o *Additions of wheelchair lifts.*
- o *Additions of wheelchair securements.*
- o *Modifications to vehicle interiors as provided by the vehicle manufacturers*

If these subcontracting opportunities do exist, the Wisconsin Department of Transportation and the primary vendors who wish to respond to this request for bids must demonstrate that 10% or more of the subcontract work will be performed by DBE's or good faith efforts were made to achieve these goals.

Good Faith Efforts - What Bidders Must Do:

The primary responsibility for making good faith efforts to obtain the participation of DBE's in this procurement rests with the primary vendors who bid on these specifications.

Having identified any products or services which it must purchase in the commercial marketplace, a primary vendor must then seek to place this business with firms so as to meet the DBE goal. In part, the primary vendor's good faith efforts must be made to identify available and suitable DBE's. If efforts to identify DBE's are successful, then good faith efforts must also be made to fairly

assess the capability of the firms to perform the needed subcontract work or supply the needed products, and sound reasons must back up the decisions to place or not to place business with DBE's.

Vendors who respond to this request for bids must include with their bid a "Declaration of DBE Participation in Subcontracts," which describes the subcontracting opportunities, the amounts of DBE participation, and the efforts made to reach the DBE goal.

NOTES:

*A bid lacking the "Declaration of DBE Participation in Subcontracting" will not be accepted.

*Failure by a vendor to supply equipment in accordance with its "DBE Certificates" and "Declaration of DBE Participation in Subcontracting" shall constitute a breach of contract and may result in the cancellation of orders.

*Firms must have proof or be able to establish proof of their DBE status. This proof may be based on DBE certificates issued by WisDOT. See the references at the end of this section concerning the WisDOT certification procedure.

6. Summary

At all steps in the manufacture of the vehicles as specified, DBE's must be given the maximum opportunity to participate in contracting or subcontracting opportunities. Goals and programs for obtaining DBE participation must cover all these contracting or subcontracting opportunities. Most, if not all of these opportunities will be covered by DBE programs of the manufacturers. A bidder must certify that the manufacturers of the vehicles offered have DBE programs and goals approved by the Federal Transit Administration.

The attached specifications call, in certain cases, for additions or modifications, which are not available from the manufacturers. The bidder must therefore seek these additions or modifications in the commercial marketplace. These opportunities to place business with outside suppliers or subcontractors are subject to the goal of 10% DBE participation. A bidder must describe subcontracting opportunities, the amounts of DBE participation and the efforts made to reach the DBE goal.

7. Basis for Selection Among Competitive Bids

Award(s) shall be made on the basis of the lowest unit price per line item. Timeliness of delivery and contract length (# OF DAYS) may be considered when making this award when deemed in the best interest of the WISDOT.

8. References

For additional information on the procedure by which small firms become certified as DBE's contact:

**Michelle Carter-Rutledge, Civil Rights & Compliance Section Manager
Wisconsin Department of Transportation**

**4802 Sheboygan Avenue
P.O. Box 7965, Rm 451
Madison, WI 53707-7965
Phone: (608) 266-6669 – Fax (608) 267-3641
E-Mail: Michele.Carter@dot.state.wi.us**

For general information about the requirements of this section, contact:

**Tom Robinson
Section 5310 Manager
Bureau of Transit and Local Roads
Wisconsin Department of Transportation
P.O. Box 7913
Madison, WI 53707-7913
(608) 266-0560**

For questions regarding vendor requirements, contact:

**Beth Blancher, Purchasing Agent
Bureau of Management Services
Division of Business Management
Wisconsin Department of Transportation
P. O. Box 7396
Madison, WI 53707
(608) 266-2236**

For questions regarding requirements of Human Service Vehicles or of Yellow School Buses, contact:

**Motor Carrier and Inspection Section
Division of State Patrol
Wisconsin Department of Transportation
P. O. Box 7912
Madison, WI 53707-7912
(608) 267-9762 or (608) 266-0305**

Dealer/Distributor Certificate

**DISADVANTAGED BUSINESS ENTERPRISE
CERTIFICATE**

The undersigned hereby certifies that the manufacturer of the transit vehicle offered has a Disadvantaged Business Enterprise (DBE) Program and a goal for DBE participation as required by 49C.F.R.23.41(e) and 49C.F.R.23.67 which have been approved by the Federal Transit Administration.

Name of Manufacturer: _____

Certified by: _____

Dealer/Distributor Name: _____

Date: _____

Manufacturer Certificate

**DISADVANTAGED BUSINESS ENTERPRISE
CERTIFICATE**

The undersigned hereby certifies that _____
(name of manufacturer) has a Disadvantaged Business Enterprise DBE program and a goal for DBE participation as required by 49 C.F.R. 23.41 (e) and 49C.F.R.23.67 which have been approved by the Federal Transit Administration.

By: _____

Title: _____

Date: _____

**Statement of DBE Participation
in Subcontracting**

I. Does your offer of equipment include subcontracting or purchasing opportunities?

Yes.

No. (Skip to Part V and sign.)

II. Describe the subcontracting/purchasing opportunities.

<u>Quantity</u>	<u>Description of Item</u>	<u>Cost</u>
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III. Will any of the subcontracts or suppliers be DBE's?

No.

Yes. If so, attach a sheet showing the following items:

A. Names of suppliers or subcontractors.

B. Addresses of suppliers or subcontractors.

C. The quantity and description of the products or services being provided.

D. The unit costs and total costs of these products or services.

IV. Efforts to obtain DBE participation.

In order to obtain DBE participation, a primary vendor will need to: 1) determine the availability of DBE's that provide the needed products or services; and, 2) evaluate their ability to reliably provide the products or services at the time they are needed and at a competitive price. If the primary vendor - the bidder - is unsuccessful in obtaining DBE participation, indicate what efforts were made to obtain this participation and why the efforts were not productive.

V. Signature

By _____

Company _____

Date _____

B. PRE-AWARD CERTIFICATIONS**1. Buy America Law**

This procurement is subject to Federal law which makes the purchase of American made products a requirement. The law is found under 49 U.S.C. 5323(j), and the related regulations are written under Title 49 of the Code of Federal Regulations, Part 661. The law and regulations establish a general requirement as well as certain exceptions.

a. The Law

The Contractor agrees to comply with 49 U.S.C. 5323(j) and 49 C.F.R. Part 661, which provide that Federal funds may be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 C.F.R. 661.7, include microcomputer equipment, software, and small purchases (currently less than \$100,000) made with capital, operating, or planning funds. Separate requirements for rolling stock are set out at 5323(j)(2)(C) and 49 C.F.R. 661.11. Rolling stock not subject to a general waiver must be manufactured in the United States and have a 60 percent domestic content.

b. Vendor Requirement

A vendor who wishes to respond to this request for bids must submit with the bid a certificate (or certificates) covering all of the vehicles offered. There are two types of certifications:

If the vehicles and related equipment that are offered are made in the U.S. or if the foreign content and final assembly location fall within the limits of the exception allowed by 49 U.S.C. 5323(j), complete the

**"Certification of Compliance
with 49 U.S.C. 5323(j)"**

If the vehicles and related equipment are not made in the U.S., but a vendor believes that the vehicles offered may possibly comply with the exceptions from "Buy America" that are set forth under 49 U.S.C. 5323(j)(2)(B) or (j)(2)(D), complete the

**"Certification of Non-Compliance
with 49 U.S.C. 5323(j)"**

c. Exceptions to "Buy America"

Exceptions can be granted only by the headquarters of the Federal Transit Administration upon request by the Wisconsin Department of Transportation. Vehicles and related equipment that do not comply with "Buy America" can only be purchased under a FTA approved exception. A vendor which anticipates noncompliance and submits a Certification of Non-Compliance will need to later be able to justify a request for an exception.

2. Purchaser's Requirements

49 CFR 663 - Subpart B requires that the products bid are the same as described in the bid solicitation specifications and that the proposed manufacturer is a responsible manufacturer with the capability to produce a bus that meets the specifications.

3. FMVSS

49 CFR 663 - Subpart D requires that the vehicles to be provided will comply with the relevant Federal Motor Vehicle Safety Standards issued by the National highway Traffic Safety administration in Title 49 of the Code of Federal Regulations, Part 571 or that the vehicles will not be subject to FMVSS regulations. **The manufacturer's self-certification information of compliance or a statement from the manufacturer of exemption from compliance must be submitted with the bid.**

**Certificate of Compliance
with 49 U.S.C. 5323(j)(2)(C)**

"Buy America"

The bidder hereby certifies that it will comply with the requirements of Section 49 U.S.C. Section 5323(j)(2)(C), Section 165(b)(3) of the Surface Transportation Assistance Act of 1982, as amended, and the regulations of 49 C.F.R. 661.11:

Date: _____

Signature: _____

Company Name: _____

Title: _____

The proposer will also provide a detailed list of all the major components and subassemblies (see list below) of the vehicle and the calculated percentage for each item of total manufacturer's cost that was made in the United States. The proposer will make available to the Contracting Officer, upon request, any and all costs and other documentation to support this listing in order to comply with 49 C.F.R. Part 661. The list of items is as follows:

Engines, transmissions, front axle assemblies, rear suspension assemblies, air compressor and pneumatic systems, generator/alternator and electrical systems, steering system assemblies, front and rear air brake assemblies, heating systems, passenger seats, driver's seat assemblies, window assemblies, entrance and exit door assemblies, door control systems, destination sign assemblies, interior lighting assemblies, front and rear end cap assemblies, front and rear bumper assemblies, specialty steel (structural steel tubing, etc.), aluminum extrusions, aluminum, steel or fiberglass exterior panels, interior trim, flooring, floor coverings, fire hoses, and wheelchair assemblies.

The manufacturer's information must also include:

- The proposed final assembly location;
- A list of activities that will take place during final assembly; and
- The proposed total cost of final assembly.

This list will be requested at least two times during the procurement process: (1) Prior to award of the contract; and, (2) within thirty (30) days following the manufacturer's assembly of the first vehicle awarded in the base contract. Subsequent post delivery "Buy America" audit listings for the contract options will be provided by the proposer awarded the contract, if requested.

**Certificate of Non-Compliance
with 49 U.S.C. 5323(j)(2)(C)**

"Buy America"

Certificate of Non-Compliance

The bidder hereby certifies that it cannot comply with the requirements of 49 U.S.C. Section 5323(j)(2)(C) and Section 165(b)(3) of the Surface Transportation Assistance Act of 1982, as amended, but may qualify for an exception to the requirements consistent with 49 U.S.C. Sections 5323(j)(2)(B) or (j)(2)(D), Sections 165(b)(2) or (b)(4) of the Surface Transportation Assistance Act, as amended, and regulations in 49 C.F.R. 661.7.

Date: _____

Signature: _____

Company Name: _____

Title: _____

PRE-AWARD PURCHASER'S REQUIREMENTS CERTIFICATION

The bidder hereby certifies that the vehicles to be provided, _____
(number and general description of vehicles) from _____
(manufacturer), are the same products described in the solicitation specifications and that the
proposed manufacturer is a responsible manufacturer with the capability to produce a bus that
meets the specifications.

Signature: _____

Typed Name: _____

Title: _____

Company: _____

Date: _____

PRE-AWARD FMVSS CERTIFICATION

The bidder hereby certifies that the vehicles being bid, _____
_____ (number and description of vehicles) will comply with the relevant Federal Motor Vehicle Safety Standards issued by the National Highway Traffic Safety Administration in Title 49 of the Code of Federal Regulations, part 571 and that it has submitted the manufacturer's self-certification information with the bid.

Signature: _____

Typed Name: _____

Title: _____

Company: _____

Date: _____

- OR -

The bidder hereby certifies that the vehicles to be provided, _____
_____ (number and general description of vehicles) will not be subject to the Federal Motor Vehicle Safety Standards issued by the National Highway Traffic Safety Administration in Title 49 Code of Federal Regulations, Part 571 and that it has submitted the manufacturer's statement of exemption with the bid.

Signature: _____

Typed Name: _____

Title: _____

Company: _____

Date: _____

C. BUS TESTING - Low-Floor Vans, Mini Buses, Medium Lightweight Bus, Medium Buses and Large Buses Not Originally Built as School Buses

This procurement will use federal funds provided by the Federal Transit Administration (FTA), which makes the purchase of these vehicles subject to the bus testing requirements under 49C.F.R., Part 665. Copies relevant federal regulations are attached to provide background information on this and other FTA requirements.

A vendor, whose response to this request for bids includes the above-mentioned types of vans and buses, must submit with the bid a completed Certificate of Compliance with the bus testing requirements and a copy of the test report.

Certificate of Compliance

with 49C.F.R., Part 665

“Bus Testing”

The bidder hereby certifies that these low-floor vans and buses being offered in response to this request for bids are in compliance with the regulations in 49 C.F.R., Part 665 and that a copy of the test report or documentation that vehicles qualify for consideration under “grandfathering” has been provided with the bid.

Signature:_____.

Typed Name:_____.

Title:_____.

Company:_____.

Date:_____.

D. LOBBYING - 31 U.S.C. 1352
- 49 C.F.R. Part 19
- 49 C.F.R. Part 20

Byrd Anti-Lobbying Amendment, 31 U.S.C. 1352, as amended by the Lobbying Disclosure Act of 1995, P.L. 104-65 [to be codified at 2 U.S.C. § 1601, et seq.] - Contractors who apply or bid for an award of \$100,000 or more shall file the certification required by 49 C.F.R. part 20, "New Restrictions on Lobbying." Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non-Federal funds with respect to that Federal contract grant or award covered by 31 U.S.C. 1352. Such disclosures are forwarded from tier to tier up to the recipient.

Certification for Contracts, Grants, Loans, and Cooperative Agreements

(To be submitted with each bid or offer exceeding \$100,000).

The undersigned [Contractor] certifies, to the best of his or her knowledge and belief that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form--LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Governmentwide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, et seq.)]

(3) The undersigned shall require that the language of this certification be included in the award documents for all subaward at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

[Note: Pursuant to 31 U.S.C. § 1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such expenditure or failure.]

The Contractor, _____, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. A 3801, et seq., apply to this certification and disclosure, if any.

_____ Signature of Contractor’s Authorized Official

_____ Name and Title of Contractor’s Authorized
Official

_____ Date

E. GOVERNMENT-WIDE DEBARMENT AND SUSPENSION
(NONPROCUREMENT)

**49 C.F.R. Part 29
Executive Order 12549**

Instructions for Certification

1. By signing and submitting this bid or proposal, the prospective lower tier participant is providing the signed certification set out below.

2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the state of Wisconsin may pursue available remedies, including suspension and/or debarment.

3. The prospective lower tier participant shall provide immediate written notice to the state of Wisconsin if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

4. The terms “covered transaction,” “debarred,” “suspended,” “ineligible,” “lower tier covered transaction,” “participant,” “persons,” “lower tier covered transaction,” “principal,” “proposal,” and “voluntarily excluded,” as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549 [49 C.F.R. Part 29]. You may contact the state of Wisconsin for assistance in obtaining a copy of those regulations.

5. The prospective lower tier participant agrees by submitting this bid that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized in writing by the state of Wisconsin.

6. The prospective lower tier participant further agrees by submitting this bid that it will include the clause titled “Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction,” without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List issued by U.S. General Service Administration.

8. Nothing contained in the foregoing shall be construed to require establishment of system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

9. Except for transactions authorized under Paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to all remedies available to the Federal Government, the state of Wisconsin may pursue available remedies including suspension and/or debarment.

“Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction”

(1) The prospective lower tier participant certifies, by submission of this bid or proposal, that neither it nor its “principals” [as defined at 49 C.F.R. § 29.105(p)] is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) When the prospective lower tier participant is unable to certify to the statements in this certification, such prospective participant shall attach an explanation to this bid.

Date: _____

Signature: _____

Company Name: _____

Title: _____

F. CONDITIONS OF SALE1. Sealed Bids

- a. A bidder shall submit his bid according to the directions shown on the "Request for Bid" sheet.
- b. Any bid received after the time referred to will not be considered and will be returned unopened.
- c. Bids shall be submitted using the forms furnished in this package.

2. Standard Conditions of Bid

- a. Purchasing reserves the right to reject any or all bids and to re-advertise.
- b. Changes to specifications shall be made by addendum.
- c. Prime contractors and sub-contractors may make appointments with Purchasing to discuss these specifications.
- d. Any request for an approved equal or protest of the specifications must be submitted in writing and fully supported by technical data, test results, or other pertinent information or evidence that the substitute offered is equal to or better than the specification requirement.
- e. Bid Form Signatures - The bid must be signed by an authorized representative in the name of the corporation or other name of bidder.

3. Contract Award

Awards will be made as soon as possible after bid opening. Purchase orders will be made on a vehicle-by-vehicle basis.

4. **Quantities - Extended Requirements**

The Human Service Vehicles being purchased directly through this solicitation by WisDOT issued purchase orders are funded by the federal Section 5310/State s.85.22 program.

In addition, transportation services receiving funding from other state and federal sources may wish to purchase vehicles by piggybacking from the active contracts resulting from this solicitation. Municipalities, counties and transit commissions wishing to purchase vehicles from this bid must receive approval in writing from the Department prior to the acceptance of additional orders. Delivery and inspection requirements may vary from program to program, so vendors should receive delivery instructions from the appropriate program manager before delivery of any piggyback vehicle.

5. Price for Complete Bus

- a. The price quoted in any bid submitted shall include all items of labor, materials, tools, equipment, and other costs necessary to fully complete the manufacture and delivery of the vehicles pursuant to these specifications. It is the intention of these specifications to provide and require a complete bus of the type prescribed ready for operation. Any item omitted from the specifications that are clearly necessary for the completion and operation of such equipment and its appurtenances shall be considered a portion of such equipment although not directly specified or called for in these specifications.
- b. Purchasing and the vendor shall mutually agree when it is necessary to make changes in, additions to, or deletions from the work to be performed or the material to be furnished pursuant to applicable federal standards, laws and regulations, state vehicle regulations and laws, and the provisions of the Contract documents. Any such changes, which affect the Contract price, shall require the approval of Purchasing.

6. Specified Parts

All component parts comprised in the manufacturing of vehicles shall be new. All buses delivered under these specifications shall be identical units, unless modified by recipients purchase order.

Seat belt extenders, from the same manufacturer as the original belts, shall be provided in the following numbers:

Specialized Transit Vehicle	2
ADA Mini-Vans and Regular Mini-Van	2
Non-Accessible Mini-Bus	6
Accessible Mini Bus and Single Rear-Wheel Mini-Bus	4
Medium Bus	6
Large Bus	8
Conventional Bus and Yellow School Bus	10

7. Invoicing and Payment

- a. Terms of payment for each bid shall be thirty (30) days net (total price) upon acceptance of vehicles pursuant to these specifications, with individual billings for vehicles as delivered. Please include purchase order number on invoices. Address invoices to:

**Attention: Tom Robinson 5310 Program Manager
Wisconsin Department of Transportation
Bureau of Transit and Local Roads
P.O. Box 7913
Madison, WI 53707-7913**

- b. Invoices may be submitted by a vendor no sooner than at the time of delivery of a completed vehicle. The vendor will also provide the **Manufacturer's Certificate of Origin, the Application for Title/Registration (MV-11), and a copy of the initial Human Service Vehicle inspection report with the invoice.** Acceptance for the vehicle will be made after the Department has received notification from the grantee that the vehicle has no flaws and no specification deviations are found and all required paperwork has been provided.

8. Exemption from Taxes

The Wisconsin Department of Transportation and the grantee organizations are exempt from payment of the Federal Excise and Transportation Tax and Wisconsin Sales Tax. These taxes shall not be included in bid prices. Any lawful tax imposed after the date of these specifications and applicable to this purchase shall be paid by the ultimate consumer.

9. Human Service Vehicle Inspection

All vehicles specified in this document will be operated as human service vehicles. State standards covering the design, construction and equipment of these vehicles are stated in the Wisconsin Administrative Code, Chapter Trans 301, and for those vehicles ordered as Yellow School Buses, Chapter Trans 300.

ALL HSV VEHICLES (excludes line 00001 and 00002) are to have an initial inspection **PRIOR TO DELIVERY** by inspectors of the Wisconsin State Patrol. The dealer will be responsible for correcting defects or code violations cited by an inspector and a vehicle shall not be considered as having been delivered until all defects are corrected.

10. Delivery and Acceptance

- a. Vehicles are to be delivered to the grantee's place of business, as indicated on each purchase order. Vendors will make arrangements for delivery with the grantee's contact person, as listed on the purchase order.
- b. Each vehicle shall be delivered in first-class condition, with at least 1/4 tank of fuel, ready for operation, and the vendor shall assume all responsibility and liability incident to said delivery.
- c. Grantee's authorized representatives shall have authority to inspect all materials, equipment and workmanship and shall have the authority to reject all materials, equipment and workmanship which does not conform with the specifications or which is defective.

- d. A vehicle shall be considered delivered and accepted when it has been determined that the vehicle meets or exceeds all contract specifications. A vehicle which does not meet specifications or is found to have flaws or damage will not be accepted, and it shall be the responsibility of the dealer/manufacturer to put the vehicle into acceptable condition. Grantee will notify the dealer/manufacturer of non-acceptance.
- e. Acceptance of delivery or placement in operation of any vehicle shall not release the dealer/manufacturer from liability for and repair or replacement of faulty design, workmanship or materials appearing even after final payment has been made.

11. Warranties and Manuals

- a. A bidder shall state the manufacturer's warranty(s) on these vehicles along with the method of adjustments. The vehicle chassis warranty shall be a minimum of 36,000 miles, or three years, whichever occurs first. A one-year minimum warranty, with no mileage limit, shall cover body construction and add-on components. **All Warranties shall start the date the vehicle is accepted by the end user unless circumstances in paragraph 10(e) above places the vehicle initially unusable or out of service.** The chassis, body and all add-on components are to be warranted by the successful contractor. The dealer/manufacturer shall assume responsibility and warranty for materials and accessories used in the vehicles, whether or not the same were made by the dealer/manufacturer or purchased from an outside source. Bidders response to this provision may be used in determining awards.
- b. Each vehicle will be delivered with warranty cards or such documents as are needed by the owner to obtain warranty services.
- c. Each vehicle shall be delivered with:
 - maintenance schedules
 - floor plans
 - operating manuals specific to the vehicle or bus as built
 - Vehicle Wiring schematics in book or CD ROM form. The wiring diagram shall be for the bus as completed and delivered to the end user.
 - warranty information

A vehicle may not be accepted if these items are not furnished.

12. Interested Parties

- a. No member of or delegate to the Congress of the United States shall be admitted to any share or part of this Contract or to any benefit arising there from.

- b. No member, official, or employee of the public body or of a local public body, during his tenure, or for one year thereafter, shall have any interest, direct or indirect, in this Contract or proceeds thereof.

13. Bid Requirements

Bidder shall submit the following:

- a. Itemized prices per vehicle and other information as called for within these specifications.
- b. Detailed descriptive literature for each type of vehicle bid.
- c. A complete dimensional drawing of the floor plan with all dimensions clearly noted
- d. A weight distribution drawing of the vehicle as specified for all vehicles in this procurement except the lowered-floor minivan(s), taxi vehicle and minivan. Weight distributions shall show; rear, front and total distribution at full load capacity. Failure to include any of these items may make a bid non-compliant.

14. General

- a. The vehicle manufacturer and/or aftermarket modifier will allow a resident inspector (a Department staff person or designee) to be on-site during vehicle construction/modification, when any procurement is for ten (10) or more buses.
- b. Contractor will incorporate in its vehicle the latest technological advancements in the art of manufacturing to achieve maximum service life and superior appearance.
- c. The vehicle must comply with Federal Motor Vehicle Safety Standards and state standards listed in Trans 301 of the Wisconsin Administrative Code. **Secondary manufacturer shall affix a sticker certifying compliance in accordance with FMVSS rules to all HSV vans and buses.**
- d. All materials used in the construction of vehicles shall conform to ASTM, SAE, or similar association published standards. Manufactures standards that exceed any of the specification requirements shall be construed as acceptable. All materials and parts shall remain heavy duty-first quality to the maximum available and never downgraded to a lesser quality to meet the minimum needs of these specification requirements.
- e. The body shall be built with suitable and easily accessible compartments provided for all apparatus, sound-deadening insulation wherever needed, and all operating devices so mounted as to reduce and keep all noises and vibrations to an absolute minimum, inside and outside the vehicle.

- f. The vendor shall furnish the grantees with an estimated delivery schedule within 30 calendar days from date of order.
- g. The bidder must be a motor vehicle dealer licensed to sell the vehicles as they will be titled in the State of Wisconsin in order to submit a bid for this solicitation..

All accessible vehicles sought in this procurement and all items specified under this part shall at a minimum meet requirements of C.F.R. PART 38 - AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITIES SPECIFICATIONS FOR TRANSPORTATION VEHICLES; SUBPART B, except where these specifications exceed ADA minimums. C.F.R. PART 38 - SUBPART B is included as an Addendum and thereby made a part of these specifications.

Vehicles will be used in Demand-Response service, and are not subject to fixed-route requirements.

Certificate of Compliance

The bidder hereby certifies that it is a licensed motor vehicle dealer and is an authorized seller of the vehicles as they will be titled by the State of Wisconsin.

Signature: _____

Name: _____

Title: _____

Date: _____

Dealer License Number: _____

State of License: _____

If bidder is licensed only in a state other than Wisconsin, give name and location warranty service provider for Wisconsin vehicles.

G. RELATED FEDERAL REQUIREMENTS

Clean Air - (1) The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401 et seq. The Contractor agrees to report each violation to the Purchaser and understands and agrees that the Purchaser will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

(2) The Contractor also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.

Clean Water - (1) The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. The Contractor agrees to report each violation to the Purchaser and understands and agrees that the Purchaser will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

(2) The Contractor also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.

Fly America – The contractor agrees to comply with 49 USC 40118 (the “Fly America” Act) in accordance with the General Services Administration’s regulations at 41 CFR Part 301-10, which provide that recipients and subrecipients of Federal funds and their contractors are required to use US Flag air carriers for US Government-financed international air travel and transportation of their personal effects or property, to the extent such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. The contractor shall submit, if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a US flag air carrier was not available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements. The contractor agrees to include the requirements of this section in all subcontracts that may involve international air transportation.

Federal Changes - Contractor shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Agreement (Form FTA MA (2) dated October, 1995) between Purchaser and FTA, as they may be amended or promulgated from time to time during the term of this contract. Contractor’s failure to so comply shall constitute a material breach of this contract.

Cargo Preference-use of United States Flag Vessels – The contractor agrees: a. to use privately owned United States Flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners and tankers) involved whenever shipping any equipment, material or commodities pursuant to the underlying contract to the extent such vessels are available at fair and reasonable rates for United States Flag commercial vessels; b. to furnish within 20 working days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, “on-board”

commercial ocean bill of lading in English for each shipment of cargo involved in this contract to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590 and to the FTA recipient (through the contractor in the case of a subcontractor's bill of lading). c. to include these requirements in all subcontracts issued pursuant to this contract when the subcontract may involve the transport of equipment, material or commodities by ocean vessel.

