Form No. DTMB-3521 (Rev. 4/2012)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Contract change will not be executed unless form is filed

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 071B3200058

to

CONTRACT NO. 1

between

THE STATE OF MICHIGAN

and

NAME & ADDRESS OF CONTRACTOR:	PRIMARY CONTACT	EMAIL
Hoekstra Transportation 3741 Rodger B Chaffee Blvd Morrice, MI 48857	Steve Bolin	sbolin@hoekstratruck.com
	TELEPHONE	CONTRACTOR #, MAIL CODE
	616-389-1130	

STATE CONTACTS	AGENCY	NAME	PHONE	EMAIL
CONTRACT COMPLIANCE INSPECTOR	DTMB	Amy Nobach	517.335.3282	nobacha@michigan.gov
BUYER	DTMB	Klatra Pickett	517-373-7374	pickettk@michigan.gov

CONTRACT SUMMARY:

DESCRIPTION: **Medium Non-Lift and Lift Transit Buses**

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW
December 07, 2012	December 6, 2014	1, 1 Year Option	December 6, 2014
PAYMENT TERMS	F.O.B	SHIPPED	SHIPPED FROM
Fixed	Destination	Various	Various

ALTERNATE PAYMENT OPTIONS:	AVAILABLE TO MiDEAL PARTICIPANTS
☐ P-card ☐ Direct Voucher (DV) ☐ Other	☒ Yes ☐ No

MINIMUM DELIVERY REQUIREMENTS:

N/A

DESCRIPTION OF CHANGE NOTICE:

EXTEND CONTRACT EXPIRATION DATE	EXERCISE CONTRACT OPTION YEAR(S)	EXTENSION BEYOND CONTRACT OPTION YEARS	LENGTH OF OPTION/EXTENSION	EXPIRATION DATE AFTER CHANGE
☒ No ☐ Yes	☐	☐	N/A	December 6, 2014

VALUE/COST OF CHANGE NOTICE:	ESTIMATED AGGREGATE CONTRACT VALUE REMAINS:
$0.00	$ 21,679,302.00

Effective, March 27, 2013, the price for the Medium Non-Lift and Lift transit buses has INCREASED, per the attached REVISED cost model, in addition, section IV. Chassis Specifications, item M. Brakes and section VI, Alternate Quote (options), Item Y has been REVISED to state the following:

M. <u>Brakes</u>

The bus foundation brakes shall be a power-actuated hydraulic split system of a four wheel disc type with a three channel anti-lock braking system. The system shall be the heaviest-duty available for stop and go operation. The brake system shall include a red brake warning lamp (RBWL) in the instrument cluster that lights when the parking brake is on, when a front or rear hydraulic failure occurs, or when brake fluid is low in the reservoir and act as a low brake warning system. The parking brake shall be rebuildable and the heaviest-duty available from the chassis manufacturer.

Y. Air Brakes (Class Two Only)

In lieu of hydraulic brakes, the medium class two bus foundation brakes shall be equipped with self-adjusting air brakes with a four channel anti-lock brake system. The parking brake shall be activated by a push-pull knob located on the dash or a foot operated hand release. The air compressor shall be engine driven with a minimum capacity of 13CFM at 1250 RPM. The air brake system shall have an air dryer and air tanks that can be manually drained by standing outside the bus from one position.

All other terms, conditions and specifications remain unchanged.

Per vendor, agency and DTMB Procurement approval.

Attachment B, COST MODEL/BID EVALUATION FORM
MICHIGAN MEDIUM CLASS OF BUSES SPECIFICATION
Minimum 7 Years/200,000 Miles

Version Date: 2/1/2012

Instructions: Complete each section of the following cost model document. If applicable, provide as much detail as possible, in the evaluation portion, by listing product and model names, sizes, materials used, type, etc. Return completed document with your bid package as this document will be primarily referenced during the evaluation process. **Failure to complete this document and return with your bid package will result in a bid disqualification.**

Body Manufacturer:	**Eldorado National**
Bidder Company Name:	**Hoekstra Transportation**
Bidder Address:	**3741 Roger B Chaffee Grand Rapids, MI 49548**
Preparer's Name:	**Steve Bolin**
Inspection Facility:	**Hoekstra Transportation Grand Rapids MI**
Address of Inspection Facility:	**3741 Roger B Chaffee Grand Rapids, MI 49548**

I	**COST MODEL**			
	Qty	**Description**	**MiDEAL and Michigan Public Transit Authorities Unit Price**	**Extended Total**
		Base Bus Floor Plans – Class One		
A.		**Class One - 26 Foot Bus – Vinyl Seat Covers**		
1.	2	24 passenger without lift	**72,157.00**	**144,314.00**
2.	5	14+2 passenger with lift	**77,232.00**	**386,160.00**
3.	5	10+3 passenger with lift	**77,432.00**	**387,160.00**
B.		**Class One- 26 Foot Bus – Fabric Seat Covers**		
1.	2	24 passenger without lift	**72,637.00**	**145,274.00**
2.	5	14+2 passenger with lift	**77,632.00**	**388,160.00**
3.	5	10+3 passenger with lift	**77,792.00**	**388,960.00**
C.		**Class One – 29 Foot Bus – Vinyl Seat Covers**		
1.	2	28 passenger without lift	**74,387.00**	**148,774.00**
2.	6	18+2 passenger with lift	**79,763.00**	**478,578.00**
3.	6	16+3 passenger with lift	**79,963.00**	**479,778.00**
4.	5	12+4 passenger with lift	**81,093.00**	**405,465.00**
D.		**Class One- 29 Foot Bus – Fabric Seat Covers**		
1.	2	28 passenger without lift	**74,947.00**	**149,894.00**
2.	6	18+2 passenger with lift	**80,243.00**	**481,458.00**
3.	6	16+3 passenger with lift	**80,403.00**	**482,418.00**
4.	5	12+4 passenger with lift	**81,533.00**	**407,665.00**

E.		**Class One – 32 Foot Bus – Vinyl Seat Covers**		
1.	2	32 passenger without lift	**76,657.00**	**153,314.00**
2.	5	22+2 passenger with lift	**81,563.00**	**407,815.00**
3.	5	20+3 passenger with lift	**81,823.00**	**409,115.00**
4.	6	16+4 passenger with lift	**83,033.00**	**498,198.00**
F.		**Class One – 32 Foot Bus – Fabric Seat Covers**		
1.	2	32 passenger without lift	**77,297.00**	**154,594.00**
2.	5	22+2 passenger with lift	**82,123.00**	**410,615.00**
3.	5	20+3 passenger with lift	**82,343.00**	**411,715.00**
4.	6	16+4 passenger with lift	**83,513.00**	**501,078.00**
		SUBTOTAL (Class One Buses A-F)	**1,735,566.00**	**7,820,502.00**
		Base Bus Floor Plans – Class Two		
G.		**Class Two - 26 Foot Bus – Vinyl Seat Covers**		
1.	2	24 passenger without lift	**101,215.00**	**202,430.00**
2.	5	14+2 passenger with lift	**107,360.00**	**536,800.00**
3.	5	10+3 passenger with lift	**107,480.00**	**537,400.00**
H.		**Class Two- 26 Foot Bus – Fabric Seat Covers**		
1.	2	24 passenger without lift	**101,695.00**	**203,390.00**
2.	5	14+2 passenger with lift	**107,760.00**	**538,800.00**
3.	5	10+3 passenger with lift	**107,840.00**	**539,200.00**
I.		**Class Two – 29 Foot Bus – Vinyl Seat Covers**		
1.	2	28 passenger without lift	**102,225.00**	**204,450.00**
2.	6	18+2 passenger with lift	**108,770.00**	**652,620.00**
3.	6	16+3 passenger with lift	**108,890.00**	**653,340.00**
4.	5	12+4 passenger with lift	**110,000.00**	**550,000.00**
J.		**Class Two- 29 Foot Bus – Fabric Seat Covers**		
1.	2	28 passenger without lift	**102,785.00**	**205,570.00**
2.	6	18+2 passenger with lift	**109,250.00**	**655,500.00**
3.	6	16+3 passenger with lift	**109,330.00**	**655,980.00**
4.	5	12+4 passenger with lift	**110,440.00**	**552,200.00**
K.		**Class Two- 32 Foot Bus – Vinyl Seat Covers**		
1.	4	32 passenger without lift	**104,535.00**	**418,140.00**
2.	5	22+2 passenger with lift	**110,630.00**	**553,150.00**
3.	5	20+3 passenger with lift	**110,750.00**	**553,750.00**
4.	6	16+4 passenger with lift	**111,860.00**	**671,160.00**
L.		**Class Two- 32 Foot Bus – Fabric Seat Covers**		
1.	4	32 passenger without lift	**105,175.00**	**420,700.00**
2.	5	22+2 passenger with lift	**111,190.00**	**555,950.00**
3.	5	20+3 passenger with lift	**111,270.00**	**556,350.00**
4.	6	16+4 passenger with lift	**112,340.00**	**674,040.00**
		SUBTOTAL (class two buses G-L)	**2,377,190.00**	**11,090,920.00**
		TOTAL (class one and two buses A-L)	**4,112,756.00**	**18,911,422.00**
M.		**Equipment Options**		
1.	40	Air Conditioning, Split unit **26 foot**	**4,400.00**	**176,000.00**
2.	70	Air Conditioning, Split unit **29 foot**	**6,685.00**	**467,950.00**
3.	70	Air Conditioning, Split unit **32 foot**	**6,685.00**	**467,950.00**
4.	15	Rooftop AC with heat, **26 foot**	**9,100.00**	**136,500.00**
5.	20	Rooftop AC with heat, **29 foot**	**9,100.00**	**182,000.00**
6.	20	Rooftop AC with heat, **32 foot**	**9,100.00**	**182,000.00**
7.	50	Auxiliary Air Heater -Gas	**3,100.00**	**155,000.00**
8.	75	Auxiliary Air Heater & Block Heater (in lieu of Aux Coolant Heater)	**250.00**	**18,750.00**
9.	5	Destination Sign – Roller/Curtain	**1,700.00**	**8,500.00**
10.	25	Destination Sign - LED	**3,550.00**	**88,750.00**
11.	50	Donation box (in lieu of standard farebox – deduct)	**(700.00)**	**(35,000.00)**
12.	50	Farebox Electrical Prep Only (less standard farebox- deduct)	**(800.00)**	**(40,000.00)**
13.	50	Limited Slip Differential (Class One Only)	**0**	**0**
14.	50	Limited Slip Differential (Class Two Only)	**900.00**	**45,000.00**
15.	50	Rear emergency exit window (deduct)	**(300.00)**	**(15,000.00)**
16.	40	Paint - One stripe	**500.00**	**20,000.00**
17.	40	Paint - Roof second color	**500.00**	**20,000.00**
18.	40	Paint - Different Full body	**1,300.00**	**52,000.00**
19.	25	Reflective Vinyl Belt Stripe	**500.00**	**12,500.00**
20.	20	Lift – Type I (in lieu of standard lift - deduct)	**(320.00)**	**(6,400.00)**
21.	20	Lift – Type II – Powered outer barrier (in lieu of standard lift)	**(320.00)**	**(6,400.00)**
22.	20	Lift - Folding Platform (in lieu of standard lift)	**(320.00)**	**(6,400.00)**

23.	100	Wheelchair Single Point Securement System (in lieu of one standard L-Track position)	**150.00**	**15,000.00**
24.	15	Additional Wheelchair Position – L Track System	**450.00**	**6,750.00**
25.	15	Additional Wheelchair Position – Single Point System	**560.00**	**8,400.00**
26.	40	Two-way radio prep package	**500.00**	**20,000.00**
27.	40	Radio - AM/FM stereo system w/ four speakers	**500.00**	**20,000.00**
28.	10	Public Address (PA) System Only w/ two speakers	**250.00**	**2,500.00**
29.	10	Radio – AM/FM/PA System w/ four speakers	**625.00**	**6,250.00**
30.	10	Radio – Speaker only (additional)	**50.00**	**500.00**
31.	50	Rear Air Ride Suspension (Class One Only)	**5,800.00**	**290,000.00**
32.	75	Rubber Flooring (in lieu of slip resistant smooth flooring) - Deduct	**150.00**	**11,250.00**
33.	75	Entrance Stepwell Heater	**300.00**	**22,500.00**
34.	80	Electric Driveline Brake (Retarder)	**6,600.00**	**528,000.00**
35.	25	Seating – Rear five place passenger – Vinyl	**0**	**0**
36.	25	Seating – Rear five place passenger - Fabric	**0**	**0**
37.	5	Seating – Forward Facing Standard Double Seat - Vinyl	**470.00**	**2,350.00**
38.	5	Seating – Forward Facing Standard Double Seat - Fabric	**510.00**	**2,550.00**
39.	5	Seating – Forward Facing Standard Double Seat – Vinyl (Deduct)	**(470.00)**	**(2,350.00)**
40.	5	Seating – Forward Facing Standard Double Seat – Fabric (Deduct)	**(510.00)**	**(2,550.00)**
41.	5	Seating – Forward Facing Double Fold-A-Way - Vinyl	**730.00**	**3,650.00**
42.	5	Seating – Forward Facing Double Fold-A-Way - Fabric	**770.00**	**3,850.00**
43.	5	Seating – Forward Facing Double Fold-A-Way – Vinyl (Deduct)	**(730.00)**	**(3,650.00)**
44.	5	Seating – Forward Facing Double Fold-A-Way –Fabric (Deduct)	**(770.00)**	**(3,850.00)**
45.	5	Seating – Double Flip-up – Vinyl	**530.00**	**2,650.00**
46.	5	Seating – Double Flip-up - Fabric	**570.00**	**2,850.00**
47.	5	Seating – Double Flip-up – Vinyl (Deduct)	**(530.00)**	**(2,650.00)**
48.	5	Seating – Double Flip-up – Fabric (Deduct)	**(570.00)**	**(2,850.00)**
49.	5	Seating – Double w/Single Integrated Child Seat (ICS) - Vinyl	**1,060.00**	**5,300.00**
50.	5	Seating – Double w/Single Integrated Child Seat (ICS) – Fabric	**1,100.00**	**5,500.00**
51.	5	Seating – Double w/Single Integrated Child Seat (ICS) – Vinyl (Deduct)	**(1,060.00)**	**(5,300.00)**
52.	5	Seating – Double w/Single Integrated Child Seat (ICS) – Fabric (Deduct)	**(1,100.00)**	**(5,500.00)**
53.	5	Seating – Double w/Double Integrated Child Seat (ICS) - Vinyl	**1,440.00**	**7,200.00**
54.	5	Seating – Double w/Double Integrated Child Seat (ICS) - Fabric	**1,480.00**	**7,400.00**
55.	50	Driver's Power Seat Base (Class One Only)	**N/A**	**N/A**
56.	50	Alt. Engine – Gas (Class One Only) – Deduct	**(5,015.00)**	**(250,750.00)**
57.	10	Alt. Engine – Propane (Class One Only)	**N/A**	**N/A**
58.	5	Alt. Engine – CNG (Class One Only)	**23,200.00**	**116,000.00**
59.	10	Stop Request System	**900.00**	**9,000.00**
60.	80	Back-up Sensor System	**1,100.00**	**88,000.00**
61.	40	Video Surveillance – Two Camera System	**2,200.00**	**88,000.00**
62.	20	Video Surveillance - Four Camera System	**2,500.00**	**50,000.00**
63.	5	Video Surveillance - Six Camera System	**4,000.00**	**20,000.00**
64.	10	Video Surveillance - DVR System Upgrade	**300.00**	**3,000.00**
65.	10	Video Surveillance – Extra Interior Cameras	**300.00**	**3,000.00**
66.	10	Video Surveillance – Extra Exterior Cameras	**300.00**	**3,000.00**
67.	10	Video Surveillance Preparation Package	**300.00**	**3,000.00**
68.	10	Hydraulic Brakes - Class II Navistar (in lieu of standard Air Brakes)	**0.00**	**0.00**
		SUBTOTAL (Options)	**103,550.00**	**3,001,700.00**
GRAND TOTAL EVALUATION PRICE OF A, B, C, D, E, F, G, H, I, J, K, L, and M ABOVE			**4,160,206.00**	**21,679,302.00**

Form No. DTMB-3522 (Rev. 4/2012)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Contract will not be executed unless form is filed

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

December 28, 2012

CONTRACT NO. 071B3200058

between

THE STATE OF MICHIGAN

and

NAME & ADDRESS OF CONTRACTOR:	PRIMARY CONTACT	EMAIL
Hoekstra Transportation, Inc.	Steve Bolin	SBolin@HoekstraTruck.com
3741 Roger B. Chaffee Blvd.	TELEPHONE	CONTRACTOR #, MAIL CODE
Grand Rapids, MI 49548	616-389-1130	

STATE CONTACTS	AGENCY	NAME	PHONE	EMAIL
CONTRACT COMPLIANCE INSPECTOR:	MDOT	Amy Nobach	517-335-3282	nobacha@michigan.gov
BUYER:	DTMB	Klatra Pickett	517-373-7374	pickettk@michigan.gov

CONTRACT SUMMARY:

DESCRIPTION:

Medium Non-Lift and Lift Transit Buses

INITIAL TERM	EFFECTIVE DATE	INITIAL EXPIRATION DATE	AVAILABLE OPTIONS
2 years	December 7 , 2012	December 6, 2014	One, one year option
PAYMENT TERMS	F.O.B	SHIPPED	SHIPPED FROM
Fixed	Destination	Various	Various

ALTERNATE PAYMENT OPTIONS:	AVAILABLE TO MiDEAL PARTICIPANTS
☐ P-card ☐ Direct Voucher (DV) ☐ Other	☒ YES ☐ NO

MINIMUM DELIVERY REQUIREMENTS:

One Unit

MISCELLANEOUS INFORMATION:

N/A

ESTIMATED CONTRACT VALUE AT TIME OF EXECUTION:	$21,679,302.00

Form No. DTMB-3522 (Rev. 4/2012)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Contract will not be executed unless form is filed

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CONTRACT NO. 071B3200058

between

THE STATE OF MICHIGAN

and

NAME & ADDRESS OF CONTRACTOR:	PRIMARY CONTACT	EMAIL
Hoekstra Transportation, Inc.	Steve Bolin	SBolin@HoekstraTruck.com
3741 Roger B. Chaffee Blvd.	TELEPHONE	CONTRACTOR #, MAIL CODE
Grand Rapids, MI 49548	616-389-1130	

STATE CONTACTS	AGENCY	NAME	PHONE	EMAIL
CONTRACT COMPLIANCE INSPECTOR:	MDOT	Amy Nobach	517-335-3282	nobacha@michigan.gov
BUYER:	DTMB	Klatra Pickett	517-373-7374	pickettk@michigan.gov

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Medium Non-Lift and Lift Transit Buses

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Fixed	Destination	Various	Various

ALTERNATE PAYMENT OPTIONS:	AVAILABLE TO MiDEAL PARTICIPANTS
☐ P-card ☐ Direct Voucher (DV) ☐ Other	☒ YES ☐ NO

MINIMUM DELIVERY REQUIREMENTS:

One Unit

MISCELLANEOUS INFORMATION:

N/A

ESTIMATED CONTRACT VALUE AT TIME OF EXECUTION:	$21,679,302.00

THIS IS NOT AN ORDER: This Contract Agreement is awarded on the basis of our inquiry bearing the solicitation RFP-KP-071I2200113. Orders for delivery will be issued directly by the Authorized Transit or State Agencies of this Contract by the issuance of a Purchase Order Form.

Notice of Contract #: 071B3200058

FOR THE CONTRACTOR:	FOR THE STATE:
Hoekstra Transportation, Inc.	
Firm Name	Signature
	Rebecca Cook, Acting Commodities Director
Authorized Agent Signature	Name/Title
	DTMB Procurement
Authorized Agent (Print or Type)	Enter Name of Agency
Date	Date

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Definitions

This section provides definitions for terms used throughout this document.

Business Day - whether capitalized or not, means any day other than a Saturday, Sunday, State employee temporary layoff day, or State-recognized legal holiday (as identified in the Collective Bargaining Agreement for State employees) from 8:00am through 5:00pm Eastern Time unless otherwise stated.

Buyer – the DTMB-Procurement employee identified on the cover page of the RFP.

Chronic Failure - as defined in applicable Service Level Agreements.

Contract – based on the RFP, an agreement that has been approved and executed by the awarded bidder, the DTMB-Procurement Director, and the State Administrative Board.

Contractor – the awarded bidder after the Effective Date.

Days - Business Days unless otherwise specified.

Deleted, Not Applicable - the section is not applicable or included in the RFP. This is used as a placeholder to maintain consistent numbering.

Deliverable(s) - physical goods or commodities as required or identified in a Statement of Work.

Eastern Time – either Eastern Standard Time or Eastern Daylight Time, whichever is prevailing in Lansing, Michigan.

Effective Date - the date that a binding contract is executed by the final party.

Final Acceptance - has the meaning provided in Section 2.8.7, Final Acceptance, unless otherwise stated in Article 1.

Key Personnel - any personnel designated as Key Personnel in Sections 1.3.3, Staff, Duties, and Responsibilities, and 2.4.2, Contractor Key Personnel, subject to the restrictions of Section 2.4.2.

Post-Industrial Waste - industrial by-products which would otherwise go to disposal and wastes generated after completion of a manufacturing process, but does not include internally generated scrap commonly returned to industrial or manufacturing processes.

Purchase Order - a written document issued by the State that requests full or partial performance of the Contract.

State - the State of Michigan.

State Location - any physical location where the State performs work. State Location may include state-owned, leased, or rented space.

Stop Work Order - a notice requiring the Contractor to fully or partially stop work in accordance with the terms of the notice.

Subcontractor - a company or person that the Contractor delegates performance of a portion of the Deliverable(s) to, but does not include independent contractors engaged by the Contractor solely in a staff augmentation role.

Unauthorized Removal - the Contractor's removal of Key Personnel without the prior written consent of the State.

Article 1 – Statement of Work

1.1 Project Identification

This contract is for the purchase of medium class of non-lift and lift public transit buses with various **floor plans.** This contract is open to the State, MiDeal members and authorized public transit agencies (listed in Attachment D).

1.1.1 Project Request -Deleted , Not Applicable

1.1.2 Background – Deleted, Not Applicable

1.2 Scope of Work and Deliverable(s)

1.2.1 In Scope

This Contract is for the manufacturing and delivery of medium class of non-lift and lift public transit buses with various floor plans. The Contractor will be required to furnish all such materials and services as may be ordered during the contract period.

Orders for delivery will be issued directly to the Contractor by the State, MiDeal members or authorized public transit agencies.

Attachment D is a listing of the authorized public transit agencies that are authorized to order from this contract. The listing shall not limit participation of additional agencies/locations/States as the need may develop at the same prices, terms and conditions. However, written approval for additional agencies/location/States not on the attached list must be received by the Michigan Department of Transportation, Office of Passenger Transportation (MDOT-OPT).

1.2.2a Deliverable(s)

The Contractor must provide the following Deliverable(s):

Definite Specifications - All buses and/or services to be furnished hereunder shall conform to the specifications as attached in Attachment C-Cost Model.

1.2.2b Equipment Installation

Non-Factory Installed Equipment

The Contractor should provide a listing of equipment to be furnished that is not installed at the point of bus manufacture. The list of non-factory installed equipment should identify the item number(s) to which it applies and list the description of equipment involved.

Optional Equipment and Accessories

Factory or optional equipment not specifically listed in the contract and/or State of Michigan bus specifications (Attachment C) shall not be added. MiDeal Members and authorized public transit agencies may request additional factory or optional equipment on a direct basis with the Contractor.
Any additional non-specified factory or optional equipment costs shall be the responsibility of authorized public transit agency or MiDeal members.

1.2.3 Quantity

Minimum quantity shall be one (1) bus up to a maximum of 200 buses. To include pilot model(s)

Quantities specified, are estimates based on prior purchases, and the State is not obligated to purchase in these quantities.

1.2.4 Ordering

The Contractor is not authorized to begin work on any requested Deliverable/Service or repair parts until receipt of a purchase order, approved by a MDOT-OPT Project Manager, and/or an authorized public transit agencies or MiDeal members.

All orders will receive an "Acknowledgement" for final approval by the ordering agency or MDOT-OPT, to start to build.

A purchase order is considered "issued" when the order is placed in the mail or received via e-mail or FAX. Contractors shall have internal controls, approved by MDOT-OPT to ensure that authorized agencies with the State place orders.

The Contractor shall verify orders that have quantities that appear to be abnormal or excessive.

Orders for delivery will be issued directly to the Contractor by authorized public transit agencies and or MiDeal members.

All purchase orders are subject to the terms and conditions of the Contract. In the event of a conflict between a purchase order and the Contract, the Contract shall control.

1.2.5 Alternate Bid – Deleted, Not Applicable

1.2.6 Brand Name or Equal/Open Specifications – Deleted, Not Applicable

1.2.7 Contract Use/Assignment – Deleted, Not Applicable

1.3 Management and Staffing

1.3.1 Project Management

The Contractor will carry out this project under the direction and control of the Michigan Department of Transportation, Office of Passenger Transportation (MDOT-OPT), MiDeal members and authorized public transit agencies.

Although there will be continuous liaison with the Contractor, the client agency's project manager and MDOT-OPT will meet monthly as a minimum, with the Contractor's project manager for the purpose of reviewing progress and providing necessary guidance to the Contractor in solving problems that arise.

The Contractor will submit quarterly written progress reports to the MDOT-OPT project manager that:

(a) outline the work accomplished during the reporting period and work to be done during the next reporting period
(b) identify actual and anticipated problems that should be brought to the attention of the project manager
(c) and provide notice of any significant deviation from previously agreed upon project plans.

Within thirty (30) working days of a signed contract the Contractor will submit to the MDOT-OPT Project Manager for final approval a work plan, which must include the following:

(a) The Contractor's project organizational structure.
(b) The Contractor staffing table with names and title of personnel assigned to the project. This must be in agreement with staffing of accepted proposals. Necessary substitutions due to change of employment status and other unforeseen circumstances may only be made with prior approval of the State.
(c) The project breakdown showing sub-projects, activities and tasks, and resources required and allocated to each.
(d) The time-phased plan, in the form of a graphic display, showing each event, task, and decision point in your work plan.

1.3.2 Reports

The Contractor must submit the following periodic reports to the State: usage reports, including quantity and dollars for State and MiDEAL members.

Within thirty (30) days after the Effective Date the parties shall determine an appropriate set of periodic reports to be issued by Contractor to the State.

The Contractor must submit reports of purchasing activities to DTMB, Procurement on a quarterly basis. Reports shall include, at a minimum:

(a) A listing of MiDeal members, products sold, product description, total cost of purchase and administrative fees.

The Contractor must also submit reports of purchasing activities to MDOT-OPT to include the following:

(b) An itemized listing of purchasing activities for each order, with the name, order date, factory start date, factory completion date, delivery date, equipment options, and the total value of purchases, and a grand total of all purchases.

(c) Separately address Contractor's performance in each area of the Services.

(d) For each area of the Services, assess the degree to which Contractor has attained or failed to attain the pertinent objectives in that area, including on-time completion and delivery of Deliverables.

(e) Explain the reasons for any failure to achieve on-time completion and delivery of deliverables and include a plan for corrective action where appropriate.

(f) Describe any circumstances that Contractor anticipates will impair or prevent on-time completion and delivery of Deliverables in upcoming reporting periods.

(g) Include plans for corrective action or risk mitigation where appropriate and describe the status of ongoing problem resolution efforts.

(h) Provide reports setting forth a comparison of actual hours spent by Contractor (including its augmented personnel and Subcontractors) in performing the Project versus hours budgeted by Contractor.

(i) Set forth a record of the material personnel changes that pertain to the Services and

describe planned changes during the upcoming month that may affect the Services.

(j) Include such documentation and other information may be mutually agreed to verify compliance with, and meeting the objectives of, this Contract.

(k) Set forth an updated schedule that provides information on the status of upcoming Deliverables, expected dates of delivery (or redelivery) of such Deliverables and estimates on timing for completion of the Project.

1.3.3 Staff, Duties, and Responsibilities

The Contractor does not expect subcontracting to occur, but will notify the State per section 2.5.2 if needed.

1.3.4 Meetings

The State may request a kick-off or pre-pilot meeting with the Contractor within thirty (30) days of the Effective Date. The State may request other meetings as it deems appropriate.

1.3.5 Place of Performance

Full address of place of performance	**Owner/operator of facility to be used**	**Percent (%) of Contract value to be performed at listed location**
Eldorado National 1655 Wall Street Salina, KS 67401	Eldorado National 1655 Wall Street Salina, KS 67401	95-100%

1.3.6 Reserved

1.3.7 Binding Commitments

The following Contractor representatives have authority to make binding commitments on the Contractor's behalf.

Mark Hoekstra – President, Hoekstra Transportation, 616-389-1106
Steve Bolin – Commercial Products Manager, Hoekstra Transportation, 616.389.1130

1.3.8 Training

The Contractor shall provide training when necessary, on aspects of ordering, shipping, billing, receiving, and vehicle maintenance. At the request of the MDOT-OPT project manager, the Contractor shall provide in-service training on products, installation, and product safety issues. The Contractor shall also provide training jointly with the State, authorized public transit agencies, and MiDeal members as needed during the period covered by the Contract at no additional charge.

1.3.9 Security – Deleted, Not Applicable

1.4 Delivery and Acceptance

1.4.1 Time Frames

All Deliverable(s) must be delivered within two-hundred and ten (210) calendar days after receipt of order. Once start dates are assigned they may move up but will not move back unless something unusual happens (i.e. strike). The receipt of order date is governed in the same manner as notices sent under Section 2.3.6, Notices.

1.4.2 Minimum Order

The Contractor agrees to a minimum order of one bus and there are no additional fees or handling charges.

1.4.3 Packaging

Packaging and containers must meet the current requirements of state and federal law applicable to rail and motor carrier freight classifications, which will permit application of the lowest freight rate.

1.4.4 Palletizing – Deleted, Not Applicable

1.4.5 Delivery Term

Unless specified otherwise below, delivery is governed by Section 2.8.2, Delivery Responsibilities.

The Contractor quoted prices are "F.O.B. Destination, within Government Premises" (to include the State, MiDeal members and authorized public transit agencies) with transportation charges prepaid on all orders that meet the minimum order requirement specified in Section 1.4.2, Minimum Order.

Freight Charges

Where the weight of the shipment is less than 150 lbs. or where shipments could be separated into smaller parcels, the Contractor must use the State's current express delivery carrier, which is United Parcel Services. If the shipment weighs less than 150 lbs., but the Deliverable costs $3000 or more, it must be sent by an appropriate carrier.

If the Contractor fails to follow these shipping instructions, the State will pay the carrier used and deduct the difference from the Contractor's invoice for the amount that was charged and the amount that would have been charged if the required carrier had been used.

DRIVER DELIVERY - Contractor will be permitted to drive vehicles to final destinations in compliance with the “Affidavit for Driver Delivery” (see section 1.4.5a), however, the affidavit must be completed, submitted, and in the contract file.

Delivery must be made between the hours of 8:00 a.m. and 4:00 p.m., Monday through Friday ONLY, excluding holidays.

The Contractor is in agreement and will pay authorized users of this Contract if they pick the unit up at The Contractor’s location. The rate will be equal to the rate paid to the Contractor’s drivers plus provide or reimburse the cost of gasoline/fuel.

Per the terms of the Contract the units will be driven to the final destination and a delivery will be schedule delivery with the authorized agency. Driver delivery affidavit is included below.

1.4.5.a Affidavit for Driver Delivery

Vehicles may be driven to the final delivery destination if the following conditions are met:

1. The drivers of the vehicles are correctly licensed and trained in proper vehicle operation.
2. The contractor accepts all responsibility and liability for vehicles in transit.
3. The requesting contractor must sign the affidavit below and submit this with the contract.

The contractor accepts all responsibility and liability for vehicles in transit and guarantees the vehicles shall be transported in a safe, proper, and efficient manner.

I understand that the State may cancel approval of this affidavit at any time during the contract if the contractor fails to meet the above obligations.

_____ _____ 3/20/12
Signed Date

Commercial Products Manager
Title

Hoekstra Transportation
Contractor

(this signature on this statement applies to this statement only, the RFP form must be signed to be considered for award.)

NOTE: Section 1.4.5a includes a signed affidavit from the Contractor's bid proposal and is include is this Contract as submitted

1.4.6 Acceptance Process

Testing:

(a) Before delivering any of the above-mentioned Statement of Work Physical Deliverables or Services to the State, local unit of government or authorized public transit agency, Contractor will first perform all required quality assurance activities to verify that the Physical Deliverable (Section 1.2.2) or Service is complete and conforms with its specifications listed in the applicable Statement of Work or Purchase Order.

Before delivering a Physical Deliverable or Service to the State, authorized public transit agencies or MiDeal members the Contractor must certify that (1) it has performed the quality assurance activities, (2) it has performed any applicable testing, (3) it has corrected all material deficiencies discovered during the quality assurance activities and testing, (4) the Deliverable or Service is in a suitable state of readiness for the State's review and approval.

(b) If a Deliverable includes installation at the State, authorized public transit agencies or MiDeal member's location then the Contractor must (1) perform any applicable testing, (2) correct all material deficiencies

discovered during the quality assurance activities and testing, and (3) inform the State that the Deliverable is in a suitable state of readiness for the State's review and approval. To the extent that testing occurs at the State, authorized public transit agency or local unit of government location personnel are entitled to observe or otherwise participate in testing.

1.4.7 Acceptance Criteria

The State will use the following criteria to determine acceptance of Deliverable(s):

For the delivery of all units that may be released against the Contract the following shall apply:

PILOT MODEL & PRODUCTION SCHEDULE

Pilot model and plant inspections, the Contractor, shall allow the following:

Pilot Model Review Meeting at the Manufacture Facility, or at a mutually agreed upon location, shall be conducted within thirty (30) calendar days from the date of the Purchase Order (a minimum of one (1) per contract period.)

Pilot Model Inspection and Pre/Mid-Production Inspection Meeting at the Manufacture Facility, or a mutually agreed upon location, shall be within sixty (60) calendar days, after the delivery of the chassis to the body contractor. (a minimum of one (1) per contract period.)

Pilot Model Approvals, shall be completed by the State and/or receiving agency within thirty (30) calendar days after delivery of the pilot model by the ordering agency.

Periodic Production/Plant Inspections, by the Michigan Department of Transportation, Office of Passenger Transportation (two (2) per contract period).

Delivery of Production Chassis to the Body Manufacture shall be within one hundred (120) days, after the Pre-Pilot Model Meeting.

Exact Production Delivery Due Dates, will be determined by the delivery schedule, plus (+) seven (7) calendar days from issue dated indicated on the Purchase Order. Delivery shall be at the rate of one (1) unit per week minimum until completion of the quantity ordered.

Final inspection will be made at a site(s) as agreed upon by the Contractor and the ordering agencies. The Contractor shall be capable of handling final inspection and corrections required by the State prior to acceptance of the buses after a contract is awarded.