State and Local Law Disclaimer - The use of many of the suggested clauses are not governed by Federal law, but are significantly affected by state law. The language of the suggested clauses may need to be modified depending on state law, and that before the suggested clauses are used in the grantees procurement documents, the grantees should consult with their local attorney.

Incorporation of Federal Transit Administration (FTA) Terms - The preceding provisions include, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1E are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any state of Wisconsin requests which would cause the state of Wisconsin to be in violation of the FTA terms and conditions.

Contract Work Hours and Safety Standards Act – (1) Overtime Requirements: No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate of not less than one and one half times the basic rate of pay for all hours worked in excess or forty hours in such workweek **(2) Violation; liability for unpaid wages; liquidated damages:** In the event of any violation of the clause set forth in (1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of (1) of the section in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause and set forth in (1) of this section. **(3) Withholding for unpaid wages and liquidated damages:** The Wisconsin Department of Transportation shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in (2) of this section. **(4) Subcontracts:** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower

tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in this section.

Energy Conservation - The Contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

No Obligation by the Federal Government - (1) The Purchaser and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this contract and shall not be subject to any obligations or liabilities to the Purchaser, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.

(2) The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

Program Fraud and False or Fraudulent Statements or Related Acts - (1) The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. §§ 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. PART 31, apply to its actions pertaining to this Project. Upon execution of the underlying contract, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying contract or the FTA assisted project for which this contract work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.

(2) The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(n)(1) on the Contractor, to the extent the Federal Government deems appropriate.

(3) The Contractor agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

Civil Rights - (1) Nondiscrimination - In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability. In addition, the Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.

(2) Equal Employment Opportunity - The following equal employment opportunity requirements apply to the underlying contract:

(a) Race, Color, Creed, National Origin, Sex - In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal transit laws at 49 U.S.C. § 5332, the Contractor agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, “Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor,” 41 C.F.R. Parts 60 et seq. (which implement Executive Order No. 11246, “Equal Employment Opportunity,” as amended by Executive Order No. 11375, “Amending Executive Order 11246 Relating to Equal Employment Opportunity,” 42 U.S.C. § 2000e note), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of the Project. The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

(b) Age - In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. §§ 623 and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

(c) Disabilities - In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, the Contractor agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, “Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act,” 29 C.F.R. PART 1630, pertaining to employment of persons with disabilities. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

(3) The Contractor also agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by FTA, modified only if necessary to identify the affected parties.

Disputes and Remedies -

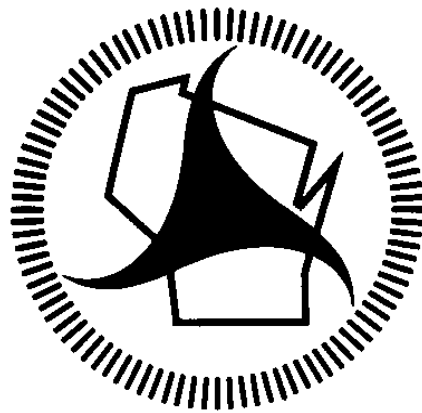
Remedies - Unless this contract provides otherwise, all claims, counterclaims, disputes and other matters in question between the state of Wisconsin and the Contractor arising out of or relating to this agreement or its breach will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the state of Wisconsin.

Rights and Remedies - The duties and obligations imposed by the contract documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by the state of Wisconsin or Contractor shall constitute a waiver of any right or duty afforded any of them under the contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

CYCLE 36 Destination Chart

County	Mini Van		Mini Bus 13/0		Mini Bus 7/1		Medium Bus 40/2				Large Bus 20/2			Conventional Bus				
	Mini Van	Gas 3/1 ADA Mini Van Rear Loading	Gas Line 4	Diesel Line 5	Gas Line 6	Diesel Line 7	Gas Line 8	Single Rear Axle Gas Line 9	Gas FG Line 10	Hybrid FG Line 11	Gas Line 12	Diesel FG Line 13	Hybrid FG Line 14	Diesel Line 15	Diesel FG Line 16	Hybrid FG Line 17	Diesel Line 18	28/2 Diesel School Line 19
Brown								1										
Fond du Lac			1															
Taylor									1									
Dane								6										
Crawford			1															
Kewaunee																		
Oneida, Vilas, Forest																		
Kenosha																		
Polk																		
Rock																		
Sheboygan													1					
Grant														3				3
Jefferson																		
Milwaukee																		
Walworth																		1
5310 Vehicle Total			2					1	8	9		1		3			3	1
Piggy Back	6	8	8	2	2	2	3	1	1	9	6	1	5	1	2	4	1	

VEHICLE SPECIFICATIONS



*Guide For Human Service Vehicles to be obtained
through
The Section 5310 Capital Grant Program.*

**Wisconsin Department of Transportation
Bureau of Transit and Local Roads**

2011

VEHICLE SPECIFICATIONS

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Line Item 1—Taxi Vehicle – with Taxi Package.

- 1) Engine idle meter (taxi package)
- 2) Vinyl seats
- 3) 114” Wheelbase (minimum)
- 4) 2L engine, 130 horsepower, minimum, flexible fuel capable of running on either regular unleaded or e-85 ethanol, meets EPA 50-state emission levels, low emission vehicle compliant Four-speed automatic transmission
- 5) Cruise control
- 6) Front Wheel Drive
- 7) Four-wheel anti-lock disc brakes
- 8) Five passenger seating capacity
- 9) Power door locks with remote operation
- 10) Automatic headlamps
- 11) Daytime running lamps
- 12) Tilt/telescoping Steering Wheel
- 13) Power windows
- 14) Driver and front-passenger airbags
- 15) Engine block heater
- 16) Remote controlled side-view mirrors
- 17) Rear window defogger, electric
- 18) Intermittent windshield wipers, two speed minimum, with washer
- 19) Rear windshield wipers, two speed minimum
- 20) AM/FM stereo radio with clock
- 21) Tire pressure monitoring system
- 22) 15-gallon minimum fuel tank conforms to FMVSS 301 and ICC fuel tank regulations.
- 23) Four tires on wheels, and a temporary spare. Tubeless blackwall 15” steel 6 spoke wheel covers, P205/65 R15 minimum. Full size Spare to be mounted securely inside vehicle.
- 24) 180 degree swing open rear cargo door
- 25) Dual sliding side door
- 26) Alternator with 150 Amp. minimum

Estimated Seating Capacity for Line Item 1: 5 passengers including driver

Line Item 2--MINI VAN.

- 1 Heavy duty suspension and shock absorbers
- 2 Engine idle meter
- 3 Vinyl seats
- 4 Heavy-duty rubber floor covering
- 5 119" Wheelbase (minimum)
- 6 V-6 gasoline engine, 180 horsepower, minimum, flexible fuel capable of running on either regular unleaded or e-85 ethanol, meets EPA 50-state emission levels, low emission vehicle compliant Four-speed automatic transmission
- 7 Cruise control
- 8 Four-wheel anti-lock disc brakes
- 9 Seven passenger seating capacity
- 10 One key able to open doors and trunk and operate vehicle
- 11 Power door locks with remote operation
- 12 Automatic headlamps
- 13 Daytime running lamps
- 14 Tilt Steering Wheel
- 15 Power windows
- 16 Driver and front-passenger airbags
- 17 Engine block heater
- 18 Heated remote controlled side-view mirrors
- 19 Rear window defogger, electric
- 20 Intermittent windshield wipers, two speed minimum, with washer
- 21 AM/FM stereo radio with clock
- 22 Tire pressure monitoring system
- 23 20-gallon minimum fuel tank conforms to FMVSS 301 and ICC fuel tank regulations.
- 24 Four tires on wheels, and a temporary spare. Tubeless blackwall steel belted radial, P205/70 R15 minimum. Highway tread. Spare to be mounted securely inside vehicle.

Estimated Seating Capacity for Line Item 2: 7 passengers including driver

**Line Item 3-- MINI-VAN, LOWERED FLOOR, REARLOAD RAMP
EQUIPPED****General Specifications**

- 1) GVWR: 5,200 lb. minimum
- 2) Wheelbase: 119 inches, minimum
- 3) Overall length: 190 inches, minimum
- 4) Minimum ground clearance 5 inches

Power Train

- 5) V-6 gasoline engine, 180 horsepower, minimum, flexible fuel capable of running on either regular unleaded or e-85 ethanol, meets EPA 50-state emission levels, low emission vehicle compliant
- 6) 4-speed automatic transmission
- 7) Maximum engine cooling, protected to -30 Deg. F.
- 8) Engine block heater and cord

General Chassis

- 9) Front wheel drive
- 10) Suspension, maximum available, with stability control
- 11) Power brakes, maximum available, ABS front and rear
- 12) Power steering
- 13) Cruise control
- 14) Alternator with 120 Amp. minimum output at highway speed, 65 Amp. output at engine idle speed
- 15) Battery, 685 CCA minimum
- 16) 20-gallon minimum fuel tank conforms to FMVSS 301 and ICC fuel tank regulations.
- 17) Four tires on wheels, and a temporary spare. Tubeless blackwall steel belted radial, P205/70 R15 minimum. Highway tread. Spare to be mounted securely inside vehicle.
- 18) Two speed wipers with interval option and washer.

Body and Interior

- 19) Heavy-duty insulation package in body sides, doors, roof, and floor.
- 20) Full length headliner and panels on doors and body sides
- 21) Full length rubber or vinyl non-slip flooring
- 22) Rubber or vinyl floor mats in the driver's and front passenger's areas

- 23) Heater; combination fresh air and recirculating air heater front and rear. Maximum available.
- 24) Sliding side passenger doors, left and right sides. Grab bars, both sides, attached to pillars behind sliding doors.
- 25) Rear door with keyed lock, inside release, check arm, defroster, wiper and washer.
- 26) Tinted glass, all windows; dark tint in passenger area.
- 27) Vented side windows.
- 28) Dome lights, front and rear
- 29) Tilt Steering Wheel
- 30) Driver's seat, vinyl, manufacturers standard, include retractable 3-point seat belt, reclining, high back.
- 31) Front passenger's seat, vinyl, manufacturers standard, to include retractable 3-point seat belt (with extension to modified floor, if needed), high back, quick release.
- 32) AM/FM radio, chassis manufacturer's OEM, speakers front and rear.
- 33) Gauges – fuel, oil pressure, water temperature, ammeter or voltmeter and door ajar indicator light.
- 34) One inside rear-view mirror, manufacturers standard; two exterior heated rear-view mirrors, left and right, adjustable from driver's seat.
- 35) Single color exterior finish (successful bidder will contact recipient for color choice).
- 36) Jack, lug wrench and four-wheel covers.
- 37) Human Service Vehicle SAFETY PACKAGE:
 - a) Mounted, removable, metal body fire extinguisher, 5 lb., 2A-10BC, dry chemical
 - b) Mounted, removable kit containing 3 reflective warning triangles.
 - c) First Aid Kit - Mounted/Removable.
Wisconsin *10-unit kit* containing the following:
 - 2 packets, 1-inch adhesive bandage.
 - 2 packets, 2-inch bandage compress.
 - 4 packets, 4-inch bandage compress.
 - 1 packet, gauze compress, 24-inch x 24-inch minimum.
 - 1 packet, triangular bandage, 40-inch.
- 38) Air conditioning, front and rear.
- 39) Power point for auxiliary power in place of cigarette lighter
- 40) Rust proofing of entire vehicle to provide 5-year, 100,000-mile rust-through warranty

- 41) Daytime running lamps

Accessibility Modifications

- 42) Lowered floor: floor in the passenger seating area shall be lowered 6 to 14 inches from the manufacturer’s original design to permit a minimum vertical clearance of 56 inches in the wheelchair securement areas and the ramp service door. The lowered floor assembly shall be corrosion resistant coated metal, joined to the body frame members in a manner to provide a leakproof and dustproof floor.
- 43) Manual, fold-up ramp with a non-skid surface and spring assisted. The ramp shall have a usable width of 34 inches minimum, and a length of 48 inches minimum, and meet all requirements of ADA. It shall be located at the rear of the vehicle. The rear opening shall have a 34-inch minimum opening and shall permit the deployment of the ramp at all times. The ramp must meet the requirements of TRANS 301. Lighting shall be provided to illuminate the ramp area as required by ADA Part 1192.31 (c).
- 44) Wheelchair position(s): shall be forward facing and shall provide a floor space area of at least 32 X 48 inches for each position as required by ADA and as specified in TRANS 301. The vehicle shall have the ability to handle up to 2 wheel chair positions (with both positions meeting the 32 X 48 inch requirement).
- 45) Wheelchair securement: Wheel chair position(s) shall have a 4-point securement (2 front and 2 back) in the vehicle with track-based anchor points of sufficient strength to secure a wheelchair. The track and all bolts should be of a material designed to eliminate rust and galvanic corrosion.

Securing retractors should be self-tensioning and self-locking and shall have a fully automatic retracting mechanism, which requires no tightening knobs on the individual retractors. The retractors shall have a floor anchorage attachment consisting of an L-Track fitting which shows a positive locking indicator along with a four stud, double plunger attachment for added strength. The attachment device securing the wheelchair to the retractor shall be a J – Style Hook application for ease of attachment and to make the retractors totally universal in floor location.

An **independent** lap and shoulder (three-point) restraint system, which complies with FMVSS 209, shall be provided for each wheelchair occupant. The components shall be easily identified as to their location of use as follows: "front," "rear" "lap," or "shoulder."

All components shall be able to meet random static testing forces equal to:

Rear belt assembly.....	6,000 lbs. each minimum
Front belt assembly.	2,500 lbs. each minimum
Lap belt assembly.....	2,500 lbs. each minimum
Shoulder belt assembly.....	2,500 lbs. each minimum
Floor insert assembly.	6,000 lbs. each minimum

Forward facing wheelchair restraints shall have all components dynamically tested at 30 m.p.h. 20g force condition, with an impact sled at a test facility such as the University of Michigan's Transportation Research Institute or a reputable equivalent, on both a child stroller type wheelchair and a battery-powered electric wheelchair.

The belts for the wheelchair passenger must be separate and independent from the wheelchair securement. Together the lap belts must be at least 120" long. The belt assemblies must meet the requirement of Federal Motor Vehicle Safety Standard 209 (FMVSS 209).

- 46) Provision shall be made for a suitable storage device (wall pouch, box or bulkhead storage box) for securing restraint system components when not in use. Location of the storage area to be determined by mutual agreement between the vendor and the purchaser. Container must meet FMVSS 302 flammability standards. An emergency webbing cutter must be provided.
- 47) Audible back up warning signal.

Estimated Seating Capacity for Line Item 3: 4 passengers, including the driver and the ability to seat two wheel chair positions per ADA requirements.

Line Item 4-- MINI-VAN, LOWERED FLOOR, SIDE LOAD RAMP
EQUIPPED

General Specifications

- 39) GVWR: 5,200 lb. minimum
- 40) Wheelbase: 119 inches, minimum
- 41) Overall length: 190 inches, minimum
- 42) Minimum ground clearance 5 inches

Power Train

- 43) V-6 gasoline engine, 180 horsepower, minimum, flexible fuel capable of running on either regular unleaded or e-85 ethanol, meets EPA 50-state emission levels, low emission vehicle compliant
- 44) 4-speed automatic transmission
- 45) Maximum engine cooling, protected to -30 Deg. F.
- 46) Engine block heater and cord

General Chassis

- 47) Front wheel drive
- 48) Suspension, maximum available, with stability control
- 49) Power brakes, maximum available, ABS front and rear
- 50) Power steering
- 51) Cruise control
- 52) Alternator with 120 Amp. minimum output at highway speed, 65 Amp. output at engine idle speed
- 53) Battery, 685 CCA minimum
- 54) 20-gallon minimum fuel tank conforms to FMVSS 301 and ICC fuel tank regulations.
- 55) Four tires on wheels, and a temporary spare. Tubeless blackwall steel belted radial, P205/70 R15 minimum. Highway tread. Spare to be mounted securely inside vehicle.
- 56) Two speed wipers with interval option and washer.

Body and Interior

- 57) Heavy-duty insulation package in body sides, doors, roof, and floor.
- 58) Full length headliner and panels on doors and body sides
- 59) Full length rubber or vinyl non-slip flooring
- 60) Rubber or vinyl floor mats in the driver's and front passenger's areas

- 61) Heater; combination fresh air and recirculating air heater front and rear. Maximum available.
- 62) Sliding side passenger doors, left and right sides. Grab bars, both sides, attached to pillars behind sliding doors.
- 63) Rear door with keyed lock, inside release, check arm, defroster, wiper and washer.
- 64) Tinted glass, all windows; dark tint in passenger area.
- 65) Vented side windows.
- 66) Dome lights, front and rear
- 67) Tilt Steering Wheel
- 68) Driver's seat, vinyl, manufacturers standard, include retractable 3-point seat belt, reclining, high back.
- 69) Front passenger's seat, vinyl, manufacturers standard, to include retractable 3-point seat belt (with extension to modified floor, if needed), high back, quick release.
- 70) 3-person bench seat in rear, vinyl covered. Seat belts for all positions, shoulder harnesses for the outboard positions and seat belt extenders in quantities specified in bid document. Seat height not to exceed OEM distance from floor when measured 12 inches in front of seat and headroom equal to or exceeding OEM measurement. All extenders to be of same manufacturer as main belts.
- 71) AM/FM radio, chassis manufacturer's OEM, speakers front and rear.
- 72) Gauges – fuel, oil pressure, water temperature, ammeter or voltmeter and door ajar indicator light.
- 73) One inside rear-view mirror, manufacturers standard; two exterior heated rear-view mirrors, left and right, adjustable from driver's seat.
- 74) Single color exterior finish (successful bidder will contact recipient for color choice).
- 75) Jack, lug wrench and four-wheel covers.
- 76) Human Service Vehicle SAFETY PACKAGE:
 - c) Mounted, removable, metal body fire extinguisher, 5 lb., 2A-10BC, dry chemical
 - d) Mounted, removable kit containing 3 reflective warning triangles.
 - d) First Aid Kit - Mounted/Removable.
Wisconsin *10-unit kit* containing the following:
 - 2 packets, 1-inch adhesive bandage.
 - 2 packets, 2-inch bandage compress.
 - 4 packets, 4-inch bandage compress.
 - 1 packet, gauze compress, 24-inch x 24-inch minimum.
 - 1 packet, triangular bandage, 40-inch.
- 77) Air conditioning, front and rear.

- 39) Power point for auxiliary power in place of cigarette lighter
- 40) Rust proofing of entire vehicle to provide 5-year, 100,000-mile rust-through warranty
- 41) Daytime running lamps

Accessibility Modifications

- 42) Lowered floor: floor in the passenger seating area shall be lowered 6 to 14 inches from the manufacturer’s original design to permit a minimum vertical clearance of 56 inches in the wheelchair securement areas and the ramp service door. The lowered floor assembly shall be corrosion resistant coated metal, joined to the body frame members in a manner to provide a leakproof and dustproof floor.
- 43) Manual, fold-up ramp with a non-skid surface. The ramp shall have a usable width of 30 inches minimum, and a length of 48 inches minimum, and meet all requirements of ADA. It shall be located at the right side sliding door. The right side sliding door shall have a 31-inch minimum opening and shall permit the deployment of the ramp at all times. The ramp must meet the requirements of TRANS 301. Lighting shall be provided to illuminate the ramp area as required by ADA Part 1192.31 (c).
- 44) Wheelchair position(s): shall be forward facing as indicated in the floor plan and shall provide a floor space area of at least 32 X 48 inches as required by ADA and as specified in TRANS 301.
- 45) Wheelchair securement: Wheel chair position(s) shall have a 4-point securement (2 front and 2 back) in the vehicle with track-based anchor points of sufficient strength to secure a wheelchair. The track and all bolts should be of a material designed to eliminate rust and galvanic corrosion.

Securing retractors should be self-tensioning and self-locking and shall have a fully automatic retracting mechanism, which requires no tightening knobs on the individual retractors. The retractors shall have a floor anchorage attachment consisting of an L-Track fitting which shows a positive locking indicator along with a four stud, double plunger attachment for added strength. The attachment device securing the wheelchair to the retractor shall be a J – Style Hook application for ease of attachment and to make the retractors totally universal in floor location.

An **independent** lap and shoulder (three-point) restraint system, which complies with FMVSS 209, shall be provided for each wheelchair occupant. The components shall be easily identified as to their location of use as follows: "front," "rear" "lap," or "shoulder."

All components shall be able to meet random static testing forces equal to:

Rear belt assembly..... 6,000 lbs. each minimum

Front belt assembly.	2,500 lbs. each minimum
Lap belt assembly.....	2,500 lbs. each minimum
Shoulder belt assembly.....	2,500 lbs. each minimum
Floor insert assembly.	6,000 lbs. each minimum

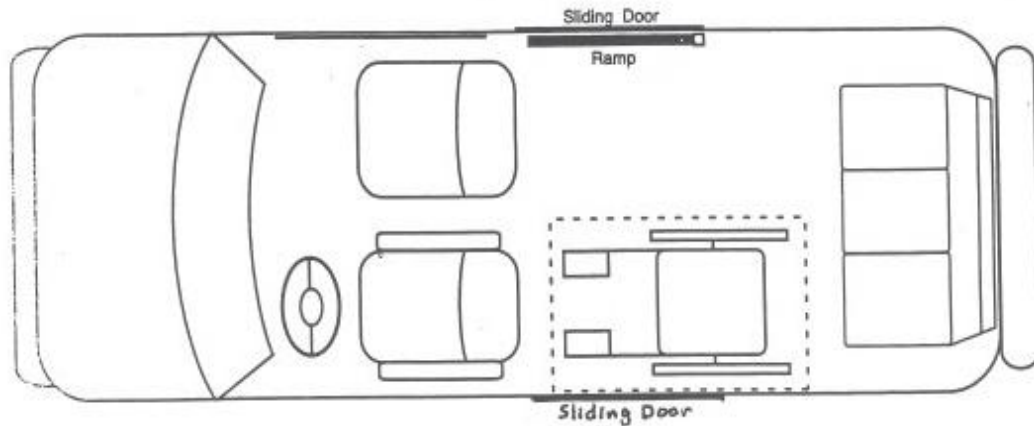
Forward facing wheelchair restraints shall have all components dynamically tested at 30 m.p.h. 20g force condition, with an impact sled at a test facility such as the University of Michigan's Transportation Research Institute or a reputable equivalent, on both a child stroller type wheelchair and a battery-powered electric wheelchair.

The belts for the wheelchair passenger must be separate and independent from the wheelchair securement. Together the lap belts must be at least 120" long. The belt assemblies must meet the requirement of Federal Motor Vehicle Safety Standard 209 (FMVSS 209).

- 46) Provision shall be made for a suitable storage device (wall pouch, box or bulkhead storage box) for securing restraint system components when not in use. Location of the storage area to be determined by mutual agreement between the vendor and the purchaser. Container must meet FMVSS 302 flammability standards. An emergency webbing cutter must be provided.
- 47) Audible back up warning signal.

Estimated Seating Capacity for Line Item 4: 4 passengers, including the driver plus one wheel chair position (See Figure 1).

ADA Mini Van Figure 1



(1 Driver, 4 Passengers, 1 Wheelchair)

Line Item 5 – MINI BUS

Line item 5 specifications are to also be used as base requirements for line items 6, 7, and 8. Line item 5, independently is for a Mini Bus - Gas

General Specifications

- 1) GVWR: 10,200 lbs. minimum
- 2) Wheelbase: 138" minimum
- 3) Interior length from driver's seat to back door: 130" minimum, dimensional drawing with accurate measurements of floor plan of finished vehicle to be included with bid

Power Train

- 4) 245 horsepower (minimum) engine, V-8, gasoline fuel, EPA 50-state emissions, low emission vehicle compliant, flex-fuel capable of running on gasoline or E-85 preferred
- 5) 4-speed heavy-duty automatic transmission
- 6) Cooling system, heavy duty, including transmission oil cooler
- 7) Maximum engine cooling, protected to -30°F
- 8) Engine block heater and cord

General Chassis

- 9) Dual rear axle, 6050 lbs. minimum, 3.70 ratio
- 10) Front axle, 3900 lbs. minimum with stabilizer bar
- 11) Heavy duty shock absorbers
- 12) Power brakes, maximum available, ABS front and rear
- 13) Power steering
- 14) Cruise control
- 15) Tilt Steering Wheel
- 16) Alternator with minimum 160 amps output at highway speed and 100 amps output at engine idle speed and normal operating temperature. Dual 110 amp alternators may be supplied in lieu of 160 amp alternator.
- 17) Dual batteries, each 600 CCA, in body compartment on slide-out enclosed stainless tray with stainless steel roller bearings.
- 18) 30-gallon fuel tank minimum, mounted at either mid-ship or rear of frame, conforms to FMVSS 301 and ICC fuel tank regulations. Includes locking fuel filler door or locking fuel cap. Fuel tank and line shall be insulated from exhaust pipes and other hot parts and from exposed electrical apparatus or connections.

- 19) Seven (7) tires on wheels, including spare. Radial, highway tread, size and rating suitable for GVWR.
- 20) Two-speed wipers with interval option, and washer
- 21) AM/FM radio, Chassis manufacturer's OEM, front and two rear speakers
- 22) Gauges: Speedometer, odometer, fuel, ammeter or voltmeter, oil pressure, water temperature
- 23) Front and rear springs, heavy duty, to match GVWR

Body and Interior

- 24) Body must conform to Federal Motor Vehicle Safety Standards No. 220 (School Bus Rollover Protection) and 221 (Joint Strength).
- 25) Interior headroom: 73" minimum
- 26) Interior width, 81" minimum
- 27) Exterior width, 87" maximum
- 28) Passenger walking area, center of vehicle, 16" minimum width--for full length of passenger compartment
- 29) Seating for twelve adult passengers. All seating forward facing. All seats to have 17 1/2" minimum width per passenger.
- 30) All seats to be mid-high back passenger seats and shall be fully padded with contoured foam seat cushions and contoured backs and upholstered with 32 oz. minimum vinyl. Both front and rear surfaces of seat back shall be padded. Cushion depth shall be 15" minimum. Each seat to have an integral three-point seat belt. Seat belt extenders to be provided as noted in bid package. All extenders must be of same manufacturer as main belts.
- 31) Driver's seat shall be upholstered high-back bucket type as supplied by chassis manufacturer, including a retractable three-point seat belt. Seat shall be adjustable forward and backward and be able to be tilted forward and backward.
- 32) Right side front entrance door, electrically operated, with door leaves opening outward. The opening/closing controls shall be installed so as to be within reach of a driver seated in the driver's seat.
- 33) Emergency exit(s): Emergency exit shall consist of two side windows **or/and** one rear door. The emergency exit(s) must be labeled "Emergency Exit" and have decals or lettering to indicate location and opening instructions.
If rear door, shall have glass in upper and lower portions, keyed outside lock, inside release, latch with buzzer and check arm.