NOTE: Contractor Responsible for travel expenses to any State employee, MiDeal members or authorized public transit agency location.

The Contractor shall be responsible for transportation (air fare, rail fare, car rental, taxi, or mileage), lodging, parking expenses, meals, and tips for up to two (2) individuals, as determined by the Michigan Department of Transportation, Office of Passenger Transportation, for involvement in any of the above pilot model review or plant inspections. All travel expenses shall be based on the DTMB, Vehicle and Travel Services Schedule of Travel Rates for Classified and Unclassified Employees Effective January 1, 2011 or subsequent updates.

http://www.michigan.gov/dmb/0,4568,7-150-9141_13132---,00.html

BUS OPERATING INSTRUCTIONS
Instructions, either graphic or audio-visual (DVD), for operating the bus shall be included with the first bus delivered to the State, MiDeal members or authorized public transit agencies. The instructions shall clearly identify the controls, switches, gauges, and other instructions that bus drivers and/or operators use while the bus will be in service. Instructions shall also be included for the operation of the lift interlock system, entrance door, and vehicle engine compartment fluid level fill and check areas.

PRE-DELIVERY SERVICE AND CONDITIONS
Prior to delivery, each bus shall be serviced and inspected by the dealer or his agent. At a minimum, this pre-delivery service shall cover the specifications listed in the MDOT-OPT specifications.

The following shall be furnished with each bus delivered:

A copy of the Contractor's Service Manger signature on initial inspection and service check of the bus shall include:

a) the Contractors and vehicle identification number
b) a check list of service and inspection performed

The bus's crank case, differential and transmission shall be filled to the manufacture's recommended capacity and fuel tank shall have a minimum of one-half of a tank of fuel when the bus arrives at the delivery destination. The bus shall be clean and free from defects when delivered.

Each unit shall have an initial fill of windshield washer solution with freeze protection solvent.

The ordering agencies have been instructed to make immediate inspection on receipt of units and to process payment documents promptly. Payment documents; however, will be delayed if the bus fails to comply with specification requirements. Therefore, it is incumbent upon the Contractor that close pre-delivery inspection in accordance with specifications be made.

1.5 Pricing

1.5.1 Pricing
The Contractor will provide pricing for vehicles ordered, based on the price list provided in Attachment B-Cost Model.

1.5.2 Quick Payment Terms
No quick payment discount will be offered.

1.5.3 Price Term
Prices in Attachment B – Cost Model are firm for the term of the Contract.

1.5.4 Tax Excluded from Price
(a) Sales Tax: The State is exempt from sales tax for direct purchases. The Contractor's prices must not include sales tax. DTMB-Procurement will furnish exemption certificates for sales tax upon request.

(b) Federal Excise Tax: The State may be exempt from Federal Excise Tax, or the taxes may be reimbursable, if articles purchased under any resulting Contract are used for the State's exclusive use. Certificates showing exclusive use for the purposes of substantiating a tax-free, or tax-reimbursable sale will be sent upon request. If a sale is tax exempt or tax reimbursable under the Internal Revenue Code, the Contractor's prices must not include the Federal Excise Tax.

1.5.5 Invoices

The Contractor shall submit two (2) copies of invoices, one (1) to the "Bill To" address and one (1) the "Ship To" address.

At a minimum, the invoice is to include the following:

(a) Date
(b) PO #
(c) Quantity
(d) Deliverable
(e) Unit Price
(f) Shipping Cost (if any)
(g) Total Price

1.5.6 Title Fees

Prices include the cost of the title fees for each bus.

The **Title To** information for all orders will be as follows:
NAME OF AUTHORIZED PUBLIC TRANSIT AGENCY AND OR MIDEAL MEMBERS.

Ordering agencies will be responsible to notify the Contractor to designate the State of Michigan Department of Transportation, Office of Passenger Transportation, 425 W. Ottawa, Lansing, Michigan, 48909, as "First Secured Party" on titles of all vehicles purchased locally with state administered grants.

If the State of Michigan modifies the cost of vehicle titles during the Contract period, either the State or the Contractor may request a price adjustment to reflect the actual change.

1.6 Commodity Requirements

1.6.1 Customer Service

The Contractor it is able to receive orders by any of the following methods: electronically, facsimile transmission, or by written order. The Contractor has internal controls, approved by MDOT-OPT to: (a) ensure that only authorized individuals place orders; and (b) verify any orders that appear to be abnormal.

The Contractor must have: (a) one or more knowledgeable individual(s) specifically assigned to this Contract that will respond to MiDeal members or public transit agencies inquiries promptly; and (b) a statewide toll-free number for customer service calls.

The Contractor has designated has designated key personnel as:

Customer Service – 1-800-444-4104 x 1130
Mr. Steve Bolin – Commercial Products Manager

1.6.2 Research and Development

The Contractor must to keep the State apprised of its efforts to invest in new research and development.

The Contractor will practice continuous improvement at improving warranty, service, ordering and delivery process based on feedback from MDOT-OPT and the authorized users.

The Contractor will work with its manufacturer by improving processes, implementing lean manufacturing systems, and developing new, innovative solutions to production.

1.6.3 Quality Assurance Program

The Contractor's Service Manager is responsible for making sure that the units have been carefully prepped and are ready for inspection/delivery. He/she checks all units before they are delivered. There are also periodic inspections by sales and management to ensure that units are delivered in the best possible condition.

Matt Reiffer, Service Manager in Grand Rapids - 616-245-7440
Eric Coulter, Service Manager in Troy-248-244-0892

1.6.4 Warranty for Deliverable(s)

The Contractor must explain its warranty as required by Section 2.13, Warranties.

The Contractor will be responsible for all materials and accessories used in the buses, whether the same is ready made or from an outside source; and this responsibility may not be transferred, conveyed, assigned to any other person, company, corporation or entity without the previous written approval of the State.

Extension of warranty and or other policy adjustments will be considered when constant maintenance is required or if replacement parts prove unsound. The State of Michigan shall expect the manufacturer to have adequate stock of replacement parts available to service buses and to make delivery of all replacement parts to their dealers who may service buses. The Contractor will be required to contact the Michigan Department of Transportation, Office of Passenger Transportation and/or authorized public transit agencies and or MiDeal members within ten (10) after receipt of this Contract to arrange procedures concerning the implementation of warranty claims and to designate personnel to handle claims.

The State further expects that warranty service and repairs as well as non-warranty service and repairs will be handled without prejudice. (Reference, Attachment E, Warranty Overview)

The Contactor employs a full time Warranty Administrator, Rebecca Lallo, 616-245-7440, who is responsible for assisting with warranty claims and or service work.

The Contractor has 7 locations in the state as certified warranty/service centers; also in addition, will allow any of the ordering agencies to do warranty work on their buses or those of a neighboring agency.

Warranty procedure information is included with all buses delivered.

1.6.5 Special Incentives

The Contractor will review the possibility of taking used buses in trade on the purchase of a new unit, and also has several firms that have offered to assist in providing leasing options to the State of Michigan or authorized users of this Contract.

1.6.6 Energy Efficiency- Deleted, Not Applicable

1.6.7 Environmental Requirements

The State prefers to purchase products that impact the environment less than competing products. Environmental components that may be considered include: recycled content, recyclability, and the presence of undesirable materials in the products, especially persistent, bioaccumulative, and toxic chemicals.

1.6.8 Recycled Content and Recyclability

(a) **Deliverable(s)**. Without compromising performance or quality, the State prefers Deliverable(s) containing higher percentages of recycled materials. The Contractor must indicate an estimate of the percentage of recycled materials, if any, contained in each Deliverable:

____3_____ % (total estimated percentage of recovered material)

____5____ % (estimated percentage of post-consumer material)

____0____ % (estimated percentage of post-industrial waste)

(b) **Packaging – Deleted, Not Applicable**

1.6.9 Materials Identification and Tracking

(a) **Hazardous Chemical Identification**. The Contractor must list any hazardous chemical, as defined in 40 CFR §370.2, to be delivered. Each hazardous chemical must be properly identified, including any applicable identification number, such as a National Stock Number or Special Item Number. Material Safety Data Sheets must be submitted in accordance with the federal Emergency Planning and Community Right-to-Know Act, 42 USC 11001 *et seq.*, as amended. This list must be updated whenever any other chemical to be delivered is hazardous.

Chemical (if none, enter 'None')	Identification Number
none	

(b) **Mercury Content**. Under MCL 18.1261d, the Contractor must offer mercury-free products whenever possible. The Contractor must explain if it intends to provide products containing mercury and whether cost competitive alternatives exist. If cost competitive alternatives do not exist, the Contractor must disclose the amount or concentration of mercury and justification as to why this particular product is essential. All products containing mercury must be labeled as containing mercury.

The Contractor products do not contain Mercury, to the best of their knowledge.

(c) **Brominated Flame Retardants**. The State prefers to purchase products that do not contain brominated flame retardants (BFRs) whenever possible. The Contractor must disclose whether the products contain BFRs.

The Contractor products does not contain any BFRs

(d) **Environmental Permits and Requirements**. The Contractor must disclose whether any of its facilities are in violation of any environmental laws. The Contractor must immediately notify DTMB-Procurement of the receipt of any EPA, State, or local agency communication indicating that any of the Contractor's facilities are in violation of applicable environmental laws.

Currently, the Contractor is not in any violations of environmental laws.

1.7 Extended Purchasing

1.7.1 MiDEAL

The Management and Budget Act, MCL 18.1263, permits the State to provide purchasing services to any city, village, county, township, school district, intermediate school district, non-profit hospital, institution of higher education, or community or junior college (MiDEAL Members). A current listing of approved MiDEAL Members is available at: www.michigan.gov/mideal.

1.7.2 State Employee Purchases -Deleted, Not Applicable

Article 2 – Terms and Conditions

2.1 Contract Term

2.1.1 Contract Term

The Contract term begins December 7, 2012 and expires December 6 2014. All outstanding Purchase Orders will expire upon the termination of the Contract for any of the reasons listed in Section 2.16, Termination by the State, unless otherwise agreed to in writing by DTMB-Procurement. Absent an early termination, Purchase Orders issued, but not expired, by the end of the Contract's term will remain in effect until the next December 6th.

2.1.2 Options to Renew

This Contract may be renewed for up to one (1) additional year. Renewal must be by mutual written agreement of the parties, not less than 30 days before expiration of the Contract.

2.2 Payments and Taxes

2.2.1 Fixed Prices for Deliverable(s)

Prices are fixed for all Deliverable(s) and for all of the associated payment milestones and amounts.

2.2.2 Payment Deadlines

Undisputed invoices will be due and payable by the State, in accordance with the State's standard payment procedure as specified in 1984 PA 279, MCL 17.51 *et seq.*, within 45 days after receipt.

2.2.3 Invoicing and Payment – In General -Deleted, Not Applicable

2.2.4 Pro-ration [Deleted, Not Applicable]

2.2.5 Final Payment and Waivers

The Contractor's acceptance of final payment by the State constitutes a waiver of all claims by the Contractor against the State for payment under this Contract, other than those claims previously filed in writing on a timely basis and still disputed. For other claims, final payment by the State will not constitute a waiver by either party of any rights as to the other party's continuing obligations, nor will it constitute a waiver of any claims under this Contract, including claims for Deliverable(s) not reasonably known to be defective or substandard.

2.2.6 Electronic Payment Requirement

As required by MCL 18.1283a, the Contractor must electronically register with the State at http://www.michigan.gov/cpexpress to receive electronic fund transfer (EFT) payments.

2.2.7 Employment Taxes

The Contractor must collect and pay all applicable federal, state, and local employment taxes.

2.2.8 Sales and Use Taxes

The Contractor must register and remit sales and use taxes on taxable sales of tangible personal property or services delivered into the State. If the Contractor lacks sufficient presence in Michigan to be required to register and pay taxes, it must do so on a voluntary basis. The requirement to register and remit sales and use taxes extends to (a) all members of a "controlled group of corporations" as defined in § 1563(a) of the Internal Revenue Code, 26 USC 1563(a), and applicable regulations; and (b) all organizations under common control that make sales at retail for delivery into the State. Any United States Department of Treasury regulation that references "two or more trades or businesses under common control" includes organizations such as sole proprietorships, partnerships (as defined in § 7701(a)(2) of the Internal Revenue Code, 26 USC 7701(a)(2)), trusts, estates, corporations, or limited liability companies.

2.3 Contract Administration

2.3.1 Issuing Office

This Contract is issued by DTMB-Procurement on behalf of Michigan Department of Transportation, Office of Passenger Transportation (State). **DTMB-Procurement is the only entity authorized to modify the terms and conditions of this Contract, including the prices and specifications.** The Contract Administrator within DTMB-Procurement for this Contract is:

Klatra Pickett
Procurement
Department of Technology, Management and Budget
Mason Bldg, 2nd Floor
PO Box 30026
Lansing, MI 48909
pickettk@michigan.gov
517-373-7374

2.3.2 Contract Compliance Inspector

The Contract Compliance Inspector, named below, will monitor and coordinate Contract activities on a day-to-day basis. However, monitoring of this Contract implies **no authority to modify the terms and conditions of this Contract, including the prices and specifications.**

Amy Nobach, Vehicle Procurement Analyst
Office of Passenger Transportation
Michigan Department of Transportation
425 West Ottawa Street
Lansing, MI 48909
NobachA@michigan.gov
PH: (517) 335-3282
Fax: (517) 373-7997

2.3.3 Project Manager

The Project Manager, named below, will oversee the project. However, management of the project implies **no authority to modify the terms and conditions of this Contract, including the prices and specifications.**

Angel Fandialan, Manager
Office of Passenger Transportation
Michigan Department of Transportation
425 West Ottawa Street
Lansing, MI 48909
FANDIALANA@michigan.gov
PH: (517) 335-2577
Fax: (517) 373-7997

2.3.4 Contract Changes

(a) If the State requests or directs the Contractor to provide any Deliverable(s) that the Contractor believes are outside the scope of the Contractor's responsibilities under the Contract, the Contractor must notify the State before performing the requested activities. If the Contractor fails to notify the State, any activities performed will not be considered in-scope and will not be entitled to additional compensation or time. If the Contractor begins work outside the scope of the Contract and then ceases performing that work, the Contractor must, at the request of the State, retract any out-of-scope work that would adversely affect the Contract.

(b) The State or the Contractor may propose changes to the Contract. If the Contractor or the State requests a change to the Deliverable(s) or if the State requests additional Deliverable(s), the Contractor must

provide a detailed outline of all work to be done, including tasks, timeframes, listing of key personnel assigned, estimated hours for each individual per Deliverable, and a complete and detailed cost justification. If the parties agree on the proposed change, DTMB-Procurement will prepare and issue a notice that describes the change, its effects on the Deliverable(s), and any affected components of the Contract (Contract Change Notice).

(c) No proposed change may be performed until DTMB-Procurement issues a duly executed Contract Change Notice for the proposed change.

2.3.5 Price Changes

Prices are the maximum to be charged for the Contract period with the following exceptions. The State, MiDeal members and authorized public transit agencies, shall receive the benefit of any decreases in the cost incurred by the Contractor. If changes in the chassis manufacturers OEM standard equipment affect the cost of the buses required during the Contract period by more than one hundred dollars ($100.00), the Contractor may request a price revision to reflect the actual cost experienced. The request for a cost increase must be accompanied by evidence from the chassis manufacturer that a change actually affected the Contractor's cost. Additionally, it shall be the Contractor's responsibility to inform DTMB-Procurement in notify of its qualification for price reductions.

If changes in federal regulations affect the cost of the buses required during the Contract period by more than one hundred dollars ($100.00), the Contractor may request a price revision to reflect the actual cost increase experienced. The request must accompanied by evidence that the change actually affected the Contractor's cost.

Requests for price changes shall be received in writing at least 30 days prior to their effective date, and are subject to written acceptance before becoming effective. In the event new prices are not acceptable, the Contract may be canceled. The continued payment of any charges due after September 30th of any fiscal year will be subject to the availability of an appropriation for this purpose.

Per Federal Transit Administration (FTA) requirements, a cost or price analysis is required for all price changes.

2.3.6 Notices

All notices and other communications required or permitted under this Contract must be in writing and will be considered given when delivered personally, by fax (if provided) or by e-mail (if provided), or by registered mail, return receipt requested, addressed as follows (or any other address that is specified in writing by either party):

If to State:

State of Michigan
DTMB-Procurement
Attention:Klatra Pickett
PO Box 30026
530 West Allegan
Lansing, MI 48909
pickettk@michigan.gov
517-335-0046

If to Contractor:
Hoekstra Transportation
3741 Roger B Chaffee Blvd – Grand Rapids, MI 49548
SBolin@HoekstraTruck.com
616-245-7726

Delivery by a nationally recognized overnight express courier will be treated as personal delivery.

2.3.7 Covenant of Good Faith

Each party must act reasonably and in good faith. Unless otherwise provided in this Contract, the parties will not unreasonably delay, condition or withhold their consent, decision, or approval any time it is requested or reasonably required in order for the other party to perform its responsibilities under the Contract.

2.3.8 Assignments

(a) Neither party may assign this Contract, or assign or delegate any of its duties or obligations under the Contract, to another party (whether by operation of law or otherwise), without the prior approval of the other party. The State may, however, assign this Contract to any other State agency, department, or division without the prior approval of the Contractor.

(b) If the Contractor intends to assign this Contract or any of the Contractor's rights or duties under the Contract, the Contractor must notify the State and provide adequate information about the assignee at least 90 days before the proposed assignment or as otherwise provided by law or court order. The State may withhold approval from proposed assignments, subcontracts, or novations if the State determines, in its sole discretion, that the transfer of responsibility would decrease the State's likelihood of receiving performance on the Contract or the State's ability to recover damages.

(c) If the State permits an assignment of the Contractor's right to receive payments, the Contractor is not relieved of its responsibility to perform any of its contractual duties. All payments must continue to be made to one entity.

2.3.9 Equipment

The State will not provide equipment and resources unless specifically identified in the Statement(s) of Work or other Contract exhibits.

2.3.10 Facilities [Deleted, Not Applicable]

2.3.11 Equipment Installation

Reference Section 1.2.2 Deliverables

2.4 Contract Management

2.4.1 Contractor Personnel Qualifications

All persons assigned by the Contractor to perform work must be employees of the Contractor or its majority-owned subsidiaries, or a State-approved Subcontractor, and must be fully qualified to perform the work assigned to them. The Contractor must include this requirement in any subcontract.

2.4.2 Contractor Key Personnel

(a) The Contractor must provide the Contract Compliance Inspector with the names of Key Personnel. To include: Sales, Warranty, Office Administration, Customer Service and Vehicle Maintenance and Repair

(b) The Contractor must dedicate Key Personnel to perform work for the duration of the Contract as provided in Section 1.3.3, Staff, Duties, and Responsibilities.

(c) Before assigning a new individual to any Key Personnel position, the Contractor must notify the State of the proposed assignment, introduce the individual to the appropriate State representatives, and provide the State with a resume and any other reasonably requested information. The State must approve or disapprove the assignment, reassignment, or replacement of any Key Personnel. The State may interview the individual before making its decision. If the State disapproves an individual, the State will provide a written explanation outlining the reasons for the rejection.

(d) The Contractor may not remove any Key Personnel from their assigned roles without the prior consent of the State. The Contractor's removal of Key Personnel without the prior consent of the State constitutes Unauthorized Removal. Unauthorized Removal does not include replacing Key Personnel for reasons beyond the Contractor's reasonable control, including illness, disability, death, leave of absence, personal emergency circumstances, resignation, or termination for cause. Unauthorized Removal does not include replacing Key Personnel because of promotions or other job movements allowed by the Contractor's personnel policies or

Collective Bargaining Agreement(s), as long as the Contractor assigns the proposed replacement to train the outgoing Key Personnel for 30 days. Any Unauthorized Removal will be considered a material breach of the Contract.

(e) The Contractor must notify the Contract Compliance Inspector and the Contract Administrator at least 10 Days before redeploying non-Key Personnel to other projects.

2.4.3 Removal or Reassignment of Personnel at the State's Request

The State may require the Contractor to remove or reassign personnel if the State has legitimate, good-faith reasons articulated in a notice to the Contractor. Replacement personnel must be fully qualified for the position. If the State exercises this right, and the Contractor cannot immediately replace the removed personnel, the State agrees to an equitable adjustment in schedule or other terms that may be affected.

2.4.4 Contractor Personnel Location

Subject to availability, the State may allow selected Contractor personnel to use State office space.

2.4.5 Contractor Identification

The Contractor's employees must be clearly identifiable while on State property by wearing a State-issued badge, and must clearly identify themselves and the company they work for whenever making contact with State personnel by telephone or other means.

2.4.6 Cooperation with Third Parties

The Contractor and its Subcontractors must cooperate with the State and its agents and other contractors, including the State's quality assurance personnel. The Contractor must provide reasonable access to its personnel, systems, and facilities related to the Contract to the extent that access will not interfere with or jeopardize the safety or operation of the systems or facilities.

2.4.7 Relationship of the Parties

The relationship between the State and Contractor is that of client and independent contractor. No agent, employee, or servant of the Contractor, or any of its subcontractors, is an employee, agent or servant of the State. The Contractor will be solely and entirely responsible for its acts and the acts of its agents, employees, servants, and subcontractors during the performance of the Contract.

2.4.8 Contractor Return of State Equipment/Resources

The Contractor must return to the State any State-furnished equipment, facilities and other resources when no longer required for the Contract in the same condition as when provided by the State, reasonable wear and tear excepted.

2.4.9 Background Checks

The State may investigate the Contractor's personnel before granting access to State facilities and systems. The scope of the background check is at the discretion of the State and the results will be used to determine eligibility for working within State facilities and systems. The investigations will include a Michigan State Police background check (ICHAT) and may include a Criminal Justice Information Services (CJIS) fingerprint check. Proposed Contractor personnel may be required to complete and submit an RI-8 Fingerprint Card for the CJIS fingerprint check.

2.4.10 Compliance With State Policies

All Contractor personnel must comply with the State's security and acceptable use policies for State IT equipment and resources, available at http://www.michigan.gov/pcpolicy. Contractor personnel must agree to the State's security and acceptable use policies before the State grants access to its IT equipment and resources. The Contractor must provide these policies to prospective personnel before requesting access from the State. Contractor personnel must comply with all physical security procedures in State facilities.

2.5 Subcontracting by Contractor

2.5.1 Contractor Responsible

The Contractor is responsible for the completion of all Deliverable(s). The State will consider the Contractor to be the sole point of contact with regard to all contractual matters, including payment of any charges for Deliverable(s). The Contractor must make all payments to its Subcontractors or suppliers. Except as otherwise agreed in writing, the State is not obligated to make payments for the Deliverable(s) to any party other than the Contractor.

2.5.2 State Approval of Subcontractor

(a) The Contractor may not delegate any duties under this Contract to a Subcontractor unless DTMB-Procurement gives prior approval to the delegation. The State is entitled to receive copies of and review all subcontracts. The Contractor may delete or redact any proprietary information before providing it to the State.

(b) The State may require the Contractor to terminate and replace any Subcontractor the State reasonably finds unacceptable. The required replacement of a Subcontractor must be written and contain reasonable detail outlining the State's reasons. If the State exercises this right, and the Contractor cannot immediately replace the Subcontractor, the State will agree to an equitable adjustment in the schedule or other terms that may be affected by the State's required replacement. If this requirement results in a delay, the delay will not be counted against any applicable Service Level Agreement (SLA).

2.5.3 Subcontract Requirements

Except where specifically approved by the State, Contractor must include the obligations in Sections 2.24.2, Media Releases, 2.4, Contract Management, 2.11, Confidentiality, 2.12, Records and Inspections, 2.13, Warranties, 2.14, Insurance, and 2.23, Laws, in all of its agreements with Subcontractors.

2.5.4 Competitive Selection

Contractor must select Subcontractors (including suppliers) on a competitive basis to the maximum practical extent consistent with the objectives and requirements of this Contract.

2.6 Reserved

2.7 Performance

2.7.1 Time of Performance

(a) The Contractor must immediately notify the State upon becoming aware of any circumstances that may reasonably be expected to jeopardize the completion of any Deliverable(s) by the scheduled due dates in the latest State-approved delivery schedule and must inform the State of the projected actual delivery date.

(b) If the Contractor believes that a delay in performance by the State has caused or will cause the Contractor to be unable to perform its obligations according to specified Contract time periods, the Contractor must immediately notify the State and, to the extent practicable, continue to perform its obligations according to the Contract time periods. The Contractor will not be in default for a delay in performance to the extent the delay is caused by the State.

2.7.2 Service Level Agreements

The Contractor acknowledges that late or improper completion of the Deliverable(s) will cause loss and damage to the State, MiDeal members and authorized public transit agencies. and that it would be impracticable and extremely difficult to determine the actual damage sustained by the State, MiDeal members and authorized public transit agencies as a result. If there is late or improper completion of the Deliverable(s), the State, MiDeal members and authorized public transit agencies are entitled to collect service level agreement credits in the amount of $1/10^{th}$ of 1% of the Purchase Order for each day the Contractor fails to remedy the late or improper completion of the Deliverable(s). In the event the State terminates the Contract under Section 2.16, Termination by, the State, MiDeal members, and authorized public transit agencies will be entitled to collect service level agreement credits until the date of termination. These amounts are not intended to be a penalty.

2.7.3 Liquidated Damages – Deleted, Not Applicble

2.7.4 Excusable Failure

Neither party will be liable for any default, damage or delay in the performance of its obligations that is caused by government regulations or requirements, power failure, electrical surges or current fluctuations, war, forces of nature or acts of God, delays or failures of transportation, equipment shortages, suppliers' failures, acts or omissions of common carriers, fire, riots, civil disorders, labor disputes, embargoes, injunctions (provided the injunction was not issued as a result of any fault or negligence of the party seeking to have its default or delay excused), or any other cause beyond the reasonable control of a party; provided the non-performing party and any Subcontractors are without fault in causing the default or delay, and the default or delay could not have been prevented by reasonable precautions and cannot reasonably be circumvented by the non-performing party through the use of alternate sources, workaround plans, or other means, including disaster recovery plans.

If a party does not perform its contractual obligations for any of the reasons listed, the non-performing party will be excused from any further performance of its affected obligation(s) for as long as the circumstances prevail. The non-performing party must promptly notify the other party immediately after the excusable failure occurs, and when it abates or ends. Both parties must use commercially reasonable efforts to resume performance.

If any of the reasons listed substantially prevent, hinder, or delay the Contractor's performance of the Deliverable(s) for more than 10 Days, and the State reasonably determines that performance is not likely to be resumed within a period of time that is satisfactory to the State, the State may: (a) procure the affected Deliverable(s) from an alternate source without liability for payment so long as the delay in performance continues; or (b) terminate any portion of the Contract so affected and equitably adjust charges payable to the Contractor to reflect those Deliverable(s) that are terminated. The State must pay for all Deliverable(s) for which Final Acceptance has been granted before the termination date.

The Contractor will not have the right to any additional payments from the State as a result of any Excusable Failure or to payments for Deliverable(s) not provided as a result of the Excusable Failure. The Contractor will not be relieved of a default or delay caused by acts or omissions of its Subcontractors except to the extent that a Subcontractor experiences an Excusable Failure and the Contractor cannot reasonably circumvent the effect of the Subcontractor's default or delay in performance through the use of alternate sources, workaround plans, or other means, including disaster recovery plans.

2.8 Acceptance of Deliverable(s)

2.8.1 Quality Assurance

By tendering any Deliverable to the State, the Contractor certifies to the State that (a) it has performed reasonable quality assurance activities; (b) it has performed any reasonable testing; and (c) it has corrected all material deficiencies discovered during the quality assurance activities and testing. To the extent that testing occurs at State Locations, the State is entitled to observe and otherwise participate in the testing.

2.8.2 Delivery Responsibilities

Unless otherwise specified by the State, MiDeal members, and authorized public transit agencies, in Section 1.4.5, Delivery Term, the following are applicable to all deliveries:

(a) The Contractor is responsible for delivering the Deliverable(s) by the applicable delivery date to the location(s) specified in individual Purchase Order.

(b) The Contractor must ship the Deliverable(s) "F.O.B. Destination, within Government Premises."

2.8.3 Process for Acceptance of Deliverable(s)

The State will notify the Contractor by the end of the State Review Period that either:

(a) the Deliverable is accepted in the form delivered by the Contractor;

(b) the Deliverable is accepted, but noted deficiencies must be corrected; or

(c) the Deliverable is rejected along with notation of any deficiencies that must be corrected before acceptance of the Deliverable.

If the State delivers to the Contractor a notice of deficiencies, the Contractor will correct the described deficiencies and within 30 Days resubmit the Deliverable(s) with an explanation that demonstrates all corrections have been made to the original Deliverable(s). The Contractor's correction efforts will be made at no additional charge. Upon receipt of a corrected Deliverable from the Contractor, the State will have a reasonable additional period of time, not to exceed 30 Days, to accept the corrected Deliverable.

2.8.4 Acceptance of Deliverable(s)

(a) The State's obligation to comply with any State Review Period is conditioned on the timely delivery of the Deliverable(s). The State Review Period will begin on the first Business Day following the State's receipt of the Deliverable(s).

(b) The State may inspect the Deliverable to confirm that all components have been delivered without material deficiencies. If the State determines that the Deliverable or one of its components has material deficiencies, the State may reject the Deliverable without performing any further inspection or testing.

(c) The State will only approve a Deliverable after confirming that it conforms to and performs according to its specifications without material deficiency. The State may, in its discretion, conditionally approve a Deliverable that contains material deficiencies if the State elects to permit the Contractor to correct those deficiencies post-approval. The Contractor remains responsible for working diligently to correct, within a reasonable time at the Contractor's expense, all deficiencies in the Deliverable that remain outstanding at the time of State approval.

(d) If, after three opportunities the Contractor is unable to correct all deficiencies, the State may: (i) demand that the Contractor cure the failure and give the Contractor additional time to do so at the sole expense of the Contractor; (ii) keep the Contract in force and perform, either itself or through other parties, whatever the Contractor has failed to do, and recover the difference between the cost to cure the deficiency and the Contract price plus an additional amount equal to 10% of the State's cost to cure the deficiency; or (iii) fully or partially terminate the Contract for default by giving notice to the Contractor. Notwithstanding the foregoing, the State cannot use, as a basis for exercising its termination rights under this Section, deficiencies discovered in a repeat State Review Period that could reasonably have been discovered during a prior State Review Period.

(e) The State, at any time and in its reasonable discretion, may reject the Deliverable without notation of all deficiencies if the acceptance process reveals deficiencies in a sufficient quantity or of a sufficient severity that renders continuing the process unproductive or unworkable.

2.8.5 Process for Approval of Written Deliverable(s) - Deleted, Not Applicable

2.8.6 Process for Approval of Services - Deleted, Not Applicable

2.8.7 Final Acceptance

The State, MiDeal members and authorized public transit agencies have the right to refuse bus delivery when the conditions listed within section 1.4.6, 1.4.7 and Section 2.8.4.

2.9 Ownership - Deleted, Not Applicable

2.10 State Standards -Deleted, Not Applicable

2.11 Confidentiality

2.11.1 Confidential Information

As used in this Section, "Confidential Information" means all information of the parties, except information that is:

(a) disclosable under the Michigan Freedom Of Information Act (FOIA);

(b) now available or becomes available to the public without breach of this Contract;

(c) released in writing by the disclosing party;

(d) obtained from a third party or parties having no obligation of confidentiality with respect to such information;

(e) publicly disclosed pursuant to federal or state law; or

(f) independently developed by the receiving party without reference to Confidential Information of the furnishing party.

2.11.2 Protection and Destruction of Confidential Information

(a) Each party must use the same care to prevent unauthorized disclosure of Confidential Information as it uses to prevent disclosure of its own information of a similar nature, but in no event less than a reasonable degree of care. Neither the Contractor nor the State will: (i) make any use of the Confidential Information of the other except as contemplated by this Contract; (ii) acquire any interest or license in or assert any lien against the Confidential Information of the other; or (iii) if requested to do so, refuse for any reason to promptly return the other party's Confidential Information.

(b) Each party will limit disclosure of the other party's Confidential Information to employees, agents, and Subcontractors who must have access to fulfill the purposes of this Contract. Disclosure to, and use by, a Subcontractor is permissible where: (i) use of a Subcontractor is authorized under this Contract; (ii) the disclosure is necessary or otherwise naturally occurs in connection with work that is within the Subcontractor's scope of responsibility; and (iii) Contractor obligates the Subcontractor in a written contract to maintain the State's Confidential Information in confidence. At the State's request, any employee of Contractor and of any Subcontractor having access to the State's Confidential Information may be required to execute a separate agreement to be bound by the confidentiality requirements of this Section.

(c) Upon termination of the Contract, Contractor must promptly return the State's Confidential Information or certify to the State that Contractor has destroyed all of the State's Confidential Information.

2.11.3 Exclusions

The provisions of Section 2.11, Confidentiality, will not apply where the receiving party is required by law to disclose the other party's Confidential Information, provided that the receiving party: (i) promptly provides the furnishing party with notice of the legal request; and (ii) assists the furnishing party in resisting or limiting the scope of the disclosure as reasonably requested by the furnishing party.

2.11.4 No Obligation to Disclose

Nothing contained in Section 2.11, Confidentiality, will be construed as obligating a party to disclose any particular Confidential Information to the other party.

2.11.5 Security Breach Notification

If Contractor breaches this Section, it must (i) promptly cure any deficiencies in Contractor's internal security controls; and (ii) comply with any applicable federal and state laws and regulations pertaining to unauthorized disclosures. Contractor and the State will cooperate to mitigate, to the extent practicable, the effects of any breach, intrusion, or unauthorized access, use, or disclosure. Contractor must notify the State of any unauthorized use or disclosure of Confidential Information, whether suspected or actual, within 10 days of becoming aware of the use or disclosure or a shorter time period as is reasonable under the circumstances. The State may require Contractor to purchase credit monitoring services for any individuals affected by the breach.

2.12 Records and Inspections

2.12.1 Inspection of Work Performed

The State's authorized representatives, at reasonable times and with 10 days prior notice, have the right to enter the Contractor's premises or any other places where work is being performed in relation to this Contract. The representatives may inspect, monitor, or evaluate the work being performed, to the extent the access will not reasonably interfere with or jeopardize the safety or operation of Contractor's systems or facilities. The Contractor must provide reasonable assistance for the State's representatives during inspections.

In the event goods are defective in material or workmanship, or otherwise fail to meet the requirements of the Contract, the State shall have the right to reject goods or retain the goods and correct the defects. The Contractor shall pay the State, MiDeal members and authorized public transit agencies for expenses incurred in correcting defects. Rejected goods will be held for 45 days after delivery. The Contractor must arrange for the return of said goods, including paying for handling, packing, and transportation costs. The State, MiDeal members and authorized public transit agencies have the authority to dispose of goods without further liability to the State, MiDeal members and authorized public transit agencies in the event the Contractor fails to make arrangements within the specified time period.