If windows, shall have one push-out emergency exit window per side with buzzers.

- 34) Horizontal sliding sash or “T-Type” windows. If windows are to be used as rear emergency exits, must include one push-out emergency exit window per side as indicated above.
- 35) Visibility windows ahead of entrance door.
- 36) Tinted windshield and windows in driver’s cab area. Chassis manufacturer’s standard. Dark tinted glass in passenger area.
- 37) Sloping grab rails on both sides of entrance well. Horizontal grab rail located above and parallel to door opener rod. The front entrance shall conform to 49CFR Part 38—Subpart B, Section 38.29
- 38) Padded panel located in front of first seats on driver’s side. Padding on the side that faces passengers. Panel must extend from wall to aisle.
- 39) Padded stanchions located behind driver and at the entrance door, anchored into a structural member or backing plate.
- 40) Plywood over steel floor in passenger area. Plywood to be ½” thick (minimum) and treated to resist moisture and decomposition. Floor covering to be high-quality commercial grade rubber, elastomeric or plastic type covering, laid with compatible adhesive. Floor covering to be smooth under seats and ribbed in the aisle, with aluminum strips over seams and cove moldings at the walls. Driver’s area to be covered with insulated mat as supplied by chassis manufacturer.
- 41) Entrance well steps to be stainless steel covered with 3/16” ribbed heavy-duty rubber. Step nosings to be yellow. First step to be approximately 10 ½” from the ground and all risers to be of approximately equal height with a maximum height of 9 ½”.
- 42) Interior sidewalls and roof head lining: manufacturer’s standard.
- 43) Header pads at right front entrance door and emergency door (if applicable).
- 44) All exposed surfaces and edges inside and outside shall be free from burrs and other projections.
- 45) Complete body thermal insulation—minimum of 1.5” fiberglass or equal insulation in body sides, rear and roof; 0.5” rigid foam insulation in floor.
- 46) Front heater and defroster for windshield and adjacent side windows. One rear under-seat heater with a rating of 65,000 BTU (minimum).
- 47) Rustproofing of entire vehicle to provide 5-year, 100,000-mile rust-through warranty.
- 48) All wiring and junction panel terminals shall be numbered or color coded. Wiring diagram for completed vehicle must be delivered to end user along with the vehicle.

- 49) Body electrical circuits to be protected by automatic resetting circuit breakers. Include one spare live circuit breaker. All circuit breakers and fuses shall be easily assessable behind a removable or swing-open panel.
- 50) All accessories and electrical equipment, except headlights, taillights and emergency lights are to be wired through the ignition switch. Switches and interlocks to meet requirements of Americans with Disabilities Act.
- 51) Interior lights: One dome light in driver's area. Four dome lights equally spaced over passenger seating, two on each side; step well light; red light at emergency exit; Light to illuminate the lift and approach. Step well light and emergency door light wired to headlamp switch. Step well light operated by door opener. Must meet ADA requirements. The door and step well shall be lighted in accordance with 49CFR Part 38—Subpart B-Section 38.31.
- 52) Exterior lights: Head lights; 3 amber identification lights front; 3 red identification lights rear; front, rear and side directional signals; two stop lamps, 4" minimum; two tail lamps, 4" minimum; two back-up lights, 4" minimum. 4 clearance lights, amber at front corners, red at rear corners; license plate lamp. All exterior lights except headlights to be of LED type with a minimum of 5 year-150,000 mile warranty. Daytime running lights.
- 53) Mirrors: One inside rear view mirror as supplied by chassis manufacturer; in accordance with TRANS 301 requirement set by GVWR; two exterior heated rear view mirrors, adjustable by driver from seat in normal driving position, left and right, each mirror having a flat reflective area of not less than 50 sq. in.; one exterior convex mirror mounted on the right showing driver a view from the entrance door rearward, 3" diameter minimum; exterior cross-view mirrors at left and right front corners to agree with federal school bus standards.
- 54) Passenger side cowl protection from stones thrown from front wheels; mud flaps for rear wheels.
- 55) Front bumper as supplied by chassis manufacturer, chrome or stainless steel. Rear bumper, chrome or stainless steel, one-piece wrap-around type, attached to chassis frame rails.
- 56) Color – Manufacturer's standard white with approx. 3" transit accent striping above windows and approx. 8" transit accent striping below windows. Winning bidder to contact recipient to determine accent color. Two-inch reflective tape to be applied to outline rear of vehicle and along the driver and curb sides of vehicle.
- 57) Back-up warning signal.
- 58) Human service vehicle/safety package. This package consists of the following three items:
 - a) Mounted, removable metal fire extinguisher, 5lb., 2A-10BC, dry chemical, mounted near passenger door so as to be easily accessible by driver but not to impede entrance to and egress from the vehicle.
 - b) Mounted, removable, 10 unit first aid kit, containing the following:
 - 2 packets, 1-inch adhesive bandage.
 - 2 packets, 2-inch bandage compress.

- 4 packets, 4-inch bandage compress.
 - 1 packet, gauze compress, 24-inch x 24-inch minimum.
 - 1 package, triangular bandage, 40-inch.
- c) Mounted, removable kit containing three warning triangles
- 59) Air conditioning, dash, plus additional 48,000 BTU/hr. evaporator with skirt mounted condenser with stainless steel fittings.
- 60) Expanded Metal Stainless Steel Running board with 11 gauge expanded metal step tread, an 11 gauge hanger assembly with a 16 gauge framing on driver's side with a maximum ground to step height of 12" and a minimum tread depth of 8" and must extend 6" maximum outward from driver door threshold. It shall extend from the rear of the front wheel to, at a minimum, the rear of the driver's door.
- 61) Front and rear (thrust angle) alignment to be performed after vehicle assembly and modifications are complete. The recipient shall be provided with a report of the alignment showing readings of toe, camber and caster before and after the alignment is performed. Recipient shall also be provided with a weight distribution analysis and dimensional floor plan of the vehicle.

Line Item 6 -- DIESEL MINI-BUS

Item Line Item 6 Identical to Line Item 5 except for: engine to be a minimum 200 hp diesel engine, hour meter included with gauge package and fast idle solenoid in lieu of low emission gasoline engine, to include necessary equipment i.e. auxiliary coolant heater, to assure minimum coolant temperature of 195 degrees F under normal operating conditions.

Seating Capacity for Line Items 5 and 6: 12 passengers plus driver

Line Item 7 –ACCESSIBLE MINI BUS

Includes all equipment listed in Item 5 above, with the following equipment in lieu of the first two passenger seats behind the driver’s seat and passenger side seats removed to allow the installation of the wheelchair lift or as additional equipment needed for safety or passenger comfort requirements.

This vehicle and all items specified under this part shall at a minimum meet requirements of 49 C.F.R. PART 38 - AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITIES SPECIFICATIONS FOR TRANSPORTATION VEHICLES; SUBPART B, except where these specifications exceed ADA minimums. 49 C.F.R. PART 38 - SUBPART B is included as an Addendum and thereby made a part of these specifications.

1) **WHEELCHAIR POSITION**

- a) Space allowance. Allow 33" width and 52" minimum length for one (1) forward-facing wheelchair position immediately rearward of the driver position. A minimum of 16 inches of clearance on the passenger side of the position must be allowed for passenger access to the ambulatory seating area.
- b) Wheelchair securement: Wheel chair position shall have a 4-point securement (2 front and 2 back) in the vehicle with track-based anchor points of sufficient strength to secure a wheelchair. The track and all bolts should be of a material designed to eliminate rust and galvanic corrosion.

Securing retractors should be self-tensioning and self-locking and shall have a fully automatic retracting mechanism, which requires no tightening knobs on the individual retractors. The retractors shall have a floor anchorage attachment consisting of an L-Track fitting which shows a positive locking indicator along with a four stud, double plunger attachment for added strength. The attachment device securing the wheelchair to the retractor shall be a J – Style Hook application for ease of attachment and to make the retractors totally universal in floor location.

A **Retractable Combination** lap and shoulder (three-point) restraint system, which complies with FMVSS 209, shall be provided for each wheelchair occupant. The components shall be easily identified as to their location of use as follows: "front," "rear" "lap," or "shoulder."

All components shall be able to meet random static testing forces equal to:

Rear belt assembly	6,000 lbs. each minimum
Front belt assembly.	2,500 lbs. each minimum
Lap belt assembly	2,500 lbs. each minimum
Shoulder belt assembly.	2,500 lbs. each minimum
Floor insert assembly.	6,000 lbs. each minimum

Forward facing wheelchair restraints shall have all components dynamically tested at 30 m.p.h. 20g force condition, with an impact sled at a test facility such as the University of Michigan's Transportation Research Institute or a reputable equivalent, on both a child stroller type wheelchair and a battery-powered electric wheelchair.

The belts for the wheelchair passenger must be separate and independent from the wheelchair securement. Together the lap belts must be at least 120" long. The belt assemblies must meet the requirement of Federal Motor Vehicle Safety Standard 209 (FMVSS 209).

Provision shall be made for a suitable storage device (wall pouch, box or bulkhead storage box) for securing restraint system components when not in use. Location of the storage area to be determined by mutual agreement between the vendor and the purchaser. Container must meet FMVSS 302 flammability standards. An emergency webbing cutter must be provided.

2) **WHEELCHAIR LIFT**

The lift shall be a fully automatic; "non-rotary" type and shall conform to 49 C.F.R. PART 38 - Subpart B, Section 38.23 to meet ADA requirements. The wheelchair lift shall be installed at the right side, two-part hinged entry door. The doors will have an inside lock, an outside handle, and a device for securing the doors in the open position. Door ajar chime or buzzer.

The lift may be either electro hydraulically or electromechanically actuated. The lifting capacity shall be 800 lbs minimum. The platform may be lowered under power or by gravity. If it is a "power down" design, there must be a limit switch or bypass valve which prevents the lift from jacking the vehicle. The design of the lifting mechanism shall prevent free fall of the platform. All lift mechanisms shall be enclosed leaving no exposed chains or gears. If the lift has a crossbar at the top, it must be padded and it must not reduce the height of the door opening. When in the stored position, the surfaces of the lift facing the center and to the rear shall also be padded to prevent injury in case of contact in an accident. This requirement shall not apply to the platform surface.

The platform shall measure at least 33" by 48" with the usable width between uprights a minimum of 32". With the exception of the floor molding, no metal screws are to be used in fabrication of platform assembly. The platform floor surface shall be of non-skid material. The platform must have an anti-roll barrier at its outer edge. If the lift platform does not remain rigid when it is in its stored position and the power is off, then there must be a mechanical lock to prevent the platform from moving when the vehicle is underway. There must be no exposed shear points between the platform and other structures or surfaces.

The lift shall be controlled from a hand held, weather tight switch box on an extension cord. There must be a bracket or attaching spot for the switch box

inside the vehicle. The switches must give the operator instant and positive control to move, stop or reverse the lift travel at will.

A manual, back-up means for deploying and moving the lift platform in event of a power failure must be provided.

Two handrails for the person standing or seated on the platform must be provided.

2) **Additional Required Equipment**

- A) High-idle switch, either automatically enabled by operation of the wheelchair lift or installed on dash
- B) Lift door light operated by opening and closing of lift door or by switch operated from driver's seat. Must meet requirements of the Americans with Disabilities Act.
- C) Street-side exhaust.

3. **PASSENGER SEATING**

A) All seating forward facing. All seats to have 17 ½" minimum width per passenger. Allow 27" minimum between seat centers

B) All seats to be mid-high back passenger seats and shall be fully padded with contoured foam seat cushions and contoured backs and upholstered with 32 oz. minimum vinyl. Both front and rear surfaces of seat back shall be padded. Cushion depth shall be 15" minimum. Each seat to have an integral three-point seat belt. Seat belt extenders to be provided as noted in bid package. All extenders must be of same manufacturer as main belts.

OPTIONAL ITEMS - Do not include in base price

- 1) Foldaway passenger seating: The seats removed from the forward facing wheelchair position to be replaced with a 2-place forward facing foldaway seat. This seat shall allow a minimum of 17.5" of seating space per passenger, feature a 15" minimum cushion depth, be upholstered with 32 ounce minimum vinyl, be equipped with a two point retractable seat belts with extenders to be of sufficient length to be comfortably used by adults and be attached to the vehicle floor. The back cushion shall upon release of a locking device fold down against the seat cushion and lock into place. The release of a quick-release locking device shall allow the seat to be lifted up into a stowed and locked position will all legs or supporting devices folding into the seat bottom. The seat in its stowed and locked position shall protrude no more than 10" from the interior wall. Such seat shall, when deployed for seating passengers, leave an aisle of at least 16" between the outermost edge of the seat and the wheelchair lift and its supports.
- 2) Wide-angle window lens, 11"x14", made from clear optical grade PVC, attached to inside of rear window or door window. Must be able to be used with rear window defogger.

- 3) High-Visibility Wheelchair Lift, with all features in # 2 above constructed so that lift platform does not obstruct view through windows when stowed.

Line Item 8 – DIESEL ACCESSIBLE MINI-BUS

Line item 8 identical to line item 7 except for: engine to be a minimum 200 hp diesel engine, hour meter included with gauge package and fast idle solenoid in lieu of low emission gasoline engine, to include necessary equipment i.e., . . . auxiliary coolant heater, to assure minimum coolant temperature of 195 degrees F under normal operating conditions.

Estimated Seating Capacity, Line Items 7 and 8: 7 ambulatory, one wheelchair plus driver

Line Item 9 - SINGLE REAR WHEEL MINI BUS**A. General Specifications**

- 1) GVWR: 9,600 lbs. minimum
- 2) Wheelbase: 135" minimum
- 3) Interior length from driver's seat to back door: 130" minimum, dimensional drawing with accurate measurements of floor plan of finished vehicle to be included with bid

Power Train

- 4) 245 horsepower (minimum) engine, V-8, gasoline fuel, EPA 50-state emissions, capable of running on either gasoline or E-85, low emission vehicle compliant
- 5) 4-speed heavy-duty automatic transmission
- 6) Cooling system, heavy duty, including transmission oil cooler
- 7) Maximum engine cooling, protected to -30°F
- 8) Engine block heater and cord

General Chassis

- 9) Single rear axle, 6,050 lbs. minimum, 3.70 ratio
- 10) Front axle, 4,600 lbs. minimum with stabilizer bar
- 11) Heavy duty shock absorbers
- 12) Power brakes, maximum available, ABS front and rear
- 13) Power steering
- 14) Cruise control
- 15) Tilt Steering Wheel
- 16) Alternator with minimum 160 amps output at highway speed and 100 amps output at engine idle speed and normal operating temperature. Dual 110 amp alternators are acceptable in lieu of 160 amp alternator.
- 17) Dual batteries, each 600 CCA, in body compartment on slide-out enclosed stainless tray with stainless steel roller bearings.
- 18) 30-gallon fuel tank minimum, mounted at either mid-ship or rear of frame, conforms to FMVSS 301 and ICC fuel tank regulations. Includes locking fuel filler door or locking fuel cap. Fuel tank and line shall be insulated from exhaust pipes and other hot parts and from exposed electrical apparatus or connections.
- 19) Five (5) tires on wheels, including spare. Radial, highway tread, size and rating suitable for GVWR.

- 24) Two-speed wipers with interval option, and washer
- 25) AM/FM radio, Chassis manufacturer's OEM, front and two rear speakers
- 26) Gauges: Speedometer, odometer, fuel, ammeter or voltmeter, oil pressure, water temperature.
- 23) Front and rear springs, heavy duty, to match GVWR

Body and Interior

- 24) Body must confirm to Federal Motor Vehicle Safety Standards No. 220 (School Bus Rollover Protection) and 221 (Joint Strength).
- 25) Interior headroom: 73" minimum.
- 26) Interior width, 74" minimum.
- 27) Exterior width, 84" maximum.
- 28) Passenger walking area, center of vehicle, 16" minimum width--for full length of passenger compartment.
- 29) Seating for seven adult passengers. All seating forward facing. All seats to have 17 1/2" minimum width per passenger. Allow 27" minimum between seat centers
- 30) All seats to be mid-high back passenger seats and shall be fully padded with contoured foam seat cushions and contoured backs and upholstered with 32 oz. minimum vinyl. Both front and rear surfaces of seat back shall be padded. Cushion depth shall be 15" minimum. Each seat to have an integral three-point seat belt. Seat belt extenders to be provided as noted in bid package. All extenders must be of same manufacturer as main belts.
- 31) Driver's seat shall be upholstered high-back bucket type as supplied by chassis manufacturer, including a retractable three-point seat belt. Seat shall be adjustable forward and backward and be able to be tilted forward and backward.
- 32) Right side front entrance door, electrically operated, with door leaves opening outward. The opening/closing controls shall be installed so as to be within reach of a driver seated in the driver's seat.
- 33) Emergency exit(s): Emergency exit shall consist of two side windows or/and one rear door. The emergency exit(s) must be labeled "Emergency Exit" and have decals or lettering to indicate location and opening instructions.
If rear door, shall have glass in upper and lower portions, keyed outside lock, inside release, latch with buzzer and check arm.
If windows, shall have one push-out emergency exit window per side with buzzers.
- 34) Horizontal sliding sash or "T-Type" windows. If windows are to be used as rear emergency exits, must include one push-out emergency exit window per side as indicated above.

- 35) Visibility windows ahead of entrance door.
- 36) Tinted windshield and windows in driver's cab area. Chassis manufacturer's standard. Dark tinted glass in passenger area.
- 37) Sloping grab rails on both sides of entrance well. Horizontal grab rail located above and parallel to door opener rod (if applicable). The front entrance shall conform to 49CFR Part 38—Subpart B, Section 38.29
- 38) Padded panel located in front of first seats on driver's side. Padding on the side that faces passengers. Panel must extend from wall to aisle.
- 39) Padded stanchions located behind driver and at the entrance door, anchored into a structural member or backing plate.
- 40) Plywood over steel floor in passenger area. Plywood to be ½" thick (minimum) and treated to resist moisture and decomposition. Floor covering to be high-quality commercial grade rubber, elastomeric or plastic type covering, laid with compatible adhesive. Floor covering to be smooth under seats and ribbed in the aisle, with aluminum strips over seams and cove moldings at the walls. Driver's area to be covered with insulated mat as supplied by chassis manufacturer.
- 41) Entrance well steps to be stainless steel covered with 3/16" ribbed heavy-duty rubber. Step nosings to be yellow. First step to be approximately 10 ½" from the ground and all risers to be of approximately equal height with a maximum height of 9 ½".
- 42) Interior sidewalls and roof head lining: manufacturer's standard.
- 43) Header pads at right front entrance door and emergency door (if applicable).
- 44) All exposed surfaces and edges inside and outside shall be free from burrs and other projections.
- 45) Complete body thermal insulation—minimum of 1.5" fiberglass or equal insulation in body sides, rear and roof; 0.5" rigid foam insulation in floor.
- 46) Front heater and defroster for windshield and adjacent side windows. One rear under-seat heater with a rating of 65,000 BTU (minimum).
- 47) Rustproofing of entire vehicle to provide 5-year, 100,000-mile rust-through warranty.
- 48) All wiring and junction panel terminals shall be numbered or color coded. Wiring diagram for completed vehicle must be delivered to end user along with the vehicle.
- 49) Body electrical circuits to be protected by automatic resetting circuit breakers. Include one spare live circuit breaker. All circuit breakers and fuses shall be easily assessable behind a removable or swing-open panel.
- 50) All accessories and electrical equipment, except headlights, taillights and emergency lights are to be wired through the ignition switch. Switches and interlocks to meet requirements of Americans with Disabilities Act.

- 51) Interior lights: One dome light in driver's area. Four dome lights equally spaced over passenger seating, two on each side; step well light; red light at emergency exit; Light to illuminate the lift and approach. Step well light and emergency door light wired to headlamp switch. Step well light operated by door opener. Must meet ADA requirements. The door and step well shall be lighted in accordance with 49CFR Part 38—Subpart B-Section 38.31.
- 52) Exterior lights: Head lights; 3 amber identification lights front; 3 red identification lights rear; front, rear and side directional signals; two stop lamps, 4" minimum; two tail lamps, 4" minimum; two back-up lights, 4" minimum. 4 clearance lights, amber at front corners, red at rear corners; license plate lamp. All exterior lights except headlights to be of LED type with a minimum of 5 year-150,000 mile warranty.
- 53) Mirrors: One inside rear view mirror as supplied by chassis manufacturer; in accordance with TRANS 301 requirement set by GVWR; two exterior heated rear view mirrors, adjustable by driver from seat in normal driving position, left and right, each mirror having a flat reflective area of not less than 50 sq. in.; one exterior convex mirror mounted on the right showing driver a view from the entrance door rearward, 3" diameter minimum; exterior cross-view mirrors at left and right front corners to agree with federal school bus standards.
- 54) Passenger side cowl protection from stones thrown from front wheels; mud flaps for rear wheels.
- 55) Front bumper as supplied by chassis manufacturer, chrome or stainless steel. Rear bumper, chrome or stainless steel, one-piece wrap-around type, attached to chassis frame rails.
- 56) Color – Manufacturer's standard white with approx. 3" transit accent striping above windows and approx. 8" transit accent striping below windows. Winning bidder to contact recipient to determine accent color. Two-inch reflective tape to be applied to outline rear of vehicle and along the driver and curb sides of vehicle.
- 57) Back-up warning signal
- 58) Human service vehicle/safety package. This package consists of the following three items:
 - a) Mounted, removable metal fire extinguisher, 5lb., 2A-10BC, dry chemical, mounted near passenger door so as to be easily accessible by driver but not to impede entrance to and egress from the vehicle.
 - b) Mounted, removable, 10 unit first aid kit, containing the following:
 - 2 packets, 1-inch adhesive bandage.
 - 2 packets, 2-inch bandage compress.

 - 4 packets, 4-inch bandage compress.
 - 1 packet, gauze compress, 24-inch x 24-inch minimum.
 - 1 packet, triangular bandage, 40-inch.
 - c) Mounted, removable kit containing three warning triangles

- 59) Air conditioning, dash, plus additional 48,000 BTU/hr. evaporator with skirt mounted condenser with stainless steel fittings
- 60) Expanded Metal Stainless Steel Running board with 11 gauge expanded metal step tread, an 11 gauge hanger assembly with a 16 gauge framing on driver's side with a maximum ground to step height of 12" and a minimum tread depth of 8" and must extend 6" maximum outward from driver door threshold. It shall extend from the rear of the front wheel to, at a minimum, the rear of the driver's door.
- 61) Front and rear (thrust angle) alignment to be performed after assembly and modifications are complete. The recipient shall be provided with a report of the alignment showing readings of toe, camber and caster before and after the alignment is performed. The recipient shall also be provided with a weight distribution analysis and a dimensional floor plan of the vehicle.
- 62) Street Side Exhaust

ACCESSIBILITY MODIFICATIONS

This vehicle and all items specified under this part shall at a minimum meet requirements of 49 C.F.R. PART 38 - AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITIES SPECIFICATIONS FOR TRANSPORTATION VEHICLES; SUBPART B, except where these specifications exceed ADA minimums. 49 C.F.R. PART 38 - SUBPART B is included as an Addendum and thereby made a part of these specifications.

- 1) Wheelchair Position
 - a) Space allowance. Allow 33" width and 52" minimum length for one (1) forward-facing wheelchair position immediately rearward of the driver position. A minimum of 16 inches of clearance on the passenger side of the position must be allowed for passenger access to the ambulatory seating area.
 - b) Wheelchair securement: Wheel chair position shall have a 4-point securement (2 front and 2 back) in the vehicle with track-based anchor points of sufficient strength to secure a wheelchair. The track and all bolts should be of a material designed to eliminate rust and galvanic corrosion.

Securing retractors should be self-tensioning and self-locking and shall have a fully automatic retracting mechanism, which requires no tightening knobs on the individual retractors. The retractors shall have a floor anchorage attachment consisting of an L-Track fitting which shows a positive locking indicator along with a four stud, double plunger attachment for added strength. The attachment device securing the wheelchair to the retractor shall be a J – Style Hook application for ease of attachment and to make the retractors totally universal in floor location.

A **Retractable Combination** lap and shoulder (three-point) restraint system, which complies with FMVSS 209, shall be provided for each wheelchair occupant. The components shall be easily identified as to their location of use as follows: "front," "rear" "lap," or "shoulder."

All components shall be able to meet random static testing forces equal to:

Rear belt assembly	6,000 lbs. each minimum
Front belt assembly.	2,500 lbs. each minimum
Lap belt assembly.....	2,500 lbs. each minimum
Shoulder belt assembly.	2,500 lbs. each minimum
Floor insert assembly.	6,000 lbs. each minimum

Forward facing wheelchair restraints shall have all components dynamically tested at 30 m.p.h. 20g force condition, with an impact sled at a test facility such as the University of Michigan's Transportation Research Institute or a reputable equivalent, on both a child stroller type wheelchair and a battery-powered electric wheelchair.

The belts for the wheelchair passenger must be separate and independent from the wheelchair securement. Together the lap belts must be at least 120" long. The belt assemblies must meet the requirement of Federal Motor Vehicle Safety Standard 209 (FMVSS 209).

Provision shall be made for a suitable storage device (wall pouch, box or bulkhead storage box) for securing restraint system components when not in use. Location of the storage area to be determined by mutual agreement between the vendor and the purchaser. Container must meet FMVSS 302 flammability standards. An emergency webbing cutter must be provided.

2) Wheelchair Lift

The lift shall be a fully automatic; "non-rotary" type and shall conform to 49 C.F.R. PART 38 - Subpart B, Section 38.23 to meet ADA requirements. The wheelchair lift shall be installed at the right side, two-part hinged entry door. The doors will have an inside lock, an outside handle, and a device for securing the doors in the open position. Door ajar chime or buzzer.

The lift may be either electro hydraulically or electromechanically actuated. The lifting capacity shall be 800 lbs minimum. The platform may be lowered under power or by gravity. If it is a "power down" design, there must be a limit switch or bypass valve which prevents the lift from jacking the vehicle. The design of the lifting mechanism shall prevent free fall of the platform. All lift mechanisms shall be enclosed leaving no exposed chains or gears. If the lift has a crossbar at the top, it must be padded and it must not reduce the height of the door opening. When in the stored position, the surfaces of the lift facing the center and to the rear shall also be padded to prevent injury in case of contact in an accident. This requirement shall not apply to the platform surface.

The platform shall measure at least 33" by 48" with the usable width between uprights a minimum of 32". With the exception of the floor molding, no metal screws are to be used in fabrication of platform assembly. The platform floor surface shall be of non-skid material. The platform must have an anti-roll barrier at its outer edge. If the lift platform does not remain rigid when it is in its stored position and the power is off, then there must be a mechanical lock to prevent the platform from moving when the vehicle is underway. There must be no exposed shear points between the platform and other structures or surfaces.