The State’s authorized representatives must at all reasonable times and with ten (10) days prior written request, have the right to enter Contractor’s premises, or any other places, where the Services are being performed, and must have access, upon reasonable request, to interim drafts of Deliverables or work-in-progress. Upon ten (10) days prior written notice and at all reasonable times, the State’s representatives must be allowed to inspect, monitor, or otherwise evaluate the work being performed and to the extent that the access will not reasonably interfere or jeopardize the safety or operation of the systems or facilities. The Contractor must provide all reasonable facilities and assistance for the State’s representatives.

2.12.2 Retention of Records

(a) The Contractor must retain all financial and accounting records related to this Contract for a period of seven years after the Contractor performs any work under this Contract (Audit Period).

(b) If an audit, litigation, or other action involving the Contractor's records is initiated before the end of the Audit Period, the Contractor must retain the records until all issues arising out of the audit, litigation, or other action are resolved or until the end of the Audit Period, whichever is later.

2.12.3 Examination of Records

The State, upon 10 days notice to the Contractor, may examine and copy any of the Contractor's records that relate to this Contract. The State does not have the right to review any information deemed confidential by the Contractor if access would require the information to become publicly available. This requirement also applies to the records of any parent, affiliate, or subsidiary organization of the Contractor, or any Subcontractor that performs services in connection with this Contract.

All Contractors will be subject to the Federal Transportation Administration's (FTA) 49 DFR Part 663 for Pre-Award and Post Delivery Audits of Rolling Stock Purchases. Prior to final award recommendation of a contract, the Michigan Department of Transportation, Office of Passenger Transportation, will conduct a pre-award audit of the Contractor that is being considered to verify that the Contractor has successfully met all of the following requirements (Attachment A):

1. Federal Motor Vehicle Safety Requirements
2. Federal Buy America Requirements, and
3. Grantee's Bid Specifications. Post-Delivery Audits shall include a "Road Test" of each unit.

2.12.4 Audit Resolution

If necessary, the Contractor and the State will meet to review any audit report promptly after its issuance. The Contractor must respond to each report in writing within 30 days after receiving the report, unless the report specifies a shorter response time. The Contractor and the State must develop, agree upon, and monitor an action plan to promptly address and resolve any deficiencies, concerns, or recommendations in the report.

2.12.5 Errors

(a) If an audit reveals any financial errors in the records provided to the State, the amount in error must be reflected as a credit or debit on the next invoice and subsequent invoices until the amount is paid or refunded in full. However, a credit or debit may not be carried forward for more than four invoices or beyond the termination of the Contract. If a balance remains after four invoices, the remaining amount will be due as a payment or refund within 45 days of the last invoice on which the balance appeared or upon termination of the Contract, whichever is earlier.

(b) In addition to other available remedies, if the difference between the State's actual payment and the correct invoice amount, as determined by an audit, is greater than 10%, the Contractor must pay all reasonable audit costs.

2.13 Warranties

2.13.1 Warranties and Representations

The Contractor represents and warrants:

(a) It is capable of fulfilling and will fulfill all of its obligations under this Contract. The performance of all obligations under this Contract must be provided in a timely, professional, and workmanlike manner and must meet the performance and operational standards required under this Contract.

(b) The Contract appendices, attachments, and exhibits identify the equipment, software, and services necessary for the Deliverable(s) to comply with the Contract's requirements.

(c) It is the lawful owner or licensee of any Deliverable licensed or sold to the State by Contractor or developed by the Contractor for this Contract, and Contractor has all of the rights necessary to convey to the State the ownership rights or licensed use, as applicable, of any Deliverable(s). None of the Deliverable(s) provided by Contractor to the State, nor their use by the State, will infringe the patent, trademark, copyright, trade secret, or other proprietary rights of any third party.

(d) If the Contractor procures any equipment, software, or other Deliverable(s) for the State (including equipment, software, and other Deliverable(s) manufactured, re-marketed or otherwise sold by the Contractor or under the Contractor's name), then the Contractor must assign or otherwise transfer to the State or its designees, or afford the State the benefits of, any manufacturer's warranty for the Deliverable(s).

(e) The Contract signatory has the authority to enter into this Contract on behalf of the Contractor.

(f) It is qualified and registered to transact business in all locations where required.

(g) Neither the Contractor nor any affiliates, nor any employee of either, has, will have, or will acquire, any interest that would conflict in any manner with the Contractor's performance of its duties and responsibilities to the State or otherwise create an appearance of impropriety with respect to the award or performance of this Contract. The Contractor must notify the State about the nature of any conflict or appearance of impropriety within two days of learning about it.

(h) Neither the Contractor nor any affiliates, nor any employee of either, has accepted or will accept anything of value based on an understanding that the actions of the Contractor, its affiliates, or its employees on behalf of the State would be influenced. The Contractor must not attempt to influence any State employee by the direct or indirect offer of anything of value.

(i) Neither the Contractor nor any affiliates, nor any employee of either, has paid or agreed to pay any person, other than bona fide employees and consultants working solely for the Contractor or the affiliate, any fee, commission, percentage, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award or making of this Contract.

(j) The Contractor arrived at its proposed prices independently, without communication or agreement with any other bidder for the purpose of restricting competition. The Contractor did not knowingly disclose its quoted prices for this Contract to any other bidder before the award of the Contract. The Contractor made no attempt to induce any other person or entity to submit or not submit a proposal for the purpose of restricting competition.

(k) All financial statements, reports, and other information furnished by the Contractor to the State in connection with the award of this Contract fairly and accurately represent the Contractor's business, properties, financial condition, and results of operations as of the respective dates covered by the financial statements, reports, or other information. There has been no material adverse change in the Contractor's business, properties, financial condition, or results of operation.

(l) All written information furnished to the State by or for the Contractor in connection with the award of this Contract is true, accurate, and complete, and contains no false statement of material fact nor omits any material fact that would make the submitted information misleading.

(m) It will immediately notify DTMB-Procurement if any of the certifications, representations, or disclosures made in the Contractor's original bid response change after the Contract is awarded.

2.13.2 Warranty of Merchantability

The Deliverable(s) provided by the Contractor must be merchantable.

2.13.3 Warranty of Fitness for a Particular Purpose

The Deliverable(s) provided by the Contractor must be fit for the purpose(s) identified in this Contract.

2.13.4 Warranty of Title

The Contractor must convey good title to any Deliverable(s) provided to the State. All Deliverable(s) provided by the Contractor must be delivered free from any security interest, lien, or encumbrance of which the State, at the time of contracting, has no knowledge. Deliverable(s) provided by the Contractor must be delivered free of any rightful claim of infringement by any third person.

2.13.5 Equipment Warranty

To the extent Contractor is responsible under this Contract for maintaining equipment/system(s), Contractor represents and warrants that it will maintain the equipment/system(s) in good operating condition and will undertake all repairs and preventive maintenance according to the applicable manufacturer's recommendations for the period specified in this Contract.

A. Principle Period of Maintenance (PPM) will be the same hours as the State's normal working hours (currently Monday through Friday, 8:00 A.M. to 4:00 P.M., excluding a one (1) hour lunch period, excepting State observed holidays).

B. The PPM hours may be changed upon thirty (30) days written notice by mutual agreement, except the Contractor shall make every reasonable effort to change his/her schedule in a shorter period of time.

The Contractor represents and warrants that the equipment/system(s) are in good operating condition and operate and perform to the requirements and other standards of performance contained in the Contract when installed at the time of Final Acceptance by the Michigan Department of Transportation Office of Passenger Transportation, MiDeal members and authorized public transit agencies for a period of one year commencing upon the first day following Final Acceptance.

Within five (5) business days of notification from the Michigan Department of Transportation, Office of Passenger Transportation, MiDeal members and authorized public transit agencies the Contractor must adjust, repair or replace all equipment that is defective or not performing in compliance with the Contract. The Contractor must assume all costs for replacing parts or units and their installation including transportation and delivery fees, if any.

The Contractor must provide a toll-free telephone number to allow the Michigan Department of Transportation (MDOT), Office of Passenger Transportation, MiDeal members and authorized public transit agencies to report equipment failures and problems to be remedied by the Contractor.

The Contractor agrees that all warranty service it provides under this Contract must be performed by Original Equipment Manufacturer (OEM) trained, certified and authorized technicians.

The Contractor is the sole point of contact for warranty service. The Contractor warrants that it will pass through to the Michigan Department of Transportation (MDOT), Office of Passenger Transportation, MiDeal members, and authorized public transit agencies any warranties obtained or available from the original equipment manufacturer, including any replacement, upgraded, or additional equipment warranties.

All warranty work must be performed at a mutually agreed upon location between the contractor and the State, MiDeal members and authorized public transit agencies.

2.13.6 New Deliverable(s)

The Contractor must provide new Deliverable(s) where the Contractor knows or has the ability to select between new or like-new Unless specified in Article 1, Statement of Work, equipment that is assembled from new or serviceable used parts that are like new in performance is acceptable only where the Contractor does not have knowledge or the ability to select one or the other.

2.13.7 Prohibited Products

Shipping of salvage, distressed, outdated, or discontinued goods to any State agency will be considered a material default by the Contractor. The brand and product number offered for all items will remain consistent for the term of the Contract, unless DTMB-Procurement has approved a change order under Section 2.3.4, Contract Changes.

2.13.8 Consequences For Breach

In addition to any remedies available in law, if the Contractor breaches any of the warranties contained in Section 2.13, Warranties, the breach may be considered a material default.

2.14 Insurance

2.14.1 Liability Insurance

For the purpose of this Section, "State" includes its departments, divisions, agencies, offices, commissions, officers, employees, and agents.

(a) The following apply to all insurance requirements:

(i) The State, in its sole discretion, may approve the use of a fully-funded self-insurance program in place of any specified insurance identified in this Section.

(ii) Where specific coverage limits are listed in this Section, they represent the minimum acceptable limits. If the Contractor's policy contains higher limits, the State is entitled to coverage to the extent of the higher limits. The minimum limits of coverage specified are not intended, and may not be construed to limit any liability or indemnity of the Contractor to any indemnified party or other persons.

(iii) If the Contractor fails to pay any premium for a required insurance policy, or if any insurer cancels or significantly reduces any required insurance without the State's approval, the State may, after giving the Contractor at least 30 days notice, pay the premium or procure similar insurance coverage from another company or companies. The State may deduct any part of the cost from any payment due the Contractor, or require the Contractor to pay that cost upon demand.

(iv) In the event the State approves the representation of the State by the insurer's attorney, the attorney may be required to be designated as a Special Assistant Attorney General by the Michigan Attorney General.

(b) The Contractor must:

(i) provide proof that it has obtained the minimum levels of insurance coverage indicated or required by law, whichever is greater. The insurance must protect the State from claims that are alleged or may arise or result from the Contractor's or a Subcontractor's performance, including any person directly or indirectly employed by the Contractor or a Subcontractor, or any person for whose acts the Contractor or a Subcontractor may be liable.

(ii) waive all rights against the State for the recovery of damages that are covered by the insurance policies the Contractor is required to maintain under this Section. The Contractor's failure to obtain and maintain the required insurance will not limit this waiver.

(iii) ensure that all insurance coverage provided relative to this Contract is primary and non-contributing to any comparable liability insurance (including self-insurance) carried by the State.

(iv) obtain insurance, unless the State approves otherwise, from any insurer that has an A.M. Best rating of "A" or better and a financial size of VII or better, or if those ratings are not available, a comparable rating from an insurance rating agency approved by the State. All policies of insurance must be issued by companies that have been approved to do business in the State.

(v) maintain all required insurance coverage throughout the term of this Contract and any extensions. However, in the case of claims-made Commercial General Liability policies, the Contractor must secure tail coverage for at least three years following the termination of this Contract.

(vi) pay all deductibles.

(vii) pay for and provide the type and amount of insurance checked ☑ below:

☑ **(A) Commercial General Liability Insurance**

Minimal Limits:

$2,000,000 General Aggregate Limit other than Products/Completed Operations;
$2,000,000 Products/Completed Operations Aggregate Limit;
$1,000,000 Personal & Advertising Injury Limit; and
$1,000,000 Each Occurrence Limit.

Deductible maximum:

$50,000 Each Occurrence

Additional Requirements:

The Contractor must list the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents as additional insureds on the Commercial General Liability certificate. The Contractor also agrees to provide evidence that insurance policies contain a waiver of subrogation by the insurance company.

☐ **(B) Umbrella or Excess Liability Insurance**

Minimal Limits:

$10,000,000 General Aggregate

Additional Requirements:

Umbrella or Excess Liability limits must at least apply to the insurance required in (A), General Commercial Liability. The Contractor must list the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents as additional insureds on the certificate. The Contractor also agrees to provide evidence that insurance policies contain a waiver of subrogation by the insurance company.

☑ **(C) Motor Vehicle Insurance**

Minimal Limits:

If a motor vehicle is used in relation to the Contractor's performance, the Contractor must have vehicle liability insurance on the motor vehicle for bodily injury and property damage as required by law.

☐ **(D) Hired and Non-Owned Motor Vehicle Coverage**

Minimal Limits:

$1,000,000 Per Accident

Additional Requirements:

The Contractor must list the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents as additional insureds on the vehicle liability certificate. The Contractor must also provide evidence that insurance policies contain a waiver of subrogation by the insurance company.

☑ **(E) Workers' Compensation Insurance**

Minimal Limits:

The Contractor must provide Workers' Compensation coverage according to applicable laws governing work activities in the state of the Contractor's domicile. If the applicable coverage is provided by a self-insurer, the Contractor must provide proof of an approved self-insured authority by the jurisdiction of domicile.

For employees working outside of the state of the Contractor's domicile, the Contractor must provide certificates of insurance proving mandated coverage levels for the jurisdictions where the employees' activities occur.

Additional Requirements:

The Contractor must provide the applicable certificates of insurance and a list of states where the coverage is applicable. Contractor must provide proof that the Workers' Compensation insurance policies contain a waiver of subrogation by the insurance company, except where such a provision is prohibited or limited by the laws of the jurisdiction in which the work is to be performed.

☑ **(F) Employers Liability Insurance**

Minimal Limits:

$100,000 Each Accident;
$100,000 Each Employee by Disease
$500,000 Aggregate Disease

Additional Requirements:
The Contractor must list the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents as additional insureds on the certificate.

2.14.2 Subcontractor Insurance Coverage

Except where the State has approved a subcontract with other insurance provisions, the Contractor must require any Subcontractor to purchase and maintain the insurance coverage required in Section 2.14.1, Liability Insurance. Alternatively, the Contractor may include a Subcontractor under the Contractor's insurance on the coverage required in that Section. The failure of a Subcontractor to comply with insurance requirements does not limit the Contractor's liability or responsibility.

2.14.3 Certificates of Insurance and Other Requirements

Before the Contract is signed, and not less than 20 days before the insurance expiration date every year thereafter, the Contractor must provide evidence that the State and its agents, officers, and employees are listed as additional insureds under each commercial general liability and commercial automobile liability policy. The Contractor must provide DTMB-Procurement with all applicable certificates of insurance verifying insurance coverage or providing satisfactory evidence of self-insurance as required in Section 2.14.1, Liability Insurance. Each certificate must be on the standard "accord" form or equivalent and MUST CONTAIN THE APPLICABLE CONTRACT OR PURCHASE ORDER NUMBER. Each certificate must be prepared and submitted by the insurer and must contain a provision indicating that the coverage afforded will not be cancelled, materially changed, or not renewed without 30 days prior notice, except for 10 days for nonpayment of premium, to the Director of DTMB-Procurement. The notice to the Director of DTMB-Procurement must include the applicable Contract or Purchase Order number.

2.15 Indemnification

2.15.1 General Indemnification

The Contractor must indemnify, defend, and hold the State harmless from liability, including all claims and losses, and all related costs and expenses (including reasonable attorneys' fees and costs of investigation, litigation, settlement, judgments, interest and penalties), accruing or resulting to any person, firm, or corporation that may be injured or damaged by the Contractor in the performance of this Contract and that are attributable to the negligence or tortious acts of the Contractor, any of its subcontractors, or by anyone else for whose acts any of them may be liable.

2.15.2 Code Indemnification -Deleted, Not Applicable

2.15.3 Employee Indemnification

In any claims against the State, its departments, agencies, commissions, officers, employees, and agents, by any employee of the Contractor or any of its subcontractors, the indemnification obligation will not be limited in any way by the amount or type of damages, compensation, or benefits payable by or for the Contractor or any of its subcontractors under worker's disability compensation acts, disability benefit acts, or other employee benefit acts. This indemnification clause is intended to be comprehensive. Any overlap in provisions, or the fact that greater specificity is provided as to some categories of risk, is not intended to limit the scope of indemnification under any other provisions.

2.15.4 Patent/Copyright Infringement Indemnification

(a) The Contractor must indemnify and hold the State harmless from liability, including all claims and losses, and all related costs and expenses (including reasonable attorneys' fees and costs of investigation,

litigation, settlement, judgments, interest, and penalties) resulting from any action threatened or brought against the State to the extent that the action is based on a claim that any piece of equipment, software, commodity, or service supplied by the Contractor or its subcontractors, or its operation, use, or reproduction, infringes any United States patent, copyright, trademark or trade secret of any person or entity.

(b) If, in the State's or the Contractor's opinion, any piece of equipment, software, commodity or service supplied by the Contractor or its subcontractors, or its operation, use, or reproduction, is likely to become the subject of an infringement claim, the Contractor must, at its expense: (i) procure for the State the right to continue using the equipment, software, commodity or service or, if this option is not reasonably available to the Contractor; (ii) replace or modify to the State's satisfaction the same with equipment, software, commodity or service of equivalent function and performance so that it becomes non-infringing, or, if this option is not reasonably available to Contractor; (iii) accept its return by the State with appropriate credits to the State against the Contractor's charges and reimburse the State for any losses or costs incurred as a consequence of the State ceasing its use and returning it.

(c) Notwithstanding the foregoing, the Contractor has no obligation to indemnify or defend the State for, or to pay any costs, damages or attorneys' fees related to, any infringement claim based upon: (i) equipment, software, commodity or service developed based on written specifications of the State; (ii) use of the equipment, software, or commodity in a configuration other than implemented or approved by the Contractor, including any modification of the same by the State; or (iii) the combination, operation, or use of the equipment, software, or commodity with equipment, software, or commodities not supplied by the Contractor under this Contract.

2.15.5 Continuing Obligation

The Contractor's duty to indemnify under Section 2.15, Indemnification, continues in full force and effect, notwithstanding the expiration or early cancellation of the Contract, with respect to any claims based on facts or conditions that occurred before expiration or cancellation.

2.15.6 Indemnification Procedures

These procedures apply to all indemnity obligations:

(a) After the State receives notice of an action or proceeding involving a claim for which it will seek indemnification, the State must promptly notify the Contractor of the claim and take, or assist the Contractor in taking, any reasonable action to avoid a default judgment against the Contractor. Failure to notify the Contractor does not relieve the Contractor of its indemnification obligations except to the extent that the Contractor can prove damages attributable to the notification failure. Within 10 days following receipt of notice from the State relating to any claim, the Contractor must notify the State whether the Contractor agrees to assume control of the defense and settlement of that claim (a "Notice of Election"). After notifying the Contractor of a claim and before the State receives the Contractor's Notice of Election, the State is entitled to defend against the claim, at the Contractor's expense, and the Contractor will be responsible for any reasonable costs, including attorney fees, incurred by the State in defending against the claim during that period.

(b) If the Contractor delivers a Notice of Election relating to any claim: (i) the State is entitled to participate in the defense of the claim and to employ counsel at its own expense to assist in handling the claim and to monitor and advise the State about the status and progress of the defense; (ii) the Contractor must, at the request of the State, demonstrate the Contractor's financial ability to carry out its defense and indemnity obligations under this Contract; (iii) the Contractor must periodically advise the State about the status and progress of the defense and must obtain prior approval of the State before entering into any settlement of the claim or ceasing to defend against the claim; and (iv) to the extent that any principles of Michigan governmental or public law may be involved or challenged, the State has the right, at its own expense, to control the defense of that portion of the claim. The State may retain control of the defense and settlement of a claim by notifying the Contractor within 10 days after the State's receipt of the Contractor's information requested by the State under clause (ii) of this paragraph, if the State determines that the Contractor has failed to demonstrate to the reasonable satisfaction of the State the Contractor's financial ability to carry out its defense and indemnity obligations under this Section. Any litigation activity on behalf of the State, or any of its subdivisions under this Section, must be coordinated with the Department of Attorney General. In the event the insurer's attorney represents the State under this Section, the insurer's attorney may be required to be designated as a Special Assistant Attorney General by the Attorney General of the State of Michigan.

(c) If the Contractor does not deliver a Notice of Election relating to any claim of which it is notified, the State may defend the claim in a manner it deems appropriate, at the cost and expense of the Contractor. If it is determined that the claim was one against which the Contractor was required to indemnify the State, upon request of the State, the Contractor must promptly reimburse the State for all reasonable costs and expenses.

2.15.7 Limitation of Liability

Neither the Contractor nor the State is liable to each other, regardless of the form of action, for consequential, incidental, indirect, or special damages. This limitation of liability does not apply to claims for infringement of United States patent, copyright, trademark or trade secrets; to claims for personal injury or damage to property caused by the gross negligence or willful misconduct of the Contractor; to claims covered by other specific provisions of this Contract calling for liquidated damages; or to court costs or attorneys' fees awarded by a court in addition to damages after litigation based on this Contract.

2.16 Termination by the State

2.16.1 Notice and Right to Cure

If the Contractor breaches the Contract, and the State, in its sole discretion, determines that the breach is curable, the State will provide the Contractor notice of the breach and a period of at least 30 days to cure the breach. The State does not need to provide notice or an opportunity to cure for successive or repeated breaches or if the State determines, in its sole discretion, that a breach poses a serious and imminent threat to the health or safety of any person or the imminent loss, damage, or destruction of any real or tangible personal property.

2.16.2 Termination for Cause

(a) The State may fully or partially terminate this Contract for cause by notifying the Contractor if the Contractor: (i) breaches any of its material duties or obligations (including a Chronic Failure to meet any SLA); or (ii) fails to cure a breach within the time period specified in a notice of breach provided by the State.

(b) The Contractor must pay all reasonable costs incurred by the State in terminating this Contract for cause, including administrative costs, attorneys' fees and court costs, and any additional costs the State incurs to procure the Deliverable(s) from other sources. Re-procurement costs are not consequential, indirect, or incidental damages, and cannot be excluded by any other terms otherwise included in this Contract, provided the costs are not in excess of 50% more than the prices for the Deliverable(s).

(c) If the State partially terminates this Contract for cause, any charges payable to the Contractor will be equitably adjusted to reflect those Deliverable(s) that are terminated. The State must pay for all Deliverable(s) for which Final Acceptance has been granted before the termination date. Any services or related provisions of this Contract that are terminated for cause must cease on the effective date of the termination.

(d) If the State terminates this Contract for cause and it is determined, for any reason, that the Contractor was not in breach of the Contract, the termination will be deemed to have been a termination under Section 2.16.3, Termination for Convenience, effective as of the same date, and the rights and obligations of the parties will be limited to those provided in that Section.

2.16.3 Termination for Convenience

The State may fully or partially terminate this Contract for its convenience if the State determines that a termination is in the State's best interest. Reasons for the termination are within the sole discretion of the State and may include: (a) the State no longer needs the Deliverable(s) specified in this Contract; (b) a relocation of office, program changes, or changes in laws, rules, or regulations make the Deliverable(s) no longer practical or feasible for the State; (c) unacceptable prices for Contract changes; or (d) falsification or misrepresentation, by inclusion or non-inclusion, of information material to a response to any RFP issued by the State. The State may terminate this Contract for its convenience by giving Contractor notice at least 30 days before the date of termination. If the State chooses to terminate this Contract in part, any charges payable to the Contractor must be equitably adjusted to reflect those Deliverable(s) that are terminated.

2.16.4 Termination for Non-Appropriation

(a) If this Contract extends for more than one fiscal year, continuation of this Contract is subject to the appropriation or availability of funds. If sufficient funds to enable the State to continue payment are not appropriated or otherwise made available, the State must fully or partially terminate this Contract at the end of the last period for which funds have been appropriated or otherwise made available The State must give the Contractor notice at least 30 days before the date of termination, unless the State receives notice of the non-appropriation or unavailability less than 30 days before the end of the last period for which funds have been appropriated or otherwise made available.

(b) If funding for this Contract is reduced by law, or funds to pay the Contractor for the Deliverable(s) are not appropriated or are otherwise unavailable, the State may, upon 30 days notice to the Contractor, change the Deliverable(s) in the manner and for the periods of time the State may elect. The charges payable under this Contract will be equitably adjusted to reflect any Deliverable(s) not provided because of the reduction.

(c) If the State fully or partially terminates this Contract for non-appropriation, the State must pay the Contractor for all work-in-progress performed through the effective date of the termination to the extent funds are available.

2.16.5 Termination for Criminal Conviction

The State may terminate this Contract immediately and without further liability or penalty if the Contractor, an officer of the Contractor, or an owner of a 25% or greater share of the Contractor is convicted of a criminal offense related to a State, public, or private Contract or subcontract.

2.16.6 Termination for Approvals Rescinded

The State may terminate this Contract if any final administrative or judicial decision or adjudication disapproves a previously approved request for purchase of personal services under Constitution 1963, Article 11, § 5, and Civil Service Rule 7-1. In that case, the State will pay the Contractor for all work-in-progress performed through the effective date of the termination. The Contract may be fully or partially terminated and will be effective as of the date stated in the notice.

2.16.7 Rights and Obligations upon Termination

(a) If the State terminates this Contract for any reason, the Contractor must:

- (i) stop all work as specified in the notice of termination;
- (ii) take any action that may be necessary, or that the State may direct, to preserve and protect Deliverable(s) or other State property in the Contractor's possession;
- (iii) return all materials and property provided directly or indirectly to the Contractor by any entity, agent or employee of the State;
- (iv) transfer title in and deliver to the State, unless otherwise directed, all Deliverable(s) intended to be transferred to the State at the termination of the Contract (which will be provided to the State on an "as-Is" basis except to the extent the State compensated the Contractor for warranty services related to the materials);
- (v) to the maximum practical extent, take any action to migrate and limit potential damages, including terminating or limiting subcontractors and outstanding orders for materials and supplies; and
- (vi) take all appropriate action to secure and maintain State information confidentially in accordance with Section 2.11, Confidentiality.

(b) If the State terminates this Contract under Section 2.16.3, Termination for Convenience, the State must pay the Contractor all charges due for Deliverable(s) provided before the date of termination and, if applicable, as a separate item of payment, for work-in-progress, based on a percentage of completion determined by the State. All completed or partially completed Deliverable(s) prepared by the Contractor, at the option of the State, become the State's property, and the Contractor is entitled to receive equitable compensation for those Deliverable(s). Regardless of the basis for the termination, the State is not

obligated to pay or otherwise compensate the Contractor for any lost expected future profits, costs, or expenses incurred with respect to Deliverable(s) not actually completed.

If the State terminates this Contract for any reason, the State may assume, at its option, any subcontracts and agreements for Deliverable(s), and may pursue completion of the Deliverable(s) by replacement contract or as the State deems expedient.

2.16.8 Reservation of Rights

In the event of any full or partial termination of this Contract, each party reserves all rights or remedies otherwise available to the party.

2.16.9 Contractor Transition Responsibilities

If this Contract terminates under Section 2.16, Termination by the State, the Contractor must make reasonable efforts to transition the performance of the work, including all applicable equipment, services, software, and leases, to the State or a third party designated by the State within a reasonable period of time that does not exceed 60 days from the date of termination. The Contractor must provide any required reports and documentation.

2.16.10 Transition Payments

If the transition responsibilities outlined in Section 2.16.9, Contractor Transition Responsibilities, arise based on a termination of this Contract, reimbursement will be governed by the provisions of Section 2.16, Termination by the State. If the transition results from expiration, the Contractor will be reimbursed for all reasonable transition costs (i.e., costs incurred after the expiration within the time period in Section 2.16.9 that result from transition operations) at the Contract rates. The Contractor must prepare an accurate accounting from which the State and the Contractor may reconcile all outstanding accounts.

2.17 Termination by the Contractor

2.17.1 Termination

If the State breaches the Contract and the Contractor, in its sole discretion, determines that the breach is curable, then the Contractor will provide the State with notice of the breach and a time period (not less than 30 days) to cure the breach.

The Contractor may terminate this Contract if the State: (a) materially breaches its obligation to pay the Contractor undisputed amounts due; (b) breaches its other obligations to an extent that makes it impossible or commercially impractical for the Contractor to complete the Deliverable(s); or (c) does not cure the breach within the time period specified in a notice of breach. The Contractor must discharge its obligations under Section 2.20, Dispute Resolution, before it terminates the Contract.

2.18 Stop Work

2.18.1 Stop Work Order

The State may, by issuing a Stop Work Order, require that the Contractor fully or partially stop work for a period of up to 90 calendar days, and for any further period to which the parties agree. Upon receipt of the Stop Work Order, the Contractor must immediately take all reasonable steps to minimize incurring costs. Within the period of the Stop Work Order, the State must either: (a) terminate the Stop Work Order; or (b) terminate the work covered by the Stop Work Order as provided in Section 2.16, Termination by the State.

2.18.2 Termination of Stop Work Order

The Contractor must resume work if the State terminates a Stop Work Order or if it expires. The parties will agree upon an equitable adjustment in the delivery schedule, the Contract price, or both, and the Contract must be modified, if: (a) the Stop Work Order results in an increase in the time required for, or the Contractor's costs properly allocated to, the performance of the Contract; and (b) the Contractor asserts its right to an equitable adjustment within 20 days after the end of the Stop Work Order by submission of a request for adjustment to the

State; provided that, the State may receive and act upon the Contractor's request submitted at any time before final payment. Any adjustment will conform to the requirements of Section 2.3.4, Contract Changes.

2.18.3 Allowance of the Contractor's Costs

If the State fully or partially terminates the work covered by the Stop Work Order, for reasons other than material breach, the termination is a termination for convenience under Section 2.16, Termination by the State, and the State will pay reasonable costs resulting from the Stop Work Order in arriving at the termination settlement. The State is not liable to the Contractor for lost profits because of a Stop Work Order issued under Section 2.18, Stop Work.

2.19 Reserved

2.20 Dispute Resolution

2.20.1 General

(a) The Contractor must submit any claim related to this Contract to the State under Section 2.3.6, Notices, together with all supporting documentation for the claim.

(b) The representatives of the Contractor and the State must meet as often as the parties reasonably deem necessary to gather and furnish to each other all information related to the claim.

(c) During the course of negotiations, each party will honor all reasonable requests made by the other for non-privileged information reasonably related to the claim.

2.20.2 Informal Dispute Resolution

(a) If, after a reasonable time following submission of a claim under Section 2.20.1, General, the parties are unable to resolve the claim, the parties must meet with the Director of DTMB-Procurement, or his or her designee, for the purpose of attempting to resolve the dispute without the need for formal legal proceedings.

(b) Within 60 calendar days of the meeting with the Director of DTMB-Procurement, or such other time as agreed to by the parties, the Director of DTMB-Procurement will issue a written recommendation regarding settlement of the claim. The Contractor must notify DTMB-Procurement within 21 days after the recommendation is issued whether the Contractor accepts or rejects the recommendation. Acceptance by the Contractor constitutes the final resolution of the claim addressed in the recommendation, and the Contractor may not assert that claim in any future litigation or other proceeding between the parties.

(c) The recommendation of the Director of DTMB-Procurement is not admissible in any future litigation or other proceeding between the parties. The conduct and statements made during the course of negotiations or dispute resolution under Section 2.20, Dispute Resolution, are subject to Michigan Rule of Evidence 408 and are not admissible in any future litigation or other proceeding between the parties.

(d) This section will not be construed to prohibit either party from instituting formal proceedings to avoid the expiration of any applicable limitations period, to preserve a superior position with respect to other creditors, or under Section 2.20.3, Injunctive Relief.

(e) DTMB-Procurement will not mediate disputes between the Contractor and any other entity, except State agencies, concerning responsibility for performance of work.

2.20.3 Injunctive Relief

A claim between the State and the Contractor is not subject to the provisions of Section 2.20.2, Informal Dispute Resolution, where a party makes a good faith determination that a breach of the Contract by the other party will result in damages so immediate, so large or severe, and so incapable of adequate redress that a temporary restraining order or other injunctive relief is the only adequate remedy.

2.20.4 Continued Performance

Each party will continue performing its obligations under the Contract while a claim is being resolved, except to the extent the claim precludes performance and without limiting either party's right to terminate the Contract as provided in Section 2.16, Termination by the State or Section 2.17, Termination by the Contractor. A claim involving payment does not preclude performance.

2.21 Disclosure Responsibilities

2.21.1 Disclosure of Litigation

(a) Within 30 days after receiving notice of any litigation, investigation, arbitration, or other proceeding (collectively, "Proceeding") that arises during the term of this Contract, the Contractor must disclose the following to the Contract Administrator:

(i) A criminal Proceeding involving the Contractor (or any Subcontractor) or any of its officers or directors;

(ii) A parole or probation Proceeding;

(iii) A Proceeding involving the Contractor (or any Subcontractor) or any of its officers or directors under the Sarbanes-Oxley Act; and

(iv) A civil Proceeding to which the Contractor (or, if the Contractor is aware, any Subcontractor) is a party, and which involves (A) a claim that might reasonably be expected to adversely affect the viability or financial stability of the Contractor or any Subcontractor; or (B) a claim or written allegation of fraud against the Contractor (or, if the Contractor is aware, any Subcontractor) by a governmental or public entity arising out of the Contractor's business dealings with governmental or public entities.

(b) Information provided to the State from the Contractor's publicly filed documents will satisfy the requirements of this Section.

(c) If any Proceeding that is disclosed to the State or of which the State otherwise becomes aware, during the term of this Contract, would cause a reasonable party to be concerned about: (i) the ability of the Contractor (or a Subcontractor) to continue to perform this Contract; or (ii) whether the Contractor (or a Subcontractor) is engaged in conduct that is similar in nature to the conduct alleged in the Proceeding and would constitute a breach of this Contract or a violation of federal or state law, regulations, or public policy, then the Contractor must provide the State all requested reasonable assurances that the Contractor and its Subcontractors will be able to continue to perform this Contract.

2.21.2 Other Disclosures

The Contractor must notify DTMB-Procurement within 30 days of:

(a) becoming aware that a change in the Contractor's ownership or officers has occurred or is certain to occur; or

(b) any changes to company affiliations.

2.21.3 Call Center Disclosure

The Contractor and all Subcontractors involved in the performance of this Contract providing call or contact center services to the State must disclose the location of its call or contact center services to inbound callers. Failure to disclose this information is a material breach of this Contract.

2.22 Extended Purchasing

2.22.1 MiDEAL Requirements

(a) The Contractor must ensure that all purchasers are MiDEAL Members before extending the Contract pricing.

(b) The Contractor must submit quarterly reports of MiDEAL purchasing activities to DTMB-Procurement.

(c) To the extent that MiDEAL Members purchase Deliverable(s) under this Contract, the quantities of Deliverable(s) purchased will be included in determining the appropriate rate wherever tiered pricing based on quantity is provided.

(d) The Contractor must submit invoices to and receive payment from MiDEAL Members on a direct and individual basis.

2.22.2 State Administrative Fee - Deleted ,Not Applicable

2.22.3 State Employee Purchase Requirements - Deleted, Not Applicable

2.23 Laws

2.23.1 Governing Law

This Contract is governed by, and construed according to, the substantive laws of the State of Michigan without regard to any Michigan choice of law rules that would apply the substantive law of another jurisdiction to the extent not inconsistent with or preempted by federal law.

2.23.2 Compliance with Laws

The Contractor must comply with all applicable federal, state, and local laws and ordinances in providing the Deliverable(s).

2.23.3 Jurisdiction

Any dispute arising from the Contract must be resolved in the State of Michigan. With respect to any claim between the parties, the Contractor consents to venue in Ingham County, Michigan, and irrevocably waives any objections to this venue that it may have, such as lack of personal jurisdiction or *forum non conveniens*. The Contractor must appoint agents in the State of Michigan to receive service of process.

2.23.4 Nondiscrimination

In the performance of the Contract, the Contractor agrees not to discriminate against any employee or applicant for employment, with respect to his or her hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of race, color, religion, national origin, ancestry, age, sex, height, weight, marital status, or physical or mental disability. The Contractor further agrees that every subcontract entered into for the performance of this Contract will contain a provision requiring non-discrimination in employment, as specified here, binding upon each Subcontractor. This covenant is required under the Elliott-Larsen Civil Rights Act, 1976 PA 453, MCL 37.2101, *et seq*., and the Persons with Disabilities Civil Rights Act, 1976 PA 220, MCL 37.1101, *et seq*., and any breach of this provision may be regarded as a material breach of the Contract.

2.23.5 Unfair Labor Practices

Under 1980 PA 278, MCL 423.321, *et seq*., the State must not award a Contract or subcontract to an employer whose name appears in the current register of employers failing to correct an unfair labor practice compiled under MCL 423.322. This information is compiled by the United States National Labor Relations Board. A Contractor of the State, in relation to the Contract, must not enter into a contract with a Subcontractor, manufacturer, or supplier whose name appears in this register. Under MCL 423.324, the State may void any Contract if, after award of the Contract, the name of the Contractor as an employer or the name of the Subcontractor, manufacturer or supplier of the Contractor appears in the register.

2.23.6 Environmental Provision

For the purposes of this section, "Hazardous Materials" include asbestos, ACBMs, PCBs, petroleum products, construction materials including paint thinners, solvents, gasoline, oil, and any other material the manufacture, use, treatment, storage, transportation or disposal of which is regulated by the federal, state, or local laws governing the protection of the public health, natural resources, or the environment:

(a) The Contractor must use, handle, store, dispose of, process, transport, and transfer any Hazardous Material according to all federal, State, and local laws. The State must immediately advise the Contractor of the presence of any known Hazardous Material at the work site. If the Contractor encounters material reasonably believed to be Hazardous Material that may present a substantial danger, the Contractor must: (i) immediately stop all affected work; (ii) notify the State in accordance with Section 2.3.6, Notices; (iii) notify any entities required by law; and (iv) take appropriate health and safety precautions.

(b) The State may issue a Stop Work Order if the material is a Hazardous Material that may present a substantial danger and the Hazardous Material was not brought to the site by the Contractor, or does not wholly or partially result from any violation by the Contractor of any laws covering the use, handling, storage, disposal of, processing, transport and transfer of Hazardous Materials. The State may remove the Hazardous Material, render it harmless, or terminate the affected work for the State's convenience.

(c) If the Hazardous Material was brought to the site by the Contractor, or wholly or partially results from any violation by the Contractor of any laws covering the use, handling, storage, disposal of, processing, transport and transfer of Hazardous Material, or from any other act or omission within the control of the Contractor, the Contractor must bear its proportionate share of the delay and costs involved in cleaning up the site and removing and rendering harmless the Hazardous Material according to applicable laws.

2.23.7 Freedom of Information

This Contract and all information submitted to the State by the Contractor is subject to the Michigan Freedom of Information Act (FOIA), 1976 PA 442, MCL 15.231, *et seq*.

2.23.8 Workplace Safety and Discriminatory Harassment - Deleted, Not Applicable

2.23.9 Prevailing Wage - Deleted, Not Applicable

2.23.10 Abusive Labor Practices

The Contractor may not furnish any Deliverable(s) that were produced fully or partially by forced labor, convict labor, forced or indentured child labor, or indentured servitude.

"Forced or indentured child labor" means all work or service (1) exacted from any person under the age of 18 under the menace of any penalty for its nonperformance and for which the worker does not offer himself voluntarily; or (2) performed by any person under the age of 18 under a contract the enforcement of which can be accomplished by process or penalties.

2.23.11 Applicable Statutes

The following statutes, rules, and laws are applicable to the performance of this contract; some statutes are reflected in the clauses of this contract. This list is NOT exhaustive.

All applicable Federal Motor Vehicle Safety Standards
All applicable Michigan Motor Carrier Vehicle Codes
Michigan Consumer Protection Act MCL §§ 445.901-445.922
Michigan Uniform Commercial Code (MIUCC) MCL 440 (All section unless otherwise althered by agreement)
Michigan OSHA MCL §§ 408.1001 – 408.1094
Laws relating to wages, payments of wages, and fringe benefits on state projects MCL §§ 408.551-408.558, 408.471-408.490, 1965 PA 390.
Contract Work Hours and Safety Standards Act (CWHSAA) 40 USCS § 327, et seq.
Rules and regulations of the Equal Employment Opportunity Commission (EEOC)
The Civil Rights Act of 1964, USCS Chapter 42
Elliot Larsen Civil Rights Act MCL §§ 37.2201, et seq.
Department of Civil Service rules and regulations
Persons with disabilities Civil Rights Act MCL §§ 37.11.01, et seq.
The Americans with Disabilities Act (ADA), 43 USCS §§ 12101 et seq.
Business Opportunity Act for Persons with Disabilities MCL §§ 450.791-450.795
The Age Discrimination in Employment Act of 1967 (ADEA), 29 USCS §§ 621, 623 et seq.
The Old Workers Benefit and Protection Act of 1990 (OWBPA), 29 USCS §§ 626, et seq.
The Family Medical Leave Act of 1993 (FMLA), 29 USC §§ 651 et seq.
The Fair Labor Standards Act (FLSA), 29 USC §§ 651 et seq.
Title VII, 42 USCS §§ 2000e et seq.
MCL §§ 423.321, et seq.

MCL § 18.1264 (law regarding debarment)
Internal Revenue Code
Rules and regulations of the Environmental Protection Agency
Natural Resources and Environmental Protection Act MCL §§ 324.101, et seq.
Pollution Prevention Act of 1990 (PPA) 42 USC § 13106
Sherman Act, 15 USCS § 1 et seq.
Robinson-Patman Act, 15 USCS § 13 et seq.
Clayton Act, 15 USCS § 14 et seq.
Freedom of Information Act (FIOA) MCL §§ 15.231, et seq.
Federal Transit Administration (FTA) Clauses (Rolling Stock), 49 U.S.C. 5323(j) and 49 CFR Part 661

2.24 General Provisions

2.24.1 Bankruptcy and Insolvency

The State may, without prejudice to any other right or remedy, fully or partially terminate this Contract and, at its option, take possession of the work-in-progress and finish the work-in-progress by whatever method the State deems appropriate if:

(a) the Contractor files for bankruptcy protection;
(b) an involuntary petition is filed against the Contractor and not dismissed within 30 days;
(c) the Contractor becomes insolvent or a receiver is appointed due to the Contractor's insolvency;
(d) the Contractor makes a general assignment for the benefit of creditors; or
(e) the Contractor or its affiliates are unable to provide reasonable assurances that the Contractor or its affiliates can provide the Deliverable(s) under this Contract.

Contractor will place appropriate notices or labels on the work-in-progress to indicate ownership by the State. To the extent reasonably possible, work-in-progress must be stored separately from other stock and marked conspicuously with labels indicating State ownership.

2.24.2 Media Releases

News releases (including promotional literature and commercial advertisements) pertaining to the RFP and this Contract or the project to which it relates will not be made without prior approval by the State, and only in accordance with the instructions from the State.

2.24.3 Contract Distribution

DTMB-Procurement retains the sole right of Contract distribution to all State agencies and MiDeal members unless other arrangements are authorized by DTMB-Procurement.

2.24.4 Permits

Contractor must obtain and pay any associated costs for all required governmental permits, licenses, and approvals for the delivery, installation, and performance of the Contract.

2.24.5 Website Incorporation

The State is not bound by any content on the Contractor's website unless incorporated directly into this Contract.

2.24.6 Future Bidding Preclusion

Contractor acknowledges that, to the extent the Contract involves the creation, research, investigation or generation of a future RFP, it may be precluded from bidding on the subsequent RFP. The State reserves the right to disqualify any bidder if the State determines that the bidder has used its position (whether as an incumbent Contractor, or as a Contractor hired to assist with the RFP development, or as a Vendor offering free assistance) to gain a competitive advantage on the RFP

2.24.7 Antitrust Assignment

The Contractor assigns to the State any claim for overcharges resulting from state or federal antitrust violations to the extent that those violations concern materials or services supplied by third parties toward fulfillment of the Contract.

2.24.8 Disaster Recovery

Contractor and the State recognize that the State provides essential services in times of natural or man-made disasters. Therefore, except as mandated by federal disaster response requirements, Contractor personnel dedicated to providing Deliverable(s) under this Contract will provide the State with priority.

2.24.9 Legal Effect

The State is not liable for costs incurred by the Contractor or for payment(s) under this Contract until the Contractor is authorized to perform under Section 1.2.4, Ordering.

2.24.10 Entire Agreement

This Contract constitutes the entire agreement between the parties and supersedes all prior agreements, whether written or oral, with respect to the subject matter. All attachments referenced in this Contract are incorporated in their entirety and form part of this Contract.

2.24.11 Order of Precedence

Any inconsistency in the terms associated with this Contract will be resolved by giving precedence to the terms in the following descending order:

(a) Mandatory sections (2.1.1, Contract Term, 2.24.9, Legal Effect, 2.2.2, Payment Deadlines, 2.14, Insurance, 2.15, Indemnification, 2.16, Termination, 2.23, Governing Law, 2.15.7, Limitation of Liability);

(b) The most recent Statement of Work related to this Contract;

(c) All sections from Article 2 - Terms and Conditions, not listed in subsection (a);

(d) Any attachment or exhibit to the Contract documents;

(e) Any Purchase Order, Direct Voucher, or Procurement Card Order issued under the Contract; and

(f) Bidder Responses contained in any of the RFP documents.

2.24.12 Headings

The captions and section headings used in this Contract are for convenience only and may not be used to interpret the scope and intent of this Contract.

2.24.13 Form, Function and Utility

If this Contract is for statewide use, but the Deliverable(s) does not the meet the form, function, and utility required by a State agency, that agency may, subject to State purchasing policies, procure the Deliverable(s) from another source.

2.24.14 Reformation and Severability

Each provision of the Contract is severable from all other provisions of the Contract. If any provision of this Contract is held unenforceable, then the Contract will be modified to reflect the parties' original intent. All remaining provisions of the Contract remain in full force and effect.

2.24.15 Approval

Unless otherwise provided in this Contract, approval(s) must be in writing and must not be unreasonably withheld or delayed.

2.24.16 No Waiver of Default

Failure by a party to insist upon strict adherence to any term of the Contract does not waive that party's right to later insist upon strict adherence to that term, or any other term, of the Contract.

2.24.17 Survival

The provisions of this Contract that impose continuing obligations, including warranties, indemnification, and confidentiality, will survive the expiration or termination of this Contract.

2.24.18 PCI Data Security Standard

(a) Contractors that process, transmit or store credit/debit cardholder data, must adhere to the Payment Card Industry (PCI) Data Security Standards. The Contractor is responsible for the security of cardholder data in its possession. The data may only be used to assist the State or for other uses specifically authorized by law.

(b) The Contractor must notify the CCI (within 72 hours of discovery) of any breaches in security where cardholder data has been compromised. In that event, the Contractor must provide full cooperation to the Visa, MasterCard, Discover and state Acquirer representative(s), and/or a PCI approved third party to conduct a thorough security review. The Contractor must make the forensic report available within two weeks of completion. The review must validate compliance with the current PCI Data Security Standards for protecting cardholder data.

(c) The Contractor must properly dispose of cardholder data, in compliance with DTMB policy, when it is no longer needed. The Contractor must continue to treat cardholder data as confidential upon contract termination.

(d) The Contractor must provide the CCI with an annual Attestation of Compliance (AOC) or a Report on Compliance (ROC) showing the Contractor is in compliance with the PCI Data Security Standards. The Contractor must notify the CCI of all failures to comply with the PCI Data Security Standard.

Attachment A- Federal Contract Clauses (Rolling Stock)

1. BUY AMERICA REQUIREMENTS

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 not 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, and include final assembly in the United States for 15 passenger vans and 15 passenger wagons produced by Chrysler Corporation, and microcomputer equipment and software. Separate requirements for rolling stock are set out at 49 U.S.C. 5323(j)(2)(C) and 49 C.F.R. 661.11. Rolling stock must be assembled in the United States and have a 60 percent domestic content.

A bidder or offeror must submit to the FTA recipient the appropriate Buy America certification (below) with all bids or offers on FTA-funded contracts, except those subject to a general waiver. Bids or offers that are not accompanied by a completed Buy America certification must be rejected as nonresponsive. This requirement does not apply to lower tier subcontractors.

Certification requirement for procurement of steel, iron, or manufactured products.

Certificate of Compliance with 49 U.S.C. 5323(j)(1)
The bidder or offeror hereby certifies that it will meet the requirements of 49 U.S.C. 5323(j)(1) and the applicable regulations in 49 C.F.R. Part 661.5.

Date March 27, 2012 _____

Signature Karin Rexroad _____

Company Name ElDorado National – Kansas _____

Title Transit Sales Administrator _____

Certificate of Non-Compliance with 49 U.S.C. 5323(j)(1)
The bidder or offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j)(1) and 49 C.F.R. 661.5, but it may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 C.F.R. 661.7.

Date _____

Signature _____

Company Name _____

Title _____

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

Certificate of Compliance with 49 U.S.C. 5323(j)(2)(C).
The bidder or offeror hereby certifies that it will comply with the requirements of 49 U.S.C. 5323(j)(2)(C) and the regulations at 49 C.F.R. Part 661.11.

Date March 27, 2012 _____

Signature Karin Rexroad _____

Company Name ElDorado National - Kansas _____

Title Transit Sales Administrator _____

Certificate of Non-Compliance with 49 U.S.C. 5323(j)(2)(C)
The bidder or offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j)(2)(C) and 49 C.F.R. 661.11, but may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 CFR 661.7.

Date _____

Signature _____

Company Name _____

Title _____

2. CARGO PREFERENCE REQUIREMENTS 46 U.S.C. 1241/46 CFR Part 381

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 leading 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 described in the preceding paragraph 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.

3. ENERGY CONSERVATION REQUIREMENTS 42 U.S.C. 6321 et seq./49 CFR Part 18

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.

4. CLEAN WATER REQUIREMENTS 33 U.S.C. 1251

(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.

5. **BUS TESTING** 49 U.S.C. 5323(c)/49 CFR Part 665

The Contractor [Manufacturer] agrees to comply with 49 U.S.C. A 5323(c) and FTA's implementing regulation at 49 CFR Part 665 and shall perform the following:

1) A manufacturer of a new bus model or a bus produced with a major change in components or configuration shall provide a copy of the final test report to the recipient at a point in the procurement process specified by the recipient which will be prior to the recipient's final acceptance of the first vehicle.
2) A manufacturer who releases a report under paragraph 1 above shall provide notice to the operator of the testing facility that the report is available to the public.
3) If the manufacturer represents that the vehicle was previously tested, the vehicle being sold should have the identical configuration and major components as the vehicle in the test report, which must be provided to the recipient prior to recipient's final acceptance of the first vehicle. If the configuration or components are not identical, the manufacturer shall provide a description of the change and the manufacturer's basis for concluding that it is not a major change requiring additional testing.
4) If the manufacturer represents that the vehicle is "grandfathered" (has been used in mass transit service in the United States before October 1, 1988, and is currently being produced without a major change in configuration or components), the manufacturer shall provide the name and address of the recipient of such a vehicle and the details of that vehicle's configuration and major components.

CERTIFICATION OF COMPLIANCE WITH FTA'S BUS TESTING REQUIREMENTS
The undersigned [Contractor/Manufacturer] certifies that the vehicle offered in this procurement complies with 49 U.S.C. A 5323(c) and FTA's implementing regulation at 49 CFR Part 665.

The undersigned understands that misrepresenting the testing status of a vehicle acquired with Federal financial assistance may subject the undersigned to civil penalties as outlined in the Department of Transportation's regulation on Program Fraud Civil Remedies, 49 CFR Part 31. In addition, the undersigned understands that FTA may suspend or debar a manufacturer under the procedures in 49 CFR Part 29.

Date: March 27, 2012 _____

Signature: Karin Rexroad _____

Company Name: ElDorado National - Kansas _____

Title: Transit Sales Administrator _____

6. PRE-AWARD AND POST DELIVERY AUDITS REQUIREMENTS 49 U.S.C. 5323/49 CFR Part 663

The Contractor agrees to comply with 49 U.S.C. § 5323(l) and FTA's implementing regulation at 49 C.F.R. Part 663 and to submit the following certifications:

(1) Buy America Requirements: The Contractor shall complete and submit a declaration certifying either compliance or noncompliance with Buy America. If the Bidder/Offeror certifies compliance with Buy America, it shall submit documentation 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.
(2) Solicitation Specification Requirements: The Contractor shall submit evidence that it will be capable of meeting the bid specifications.
(3) Federal Motor Vehicle Safety Standards (FMVSS): The Contractor shall submit 1) manufacturer's FMVSS self-certification sticker information that the vehicle complies with relevant FMVSS or 2) manufacturer's certified statement that the contracted buses will not be subject to FMVSS regulations.

BUY AMERICA CERTIFICATE OF COMPLIANCE WITH FTA REQUIREMENTS FOR BUSES, OTHER ROLLING STOCK, OR ASSOCIATED EQUIPMENT

(To be submitted with a bid or offer exceeding the small purchase threshold for Federal assistance programs, currently set at $100,000.)

Certificate of Compliance

The bidder hereby certifies that it will comply with the requirements of 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: March 27, 2012 _____

Signature: Karin Rexroad _____

Company Name: ElDorado National - Kansas _____

Title: Transit Sales Administrator _____

7. LOBBYING 31 U.S.C. 1352/49 CFR Part 19/49 CFR 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 CFR 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.

APPENDIX A, 49 CFR PART 20--CERTIFICATION REGARDING LOBBYING

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 "Government wide 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 subawards 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, ElDorado National - Kansas__, 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.

Karin Rexroad___ Signature of Contractor's Authorized Official

Karin Rexroad, Transit Sales Administrator_ Name and Title of Contractor's Authorized Official

March 27, 2012_____ Date

8. ACCESS TO RECORDS AND REPORTS 49 U.S.C. 5325/18 CFR 18.36 (i)/49 CFR 633.17

The following access to records requirements apply to this Contract:

1. Where the Purchaser is not a State but a local government and is the FTA Recipient or a subgrantee of the FTA Recipient in accordance with 49 C.F.R. 18.36(i), the Contractor agrees to provide the Purchaser, the FTA Administrator, the Comptroller General of the United States or any of their authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts and transcriptions. Contractor also agrees, pursuant to 49 C.F.R. 633.17 to provide the FTA Administrator or his authorized representatives including any PMO Contractor access to Contractor's records and construction sites pertaining to a major capital project, defined at 49 U.S.C. 5302(a)1, which is receiving federal financial assistance through the programs described at 49 U.S.C. 5307, 5309 or 5311.

2. Where the Purchaser is a State and is the FTA Recipient or a subgrantee of the FTA Recipient in accordance with 49 C.F.R. 633.17, Contractor agrees to provide the Purchaser, the FTA Administrator or his authorized representatives, including any PMO Contractor, access to the Contractor's records and construction sites pertaining to a major capital project, defined at 49 U.S.C. 5302(a)1, which is receiving federal financial assistance through the programs described at 49 U.S.C. 5307, 5309 or 5311. By definition, a major capital project excludes contracts of less than the simplified acquisition threshold currently set at $100,000.

3. Where the Purchaser enters into a negotiated contract for other than a small purchase or under the simplified acquisition threshold and is an institution of higher education, a hospital or other non-profit organization and is the FTA Recipient or a subgrantee of the FTA Recipient in accordance with 49 C.F.R. 19.48, Contractor agrees to provide the Purchaser, FTA Administrator, the Comptroller General of the United States or any of their duly authorized representatives with access to any books, documents, papers and record of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts and transcriptions.

4. Where any Purchaser which is the FTA Recipient or a subgrantee of the FTA Recipient in accordance with 49 U.S.C. 5325(a) enters into a contract for a capital project or improvement (defined at 49 U.S.C. 5302(a)1) through other than competitive bidding, the Contractor shall make available records related to the contract to the Purchaser, the Secretary of Transportation and the Comptroller General or any authorized officer or employee of any of them for the purposes of conducting an audit and inspection.

5. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

6. The Contractor agrees to maintain all books, records, accounts and reports required under this contract for a period of not less than three years after the date of termination or expiration of this contract, except in the event of litigation or settlement of claims arising from the performance of this contract, in which case Contractor agrees to maintain same until the Purchaser, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto. Reference 49 CFR 18.39(i)(11).

7. FTA does not require the inclusion of these requirements in subcontracts.

Requirements for Access to Records and Reports by Types of Contract

Contract Characteristics		Operational Service Contract	Turnkey	Construction	Architectural Engineering	Acquisition of Rolling Stock	Professional Services
I State Grantees a. Contracts below SAT ($100,000) b. Contracts above $100,000/Capital Projects		None None unless[1] non-competitive award	Those imposed on state pass thru to Contractor	None Yes, if non-competitive award or if funded thru[2] 5307/5309/5311	None None unless non-competitive award	None None unless non-competitive award	None None unless non-competitive award
II Non State Grantees a. Contracts below SAT ($100,000) b. Contracts above $100,000/Capital Projects		Yes[3] Yes[3]	Those imposed on non-state Grantee pass thru to Contractor	Yes Yes	Yes Yes	Yes Yes	Yes Yes

Sources of Authority:
[1] 49 USC 5325 (a)
[2] 49 CFR 633.17
[3] 18 CFR 18.36 (i)

9. FEDERAL CHANGES 49 CFR Part 18

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 Master Agreement 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.

10. CLEAN AIR 42 U.S.C. 7401 et seq/40 CFR 15.61/49 CFR Part 18

(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.

11. RECYCLED PRODUCTS 42 U.S.C. 6962/40 CFR Part 247/Executive Order 12873

The contractor agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6962), including but not limited to the regulatory provisions of 40 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247.

12. NO GOVERNMENT OBLIGATION TO THIRD PARTIES

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.

13. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS AND RELATED ACTS

31 U.S.C. 3801 et seq. /49 CFR Part 31 18 U.S.C. 1001/49 U.S.C. 5307

(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.

14. TERMINATION 49 U.S.C. Part 18/FTA Circular 4220.1F

a. Termination for Convenience (General Provision) The (Recipient) may terminate this contract, in whole or in part, at any time by written notice to the Contractor when it is in the Government's best interest. The Contractor shall be paid its costs, including contract close-out costs, and profit on work performed up to the time of termination. The Contractor shall promptly submit its termination claim to (Recipient) to be paid the Contractor. If the Contractor has any property in its possession belonging to the (Recipient), the Contractor will account for the same, and dispose of it in the manner the (Recipient) directs.

b. Termination for Default [Breach or Cause] (General Provision) If the Contractor does not deliver supplies in accordance with the contract delivery schedule, or, if the contract is for services, the Contractor fails to perform in the manner called for in the contract, or if the Contractor fails to comply with any other provisions of the contract, the (Recipient) may terminate this contract for default. Termination shall be effected by serving a notice of termination on the contractor setting forth the manner in which the Contractor is in default. The contractor will only be paid the contract price for supplies delivered and accepted, or services performed in accordance with the manner of performance set forth in the contract.
If it is later determined by the (Recipient) that the Contractor had an excusable reason for not performing, such as a strike, fire, or flood, events which are not the fault of or are beyond the control of the Contractor, the (Recipient), after setting up a new delivery of performance schedule, may allow the Contractor to continue work, or treat the termination as a termination for convenience.

c. Opportunity to Cure (General Provision) The (Recipient) in its sole discretion may, in the case of a termination for breach or default, allow the Contractor [an appropriately short period of time] in which to cure the defect. In such case, the notice of termination will state the time period in which cure is permitted and other appropriate conditions

If Contractor fails to remedy to (Recipient)'s satisfaction the breach or default of any of the terms, covenants, or conditions of this Contract within [ten (10) days] after receipt by Contractor of written notice from (Recipient) setting forth the nature of said breach or default, (Recipient) shall have the right to terminate the Contract without any further obligation to Contractor. Any such termination for default shall not in any way operate to preclude (Recipient) from also pursuing all available remedies against Contractor and its sureties for said breach or default.

d. Waiver of Remedies for any Breach In the event that (Recipient) elects to waive its remedies for any breach by Contractor of any covenant, term or condition of this Contract, such waiver by (Recipient) shall not limit (Recipient)'s remedies for any succeeding breach of that or of any other term, covenant, or condition of this Contract.

e. Termination for Convenience (Professional or Transit Service Contracts) The (Recipient), by written notice, may terminate this contract, in whole or in part, when it is in the Government's interest. If this contract is terminated, the Recipient shall be liable only for payment under the payment provisions of this contract for services rendered before the effective date of termination.

f. Termination for Default (Supplies and Service) If the Contractor fails to deliver supplies or to perform the services within the time specified in this contract or any extension or if the Contractor fails to comply with any other provisions of this contract, the (Recipient) may terminate this contract for default. The (Recipient) shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of the default. The Contractor will only be paid the contract price for supplies delivered and accepted, or services performed in accordance with the manner or performance set forth in this contract.

If, after termination for failure to fulfill contract obligations, it is determined that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the Recipient.

g. Termination for Default (Transportation Services) If the Contractor fails to pick up the commodities or to perform the services, including delivery services, within the time specified in this contract or any extension or if the Contractor fails to comply with any other provisions of this contract, the (Recipient) may terminate this contract for default. The (Recipient) shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of default. The Contractor will only be paid the contract price for services performed in accordance with the manner of performance set forth in this contract.

If this contract is terminated while the Contractor has possession of Recipient goods, the Contractor shall, upon direction of the (Recipient), protect and preserve the goods until surrendered to the Recipient or its agent. The Contractor and (Recipient) shall agree on payment for the preservation and protection of goods. Failure to agree on an amount will be resolved under the Dispute clause.

If, after termination for failure to fulfill contract obligations, it is determined that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the (Recipient).

h. Termination for Default (Construction) If the Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will insure its completion within the time specified in this contract or any extension or fails to complete the work within this time, or if the Contractor fails to comply with any other provisions of this contract, the (Recipient) may terminate this contract for default. The (Recipient) shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of the default. In this event, the Recipient may take over the work and compete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the Recipient resulting from the Contractor's refusal or failure to complete the work within specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the Recipient in completing the work.

The Contractor's right to proceed shall not be terminated nor the Contractor charged with damages under this clause if-

1. the delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include: acts of God, acts of the Recipient, acts of another Contractor in the performance of a contract with the Recipient, epidemics, quarantine restrictions, strikes, freight embargoes; and

2. the contractor, within [10] days from the beginning of any delay, notifies the (Recipient) in writing of the causes of delay. If in the judgment of the (Recipient), the delay is excusable, the time for completing the work shall be extended. The judgment of the (Recipient) shall be final and conclusive on the parties, but subject to appeal under the Disputes clauses.
    a. If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of the Recipient.

i. Termination for Convenience or Default (Architect and Engineering) The (Recipient) may terminate this contract in whole or in part, for the Recipient's convenience or because of the failure of the Contractor to fulfill the contract obligations. The (Recipient) shall terminate by delivering to the Contractor a Notice of Termination specifying the nature, extent, and effective date of the termination. Upon receipt of the notice, the Contractor shall (1) immediately discontinue all services affected (unless the notice directs otherwise), and (2) deliver to the Contracting Officer all data, drawings, specifications, reports, estimates, summaries, and other information and materials accumulated in performing this contract, whether completed or in process.

If the termination is for the convenience of the Recipient, the Contracting Officer shall make an equitable adjustment in the contract price but shall allow no anticipated profit on unperformed services.

If the termination is for failure of the Contractor to fulfill the contract obligations, the Recipient may complete the work by contact or otherwise and the Contractor shall be liable for any additional cost incurred by the Recipient.

If, after termination for failure to fulfill contract obligations, it is determined that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the Recipient.

j. Termination for Convenience of Default (Cost-Type Contracts) The (Recipient) may terminate this contract, or any portion of it, by serving a notice or termination on the Contractor. The notice shall state whether the termination is for convenience of the (Recipient) or for the default of the Contractor. If the termination is for default, the notice shall state the manner in which the contractor has failed to perform the requirements of the contract. The Contractor shall account for any property in its possession paid for from funds received from the (Recipient), or property supplied to the Contractor by the (Recipient). If the termination is for default, the (Recipient) may fix the fee, if the contract provides for a fee, to be paid the contractor in proportion to the value, if any, of work performed up to the time of termination. The Contractor shall promptly submit its termination claim to the (Recipient) and the parties shall negotiate the termination settlement to be paid the Contractor.

If the termination is for the convenience of the (Recipient), the Contractor shall be paid its contract close-out costs, and a fee, if the contract provided for payment of a fee, in proportion to the work performed up to the time of termination.

If, after serving a notice of termination for default, the (Recipient) determines that the Contractor has an excusable reason for not performing, such as strike, fire, flood, events which are not the fault of and are beyond the control of the contractor, the (Recipient), after setting up a new work schedule, may allow the Contractor to continue work, or treat the termination as a termination for convenience.

15. GOVERNMENT-WIDE DEBARMENT AND SUSPENSION (NONPROCUREMENT)

49 CFR Part 29/Excutive Order 12549/Exectuve Order 12689/31 U.S.C. 6101 note (Section 2455, Public Law 103-355, 108 Stat. 3327)

Suspension and Debarment

This contract is a covered transaction for purposes of 49 CFR Part 29. As such, the contractor is required to verify that none of the contractor, its principals, as defined at 49 CFR 29.995, or affiliates, as defined at 49 CFR 29.905, are excluded or disqualified as defined at 49 CFR 29.940 and 29.945.

The contractor is required to comply with 49 CFR 29, Subpart C and must include the requirement to comply with 49 CFR 29, Subpart C in any lower tier covered transaction it enters into.

By signing and submitting its bid or proposal, the bidder or proposer certifies as follows:

The certification in this clause is a material representation of fact relied upon by the **State of Michigan**. If it is later determined that the bidder or proposer knowingly rendered an erroneous certification, in addition to remedies available to the **State of Michigan**, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The bidder or proposer agrees to comply with the requirements of 49 CFR 29, Subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

16. PRIVACY ACT REQUIREMENTS 5 U.S.C. 552

The following requirements apply to the Contractor and its employees that administer any system of records on behalf of the Federal Government under any contract:

(1) The Contractor agrees to comply with, and assures the compliance of its employees with, the information restrictions and other applicable requirements of the Privacy Act of 1974,
5 U.S.C. § 552a. Among other things, the Contractor agrees to obtain the express consent of the Federal Government before the Contractor or its employees operate a system of records on behalf of the Federal Government. The Contractor understands that the requirements of the Privacy Act, including the civil and criminal penalties for violation of that Act, apply to those individuals involved, and that failure to comply with the terms of the Privacy Act may result in termination of the underlying contract.
(2) The Contractor also agrees to include these requirements in each subcontract to administer any system of records on behalf of the Federal Government financed in whole or in part with Federal assistance provided by FTA.

17. CIVIL RIGHTS REQUIREMENTS 29 U.S.C. § 623, 42 U.S.C. § 2000/42 U.S.C. § 6102, 42 U.S.C. § 12112/42 U.S.C. § 12132, 49 U.S.C. § 5332/29 CFR Part 1630/41 CFR Parts 60 et seq.

The following requirements apply to the underlying contract:

(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.

18. BREACHES AND DISPUTE RESOLUTION 49 CFR Part 18/FTA Circular 4220.1F

Disputes - Disputes arising in the performance of this Contract which are not resolved by agreement of the parties shall be decided in writing by the authorized representative of (Recipient)'s [title of employee]. This decision shall be final and conclusive unless within [ten (10)] days from the date of receipt of its copy, the Contractor mails or otherwise furnishes a written appeal to the [title of employee]. In connection with any such appeal, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of the [title of employee] shall be binding upon the Contractor and the Contractor shall abide be the decision.

Performance During Dispute - Unless otherwise directed by (Recipient), Contractor shall continue performance under this Contract while matters in dispute are being resolved.

Claims for Damages - Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the party or of any of his employees, agents or others for whose acts he is legally liable, a claim for damages therefor shall be made in writing to such other party within a reasonable time after the first observance of such injury of damage.

Remedies - Unless this contract provides otherwise, all claims, counterclaims, disputes and other matters in question between the (Recipient) 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 in which the (Recipient) is located.

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 (Recipient), (Architect) 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.

19. DISADVANTAGED BUSINESS ENTERPRISE (DBE) 49 CFR Part 26

a. The contractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of this U.S. DOT-assisted contract. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the **State of Michigan** deems appropriate. Each subcontract the contractor signs with a subcontractor must include the assurance in this paragraph (*see* 49 CFR 26.13(b)).

b. This contract is subject to the requirements of Title 49, Code of Federal Regulations, Part 26, *Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs.* Each subcontract the contractor signs with a subcontractor must include the assurance in this paragraph (*see* 49 CFR 26.13(b)).
Accordingly, as a condition of permission to bid, a certification must be completed and submitted with the bid. A bid which does not include certification may not be considered.

20. DBE TRANSIT VEHICLE MANUFACTURER CERTIFICATION

ElDorado National - Kansas_____(Name of Manufacturer), a TVM, hereby certifies that it has complied with the requirement of Section 26.49 of 49 CFR, Part 26 by submitting a current annual DBE goal to FTA. The goals apply to Federal Fiscal Year __2012 **_ (October 1, _2010____ to September 30, __2013___) and have been approved or not disapproved by FTA.
_ElDorado National - Kansas____(Name of Contract Vendor), hereby certifies that the manufacturer of the transit vehicle to be supplied __ElDorado National - Kansas__ (Name of Manufacturer) has complied with the above referenced requirement of Section 26.49 of 49 CFR Part 26.