The lift shall be controlled from a hand held, weather tight switch box on an extension cord. There must be a bracket or attaching spot for the switch box inside the vehicle. The switches must give the operator instant and positive control to move, stop or reverse the lift travel at will.

A manual, back-up means for deploying and moving the lift platform in event of a power failure must be provided.

Two handrails for the person standing or seated on the platform must be provided.

B) Additional Equipment

- a) High-idle switch, either automatically enabled by operation of the wheelchair lift or installed on dash
- b) Lift door light operated by opening and closing of lift door or by switch operated from driver's seat. Must meet requirements of the Americans with Disabilities Act.
- c) Foldaway passenger seating: The seats removed from the forward facing wheelchair position to be replaced with a 2-place forward facing foldaway seat. This seat shall allow a minimum of 17.5" of seating space per passenger, feature a 15" minimum cushion depth, be upholstered with 32 ounce minimum vinyl, be equipped with a two point retractable seat belts with extenders to be of sufficient length to be comfortably used by adults and be attached to the vehicle floor. The back cushion shall upon release of a locking device fold down against the seat cushion and lock into place. The release of a quick-release locking device shall allow the seat to be lifted up into a stowed and locked position with all legs or supporting devices folding into the seat bottom. The seat in its stowed and locked position shall protrude no more than 10" from the interior wall. Such seat shall, when deployed for seating passengers, leave an aisle of at least 16" between the outermost edge of the seat and the wheelchair lift and its supports.

OPTIONAL EQUIPMENT – Do not Include in Base Price

- ❖ Wide-angle window lens, 11”x14”, made from clear optical grade PVC, attached to inside of rear window or door window. Must be able to be used with rear window defogger.
- ❖ High-Visibility Wheelchair Lift, with all features in # 2 above constructed so that lift platform does not obstruct view through windows when stowed.

Seating Capacity: 7 ambulatory, one wheelchair plus driver

Line Item 10: MEDIUM BUS (Not Originally Built as a School Bus)

Line item 10 specifications are to also be used as base requirements for line item 11.

Line item 10, independently is for a Medium Bus – Gas

Power Train

- 1) 280 horsepower V-8 (minimum) engine, gasoline powered, EPA 50-state emissions, low emission vehicle compliant, flexible fuel able to operate on gasoline or E-85 preferred.
- 2) 4-speed automatic transmission, heavy duty, maximum available with transmission oil cooler
- 3) Radiator core, maximum available with anti-freeze protection to -30° F.
- 4) Engine block heater and cord

General Chassis

Dimensional drawing of floor plan of finished vehicle to be included with bid

- 5) GVWR: 14,000 lbs. (minimum)
- 6) Wheelbase: 176" (minimum)
- 7) Front Axle: 4,600 lbs. (minimum)
- 8) Rear Axle: 9,400 lbs. (minimum) with axle ratio suitable for use in both city and sustained highway driving
- 9) Heavy Duty Shock Absorbers, front and rear, and front stabilizer bar
- 10) Dual rear wheels
- 11) Seven (7) tires radial, highway tread, including spare tire mounted on rim of size and rating suitable for GVWR
- 12) Alternator with minimum 160 amps output at highway speed and 100 amps output at engine idle speed and normal operating temperature. Dual 110 amp alternators will be accepted in lieu of 160 amp alternator.
- 13) Dual batteries, each 690 CCA (minimum), in body compartment on slide out enclosed stainless tray with stainless steel roller bearings
- 14) Power steering
- 15) Power brakes, maximum available, ABS front and rear
- 16) Drive shaft guards
- 17) Fuel tank, 30 gallon (minimum), conforms to FMVSS 301 and ICC fuel tank regulations
- 18) Locking fuel cap or locking fuel door.
- 19) High idle switch, either automatically enabled by operation of wheelchair lift or installed on dash
- 20) Cruise Control.

Body and Interior

- 21) Sides, floor, roof and other structural features of the bus body must meet FMVSS 220 (School Bus Rollover Protection) and FMVSS 221 (Joint Strength)
- 22) Interior headroom: 75" (minimum)
- 23) Interior width: 89" (minimum)
- 24) Exterior width: 96" (maximum)
- 25) Aisle width: 16" (minimum) for full length of passenger compartment.
- 26) Seating for adult passengers. All seating shall be forward facing two place seats with 17.5" seating space per person (minimum). Allow 27" minimum between seat centers.
- 27) All seats to be mid-high back passenger seats and shall be fully padded with contoured foam seat cushions and contoured backs and upholstered with 32 oz. minimum vinyl. Both front and rear surfaces of seat back shall be padded. Cushion depth shall be 15" minimum. Each seat to have an integral three-point seat belt. Seat belt extenders to be provided as noted in bid package. All extenders must be of same manufacturer as main belts.
- 28) Driver's seat shall be deluxe upholstered, high back, with the following adjustments: forward and backward, backrest pitch and cushion depth. Include retractable three-point seat belt.
- 29) Right side front entrance door, electrically operated, with door leaves opening outward. The opening/closing controls shall be installed so as to be within reach of a driver seated in the driver's seat.
- 30) Rear emergency door with glass in upper and lower portions, sliding bar latch with buzzer and door lock that disables starter and buzzes when door is locked. "Emergency Door" lettering inside and outside, 2" letters. Paint arrows showing direction of door handle action inside and outside.
- 31) Horizontal sliding sash or "T-type" side passenger windows. Include two push out emergency exit windows per side with buzzers and lettering or decals to indicate location and opening instructions.
- 32) Tinted glass for all windows including the windshield. Dark tint glass in passenger area.
- 33) Overhead handrails, sloping grab rails on both sides of entrance door and front entrance shall conform with 49 C.F.R. PART 38 - Subpart B, Section 38.29.
- 34) Padded panels located in front of first seats on curb and driver's side, anchored securely to floor.
- 35) Padded stanchions located behind driver and at the entrance door, anchored to floor and at ceiling into a structural member or backing plate.
- 36) Plywood over metal sub floor (steel or aluminum) built on a steel framework. Plywood 5/8" thick (minimum) and treated to resist moisture and decomposition. Floor covering to be high-quality commercial transit grade rubber, elastomeric or plastic covering, laid with compatible

adhesive. Floor covering to be smooth under seats and ribbed in the aisle with aluminum strips over seams and cove moldings at the walls. Passenger area floor to be flat with no wheel housings visible.

- 37) Entrance well steps to be stainless steel covered with 3/16" ribbed heavy-duty rubber. Step nosings to be yellow. First step to be approximately 10 1/2" from the ground and all risers of approximately the same height with a maximum of 9 1/2".
- 38) Header pads at right front entrance door and at emergency door.
- 39) All exposed surfaces and edges inside and outside shall be free from burrs and other projections.
- 40) Complete body thermal insulation: equivalent of 1.5" of fiberglass insulation in body sides, rear and roof, 1/2" rigid foam in floor.
- 41) Front primary heater and defrosters for windshield and adjacent side windows. One rear under seat heater and one midship with rating of 50,000 BTU each (minimum). Heaters individually controlled.
- 42) All wiring and junction panel terminals shall be numbered or color-coded. Include wiring diagram. Provide grommets where wiring passes through metal.
- 43) Body electrical circuits to be protected by automatic resetting circuit breakers. Include one spare live circuit breaker. All circuit breakers and fuses shall be easily accessible behind a removable or swing open panel.
- 44) All accessories and electrical equipment except headlights, taillights and emergency lights are to be wired through the ignition switch. Switches and interlocks to meet ADA on lift-equipped buses.
- 45) Interior lights: One dome light in driver's area; four dome lights equally spaced over passenger seating, two on each side; step well light; red light at emergency door. Lift equipped vehicles shall have a light to illuminate the lift and approach. Step well light, emergency door light and lift door light wired to headlamp switch. Step well light operated by door opener. Lift door light operated by opening and closing of lift door. The door and step well shall be lighted in accordance with 49 C.F.R. PART 38 - Subpart B, Section 38.31.
- 46) Exterior lights: Head lights; 3 amber identification lights front; 3 red identification lights rear; front, rear and side directional signals; 2 stop lamps, 4" minimum; 2 tail lamps, 4" minimum; 2 back-up lamps, 4" minimum; 4 clearance lights, amber at front corners, red at rear corners; license plate lamp. All lights except headlights to be of LED type with a minimum of 5-year, 150,000 mile warranty.
- 47) Daytime running lights.
- 48) Mirrors: One 6" x 30" inside rear view mirror above driver; two exterior heated rear view mirrors, adjustable by driver from seat in normal driving position, one left and one right, each mirror having a flat reflective area of not less than 50 square inches; one exterior convex mirror mounted on the right showing driver a view from the entrance door rearward, 3" diameter

minimum; exterior cross-view mirrors at left and right front corners, to agree with federal school bus standards.

- 49) Gauges: Speedometer, odometer, fuel, ammeter or voltmeter, oil pressure, water temperature.
- 50) Passenger side cowl protection from stones thrown from front wheels: mud flaps rear.
- 51) Rust proofing of entire vehicle to provide 5-year, 100,000 mile rust-through warranty.
- 52) Chrome front bumper. Rear bumper one-piece wrap-around type, chrome or stainless steel, attached to chassis frame rails.
- 53) Electric two speed windshield wipers with variable intermittent feature, and electric washer.
- 54) Color - Manufacturer's standard white with approx. 3" transit accent striping above windows and approx. 8" transit accent striping below windows. Winning bidder will contact recipient to determine accent color. Apply 2" reflective tape to outline rear of vehicle and apply one strip along the driver and curbsides of the vehicle.
- 55) Human service vehicle/safety package. This package consists of the following three items:
 - a) Mounted, removable metal fire extinguisher, 5lb., 2A-10BC, dry chemical, mounted near passenger door so as to be easily accessible by driver but not to impede entrance to and egress from the vehicle.
 - b) Mounted, removable, 10 unit first aid kit, containing the following:
 - 2 packets, 1-inch adhesive bandage.
 - 2 packets, 2-inch bandage compress.
 - 4 packets, 4-inch bandage compress.
 - 1 packet, gauze compress, 24-inch x 24-inch minimum.
 - 1 packet, triangular bandage, 40-inch.packet.
 - c) Mounted, removable, kit containing three reflective warning triangles.
- 57) AM/FM radio, chassis manufacturer's OEM, with four speakers installed throughout passenger area.
- 58) Air conditioning front and rear. Chassis manufacturer's standard front. 65,000 BTU/hour with rear evaporator and skirt mounted condenser with stainless steel fittings.
- 59) Back-up warning signal.
- 60) Front and rear (thrust angle) alignment to be performed after vehicle assembly and modifications are complete. The recipient shall be provided with a report of the alignment showing readings of toe, camber and caster before and after the alignment is performed. The recipient shall also be provided with a weight distribution analysis and floor plan for the vehicle.
- 61) Street-side exhaust.
- 62) Tilt Steering Wheel.

- 63) Heavy-duty rear suspension fitted with a rubber shear spring suspension working in conjunction with the OEM chassis leaf spring suspension to match specified GAWR. This added suspension, consisting of a spring carrier assembly, frame hanger assembly, cross-member tube assembly and carrier spring assembly, shall be installed in lieu of the original spring hanger and shackle assembly. The frame hanger must bolt into the existing OEM spring hanger holes in the frame. The modified suspension must not alter the OEM gross axle weight rating.

Expanded Metal Stainless Steel Running board with 11 gauge expanded metal step tread, an 11 gauge hanger assembly with a 16 gauge framing on driver's side with a maximum ground to step height of 12" and a minimum tread depth of 8" and must extend 6" maximum outward from driver door threshold. It shall extend from the rear of the front wheel to, at a minimum, the rear of the driver's door.

ACCESSIBILITY MODIFICATIONS

This vehicle and all items specified under this part shall at a minimum meet requirements of 49 C.F.R. PART 38 - AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITIES SPECIFICATIONS FOR TRANSPORTATION VEHICLES; SUBPART B, except where these specifications exceed ADA minimums. 49 C.F.R. PART 38 - SUBPART B is included as an Addendum and thereby made a part of these specifications.

64) WHEELCHAIR POSITIONS (2)

- a) Space allowance. Allow 33" width and 52" minimum length for each forward-facing wheelchair position immediately rearward of the driver position.
- b) Wheelchair securement: Wheel chair position shall have a 4-point securement (2 front and 2 back) in the vehicle with track-based anchor points of sufficient strength to secure a wheelchair. The track and all bolts should be of a material designed to eliminate rust and galvanic corrosion.

Securing retractors should be self-tensioning and self-locking and shall have a fully automatic retracting mechanism, which requires no tightening knobs on the individual retractors. The retractors shall have a floor anchorage attachment consisting of an L-Track fitting which shows a positive locking indicator along with a four stud, double plunger attachment for added strength. The attachment device securing the wheelchair to the retractor shall be a J – Style Hook application for ease of attachment and to make the retractors totally universal in floor location.

A **Retractable Combination** lap and shoulder (three-point) restraint system, which complies with FMVSS 209, shall be provided for each wheelchair occupant. The components shall be easily identified as to their location of use as follows: "front," "rear" "lap," or "shoulder."

All components shall be able to meet random static testing forces equal to:

Rear belt assembly.....	6,000 lbs. each minimum
Front belt assembly.....	2,500 lbs. each minimum
Lap belt assembly.....	2,500 lbs. each minimum
Shoulder belt assembly.....	2,500 lbs. each minimum
Floor insert assembly.....	6,000 lbs. each minimum

Forward facing wheelchair restraints shall have all components dynamically tested at 30 m.p.h. 20g force condition, with an impact sled at a test facility such as the University of Michigan's Transportation Research Institute or a reputable equivalent, on both a child stroller type wheelchair and a battery-powered electric wheelchair.

The belts for the wheelchair passenger must be separate and independent from the wheelchair securement. Together the lap belts must be at least 120" long. The belt assemblies must meet the requirement of Federal Motor Vehicle Safety Standard 209 (FMVSS 209).

Provision shall be made for a suitable storage device (wall pouch, box or bulkhead storage box) for securing restraint system components when not in use. Location of the storage area to be determined by mutual agreement between the vendor and the purchaser. Container must meet FMVSS 302 flammability standards. An emergency webbing cutter must be provided.

- c) Fold-away passenger seating: The original passenger seats removed from each forward facing wheelchair position will be replaced with 2-place forward facing fold-away seats. These seats shall allow a minimum of 17.5" of seating space per passenger, feature a 15" minimum cushion depth, allow 27" minimum between seat centers, be upholstered with 32 ounce minimum vinyl and be equipped with two point retractable seat belts of a length sufficient to be comfortably used by adults. The back cushion shall upon release of a locking device fold down against the seat cushion and lock into place. The release of a quick-release locking device shall allow the seat to be lifted up into a stowed and locked position with all legs or supporting devices folding into the seat bottom. The seat in its stowed and locked position shall protrude no more than 10" from the interior wall. Three foldaway seats shall be installed and evenly spaced in the area where the four bench seats were removed to allow for the two wheelchair positions.

65) WHEELCHAIR LIFT.

The lift shall be a fully automatic; "non-rotary" type and shall conform to 49 C.F.R. PART 38 - Subpart B, Section 38.23 to meet ADA requirements. The wheelchair lift in a bus shall be installed in the right side, immediately behind the entrance door. Two separate swing-out doors with glass in the upper portions shall be provided for the lift opening. The doors will have at

least one inside lock and outside handle and also have a device for securing them in the open position. Door ajar chime or buzzer.

The lift may be either electro hydraulically or electromechanically actuated. The lifting capacity shall be 800 lbs. minimum.

The platform may be lowered under power or by gravity. If it is a "power down" design, there must be a limit switch or bypass valve which prevents the lift from jacking the vehicle. The design of the lifting mechanism shall prevent free fall of the platform. All lift mechanisms shall be enclosed leaving no exposed chains or gears. If the lift has a crossbar at the top, it must be padded and it must not reduce the height of the door opening. When in the stored position, the surfaces of the lift facing the center and to the rear shall also be padded to prevent injury in case of contact in an accident. This requirement shall not apply to the platform surface.

The platform shall measure at least 33" by 48" with the usable width between uprights a minimum of 32". With exception of the floor molding, no metal screws are to be used in fabrication of platform assembly. The platform floor surface shall be of non-skid material. The platform must have an anti-roll barrier at its outer edge. If the lift platform does not remain rigid when it is in its stored position and the power is off, then there must be a mechanical lock to prevent the platform from moving when the vehicle is underway. There must be no exposed shear points between the platform and other structures or surfaces.

The lift shall be controlled from a hand held, weather tight switch box on an extension cord. There must be a bracket or attaching spot for the switch box inside the vehicle. The switches must give the operator instant and positive control to move, stop or reverse the lift travel at will.

A manual, back-up means for deploying and moving the lift platform in event of a power failure must be provided, along with two handrails for the person standing or seated on the platform.

Line Item 11: Medium Bus with Fiberglass Body

Line item 11 specifications are to also be used as base requirements for line items 12, 13 and 14.

Line item 11, independently is for a Medium Bus / Fiberglass Body – Gas Engine

Power Train

1. 280 horsepower V-8 (minimum) engine, gasoline powered, EPA 50-state emissions, low emission vehicle compliant. Flexible fuel to operate on gasoline and E-85 preferred.
2. 4-speed automatic transmission, heavy duty, maximum available, with transmission oil cooler
3. Radiator core, maximum available, with anti-freeze protection to -30 degrees F
4. Engine block heater and cord

General Chassis

5. GVWR: 14,000 lbs (minimum)
6. Wheelbase: 176" (minimum)
7. Front Axle: 4,600 lbs. (minimum)
8. Rear Axle: 9,400 lbs. (minimum with axle ratio suitable for use in both city and sustained highway driving)
9. Heavy duty shock absorbers, front and rear, with front stabilizer bar
10. Dual rear wheels
11. Seven (7) radial tires, highway tread, including spare mounted on rim. Tires to be of size and rating suitable for GVWR
12. Alternator with minimum of 160 amp output at highway speed and 100 amp output at engine idle speed and normal operating temperatures. Dual 110 amp alternators are accepted in lieu of 160 amp alternator.
13. Dual batteries, each 690 CCA (minimum), in body compartment on slide-out enclosed stainless tray with stainless steel roller bearings
14. Power steering
15. Power brakes, maximum available, ABS front and rear
16. Drive shaft guards
17. Fuel tank, 30 gallon (minimum) conforming to FMVSS 301 and ICC fuel tank regulations
18. Locking fuel cap or locking fuel door
19. High idle switch, either automatically enabled by operation of wheelchair lift or installed on dash
20. Cruise control

Body and Interior

21. Sides, floor, roof and other structural features of the bus body must meet FMVSS 220 (School Bus Rollover Protection) and FMVSS 221 (Joint Strength)
22. Interior headroom: 75" minimum
23. Interior width: 89" minimum
24. Exterior width: 96" maximum
25. Aisle width: 16" (minimum) for full length of passenger compartment
26. Seating for adult passengers: All seating shall be forward-facing. Two-place seats with 17.5" seating space per person (minimum). Allow 27" minimum between seat centers.
27. All seats to be mid-high back passenger seats and shall be fully padded with contoured foam seat cushions and contoured backs upholstered with 32 oz. minimum vinyl. Both front and rear surfaces of seat back shall be padded. Cushion depth shall be 15" minimum. Each seat to have an integral three-point seat belt. Seat belt extenders to be provided as noted in bid package. All extenders must be of same manufacturer as main belts.
28. Driver's seat shall be deluxe upholstered, high back, with the following adjustments: forward and backward, backrest pitch and cushion depth. Include retractable three-point seat belt.
29. Right side front entrance door, electrically operated, with door leaves opening outward. The opening/closing controls shall be installed so as to be with normal reach of a driver seated in the driver's seat.
30. Rear emergency door with glass in upper and lower portions, sliding bar latch with buzzer and door lock that disabled starter and buzzes when door is locked. "Emergency Door" lettering inside and outside in 2" letters. Paint arrows showing direction of door handle action inside and outside.
31. Horizontal sliding sash or "T-type" side passenger windows. Include two push-out emergency exit windows per side with buzzers and lettering or decals to indicate location and opening instructions.
32. Tinted glass for all windows, including windshield. Dark tint in passenger areas.
33. Overhead handrails, sloping grab rails on both sides of entrance door and front entrance shall conform with 49 C.F.R. PART 38 – Subpart B, Section 38.29.
34. Padded panels located in front of first seats on curb and driver's side, anchored securely to floor
35. Padded stanchions located behind driver and at entrance door, anchored to floor and at ceiling into a structural member or backing plate

36. Body exterior to be constructed of full gel coated, honeycomb fiberglass integrated into all parts above the floor line and lower skirts incorporated into body without seams. Body to consist of no more than four (4) pieces with three (3) sealed seams. Aluminum skins are not acceptable for this line item. Window

- openings to be molded into the body to reduce wind noise and leaks. Grouted openings are not acceptable.
37. Plywood over polyurethane underbelly sub floor (steel or aluminum) built on 11-gauge steel tubing framework. Plywood 5/8" thick (minimum) fully treated to resist moisture and decomposition. Floor covering to be high-quality slip-resistant commercial transit grade rubber, elastomeric or plastic covering, laid with compatible adhesive. Floor covering to be smooth under seats and ribbed in aisle, with welded seams and cove moldings at the walls. Passenger area floor to be flat with no wheel housings visible.
 38. Entrance well steps to be stainless steel covered with same material as flooring. Step nosings to be yellow. First step to be between 9 ½ and 11 inches from the ground and all risers of approximately the same height with a maximum of 9 ½ inches. Step well to be constructed of fiberglass.
 39. Header pads at right front entrance door and at emergency door.
 40. All exposed surfaces and edges inside and outside shall be free from burrs and other projections.
 41. Complete body thermal insulation: equivalent of 1.5" of fiberglass insulation in the body sides, rear and roof, ½" rigid foam in floor.
 42. Front primary heater and defroster for windshield and adjacent side windows. One rear under seat heater and one midship with rating of 50,000 BTU (minimum) each. Heaters individually controlled.
 43. All wiring and junction panel terminals shall be numbered or color coded. Include wiring diagram. Provide grommets where wiring passes through metal.
 44. Body electrical circuits to be protected by automatic resetting circuit breakers. Include one spare live circuit breaker. All circuit breakers and fuses shall be easily accessible behind a removable or swing open panel.
 45. All accessories and electrical equipment except headlights, taillights and emergency lights are to be wired through the ignition switch. Switches and interlocks to meet ADA.
 46. Interior lights: One dome light in driver's area; four dome lights equally spaced over passenger seating area, two on each side; step well light; red light at emergency door. Light to illuminate the lift and approach. Step well light, emergency door light and lift door light wired to headlamp switch. Step well light operated by door opener. Lift door light operated by opening and closing of lift door. The door and step well shall be lighted in accordance with 49 C.F.R. Part 38, Subpart B, Section 38.31.
 47. Daytime running lights
 48. Tinted windshield, shaded
 49. Mirrors: One 6" by 30" inside rear view mirror above driver, two exterior heated rear-view mirrors, adjustable by driver from seat in normal driving position, one left and one right. Each exterior heated mirror shall have a flat reflective area of not less than 50 square inches; one exterior convex mirror mounted on right to show driver a view from the entrance door rearward, 3" diameter minimum;

- exterior cross-view mirrors at left and right front corners, to agree with federal school bus standards.
50. Gauges: Speedometer, odometer, fuel, ammeter or voltmeter, oil pressure, water temperature.
 51. Passenger side cowl protection from stones thrown from front wheels; mud flaps for rear wheels.
 52. Rust proofing of entire vehicle sufficient to provide 5-year, 100,000 mile warranty.
 53. Chrome front bumper. Rear bumper one-piece wrap-around type, chrome or stainless steel, attached to chassis frame rails.
 54. Electric two-speed windshield wipers with variable intermittent feature; electric windshield washer.
 55. Color – Manufacturer’s standard white gel coat. Two (2) inch reflective tape to be applied to outline rear of vehicle with one strip of reflective 2” tape along the driver and curb sides of the vehicle.
 56. Human service vehicle safety package. The package consists of the following three items:
 - a. Mounted, removable metal fire extinguisher, 5 lb., 2A10BC dry chemical, mounted near passenger door to be easily accessible by driver but not impeding entrance to and egress from the vehicle.
 - b. Mounted, removable 10 unit first aid kit, containing two (2) packets of 1-inch adhesive bandage, two (2) packets of 2-inch bandage compresses, four (4) packets of 4-inch bandage compresses, one (1) packet of gauze compress of a minimum size of 24” X 24”, one(1) triangular bandage in a 40-inch packet.
 - c. Mounted, removable kit containing three reflective warning triangles.
 57. AM/FM radio, chassis manufacturer’s OEM, with four speakers installed through the passenger area.
 58. Air conditioning front and rear. Chassis manufacturer’s standard front. 65,000 BTU/hour with rear evaporator and skirt mounted condenser with stainless steel fittings.
 59. Back-up warning signal.
 60. Front and rear (thrust angle) alignment to be performed after vehicle assembly and modifications are complete. The recipient shall be provided with a report of the alignment showing readings of toe, camber and caster before and after the alignment is performed. The recipient shall also be provided with a weight distribution analysis and floor plan for the vehicle.
 61. Street-side exhaust.
 62. Tilt steering wheel

63. Heavy-duty rear suspension, fitted with a rubber shear spring suspension working in conjunction with the OEM chassis leaf spring suspension to match specified GAWR. This added suspension, consisting of a spring carrier assembly, frame hanger assembly, cross-member tube assembly and carrier spring assembly, shall be installed in lieu of the original spring hanger and shackle assembly. The frame hanger must bolt into the existing OEM spring hanger holes in the frame. The modified suspension must not alter the OEM gross axle weight rating.
64. Expanded Metal Stainless Steel Running board with 11 gauge expanded metal step tread, an 11 gauge hanger assembly with a 16 gauge framing on driver's side with a maximum ground to step height of 12" and a minimum tread depth of 8" and must extend 6" maximum outward from driver door threshold. It shall extend from the rear of the front wheel to, at a minimum, the rear of the driver's door.

ACCESSIBILITY MODIFICATIONS

This vehicle and all items specified under this part shall at a minimum meet requirements of 49 C.F.R. PART 38 - AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITIES SPECIFICATIONS FOR TRANSPORTATION VEHICLES; SUBPART B, except where these specifications exceed ADA minimums. 49 C.F.R. PART 38 - SUBPART B is included as an Addendum and thereby made a part of these specifications.

64) WHEELCHAIR POSITIONS (2)

- a) Space allowance. Allow 33" width and 52" minimum length for each forward-facing wheelchair position immediately rearward of the driver position.
- b) Wheelchair securement: Wheel chair position shall have a 4-point securement (2 front and 2 back) in the vehicle with track-based anchor points of sufficient strength to secure a wheelchair. The track and all bolts should be of a material designed to eliminate rust and galvanic corrosion.