Signature: _ Karin Rexroad _____

Date: _March 27, 2012___

Title: _Transit Sales Administrator_____

Manufacturer: ElDorado National - Kansas_____
**DBE methodology changed by FTA; all vendors have submitted – none have been approved

21. INCORPORATION OF FEDERAL TRANSIT ADMINISTRATION (FTA) TERMS

FTA Circular 4220.1F

The preceding provisions include, in part, certain Standard Terms and Conditions required by U.S. DOT, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by U.S. DOT, as set forth in FTA Circular 4220.1F, 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 Michigan** requests which would cause the **State of Michigan** to be in violation of the FTA terms and conditions.

Attachment B, COST MODEL & EVALUATION FORM
MICHIGAN MEDIUM CLASS OF BUSES SPECIFICATION
Minimum 7 Years/200,000 Miles

Version Date: 2/1/2012

Instructions: Complete each section of the following cost model document. If applicable, provide as much detail as possible, in the evaluation portion, by listing product and model names, sizes, materials used, type, etc. Return completed document with your bid package as this document will be primarily referenced during the evaluation process. **Failure to complete this document and return with your bid package will result in a bid disqualification.**

Body Manufacturer:	**Eldorado National**
Contractor Company Name:	**Hoekstra Transportation**
Contract Address:	**3741 Roger B Chaffee Grand Rapids, MI 49548**
Preparer's Name:	**Steve Bolin**
Inspection Facility:	**Hoekstra Transportation Grand Rapids MI**
Address of Inspection Facility:	**3741 Roger B Chaffee Grand Rapids, MI 49548**

I	**COST MODEL**			
	Qty	**Description**	**Unit Price**	**Extended Total**
		Base Bus Floor Plans – Class One		
A.		**Class One - 26 Foot Bus – Vinyl Seat Covers**		
1.	2	24 passenger without lift	**70,687.00**	**141,374.00**
2.	5	14+2 passenger with lift	**75,762.00**	**378,810.00**
3.	5	10+3 passenger with lift	**75,962.00**	**379,810.00**
B.		**Class One- 26 Foot Bus – Fabric Seat Covers**		
1.	2	24 passenger without lift	**71,167.00**	**142,334.00**
2.	5	14+2 passenger with lift	**76,162.00**	**380,810.00**
3.	5	10+3 passenger with lift	**76,322.00**	**381,610.00**
C.		**Class One – 29 Foot Bus – Vinyl Seat Covers**		
1.	2	28 passenger without lift	**72,917.00**	**145,834.00**
2.	6	18+2 passenger with lift	**78,293.00**	**469,758.00**
3.	6	16+3 passenger with lift	**78,493.00**	**470,958.00**
4.	5	12+4 passenger with lift	**79,623.00**	**398,115.00**
D.		**Class One- 29 Foot Bus – Fabric Seat Covers**		
1.	2	28 passenger without lift	**73,477.00**	**146,954.00**
2.	6	18+2 passenger with lift	**78,773.00**	**472,638.00**
3.	6	16+3 passenger with lift	**78,933.00**	**473,598.00**
4.	5	12+4 passenger with lift	**80,063.00**	**400,315.00**
E.		**Class One – 32 Foot Bus – Vinyl Seat Covers**		
1.	2	32 passenger without lift	**75,187.00**	**150,374.00**
2.	5	22+2 passenger with lift	**80,093.00**	**400,465.00**
3.	5	20+3 passenger with lift	**80,353.00**	**401,765.00**
4.	6	16+4 passenger with lift	**81,563.00**	**489,378.00**
F.		**Class One – 32 Foot Bus – Fabric Seat Covers**		
1.	2	32 passenger without lift	**75,827.00**	**151,654.00**
2.	5	22+2 passenger with lift	**80,653.00**	**403,265.00**
3.	5	20+3 passenger with lift	**80,873.00**	**404,365.00**
4.	6	16+4 passenger with lift	**82,043.00**	**492,258.00**
		SUBTOTAL (Class One Buses A-F)	**1,703,226.00**	**7,676,442.00**
		Base Bus Floor Plans – Class Two		
G.		**Class Two - 26 Foot Bus – Vinyl Seat Covers**		
1.	2	24 passenger without lift	**100,335.00**	**200,670.00**
2.	5	14+2 passenger with lift	**106,480.00**	**532,400.00**

3.	5	10+3 passenger with lift	**106,600.00**	**533,000.00**
H.		**Class Two- 26 Foot Bus – Fabric Seat Covers**		
1.	2	24 passenger without lift	**100,815.00**	**201,630.00**
2.	5	14+2 passenger with lift	**106,880.00**	**534,400.00**
3.	5	10+3 passenger with lift	**106,960.00**	**534,800.00**
I.		**Class Two – 29 Foot Bus – Vinyl Seat Covers**		
1.	2	28 passenger without lift	**101,345.00**	**202,690.00**
2.	6	18+2 passenger with lift	**107,890.00**	**647,340.00**
3.	6	16+3 passenger with lift	**108,010.00**	**648,060.00**
4.	5	12+4 passenger with lift	**109,120.00**	**545,600.00**
J.		**Class Two- 29 Foot Bus – Fabric Seat Covers**		
1.	2	28 passenger without lift	**101,905.00**	**203,810.00**
2.	6	18+2 passenger with lift	**108,370.00**	**650,220.00**
3.	6	16+3 passenger with lift	**108,450.00**	**650,700.00**
4.	5	12+4 passenger with lift	**109,560.00**	**547,800.00**
K.		**Class Two- 32 Foot Bus – Vinyl Seat Covers**		
1.	4	32 passenger without lift	**103,655.00**	**414,620.00**
2.	5	22+2 passenger with lift	**109,750.00**	**548,750.00**
3.	5	20+3 passenger with lift	**109,870.00**	**549,350.00**
4.	6	16+4 passenger with lift	**110,980.00**	**665,880.00**
L.		**Class Two- 32 Foot Bus – Fabric Seat Covers**		
1.	4	32 passenger without lift	**104,295.00**	**417,180.00**
2.	5	22+2 passenger with lift	**110,310.00**	**551,550.00**
3.	5	20+3 passenger with lift	**110,390.00**	**551,950.00**
4.	6	16+4 passenger with lift	**111,460.00**	**668,760.00**
		SUBTOTAL (class two buses G-L)	**2,353,430.00**	**11,001,160.00**
		TOTAL (class one and two buses A-L)	**4,056,656.00**	**18,677,602.00**
M.		**Equipment Options**		
1.	40	Air Conditioning, Split unit **26 foot**	**4,400.00**	**176,000.00**
2.	70	Air Conditioning, Split unit **29 foot**	**6,685.00**	**467,950.00**
3.	70	Air Conditioning, Split unit **32 foot**	**6,685.00**	**467,950.00**
4.	15	Rooftop AC with heat, **26 foot**	**9,100.00**	**136,500.00**
5.	20	Rooftop AC with heat, **29 foot**	**9,100.00**	**182,000.00**
6.	20	Rooftop AC with heat, **32 foot**	**9,100.00**	**182,000.00**
7.	50	Auxiliary Air Heater -Gas	**3,100.00**	**155,000.00**
8.	75	Auxiliary Air Heater & Block Heater (in lieu of Aux Coolant Heater)	**250.00**	**18,750.00**
9.	5	Destination Sign – Roller/Curtain	**1,700.00**	**8,500.00**
10.	25	Destination Sign - LED	**3,550.00**	**88,750.00**
11.	50	Donation box (in lieu of standard farebox – deduct)	**(700.00)**	**(35,000.00)**
12.	50	Farebox Electrical Prep Only (less standard farebox- deduct)	**(800.00)**	**(40,000.00)**
13.	50	Limited Slip Differential (Class One Only)	**0**	**0**
14.	50	Limited Slip Differential (Class Two Only)	**900.00**	**45,000.00**
15.	50	Rear emergency exit window (deduct)	**(300.00)**	**(15,000.00)**
16.	40	Paint - One stripe	**500.00**	**20,000.00**
17.	40	Paint - Roof second color	**500.00**	**20,000.00**
18.	40	Paint - Different Full body	**1,300.00**	**52,000.00**
19.	25	Reflective Vinyl Belt Stripe	**500.00**	**12,500.00**
20.	20	Lift – Type I (in lieu of standard lift - deduct)	**(320.00)**	**(6,400.00)**
21.	20	Lift – Type II – Powered outer barrier (in lieu of standard lift)	**(320.00)**	**(6,400.00)**
22.	20	Lift - Folding Platform (in lieu of standard lift)	**(320.00)**	**(6,400.00)**
23.	100	Wheelchair Single Point Securement System (in lieu of one standard L-Track position)	**150.00**	**15,000.00**
24.	15	Additional Wheelchair Position – L Track System	**450.00**	**6,750.00**
25.	15	Additional Wheelchair Position – Single Point System	**560.00**	**8,400.00**
26.	40	Two-way radio prep package	**500.00**	**20,000.00**
27.	40	Radio - AM/FM stereo system w/ four speakers	**500.00**	**20,000.00**
28.	10	Public Address (PA) System Only w/ two speakers	**250.00**	**2,500.00**
29.	10	Radio – AM/FM/PA System w/ four speakers	**625.00**	**6,250.00**
30.	10	Radio – Speaker only (additional)	**50.00**	**500.00**
31.	50	Rear Air Ride Suspension (Class One Only)	**5,800.00**	**290,000.00**
32.	75	Rubber Flooring (in lieu of slip resistant smooth flooring) - Deduct	**150.00**	**11,250.00**
33.	75	Entrance Stepwell Heater	**300.00**	**22,500.00**

34.	80	Electric Driveline Brake (Retarder)	**6,600.00**	**528,000.00**
35.	25	Seating – Rear five place passenger – Vinyl	**0**	**0**
36.	25	Seating – Rear five place passenger - Fabric	**0**	**0**
37.	5	Seating – Forward Facing Standard Double Seat - Vinyl	**470.00**	**2,350.00**
38.	5	Seating – Forward Facing Standard Double Seat - Fabric	**510.00**	**2,550.00**
39.	5	Seating – Forward Facing Standard Double Seat – Vinyl (Deduct)	**(470.00)**	**(2,350.00)**
40.	5	Seating – Forward Facing Standard Double Seat – Fabric (Deduct)	**(510.00)**	**(2,550.00)**
41.	5	Seating – Forward Facing Double Fold-A-Way - Vinyl	**730.00**	**3,650.00**
42.	5	Seating – Forward Facing Double Fold-A-Way - Fabric	**770.00**	**3,850.00**
43.	5	Seating – Forward Facing Double Fold-A-Way – Vinyl (Deduct)	**(730.00)**	**(3,650.00)**
44.	5	Seating – Forward Facing Double Fold-A-Way –Fabric (Deduct)	**(770.00)**	**(3,850.00)**
45.	5	Seating – Double Flip-up – Vinyl	**530.00**	**2,650.00**
46.	5	Seating – Double Flip-up - Fabric	**570.00**	**2,850.00**
47.	5	Seating – Double Flip-up – Vinyl (Deduct)	**(530.00)**	**(2,650.00)**
48.	5	Seating – Double Flip-up – Fabric (Deduct)	**(570.00)**	**(2,850.00)**
49.	5	Seating – Double w/Single Integrated Child Seat (ICS) - Vinyl	**1,060.00**	**5,300.00**
50.	5	Seating – Double w/Single Integrated Child Seat (ICS) – Fabric	**1,100.00**	**5,500.00**
51.	5	Seating – Double w/Single Integrated Child Seat (ICS) – Vinyl (Deduct)	**(1,060.00)**	**(5,300.00)**
52.	5	Seating – Double w/Single Integrated Child Seat (ICS) – Fabric (Deduct)	**(1,100.00)**	**(5,500.00)**
53.	5	Seating – Double w/Double Integrated Child Seat (ICS) - Vinyl	**1,440.00**	**7,200.00**
54.	5	Seating – Double w/Double Integrated Child Seat (ICS) - Fabric	**1,480.00**	**7,400.00**
55.	50	Driver's Power Seat Base (Class One Only)	**N/A**	**N/A**
56.	50	Alt. Engine – Gas (Class One Only) – Deduct	**(5,015.00)**	**(250,750.00)**
57.	10	Alt. Engine – Propane (Class One Only)	**N/A**	**N/A**
58.	5	Alt. Engine – CNG (Class One Only)	**23,200.00**	**116,000.00**
59.	10	Stop Request System	**900.00**	**9,000.00**
60.	80	Back-up Sensor System	**1,100.00**	**88,000.00**
61.	40	Video Surveillance – Two Camera System	**2,200.00**	**88,000.00**
62.	20	Video Surveillance - Four Camera System	**2,500.00**	**50,000.00**
63.	5	Video Surveillance - Six Camera System	**4,000.00**	**20,000.00**
64.	10	Video Surveillance - DVR System Upgrade	**300.00**	**3,000.00**
65.	10	Video Surveillance – Extra Interior Cameras	**300.00**	**3,000.00**
66.	10	Video Surveillance – Extra Exterior Cameras	**300.00**	**3,000.00**
67.	10	Video Surveillance Preparation Package	**300.00**	**3,000.00**
		SUBTOTAL (Options)	**103,550.00**	**3,001,700.00**
GRAND TOTAL PRICE OF A, B, C, D, E, F, G, H, I, J, K, L, and M ABOVE			**4,160,206.00**	**21,679,302.00**

Attachment B, COST MODEL & EVALUATION FORM

MICHIGAN MEDIUM CLASS OF BUSES SPECIFICATION

Minimum 7 Years/200,000 Miles

II	BODY SPECIFICATIONS			
		Item	**Product Name and Model**	**Size, Material, and/or Type**
A.		General design and construction		
B.	1.	Body structure and exterior panels	**Eldorado Aero Elite 26-32' model body**	**Fiberglass reinforced plastic body integrated with steel reinforced construction for secure attachment points.**
	2.	Rollover frame, steel cage type	**N/A**	**N/A**
	3.	Body section thickness	**N/A**	**N/A**
	4.	Rollover frame, steel cage type	**ENC Body**	**Interlocked resin saturated fiberglass mattin and mechanical fasteners, forming a unibody design. Matrix of fiberglass reinforced plastic with an inner thickness of Nidacor resin-hardened honeycomb material. Also includes Nidacore (plastic honeycomb) around all opeinings (i.e. windows, roof hatches etc.)**
	5.	Body section thickness	**ENC Body**	**Exterior surface: 020" minimum high gloss gelcoat backed by 3/16" minimum thickness resin-hardened fiberglass reinforced plastic. The center composite is 3/4" resin-hardened matrix of honeycomb and nidacore laid on edge for maximum column strength of each cell. Steel sections are fully integrated into wall and roof structure to insure additional structural integrity and attachement points for stanchions and handrails. Final surface is a minimum 3/16" thickness of fiberglass reinforced plastic**
	6.	Exterior panels	**ENC Body**	**See 5 for description**
	7.	Interior panels	**ENC Body**	**FRP as specified**
	8.	Interior length	**ENC Body**	**Varies based on model ordered**
	9.	Interior width	**ENC Body**	**90.5"**
	10.	Interior height	**ENC Body**	**79"**
	11.	Exterior length	**ENC Body**	**26'8" – 31'8" depending on model ordered**
	12.	Exterior width	**ENC Body**	**96"**
	13.	Exterior height	**ENC Body**	**124.5" excluding roof options**
	14.	Rubrails	**ENC Body**	**2" rubber in plastic molding**
	15.	Body overhang	**ENC Body**	**98" – 135" depending on model ordered**
C.	1.	Passenger door	**A & M**	**36" electronically operated**
	2.	Opening Size	**A & M**	**32" clear opening**
D.		Stepwell	**ENC Body**	**14 gauge stainless steel**
E.		Interior – Color	**ENC Body**	**OEM White**
F.		Flooring	**ENC Body**	**Subfloor - Marine grade plywood, undercoated before and after installation onto steel floor structure. ALTRO Meta Floor covering.**
G.		Emergency exits	**ENC Body**	**SMI Transpec Roof Hatch, Pushout EgressWindows, Rear Door or Window as specified**
H.		Gauges	**Navistar or Ford**	**OEM gauges include all per specification**
I.		Fare box	**Main**	**M2 with extra vault and keyed alike**
J.		Bumpers	**SMI**	**OEM front and SMI energy absorbing bumper on rear as specified**
K.		Mud Flaps and Splash Guards	**ENC Body**	**Commercial grade anti sail with T brackets as specified – 6" approximate gap to ground**
L.		Towing	**ENC OEM**	**ENC Rear tow hooks/OEM Front where available**
M.	1.	Undercoating	**Tectyl 121B**	**Tectyl 121B body and cab per specification**
	2.	Rustproofing	**Waxoyl**	**Waxoyl**

N.	1.	Interior mirrors	**ENC**	**6 X 9 INTERIOR AE**
	2.	Sunvisors	**OEM**	**OEM**
O.		Exterior Mirrors	**Rosco**	**Heated Remote Rears per specification along with Cross Over mirror on front.**
P.	1.	Seats – Driver		
	2.	Seats – Passenger	**Freedman**	**Various Freedman mid-back seats per floor plan requirements. All with required USR seatbelts, grab handles and seat covers where applicable.**
	3.	Seats – Fold-up	**Freedman**	**Featherweight folding**
	4.	Seats – Flip-up	**Freedman**	**Featherweight handi-flip**
Q.		Handrails, stanchions	**ENC**	**Powder-coat Yellow**
R.		Interior lighting – LED	**Optronics**	**All LED as specified**
S.		Exterior lighting - LED	**Optronics**	**All LED as specified**
T.	1.	Heating / ventilating – Front System	**OEM**	**As specified**
	2.	Heating / ventilating – Rear System	**ProAir**	**65K + 45Kbtu rear system heater**
U.		Windows	**Clear Vision**	**T-Slider with tint as specified**
V.		Paint	**Sikkens**	**Akzo-Noble**
W.		Insulation	**ENC**	**OEM construction**
X.		Lift (platform type)	**Braun**	**1000lb. Century NCL919FIB – 2 Front Pump**

III	**WHEELCHAIR SECUREMENT AREA**					
		Item	**Product Name and Model**	**Size, Material, and/or Type**		
A.		Wheelchair securement	**Q'Straint**	**54" x 30" on 1st position as specified**		
B.		Wheelchair restraints	**Q'Straint**	**Q8100-A1-L**		
C.		Restraint storage system	**Q'Straint**	**Foldaway underseat attachement TDSS – Plus one storage bag as requested.**		
IV	**CHASSIS SPECIFICATIONS**					
		Item	**Class 1 Product Name/Model**	**Class 1 Size, Material, and/or Type**	**Class 2 Product Name/Model**	**Class 2 Size, Material , and/or Type**
A.		Chassis	**International**	**19,500 GVWR UC Chassis**		
B.		Tilt Wheel/Power Steering	**International**	**As Specified**		
C.		Wheelbase(s)	**International**	**195-233" depending on model ordered**		
D.	1.	Engine - Diesel	**International**	**{MaxxForce 7} EPA 10, 220 HP @ 2600 RPM, 560 lb-ft Torque @ 1400 RPM, 2800 RPM Governed Speed, 220 Peak HP (Max)**		
	2.	Auxiliary Coolant Heater	**Espar**	**M2-10 with 10 day timer**		
E.		Transmission	**Allison**	**{Allison 1000_PTS} 4th Generation Controls; Close Ratio, 5-Speed, With Overdrive;**		

				Less PTO Provision, Includes Park Pawl, Less Retarder, With 19,500-lb GVW & 26,000-lb GCW Max., Shuttle Bus		
F.		Alignment	**Eldorado Nat'l**	**Aligned prior to shipment to Michigan to ensure proper arrival after 800 mile journey. If preferred by the State this can be changed to alignment in Michigan. (not recommended)**		
G.	1.	Gross Vehicle Weight Rating (GVWR)	**International**	**19,500 lb.**		
	2.	Front axle rating	**International**	**I-Bean type 7000 lb.**		
	3.	Rear axle rating	**International**	**Single Reduction, 13,500-lb Capacity, With 190 Wheel Ends**		
H.		Differential	**International**	**Gear Ratio 4.56**		
I.		Battery				
J.		Battery Cables and Grounds	**International**	**Protective cover on terminals – no exposed copper as specified**		
K.		Alternator	**Bosch**	**{Bosch LH200} Brush Type, 12 Volt 200 Amp. Capacity, Pad Mount**		
L.		Engine Fast Idle	**ENC**	**OEM System**		
M.		Brakes	**International**	**HYDRAULIC {TRW 355} Split System, With Three Channel ABS**		
N.		Fuel tank	**International**	**40 gallon approved on 27' model. All others 65 gallon as specified**		
O.		Hazard flashers	**International**	**Push On/Push Off, Located on Top of Steering Column Cover**		

P.		Shock absorbers	**International**	**OEM**		
Q.	1.	Suspension - Front	**International**	**SUSPENSION, FRONT, SPRING Taper Leaf, Shackle Type; 7,000-lb Capacity; With Shock Absorbers**		
	2.	Suspension - Rear	**MorRyde**	**MorRyde Rear Suspension as specified.**		
R.		Stabilizer	**International**	**OEM**		
S.		Wheels	**International**	**DISC; 19.5" Painted Steel, 10-Stud (225mm BC) Hub-Piloted, Flanged Nut, Metric Mount, 6.00 DC Rims; With Steel Hubs**		
T.		Tires	**OEM Brand Varies**	**225/70R19.5 G647 RSS (GOODYEAR) 640 rev/mile, load range G, 14 ply**		
U.		Drive shaft	**International**	**with guards as specified**		
V.		Wipers / Horn	**International**	**HORN, ELECTRIC (2) - 2-Speed with Wash and Intermittent Feature (5 Pre-Set Delays), Integral with Turn Signal Lever**		
W.		Radiator and cooling system	**International**	**Aluminum; 2-Row, Cross Flow, Side-by-Side System, 697 SqIn Louvered, With 225 SqIn CAC, With In-Tank Oil Cooler**		
X.		Fluids	**International**	**As specified**		
Y.		Engine Cover/Trim	**International**	**CAB SOUND INSULATION Includes Dash Insulator and Engine Cover Insulator**		

Z.		Exhaust system	**International**	**per specification except where regulation prevents modification**		

V	**OTHER ITEMS**			
		Item	**Product Name and Model**	**Size, Material, and/or Type**
A.	1.	Safety – Fire extinguisher	**ENC OEM**	**5lb mounted vertically per specification**
	2.	Safety – Reflective triangles	**ENC OEM**	**Mounted per pilot**
	3.	Safety – Reverse alarm	**ECCO**	**Model 510SG located per specification**
	4.	Safety-Rear door alarm	**ENC**	**EP3 light and alarm**
	5.	Safety- Exterior height (clearance) decal	**ENC**	**As specified**
	6.	Safety-Lift interlock system	**ILLS Gateway**	
	7.	Safety-Warning/engine shutdown system	**Ford/Navistar**	**OEM system**
	8.	Safety-Headlight control	**OEM**	**OEM Syetem**
	9.	Safety-Strobe light	**Grote – This is the same strobe approved and used on the past 4 MDOT bus contracts.**	**Mounted approx. 6' from rear of bus**
B.	1.	Lift circuit breaker	**Braun/ENC**	**Installed in battery box on units with battery boxes and under the hood on units with OEM battery mounting.**
	2.	12-volt power point	**Chassis OEM**	**Per specification**
	3.	Wire coding and harnesses	**ENC OEM**	**Complete plug and play harness, each harness is taged for function, each wire is color coded and stamped every 6 inches. Harness function tag stays on all harenesses if used or not.**
	4.	Electrical panel	**ENC OEM**	**EP3**
	5.	Wiring support	**ENC OEM**	**As specified**
	6.	Wiring grounds and capacity	**ENC OEM**	**Two main grounds to chassis frame at front and back of bus, all other ground go back to panel and are spread evenly on ground bar. As specified.**

	7.	Constant run solenoid	**ENC OEM**	**As specified**
	8.	Circuit capacity & function	**ENC OEM**	**As specified**
	9.	Wiring protection	**ENC OEM**	**As specified**
	10.	Wiring routing	**ENC OEM**	**Routed along rails – loomed and supported per specification.**
	11.	Wiring connections	**ENC OEM**	**Plug and play with WeatherPak on exterior connections per specification.**
VI	**OPTIONS – ALTERNATE QUOTES**			
A.		Air Conditioning, Split unit	**ACT**	**27 foot models: AC, ACT 50 MAX 70Kbtu + CR-2** **29 & 32 foot models: AC, ACT-91 CR3/21**
B.		Rooftop AC with heat	**Thermo King**	**SR50C with heat per specification**
C.	1.	Auxiliary Air Heater - Gas	**Espar**	**Airtronic D5 with 7 day timer**
	2.	Auxiliary Air Heater/Engine Block Heater (in lieu of aux. coolant heater).	**Espar**	**Airtronic D5 with 7 day timer – includes block heater**
D.	1.	Destination Sign – Roller/Curtain	**Transign**	**Transign Roller**
	2.	Destination Sign - LED	**Transign or Twin Vision**	**Twin Vision LED Mobilite or Transign Vista Star – Customer choice.**
E.		Donation box (in lieu of standard farebox – deduct)	**Main**	**D50 donation box mounted per specification**
F.		Farebox Electrical Prep Only (less standard farebox-deduct)	**ENC**	**ENC power prep for adding a farebox in the future.**
G.	1.	Limited Slip Differential (Class One)	**Ford Motor Co.**	**OEM Chassis**
	2.	Limited Slip Differential (Class Two)	**Navistar International**	**OEM Chassis**
H.		Rear emergency exit window	**Clear Vision**	**Rear egress window with alarm as specified.**
I.	1.	Paint - One stripe	**Akzo-Noble Sikkens**	**Per specification**
	2.	Paint - Roof second color	**Akzo-Noble Sikkens**	**Per specification**
	3.	Paint - Different Full body	**Akzo-Noble Sikkens**	**Per specification**
	4.	Reflective Vinyl Belt Stripe	**Hoekstra Transportation**	**Up to 11" belt stripe 10 year vinyl**
J.	1.	Lift – Type I (in lieu of standard lift)	**Braun**	**NCL919FIB-2 Century**
	2.	Lift – Type II – Powered outer barrier (in lieu of standard lift)	**Braun**	**NL919FIB-2 Millennium**
	3.	Lift - Folding Platform (in lieu of standard lift)	**Braun**	**NVL917FIB-2 Vista**
K.	1.	Wheelchair Single Point Securement System (in lieu of one standard L-Track position)	**Q'Straint**	**Q8100-SC-A1 Slide-N-Click.**
	2.	Additional Wheelchair Position – L Track System	**SurLok**	**FF612S-6 (S/L) L-TRK - W/S-HOOKS**
	3.	Additional Wheelchair Position – Single Point System	**Q'Straint**	**Q8100-SC-A1 Slide-N-Click.**

L.		Two-way radio prep package	**ENC OEM**	**Prep package to include two access panels, two ground planes and wiring per specification.**
M.	1.	Radio - AM/FM stereo system w/ four speakers	**OEM Chassis**	**OEM radio and antenna to be provided where available. Includes speakers**
	2.	Public Address System Only w/ two speakers	**Jensen**	**Separate PA and Mic PA500**
	3.	Radio - AM/FM/PA stereo system w/ four speakers	**Jensen**	**Where a PA is integrated the system will be Jensen. Includes speakers JDH3510**
	4.	Radio – Additional speaker	**ENC OEM**	**OEM**
N.		Rear Air Ride Suspension (Class One)		
O.		Rubber Flooring (in lieu of smooth/slip-resistant flooring)	**RCA**	**RCA Rubber flooring**
P.		Entrance Stepwell Heater	**Lighthouse**	**Warm Welcome**
Q.		Electric Driveline Brake (Retarder)	**Thelma**	**Per specification**
R.	1.	Seats – Rear five place passenger	**Freedman Seating Co.**	**Mid-Back with USR belts except on middle seat, seat covers. No grab handles.**
	2.	Seats - Forward Facing Standard Double Seat	**Freedman Seating Co.**	**Mid-Back with USR belts, grab handles and seat covers**
	3.	Seats – Forward Facing Double Fold-A-Way	**Freedman Seating Co.**	**Mid-Back Featherweight Fold-a-away with USR belts, grab handles and seat covers**
	4.	Seats – Double Flip-Up	**Freedman Seating Co.**	**Freedman Double Handi-Flip with seatbelts, seat covers and grab handles.**
	5.	Seats- Double w/Single Integrated Child Seat (ICS)	**Freedman Seating Co.**	**ICS with companion seat - with USR belts, grab handles and seat covers**
	6.	Seats- Double w/Double Integrated Child Seat (ICS)	**Freedman Seating Co.**	**Double ICS with USR belts, grab handles and seat covers**
S.		Driver's Power Seat Base (Class One)	**N/A on Ford F550**	**Std on UC International Chassis**
T.	1.	Alt Engine – Gas (Class One)	**N/A on UC Chassis**	**N/A Diesel Only**
	2.	Alt Engine – Propane (Class One)	**N/A See bidders notes**	**N/A**
	3.	Alt Engine – CNG (Class One)	**N/A on UC Chassis**	**N/A**
U.		Stop Request System	**ENC OEM**	**ENC System with pull chords and driver alert systems**
V.		Back-Up Sensor System	**Hawkeye**	**Integrated into SMI Bumper with driver system per specification.**

W.	1.	Video Surveillance – Two Camera System	**REI**	**4 CH HD400 DVR w/2 Cameras & 320GB Hard Drive**
	2.	Video Surveillance - Four Camera System	**REI**	**4 CH HD400 DVR w/4 Cameras & 320GB Hard Drive**
	3.	Video Surveillance - Six Camera System	**REI**	**8 CH HD800 DVR w/6 Camera & 500GB Hard Drive**
	4.	Video Surveillance - DVR System Upgrade	**REI**	**Upgrade from 320gb to 500gb Hard Drive**
	5.	Video Surveillance – Extra Interior Cameras	**REI**	**Same as system**
	6.	Video Surveillance – Extra Exterior Cameras	**REI**	**Same as system**
X.		Video Surveillance Preparation Package	**ENC**	**ENC preparation**

VII	**VENDOR / MANUFACTURER REQUIREMENTS**		**List electronic file names**
A		Bus information furnished	**Will be supplied as specified at pilot**
B		Manufacturer quality control (name/title)	**7-Quality Assurance.doc**
C		Air conditioning certification	**Will be conducted as specified at pilot**
D		Heating/Ventilating certification	**Will be conducted as specified at pilot**
E		Purchaser inspection	**Agreed No Exceptions**
F		Warranty	**No exceptions**
G1		Miscellaneous - Turning radius wheel to wheel	**Supplied – various file names**
G2		Miscellaneous- Turning radius wall to wall	**Supplied – various file names**
VIII	**BID DOCUMENTS**		**List electronic file names**
A.		Completed Michigan RFP & Bus Specification forms	**1-Cost Model.docx** **1.5 ADDL Cost Model.docx** **3-Article 2 Acknmnt.doc** **4-RFP Articles 1-4.doc** **A1-EVALUATION FORM.docx** **A2-EVALUATION FORM.docx**
B.		Bus floor plans	**33 floor plans and 33 weight calcs of various file names**
C.		Entrance door and door opening device design	**Entrance Door.doc**
D.		Entrance step configuration design	**Entrance Step.doc**
E.		Roof, sidewall, and flooring drawings	**RoofWallsFlooring.pdf**
F.		Manufacturer's chassis description (specifications)	**FordSpecF550Diesel.pdf** **FordSpecF550Gas.pdf** **Class 1 UC Chassis.pdf** **Class 2 TC Chassis.pdf**
G.		Body to chassis frame mounting	**Body to Frame Mounting.doc**
H.		Wheelchair lift manufacturers' specifications	**H1-Wheelchair Lift.pdf** **H2-Wheelchair Lift Options.doc**
I.		Body, chassis, and drive train warranties	**WarrantyAcknlmnt.docx** **OverviewWarranties.doc**
J.		Pre-Award FMVSS compliance self-certification	**DBE TVM.doc** **Bus Manuf Cert.doc**
K.		Bus Rollover protection Test (FMVSS 220) Certification	**FMVSS Approvals Cert.doc**
L.		Federal Transit Administration (FTA) Clauses	**FTA CLAUSES.docx**
M.		Pre-Award Buy America analysis of manufacturer's component and subcomponent parts	**MDOTAEN320pre.pdf** **MDOTAEF320pre.pdf**
N.		Seat covering material flammability and smoke data	**SeatFlamabilitySmokeData.doc**
O.		Seat frame salt spray test data	**Salt Spray Data.doc**

P.		Seat and seat belt certification	**3PT Foldaway test2.doc** **3PT Rigid test.doc** **FreedmanCompliance.doc** **SeatBelt Certifications.doc**
Q.		Wiring and switch certification	**Wiring Certification.doc**
R.		Valid Motor Vehicle Dealer Licensing	**dealerlicense.pdf**
S.		Dealer Agreement	**Dealer Agreement ENC & HTI.doc**
T.		Bus Testing Certification	**T1-Ford7yr200m.pdf** **T2-IntL 7y200m.pdf**
U.		Certification for 1,000 hour salt spray test per ASTM procedure B-117.	**U-Salt Spray.doc**

IX	**EXCEPTIONS - List all exceptions in the space below:**

Hoekstra Transportation is very please to offer this proposal free of exceptions to the best of our knowledge. There are some optional items that are not available at this time listed below, however, we feel we can provide these products as we have in the past to the States satisfaction. Thank you.

X	**BIDDER COMMENTS**

Thank you for the opportunity to bid once again on this contract. Below are bidders notes to help clarify any questions. Please call me directly with any questions or clarifications needed.

Overall comments:

1. The rear 5-passenger bench option is already included in the rear window option and consequently is a no cost option on the cost model.
2. We have submitted TWO(2) Cost Models and Evaluation Forms as we are proposing two CLASS I options. This is the evaluation form for the Navistar UC Chassis Class I. Please see A1-EVALUATION FORM for the Ford F550 Class I and Navistar TC Chassis Class II proposal.

Class I Navistar UC

1. The Altoona Test for the Navistar UC Class I bus is forthcoming. This process is underway and the test will be supplied prior to building if this chassis is successful in the contract process.
2. There are no Gas, LPG or CNG options available for the Navistar UC chassis.
3. The Navistar UC Chassis does not come with an “external” transmission cooler. The chassis and transmission OEM’s do not recommend this as the chassis is supplied with an “in tank” transmission cooling system. If it is the State’s preference, in lieu of the OEM’s recommendation, to have an external transmission cooler, there is a 3rd party option for this at a cost of $1,100 per unit.
4. Each bus will have an operators manual for the engine and chassis. Bid includes BUS ISIS, a web based source for repair manuals, circuits, etc is included with bid.