Securing retractors should be self-tensioning and self-locking and shall have a fully automatic retracting mechanism, which requires no tightening knobs on the individual retractors. The retractors shall have a floor anchorage attachment consisting of an L-Track fitting which shows a positive locking indicator along with a four stud, double plunger attachment for added strength. The attachment device securing the wheelchair to the retractor shall be a J – Style Hook application for ease of attachment and to make the retractors totally universal in floor location.

A **Retractable Combination** lap and shoulder (three-point) restraint system, which complies with FMVSS 209, shall be provided for each

wheelchair occupant. The components shall be easily identified as to their location of use as follows: "front," "rear" "lap," or "shoulder."

All components shall be able to meet random static testing forces equal to:

Rear belt assembly.....	6,000 lbs. each minimum
Front belt assembly.....	2,500 lbs. each minimum
Lap belt assembly.....	2,500 lbs. each minimum
Shoulder belt assembly.....	2,500 lbs. each minimum
Floor insert assembly.....	6,000 lbs. each minimum

Forward facing wheelchair restraints shall have all components dynamically tested at 30 m.p.h. 20g force condition, with an impact sled at a test facility such as the University of Michigan's Transportation Research Institute or a reputable equivalent, on both a child stroller type wheelchair and a battery-powered electric wheelchair.

The belts for the wheelchair passenger must be separate and independent from the wheelchair securement. Together the lap belts must be at least 120" long. The belt assemblies must meet the requirement of Federal Motor Vehicle Safety Standard 209 (FMVSS 209).

Provision shall be made for a suitable storage device (wall pouch, box or bulkhead storage box) for securing restraint system components when not in use. Location of the storage area to be determined by mutual agreement between the vendor and the purchaser. Container must meet FMVSS 302 flammability standards. An emergency webbing cutter must be provided.

- c) Fold-away passenger seating: The original passenger seats removed from each forward facing wheelchair position will be replaced with 2-place forward facing fold-away seats. These seats shall allow a minimum of 17.5" of seating space per passenger, feature a 15" minimum cushion depth, allow 27" minimum between seat centers, be upholstered with 32 ounce minimum vinyl and be equipped with two point retractable seat belts of a length sufficient to be comfortably used by adults. The back cushion shall upon release of a locking device fold down against the seat cushion and lock into place. The release of a quick-release locking device shall allow the seat to be lifted up into a stowed and locked position with all legs or supporting devices folding into the seat bottom. The seat in its stowed and locked position shall protrude no more than 10" from the interior wall. Three foldaway seats shall be installed and evenly spaced in the area where the four bench seats were removed to allow for the two wheelchair positions.

65) WHEELCHAIR LIFT.

The lift shall be a fully automatic; "non-rotary" type and shall conform to 49 C.F.R. PART 38 - Subpart B, Section 38.23 to meet ADA requirements. The wheelchair lift in a bus shall be installed in the right side, immediately behind the entrance door. Two separate swing-out doors with glass in the upper portions shall be provided for the lift opening. The doors will have at least one inside lock and outside handle and also have a device for securing them in the open position. Door ajar chime or buzzer.

The lift may be either electro hydraulically or electromechanically actuated. The lifting capacity shall be 800 lbs. minimum.

The platform may be lowered under power or by gravity. If it is a "power down" design, there must be a limit switch or bypass valve which prevents the lift from jacking the vehicle. The design of the lifting mechanism shall prevent free fall of the platform. All lift mechanisms shall be enclosed leaving no exposed chains or gears. If the lift has a crossbar at the top, it must be padded and it must not reduce the height of the door opening. When in the stored position, the surfaces of the lift facing the center and to the rear shall also be padded to prevent injury in case of contact in an accident. This requirement shall not apply to the platform surface.

The platform shall measure at least 33" by 48" with the usable width between uprights a minimum of 32". With exception of the floor molding, no metal screws are to be used in fabrication of platform assembly. The platform floor surface shall be of non-skid material. The platform must have an anti-roll barrier at its outer edge. If the lift platform does not remain rigid when it is in its stored position and the power is off, then there must be a mechanical lock to prevent the platform from moving when the vehicle is underway. There must be no exposed shear points between the platform and other structures or surfaces.

The lift shall be controlled from a hand held, weather tight switch box on an extension cord. There must be a bracket or attaching spot for the switch box inside the vehicle. The switches must give the operator instant and positive control to move, stop or reverse the lift travel at will.

A manual, back-up means for deploying and moving the lift platform in event of a power failure must be provided, along with two handrails for the person standing or seated on the platform.

Line Item 12: Medium Bus / Fiberglass Body - Gas/Electric Hybrid

Line Item 12 is identical to Line Item 11, except it adds a hybrid electric drive system to provide a parallel power system. Hybrid system must include a five-speed automatic transmission, electric launch assist, engine off at idle and regenerative braking. System must provide sufficient power such that full power of the gasoline engine is available at all times.

Line Item 13: Medium Bus / Fiberglass Body – Diesel Engine

Line Item 13 identical to Line Item 12 except for: engine to be a minimum 200 hp diesel engine, hour meter included with gauge package and fast idle solenoid in lieu of low emission gasoline engine, to include necessary equipment such as an auxiliary coolant heater, to assure minimum coolant temperature of 195 degrees F under normal operating conditions.

Line Item 14: Medium Bus / Fiberglass Body - Diesel/Electric Hybrid

Line Item 14 is identical to Line Item 13, except it adds a hybrid electric drive system to provide a parallel power system. Hybrid system must include a five-speed automatic transmission, electric launch assist, engine off at idle and regenerative braking. System must provide sufficient power such that the full power of the diesel engine is available at all times.

OPTIONAL EQUIPMENT For Line Items 10, 11, 12, 13, and 14

(Do not include in Base Price.)

- ❖ ROOF-MOUNTED AMBER STROBE LIGHT, compliant with Wisconsin Department of Transportation requirements.
- ❖ COMBINATION ESCAPE HATCH/ROOF VENT. Transpec Triple Value Safety Vent; Transpec Inc.; 575 Robbins Drive, Troy, MI 48083-4554 (313-588-8720 or Emergency Exit Safety Vent; Stretch Forming Corp; P.O. Box 686; Muretta, CA 92362 (800-854-2461) or approved equal with warning buzzer to be compliant with Trans. 301.
- ❖ WIDE-ANGLE WINDOW LENS, 11" X 14", made from clear optical grade PVC, attached to inside of rear window or door window.
- ❖ HIGH-VISIBILITY WHEELCHAIR LIFT, all features of #67 above with feature so that lift platform does not obstruct view through windows when stowed.

ESTIMATED SEATING CAPACITIES FOR ALL MEDIUM BUSES (lines 10 through 14):

24 passenger bus

10 passenger/2 wheelchair (plus 6 additional seated passengers on fold-away seats)

Line Item 15: -- LARGE BUS**Power Train**

- 1) Engine, Diesel, 200 gross horsepower (minimum), 400 gross ft-lb torque (minimum), 6 cylinder (minimum). High idle solenoid, to include necessary equipment to assure minimum coolant temperature of 195 degrees F under normal operating conditions.
- 2) Heavy-duty four-speed (minimum) electronically controlled automatic transmission with overdrive; external transmission oil cooler.
- 3) Radiator core, maximum available with anti-freeze protection to -30° F.
- 4) Engine block heater and cord.

General Chassis**Dimensional drawing of floor plan of finished vehicle to be included with bid.**

- 5) GVWR, 18,900 lbs. (minimum)
- 6) Wheelbase, 208" (minimum)
- 7) Front Axle, 6,000 lbs. (minimum)
- 8) Rear Axle, 13,000 lbs. (minimum) with axle ratio suitable for use in both city and sustained highway driving
- 9) Heavy Duty Shock Absorbers, front and rear, and front stabilizer bar.
- 10) Front Springs compatible with axle GVWR. Heavy-duty rear suspension fitted with a rubber shear spring suspension working in conjunction with the OEM chassis leaf spring suspension to match specified GAWR. This added suspension, consisting of a spring carrier assembly, frame hanger assembly, cross-member tube assembly and carrier spring assembly, shall be installed in lieu of the original spring hanger and shackle assembly. The frame hanger must bolt into the existing OEM spring hanger holes in the frame. The modified suspension must not alter the OEM gross axle weight rating.
- 11) Dual rear wheels.
- 12) Seven (7) radial tires, highway tread, including spare tire mounted on rim, and of size and rating suitable for GVWR
- 13) Alternator with minimum 160 amp output at highway speed, 100 amp output at engine idle speed and normal operating temperature.
- 14) Single or dual batteries, 1,400 CCA (minimum) in body compartment on slide-out enclosed stainless tray with stainless steel roller bearings.
- 15) Power steering.
- 16) Power brakes, maximum available, with ABS front and rear.
- 17) Drive shaft guards.

- 18) Fuel Tank, 50 gallon (minimum) to conform with FMVSS 301 and ICC fuel tank regulations.
- 19) Locking fuel cap or locking fuel door.
- 20) Tilt Steering Wheel.
- 21) High idle switch, either automatically enabled by operation of wheelchair lift or installed on dash.

Body and Interior

- 22) Sides, floor, room and other structural features of the bus body must meet FMVSS 220 (School Bus Rollover Protection) and FMVSS 221 (Joint Strength)
- 23) Interior headroom: 75" (minimum)
- 24) Interior width, 89" (minimum)
- 25) Exterior width: 98" (maximum)
- 26) Aisle width: 16" (minimum) for full length of passenger compartment.
- 27) Seating for adult passengers. All seating forward facing; two-place bench seats with 17.5" seating space per person (minimum). Allow 27" minimum between seat centers.
- 28) All seats to be mid-high back passenger seats and shall be fully padded with contoured foam seat cushions and contoured backs and upholstered with 32 oz. minimum vinyl. Both front and rear surfaces of seat back shall be padded. Cushion depth shall be 15" minimum. Each seat to have an integral three-point seat belt. Seat belt extenders to be provided as noted in bid package. All extenders must be of same manufacturer as main belts.
- 29) Driver's seat shall be deluxe upholstered, high back, with the following adjustments: up and down, forward and backward, backrest pitch and cushion depth. Include retractable three-point seat belt.
- 30) Right side front entrance door, electrically operated, with door leaves opening outward. The opening/closing controls shall be installed so as to be within reach of a driver seated in the driver's seat.
- 31) Rear emergency door with glass in upper and lower portions, sliding bar latch with buzzer and door lock that disables starter and buzzes when door is locked. "Emergency Door: lettering inside and outside, 2" letters. Paint arrows showing direction of door handle action inside and outside.
- 32) Horizontal sliding sash or "T-type" side passenger windows. Include two push-out emergency exit windows per side with buzzers and lettering or decals to indicate location and operating instructions.
- 33) Tinted glass for all windows including the windshield. Dark tint glass for windows in passenger area, shaded windshield.
- 34) Overhead handrails, sloping grab rails on both sides of entrance door and front entrance shall conform with 49 CFR Part 38 – Subpart B, Section 38.29.

- 35) Padded panels located in front of first seats on curb and driver's side, anchored securely to floor.
- 36) Padded stanchions located behind driver and at the entrance door, anchored to floor and at ceiling into structural member or backing plate.
- 37) Plywood over metal sub floor (steel or aluminum) built on a steel framework. Plywood 5/8" thick (minimum) and treated to resist moisture and decomposition. Floor covering to be high-quality commercial transit grade rubber, elastomeric or plastic covering, laid with compatible adhesive. Floor covering to be smooth under seats and ribbed in the aisle with aluminum strips over seams and cove moldings at the walls. Floor covering can be black in color or color matched to the color of the seats. Passenger area floor to be flat with no wheel housings visible.
- 38) Entrance well steps to be stainless steel covered with 3/16" ribbed heavy-duty rubber. Step nosings to be yellow. First step to be approximately 10 1/2" from the ground and all risers to be of approximately equal height with a maximum of 9 1/2".
- 39) Header pads at right front entrance door and at emergency door.
- 40) All exposed surfaces and edges inside and outside shall be free from burrs and other projections.
- 41) Complete body thermal insulation: equivalent of 1.5" of fiberglass insulation in body sides, rear and roof, 1/2" rigid foam in floor.
- 42) Front primary heater and defrosters for windshield and adjacent side windows. One rear under-seat heater and one midship, each with a rating of 60,000 BTU. Heaters individually controlled.
- 43) All wiring and junction panel terminals shall be numbered or color-coded. Include wiring diagram. Provide grommets where wiring passes through metal.
- 44) Body electrical circuits to be protected by automatic resetting circuit breakers. Include one spare live circuit breaker. All circuit breakers and fuses shall be easily accessible behind a removable or swing-open panel.
- 45) All accessories and electrical equipment except headlights, taillights and emergency lights are to be wired through the ignition switch. Switches and interlocks to meet ADA requirements.
- 46) Interior Lights: One dome light in driver's area; four dome lights equally spaced over passenger seating, two on each side; step well light; red light at emergency door; light to illuminate the lift and approach. Step well light, emergency door light and lift door light wired to headlamp switch. Step well light operated by door opener. Lift door light operated by opening and closing of lift door. The door and step well shall be lighted in accordance with 49 CFR PART 38 – Subpart b, Section 38.31.
- 47) Exterior Lights: Head lights; 3 amber identification lights front; 3 red identification lights rear; front, rear and side directional signals; 2 stop lamps, 4" minimum; 2 tail lamps, 4" minimum; 2 back-up lamps, 4" minimum; 4 clearance lights, amber at front corners; red at rear corners;

license plate lamp. All lights except headlights to be of LED type with a minimum of 5-year, 150,000-mile warranty.

- 48) Mirrors: One 6" x 30" inside rear view mirror above driver; two exterior heated rear view mirrors, adjustable by driver seat in normal driving position, one left and one right, each mirror having a flat reflective area of not less than 50 sq. in.; one exterior convex mirror mounted on the right, showing driver a view from the entrance door rearward, 3" diameter minimum; exterior cross-view mirrors at left and right front corners, to agree with federal school bus standards.
- 49) Gauges: Speedometer, odometer, fuel, ammeter or voltmeter, oil pressure, coolant temperature.
- 50) Passenger side cowl protection from stones thrown from front wheels. Mud flaps rear.
- 51) Rust proofing of entire vehicle to provide 5-year, 100,000 mile rust-through warranty.
- 52) Front bumper as supplied by chassis manufacturer, chrome. Rear bumper one-piece wrap-around type, chrome or stainless steel, attached to chassis frame rails.
- 53) Electric two-speed windshield wipers with variable intermittent feature and electric washer.
- 54) Color – Manufacturer's standard white with approx. 3" transit accent striping above windows and approx. 8" transit accent striping below windows. Successful bidder will contact recipient to determine accent color. Apply 2" reflective tape to outline rear of vehicle and apply one strip along the driver and curb sides of the vehicle.
- 55) Human service vehicle/safety package. This package consists of the following three items:
 - a) Mounted, removable metal fire extinguisher, 5lb., 2A-10BC, dry chemical, mounted near passenger door so as to be easily accessible by driver but not to impede entrance to and egress from the vehicle.
 - b) Mounted, removable, 10 unit first aid kit, containing the following:
 - 2 packets, 1-inch adhesive bandage.
 - 2 packets, 2-inch bandage compress.
 - 4 packets, 4-inch bandage compress.
 - 1 packet, gauze compress, 24-inch x 24-inch minimum.
 - 1 packet, triangular bandage, 40-inch.packet.
 - c) Mounted, removable, kit containing three reflective warning triangles.
- 56) AM/FM radio, chassis manufacturer's OEM, with four speakers installed throughout the passenger area.
- 57) Air conditioning front and rear. FRONT: Chassis manufacturer's standard. REAR: 75,000 BTU/hr. with evaporator and skirt mounted condenser with stainless steel fittings.
- 58) Back-up warning signal.

- 59) Front and rear (thrust angle) alignment to be performed after vehicle assembly and modifications are complete. The recipient shall be provided with a report of the alignment showing readings of toe, camber and caster before and after the alignment is performed. The recipient shall also be provided with a weight distribution analysis and floor plan for the vehicle.
- 60) Street-side exhaust.
- 61) Daytime running lights.

ACCESSIBILITY MODIFICATIONS

This vehicle and all items specified under this part shall at a minimum meet requirements of 49 C.F.R. PART 38 - AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITIES SPECIFICATIONS FOR TRANSPORTATION VEHICLES; SUBPART B, except where these specifications exceed ADA minimums. 49 C.F.R. PART 38 - SUBPART B is included as an Addendum and thereby made a part of these specifications.

62) WHEELCHAIR POSITIONS (2)

- a) Space allowance. Allow 33” width and 52” minimum length for each forward-facing wheelchair position immediately rearward of the driver position.
- b) Wheelchair securement: Wheel chair position shall have a 4-point securement (2 front and 2 back) in the vehicle with track-based anchor points of sufficient strength to secure a wheelchair. The track and all bolts should be of a material designed to eliminate rust and galvanic corrosion.

Securing retractors should be self-tensioning and self-locking and shall have a fully automatic retracting mechanism, which requires no tightening knobs on the individual retractors. The retractors shall have a floor anchorage attachment consisting of an L-Track fitting which shows a positive locking indicator along with a four stud, double plunger attachment for added strength. The attachment device securing the wheelchair to the retractor shall be a J – Style Hook application for ease of attachment and to make the retractors totally universal in floor location.

A **Retractable Combination** lap and shoulder (three-point) restraint system, which complies with FMVSS 209, shall be provided for each wheelchair occupant. The components shall be easily identified as to their location of use as follows: "front," "rear" "lap," or "shoulder."

All components shall be able to meet random static testing forces equal to:

- Rear belt assembly 6,000 lbs. each minimum
- Front belt assembly 2,500 lbs. each minimum
- Lap belt assembly 2,500 lbs. each minimum

- Shoulder belt assembly..... 2,500 lbs. each minimum
- Floor insert assembly..... 6,000 lbs. each minimum

Forward facing wheelchair restraints shall have all components dynamically tested at 30 m.p.h. 20g force condition, with an impact sled at a test facility such as the University of Michigan's Transportation Research Institute or a reputable equivalent, on both a child stroller type wheelchair and a battery-powered electric wheelchair.

The belts for the wheelchair passenger must be separate and independent from the wheelchair securement. Together the lap belts must be at least 120" long. The belt assemblies must meet the requirement of Federal Motor Vehicle Safety Standard 209 (FMVSS 209).

Provision shall be made for a suitable storage device (wall pouch, box or bulkhead storage box) for securing restraint system components when not in use. Location of the storage area to be determined by mutual agreement between the vendor and the purchaser. Container must meet FMVSS 302 flammability standards. An emergency webbing cutter must be provided.

c) Fold-away passenger seating: The original passenger seats removed from each forward facing wheelchair position will be replaced with 2-place forward facing fold-away seats. These seats shall allow a minimum of 17.5" of seating space per passenger, feature a 15" minimum cushion depth, allow 27" minimum between seat centers, be upholstered with 32 ounce minimum vinyl and be equipped with retractable seat belts of a length sufficient to be comfortably used by adults. The back cushion shall upon release of a locking device fold down against the seat cushion and lock into place. The release of a quick-release locking device shall allow the seat to be lifted up into a stowed and locked position with all legs or supporting devices folding into the seat bottom. The seat in its stowed and locked position shall protrude no more than 10" from the interior wall. Three foldaway seats shall be installed and evenly spaced in the area where the four bench seats were removed to allow for the two wheelchair positions.

63) WHEELCHAIR LIFT

The lift shall be a fully-automatic, "non-rotary" type and shall conform to 49CFR Part 38-Subpart B, Section 38.23 to meet ADA requirements. The wheelchair lift shall be installed in the curb side of the bus, immediately behind the entrance door. Two separate doors, with glass in the upper portions and at least one inside lock and outside

handle and a device for securing them in the open position, shall be provided. They shall be equipped with a “door ajar” chime or buzzer.

The lift may be either electro-hydraulically or electromechanically actuated. The lifting capacity shall be a minimum of 800 pounds, minimum. The platform may be lowered under power or by gravity. If it is a “power down” design, there must be a limit switch or bypass valve which prevents the lift from jacking the vehicle. The design of the lifting mechanism shall prevent free fall of the platform. All lift mechanisms shall be enclosed, leaving no exposed chains or gears. If the lift has a crossbar at the top, it must be padded and must not reduce the height of the door opening. When in the stored position, the surfaces of the lift facing the center and to the rear shall also be padded to prevent injury in case of contact in an accident. This requirement shall not apply to the platform surface. The platform shall measure at least 33” X 48”, with the usable width between the uprights a minimum of 32”. With the exception of the floor molding, no metal screws are to be used in fabrication of platform assembly. The platform floor surface shall be of non-skid material. The platform must have an anti-roll barrier at its outer edge. If the lift platform does not remain rigid when it is in its stored position and the power is off, there must be a mechanical lock to prevent the platform from moving when the vehicle is in operation. There must be no exposed shear points between the platform and other structures or surfaces.

The lift shall be controlled from a hand-held, weather tight switch box on an extension cord. There must be a bracket or attaching spot for the switch box inside the vehicle. The switches must give the operator instant and positive control to move, stop or reverse the lift travel at will. A manual, back-up means for deploying and moving the lift platform in the event of a power failure must be provided.

Two handrails for the person standing or seated on the platform must be provided.

Line Item 16: Large Bus with Fiberglass Body

Line item 16 specifications are to also be used as base requirements for line item 17.

Line item 16, independently is for a Large Bus / Fiberglass Body – Diesel Engine

Power Train

- 1) Engine, Diesel, 200 gross horsepower (minimum), 400 gross ft-lb torque (minimum), 6 cylinder (minimum). High idle solenoid, to include necessary equipment to assure minimum coolant temperature of 195 degrees F under normal operating conditions.
- 2) Heavy-duty four-speed (minimum) electronically controlled automatic transmission with overdrive; external transmission oil cooler.
- 3) Radiator core, maximum available with anti-freeze protection to -30° F.
- 4) Engine block heater and cord.

General Chassis

Dimensional drawing of floor plan of finished vehicle to be included with bid.

- 5) GVWR, 18,900 lbs. (minimum)
- 6) Wheelbase, 208" (minimum)
- 7) Front Axle, 6,000 lbs. (minimum)
- 8) Rear Axle, 13,000 lbs. (minimum) with axle ratio suitable for use in both city and sustained highway driving
- 9) Heavy Duty Shock Absorbers, front and rear, and front stabilizer bar.
- 10) Front Springs compatible with axle GVWR. Heavy-duty rear suspension fitted with a rubber shear spring suspension working in conjunction with the OEM chassis leaf spring suspension to match specified GAWR. This added suspension, consisting of a spring carrier assembly, frame hanger assembly, cross-member tube assembly and carrier spring assembly, shall be installed in lieu of the original spring hanger and shackle assembly. The frame hanger must bolt into the existing OEM spring hanger holes in the frame. The modified suspension must not alter the OEM gross axle weight rating.
- 11) Dual rear wheels.
- 12) Seven (7) radial tires, highway tread, including spare tire mounted on rim, and of size and rating suitable for GVWR
- 13) Alternator with minimum 160 amp output at highway speed, 100 amp output at engine idle speed and normal operating temperature.
- 14) Single or dual batteries, 1,400 CCA (minimum) in body compartment on slide-out enclosed stainless tray with stainless steel roller bearings.
- 15) Power steering.
- 16) Power brakes, maximum available, with ABS front and rear.

- 17) Drive shaft guards.
- 18) Fuel Tank, 50 gallon (minimum) to conform with FMVSS 301 and ICC fuel tank regulations.
- 19) Locking fuel cap or locking fuel door.
- 20) Tilt Steering Wheel.
- 21) High idle switch, either automatically enabled by operation of wheelchair lift or installed on dash.

Body and Interior

- 22) Sides, floor, room and other structural features of the bus body must meet FMVSS 220 (School Bus Rollover Protection) and FMVSS 221 (Joint Strength)
- 23) Interior headroom: 75" (minimum)
- 24) Interior width, 89" (minimum)
- 25) Exterior width: 98" (maximum)
- 26) Aisle width: 16" (minimum) for full length of passenger compartment.
- 27) Seating for adult passengers. All seating forward facing; two-place bench seats with 17.5" seating space per person (minimum). Allow 27" minimum between seat centers.
- 28) All seats to be mid-high back passenger seats and shall be fully padded with contoured foam seat cushions and contoured backs and upholstered with 32 oz. minimum vinyl. Both front and rear surfaces of seat back shall be padded. Cushion depth shall be 15" minimum. Each seat to have an integral three-point seat belt. Seat belt extenders to be provided as noted in bid package. All extenders must be of same manufacturer as main belts.
- 29) Driver's seat shall be deluxe upholstered, high back, with the following adjustments: up and down, forward and backward, backrest pitch and cushion depth. Include retractable three-point seat belt.
- 30) Right side front entrance door, electrically operated, with door leaves opening outward. The opening/closing controls shall be installed so as to be within reach of a driver seated in the driver's seat.
- 31) Rear emergency door with glass in upper and lower portions, sliding bar latch with buzzer and door lock that disables starter and buzzes when door is locked. "Emergency Door: lettering inside and outside, 2" letters. Paint arrows showing direction of door handle action inside and outside.
- 32) Horizontal sliding sash or "T-type" side passenger windows. Include two push-out emergency exit windows per side with buzzers and lettering or decals to indicate location and operating instructions.
- 33) Tinted glass for all windows including the windshield. Dark tint glass for windows in passenger area, shaded windshield.

- 34) Overhead handrails, sloping grab rails on both sides of entrance door and front entrance shall conform with 49 CFR Part 38 – Subpart B, Section 38.29.
- 35) Padded panels located in front of first seats on curb and driver's side, anchored securely to floor.
- 36) *Padded stanchions located behind driver and at the entrance door, anchored to floor and at ceiling into structural member or backing plate.*
- 36) Body exterior to be constructed of full gel coated, honeycomb fiberglass integrated into all parts above the floor line and lower skirts incorporated into body without seams. Body to consist of no more than four (4) pieces with three (3) sealed seams. Aluminum skins are not acceptable for this line item. Window openings to be molded into the body to reduce wind noise and leaks. Grouted openings are not acceptable.
- 38) Plywood over polyurethane underbelly sub floor (steel or aluminum) built on 11-gauge steel tubing framework. Plywood 5/8" thick (minimum) fully treated to resist moisture and decomposition. Floor covering to be high-quality slip-resistant commercial transit grade rubber, elastomeric or plastic covering, laid with compatible adhesive. Floor covering to be smooth under seats and ribbed in aisle, with welded seams and cove moldings at the walls. Passenger area floor to be flat with no wheel housings visible
- 39) Plywood over metal sub floor (steel or aluminum) built on a steel framework. Plywood 5/8" thick (minimum) and treated to resist moisture and decomposition. Floor covering to be high-quality commercial transit grade rubber, elastomeric or plastic covering, laid with compatible adhesive. Floor covering to be smooth under seats and ribbed in the aisle with aluminum strips over seams and cove moldings at the walls. Floor covering can be black in color or color matched to the color of the seats. Passenger area floor to be flat with no wheel housings visible.
- 78) Entrance well steps to be stainless steel covered with 3/16" ribbed heavy-duty rubber. Step nosings to be yellow. First step to be approximately 10 1/2" from the ground and all risers to be of approximately equal height with a maximum of 9 1/2".
- 79) Header pads at right front entrance door and at emergency door.
- 80) All exposed surfaces and edges inside and outside shall be free from burrs and other projections.
- 81) Complete body thermal insulation: equivalent of 1.5" of fiberglass insulation in body sides, rear and roof, 1/2" rigid foam in floor.
- 82) Front primary heater and defrosters for windshield and adjacent side windows. One rear under-seat heater and one midship, each with a rating of 60,000 BTU. Heaters individually controlled.
- 83) All wiring and junction panel terminals shall be numbered or color-coded. Include wiring diagram. Provide grommets where wiring passes through metal.