ATTACHMENT C
STATE OF MICHIGAN
PUBLIC TRANSPORTATION

SPECIFICATIONS FOR
MEDIUM 7-Years/200,000 Miles (Minimum)
CLASS OF
Non-lift Buses - Lift Buses with Alternate Floor Plans

Office of Passenger Transportation
Program Administration Section
Revised December 2012

MDOT
Michigan Department of Transportation

ATTACHMENT C
STATE OF MICHIGAN
SPECIFICATIONS

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ATTACHMENT C

STATE OF MICHIGAN

PUBLIC TRANSPORTATION
BUS SPECIFICATIONS FOR

Medium - 7-Years/200,000 Miles (Minimum)

I. PURPOSE OF SPECIFICATIONS

These specifications are setting forth the minimum requirements for a two-axle, transit class commercial non-lift bus or a Paratransit type commercial bus equipped with a commercial wheelchair lift. The body shall be mounted on a commercial or recreational vehicle (RV) chassis. Buses in these specifications shall be defined by the following classes:

A. Medium Class One: Minimum 19,500 GVWR
B. Medium Class Two: Minimum 22,000 GVWR

Unless specified the following specifications shall apply to all classes of buses. The medium class of buses must be capable of seating a minimum of 24 adult forward facing passengers or an alternate capacity of ambulatory adult passengers and wheelchair passengers. The buses shall be fully tested at the Penn State bus test facility in Altoona, Pennsylvania to Federal Transit Administration [FTA] minimum service life category of 7-year or 200,000 miles for medium buses. As a minimum, buses must meet all applicable Michigan Motor Carrier Vehicle Codes, all applicable Federal Motor Vehicle Safety Standards (FMVSS), and the Americans with Disabilities Act (ADA).

Any successful bidder supplying these buses shall quick title and deliver the bus and the title to the location specified by the State of Michigan, Office of Passenger Transportation. Chassis serial number, body number, axle ratio, gross vehicle weight rating (GVWR), seating capacity and paint codes shall be imprinted on a permanent decal(s) or stamped on a metal plate(s) and affixed in the driver's area of the bus (location to be approved by the State).

The bidder shall be a licensed motor vehicle dealer in their state, county, or municipality (proof of licensing shall be provided with bid) and be capable of handling final inspection and corrections required by the State prior to acceptance of the buses after a contract is awarded. A copy of the dealer agreement between the bus manufacturer and the designated bidder will be required as part of the bid. Also, repair facilities shall be established throughout the State to provide chassis and body service support to transit agencies to minimize agency travel to reach the nearest repair facility. The successful bidder must be capable of providing parts and service for a period of ten years after the buses have been placed in service throughout the State of Michigan. The successful bidder must be able to supply replacement parts within 5 working days of a request by a transit agency unless the bidder notifies the transit agency that the part is not available for shipment and provides the shipping date when the part will be available.

Regardless of options and seating plan ordered, the successful bidder shall be responsible for certifying that all buses delivered: 1) shall not exceed 100% of front spring and 100% of rear spring capacity rating at ground without exceeding GVWR of chassis as bid (determined by engineering calculated loaded bus axle weights), and 2) bus length when measured bumper to bumper excluding the energy absorbing portion of the bumper shall not exceed the following:

Class	Bus Length	Shall not exceed the following lengths
Medium 1 & 2	26’	27’ 11”
Medium 1 & 2	29’	30’ 11”
Medium 1 & 2	32’	32’ 11”

Manufacturers shall comply with the chassis company’s quality vehicle manufacturing programs such as Ford’s Quality Vehicle Modifier (QVM).

In these specifications any required approvals shall be made by the State. Wherever brand, manufacturer, or product names are used, they are included only for the purpose of establishing a description of minimum quality of the item. This inclusion is not to be construed as advocating or prescribing the use of any particular brand or item or product. For this bid requests/questions can be submitted, in writing, and be considered as approved equals and exceptions to the bid specifications. An addendum/written response will be made for all bidders prior to the bid due date.. A written response will be made for all bidders prior to the bid due date. The State must be able to determine whether the bidder's offered product is or is not equal to the product described in the specifications from information (technical data, test results, and the like) contained in the bid. All detailed descriptions and specifications provided in the bid must match the product offered for use in the bid.

II. BODY SPECIFICATIONS

A. General Design and Construction

SAFETY: The chassis and body shall be designed using only prudent, proven engineering principles with all work performed only by professional established firms. The bus purchased shall comply with all State regulations and requirements applicable to the design and manufacture of motor buses for the State of Michigan.

DRIVER SIZE and COMFORT: Design criteria of bus purchased shall be for all females from the 5th percentile, to males of the 95th percentile, to be equally as comfortable in using all controls required to safely drive and maneuver the bus. All driver controls shall comply with FMVSS 101, with hand and foot controls required to operate the bus safely, including the placement of exterior adjustable mirrors, positioned to meet this safety requirement.

QUALITY of WORKMANSHIP: All labor employed in both the manufacturing and assembly processes of the bus purchased shall be to the highest industry standards. The entire bus shall be within all established engineering tolerances set by all parties involved in the design and production of the bus. All added components shall be installed and positioned according to the component manufacturer’s installation procedures which shall be available upon request.

WELDING: All welding procedures used throughout the construction of the bus, including materials, qualifications and training of personnel, shall be in accordance with the standards of the American Society for Testing and Materials (ASTM) and the American Welding Society (AWS). Contact surfaces of all material to be welded shall be clean, and free of grease, paint, rust and scale. After welding, all rough edges and

surfaces on parts shall be ground smooth and coated with a corrosion inhibiting primer and paint.

ATTACHMENT HARDWARE: All rivets, screws, bolts, nuts, washers and other types of fasteners used in the construction process, including those that would be exposed to the elements, shall be of appropriate size and strength rating for the application. They shall be sprayed with or dipped in a rust-resistant coating material, be plated, be stainless steel, or otherwise be made of rust-resistant type material, all of which will pass the 1000 hour ASTM B117 Salt Spray test and the 1000 hour ASTM D2247 Humidity Resistance test. Fasteners used by the respective component manufacturers in their assemblies are acceptable as part of the assembly.

B. Body Structure and Exterior Panels

1. Metal Rollover Frame, Cage-type Construction

a. The bus shall have a heavy-duty, unit-body structure type. The body structure (rollover frame, cage type of gauge #16 steel, 0.060" or equal, minimum) shall be of durable steel or aluminum construction, and adequately reinforced at all joints and points of stress, with sufficient strength to comply with the FMVSS 220 rollover protection test. All body and floor structural members (tubes, channels, etc.) shall be Gas Metal Arc Welded (GMAC) or equal at each joint. A MIG welding system is acceptable provided it meets the requirements of this specification. Each bidder shall provide certification with the bid that the bus, as bid, meets the FMVSS 220 rollover protection test (see Section VIII).

b. The bus shall be designed to withstand road shocks, stop and start operations, seasonal weather and road extremes, and other conditions found in Michigan transit bus service. The body shall be securely fastened to the chassis frame structure using a method of uniform attachment consisting of strategically placed rubber isolators/cushions with connector bolts that permit body flexing independent of chassis flexing. Roof, side, front, and back panels shall be secured to the body vertical and horizontal frame members, and these, when fastened to the floor structural members, result in a permanent, fully-integrated structural unit adequately reinforced at all points where stress concentration may occur. The wall structure shall be bolted to the floor with grade 8 bolts to provide adequate stability in the event of a non-static rollover event. The body floor sub-frame assembly, including lower skirt reinforcements, shall be, at a minimum, gauge number 14 (.075" thickness) galvanized steel (mill applied), or gauge number 16 stainless steel, or gauge number 12 aluminum, or gauge number 14 steel treated a with corrosion resistant coating. All body floor sub-frame assembly shall meet 1,000 hour salt spray test per ASTM procedure B-117, with no structural detrimental effects to normally visible surfaces. Certification of compliance with this requirement shall be published by an independent company and be submitted with the bid. Wheelwells shall have minimum yield strength of gauge number 14 (.075" thickness) galvanized steel, gauge number 16 (.060" thickness) stainless steel, or gauge number 12 (.10" thickness) aluminum properly welded or secured with approved corrosion resistant fasteners to the floor structure. The entire body cage and frame including floor structure shall be properly

coated with a corrosion resistant coating or a non -water permeable primer/paint. All components treated to resist corrosion shall be properly cleaned to remove greases, oils, and residues before application of the corrosion resistant material. Passage holes provided for wiring and hoses shall be thoroughly sealed to prevent dust and moisture intrusion and be sufficiently protected to ensure against wear from friction and the elements. When completed, all body side sections and roof sections including structure shall be at a minimum 1¼" thick. Where body segments are joined they shall be properly sealed to prevent intrusion of drafts, fumes, dust, and water to the interior of the bus body.

c. All exterior side and roof panel material shall be fiberglass reinforced plastic (FRP), it shall have as a minimum, of 2.16 mm (0.080”) thick material (comprised of various layers of gel-coat, reinforcement and resins). It shall be designed to resist impact cause by flying road debris. The material must resist rot, corrosion, and mildew and cannot be affected by cleaning related chemicals, road residue or environmental exposure. Reinforcements shall be installed around all window openings in order to transfer stress around the opening. All door openings shall have full structural framing (tube) or imbedded reinforcements, equal to the structural members of the body that will adequately support concentrations of stress around openings. All exposed door frame structure shall be made of 304 stainless steel (including the fasteners), which does not discolor with age. Where a stiffener or a backer material (substrate) is used for the exterior panels, it shall be bonded with waterproof adhesive to the exterior panel; it shall be a water resistant material that will not wick water; and it must be thoroughly sealed from the elements when installed so that the substrate will not be exposed to or absorb moisture and cause corrosion to the interior of the panel or any body structure. Exterior panel substrate shall not be of wood composition, plywood or a pressed wood product. Where body segments are joined they shall be properly sealed to prevent intrusion of drafts, fumes, dust, and water to the interior of the bus body.

d. All interior panels and trim may be made of scuff-resistant laminate/FRP or molded ABS finished material. Interior panels shall have as a minimum the physical properties of gauge number 24 (.024" thickness). Interior panel substrate shall not be of wood composition, plywood or a pressed wood product. Interior panel threaded fasteners or rivets shall secure panels to body framing structure. Where fasteners are in the panels only, a reinforcing nut or reinforcing panel shall be installed for added strength and fastener retention.

e. Exterior lower skirt panels shall be fiberglass or composite material and shall be sufficiently stiff to prevent vibration, drumming, or flexing while the bus is in service. Body front and/or rear endcaps may be molded fiberglass panels installed with required structural framing or a FRP composite structure. Lower skirt panels may be one piece in length at manufacture but shall be repairable in sections. Lower skirt panels shall not use a wood substrate material for a panel stiffener. Where exterior panels are lapped, the upper or forward panels shall act as a watershed. Exterior panels that are cut shall have the cut edge sealed (paint or special sealing compound). Sealing and fastening of panel joints, including front

and rear cap-to-body joints, shall prevent entrance of moisture and dirt. Joint sealing shall be made through use of a non-shrinking bonding sealant, and joint sealing shall not be solely dependent on an exterior trim strip or a trim cap nor shall the sealing of the panels be dependent on caulking alone. All exterior panels shall be buck riveted and/or bonded to the body frame structure.

f. The exterior body panels shall have on each side one heavy-duty rubrail. Rubrails (1½" x ½" minimum) shall be extruded solid aluminum or extruded UV resistant plastic with a flexible, rubber-type resilient material insert or a solid rubber-type of flexible, resilient material. Rubrails shall be located no less than 25" nor more than 43" above the ground on each side. Where the rubrails and fender opening guards are not an integral part of the body, installation of rubrails shall be made after the finish coat of paint is applied to the bus.

g. Gun installed huckbolt fastenings, buck rivets, bonding adhesives, or approved equivalent shall be utilized on all exterior body panels, rubrails, and all other locations where stress is concentrated. All rivets, screws, bolts, nuts, washers, clamps, and other types of fasteners used in the construction process, including those that would be exposed to the elements, on the exterior and interior of the unit shall be properly plated to resist corrosion. No sheet metal screws shall be permitted, except for rubrails and rubber fender splash guards (see mudflaps/splash guards) which can be secured with stainless steel or equivalent plated locking-type, self-tapping fasteners. Fastener materials shall be compatible with materials being fastened. Where self-tapping fasteners are used, body panels shall be reinforced with steel backing, aluminum backing, or stainless steel backing.

h. Window openings cut into body panels shall have a maximum frame clearance of $^{1}/_{8}$" on each side to minimize the need for caulking (see Section II. V., Windows). All openings cut into metal body exterior panels must have the exposed cut edges primed or properly coated to inhibit water intrusion and corrosion before further assembly or painting occurs. Window frames installed in the body openings shall be properly caulked/sealed to prevent intrusion of moisture and dust.

2. Fiberglass Reinforced Plastic (FRP) Composite Unitized-type Body

a. The bus body shall have a heavy-duty unitized structure and shall be of durable fiberglass reinforced plastic (FRP) composite construction. The body panels shall consist of an exterior high gloss gelcoat (.020" thickness, minimum) on a resin-hardened FRP (3/16"thickness, minimum) attached to a center layer of resin hardened Nida-Core® or equal honeycomb (¾" thickness, minimum) with an inner FRP panel (3/16" thickness, minimum); or may be ¾"polyurethane foam insulation gelcoated to ¼" FRP exterior with ¼" FRP interior, reinforced with steel perimeter and transverse supports, completely fiberglassed to adjoining body parts. It shall use proper adhesive materials to adequately bond and mechanically fasten all joints and points of stress with sufficient strength

to comply with the FMVSS 220 rollover protection test. Each bidder shall provide certification with the bid that the bus as bid meets the FMVSS 220 rollover protection test (see Section VIII).

b. The bus shall be designed to withstand road shocks, stop and start operations, seasonal weather and road extremes, and other conditions found in Michigan transit bus service. The body shall be securely fastened to the chassis frame structure using a method of uniform attachment consisting of strategically placed rubber isolators/cushions with connector bolts that permit body flexing independent of chassis flexing. Roof, side, front, and back panels shall be secured to the floor and lower body frame members; all of which shall result in a permanent, fully-integrated structural unit adequately reinforced at all points where stress concentration may occur. The body floor sub-frame assembly, including lower skirt reinforcements, shall be, at a minimum, gauge number 14 (.075" thickness) galvanized steel (mill applied), or gauge number 16 stainless steel, or gauge number 12 aluminum, or gauge number 14 steel treated a with corrosion resistant coating. All body floor sub-frame assembly shall meet 1,000 hour salt spray test per ASTM procedure B-117, with no structural detrimental effects to normally visible surfaces. Certification of compliance with this requirement shall be published by an independent company and be submitted with the bid. Wheelwells shall have minimum yield strength of gauge number 14 galvanized steel, gauge number 16 (.060" thickness) stainless steel, or gauge number 12 (.10" thickness) aluminum properly welded or secured with approved corrosion resistant fasteners to the floor structure. Passage holes provided for wiring and hoses shall be thoroughly sealed to prevent dust and moisture intrusion. The entire lower body frame shall be coated with corrosion resistant primer/paint (steel) or properly treated to resist corrosion (other materials). All treated components shall be properly cleaned to remove greases, oils, and residues before application of the corrosion resistant material.

c. All exterior side and roof panels when completed shall be at a minimum 1 $^{1}/_{8}$" thick. Bond lines at the side walls, rear endcap, roof, and front cap shall be interlocked by adhesives, resin saturated fiberglass matting, and mechanical fasteners, forming a unibody design without exposed fasteners or protruding moldings. Imbedded reinforcements shall be installed at all door openings in order to support door mounting hardware and door operating mechanisms. All door openings shall have full structural framing to maintain integrity of the body structure. All exposed door frame structure shall be made of 304 stainless steel (including the fasteners), which does not discolor with age. Where a stiffener or a backer material (substrate) is used for the exterior panels, it shall be bonded with waterproof adhesive to the exterior panel; it shall be a water resistant material that will not wick water; and it must be thoroughly sealed from the elements when installed so that the substrate will not be exposed to or absorb moisture and cause corrosion to the interior of the panel or any body structure.

d. Interior panels may be an integral part of the FRP composite panel or may be made of scuff-resistant laminate/FRP finished material. Where

threaded fasteners are in the interior panel only, an imbedded reinforcing nut or a reinforcing panel shall be integrated into the FRP composite for added strength and fastener retention.

e. Exterior panels may be an integral part of the FRP composite panel. Exterior panels shall be sufficiently stiff to prevent vibration, drumming, or flexing while the bus is in service. Lower skirt panels shall be sufficiently fastened and braced to prevent damage from ice and snow build-up. Lower skirt panels may be one piece in length at manufacture but shall be repairable in sections. Where panels are lapped, the upper and/or forward panels shall overlap the lower and/or rearward panels to prevent intrusion of water under the panels. Sealing and fastening of joints, including front and rear cap-to-body joints, shall prevent entrance of moisture and dirt. All exterior panels shall be bonded to the lower body frame. In no case shall the sealing of the panels be dependent on caulking alone.

f. The exterior body panels shall have on each side one heavy-duty rubrail. Rubrails (1½" x ½" minimum) shall be extruded solid aluminum or extruded UV resistant plastic with a flexible, rubber-type resilient material insert or a solid rubber-type of flexible, resilient material. Rubrails shall be located no less than 25" nor more than 43" above the ground on each side. Where the rubrails are not an integral part of the body, installation of rubrails shall be made after the finish coat of paint is applied to the bus.

g. No sheet metal screws shall be permitted, except for rubrails and rubber fender splash guards which can be secured with stainless steel or equivalent plated locking-type, self-tapping fasteners. Fastener materials shall be compatible with materials being fastened and meet the 1000 hour ASTM B117 Salt Spray test and the 1000 hour ASTM D2247 Humidity Resistance test. Where self-tapping fasteners are used in body panels, the body panels shall have an imbedded reinforcing nut or a reinforcing panel shall be integrated into the FRP composite for added strength and fastener retention.

h. Window openings cut into body panels shall have a maximum frame clearance of $^{1}/_{8}$" on each side, to minimize the need for caulking (see Section II. V., Windows). All openings cut into body exterior panels must have the exposed edges of the cutout properly coated to prevent moisture intrusion before further assembly or painting occurs. Window frames installed in the body openings shall be properly caulked/sealed to prevent intrusion of moisture and dust.

C. <u>Passenger Door</u>

1. The manufacturer shall provide a heavy duty electrically operated passenger entrance door. The passenger entrance door shall be an anodized aluminum frame, split-type double leaf swing door. This door shall have a flexible soft rubber cushion on the meeting edge 1½" in width, minimum. The door glass shall be see-through, AS-2 tint (70% luminous transmittance) safety glass. Under all operating conditions and bus speeds, an airtight, watertight, and dust-proof seal

shall be formed between the door and the stepwell, between the door and body opening, and between the door leaf sections. The door leading edge opening speed shall not exceed 18 inches per second and the closing speed shall not exceed 12 inches per second to provide a total door closing or opening in 2 to 4 seconds. The front passenger entrance door shall not extend below the step frame. The door shall be located on the right side of the bus near the front wheel. Any door with an exposed (metal showing) outer frame shall be made of 304 stainless steel (including the fasteners), which does not discolor with age. The entrance door shall provide a 30" clear width opening, minimum. Door opening height from the top of the first step to the door header shall be a minimum of 76". Where interior height is low at the entrance header, the header shall be padded to prevent injury to those exiting the bus. Suggest Source: A&M Systems Inc .

2. The door frame strength and electric door operator strength shall be designed to match the entrance door size. The operator for the entrance door shall be located in an overhead compartment above the passenger entrance doorway; shall be concealed from passengers; and shall be easily accessible for servicing through a hinged access door. The access door shall be hinged to open up with a holding device or shall be a complete access cover that is secured with ¼" threaded knobs (knobs shall match access cover). The access door or cover shall be as large as will fit in the overhead compartment space. Door motor operation shall be limited electrically to control door travel at full open and full closed positions and shall be adjustable to keep the door closed during bus operation. Physical door stops shall be used to prevent marring or damage to doors and/or surrounding parts. An entrance door manual release that allows disconnection and simple re-engagement of the door operator shall be provided so that the entrance doors can be manually opened in the event of loss of electrical power or other emergency. The door operator motor shall not run continuously when the manual release is operated. Electric door operator, door linkage, and baseplate components shall be of a single manufacturer. Suggested source: A&M Systems Inc., Excell, Vapor.

3. The passenger door control switch shall be located in the driver's compartment within easy reach of the driver and be clearly marked for "open" and "close" (switch shall operate the same on all buses). The control switch shall be powered by a constant battery feed circuit with circuit breaker protection. The control switch shall be "hold on" for operation and of a different color than the standard switch.

4. A method shall be provided to lock all entrances to the bus when it is not in use. Except for the OEM driver's door and ignition, all secondary door locks shall be keyed the same.

D. <u>Passenger Stepwell</u>

All entrance steps and stepwells shall be gauge number 14 (.075" thickness) stainless steel, minimum. Steps and stepwells shall have adequate structural bracing. All metal trim hardware in the stepwell area shall be stainless steel. All fasteners in the stepwell area shall be stainless steel which will pass the 1000 hour ASTM B117 Salt Spray test and the 1000 hour ASTM D2247 Humidity Resistance test. Ground to first step shall not exceed 12" in height, each additional vertical step shall not exceed 9½" and all tread depths shall be 9" minimum. All steps in the entrance stepwell shall be of the same width. A suspension kneeling feature may be used to achieve the required 12" step

height. Stepwells shall be covered with flooring material as described in Flooring, Section II., F., Item 3). Any interior stainless steel except for exposed door frames shall be brushed, not painted.

E. <u>Interior</u>

1. The interior of the bus shall provide a pleasant, aesthetically pleasing atmosphere. The door and driver instrument panel are to be painted or otherwise finished with a nonreflective, anti-glare finish which matches the overall interior tones of interior panels. All interior hinged access doors shall use quarter-turn, non-corrosive metal, thumb latches with positive stop mechanism (except the storage area in section E.6 shall have one lockable latch) to hold the door positively closed. All interior markings shall be durable materials affixed to the interior panels' smooth surfaces or markings shall be durable materials affixed to metal plates fastened to the interior panels of the bus. The interior design and colors shall be approved by the State.

2. All interior panels shall be made of laminate/FRP finished material scuff-resistant materials:,

3. A white or light gray color shall be installed in the interior area above the seat rail lines, in the ceiling area, and on the rear endwall. All materials and treatments shall be easily cleaned. Panel fastening devices shall match color of panels. All interior finished surfaces shall be impervious to diesel fuel, gasoline, and commercial cleaning agents. Finished surfaces shall not be damaged by controlled applications of graffiti-removing chemicals.

4. The interior height of the passenger compartment at center aisle shall be 74" minimum. At 6" from the sidewall there shall be 67" of interior height, minimum, with a gradual contour to the center aisle (no bulkheads). Interior headroom at the back of bus (rear air conditioning evaporator area) may be reduced to a minimum of 60”, but it shall increase to the normal ceiling height at the front of the rear seat cushion. The interior width at seat line shall be 90", minimum.

5. All surfaces, items, or hardware in the passenger compartment having sharp edges, corners, or angles that could cause injury, shall be padded with a heavy-duty, vinyl-covered, energy absorbing material to match interior colors. Areas inside the passenger compartment of low headroom where a person is prone to strike his head shall be marked and padded. All handrails shall have rounded edges where exposed.

6. A storage area with a hinged, lockable, access door shall be provided in the interior area either above the windshield (without destination sign) or on the side above the driver as space permits. This area above the windshield shall also be constructed to adequately support 60 pounds of two way radio communication equipment. A restraint shall be installed to prevent any storage door from opening beyond 105º when the installation allows the door to swing down to open.

F. <u>Flooring</u>

1. The floor deck may be integral with the basic structure or mounted on the structure securely to prevent chafing or horizontal movement. All floor fasteners shall be corrosion resistant steel and shall remain secured and corrosion resistant for the service life of the bus. The floor deck shall be ¾" C/D plywood of marine grade material or ¾” fiberglass encased composite material, minimum, with sealed edges to prevent moisture intrusion. The floor deck upper surface shall have all cracks and voids filled and the whole surface rough sanded before installing the flooring material. A layer of sealer shall be installed between floor deck edges that butt against structural members and other deck sections to prevent dust and moisture intrusion. Passage holes provided for wiring and hoses in the floor deck shall be thoroughly sealed to prevent dust and moisture intrusion. Passenger seating floor rail/track shall not be installed in the wheelchair lift or wheelchair securement areas. The floor deck, including the sealer, attachments, and coverings, shall be waterproof, non-hygroscopic, resistant to wet and dry rot, and resistant to mold growth. The floor deck shall not be sandwiched between the wall structural members and the floor structural members.

2. The entire passenger area including the wheelchair securement area, entrance steps and stepwell area, shall be overlaid with smooth, slip resistant flooring material. The resilient sheet flooring system (2.2 mm thickness minimum) shall be a high quality vinyl with aluminum oxide and color quartz grains throughout the thickness, silicon carbide grains in the surface layer and a non woven polyester/cellulose backing with glass fiber reinforcement. The flooring shall extend up the sidewall and rearwall to the seat rail line and shall be coved at the floor/wall joint to form a smooth water tight transition. A cove molding radius backing block, approved by the flooring manufacturer, shall be installed behind all floor coving and shall be 1.5” radius (minimum). Installation of flooring must be done strictly according to the flooring manufacturer’s directions using the proper accessories, tools, and adhesives. Suggested Sources: Altro Transflor™ Meta, Altro Transflor™ Chroma.

3. Step treads shall be one-piece resilient sheet flooring system matching the passenger compartment flooring. All step edges (nosings of step tread material) shall have a band of bright yellow contrasting color running full width of the step. Step tread to stepwell joints shall be sealed to prevent intrusion of moisture and debris.

4. An aisle width standee line of bright yellow contrasting color shall be in the aisle just behind stepwell (must meet ADA contrast requirement). Suggested Sources: Altro Safety Step System

5. Color of all flooring and step tread shall be equal to Altro Transflor genome (grey) or bison (tan) as requested by the agencies.

6. To provide easy access for service, the floor shall have a vapor and fumeproof bright aluminum diamond plate access panel to reservoir fill/check areas and fuel tank sending unit.

7. Wheelwells shall be thoroughly sealed to prevent intrusion of moisture and dirt. Metal wheelwells inside the passenger compartment shall be covered with flooring material or molded fiberglass (FRP or ABS).

8. Standee decals shall be furnished and mounted at the center of the bus above the windshield.

G. <u>Emergency Exits</u>

1. Each bus shall be equipped with a rear exit door with an minimum opening of 1296 square inches with a minimum size of 24" by 54" (a rear exit window in place of the door is optional). All exposed exit door frame/jamb structure shall be made of 304 stainless steel, a grade which does not discolor with aging. The rear door exit and side window exits shall meet federal requirements of FMVSS 217. The manufacturer shall provide a method to lock the rear exit door. The rear exit door shall have an audible alarm at the driver's area activated when the exit door latch handle starts to open and when the exit door is locked with the ignition on. A bus with a rear exit door shall have one small window on each side of the exit door in the rear endcap.

2. The rear exit door shall have two windows, an upper window and a lower window, as a part of the door. The door glass shall be see-through, AS-2 tint (70% luminous transmittance) safety glass. The upper door window height shall match top of rear bus windows, one on each side of rear door. Door windows shall match design of bus rear windows. Heavy-duty door latch mechanism with handle guard shall provide a quick release for opening from inside and outside the bus but be designed to offer protection against accidental release. The door latch shall cause the door to compress the perimeter door seal to provide an airtight, dustproof and watertight seal around the door under all operating conditions and speeds. Door panels shall match exterior and interior body panels (see section II. A., B., and C.). All doors shall be fitted with screwed or bolted-on heavy-duty stainless steel piano hinges or heavy duty hinges of a noncorrosive material. A restraint shall be installed to prevent the door from opening beyond 105 degrees or striking the rear panel of the bus when the door is opened.

3. A passage way of 16" minimum width shall be provided to the rear exit door. No seats or other objects shall be placed in bus which restricts passageway to rear exit door.

4. One-closing static exhaust vent, a combination roof vent-emergency exit (23" by 23" minimum), shall be installed at the mid point on the longitudinal center line of the roof of the passenger section of the bus. The roof vent-escape hatch shall provide fresh air flow inside the bus when opened and when the bus is in a forward motion. The escape hatch shall have an inside and an outside release handle. There is no warning buzzer requirement for the escape hatch. Suggested source: DMA 1122, Specialty Manufacturing Co., Transpec Inc.

5. Instructions for proper use of all emergency exits shall be marked in close proximity to the release mechanisms. All interior markings shall be durable materials affixed to the interior panels' smooth surfaces or markings shall be durable materials affixed to metal plates fastened to the interior panels of the bus. Instructions may be labels, of contrasting color, affixed to a location that shall be approved by the state. All emergency exits shall be marked on the exterior of the bus.

6. Lever-type latches used for emergency windows shall secure the windows tightly shut, shall be easily operated, and shall not unlatch due to vibration during bus operation. The latches shall be made of non-corrosive materials and be designed for minimal maintenance needs.

7. Each exit used for passenger egress shall be identified with a red ½" LED indicator lamp, illuminated with the vehicle marker lighting, above each exit, so that it may be seen by a passenger in an adjacent seat. Suggested Source: Series 29, Sorenson Lighting Company

H. Gauges

Chassis Original Equipment Manufacturer (OEM) gauges shall be used in the driver's instrument cluster, but if they are not available, VDO brand gauges or Stewart Warner gauges shall be used. Each bus shall have an instrument cluster with the following non-glare needle-type gauges which are easily monitored by sight from the driver's position (lights in lieu of gauges are not acceptable).

1. Voltmeter and its wiring shall be compatible with generating capacities.

2. Engine oil pressure gauge.

3. Engine coolant temperature gauge.

4. Fuel gauge.

5. Air system pressure gauge with low air warning alarm and light for buses with an air system.

I. Farebox

1. The farebox (a donation box is optional) shall be mounted with the trip handle toward the driver and within easy reach of the driver. The farebox shall be mounted on an adequately braced stanchion; shall be located over a flat floor surface near the driver; and shall be accessible to passengers entering the bus (meet ADA requirements). An indirect farebox light shall be connected through an entrance door jamb switch to the running light circuit.

2. The farebox shall be lockable and supplied with two vaults that are interchangeable and lockable (2 keys for each lock). The vaults shall be keyed alike. The vault and farebox exteriors shall be marked with key reference. (Location shall be approved by the State at pilot model inspection.) Suggested source: Main Farebox Model M-4.

J. Bumpers

The front bumper shall be an OEM bumper. The rear bumper shall be a high energy absorbing bumper. The rear bumper shall be installed per bumper manufacturer's specifications. Bumper attachment shall use a minimum of SAE grade 8 fasteners with thread locking feature or other shake-proof (Nord-Lock) mounting in all attachment brackets. Rear anti-ride bumper installation shall allow space between the bumper and the body for energy absorption movement without body damage. Lifting pads shall be

provided as part of the bus so that the bus may be lifted (at curb weight) at the front and/or the rear without any deformation or damage to the bus or bumpers and mounting hardware. Rear bumper Suggested source: Romeo R.I.M. Inc. H.E.L.P. bumper,, SMI.

K. Mud Flaps and Splash Guards

1. The bus shall have commercial grade anti-sail mud flaps/splash aprons behind front and rear wheels which contain no visible imprinted logo or advertising. An inverted "T" bracket shall be used to prevent the wind movement of the mud flap when the bus is in motion. The flaps/aprons shall be securely fastened with full width metal strips and appropriate fasteners. The flaps/aprons shall be compressed between a gauge number 11 (.125" thickness, minimum) support bracket and a gauge number 14 (.075" thickness, minimum) metal strip. The support bracket shall be fastened securely to the body substructure or chassis frame. The flaps shall extend to within 6" of the road surface at curb weight. The mud flaps/aprons shall be at least 1" wider than the tire widths (single front, dual rear) to control splash at the rear of wheel openings.

2. Other mud flaps/splash aprons/shields shall be installed to protect bus equipment (AC components, batteries, front wheel inner shield, auxiliary heater box, and the like) from road splash.

3. Rubber fender splash guards, secured with stainless fasteners shall be installed on on the rear wheelwell opening.

4. Where the mud flaps and splash guards are not an integral part of the body, installation shall be made after the finish coat of paint is applied to the bus.

L. Towing

Tow hooks shall be provided with two in the rear and two in the front of the bus, which shall be of sufficient strength to tow 1½ times the GVWR of the bus. Tow hooks shall be equipped with a spring safety clips (rear only), easily accessed, and free of interference with the bumper system when in use. Access to tow hooks may be made through holes in the bumper assembly. The intended use for tow hooks is only to safely move the bus to a point of tow truck hook-up. Tow hooks shall be installed to prevent them from dragging when the bus is driven over an incline. The tow hooks, equal to Original Equipment Manufacturer (OEM) units, shall be mounted and adequately secured to the chassis frame as recommended by the tow hook manufacturer or may be supplied by the OEM as standard equipment on the chassis. The bus shall be designed to be towed from the front or from the rear with either a frame contact or a wheel lift. A fuel tank protection frame shall not interfere with a frame contact lift. The bidder shall provide the towing and lifting procedure to be followed.

M. Undercoating/Rustproofing

1 When the unit is completed, the sections of the underside of the bus exposed to the elements shall be treated with an undercoating material except those areas of the OEM chassis where undercoating is not recommended. Undercoating shall be

warranted for the same period covered by the body/structure warranty. Suggested source: Tectyl 121-B.

2. Rustproofing - All box type steel tubing (except stainless steel) used in the floor structure and sidewall structure from the top of the window down, shall have the interior of the tube coated with corrosion resistant material conforming to MIL-C-62218 as outlined in Federal Standard 297E. Sections that are treated shall be properly cleaned to remove greases, oils, and residues before application of the corrosion-proofing material. All mechanisms (moving or stationary parts) that are affected by or rendered useless by an application of sealant or insulation shall be cleaned free of sealant or insulation including vent canisters and drain pipes. Rustproofing shall be warranted for the same period covered by the body/structure warranty. Suggested source: Waxoyl, Ziebart Type-A.

N. Interior Mirrors/Sunvisors

1. Interior Mirror

Interior mirror (with adjustable mounting bracket) shall be a 6" by 8" convex mirror glass with rounded corners, minimum. The driver shall be able to adjust the mirror so that the complete passenger compartment can be viewed through interior mirror. Mirror mounting points shall be reinforced when not in a structural frame member, with location approval by the State at the time of pilot model inspection. Suggested source: B&R Manufacturing, ROSCO (with bracket).

2. Sun Visor

Windshield sun visor system shall be standard Original Equipment Manufacturer (OEM) chassis visor(s). If the OEM chassis is not equipped with a windshield sun visor, two large transit-type, fully adjustable, double-knuckle, arm-type plexiglass sun visors shall be provided for the driver at the windshield, and at the side window. Location shall be determined at pilot model inspection. Suggested source: OEM or Manufacturer's standard.