- 84) Body electrical circuits to be protected by automatic resetting circuit breakers. Include one spare live circuit breaker. All circuit breakers and fuses shall be easily accessible behind a removable or swing-open panel.
- 85) All accessories and electrical equipment except headlights, taillights and emergency lights are to be wired through the ignition switch. Switches and interlocks to meet ADA requirements.
- 86) Interior Lights: One dome light in driver's area; four dome lights equally spaced over passenger seating, two on each side; step well light; red light at emergency door; light to illuminate the lift and approach. Step well light, emergency door light and lift door light wired to headlamp switch. Step well light operated by door opener. Lift door light operated by opening and closing of lift door. The door and step well shall be lighted in accordance with 49 CFR PART 38 – Subpart b, Section 38.31.
- 87) Exterior Lights: Head lights; 3 amber identification lights front; 3 red identification lights rear; front, rear and side directional signals; 2 stop lamps, 4" minimum; 2 tail lamps, 4" minimum; 2 back-up lamps, 4" minimum; 4 clearance lights, amber at front corners; red at rear corners; license plate lamp. All lights except headlights to be of LED type with a minimum of 5-year, 150,000-mile warranty.
- 88) Mirrors: One 6" x 30" inside rear view mirror above driver; two exterior heated rear view mirrors, adjustable by driver seat in normal driving position, one left and one right, each mirror having a flat reflective area of not less than 50 sq. in.; one exterior convex mirror mounted on the right, showing driver a view from the entrance door rearward, 3" diameter minimum; exterior cross-view mirrors at left and right front corners, to agree with federal school bus standards.
- 89) Gauges: Speedometer, odometer, fuel, ammeter or voltmeter, oil pressure, coolant temperature.
- 90) Passenger side cowl protection from stones thrown from front wheels. Mud flaps rear.
- 91) Rust proofing of entire vehicle to provide 5-year, 100,000 mile rust-through warranty.
- 92) Front bumper as supplied by chassis manufacturer, chrome. Rear bumper one-piece wrap-around type, chrome or stainless steel, attached to chassis frame rails.
- 93) Electric two-speed windshield wipers with variable intermittent feature and electric washer.
- 94) Color – Manufacturer's standard white with approx. 3" transit accent striping above windows and approx. 8" transit accent striping below windows. Successful bidder will contact recipient to determine accent color. Apply 2" reflective tape to outline rear of vehicle and apply one strip along the driver and curb sides of the vehicle.
- 95) Human service vehicle/safety package. This package consists of the following three items:

- a) Mounted, removable metal fire extinguisher, 5lb., 2A-10BC, dry chemical, mounted near passenger door so as to be easily accessible by driver but not to impede entrance to and egress from the vehicle.
 - b) Mounted, removable, 10 unit first aid kit, containing the following:
 - 2 packets, 1-inch adhesive bandage.
 - 2 packets, 2-inch bandage compress.
 - 4 packets, 4-inch bandage compress.
 - 1 packet, gauze compress, 24-inch x 24-inch minimum.
 - 1 packet, triangular bandage, 40-inch.packet.
 - c) Mounted, removable, kit containing three reflective warning triangles.
- 96) AM/FM radio, chassis manufacturer's OEM, with four speakers installed throughout the passenger area.
- 97) Air conditioning front and rear. FRONT: Chassis manufacturer's standard. REAR: 75,000 BTU/hr. with evaporator and skirt mounted condenser with stainless steel fittings.
- 98) Back-up warning signal.
- 99) Front and rear (thrust angle) alignment to be performed after vehicle assembly and modifications are complete. The recipient shall be provided with a report of the alignment showing readings of toe, camber and caster before and after the alignment is performed. The recipient shall also be provided with a weight distribution analysis and floor plan for the vehicle.
- 100) Street-side exhaust.
- 101) Daytime running lights.

ACCESSIBILITY MODIFICATIONS

This vehicle and all items specified under this part shall at a minimum meet requirements of 49 C.F.R. PART 38 - AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITIES SPECIFICATIONS FOR TRANSPORTATION VEHICLES; SUBPART B, except where these specifications exceed ADA minimums. 49 C.F.R. PART 38 - SUBPART B is included as an Addendum and thereby made a part of these specifications.

WHEELCHAIR POSITIONS (2)

- d) Space allowance. Allow 33" width and 52" minimum length for each forward- facing wheelchair position immediately rearward of the driver position.
- e) Wheelchair securement: Wheel chair position shall have a 4-point securement (2 front and 2 back) in the vehicle with track-based anchor points of sufficient strength to secure a wheelchair. The track and all bolts should be of a material designed to eliminate rust and galvanic corrosion.

Securing retractors should be self-tensioning and self-locking and shall have a fully automatic retracting mechanism, which requires no tightening knobs on the individual retractors. The retractors shall have a floor anchorage attachment consisting of an L-Track fitting which shows a positive locking indicator along with a four stud,

double plunger attachment for added strength. The attachment device securing the wheelchair to the retractor shall be a J – Style Hook application for ease of attachment and to make the retractors totally universal in floor location.

A **Retractable Combination** lap and shoulder (three-point) restraint system, which complies with FMVSS 209, shall be provided for each wheelchair occupant. The components shall be easily identified as to their location of use as follows: "front," "rear" "lap," or "shoulder."

All components shall be able to meet random static testing forces equal to:

Rear belt assembly	6,000 lbs. each minimum
Front belt assembly.....	2,500 lbs. each minimum
Lap belt assembly	2,500 lbs. each minimum
Shoulder belt assembly.....	2,500 lbs. each minimum
Floor insert assembly.....	6,000 lbs. each minimum

Forward facing wheelchair restraints shall have all components dynamically tested at 30 m.p.h. 20g force condition, with an impact sled at a test facility such as the University of Michigan's Transportation Research Institute or a reputable equivalent, on both a child stroller type wheelchair and a battery-powered electric wheelchair.

The belts for the wheelchair passenger must be separate and independent from the wheelchair securement. Together the lap belts must be at least 120" long. The belt assemblies must meet the requirement of Federal Motor Vehicle Safety Standard 209 (FMVSS 209).

Provision shall be made for a suitable storage device (wall pouch, box or bulkhead storage box) for securing restraint system components when not in use. Location of the storage area to be determined by mutual agreement between the vendor and the purchaser. Container must meet FMVSS 302 flammability standards. An emergency webbing cutter must be provided.

f) Fold-away passenger seating: The original passenger seats removed from each forward facing wheelchair position will be replaced with 2-place forward facing fold-away seats. These seats shall allow a minimum of 17.5" of seating space per passenger, feature a 15" minimum cushion depth, allow 27" minimum between seat centers, be upholstered with 32 ounce minimum vinyl and be equipped with retractable seat belts of a length sufficient to be comfortably used by adults. The back cushion shall upon release of a locking device fold down against the seat cushion and lock into place. The release of a quick-release locking device shall allow the seat to be lifted up into a stowed and locked position with all legs or supporting devices folding into the seat bottom. The seat in its stowed and locked position shall protrude no more than 10" from the interior wall.

Three foldaway seats shall be installed and evenly spaced in the area where the four bench seats were removed to allow for the two wheelchair positions.

65) WHEELCHAIR LIFT

The lift shall be a fully-automatic, “non-rotary” type and shall conform to 49CFR Part 38-Subpart B, Section 38.23 to meet ADA requirements. The wheelchair lift shall be installed in the curb side of the bus, immediately behind the entrance door. Two separate doors, with glass in the upper portions and at least one inside lock and outside handle and a device for securing them in the open position, shall be provided. They shall be equipped with a “door ajar” chime or buzzer.

The lift may be either electro-hydraulically or electromechanically actuated. The lifting capacity shall be a minimum of 800 pounds. The platform may be lowered under power or by gravity. If it is a “power down” design, there must be a limit switch or bypass valve which prevents the lift from jacking the vehicle. The design of the lifting mechanism shall prevent free fall of the platform. All lift mechanisms shall be enclosed, leaving no exposed chains or gears. If the lift has a crossbar at the top, it must be padded and must not reduce the height of the door opening. When in the stored position, the surfaces of the lift facing the center and to the rear shall also be padded to prevent injury in case of contact in an accident. This requirement shall not apply to the platform surface. The platform shall measure at least 33” X 48”, with the usable width between the uprights a minimum of 32”. With the exception of the floor molding, no metal screws are to be used in fabrication of platform assembly. The platform floor surface shall be of non-skid material. The platform must have an anti-roll barrier at its outer edge. If the lift platform does not remain rigid when it is in its stored position and the power is off, there must be a mechanical lock to prevent the platform from moving when the vehicle is in operation. There must be no exposed shear points between the platform and other structures or surfaces.

The lift shall be controlled from a hand-held, weather tight switch box on an extension cord. There must be a bracket or attaching spot for the switch box inside the vehicle. The switches must give the operator instant and positive control to move, stop or reverse the lift travel at will. A manual, back-up means for deploying and moving the lift platform in the event of a power failure must be provided.

Two handrails for the person standing or seated on the platform must be provided.

Line Item 17: Diesel/Electric Hybrid Large Bus with Fiberglass Body

Line 17 identical to line 16, except it adds a hybrid electric drive system to provide a parallel power system. Hybrid system must include a five-speed automatic transmission, electric launch assist, engine off at idle and regenerative braking. System must provide sufficient power such that the full power of the diesel engine is available at all times.

LARGE BUS OPTIONAL ITEMS (For items 15, 16 and 17)**Do not include in Base Price:**

- ❖ Combination Escape Hatch/Roof Vent. Transpec Triple Value Safety vent, Transpec Inc., 575 Robbins Drive, Troy, MI 58083-4554 (313)588-8720; or Emergency Exit Safety Vent; Stretch Forming Corp., P.O. Box 686, Murrieta, CA 93262 (800-854-2461) or approved equal, with warning buzzer as required by Trans. 301.
- ❖ Roof-mounted amber strobe light, compliant with Wisconsin Department of Transportation requirements
- ❖ Wide-angle window lens, 11" x 14", made from clear optical-grade PVC, attached to inside of rear window or door window.
- ❖ High-Visibility Wheelchair Lift, with all features shown in #65 above, constructed so that lift platform does not obstruct view through windows when stowed.

ESTIMATED SEATING CAPACITIES FOR LINES 15, 16 AND 17:

32 Passenger Bus to seat 20 passengers/2 wheelchairs (plus six additional seated passengers on fold-away seats)

Line Item 18:--CONVENTIONAL BUS ON COWL CHASSIS

Line item 18 specifications are to also be used as base requirements for line item 19.

Line item 18, independently is for a Conventional Bus on Cowl Chassis

Power Train

- 1) Engine: Diesel, 200 gross horsepower (minimum), 525 gross lbs. torque (minimum). High idle solenoid.
- 2) Electronically controlled automatic transmission
- 3) Radiator core, maximum available with anti-freeze protection to -30°F.
- 4) Engine block heater and cord

General Chassis

Dimensional drawing of floor plan of finished vehicle to be included with bid.

- 5) GVW 27,000 lbs. minimum
- 6) Wheelbase 252" minimum
- 7) Front axle rating 9,000 lbs. minimum
- 8) Rear axle rating 19,000 lbs. minimum
- 9) Front spring rating 4,500 lbs. minimum
- 10) Rear spring rating 9,500 lbs. minimum. Heavy-duty rear suspension fitted with a rubber shear spring suspension working in conjunction with the OEM chassis leaf spring suspension to match specified GAWR. This added suspension, consisting of a spring carrier assembly, frame hanger assembly, cross-member tube assembly and carrier spring assembly, shall be installed in lieu of the original spring hanger and shackle assembly. The frame hanger must bolt into the existing OEM spring hanger holes in the frame. The modified suspension must not alter the OEM gross axle weight rating.
- 11) Tires: type Radial, tubeless.
 - Front - Highway tread, 11.00R x 22.5G
 - Rear - Mud and Snow tread, 11.00R x 22.5G
 - Spare (mounted on rim) – to match front tread, 11.00R x 22.5G
- 12) Hub piloted 10 stud disc wheels
- 13) Heavy duty shock absorbers front and rear
- 14) Rear axle with ratio capable of sustained 65 mph operation
- 15) Alternator with minimum 185 amp output at highway speed, 130 amp output at engine idle speed and normal operating temperature.
- 16) Multiple battery system, total 1950 CCA (minimum) in body compartment on slide-out enclosed stainless tray with stainless roller bearings.
- 17) Power brakes, maximum available hydraulic type, ABS front and rear
- 18) Power steering

- 19) 60 gallon fuel tank – with locking door or fuel cap - conforms to FMVSS 301 and ICC fuel tank regulations
- 20) Cruise Control
- 21) Fuel tank and line shall be insulated from exhaust pipes and other hot parts and from exposed electrical apparatus or connections.
- 22) Drive shaft guards
- 23) Gauges: Speedometer, odometer, fuel, ammeter or voltmeter, oil pressure, water temperature, hour meter, and tachometer
- 24) Paint: Chassis manufacturer's standard colors

Body and Interior

- 25) Sides, floor, roof and other structural features of the bus body must conform with Wisconsin school bus construction standards as specified in TRANS 300.35(1)-(5) in addition to Federal Motor Vehicle Safety Standard No. 220 ("School Bus Rollover Protection.") and FMVSS 221 (Joint Strength)
- 26) Interior headroom: 77" minimum
- 27) Interior width: 89" minimum
- 28) Exterior width: 96" maximum
- 29) Aisle width: 16" minimum for full length of passenger compartment
- 30) Seating for adult passengers. All seating forward facing; two-place seats with 17.5" seating space per person (minimum). Allow minimum 27" between seat centers.
- 31) Mid-high back passenger seats shall be fully padded with contoured foam seat cushions and contoured backs and upholstered with 32 oz. minimum vinyl. Both front and rear surfaces of seat back shall be padded. Cushion depth shall be 15" minimum. Each seat to have integral three-point seat belt with extenders available in the number shown in the bid package. All seat belt extenders must be of the same manufacturer as the main belts.
- 32) Driver's seat shall be deluxe upholstered, high back, fully suspended type with the following adjustments: up and down, forward and backward, backrest pitch and cushion depth. Include retractable 3-point seat belt.
- 33) Right side front entrance door, electrically operated, with door leaves opening outward. The opening/closing controls shall be installed so as to be within reach of a driver seated in the driver's seat.
- 34) Rear emergency door with glass in upper and lower portions, sliding bar latch with buzzer and door lock that disables starter and buzzes when door is locked. "Emergency Door" lettering inside and outside, 2" letters. Paint arrows showing direction of door handle action inside and outside.
- 35) Two piece rectangular side windows with vertically sliding sash. Include two push-out emergency exit windows per side with buzzers and lettering or decals to indicate location and opening instructions.

- 36) Tinted glass for all windows including the windshield. Include double pane frost-free glass in driver's side window and top part of entrance door. Exclude tint on the thermopane side window behind entrance or lift door. Dark tint glass in passenger area.
- 37) Overhead handrails, sloping grab rails on both sides of entrance door and front entrance shall conform with 49 C.F.R. PART 38 - Subpart B, Section 38.29.
- 38) Padded stanchions located behind driver and at the entrance door, anchored to bus floor and to ceiling into a structural member or backing plate.
- 39) Plywood over steel floor throughout, 5/8" thick (minimum) and treated to resist moisture and decomposition. Floor covering to be high-quality commercial transit grade rubber, elastomeric or plastic covering, laid with compatible adhesive. Floor covering to be smooth under seats and ribbed in the aisle with aluminum strips over seams. Aluminum or stainless steel cove moldings.
- 40) 3-4 step entrance well, first step to be approx. 10.5 inches from ground with additional risers of equal height not to exceed 9 1/2".
- 41) Entrance well steps to be stainless steel covered with 3/16" ribbed heavy-duty rubber. Step nosings to be yellow.
- 42) Interior sidewalls and roof head lining: manufacturer's standard.
- 43) Shoulder pads
- 44) Header pads at right front entrance door and at emergency door.
- 45) All exposed surfaces and edges inside and outside shall be free from burrs and other projections.
- 46) Complete body thermal insulation - minimum of 1.5" fiberglass or equal insulation in body sides, rear, and roof; 1/2" rigid foam in floor.
- 47) Left front primary heater, with defrosters full length of manifold for windshield and adjacent side windows and individual driver foot warmer left side: 90,000 BTU minimum combined. Two auxiliary defroster fans. Step well heater: 50,000 BTU minimum. Under seat heaters: two with a rating of 50,000 BTU's each (minimum). Heaters and two-speed fans individually controlled. Heater booster pump.
- 48) All wiring and junction panel terminals shall be numbered or color-coded. Include wiring diagram.
- 49) Body electrical circuits to be protected by automatic resetting circuit breakers. Include one spare live circuit breaker. All circuit breakers and fuses shall be easily accessible behind a removable or swing open panel. Include wiring diagram. Provide grommets where wiring passes through metal.
- 50) All accessories and electrical equipment except headlights, taillights and emergency lights are to be wired through the ignition switch. Switches and interlocks to meet ADA requirements on lift-equipped buses.

- 51) Interior lights: One dome light in driver's area; dome lights equally spaced over passenger seating, one row on each side; step well light; red light at emergency door. Lift equipped vehicles shall have a light to illuminate the lift and approach. Step well light, emergency door light, and lift door light wired to headlamp switch. Step well light operated by door opener. Lift door light operated by opening and closing of lift door. To meet ADA requirements.
- 52) Exterior lights: Head lights; 3 amber identification lights front; 3 red identification lights rear; front, rear and side directional signals; 2 7" stop lamps; 2 tail lamps, 4" minimum; 2 back-up lamps, 4" minimum; 4 clearance lights, amber at front corners, red at rear corners; license plate lamp. All lights except headlights to be of LED type with a minimum of 5-year, 150,000-mile warranty.
- 53) Tinted windshield, shaded
- 54) Mirrors: One 6" x 30" inside rear view mirror above driver; two exterior heated defrosting rearview mirrors, adjustable by driver from seat in normal driving position, left and right, each mirror having a flat reflective area of not less than 50 sq. in.; one exterior convex mirror mounted on the right showing driver a view from the entrance door rearward, 3" diameter minimum; exterior cross-view mirrors at left and right front corners to agree with federal school bus standards.
- 55) Passenger side cowl protection from stones thrown from front wheels; mud flaps rear
- 56) Rust proofing of entire vehicle to provide 5-year, 100,000 mile rust-through warranty.
- 57) One piece frame mounted bumpers front and rear. Wrap-around rear bumper. Bumpers painted black.
- 58) Electric two-speed windshield wipers with intermittent feature and electric windshield washers
- 59) Overall color will match chassis color. Trim color applied to rub rails. Successful bidder will contact recipient to determine specific color combinations. Apply 2" reflective tape to outline rear of vehicle and apply one strip along the driver and curbsides of the vehicle.
- 60) Fuel sender access panel
- 61) Fire extinguisher: 5 lbs. rechargeable type, 2A-10BC rating, with gauge, mounted, metal body mounted to provide easy access by driver but not impeding access to or egress from the vehicle.
- 62) Triangle warning devices in a mounted box
- 63) 10 unit first aid kit, mounted, removable
- 64) AM/FM radio, chassis manufacturer's OEM, with minimum of four speakers spaced evenly throughout passenger area
- 65) Air conditioning, driver's module in front. Forward facing rear mounted evaporator for passenger area. 85,000 BTU/hr. (minimum) combined capacity with stainless steel fittings.

- 66) Sound-absorbing package, including heavy floor mat in driver area, acoustical panel in front ceiling sections, additional undercoating under step well and driver's floor area.
- 67) Back-up alarm
- 68) Front and rear (thrust angle) alignment to be performed after vehicle assembly and modifications are complete. The recipient shall be provided with a report of the alignment showing readings of toe, camber and caster before and after the alignment is performed. Recipient shall also be provided with a weight distribution analysis and floor plan for the vehicle.
- 69) Daytime running lights
- 70) Tilt steering wheel.

This vehicle and all items specified under this part shall at a minimum meet requirements of 49 C.F.R. PART 38 - AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITIES SPECIFICATIONS FOR TRANSPORTATION VEHICLES; SUBPART B, except where these specifications exceed ADA minimums. 49 C.F.R. PART 38 - SUBPART B is included as an Addendum and thereby made a part of these specifications.

71) WHEELCHAIR POSITIONS

- a) Space allowance. Allow 33" minimum width X 52" minimum depth per wheelchair position.
- b) Forward facing position.

Wheelchair securement: Wheel chair position shall have a 4-point securement (2 front and 2 back) in the vehicle with track-based anchor points of sufficient strength to secure a wheelchair. The track and all bolts should be of a material designed to eliminate rust and galvanic corrosion.

Securing retractors should be self-tensioning and self-locking and shall have a fully automatic retracting mechanism, which requires no tightening knobs on the individual retractors. The retractors shall have a floor anchorage attachment consisting of an L-Track fitting which shows a positive locking indicator along with a four stud, double plunger attachment for added strength. The attachment device securing the wheelchair to the retractor shall be a J – Style Hook application for ease of attachment and to make the retractors totally universal in floor location.

A **Retractable Combination** lap and shoulder (three-point) restraint system, which complies with FMVSS 209, shall be provided for each wheelchair occupant. The components shall be easily identified as to their location of use as follows: "front," "rear" "lap," or "shoulder."

All components shall be able to meet random static testing forces equal to:

- Rear belt assembly..... 6,000 lbs. each minimum
- Front belt assembly..... 2,500 lbs. each minimum
- Lap belt assembly 2,500 lbs. each minimum

Shoulder belt assembly.....	2,500 lbs. each minimum
Floor insert assembly.....	6,000 lbs. each minimum

Forward facing wheelchair restraints shall have all components dynamically tested at 30 m.p.h. 20g force condition, with an impact sled at a test facility such as the University of Michigan's Transportation Research Institute or a reputable equivalent, on both a child stroller type wheelchair and a battery-powered electric wheelchair.

The belts for the wheelchair passenger must be separate and independent from the wheelchair securement. Together the lap belts must be at least 120" long. The belt assemblies must meet the requirement of Federal Motor Vehicle Safety Standard 209 (FMVSS 209).

Provision shall be made for a suitable storage device (wall pouch, box or bulkhead storage box) for securing restraint system components when not in use. Location of the storage area to be determined by mutual agreement between the vendor and the purchaser. Container must meet FMVSS 302 flammability standards. An emergency webbing cutter must be provided.

- c) Fold-away passenger seating: The original passenger seats removed from each forward facing wheelchair position will be replaced with 2-place forward facing fold-away seats. These seats shall allow a minimum of 17.5" of seating space per passenger, feature a 15" minimum cushion depth, allow minimum 27" between seat centers, be upholstered with 32 ounce minimum vinyl and be equipped with retractable seat belts of a length sufficient to be comfortably used by adults. The back cushion shall upon release of a locking device fold down against the seat cushion and lock into place. The release of a quick-release locking device shall allow the seat to be lifted up into a stowed and locked position with all legs or supporting devices folding into the seat bottom. The seat in its stowed and locked position shall protrude no more than 10" from the interior wall. Three foldaway seats shall be installed and evenly spaced in the area where the four bench seats were removed to allow for the two wheelchair positions. This option is not available on buses ordered as yellow school buses.

- 72) WHEELCHAIR LIFT. Must meet ADA requirements. The wheelchair lift in a bus on a cowl chassis shall be installed in the right side, immediately behind the entrance door. Two separate doors with glass in the upper portion shall be provided for the lift opening. The doors shall have at least one inside lock and outside handle, and shall also have a device for securing

them in the open position. Door ajar chime or buzzer. Strap-type hinge, greaseable.

The lift may be either electro hydraulically or electromechanically actuated. The lifting capacity shall be 800 lbs. minimum. The platform may be lowered under power or by gravity. If it is a "power down" design, there must be a limit switch or bypass valve which prevents the lift from jacking the van. The design of the lifting mechanism shall prevent free fall of the platform. All lift mechanisms shall be enclosed leaving no exposed chains or gears. If the lift has a crossbar at the top, it must be padded and it must not reduce the ADA required height of the door opening. When in the stored position, the surfaces of the lift facing the center and to the rear shall also be padded to prevent injury in case of contact in an accident. This requirement shall not apply to the platform surface.

The platform shall measure at least 33" by 48" with the usable width between uprights a minimum of 32". With exception of the floor molding, no metal screws are to be used in fabrication of platform assembly. The platform floor surface shall be of non-skid material. The platform must have an anti-roll barrier at its outer edge. If the lift platform does not remain rigid when it is in its stored position and the power is off, then there must be a mechanical lock to prevent the platform from moving when the vehicle is under way. There must be no exposed shear points between the platform and other structures or surfaces.

The lift shall be controlled from a hand held, weather tight switch box on an extension cord. There must be a bracket or attaching spot for the switch box inside the vehicle. The switches must give the operator instant and positive control to move, stop or reverse the lift travel at will.

A manual, back-up means for deploying and moving the lift platform in event of a power failure must be provided.

Two handrails for the person standing or seated on the platform must be provided.

Positioners shall be provided which hold hinged doors of a lift entrance in an open position of at least 90° so as not to obstruct the operation of the lift.

The fully automatic lift will provide a powered mechanism to deploy and retract the lift platform.

Line Item 19: YELLOW SCHOOL BUS

Vehicle with same body and chassis specifications as line item 18 above with Yellow School Bus lighting, seating and exterior paint package.

PART III
APPENDIX

[Code of Federal Regulations]

[Title 49, Volume 1]

[Revised as of October 1, 2003]

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[Page 553-556]

TITLE 49--TRANSPORTATION

Subtitle A--Office of the Secretary of Transportation

PART 38_AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY SPECIFICATIONS FOR TRANSPORTATION VEHICLES--Table of Contents

Subpart B_Buses, Vans and Systems

Sec. 38.23 Mobility aid accessibility.

- (a) General. All vehicles covered by this subpart shall provide a level-change mechanism or boarding device (e.g., lift or ramp) complying with paragraph (b) or (c) of this section and sufficient clearances to permit a wheelchair or other mobility aid user to reach a securement location. At least two securement locations and devices, complying with paragraph (d) of this section, shall be provided on vehicles in excess of 22 feet in length; at least one securement location and device, complying with paragraph (d) of this section, shall be provided on vehicles 22 feet in length or less.
- (b) Vehicle lift—
- (1) Design load. The design load of the lift shall be at least 600 pounds. 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 at least three, based on the ultimate strength of the material.
- (2) Controls--(i) Requirements. The 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 lift shall deploy to all levels (i.e., ground, curb, and intermediate positions) normally encountered in the operating environment. Where provided, each control for deploying, lowering, raising, and stowing the lift and lowering the roll-off barrier shall be of a momentary contact type requiring continuous manual pressure by the operator and shall not allow improper lift sequencing when the lift platform is occupied. The controls shall allow reversal of the lift operation sequence, such as raising or lowering a platform that is part way down, without allowing an occupied platform to fold or retract into the stowed position.
- (ii) Exception. Where the lift is designed to deploy with its long dimension parallel to the vehicle axis and which pivots into or out of the vehicle while occupied (i.e., "rotary lift"), the [[Page 554]] requirements of this paragraph prohibiting the lift from being stowed while occupied shall not apply if the stowed position is within the passenger compartment and the lift is intended to be stowed while occupied.
- (3) Emergency operation. The lift shall incorporate an emergency method of deploying, lowering to ground level with a lift occupant, and raising and stowing the empty lift if the power to the lift fails. No emergency method, manual or otherwise, shall be capable of being operated in a manner that could be hazardous to the lift occupant or to the operator when operated according to manufacturer's instructions, and shall not permit the platform to be stowed or folded when occupied, unless the lift is a rotary lift and is intended to be stowed while occupied.

(4) Power or equipment failure. Platforms stowed in a vertical position, and deployed platforms when occupied, shall have provisions to prevent their deploying, falling, or folding any faster than 12 inches/second or their dropping of an occupant in the event of a single failure of any load carrying component.

(5) Platform barriers. The lift platform shall be equipped with barriers to prevent any of the wheels of a wheelchair or mobility aid from rolling off the platform during its operation. A movable barrier or inherent design feature shall prevent a wheelchair or mobility aid from rolling off the edge closest to the vehicle until the platform is in its fully raised position. Each side of the lift platform which extends beyond the vehicle in its raised position shall have a barrier a minimum 1½ inches high. Such barriers shall not interfere with maneuvering into or out of the aisle. The loading-edge barrier (outer barrier) which functions as a loading ramp when the lift is at ground level, shall be sufficient when raised or closed, or a supplementary system shall be provided, to prevent a power wheelchair or mobility aid from riding over or defeating it. The outer barrier of the lift shall automatically raise or close, or a supplementary system shall automatically engage, and remain raised, closed, or engaged at all times that the platform is more than 3 inches above the roadway or sidewalk and the platform is occupied. Alternatively, a barrier or system may be raised, lowered, opened, closed, engaged, or disengaged by the lift operator, provided an interlock or inherent design feature prevents the lift from rising unless the barrier is raised or closed or the supplementary system is engaged.

(6) Platform surface. The platform surface shall be free of any protrusions over ¼ inch high and shall be slip resistant. The platform shall have a minimum clear width of 28½ inches at the platform, a minimum clear width of 30 inches measured from 2 inches above the platform surface to 30 inches above the platform, and a minimum clear length of 48 inches measured from 2 inches above the surface of the platform to 30 inches above the surface of the platform.

(See Fig. 1)

(7) Platform gaps. Any openings between the platform surface and the raised barriers shall not exceed ⅝ inch in width. When the platform is at vehicle floor height with the inner barrier (if applicable) down or retracted, gaps between the forward lift platform edge and the vehicle floor shall not exceed ½ inch horizontally and ⅝ inch vertically. Platforms on semi-automatic lifts may have a hand hold not exceeding 1½ inches by 4½ inches located between the edge barriers.

(8) Platform entrance ramp. The entrance ramp, or loading-edge barrier used as a ramp, shall not exceed a slope of 1:8, measured on level ground, for a maximum rise of 3 inches, and the transition from roadway or sidewalk to ramp may be vertical without edge treatment up to ¼ inch. Thresholds between ¼ inch and ½ inch high shall be beveled with a slope no greater than 1:2.

(9) Platform deflection. The lift platform (not including the entrance ramp) shall not deflect more than 3 degrees (exclusive of vehicle roll or pitch) in any direction between its unloaded position and its position when loaded with 600 pounds applied through a 26 inch by 26 inch test pallet at the centroid of the platform.

(10) Platform movement. No part of the platform shall move at a rate exceeding 6 inches/second during lowering and lifting an occupant, and shall not exceed 12 inches/second during deploying [[Page 555]] or stowing. This requirement does not apply to the deployment or stowage cycles of lifts that are manually deployed or stowed. The maximum platform horizontal and vertical acceleration when occupied shall be 0.3g.

(11) Boarding direction. The lift shall permit both inboard and outboard facing of wheelchair and mobility aid users.

(12) Use by standees. Lifts 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.

(13) Handrails. Platforms on lifts 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 inches long with the lowest portion a minimum 30 inches above the platform and the highest portion a maximum 38 inches above the platform. The handrails shall be capable of withstanding a force of 100 pounds concentrated at any point on the handrail without permanent deformation of the rail or its supporting structure. The handrail shall have a cross-sectional diameter between $1\frac{1}{4}$ inches and $1\frac{1}{2}$ inches or shall provide an equivalent grasping surface, and have eased edges with corner radii of not less than $\frac{1}{8}$ inch. Handrails shall be placed to provide a minimum $1\frac{1}{2}$ inches knuckle clearance from the nearest adjacent surface. Handrails shall not interfere with wheelchair or mobility aid maneuverability when entering or leaving the vehicle.

c) Vehicle ramp—

(1) Design load. Ramps 30 inches or longer shall support a load of 600 pounds, placed at the centroid of the ramp distributed over an area of 26 inches by 26 inches, with a safety factor of at least 3 based on the ultimate strength of the material. Ramps shorter than 30 inches shall support a load of 300 pounds.

(2) Ramp surface. The ramp surface shall be continuous and slip resistant; shall not have protrusions from the surface greater than $\frac{1}{4}$ inch high; shall have a clear width of 30 inches; and shall accommodate both four-wheel and three-wheel mobility aids.

(3) Ramp threshold. The transition from roadway or sidewalk and the transition from vehicle floor to the ramp may be vertical without edge treatment up to $\frac{1}{4}$ inch. Changes in level between $\frac{1}{4}$ inch and $\frac{1}{2}$ inch shall be beveled with a slope no greater than 1:2.

(4) Ramp barriers. Each side of the ramp shall have barriers at least 2 inches high to prevent mobility aid wheels from slipping off.

(5) Slope. Ramps shall have the least slope practicable and shall not exceed 1:4 when deployed to ground level. If the height of the vehicle floor from which the ramp is deployed is 3 inches or less above a 6-inch curb, a maximum slope of 1:4 is permitted; if the height of the vehicle floor from which the ramp is deployed is 6 inches or less, but greater than 3 inches, above a 6-inch curb, a maximum slope of 1:6 is permitted; if the height of the vehicle floor from which the ramp is deployed is 9 inches or less, but greater than 6 inches, above a 6-inch curb, a maximum slope of 1:8 is permitted; if the height of the vehicle floor from which the ramp is deployed is greater than 9 inches above a 6-inch curb, a slope of 1:12 shall be achieved. Folding or telescoping ramps are permitted provided they meet all structural requirements of this section.

(6) Attachment. When in use for boarding or alighting, the ramp shall be firmly attached to the vehicle so that it is not subject to displacement when loading or unloading a heavy power mobility aid and that no gap between vehicle and ramp exceeds $\frac{5}{8}$ inch.

(7) Stowage. A compartment, securement system, or other appropriate method shall be provided to ensure that stowed ramps, including portable ramps stowed in the passenger area, do not impinge on a passenger's wheelchair or mobility aid or pose any hazard to passengers in the event of a sudden stop or maneuver.

(8) Handrails. If provided, handrails shall allow persons with disabilities to grasp them from outside the vehicle while starting to board, and to continue to use them throughout the boarding process, and shall have the top between 30 inches and 38 inches above the ramp surface. The handrails shall be capable of withstanding a force of 100 pounds concentrated at any point on the handrail without permanent deformation of the rail or its supporting structure. The handrail shall have a cross-sectional diameter between $1\frac{1}{4}$

inches and 1 1/2 inches or shall provide an equivalent grasping surface, and have eased edges with corner radii of not less than 1/8 inch. Handrails shall not interfere with wheelchair or mobility aid maneuverability when entering or leaving the vehicle.

(d) Securement devices—

(1) Design load. Securement systems on vehicles with GVWRs of 30,000 pounds or above, and their attachments to such vehicles, shall restrain a force in the forward longitudinal direction of up to 2,000 pounds per securement leg or clamping mechanism and a minimum of 4,000 pounds for each mobility aid. Securement systems on vehicles with GVWRs of up to 30,000 pounds, and their attachments to such vehicles, shall restrain a force in the forward longitudinal direction of up to 2,500 pounds per securement leg or clamping mechanism and a minimum of 5,000 pounds for each mobility aid.

(2) Location and size. The securement system shall be placed as near to the accessible entrance as practicable and shall have a clear floor area of 30 inches by 48 inches. Such space shall adjoin, and may overlap, an access path. Not more than 6 inches of the required clear floor space may be accommodated for footrests under another seat provided there is a minimum of 9 inches from the floor to the lowest part of the seat overhanging the space. Securement areas may have fold down seats to accommodate other passengers when a wheelchair or mobility aid is not occupying the area, provided the seats, when folded up, do not obstruct the clear floor space required. (See Fig. 2)

(3) Mobility aids accommodated. The securement system shall secure common wheelchairs and mobility aids and shall either be automatic or easily attached by a person familiar with the system and mobility aid and having average dexterity.

(4) Orientation. In vehicles in excess of 22 feet in length, at least one securement device or system required by paragraph (a) of this section shall secure the wheelchair or mobility aid facing toward the front of the vehicle. Additional securement devices or systems shall secure the wheelchair or mobility aid facing forward, or rearward with a padded barrier, extending from a height of 38 inches from the vehicle floor to a height of 56 inches from the vehicle floor with a width of 18 inches, laterally centered immediately in back of the seated individual. In vehicles 22 feet in length or less, the required securement device may secure the wheelchair or mobility aid either facing toward the front of the vehicle or facing rearward, with a padded barrier as described. Additional securement locations shall be either forward or rearward facing with a padded barrier. Such barriers need not be solid provided equivalent protection is afforded.

(5) Movement. When the wheelchair or mobility aid is secured in accordance with manufacturer's instructions, the securement system shall limit the movement of an occupied wheelchair or mobility aid to no more than 2 inches in any direction under normal vehicle operating conditions.

(6) Stowage. When not being used for securement, or when the securement area can be used by standees, the securement system shall not interfere with passenger movement, shall not present any hazardous condition, shall be reasonably protected from vandalism, and shall be readily accessed when needed for use.

(7) Seat belt and shoulder harness. For each wheelchair or mobility aid securement device provided, a passenger seat belt and shoulder harness, complying with all applicable provisions of part 571 of this title, shall also be provided for use by wheelchair or mobility aid users. Such seat belts and shoulder harnesses shall not be used in lieu of a device which secures the wheelchair or mobility aid itself.

CHAPTER VI--FEDERAL TRANSIT ADMINISTRATION, DEPARTMENT OF TRANSPORTATION
PART 661--BUY AMERICA REQUIREMENTS--SURFACE TRANSPORTATION ASSISTANCE ACT OF 1982, AS AMENDED

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Sec. 661.1 Applicability.

Unless otherwise noted, this part applies to all federally assisted procurements using funds authorized by the Federal Mass Transit Act of 1964, as amended; 23 U.S.C. 103(e)(4); and section 14 of the National Capital Transportation Act of 1969, as amended.

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Sec. 661.3 Definitions.

As used in this part:

Act means the Surface Transportation Assistance Act of 1982 (Pub. L. 97-424), as amended by section 337 of the Surface Transportation and Uniform Relocation Assistance of 1987 (Pub. L. 100-17).

Administrator means the Administrator of FTA, or designee.

Component means any article, material, or supply, whether manufactured or unmanufactured, that is directly incorporated into the end product at the final assembly location.

Grantee means any entity that is a recipient of FTA funds.

Manufactured product means an item produced as a result of manufacturing process.

Manufacturing process means the application of processes to alter the form or function of materials or of elements of the product in a manner adding value and transforming those materials or elements so that they represent a new end product functionally different from that which would result from mere assembly of the elements or materials.

Rolling stock means transit vehicles such as buses, vans, cars, railcars, locomotives, trolley cars and buses, and ferry boats, as well as vehicles used for support services.

STURAA means the Surface Transportation and Uniform Relocation Assistance Act of 1987 (Pub. L. No. 100-17).

FTA means the Federal Transit Administration.

United States means the several States, the Commonwealth of Puerto Rico, the District of Columbia, Guam, American Samoa, the Virgin Islands, and the Commonwealth of the Northern Mariana Islands.

[56 FR 932, Jan. 9, 1991, as amended at 61 FR 6302, Feb. 16, 1996]

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Sec. 661.5 General requirements.

(a) Except as provided in Sec. 661.7 and Sec. 661.11 of this part, no funds may be obligated by FTA for a grantee project

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unless all iron, steel, and manufactured products used in the project are produced in the United States.

- (b) All steel and iron manufacturing processes must take place in the United States, except metallurgical processes involving refinement of steel additives.
- (c) The steel and iron requirements apply to all construction materials made primarily of steel or iron and used in infrastructure projects such as transit or maintenance facilities, rail lines, and bridges. These items include, but are not limited to, structural steel or iron, steel or iron beams and columns, running rail and contact rail. These requirements do not apply to steel or iron used as components or subcomponents of other manufactured products or rolling stock.
- (d) For a manufactured product to be considered produced in the United States:
 - (1) All of the manufacturing processes for the product must take place in the United States; and
 - (2) All of the components of the product must be of U.S. origin. A component is considered of U.S. origin if it is manufactured in the United States, regardless of the origin of its subcomponents.

[61 FR 6302, Feb. 16, 1996]

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Sec. 661.6 Certification requirement for procurement of steel or manufactured products.

If steel or manufactured products (as defined in Sec. Sec. 661.3 and 661.5 of this part) are being procured, the appropriate certificate as set forth below shall be completed and submitted by each bidder in accordance with the requirement contained in Sec. 661.13(b) of this part.

Certificate of Compliance With Section 165(a)

The bidder hereby certifies that it will comply with the requirements of section 165(a) of the Surface Transportation Assistance Act of 1982, as amended, and the applicable regulations in 49 CFR part 661.

Date _____
Signature _____
Company Name _____
Title _____

Certificate for Non-Compliance With Section 165(a)

The bidder hereby certifies that it cannot comply with the requirements of section 165(a) of the Surface Transportation Assistance Act of 1982, as amended, but it may qualify for an exception to the requirement pursuant to section 165 (b)(2) or (b)(4) of the Surface Transportation Assistance Act of 1982 and regulations in 49 CFR 661.7.

Date _____
Signature _____
Company Name _____
Title _____

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Sec. 661.7 Waivers.

(a) Section 165(b) of the Act provides that the general requirements of section 165(a) shall not apply in four specific instances. This section sets out the conditions for the three statutory waivers based on public interest, non-availability, and price-differential. Section 661.11 of this part sets out the conditions for the fourth statutory waiver governing the procurement of rolling stock and associated equipment.

- (b) Under the provision of section 165(b)(1) of the Act, the Administrator may waive the general requirements of section 165(a) if the Administrator finds that their application would be inconsistent with the public interest. In determining whether the conditions exist to grant this public interest waiver, the Administrator will consider all appropriate factors on a case-by-case basis, unless a general exception is specifically set out in this part.
- (c) Under the provision of section 165(b)(2) of the Act, the Administrator may waive the general requirements of section 165(a) if the Administrator finds that the materials for which a waiver is requested are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality.
- (1) It will be presumed that the conditions exist to grant this non-availability waiver if no responsive and responsible bid is received offering an item produced in the United States.
- (2) In the case of a sole source procurement, the Administrator will grant this non-availability waiver only if the grantee provides sufficient information which indicates that the item to be procured is only available from a single

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source or that the item to be procured is not produced in sufficient and reasonably available quantities of a satisfactory quality in the United States.

- (d) Under the provision of section 165(b)(4) of the Act, the Administrator may waive the general requirements of section 165(a) if the Administrator finds that the inclusion of a domestic item or domestic material will increase the cost of the contract between the grantee and its supplier of that item or material by more than 25 percent. The Administrator will grant this price-differential waiver if the amount of the lowest responsive and responsible bid offering the item or material that is not produced in the United States multiplied by 1.25 is less than the amount of the lowest responsive and responsible bid offering the item or material produced in the United States.
- (e) The four statutory waivers of section 165(b) of the Act as set out in this part shall be treated as being separate and distinct from each other.
- (f) The waivers described in paragraphs (b) and (c) of this section may be granted for a component or subcomponent in the case of the procurement of the items governed by section 165(b)(3) of the Act (requirements for rolling stock). If a waiver is granted for a component or a subcomponent, that component or subcomponent will be considered to be of domestic origin for the purposes of Sec. 661.11 of this part.
- (g) The waivers described in paragraphs (b) and (c) of this section may be granted for a specific item or material that is used in the production of a manufactured product that is governed by the requirements of Sec. 661.5(d) of this part. If such a waiver is granted to such a specific item or material, that item or material will be treated as being of domestic origin.
- (h) The provisions of this section shall not apply to products produced in a foreign country if the Secretary, in consultation with the United States Trade Representative, determines that:
 - (1) That foreign country is party to an agreement with the United States pursuant to which the head of an agency of the United States has waived the requirements of this section; and
 - (2) That foreign country has violated the terms of the agreement by discriminating against products covered by this section that are produced in the United States and are covered by the agreement.

Appendix A to Sec. 661.7--General Waivers

- (a) All waivers published in 48 CFR 25.108 which establish excepted articles, materials, and supplies for the Buy American Act of 1933 (41 U.S.C. 10a-d), as the waivers may be amended from time to time, apply to this part under the provisions of Sec. 661.7 (b) and (c).
- (b) Under the provisions of Sec. 661.7(b) of this part, 15 passenger vans produced by Chrysler Corporation are exempt from the requirement that final assembly of the vans take place in the United States (49 FR 13944, April 9, 1984).
- (c) Under the provisions of Sec. 661.7(b) of this part, 15 Passenger Wagons produced by Chrysler Corporation are exempt from the requirement that final assembly of the wagons take place in the United States (letter to Chrysler Corporation dated May 13, 1987.)
- (d) Under the provisions of Sec. 661.7 (b) and (c) of this part, microcomputer equipment, including software, of foreign origin can be procured by grantees (50 FR 18760, May 2, 1985 and 51 FR 36126, October 8, 1986).

- (e) Under the provisions of Sec. 661.7(b) of this part, a general public interest waiver from the Buy America requirements for "small purchases" (as defined in the "common grant rule," at 49 CFR 18.36(d)) made by FTA grantees with capital, planning, or operating assistance.

[56 FR 932, Jan. 9, 1991, as amended at 60 FR 37928, July 24, 1995, 61 FR 6302, Feb. 16, 1996]

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Sec. 661.9 Application for waivers.

- (a) This section sets out the application procedures for obtaining all waivers, except those general exceptions set forth in this part for which individual applications are unnecessary and those covered by section 165(b)(3) of the Act. The procedures for obtaining an exception covered by section 165(b)(3) are set forth in Sec. 661.11 of this part.
- (b) A bidder who seeks to establish grounds for an exception must seek the exception, in a timely manner, through the grantee.
- (c) Except as provided in paragraph (d) of this section, only a grantee may request a waiver. The request must be in writing, include facts and justification to support the waiver, and be submitted to the Administrator through the appropriate Regional Office.

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- (d) FTA will consider a request for a waiver from a potential bidder or supplier only if the waiver is being sought under Sec. 661.7 (f) or (g) of this part.
- (e) The Administrator will issue a written determination setting forth the reasons for granting or denying the exception request. Each request for an exception, and FTA's action on the request, are available for public inspection under the provisions of 49 CFR part 601, subpart C.

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Sec. 661.11 Rolling stock procurements.

- (a) The provisions of Sec. 661.5 do not apply to the procurement of buses and other rolling stock (including train control, communication, and traction power equipment), if the cost of components produced in the United States is more than 60 percent of the cost of all components and final assembly takes place in the United States.
- (b) The domestic content requirements in paragraph (a) of this section also apply to the domestic content requirements for components set forth in paragraphs (i), (j), and (l) of this section.
- (c) A component is any article, material, or supply, whether manufactured or unmanufactured, that is directly incorporated into an end product at the final assembly location.
- (d) A component may be manufactured at the final assembly location if the manufacturing process to produce the component is an activity separate and distinct from the final assembly of the end product.
- (e) A component is considered to be manufactured if there are sufficient activities taking place to advance the value or improve the condition of the subcomponents of that component; that is, if the subcomponents have been substantially transformed or merged into a new and functionally different article.
- (f) Except as provided in paragraph (k) of this section, a subcomponent is any article, material, or supply, whether manufactured or unmanufactured, that is one step removed from a component (as defined in paragraph (c) of this section) in the manufacturing process and that is incorporated directly into a component.
- (g) For a component to be of domestic origin, more than 60 percent of the subcomponents of that component, by cost, must be of domestic origin, and the manufacture of the component must take place in the United States. If, under the terms of this part, a component is determined to be of domestic origin, its entire cost may be used in calculating the cost of domestic content of an end product.
- (h) A subcomponent is of domestic origin if it is manufactured in the United States.
- (i) If a subcomponent manufactured in the United States is exported for inclusion in a component that is manufactured outside the United States and it receives tariff exemptions under the procedures set forth in 19 CFR 10.11 through 10.24, the subcomponent retains its domestic identity and can be included in the calculation of the domestic content of an end product even if such a subcomponent represents less than 60 percent of the cost of a particular component.
- (j) If a subcomponent manufactured in the United States is exported for inclusion in a component manufactured outside the United States and it does not receive tariff exemption under the procedures set forth in 19 CFR 10.11 through 10.24, the subcomponent loses its domestic identity and cannot be included in the calculation of the domestic content of an end product.
- (k) Raw materials produced in the United States and then exported for incorporation into a component are not considered to be a subcomponent for the purpose of calculating domestic content. The value of such raw materials is to be included in the cost of the foreign component.
- (l) If a component is manufactured in the United States, but contains less than 60 percent domestic subcomponents, by cost, the cost of the domestic subcomponents and the cost of manufacturing the component may be included in the calculation of the domestic content of the end product.
- (m) For purposes of this section, except as provided in paragraph (o) of this section:
 - (1) The cost of a component or a subcomponent is the price that a bidder or offeror must pay to a subcontractor or

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supplier for that component or subcomponent. Transportation costs to the final assembly location must be included in calculating the cost of foreign components and subcomponents.

(2) If a component or subcomponent is manufactured by the bidder or offeror, the cost of the component is the cost of labor and materials incorporated into the component or subcomponent, an allowance for profit, and the administrative and overhead costs attributable to that component or subcomponent under normal accounting principles.

(n) The cost of a component of foreign origin is set using the foreign exchange rate at the time the bidder or offeror executes the appropriate Buy America certificate.

- (o) The cost of a subcomponent that retains its domestic identity consistent with paragraph (j) of this section shall be the cost of the subcomponent when last purchased, f.o.b. United States port of exportation or point of border crossing as set out in the invoice and entry papers or, if no purchase was made, the value of the subcomponent at the time of its shipment for exportation, f.o.b. United States port of exportation or point of border crossing as set out in the invoice and entry papers.
- (p) In accordance with 49 U.S.C. 5323(j), labor costs involved in final assembly shall not be included in calculating component costs.
- (q) The actual cost, not the bid price, of a component is to be considered in calculating domestic content.
- (r) Final assembly is the creation of the end product from individual elements brought together for that purpose through application of manufacturing processes. If a system is being procured as the end product by the grantee, the installation of the system qualifies as final assembly.
- (s) An end product means any item subject to 49 U.S.C. 5323(j) that is to be acquired by a grantee, as specified in the overall project contract.
- (t) Train control equipment includes, but is not limited to, the following equipment:
 - (1) Mimic board in central control
 - (2) Dispatcher's console
 - (3) Local control panels
 - (4) Station (way side) block control relay cabinets
 - (5) Terminal dispatcher machines
 - (6) Cable/cable trays
 - (7) Switch machines
 - (8) Way side signals
 - (9) Impedance bonds
 - (10) Relay rack bungalows
 - (11) Central computer control
 - (12) Brake equipment
 - (13) Brake systems
- (u) Communication equipment includes, but is not limited to, the following equipment:
 - (1) Radios
 - (2) Space station transmitter and receivers
 - (3) Vehicular and hand-held radios
 - (4) PABX telephone switching equipment
 - (5) PABX telephone instruments
 - (6) Public address amplifiers
 - (7) Public address speakers
 - (8) Cable transmission system cable
 - (9) Cable transmission system multiplex equipment
 - (10) Communication console at central control
 - (11) Uninterruptible power supply inverters/rectifiers
 - (12) Uninterruptible power supply batteries
 - (13) Data transmission system central processors
 - (14) Data transmission system remote terminals
 - (15) Line printers for data transmission system
 - (16) Communication system monitor test panel
 - (17) Security console at central control
- (v) Traction power equipment includes, but is not limited to the following:
 - (1) Primary AC switch gear
 - (2) Primary AC transformer rectifiers
 - (3) DC switch gear
 - (4) Traction power console and CRT display system at central control
 - (5) Bus ducts with buses (AC and DC)
 - (6) Batteries
 - (7) Traction power rectifier assemblies
 - (8) Distribution panels (AC and DC)
 - (9) Facility step-down transformers
 - (10) Motor control centers (facility use only)
 - (11) Battery chargers

- (12) Supervisory control panel
 - (13) Annunciator panels
 - (14) Low voltage facility distribution switch board
 - (15) DC connect switches
 - (16) Negative bus boxes
 - (17) Power rail insulators
 - (18) Power cables (AC and DC)
 - (19) Cable trays
 - (20) Instrumentation for traction power equipment
 - (21) Connectors, tensioners, and insulators for overhead power wire systems
 - (22) Negative drainage boards
 - (23) Inverters
 - (24) Traction motors
 - (25) Propulsion gear boxes
 - (26) Third rail pick-up equipment
 - (27) Pantographs
- (w) The power or third rail is not considered traction power equipment and is thus subject to the requirements of 49 U.S.C. 5323(j) and the requirements of Sec. 661.5.
- (x) A bidder on a contract for an item covered by 49 U.S.C. 5323(j) who will comply with section 165(b)(3) and regulations in this section is not required to follow the application for waiver procedures set out in Sec. 661.9. In lieu of these procedures, the bidder must submit the appropriate certificate required by Sec. 661.12.