O. Exterior Mirrors

1. Each bus shall be equipped with exterior, powered-remote, heated, left-hand and right-hand rear view mirrors of flat glass with convex mirrors (3" in diameter, minimum) attached or a combination flat/convex glass in a single mirror head. The mirror brackets shall be brushed stainless steel or die-cast, anodized aluminum. The mirror shall contain at least 70 square inches of flat glass viewing area. Suggested source: B&R Manufacturing, OEM, Mirror Lite Co, Inc., ROSCO, Velvac.

2. To prevent obstructed front and right-hand view, a convex, asymmetric, exterior crossview mirror (8" minimum diameter) shall be provided on the left front corner of the bus. Suggested sources: Mirror Lite Co Inc. HD, Rosco Eye-Max LP.

3. All exterior mirrors shall be constructed with high impact plastic or stainless steel housings. Mirrors shall be remote adjusting and shall move independently of the

mirror housing. The mirrors shall be modular in design so that the glass can be replaced using the "twist lock" mechanism for service without removing the entire mirror assembly from the bus.

4. Mirror mounting points shall be reinforced when not in a structural frame member, with approval by the State at the time of pilot model inspection. The mirror placement shall not obstruct driver vision nor have window divider bars between the driver and mirror face. Final location of exterior mirrors shall be determined at pilot model inspection.

P. Seats

1. Driver's Seats

a. Medium Class One: The driver's seat shall comfortably hold and support the human body in the ergonomically correct position for driving and meet the flammability requirements of FVMSS 302. The driver's seat with arm rests (right side seat arm rest, left side door arm rest) shall have adjustments for fore and aft slide, 4" minimum travel, back recline, 20 degrees minimum, and weight range capacity up to 300 pounds. While seated, the driver shall be able to make all of these adjustments by hand without complexity, excessive effort, or being pinched. Manual operated adjustment mechanisms shall hold the adjustments and shall not be subject to inadvertent changes. The seat shall be high-backed and shall be properly aligned behind steering wheel to allow for maximum seat adjustments and operator comfort. The seat belt with shoulder harness, automatic retractor and supplemental restraint (SRS) system shall be chassis Original Equipment Manufacturer (OEM) equipment. All seats and seat mountings shall meet applicable federal standards. Suggested sources: OEM, USSC G2E

b. Medium Class Two: The driver's seat shall be an air suspension seat with mounting base (riser), headrest, and armrests and meet the flammability requirements of FVMSS 302. The seat shall comfortably hold and support the human body in the orthopedically correct position for driving. It shall be adjustable so that occupants ranging in size from the 5th percentile female to the 95th-percentile male may be accommodated to operate the bus. The solid bar stock scissors style 12" minimum exterior width suspension system shall have two dampeners that resist force in both directions, be rubber bumper cushioned at the bottoming out point, and be mounted above the fore and aft slide. The driver's seat with arm rests shall have adjustments for: 1) vertical height, 4" minimum travel; 2) fore and aft slide, 8" minimum travel; 3) back recline, from 60E to 110E minimum: seat tilt, 8 degrees minimum at any seat height; and 4) weight range capacity up to 300 pounds. While seated, the driver shall be able to make all seat adjustments by hand without complexity, excessive effort, or being pinched. Manually operated adjustment mechanisms shall hold the adjustments and shall not be subject to inadvertent changes and have latches and operating controls on both sides of the seat. The seat shall be high-backed with headrest and shall have 3 air adjustable lumbar supports and adjustable side bolsters in the region of the back frame. Individual switches shall control the air supply for the lumbar adjustments and the air supply shall be from the bus's engine air compressor or from the seat's own external electric air compressor system. A check valve shall be installed

to prevent loss of air from the weight control bladder when there is a loss of air supply to the seat. The seat shall have a dust seal (bellows) to enclose the mechanism and seat mounting base. The seat and the seat mounting base shall be properly aligned behind the steering wheel to allow for maximum seat adjustments and driver comfort. No part of the bus directly behind the seat shall interfere with the seat back for a recline of 15º when the seat is positioned furthest from the steering wheel. FMVSS Certified seat belt with integrated shoulder harness and an automatic retractor shall be attached to seat frame as an integral part of the seat unit. All seats and seat mountings shall meet applicable federal standards. Suggested source: OEM, USSC Model 9100ALX3, Recaro Ergo Metro with headrest and armrests.

c. The driver's seat cushion shall be molded high resilient (HR) polyurethane foam padding with indentation load deflection (ILD) 35 pounds minimum, and the back cushion shall be molded or fabricated high resilient (HR) polyurethane foam padding (ILD) 25 pounds minimum. There shall be no welt or bead across the front of the seat cushion under the driver’s legs. Compressions to 10 percent maximum and tensile strength, 15 lbs. per square inch minimum. Seat and back cushion foam shall meet the typical physical properties of ASTM D-3574 and the flammability requirements of FVMSS 302.

d. The driver's seat covering shall be gray Cloth-type Woven Fabric (with flame retardant qualities) meeting the requirements listed below in All Seats, Part 4.

2. Passenger Seats

a. All passenger seats shall be mid-back and are required to meet all applicable FMVSS testing including FMVSS 210.

b. Two passenger, forward facing seats shall be 35" minimum width with a non foam, black energy-absorbent, vandal-proof grab handle mounted to the top of each seat back (two per double seat). Grab handles are not required on seats that have a back against a wall.

c. Single passenger seats shall be 17 ½ " minimum width with a black, energy-absorbent, vandal-proof grab handle mounted to the top of the seat back.

d. Forward facing seats shall have 27" minimum knee to hip room.

e. Aisle facing seats shall have arm rests on both ends if the seat is not against a modesty panel.

f. Aisles shall not be less than 16" wide except as noted in Part 3 of this section.

g. The first double seat on the passenger side of the bus shall have an integrated child restraint seat capable of safely carrying children of 20 to 50 pounds.

h. All seats shall be supported on the floor with high carbon steel support

brackets. Seat frame shall be cold-roll steel tubing. Floor anchorage shall be neat and not interfere with entering and exiting the seat. All seat mounting bolts shall be corrosion resistant coated/plated fasteners. Passenger seating floor rail/track shall not be installed in the wheelchair lift or wheelchair securement areas. The bidders shall provide certification test data that the installation of the seats, seat mountings including floor anchorage and floor fasteners shall meet all applicable FMVSS including FMVSS 207, 208, 209, and 210 for the bus model being offered in this bid. (see Section VIII. N.).

i. All metal components of the seat assembly shall be coated with a powder coat epoxy paint finish that shall meet the following tests:

Salt Spray	1000 hrs	ASTM B117
Humidity Resistance	1000 hrs	ASTM D2247
Impact Resistance	to 80 in-lbs	ASTM D2794

All testing is to be performed on standard metal seating materials that have coating thickness of 1.3 to 1.8 mils. Certified test documents are required with bid proposal.

j. The seating arrangements and configuration shall be furnished by the State.

Suggested sources: American Seating Horizon™ 8535 Mid-Back Series; C.E. White LE Series; Freedman Feather Weight.

3. Wheelchair Lift-Equipped Buses

Forward facing (double) fold-away or flip (double) seats with seat belts shall be provided in the wheelchair securement area per seating arrangements (see Section III, Wheelchair Securement Area). All side facing seats provided shall be flip seats. Fold-away or flip seats shall include all dimensional, structural and testing requirements of the standard seat specification. Seat locking/latching devices shall be of high quality and be easy to latch and unlatch. Seats must positively latch in the seated and folded position to prevent inadvertent folding or unfolding of the seat. Any support legs resting on flooring shall be non-marring or rest on metal plates flush mounted with flooring. All fold-away seats shall be able to pass FMVSS 210 without having to fasten additional latches or cables. All fold-away seats shall fold against the wall when wheelchair space is required (no further than 12" from wall in the vertical folded position). Seat may not extend into bus more than 37 ½" (two passenger) and 18 ½" (1 passenger) when folded down for passenger seating. Aisle space may be reduced to 14 inches where fold-up seating is placed on each side of the aisle or 15 ½" where placed opposite a stationary seat. The seat bottom cushion shall be a 5 degree tilt up from level, minimum, and back cushion shall be at 95 degrees, minimum. The seats shall be of the same design as the other passenger seats. All seat backs of the fold-away/fold-up seats shall be covered with material matching seat cushion color and fabric. Suggested source: American Seating Horizon™ 8800 Cantilevered Folding Seat or 8700 Flip-up; C.E. White LE Series; Freedman Feather Weight Foldaway or Mid-Hi Flip; Braun #125.

4. Seat Material

Seats shall be individually contoured to each passenger for occupant comfort and retention. Seats shall be covered with cloth-type woven fabric or vinyl fabric at the transit agency's option. Cloth-type fabric or vinyl shall completely enclose the seat cushion and the seat back. Seat background colors shall be gray, red, blue, and other in-stock colors (bidder to provide available choices at time of bid). All background colors shall be approved by the State.

a. Cloth-type Woven Fabric Requirements (with flame resistant qualities)

(1) Minimum weight 23 ounces per linear yard.

(2) 50,000 minimum double rubs (ASTM - 3597-77 Wyzewbeek Method).

(3) Color fastness to light 300 hours minimum (AATCC-16-1977 Carbon Arc.)

(4) Comply with California BLT-117.

(5) All cloth-type woven fabrics except Holdsworth Wool shall be treated with a flame proofing solution following the manufacturer's specifications, No-Flame by Amalgamated Chemical Inc., or equal.

(5) The fabric shall be a plush material.

(7) Suggested source: Flame Resistant Fabrics by, Holdsworth Wool, or LaFrance Mills.

b. Vinyl Fabric

(1) Shall be transportation grade expanded vinyl, 36 ounces per linear yard minimum.

(2) Suggested source: Flame Resistant vinyl by CMI or Omnova.

c. **Cushions**

(1) Seat cushion and back cushion shall be molded high resilient (HR) polyurethane foam padding. Seat cushion indentation load deflection (ILD) shall be 35 pounds minimum, with compression to 15 percent maximum, and tensile-strength of 15 minimum. Seat and back cushion shall meet the physical properties of ASTM D-3574 and the flammability requirements of FMVSS 302, minimum. The technical data sheet for the foam supplied shall be included in the bid proposal with the seat information. Suggested source: Manufacturer’s standard.

(2) Seat and back cushions shall be supported with a spring-type support system. Seat and back cushions shall be completely

covered with seat cushion covering material. Seat back depth shall not exceed 3 ½" overall.

5. Passenger Seat Belts

The bidders shall provide certification test data that the seat belts, and the installation are in compliance with FMVSS-207, 208, 209, and 210 where applicable for the bus model being offered in this bid (see Section VIII. N.).

Two universal "Buckle Up" decals approximately 6" by 6" shall be furnished loose with each bus. Decals shall indicate that seat belt use is recommended.

All seats shall be equipped with seat belts for each designated seating position. Belts shall have:

a. The latch end of the belt will have a locking retractor. The retractor will be mounted underneath the seat to the seat frame and there shall be no lap retractors except on the rear center bench seats (if equipped).

b. A push button latch release mechanism.

Q. <u>Handrails, Stanchions</u> (Shall meet ADA regulations)

1. The handrails and stanchions shall be a minimum of 1¼" outside diameter. All handrails and stanchions shall be positioned so as not to interfere with wheelchair movement and shall meet ADA requirements for position and size. All handrails and stanchions in the passenger entrance area shall be highly visible yellow in color. All other handrails and stanchions shall be brushed stainless steel. Mounting brackets and fittings shall be composed of the same kind of material used for the stanchion or handrail.

2. All handrail and stanchion mountings shall have reinforcement plates welded to or imbedded in the structure behind surface panels of sufficient size and strength. Final locations shall be determined at pilot model inspection.

3. A floor-to-ceiling vertical stanchion shall be provided in close proximity to the rear of the driver's area. A guardrail shall be provided in back of the driver's area extending from the vertical stanchion to the left side of the bus 30" plus or minus 2" above the floor. A padded modesty panel shall be provided from the guardrail to within 8" of the floor. Stanchion and guardrail shall not restrict any driver's seat adjustments.

4. A smoked plexiglass panel, 3/8" thick, shall be provided behind driver from top of the driver's seat to within 12" of bus ceiling. The panel shall not impair driver's seat adjustments. The panel shall be fastened with bolt and nuts or double screw heads. The panel shall be located to allow the driver's seat back to recline to ½ its maximum reclined adjustment with the driver's seat in the position furthest from the steering wheel. Panel may be incorporated into the stanchion and guardrail behind the driver and shall have cutouts to give hand access to the vertical stanchion.

5. Floor-to-ceiling stanchions (yellow) shall be provided near aisle on each side of front entrance.

6. Left and right side entrance handrails (yellow) shall be installed from low stepwell to floor-to-ceiling stanchions near aisle. Entrance handrails shall be positioned so passengers entering or exiting the bus will have handrail support throughout the entering/exiting process and so that articles of clothing may not become entangled in the handrail-stanchion-guardrail assemblies.

7. A guardrail (yellow) shall be provided in front of and at the rear of the front entrance steps, extending from the vertical stanchions to the right side of the bus 30" plus or minus 2" above the floor. A modesty panel (padded both sides, vinyl clad) shall be provided to the left (rear side) of the entrance from guardrail to floor (in case of lift bus, provide floor-to-ceiling stanchion with guardrail and modesty panel to rear of platform lift).

8. Ceiling Handrails

   a. Two full length transit-type ceiling handrails shall be provided and securely attached to roof structure. The handrails shall be a minimum of 1 1/4" outside diameter, brushed finish, stainless steel including mounting brackets and fittings. The handrail ends shall curve toward and terminate at the ceiling. All handrails shall meet ADA regulation in 49 CFR Part 38, Subpart B--Buses, Vans and Systems, §38.29 requirements for position and size.

   b. All handrail mountings shall have reinforcement plates welded to or imbedded in structure behind surface panels of sufficient strength to withstand passenger force. Final locations shall be determined at pilot model production.

R. <u>Interior Lighting</u>

1. Overhead entrance and stepwell lights shall be LED and provide no less than two foot-candles of illumination on the entrance step tread, or lift or ramp with the door open. Outside light(s) shall provide at least 1 foot-candle of illumination on the street surface within 3 feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.

2. Overhead entrance and stepwell lights shall be wired to and be automatically activated by a door controlled switch. Lights shall operate any time the ignition key is on and the door is opened.

3. Stepwell light shall be on the side away from wheel splash.

4. Interior lighting shall be LED and provide a minimum of two foot-candles of illumination at a reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for the passengers. All lights shall have lead wire long enough to remove light at least 6" from bus for service. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.

5. Light installation shall be designed to illuminate the lift platform when deployed at floor level at no less than two foot-candles of illumination. Outside light(s) shall provide at least 1 foot-candle of illumination on the street surface within 3 feet of step tread outer edge. This system shall provide illumination automatically when the lift door is open and meet ADA requirements. On-off light switch shall be lift door-actuated.

S. <u>Exterior Lighting</u>

1. Exterior lighting shall be in accordance with Federal Motor Carrier Safety Regulations (393.11) and ADA regulations. All lights shall have the lead wires long enough to remove the light at least 6" from bus for service. All exterior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point. Unless specified, all exterior lights of the bus shall be light emitting diodes (LED) sealed lamps retained in a rubber grommet mounting except for front headlamp/turn signal assemblies. All lights shall have the mounting to body sealed to prevent moisture intrusion and grounded to the frame.

2. Exterior marker lights shall be light emitting diodes (LED) (2" in diameter sealed lamp) retained in a rubber grommet mounting and conform to Federal Motor Carrier Safety Regulations Part 393.

3. All marker lights shall have a weather proof two prong (one positive and one ground) plug-style connector with the ground wire connected to an in-harness ground attached to a common grounding point.

4. Marker and tail lights shall be operated through a relay controlled by the headlight switch. Suggested Sources: Dialight,Grote, Optronics, Peterson, SoundOff Signal, Trucklite.Headlights shall be Halogen lamps and the standard front park/turn lights may be a part of the OEM headlight assembly.

5. An amber, LED, mid-ship light (sealed) shall be installed on both sides of the bus and shall operate with the hazard flashers and turn signals.License plate LED shall be Peterson Model M153C-MV with Peterson Model 150-40 bracket or Optronics LPL-55 series for those not mounted in the preformed recess in the rear panel.

6. All lights in the rear panel of the bus shall be rubber grommet mounted round LED sealed lamps except the license plate light. A sealed light with a weather proof connector shall be used when the preformed recess in the rear panel is used. Suggested Sources: Dialight, Grote, Peterson, SoundOff Signal, Optronics, Truck-Lite.

7. A red, 4”round, voltage regulated LED high mount stop lamp shall be mounted centrally in the rear panel of the bus and work in conjunction with the brake lights. The high mount stop lamp shall be mounted either above the rear emergency exit door or above the rear emergency exit window. Final location of high mount stop lamps shall be determined at pilot model production. Suggested Sources: Command Electronics model 003-82, Dialight, Grote, Optronics, Peterson, SoundOff Signal, Truck-Lite.

8. Brake/tail lights shall be red 4" round sealed voltage regulated LED lamps and shall not override hazard flashers or turn signals.

9. Directional rear turn signal lamps shall be amber 4" round sealed voltage regulated LED lamps.

10. Back-up lamps shall be clear, 4”, round, sealed, voltage regulated LED lamps. Back-up lights shall be 500 lumens minimum.

T. Heating/Ventilating/Air Conditioning (HVAC)

1. During normal passenger service, front and rear heavy-duty heating system shall be capable of raising the interior temperature of a bus from 0ºF to 60ºF at knee level (22" above the floor) throughout the interior of bus within 30 minutes from engine startup. After initial warm-up, while the bus is in passenger service, the front and rear heavy-duty heating system shall be sufficient to maintain a minimum of 64ºF at knee level throughout interior of bus and at the driver's foot space when the outside temperature is 0ºF. Heating system operation will be verified by the required system testing as defined in Section VII Part D. Heating/Ventilating (HV) Certification. In addition to the front heater and windshield defrosters, for increased air circulation, one 6" two speed fan with non-glare blades and body shall be mounted away from passenger and driver traffic in the driver's area near the windshield. The fan shall be mounted securely with nuts, bolts, and washers. Grounding for all heater fan motors shall be supplied by an in harness ground wire attached in the fuse panel to a common grounding point. All HVAC fan motors shall be supplied with proper radio frequency (RF) suppression equipment to remove two-way radio interference.

2. Front heating unit shall be automotive in-dash type, chassis Original Equipment Manufacturer (OEM), and shall be capable of delivering heat, fresh air ventilation, and air conditioning (optional) to the driver's area. The front heater shall have a temperature control valve which can be regulated from the driver's area. The driver's area shall have air circulation in each mode of defrost, heat, fresh air ventilation, and air conditioning (optional) of 125 cfm at the foot area, with a total driver's area circulation of 400 cfm minimum.

3. Rear heating unit(s) shall distribute heat in at least a 180° direction and ensure air distribution to all passenger areas of the bus interior. Heating unit(s) shall have a minimum ¾" I.D. heater inlet and outlet ports with a BTU/hr output rating to match the specified HVAC performance requirements. Coolant flow through the heating units shall not be restricted by excessive bends or kinks in hoses or excessive lengths of hoses. Heating units shall have rubber or nylon insulator(s) between their mounting base and floor of the bus. Suggested sources: ACC Climate Control, A. R. Lintern, Bergstrom, Pro-Air.

4. The premium heater hose (¾" ID minimum) shall be high temperature resistant Ethylene Propylene Diene Monomer (EPDM) material. Hose shall be a reinforced type with Aramid knitted fiber reinforcement between the EPDM tube and EPDM cover. Heater hose material shall be compatible with all types of coolant including long life coolant. Rated temperature limits of the hose shall be -40ºF to +300ºF minimum, with a burst pressure of 130 PSI minimum.

5. Manual shut off valves for the rear heater shall be placed as close to the engine as is practical. The ¾" ID heavy-duty brass 1/4 turn ball shut off valves shall be located in the heater outlet line (from engine to heater) and in the heater inlet line (to engine from heater). Shut off valves shall be accessible by personnel without going under the bus. Location to be determined at pilot model inspection.

6. Front heater shall have coolant temperature control valve or other controls which can regulate heater temperature from the driver's area.

7. All heat lines and hoses shall: have exterior routing along the bus frame rail where possible; be sufficiently protected to ensure against wear from friction and the elements; be insulated to reduce heat loss; use routing that eliminates excessive bends and hose lengths; and have heater hose passage holes through engine cowl and floor area thoroughly sealed to prevent air, dust, and moisture intrusion.

8. Air Conditioning (see Alternate Quotes, Section VI. A).

U. Windows

1. All Windows
   a. Passenger compartment windows shall be T-type slider at top, full slider, or top tip-in type for window ventilation. Windows shall have tempered safety glass and heavy-duty locking features which shall meet FMVSS 217 for emergency exits, if applicable. Window glazing material shall be able to maintain its seal and glass retention for the life of the unit. Caulking around windows shall be used only as a seal, not to make up for body defects or out of tolerance window openings (maximum clearance of ¼" around the frame, $^{1}/_{8}$" on each side). All window glass shall be tinted – passenger windows AS-3 tint 31% luminous transmittance, right and left driver's side windows AS-2 tint 70% luminous transmittance, and windshield shaded-tinted AS-1 tint – and meet applicable federal standards.

   b. Driver's compartment right and left side windows shall be designed for maximum window area to provide unobstructed vision. Driver's compartment left side window shall be adjustable vent type (moveable front section of lower portion for ventilation) or chassis Original Equipment Manufacturer (OEM) door window. Driver's right side window shall be one piece. Suggested sources: Clear-Vision, Hehr, Kinro, Sampers.

   c. Black trim shall be installed or painted to completely cover the space between all side passenger windows. The trim line shall match the bottom edge of the windows. If equipped with a side lift door, a black trim stripe shall be painted from and around the lift door windows to match the trim of the side windows. The window trim shall give the illusion of one solid window.

2. The windshield shall be OEM

V. Paint

1. All exterior surfaces shall be smooth and free of visible fasteners (excluding round head structural rivets), dents, and wrinkles. As appropriate for the paint used and prior to application of paint, the exterior surfaces to be painted shall be properly cleaned and primed to assure a proper bond between the substrate and successive coats of original paint. Paint shall be applied smoothly and evenly, with the finished surface free of dirt,

runs, orange peel, and other imperfections. All exterior finished surfaces shall be impervious to diesel fuel, gasoline, and commercial cleaning agents. Finished surfaces shall not be damaged by controlled applications of commonly used graffiti-removing chemicals.

2. All exterior paint shall be a two part acrylic-urethane-type or polyurethane-type with low volatile organic compound (VOC) emission. The finish coat of paint shall be applied before rubrail covers or inserts, fender flares, exterior lights, and other body mounted accessories are installed. Paint shall be applied in the following method:

   a. If on bare aluminum, use proper cleaner. Suggested sources: DuPont 2253, PPG followed by aluminum conversion. Suggested sources: DuPont 2265, PPG.

   b. If on bare steel, use proper cleaner. Suggested sources: DuPont 5717S, PPG followed with steel conversion.

   c. For all bare metal, use primer. Suggested sources: DuPont Prime 615/616 (two coats), PPG.

   d. Appropriate primer as required shall be used on fiberglass surfaces.

   e. Coat entire prepared surface to be painted with minimum of two coats of paint properly activated and reduced and have a minimum thickness of three millimeters. Suggested sources: DuPont, PPG Concept System, Sikkens Corporation U-Tech brand.

3. Standard paint color for all buses shall be the manufacturer's pre-finished white exterior panels (OEM white). Color scheme on all buses shall be provided at the time of ordering. Additional paint schemes will be quoted in VI. ALTERNATE QUOTES (OPTIONS) Item K. Special design paint application pricing will be negotiated at the time of ordering by the transit agency.

W. <u>Insulation</u>

1. Inside walls, ceiling, passenger floor area, driver floor area, and fire wall area shall be adequately insulated for sub-zero winters with spray-type foam insulation or glued in place insulation with a minimum R factor of 5. The insulation shall be non-formaldehyde, fire-resistant (FMVSS 302 minimum), non-hygroscopic, and resistant to fungus. Insulation shall prevent condensation and thoroughly seal bus so that drafts cannot be felt by the driver or passengers during operations with the passenger door closed. Insulation shall not cover up electrical wiring harnesses, electrical switches, or other devices and shall not be sprayed in wheelwells. All mechanisms (moving or stationary parts) that are affected, create a fire hazard, or are rendered useless by an application of sealant or insulation shall be cleaned free of sealant or insulation, including vent canisters and drain pipes.

2. Engine hood cover and driver's area shall have adequate insulation to keep driver's foot area cool during summer months, warm during winter months, and reduce engine noise to an acceptable level.

X. Type I Lift, (Platform Type) (Shall Meet ADA Requirements)

1. The Type I platform lift (passive lift) shall be installed in a separate door opening for use by persons with disabilities. The lift assembly shall be mounted within the bus body on the right (curb) side. The bus manufacturer must provide documentation (reviewed by the State at pilot model production) that the lift installation complies with the lift manufacturer's lift installation requirements. The overhead clearance between the top of the door opening and the raised lift platform, or highest point of a ramp shall be a minimum of 68" for a bus over 22 feet in length to meet ADA requirements.

2. The lift doors shall be manually operated, double-door with an outside key locking handle. Spring loaded struts, gas struts or manual latches shall be provided on the lift doors to positively hold the doors in the open position. All door openings shall have full structural framing around the opening equal to the structural members of the body. The lift door(s) shall have an upper window similar to the side windows of the bus. Any exposed lift door frame structure shall be constructed of 304 stainless steel, a grade which does not discolor with aging.

3. The lift shall be an electro-hydraulic type. If the lift has a crossbar, it shall be above the door opening and well padded. The platform lift equipment shall be a double "C" channel parallel arm construction, hydraulically operated by two single-acting cylinders with gravity unfold, gravity down, power up, and power fold (stow) operation. No part of the lift platform shall exceed 6 inches/second during the lowering and lifting of an occupant, and shall not exceed 12 inches/second during deploying or stowing. The lift shall have a mechanical outboard safety wheel stop to prevent wheelchair from rolling off the platform during the lifting cycle. Successful bidder shall deliver the lift equipped bus with the type of lift equipment requested by the State. Suggested sources: Braun, Maxon,.

4. A manual safety override shall be provided that will remain operable. Lift shall have manual override instructions visible from inside and outside the bus with door open.

5. The entire lift assembly shall be installed inside the bus body and shall have adequate protection installed on all sharp corners or items that protrude into the passenger area to prevent accidental injury to passengers. Wall and floor mounting points shall be reinforced and shall be attached with fasteners having a thread locking feature. Lift installation shall insure that no lift rattling exists when the bus is operated while the lift is stowed.

6. A lift control interlock system shall be installed that shall ensure that the bus cannot be moved when the lift is not stowed and that the lift cannot be deployed unless the interlock is engaged [to meet ADA regulation in 49 CFR Part 38, Subpart B-Buses, Vans and Systems, §38.23, (b)(2)(I)]. The interlock system shall engage when the lift operation sequence is followed. Interlock operating instructions shall be included with the bus at delivery. An indicator light (red, labeled) shall be provided at the driver's station that is activated when the lift door is open and when the lift is in operation. An interlock override system shall be installed that allows service personnel to move the bus to a safe area for repairs. Suggested Source: Intelligent Lift Interlock System (ILIS) by Intermotive Products

7. All lift equipped buses shall display the international symbol of accessibility, one each on left and right side of the bus. Location shall be determined at pilot model inspection.

8. The lift shall meet ADA requirements as well as these minimum requirements.

   a. Capacity 1,000 pounds minimum.

   b. Usable platform width 33" minimum.

   c. Usable platform length 50" minimum.

   d. Platform shall include automatic locking inboard safety wheel stop (minimum 6" height) and outboard safety wheel stops to prevent wheelchair from rolling off.

   e. Platform shall automatically stop at floor level.

   f. Platform shall automatically stop when lowered to ground level.

   g. Hand held controls shall be conveniently located on a flexible or coiled, cut-resistant cable and shall be mounted with access from inside or outside the bus. The cable shall be routed to eliminate being pinched in any moving parts and be wrapped with a flexible exterior protective conduit.

   h. Platform, bridge plate, and area between bridge plate and aisle shall be skid resistant.

   i. Bridge plate and platform shall be coated to resist rust.

   j. Platform shall have horizontal handrails (one each side) on platform to assist passenger during lift operations. Handrails (yellow) shall fold automatically to prevent any obstructions into the bus passenger area.

   k. Lift door operated interrupt switch shall prevent use of lift with lift door(s) closed. Heavy duty long life switches shall be used in this application.

   l. The color of the lift shall coordinate with bus interior colors and be approved by the State. The outside edges of the platform shall either be painted yellow or use 3M™ vinyl safety stripe tape to enhance visibility when extended on the ground.

   m. Sharp corners of lift platform shall be padded (remove for lift use) when in the stored position.

   n. The wheelchair lift shall comply with all federal, Americans with Disabilities Act (ADA), and Veterans' Administration regulations.

   o. Lift platform shall be fitted with device to prevent the platform from touching or leaning against door after being returned to stored position when the lift assembly is not in use.

III. WHEELCHAIR SECUREMENT AREA

A. The wheelchair securement system shall be installed according to ADA requirements. Securement location shall be installed as shown by the seating plan option and approved at pilot model production. Fold-away seating shall be provided for use when wheelchairs are not being

carried as shown in floor plans. The integrated securement system shall restrain the occupant and the wheelchair separately and securely.

B. Wheelchair securement shall meet these minimum requirements:

1. Forward facing wheelchair tie down and occupant restraint shall consist of four floor attachment points for the chair and a retractable combination, lap belt/shoulder restraint with manual height adjuster for the occupant per location.

2. Securement floor anchorage points shall be anodized aluminum, stainless steel or other noncorrosive metal construction and consist of aircraft type insert pockets that can be flush mounted with the flooring (Flanged "L" style track with end caps Q-Straint Q5-6100-FPD or equivalent Sure-Lok L-Track). Floor anchorage points for the first securement space shall be spaced at a minimum of 54" from center of front track to center of rear track. Floor anchorage points shall be located no closer than 8" from a stationary wall or obstruction (forward or rearward) that would hinder an operator from attaching the securement system. Anchorage points can be used for the front tie downs, the rear tie downs, and can be shared by the center run of anchorage track. Width of anchorage track shall be no less than 30" wide allowing for the widest of mobility devices.

3. Securement wall anchorage point for shoulder restraint shall be stainless steel or other aircraft quality noncorrosive metal. Wall anchorage device shall provide vertical adjustment (approximately 12") for differences in height of the secured mobility aid. Wall anchor shall be permanently fastened to the body structure in the wall according to the belt assembly manufacturer's installation instructions.

4. The four belts that attach to the wheelchair from the floor anchorage points shall use a simple speed hook end ("J" or "S"style) for chair attachment and have automatic heavy duty retractors with a hard metal cover and manual knob control. All floor attachment belts shall be the same and work in any of the four floor attachment points and be equipped with connector brackets for the lap belt assembly. Automatic self tensioning and self locking retractors with metal covers shall be part of the four floor belt assemblies for automatic belt tensioning. Belt ends with floor anchor attachments shall be easily identified for placement in the floor track.

5. All belt components and there attachments to such vehicles shall meet ADA design load requirements of 2,500 lbs per securement leg and a minimum of 5000 lbs for each mobility device

6. All components shall meet SAE J2249 requirements and be 30 MPH/20G impact tested.

7. All components shall be installed to the securement manufacturer's recommended specifications.

8. Suggested sources: Q'Straint Model Q-8100-A1L; Sure-Lok's Retraktor™ Systems for L track AL-712S-4C.

C. Restraint Storage System

1. A wheelchair restraint storage system shall be positioned under the foldaway seats at each wheelchair space. Storage system shall:
   a. Keep restraints clean

b. Provide easy accessibility to restraints
c. Restraints shall be stored securely to prevent noise while the vehicle is in motion.
d. Restraint storage system shall be compatible with the installed securement system (L-Track or 360 degree single point securement system). Suggested Source: Freedman Tie-Down Storage System

2. A storage pouch, from the securement manufacturer, shall be provided for the lap belt restraints so that the restraints can be stored off the floor in the bus when not in use. Location of storage pouch shall be determined by ordering agency.

IV. CHASSIS SPECIFICATIONS

The chassis shall have a pre-delivery inspection performed by a representative of the chassis manufacturer before the bus manufacturing process begins. A copy of the completed pre-delivery inspection form shall accompany the bare chassis and accompany the bus during manufacture as part of the build order. All standard or optional chassis equipment to be included shall be as advertised by the manufacturer and factory installed and shall not consist of substitute or after market equipment. Optional chassis equipment not available from the factory may be dealer installed. The chassis shall meet the following minimum requirements.

A. Chassis

Chassis shall be designed for transit use with straight channel side rails of 36,000 pounds per square inch (PSI) minimum (medium class one) and 50,000 PSI minimum (medium class two) yield strength steel. Chassis shall have one front axle (I-beam) with single wheels and one rear axle (full floating) with dual wheels. If available from the chassis OEM, front axle shall have kingpins and front axle shall be mounted for sharp steering angle (minimum lock angle of 48º). **Note:** If available from the chassis OEM, Axles (front and rear) shall be equipped with axle oil seals (Stemco, Chicago Rawhide, or equal), shall be filled with proper lubricating oil, and front hubs shall include fill plugs and fluid level windows.

B. Tilt Wheel/Power Steering

Chassis shall be equipped with power steering and a tilt wheel steering column. The steering column shall be adjustable for various up and down positions of the steering wheel. The steering gear shall be a full hydraulic power assist type.

C. Wheelbase

The minimum wheelbase shall be 193” (medium class one and two) using the wheelbase for each of the specified bus lengths which will provide proper approach and departure angles, proper handling, and proper ride characteristics. Maximum rear overhang shall not exceed 1/3 bus overall length.