Appendix A to Sec. 661.11--General Waivers

- (a) The provisions of Sec. 661.11 of this part do not apply when foreign sourced spare parts for buses and other rolling stock (including train control, communication, and traction power equipment) whose total cost is 10 percent or less of the overall project contract cost are being procured as part of the same contract for the major capital item.
- (b) [Reserved]

Appendix B to Sec. 661.11--Typical Components of Buses

The following is a list of items that typically would be considered components of a bus. This list is not all-inclusive.

Engines, transmissions, front axle assemblies, rear axle assemblies, drive shaft assemblies, front suspension assemblies, rear suspension assemblies, air compressor and pneumatic systems, generator/alternator and electrical systems, steering system assemblies, front and rear air brake assemblies, air conditioning compressor assemblies, air conditioning evaporator/condenser assemblies, heating systems, passenger seats, driver's seat assemblies, window assemblies, entrance and exit door assemblies, door control systems, destination sign assemblies, interior lighting assemblies, front and rear end cap assemblies, front and rear bumper assemblies, specialty steel (structural steel tubing, etc.) aluminum extrusions, aluminum, steel or fiberglass exterior panels, and interior trim, flooring, and floor coverings.

Appendix C to Sec. 661.11--Typical Components of Rail Rolling Stock

The following is a list of items that typically would be considered components of rail rolling stock. This list is not all inclusive.

Car shells, main transformer, pantographs, traction motors, propulsion gear boxes, interior linings, acceleration and braking resistors, propulsion controls, low voltage auxiliary power supplies, air conditioning equipment, air brake compressors, brake controls, foundation brake equipment, articulation assemblies, train control systems, window assemblies, communication equipment, lighting, seating, doors, door actuators, and controls, couplers and draft gear, trucks, journal bearings, axles, diagnostic equipment, and third rail pick-up equipment.

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Sec. 661.12 Certification requirement for procurement of buses, other rolling stock and associated equipment.

If buses or other rolling stock (including train control, communication, and traction power equipment) are being procured, the appropriate certificate as set forth below shall be completed and submitted by each bidder in accordance with the requirement contained in Sec. 661.13(b) of this part.

Certificate of Compliance With Section 165(b)(3)

The bidder hereby certifies that it will comply with the requirements of section 165(b)(3), of the Surface Transportation Assistance Act of 1982, as amended, and the regulations of 49 CFR 661.11.

Date _____
Signature _____
Company Name _____
Title _____

Certificate for Non-Compliance with Section 165(b)(3)

The bidder hereby certifies that it cannot comply with the requirements of section 165(b)(3) of the Surface Transportation Assistance Act of 1982, as amended, but may qualify for an exception to the requirement consistent with section 165(b)(2) or (b)(4) of the Surface Transportation Assistance Act, as amended, and regulations in 49 CFR 661.7.

Date _____
Signature _____
Company Name _____
Title _____

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Sec. 661.13 Grantee responsibility.

(a) The grantee shall adhere to the Buy America clause set forth in its grant contract with FTA.

(b) The grantee shall include in its bid specification for procurement within the scope of this part an appropriate notice of the Buy America provision. Such specifications shall require, as a condition of responsiveness, that the bidder or offeror submit with the bid a completed Buy America certificate in accordance with Sec. 661.6 or Sec. 661.12 of this part, as appropriate.

(1) A bidder or offeror who has submitted an incomplete Buy America certificate or an incorrect certificate of noncompliance through inadvertent or clerical error (but not including failure to sign the certificate, submission of certificates of both compliance and non-compliance, or failure to submit any certification), may submit to the FTA Chief Counsel within ten (10) days of bid opening a written explanation of the circumstances surrounding the submission of the incomplete or incorrect certification in accordance with 28 U.S.C. 1746, sworn under penalty of perjury, stating that the submission resulted from inadvertent or clerical error. The bidder or offeror will also submit evidence of intent, such as information about the origin of the product, invoices, or other working documents. The bidder or offeror will simultaneously send a copy of this information to the FTA grantee.

(2) The FTA Chief Counsel may request additional information from the bidder or offeror, if necessary. The grantee may not make a contract award until the FTA Chief Counsel issues his/her determination, except as provided in Sec. 661.15(m).

(3) Certification based on ignorance of the proper application of the Buy America requirements is not an inadvertent or clerical error.

(c) Whether or not a bidder or offeror certifies that it will comply with the applicable requirement, such bidder or offeror is bound by its original certification and is not permitted to change its certification after bid opening. A bidder or offeror that certifies that it will comply with the applicable Buy America requirements is not eligible for a waiver of those requirements.

[56 FR 932, Jan. 9, 1991, as amended at 68 FR 9799, Feb. 28, 2003]

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Sec. 661.15 Investigation procedures.

(a) It is presumed that a bidder who has submitted the required Buy America certificate is complying with the Buy America provision. A false certification is a criminal act in violation of 18 U.S.C. 1001.

(b) Any party may petition FTA to investigate the compliance of a successful bidder with the bidder's certification. That party ("the petitioner") must include in the petition a statement of the grounds of the petition and any supporting documentation. If FTA determines that the information presented in the petition indicates that the presumption in paragraph (a) of this section has been overcome, FTA will initiate an investigation.

(c) In appropriate circumstances, FTA may determine on its own to initiate an investigation without receiving a petition from a third party.

(d) When FTA determines under paragraph (b) or (c) of this section to conduct an investigation, it requests that the grantee require the successful bidder to document its compliance with its Buy America certificate. The successful bidder has the burden of proof to establish that it is in compliance. Documentation of compliance is based on the specific circumstances of each investigation, and FTA will specify the documentation required in each case.

(e) The grantee shall reply to the request under paragraph (d) of this section within 15 working days of the request. The investigated party may correspond directly with FTA during the course of investigation, if it informs the grantee that it intends to do so, and if the grantee agrees to such action in writing. The grantee must inform FTA, in writing, that the investigated party will respond directly to FTA. An investigated party may provide confidential or proprietary information

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(see paragraph (l) of this section) directly to FTA while providing other information required to be submitted as part of the investigation through the grantee.

(f) Any additional information requested or required by FTA must be submitted within 5 working days after the receipt of such request unless specifically exempted by FTA.

(g) The grantee's reply (or that of the bidder) will be transmitted to the petitioner. The petitioner may submit comments on the reply to FTA within 10 working days after receipt of the reply. The grantee and the low bidder will be furnished with a copy of the petitioner's comments, and their comments must be received by FTA within 5 working days after receipt of the petitioner's comments.

(h) The failure of a party to comply with the time limits stated in this section may result in resolution of the investigation without consideration of untimely filed comments.

(i) During the course of an investigation, with appropriate notification to affected parties, FTA may conduct site visits of manufacturing facilities and final assembly locations as it considers appropriate.

(j) FTA will, upon request, make available to any interested party information bearing on the substance of the investigation which has been submitted by the petitioner, interested parties or grantees, except to the extent that withholding of information is permitted or required by law or regulation.

(k) If a party submitting information considers that the information submitted contains proprietary material which should be withheld, a statement advising FTA of this fact may be included, and the alleged proprietary information must be identified wherever it appears. Any comments on the information provided shall be submitted within a maximum of ten days.

(l) For purposes of paragraph (j) of this section, confidential or proprietary material is any material or data whose disclosure could reasonably be expected to cause substantial competitive harm to the party claiming that the material is confidential or proprietary.

(m) When a petition for investigation has been filed before award, the grantee will not make an award before the resolution of the investigation, unless the grantee determines that:

- (1) The items to be procured are urgently required;
- (2) Delivery of performance will be unduly delayed by failure to make the award promptly; or
- (3) Failure to make prompt award will otherwise cause undue harm to the grantee or the Federal Government.

(n) In the event that the grantee determines that the award is to be made during the pendency of an investigation, the grantee will notify FTA before to making such award. FTA reserves the right not to participate in the funding of any contract awarded during the pendency of an investigation.

(o) Initial decisions by FTA will be in written form. Reconsideration of an initial decision of FTA may be requested by any party involved in an investigation. FTA will only reconsider a decision only if the party requesting reconsideration submits new matters of fact or points of law that were not known or available to the party during the investigation. A request for reconsideration of a decision of FTA shall be filed not later than ten (10) working days after the initial written decision. A request for reconsideration will be subject to the procedures in this section consistent with the need for prompt resolution of the matter.

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Sec. 661.17 Failure to comply with certification.

If a successful bidder fails to demonstrate that it is in compliance with its certification, it will be required to take the necessary steps in order to achieve compliance. If a bidder takes these necessary steps, it will not be allowed to change its original bid price. If a bidder does not take the necessary steps, it will not be awarded the contract if the contract has not yet been awarded, and it is in breach of contract if a contract has been awarded.

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Sec. 661.18 Intentional violations.

A person shall be ineligible to receive any contract or subcontract made with funds authorized under the Intermodal

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Surface Transportation Efficiency Act of 1991 pursuant to part 29 of this title if it has been determined by a court or Federal agency that the person intentionally—

- (a) Affixed a label bearing a "Made in America" inscription, or an inscription with the same meaning, to a product not made in the United States, but sold in or shipped to the United States and used in projects to which this section applies, or
- (b) Otherwise represented that any such product was produced in the United States.

[61 FR 6303, Feb. 16, 1996]

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Sec. 661.19 Sanctions.

A willful refusal to comply with a certification by a successful bidder may lead to the initiation of debarment or suspension proceedings under part 29 of this title.

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Sec. 661.20 Rights of third parties.

The sole right of any third party under the Buy America provision is to petition FTA under the provisions of Sec. 661.15 of this part. No third party has any additional right, at law or equity, for any remedy including, but not limited to, injunctions, damages, or cancellation of the Federal grant or contracts of the grantee.

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Sec. 661.21 State Buy America provisions.

(a) Except as provided in paragraph (b) of this section, any State may impose more stringent Buy America or buy national requirements than contained in section 165 of the Act and the regulations in this part.

(b) FTA will not participate in contracts governed by the following:

- (1) State Buy America or Buy National preference provisions which are not as strict as the Federal requirements.
- (2) State and local Buy National or Buy America preference provisions which are not explicitly set out under State law. For example, administrative interpretations of non-specific State legislation will not control.
- (3) State and local Buy Local preference provisions.

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PART 633--PROJECT MANAGEMENT OVERSIGHT

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Subpart B--Pre-Award Audits

Sec. 663.25 Pre-award Buy America certification.

For purposes of this part, a pre-award Buy America certification is a certification that the recipient keeps on file that--

(a) There is a letter from FTA which grants a waiver to the rolling stock to be purchased from the Buy America requirements under section 165(b)(1), (b)(2), or (b)(4) of the Surface Transportation Assistance Act of 1982, as amended; or

(b) The recipient is satisfied that the rolling stock to be purchased meets the requirements of section 165(a) or (b)(3) of the Surface Transportation Assistance Act of 1982, as amended, after having reviewed itself or through an audit prepared by someone other than the manufacturer or its agent documentation provided by the manufacturer which lists--

(1) Component and subcomponent parts of the rolling stock to be purchased identified by manufacturer of the parts, their country of origin and costs; and

(2) The location of the final assembly point for the rolling stock, including a description of the activities that will take place at the final assembly point and the cost of final assembly.

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Subpart D--Certification of Compliance With or Inapplicability of Federal Motor Vehicle Safety Standards

Sec. 663.41 Certification of compliance with Federal motor vehicle safety standards.

If a vehicle purchased under this part is subject to the Federal Motor Vehicle Safety Standards issued by the National Highway Traffic Safety Administration in part 571 of this title, a recipient shall keep on file its certification that it received, both at the pre-award and post-delivery stage, a copy of the manufacturer's self-certification information that the vehicle complies with relevant Federal Motor Vehicle Safety Standards.

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PART 665--BUS TESTING

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Subpart A--General

Sec. 665.1 Purpose.

An applicant for Federal financial assistance under the Federal Transit Act for the purchase or lease of buses with funds obligated by the FTA after September 30, 1989, must certify to the FTA that any new bus model acquired with such assistance has been tested in accordance with this part. This part contains the information necessary for a recipient to ensure compliance with this provision.

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Sec. 665.3 Scope.

(a) This part applies to a recipient of Federal financial assistance under sections 3, 9, 16(b)(2), or 18 of the FT Act, and, except as provided in subsections (b), (c), and (d) is effective October 1, 1989;

(b) The provisions of section 665.11(e)(3) are effective November 8, 1990;

(c) The provisions in sections 665.11 (c), (d), and (f) concerning partial testing are effective August 27, 1992; and

(d) The provisions in Sec. Sec. 665.11(e) (4) and (5) concerning the last two categories of buses which must be tested, apply as follows:

(1) For vehicles that are manufactured from modified mass-produced chassis or vans, or manufactured from non-mass-produced chassis or vans, testing and a final report will be required for all vehicles offered in response to advertisements for bids or requests for proposals issued on or after June 1, 1994.

(2) For vehicles manufactured from unmodified mass-produced chassis, testing and a final report will be required for all vehicles offered in response to advertisements for bids or requests for proposals issued on or after October 1, 1994.

[57 FR 33397, July 28, 1992, as amended at 58 FR 10990, Feb. 23, 1993; 58 FR 58733, Nov. 3, 1993]

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Subpart A--General

Sec. 665.5 Definitions.

As used in this part--

Administrator means the Administrator of the Federal Transit Administration or designee.

Bus means a rubber-tired automotive vehicle used for the provision of mass transportation service by or for a recipient.

Bus model means a bus design or variation of a bus design usually designated by the manufacturer by a specific name and/or model number.

Bus testing facility means a testing facility established by renovation of a facility constructed with Federal assistance at Altoona, Pennsylvania, under section 317(b)(1) of the Surface Transportation and Uniform Relocation Assistance Act of 1987, and includes proving ground facilities operated in connection with the facility.

FT Act means the Federal Transit Act, as amended (49 U.S.C. app.1601 et seq.).

Major change in chassis design means, for vehicles manufactured on a mass produced chassis, a change in frame structure, material or configuration, or a change in chassis suspension type.

Major change in components means:

(1) For those vehicles that are not manufactured on a mass produced chassis, a change in a vehicle's engine, axle, transmission, suspension, or steering components;

(2) For those that are manufactured on a mass produced chassis, a change in the vehicle's chassis from one major design to another.

Major change in configuration means a change which may have a significant impact on vehicle handling and stability, or structural integrity.

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Mass produced van or chassis means a van or chassis that has or is projected to have an annual production rate of 20,000 or more units.

Mass transportation service means the operation of a vehicle which provides general or special service to the public on a regular and continuing basis.

Modified mass-produced chassis or van means a vehicle that is manufactured from an incomplete, partially assembled mass-produced chassis or van as provided by an OEM to a small bus manufacturer. This includes vehicles whose chassis structure has been modified to include: The addition of a tandem or tag axle; the installation of a drop or lowered floor; changes to the GVWR from the OEM rating; or other modifications that are not made in strict conformance with the OEM's modifications guidelines.

New bus model means a bus model which--

(1) Has not been used in mass transit service in the United States before October 1, 1988; or

(2) Has been used in such service but which after September 30, 1988, is being produced with a major change in configuration or components.

Non-mass-produced chassis or van means a vehicle that is manufactured from an incomplete, partially assembled chassis or van as provided by an OEM to a secondary small bus manufacturer, and where the annual production rate of the OEM chassis or van is less than 20,000 units.

Original Equipment Manufacturer (OEM) means the original manufacturer of a chassis or van supplied as a complete or incomplete vehicle to a small bus manufacturer.

Partial testing means the performance of those bus tests which may yield significantly different data from that obtained in previous bus testing conducted at the bus testing facility.

Recipient means an entity which receives funds under sections 3, 9, 16(b)(2), or 18 of the FT Act, either directly from FTA or through a State administering agency.

Small bus manufacturer means a secondary market assembler that acquires a chassis or van from an original equipment manufacturer for subsequent modification/assembly and sale as 5-year/150,000-mile and/or 4-year/100,000-mile minimum service life vehicles.

Test report means the final document prepared by the operator of the bus testing facility stating the results of the tests performed on each bus.

Unmodified mass-produced chassis means a vehicle that is manufactured from an incomplete, partially assembled mass-produced chassis as provided by an OEM to a small bus manufacturer. This includes vehicles whose chassis structure has either not been modified, or is modified in strict conformance with the OEM's modification guidelines. The addition of a tandem or tag axle would exclude a bus model from this definition.

Unmodified mass-produced van means a vehicle that is mass-produced, complete and fully assembled as provided by an OEM. This includes vans with raised roofs, and/or wheelchair lifts, or ramps that are installed by the OEM, or by a party other than the OEM provided that the installation of these components is completed in strict conformance with the OEM modification guidelines.

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Sec. 665.7 Grantee certification of compliance.

(a) In each application to the FTA for the purchase or lease of buses, a recipient shall certify that any new bus model, or any bus model with a major change in configuration or components, to be acquired or leased with funds obligated by the FTA after September 30, 1989, will be tested at the bus testing facility, and a test report provided before final acceptance of the first vehicle by the recipient.

(b) It is the responsibility of the recipient in dealing with a manufacturer, to determine whether a vehicle to be acquired is subject to these procedures.

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Subpart B--Bus Testing Procedures

Sec. 665.11 Testing requirements.

(a) A new bus model to be tested at the bus testing facility shall--

(1) Be a single model;

(2) Meet all applicable Federal Motor Vehicle Safety Standards, as defined by

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the National Highway Traffic Safety Administration in part 571 of this title;

(3) Be substantially fabricated and assembled by techniques and tooling that will be used in production of subsequent buses of that model.

(b) If the new bus model had not been previously tested at the bus testing facility, then the new bus model shall undergo the full tests requirements for maintainability, reliability, safety, performance, structural integrity, fuel economy, and noise;

(c) If the new bus model had not been previously tested at the bus testing facility and is being produced on a mass produced chassis that has been previously tested on another bus model at the bus testing facility, then the new bus model may undergo partial testing requirements;

(d) If the new bus model had been previously tested at the bus testing facility, then the new bus model may undergo partial testing requirements.

(e) The following vehicle types shall be tested:

(1) Minimum service life of 12 years or 500,000 miles--typified by heavy duty large buses, approximately 35-40 foot, as well as articulated buses.

(2) Minimum service life of ten years or 350,000 miles--typified by heavy duty small buses, approximately 30 foot.

(3) Minimum service life of seven years or 200,000 miles--typified by medium duty mid-size buses, approximately 25-35 foot.

(4) Minimum service life of five years or 150,000 miles--typified by light duty mid-size buses, approximately 25-35 foot.

(5) Minimum service life of four years or 100,000 miles--typified by light duty small buses, cutaways, and modified vans, approximately 16-28 foot.

(f) Tests performed in a higher service life category (i.e., longer service life) need not be repeated when the same bus model is used in lesser service life applications. However, the use of a bus model in a service life application higher than it has been tested for may make the bus subject to the bus testing requirements.

(g) The operator of the facility shall develop a test plan for the testing of vehicles at the facility, which generally follows the guidelines set forth in appendix A of this part.

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Sec. 665.13 Test report and manufacturer certification.

(a) Upon completion of testing, the operator of the facility shall provide a test report to the entity that submitted the bus for testing.

(b)(1) A manufacturer of a new bus model or a bus produced with a major change in component or configuration shall provide a copy of the test report to a recipient during the point in the procurement process specified by the recipient.

(2) A manufacturer who releases a report under paragraph (b)(1) of this section also shall provide notice to the operator of the facility that the report is available to the public.

(c) If a bus model subject to a test report has a change that is not a major change under this part, the manufacturer shall advise the recipient during the procurement process and shall include description of the change and its basis for concluding that it is not a major change.

(d) A test report shall be available publicly once the owner of the report makes it available during the recipient's procurement process. The operator of the facility will have available for distribution copies of all the publicly available reports.

(e) The test report is the only information or documentation that will be made available publicly in connection with any bus model tested at the facility.

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Sec. 665.21 Scheduling.

(a) A manufacturer may schedule a vehicle for testing by contacting Penn State's Transportation Institute (PSTI) at the following address:

The Pennsylvania State University,
Pennsylvania Transportation Institute,
Research Building B,
University Park, PA 16802, (814) 863-1889.

(b) Upon contacting PSTI, the manufacturer will be provided the following:

- (1) A draft contract for the testing;
- (2) A fee schedule; and
- (3) The draft test procedures that will be conducted on the vehicle.

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(c) PSTI will provide final test procedures to be conducted on the vehicle at the time of contract execution.

(d) PSTI will process vehicles for testing in the order in which the contracts are signed.

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Sec. 665.23 Fees.

(a) Fees charged by the operator are according to a schedule approved by the FTA, which include different fees for partial testing.

(b) Fees will be prorated for a vehicle withdrawn from the facility before the completion of testing.

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Sec. 665.25 Transportation of vehicle.

A manufacturer is responsible for transporting its vehicle to and from the facility at the beginning and completion of the testing.

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TITLE 49--TRANSPORTATION

TRANSPORTATION

PART 665--BUS TESTING--Table of Contents

Subpart C--Operations

Sec. 665.27 Procedures during testing.

- (a) The facility operator shall perform all testing, consistent with established procedures at the facility and with the test procedures provided to the manufacturer at the time of contract execution.
- (b) The manufacturer of a bus being tested may terminate the test program at any time before the completion of testing, and shall be charged a fee for the tests performed.
- (c) The operator shall perform all maintenance and repairs on the test vehicle, consistent with manufacturers specifications, unless the operator determines that the nature of the maintenance or repair is best performed by the manufacturer under the operator's supervision.
- (d) The manufacturer may observe all tests. The manufacturer may not provide maintenance or service unless requested to do so by the operator.

Appendix A to Part 665--Tests To Be Performed at the Bus Testing Facility

The seven tests to be performed on each vehicle are required by STURAA and are based in part on tests described in the FTA report "First Article Transit Bus Test Plan", which is mentioned in the legislative history of section 317. When appropriate, SAE test procedures and other procedures accepted by the transit industry will be used. The seven tests are described in general terms in the following paragraphs.

1. Maintainability

The maintainability test includes bus servicing, preventive maintenance, inspection, and repair. It also will include the removal and reinstallation of the engine and drive train components that would be expected to require replacement during the bus' normal life cycle. Much of the maintainability data will be obtained during the bus durability test at the proving ground. Up to twenty-five percent of the bus life will be simulated and there will be servicing, preventive maintenance, and repair actions. These actions will be done by test facility staff, although manufacturers will be allowed to maintain a representative on site during the testing. Test facility staff may require a manufacturer to provide vehicle servicing or repair, under the supervision of the facility staff. Since the operator will not become familiar with the detailed design of all new bus models that are tested, tests to determine the time and skill required to remove and reinstall an engine, a transmission, or other major propulsion system components may require advice from the bus manufacturer. All routine and corrective maintenance will be carried out by the test operator in accordance with the manufacturer's specifications.

The maintainability test report will include the frequency, personnel hours, and replacement parts or supplies required for each action during the test. The accessibility of selected components and other observations that could be important to a bus user will be included in the report.

2. Reliability

The question of reliability will be addressed by recording all bus breakdowns during testing. It is recognized that with one test bus it is not feasible to conduct statistical reliability tests. It is anticipated that bus operation on the durability course should reveal the problems that would otherwise not be detected until much later during scheduled transit service. The bus failures, repair time, and the actions required to get the bus back into operation will be recorded in the report.

3. Safety

The safety test will consist of a handling and stability test. The handling and stability test is an obstacle avoidance or double-lane change test that will be performed at the proving ground. The double-lane change course will be different for each type of bus and the speed could be different for each type of bus. Coach speed will be held constant throughout a given test run. Individual test runs will be made at increasing speeds up to 45 mph or until the coach can no longer be operated safely over the course, whichever speed is lower. Both left-and-right-hand lane changes will be tested.

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4. Performance

The performance test will be performed on the proving ground and will measure acceleration and gradeability with the test vehicle operated at seated load weight. Top speed also will be measured if it can be done safely on the track. The test will be performed using a fifth wheel or equivalent and associated instrumentation. The bus will be accelerated at full throttle from standstill to maximum safe speed on the track. The report will include a table of time required to accelerate to each 10 mph increment of speed and when possible, the top speed. The gradeability capabilities will be calculated both from the test data and a test from a dead stop on a minimum of a 15 percent grade.

5. Structural Integrity

Two different structural integrity tests will be performed. Structural strength and distortion tests will be performed at the testing facility in Altoona and structural durability tests will be performed at the proving ground.

a. Structural Strength and Distortion Tests

(1) The structural strength and distortion tests will be conducted and will be different for each type of bus. For example, a shakedown of the bus structure will be conducted by loading and unloading the bus no more than three times with a distributed load equal to 2.5 times gross load. The bus then will be loaded with a distributed load to gross vehicle weight. (Gross vehicle weight is a curb weight plus gross load.) Increase in floor deflection will be measured as the bus weight is increased from curb weight to gross vehicle weight. Then the bus will be loaded with a distributed load equal to 2.5 times gross load. The bus then will be unloaded and inspected for any permanent deformation on the floor or coach structure.

(2) The bus will be loaded to gross vehicle weight, with one wheel on top of a 6-inch-high curb and then in a 6-inch-deep pot hole. This test will be repeated for all four wheels. The test will verify:

(a) Normal operation of the steering mechanism and

(b) Operability of all passenger doors, passenger escape mechanisms, windows, and service doors. In addition, a water leak test will be conducted.

(3) Using a load-equalizing towing sling, a static tension load equal to 1.2 times the bus curb weight will be applied to the bus towing fixtures (front and rear). The load will be removed and the two eyes and adjoining structure will be inspected for damages or permanent deformations.

(4) The bus at curb weight will be towed with a heavy wrecker truck for several miles after which it will be inspected for structural damage or permanent deformation.

(5) With the bus at curb weight probable damages due to tire deflating and jacking will be tested.

(6) With the bus at curb weight possible damages or deformation associated with lifting the bus on a two post hoist system or supporting it on jack stands will be assessed.

b. Structural Durability

The structural durability test also will be different for each type of bus, but all tests will be performed on the durability course at the proving ground, simulating up to twenty-five percent of the vehicle's normal service life. During the test there will be inspections of the bus structure and the mileage and identification of possible structural anomalies.

6. Fuel Economy

This test will be run to determine the fuel economy in miles per gallon or equivalent of the new bus models. The test will be run at seated load weight on a duty cycle that simulates transit service for the type of vehicle being tested. The fuel measurement devices under consideration include volumetric, gravimetric, flow and pressure.

This fuel economy test bears no relation to the calculations done by the Environmental Protection Agency (EPA) to determine fuel economy levels for the Corporate Average Fuel Economy Program. However, the test will provide data which can be used by recipients in their purchase decisions.

7. Noise

There will be two noise tests: a. Interior noise and vibration; and b. Exterior noise. It is recognized that different levels of noise are expected and acceptable with different types of vehicles and different test procedures might be required.