D. Engine, Diesel

1. All diesel engines shall be electronically controlled, be equipped with a fuel/water separator unit with a dash indicator light, an automatic engine shutdown system (see Section V., part A., Item 6), and a water jacket block heater that is a 1000 watt 110- volt model. The electronic diesel engine shall meet current EPA low sulphur fuel and emissions standards for buses and operate on B-20 biodiesel as a minimum. Driver's area

noise level (at driver ear level) shall not exceed 82 DBA at a constant speed of 55 mph on a level roadway and shall be verified at pilot model production.

a) Medium class one shall be an in-line 6 cylinder turbocharged diesel engine 6.0 litre minimum, 195 gross horse power at 2,600 revolutions per minute (RPM) with air-to-air after cooling or an 8 cylinder (V-8 OHV) turbocharged diesel engine 6.0 litre minimum, 195 gross horse power at 2300/2600 RPM with air-to-air intercooling. Acceptable engines include: Cummings 6.7 ISB, Ford Powerstroke 6.7, Navistar International Transportation Corp. MaxxForce 7

b) Medium class two shall be an in-line 6 cylinder turbocharged diesel engine 6.0 litre minimum, 195 gross horse power at 2,600 revolutions per minute (RPM) with air-to-air after cooling. Acceptable engines include: Cummings 6.7 ISB, Navistar International Transportation Corp. MaxxForce DT

2. Auxiliary Coolant Heater

a) All buses with diesel engines shall be equipped with an auxiliary heater system that shall be able to preheat, provide supplemental heat, and maintain heat for the engine and the interior of the bus. The auxiliary heater system shall be supplied in heated coolant model for diesel engines. The heater system shall be complete with all fuel and electrical controls, exhaust system, and standard warranty. All auxiliary heaters shall be 12-volt units with a fused power supply and with protection for high and low voltage conditions. The auxiliary heater system shall meet FMVSS 301 fuel system integrity requirements. The heating units shall be fueled from the bus's primary fuel supply. The auxiliary heating units shall be connected electrically to run whenever the bus’s rear heat exchanger fan is turned on. The on/off seven day programmable modular electronic timer controls for the heating units shall be located in the driver's area of each bus. The seven-day timer control shall be capable of a two hour preheat control, minimum, and be capable of continuous run control when the key is on with the engine running. The electrical connection shall be a one piece harness from the control switch to the heating unit with all exterior connections Weather-Pak. Location shall be determined at the Pre-Pilot Model Review Meeting.

b) The heated coolant model shall be a self-contained unit mounted under the bus near the rear heating unit, and connected to the heater hoses leading to the rear heating unit. The auxiliary heating unit inlet and outlet hoses shall have ¾” ID heavy-duty brass ¼ turn ball valves for shut off when the heater needs to be removed for servicing. It shall be in an enclosure supplied by the auxiliary heater manufacturer, be installed so that adequate ground clearance exists below the heater enclosure box, be easily accessible for servicing, be weather resistant, and be complete with mounting brackets/hardware and coolant circulator pump. The coolant circulator pump shall provide a minimum flow of 3.5 gallons per minute. The heated coolant system units shall have safety features for temperature regulating and overheat shut down switches. A seven day digital timer shall be used to control operation. The auxiliary heater exhaust shall exit just below the heater enclosure toward the rear of the bus or at the side of the bus. The coolant heater shall control coolant temperature between a low of 154ºF and a high of 185ºF. Coolant heater output shall operate automatically at different levels with a high heat output of 25,500 BTU/hr minimum (boost setting may be higher). Suggested sources: Espar Inc., Hydronic 10 (diesel, heated coolant), OEM, Webasto Thermo 90S (diesel, heated coolant).

E. Transmission

The electronically controlled transmission shall be a minimum, heavy-duty, five-speed automatic cooled by an "H.D. transmission oil cooler" in series with radiator cooler or equal (cooler capacity to match GVWR of bus). The transmission shall have an external spin-on type filter. Suggested source: Allison Transmission 1000 or 2000 series or Ford Torqshift matched to the electronic engine and chassis.

F. Alignment

The bus shall have a four wheel alignment at final point of inspection, just prior to delivery to the transit agency. A copy of the work order indicating the camber, caster and toe-in settings at time of final inspection shall be provided with the bus at delivery.

G. Gross Bus Weight Rating (GVWR)

1. Medium Class One
    a. **I-Beam Front Axle Rating – 6,500-lb. minimum.** Bus axle weight shall not exceed chassis manufacturer's front axle weight rating or spring and tire capacity.
    b. **Rear Axle Rating, -13,000-lb. minimum.** Bus axle weight shall not exceed chassis manufacturer's rear axle weight rating or spring and tire capacity.
    c. **Chassis GVWR - 19,500-lb. minimum.** (see Purpose of Specifications Section I.) Engineering calculated loaded bus axle weight charts are required with the bid.

2. Medium Class Two
    a. **I-Beam Front Axle Rating - 8,000-lb. minimum.** Bus axle weight shall not exceed chassis manufacturer's front axle weight rating or spring and tire capacity
    b. **Rear Axle Rating, - 15,000-lb. minimum.** Bus axle weight shall not exceed chassis manufacturer's rear axle weight rating or spring and tire capacity.
    c. **Chassis GVWR - 22,000-lb. minimum.** (see Purpose of Specifications Section I.) Engineering calculated loaded bus axle weight charts are required with the bid.

H. Differential

Heavy-duty rear axle with full floating axles. Gear ratio shall allow buses to travel approximately 65 miles m.p.h. loaded, maximize fuel economy, and not exceed manufacturer's recommended engine operating R.P.M. Axles shall be marked if synthetic oil is used.

I. Battery

The battery equipment shall be furnished by the chassis manufacturer where available. The dual batteries shall be maintenance free with reserve capacity of 400 minutes @ 80ºF, CCA-1250, 12-volt minimum). The batteries installed in the bus must be a pair of matching units. The batteries must be fresh, fully charged units when the finished bus leaves the manufacturing plant. Batteries that have been in the bus during the manufacturing process which were allowed to become fully discharged for a period of time shall be replaced with fresh new batteries. Where there is no permanent OEM mounting enclosure and securement, the batteries shall be mounted on a slide-out stainless steel tray with battery hold down secured with bolts. The slide-out tray shall be mounted on properly supported mechanism with grease fittings, all of which shall have adequate capacity to support the battery equipment. The battery slide-out tray shall allow movement to permit full service of batteries outside of the bus body. The inside of the battery

compartment shall be covered with a durable insulating material to prevent electrical shorts. The totally enclosed battery compartment shall be vented and the tray shall be coated with an acid resistant coating. The battery compartment must be located below the floor line with adequate reinforcement brackets mounted to floor supports. The battery compartment shall be fitted with an insulated standard exterior access door with hinge and flush pull-style latch(es) (SouthCo Model #M1-61-1) or ¼" turn stainless steel thumb latches, which match latches on other compartment access doors. The battery box compartment must be marked to say "battery inside".

J. <u>Battery Cables and Grounds</u>

1. Battery positive and ground cables shall be AWG size 2/0 minimum, fine stranded, flexible copper wire with permanently affixed cable connector ends with heat shrink tubing applied. All cable ends shall be fastened in a manner equal to the method used by the chassis Original Equipment Manufacturer (OEM). Positive cable ends at the battery shall use a protective cover or cap as an added insulator. Cable assemblies installed in place of chassis manufacturer's battery cables shall be sized to match the electrical system's maximum current draw to provide proper engine starting and operation of all systems.

2. Grounds

   Engine, body, and equipment grounds (properly sized) shall be installed to handle subsystem electrical capacity. For all ground wire connections; 1) paint shall be removed at the grounding point to provide a cleaned surface; 2) grounding wires and cables fastened to the frame or body structure shall use a bolt with nut installed in a proper sized hole; and 3) a coating of dielectric material shall be applied to the cleaned surfaces, cable ends, bolts, and nuts where each positive or grounding cable or wire is attached. The following is a list of grounding locations:

   a. A ground of the battery cable size shall be installed between the engine and chassis frame.
   b. Between the transmission case and the chassis frame.
   c. The bus body shall be properly grounded with cables to the chassis frame in at least two places.
   d. Lift pump motor shall be grounded directly to chassis frame using a cable of the same size as the pump motor feed wire.
   e. All exterior lights and accessories, added by the body manufacturer, shall be grounded by an in-harness ground attached at a common grounding point. There may be a common grounding point in the rear of the bus along with a required grounding point at the fuse panel.

3. All buses shall be supplied with proper radio frequency (RF) suppression equipment to reduce radio interference and improve radio transmission and reception performance. High corrosion resistance and high conductivity braided ground straps shall be added: between the engine and the chassis frame of 1" width, minimum; between the engine and the firewall of ½ " width, minimum; two between the frame and the body sections of ½ " width, minimum; and between the separate body sections of ½ " width, minimum. For all braided ground wire connections, paint shall be removed and a coating of dielectric material applied to the cleaned surfaces where each braided cable attaches as is required in other ground wire applications. All removable covers in the engine area including fiberglass hoods need to be shielded and RF grounded. All braided high corrosion resistance and high conductivity ground straps shall be as short as possible and shall use

the negative battery cable attachment point (except those between separate body sections) as the termination point of the RF grounding.

K. Alternator

The alternator equipment shall be furnished by the chassis manufacturer where high output will match system needs. This system shall be a 12-volt serpentine belt drive with internal or external voltage regulator. It shall be capable of maintaining the battery at a state of full charge under all operating conditions and equipment loads, 200 amp minimum. The alternator(s) shall be supplied with proper radio frequency (RF) suppression equipment and have a ½" wide braided ground strap connected between the alternator frame and the engine block to reduce two-way radio interference. Any bracket modifications shall not reduce the strength of the mounting bracket. Chassis alternator equipment available that is unable to meet electrical needs may be replaced by Delco/Remy, Mitsubishi, Leece-Neville, or PennTex that will meet system needs. Any non-Original Equipment Manufacturer (OEM) alternator equipment installed on a bus by the body manufacturer shall be covered by a minimum warranty period equal to the chassis OEM alternator warranty. It is the responsibility of the manufacturer (bus supplier) to match the alternator performance to the bus's electrical system needs.

L. Engine Fast Idle

The engine shall be equipped with fast idle control which includes manual and automatic control features. Fast idle shall not activate unless the transmission control is in park (P). The control system shall have a manual switch, volt sensor, an indicator light, and activate automatically from voltage sensors. The system shall automatically deactivate when bus is shifted into gear and when the bus foundation brakes are applied. Suggested source: Chassis manufacturer's equipment, Gateway by Intermotive Products, Penntex Model PX-HI-(mod no) with time out module, Vortec MD30-2500.

M. Brakes

1. The medium class one bus foundation brakes shall be a power-actuated hydraulic split system of a four wheel disc type with a three channel anti-lock braking system. The system shall be the heaviest-duty available for stop and go operation. The brake system shall include a red brake warning lamp (RBWL) in the instrument cluster that lights when the parking brake is on, when a front or rear hydraulic failure occurs, or when brake fluid is low in the reservoir and act as a low brake warning system. The parking brake shall be rebuildable and the heaviest-duty available from the chassis manufacturer.

2. The medium class two bus foundation brakes shall be equipped with self-adjusting air brakes with a four channel anti-lock brake system. The Parking brake shall be activated by a push-pull knob located on the dash or a foot operated hand release. The air compressor shall be engine driven with a minimum capacity of 13CFM at 1250 RPM. The air brake system shall have an air dryer and air tanks that can be manually drained by standing outside the bus from one position.

N. Fuel Tank

Fuel tank capacity shall be the largest size available for each chassis. Fuel fill shall not extend beyond the exterior surface of the bus and may have the fuel cap set in a recess

similar to a Ford OEM unit. Fuel fill shall be on the street (left) side of the bus. Fuel tank capacity shall be minimum for the following chassis/buses:

1. Medium class one: 40 gallons
2. Medium class two: 60 gallons

O. Hazard Flashers

Hazard flashers shall use the OEM switch and control system with an electronic flasher.

P. Shock Absorbers

Chassis shall have gas filled shock absorbers front and rear, most heavy-duty available from chassis manufacturer.

Q. Springs/Suspension

1. The chassis shall be equipped with a heavy-duty tapered leaf (parabolic) spring or coil spring front suspension to match the specified gross axle weight rating.

2. The medium class one buses shall be equipped with a heavy-duty rear suspension fitted with a rubber shear spring suspension that works in conjunction with the OEM chassis leaf spring suspension to match the specified gross axle weight rating. The added suspension shall consist of a spring carrier assembly, a frame hanger assembly, a cross-member tube assembly, and a carrier spring assembly, shall be installed in place of the original spring hanger and shackle assembly. The frame hanger must bolt into the existing Original Equipment Manufacturer (OEM) spring hanger holes in the frame. The added suspension system must not alter the OEM gross axle weight rating. MOR/ryde® "RL" Suspension System.

3. The medium class two buses shall be equipped with a rear axle air ride suspension and shall have a spring-beam with air spring on each side with a capacity to match the axle weight rating. Rear air suspension shall use original chassis spring hangers, original axle clamp group, original shock absorbers, and suspension stabilizer (where equipped). The air suspension shall have a single valve for the rear axle height control. The air system shall be complete with its own air compressor, air lines, and reservoir tank(s) with manual spitter and drain valves with pull chains (Berg manual). The air system shall have a dash mounted air pressure gauge, warning light and warning buzzer. Suggested sources: Chassis OEM equipment.

R. Stabilizer

Chassis shall have heavy-duty OEM suspension stabilizers.

S. Wheels

Bus wheels (6) shall be 19.5" x 6.75" minimum, steel disc, hub piloted type, 8-hole flange nut style. Wheels shall have all stainless steel or all brass valve stems a minimum of 1½" in length retained by threaded nuts fitted with stainless steel, steel or brass valve caps with an inner air seal. Wheels shall be OEM white.

T. Tires

All tires (6) shall be tubeless, steel radial blackwall, single front, and dual rear. All tires shall be high miler or all season tubeless. Suggested sources: Goodyear, Michelin XZA, Unisteel. The ratings (below) shall be the minimum to meet GVWR:

1. Medium Class 1: 225/70R19.5 G/14
2. Medium Class 2: 245/70R19.5 F/12

U. Drive Shaft

The multi-piece drive shaft shall be OEM and have guards of sufficient strength to prevent any drive shaft section from striking the floor of the bus or the ground in the event of a tube or universal joint failure. Drive shaft guards, (OEM chassis equipment preferred, or may installed by the chassis manufacturer) shall be secured properly and be equal in materials and design to drive shaft guarding installed on a school bus chassis.

V. Wipers/Horn

Electric wipers shall be two speed, delay style, dual jet washers (electric), with manufacturer's standard arms and blades (OEM equipment preferred). Wiper motors shall be mounted for easy access and not interfere with other equipment mounted in the front bulkhead/cowl of the bus. Where individual wiper motors are used (one for each side), each shall be supplied by its own fused feed wire. The bus shall have two electric horns.

W. Radiator and Cooling System

The cooling system shall have an extra cooling capacity radiator (aluminum or copper core), water pump, pulley, and clutch-type fan with coolant recovery system with a factory installed coolant filter (heavy duty system installed by chassis manufacturer). Cooling system shall be winterized with 50/50 mixture (minimum) of permanent antifreeze and distilled water or a factory premix (minimum -35°F freezing point). Radiator removal instructions and estimated removal time shall be furnished with first bus to each agency. Coolant integrity shall be maintained throughout the manufacturing process to insure that the coolant, including additives, in the delivered bus is equal to the coolant installed at the chassis OEM factory. All cooling system hose connections in the engine compartment shall use constant tension spring loaded band clamps (Breeze Constant-Torque®, Clampco Products Inc., Oetiker that automatically adjust for thermal expansion and contraction to control leakage.

X. Fluids

Fluids shall be checked and filled from inside front hood where application allows. Engine oil fill/check, transmission oil fill/check, and coolant fill/check shall be located for easy access per approval at pilot model inspection.

Y. Engine Cover/Trim

1. The engine cover shall be insulated from engine heat, engine noise, and road noise. Additional equipment added to the engine cover area shall not interfere with removal/installation of the engine cover.
2. The buses shall be equipped with an OEM chrome trim package for the grill and front trim (if available).

Z. Exhaust System

The exhaust shall exit the rear of the bus and be flush with the rear bumper. If bus is equipped with a rear lift door, the exhaust shall exit the rear of the bus on the street (left) side flush with left end of the rear bumper. The exhaust system shall meet FMVSS §393.83 and current Environmental Protection Agency (EPA) requirements. The exhaust system must be installed to provide maximum ground clearance and departure angle at the rear of the bus.

V. OTHER ITEMS

A. Safety Items

The following safety items shall be provided on each bus and items noted with an asterisk (*) shall be in a location approved by the state at pilot model inspection:

1*. One UL listed 5 pound, 2A-10BC dry chemical fire extinguisher. Fire extinguisher shall have a metal head, a gauge to indicate state of charge, and a bracket with strap for securement. The fire extinguisher shall be mounted in a vertical (upright) position unless specified by the manufacturer and be easily accessible to the driver. Source: Manufacturer's Standard.

2*. One container of bi-directional emergency reflective triangles that meets FMVSS 125 and shall be in a location easily accessible to the driver.

3*. A 12-volt 97-db sealed solid state electronic warning alarm that is readily audible from outside the bus when transmission is in reverse. The alarm shall: be steam cleanable; have passed a 1 million cycle test; and meet SAE J994, OSHA, Bureau of Mines and all State Regulations. The alarm shall be mounted with bolts and properly grounded and mounted on the rear of the bus. Suggested source: OEM standard.

4. The rear door shall have an audible alarm at driver area that is energized when the rear door latch handle starts to open and when the rear door is locked with the ignition in the on or accessory position.

5*. An exterior height (clearance) decal shall be mounted in the driver’s dash area.

6. An interlock system shall be provided to ensure that the bus cannot be moved when the lift is not stowed and that the lift cannot be deployed unless the interlock is engaged (to meet ADA regulation). The interlock system shall engage when the lift operation sequence is followed. Interlock operating instructions shall be included with each bus at delivery.

7. A warning/engine shutdown system which shall be capable of monitoring oil pressure, engine temperature, and engine coolant level and which shall sound an alarm and shut down the engine when:

   a. Low oil pressure occurs.
   b. High coolant temperature occurs.
   c. Low coolant level occurs.

   The warning/engine shutdown system shall include an audible alarm (with warning light) and visual indicator lights (oil pressure, temperature, and the like) in the driver's area.

The visual indicator lights shall be labeled to define the source of engine shutdown as a system diagnostic aid. The low coolant probe may be installed in the coolant surge tank but not in the coolant overflow/recovery container. Suggested sources: Chassis OEM, Murphy System.

8. An automatic daytime headlight control system shall be provided. The system shall illuminate the headlights when the ignition switch is on and the headlight switch is off. The system shall activate automatically after engine start up with the headlamp switch off and shall deactivate automatically when the headlamp switch is on or the ignition switch is turned off. Suggested source: Chassis OEM.

9. A low profile electronic strobe light (white) with a clear lens and branch guard shall be provided. The light shall meet SAE J1318 requirements and be mounted centrally on the roof of the bus approximately 6 feet forward of the rear of the bus. The 12 volt light shall have a control switch in the driver's area. The light shall be approximately 4" in height, produce 80 (±10) double flashes per minute, and have a light intensity of 1 million candlepower with a current draw of approximately 1 ampere. Suggested Sources: Meteorlite, Peterson, Target Tech Pulsator® 451, Truck-Lite

B. <u>Electrical</u>

1. Lift equipped buses shall have a circuit breaker with a manual reset in the lift feed circuit. The circuit breaker shall be installed vertically (on the side wall) in the battery box, in the positive power cable leading to the lift power pack.

2. Install a 12 volt power point for hand held equipment in the driver's area.

3. All cable and wires added by the body manufacturer shall be continuous color coded and numbered or function coded. The manufacturer shall furnish complete as built wiring diagrams with integrated body and chassis wiring marked to show the codes used. Mating harnesses and harness connectors shall use matching wiring and coding unless chassis OEM wiring and coding is different from body manufacturer's. The wiring shall be designed to be a "plug and play" system where the harnesses and components are fastened through common standard terminal ends and connectors.

4. Electrical panels installed by the body builders shall be located for easy access. Circuit breaker circuit protection shall be standard but blade type fuses may be used when expressly required by the component manufacturer. The master electrical panel shall use a separate "plug and play" connector and terminal system. Highest quality components available shall be used. Two spare electrical fuses that match fuses used on the bus body and chassis shall be supplied with the bus and stored in a box or spare circuit area at fuse box. All components shall be placed on the front of the electrical panel for ease of service.

5. All wiring added to chassis fuse block shall be securely fastened to prevent wires from being knocked loose or loosening from vibration. The manufacturer shall use wire raceways where needed. Wiring, harnesses, and raceways shall be supported at regular intervals by "P" clamps, or by other supporting hangers where necessary, and routed in separate hangers from heater hoses or air conditioning hoses. Body fuse/electrical panel shall be sufficiently sealed to prevent intrusion of dirt and moisture.

6. All wiring shall be heavy-duty; be properly grounded to body frame structure and the chassis; use a common grounding point; and be adequate for electrical system capacity. All wiring passage holes through engine cowl, floor area, and other partitions shall be thoroughly sealed to prevent dust and moisture intrusion.

7. All accessories and accessory electrical equipment shall be wired through a constant solenoid energized when the bus's ignition switch is in "ignition on" or "run" mode. A master switch with light in the driver’s control panel shall control this constant solenoid and act as a quiet switch overriding individual switches for accessories. This master switch is wired in series with the ignition switch to control the constant solenoid. The constant solenoid shall not control headlights, taillights, emergency lights, charging system voltage regulator energizer lead, a fused power lead for the passenger door, and a fused constant power lead for all electronic control units' long term memory.

8. All control switches, relays, and circuit breakers used for the various electrical circuits shall have a current carrying capacity adequate for the circuit that they control and shall be properly marked for their function. The illuminated switch markings shall be permanent and not wear off with switch use. Control switches shall be positioned for easy access.

9. All added wiring shall be installed in a properly sized and supported split open-type loom or a properly supported raceway for protection. All wiring harnesses shall have adequate length to allow for harness flexing from supporting brackets and where harnesses connect to electrical equipment. Any wiring added by splicing into an existing chassis Original Equipment Manufacturer (OEM) harness or wire shall match modification standards set forth by the chassis manufacturer, such as Ford’s QVM. Any added accessories or electrical circuits shall not interfere with nor back-feed into other electrical circuits.

10. Wiring added from OEM chassis wiring to rear lights, fuel tank, and/or other accessories shall be supported and protected from the ice and snow build-up. Wiring shall be inside bus where possible. Wiring to taillights and other exterior lights shall be long enough to remove assembly by 6" for service. Exterior connections shall be weatherproof positive lock connectors coated with dielectric grease. Suggested sources: Metri-pak, Weather-Pak.

11. Scotch lock wire connectors are not acceptable and shall not be used for wiring installation. Terminals shall be as follows:

    a. Machine crimped on wire ends shall be used on all harnesses and cable assemblies used in the production of buses. Harness assemblies shall have connectors matching a mating connector where harnesses attach to other harnesses, switches, or other electrical units. Connections made in any harness assembly shall use Sta-Kon® disconnects and splice connectors where machine applied connectors cannot be used. Connectors shall be properly crimped with Sta-Kon® tools and covered with heat shrink tubing. In-line fuse assemblies shall

use spade type fuses in a Weather-Pak holder and shall be located for ease of service.

All exterior wiring connectors (plug-ins) including harnesses shall be weatherproof positive lock with the connector pins applied with the proper crimping tool (Weather-Pak, Metri-Pak). All exterior ground connections, except factory supplied braided ground straps, shall have properly applied terminal ends with heat shrink insulation applied.

C. Running Board/Steps

The bus shall be equipped with either driver's side steps (suggested source: chassis OEM) or a 12" wide running board. The steps or running board shall be securely attached to the chassis and have the capacity to support 300 pounds.

VI. ALTERNATE QUOTES (OPTIONS)

A. <u>Air Conditioning – Split System</u>

1. a. The air conditioning system (AC) shall have a separate compressor, condenser, and evaporator for the front system and for the rear system (two separate systems). The systems shall be 12-volt and use refrigerant type R-134A The systems shall be of sufficient capacity to maintain interior temperature requirements stated in the test procedure for air conditioning systems during summer operation (see required certification in Vendor/Manufacturer Requirements, Section VII. C).

   b. The front AC system shall be integrated as part of the front heating/ventilating unit including the driver's area evaporator unit (complete front system may be Chassis OEM with OEM controls and sensors). The front system shall provide temperature control with sufficient cooling ventilators for driver comfort with no reliance on the rear system for front temperature control. Front and rear air flow and temperature shall be controlled by separate switches on the driver's control panel or dash panel. Front and rear systems shall have separate fan, evaporator, and compressor controls.

   c. The rear system shall have an electronic control systems capable of providing automatic temperature control, freeze protection, compressor protection, and diagnostic functions. The driver's automatic temperature and system control panel shall be mounted in the driver's station. The control system shall be an integral part of the system temperature controls. The system shall be able to monitor system voltage, high refrigerant pressure, low refrigerant charge, and clutch cycling intervals and shall protect the system by controlling compressor clutch engagement. The system shall be able to interpret associated problems and provide codes for technician diagnosis. Suggested sources: ACC Climate Control Model MDS, American Cooling Technology, Inc., Total Control, Thermo King Clima Aire.

2. Compressors: There shall be two engine mounted, serpentine belt driven air conditioning compressors of nominal 10 cu. in. displacement each, minimum, one for the front system (may be chassis OEM) and one for the rear system. Hose end metal fittings connecting hoses to the compressor shall be electro-coated steel that pass the ASTM B117 1000 hour

Salt Spray test. The compressor clutch circuit shall be interrupted when abnormal pressures are detected by the pressure monitoring switches. Low pressure switch shall be located between the expansion valve and the compressor in the low pressure side of the system. For TXV systems, the high pressure switch shall be located between compressor and condenser or in the high pressure side of the air conditioning system. For orifice tube systems, the high pressure switch shall be located between the condenser and the orifice tube in the high pressure side of the system. Suggested sources: ACC Climate Control, American Cooling Technology, Inc., Thermo King, Trans/Air.

3. Condensers: The rear system's condenser shall be roof mounted (10" or less in height) and may use the Chassis OEM radiator mounted condenser for the front system. The protective external grille work for the roof mounted condenser coil fins shall not be mounted directly against the condenser fins. The condenser fans and motors shall be enclosed within the condenser housing. The housing shall be galvannealed or aluminum with heat-fused powdered epoxy coating. The condenser coil shall be copper or aluminum tube expanded into aluminum fins and vinyl-coated where applicable. Hose end metal fittings connecting hoses to the condenser shall be electro-coated steel that pass the ASTM B117 1000 hour Salt Spray test. High pressure cut out switches shall be wired into the clutch circuit. The condensers shall be equipped with axial fans dynamically balanced with permanent magnet totally enclosed motors. The condensers shall blow air upward and toward the rear of the bus assisted by the forward motion of the bus. A refrigerant dryer and a sight glass where necessary shall be included in the system. A branch guard the same height as the condenser shall be mounted just forward of the condenser assembly on the roof of the bus which shall not restrict air flow into the condenser assembly. Suggested sources for roof mounted condenser: ACC Climate Control, American Cooling Technology, Inc., , Thermo King, Trans/Air.

4. Evaporator(s)

   a. The front evaporator (may be chassis OEM equipment) and rear evaporator(s) shall have three-speed continuous duty permanently lubricated blower motors (rear blower assembly rated at 1985 CFM, minimum). The rear evaporator cores shall be a copper coil with aluminum fins (three rows deep, minimum), galvanized heavy-duty frame and coil end sheets with a galvanized or plastic drain pan. The rear evaporator expansion valve or orifice tube shall have "O" ring refrigerant connections. Suggested sources: ACC Climate Control, American Cooling Technology, Inc., Thermo King, Trans/Air.

   b. The driver's evaporator (may be chassis OEM equipment) shall be controlled separately from the rear passenger area evaporator. The controls shall include an on/off switch and a three-speed blower switch. The in-dash unit shall not interfere with removal or replacement of the engine cover or be blocked by the entrance door control mechanism.

   c. The passenger area evaporator system shall be separately controlled from a control station at the driver's position. The controls shall include an on/off switch and a three-speed blower switch. The evaporator shall be ceiling mounted at the rear of the passenger compartment.

5. The components of the air conditioning system shall be readily accessible for maintenance. Service/charging ports shall be accessible without removing any other component or item. The refrigerant hose construction shall comply/exceed SAE specification J2064 Type D or E. The construction of the hose shall include a nylon-

based thermoplastic inner liner reinforced with two separate layers of textile yarn and a cover consisting of a synthetic elastomer in order to reduce incidences of chaffing, cuts, and ruptures with adequate extra length for flexing where connected to compressors and other components. Refrigerant fitting construction shall comply/exceed SAE specification J2064 Type D or E. All refrigerant hose end fittings shall be electro-coated steel that will pass the ASTM B117 1000 hour Salt Spray test. The hose coupling end of all fittings shall include two hose barbs and two areas of elastomeric or HNBR seals. Refrigerant hose clamp construction shall: comply/exceed SAE specification J2064 Type D or E; be made of stainless steel to ensure coupling integrity; properly align hose end fitting; and clamp the hose directly over the elastomeric or HNBR seals. Refrigerant hose fittings shall be Aeroquip E-Z Clip system, ATCO Air-O-Crimp, Carrier Transicold Quick-Klik system.

6. The wiring shall meet all applicable specifications (see Section V. B.). The evaporator and condenser wiring (power and ground circuits) shall be properly sized to provide full battery voltage to each electrical unit.

7. Air conditioning electrical circuits shall be protected with automatic circuit breakers or thermal relays.

3. The rear air conditioning system shall be supplied from the equipment manufacturer as a complete unit including controls, wiring and hoses. The whole system shall be warranted from in-service date, by the manufacturer, for a period of two years with unlimited mileage.

B. <u>Air Conditioning / Heat – Rooftop System</u>

The rooftop AC system shall meet all of the requirements of the AC split system except that the rear evaporator and heating unit shall be an integral part of the rooftop AC unit so that the condenser unit, evaporator unit, and heating unit are part of a single roof mounted unit. A coolant circulating pump shall be installed in the coolant lines for the rooftop heating unit. The auxiliary coolant heating unit and coolant pump for the rooftop heating unit shall be connected electrically to run whenever the bus's rooftop unit calls for heat. The rooftop unit shall be a free blow system installed in the central roof area of the passenger compartment of the bus. The air conditioning/heating system shall be supplied from the equipment manufacturer as a complete unit including controls, wiring and hoses. A branch guard shall be installed to protect the roof-mounted air conditioner The whole system shall be warranted from in-service date, by the manufacturer, for a period of two years with unlimited mileage. Suggested Sources: ACC Climate Control, American Cooling Technology, Inc., Thermo King, Trans/Air.

C. <u>Auxiliary Air Heater</u>

The auxiliary air heater systems provided shall be able to preheat, provide supplemental heat, and maintain heat for the interior of the bus for all engines. The auxiliary heater systems shall be supplied as a heated air model with an on/off, variable digital temperature display, and with a seven-day electronic timer control. The seven-day timer control shall be capable of a two hour preheat, minimum and be capable of continuous run control when the key is on with the engine running. The auxiliary direct heated air heater unit(s) shall be connected electrically to automatically run whenever the bus's rear heat exchanger fan is turned on. The system control units shall be located in the driver's area of the bus and shall indicate to the operator that the heater is operating normally or that the heater is not operating normally and needs technical service. The direct heated air heater control shall indicate heater diagnostic codes and descriptions directly from the heaters electronic control module..

The heater system shall be complete with all fuel and electrical controls, exhaust system, and standard warranty. All heaters shall be 12 volt units with a fused power supply and with protection for high and low voltage conditions. The auxiliary heater system shall meet FMVSS 301 fuel system integrity requirements. The heating units shall be fueled by the bus's primary fuel supply--either gasoline or diesel. The electrical connection shall be a one piece harness from the control switch to the heating unit with weather-pak or equal exterior connections.

The heated air model (with mounting brackets) shall be a self-contained unit placed in the passenger area either between the bus seat and bus floor or in a clear free space in the interior of the bus (placement shall be decided at the time of installation). The heated air system shall be a variable output, multi-stage heater for all engines. The heating unit shall have, 1) 16,000 BTU heat output, minimum (high heat setting), 2) 100 CFM of air delivery, minimum, and 3) automatic cycling between heat output stages. The unit shall have automatic overheat protection. All heater systems' fuel and exhaust connections shall be made outside the passenger compartment of the bus. The auxiliary heater exhaust shall be connected to a section of rigid exhaust pipe with a down sweep that exits just beyond the body side. The heating unit shall be fueled from the bus's primary fuel supply--either gasoline or diesel. Suggested sources: Espar Inc., Webasto.

Option 1: Provide an auxiliary air heater for a gas powered bus as specified above.

Option 2: Provide an auxiliary air heater for a diesel powered bus in lieu of the auxiliary coolant heater included with the diesel option. When an auxiliary air heater is installed on diesel powered buses, the engine shall be equipped with a 1000-watt 110-120 volt-A.C. OEM installed engine block heater with cord and covered receptacle. Engine block heater electrical cord receptacle shall be mounted for convenient access and protected from the weather (location to be determined at pilot model production).

D. Destination Signs

Option 1 – Roller/Curtain: A 12-volt destination sign with a motor driven movable sign curtain mechanism shall be provided which meets ADA requirements (one front sign and one side sign). The sign curtain shall be approximately 36" wide and illuminated. The sign box shall have a door to open for the operator to view the sign curtain position. The door shall be positioned for ease of driver operation. A restraint shall be installed to prevent the storage door from opening beyond 105˚ when the installation allows the door to swing open. Suggest source: Transign LLC

Option 2 – LED: A solid state, LED destination sign shall be provided which meets ADA requirements (one front and one side sign). Signs shall be programmable using latest version of Microsoft Windows® based software. All hardware and/or software shall be provided with the first bus purchased by each transit agency. Suggested sources: Luminator VISTA, Transign LLC Destinator, TwinVision Mobilite.

E. Donation Box

A donation box (in lieu of the farebox) shall be mounted on an adequately braced stanchion; shall be located over a flat floor surface near the driver; and shall be accessible to passengers entering the bus (meet ADA requirements). The lockable donation box shall be supplied with two keys

(location shall be approved by the State at pilot model inspection). Suggested source: Main Farebox Model C91M.

F. Farebox Electrical Prep

Electrical connections and wiring only (no farebox) along with support stanchion shall be supplied to the area where the standard farebox would be mounted (location shall be approved by the State at pilot model inspection).

G. Limited Slip Differential

The limited slip differential powers both wheels yet freely permits wheel speed differentiation when required during turning using standard OEM equipment.

H. Rear Emergency Exit Window

1. A bus equipped with a rear exit window shall have the window opening be approximately 1,200 square inches. The rear window shall have a latching device for opening from the inside of the bus which may be quickly released but designed to offer protection against accidental release. Lever-type latches shall be used for rear emergency exit windows and shall secure the windows tightly shut, shall be easily operated, and shall not unlatch due to vibration during normal bus operation. The latches shall be made of non-corrosive materials and be designed for minimal maintenance needs. The rear window exit shall meet federal requirements (FMVSS 217). The rear window exit shall have an audible alarm at the driver's area energized when the window starts to open with the ignition on. A clear full width path of 16" minimum height shall be provided to the rear exit window. No objects shall be placed in bus which restricts passageway to rear exit window. All emergency exits shall be marked with instructions for proper use.

2. The bus rear exit window shall have a glue-on wide angle view Fresnel lens to improve vision directly in back of bus. Minimum size shall be 80 square inches. Suggested source: Vangard made by 3M.

I. Paint – Optional Designs

1. The bus shall have an 11" belt painted stripe (no decals). An example would be: an OEM white bus with a 11" belt stripe.

2. The bus shall have the roof painted a different color. An example would be: an OEM white bus with the roof painted red.

3. The bus shall be painted a full body color, including the roof, other than OEM white. An example would be: a bus painted all red.

4. The bus shall have a 6”, 10-year, reflective, vinyl belt stripe. An example would be: an OEM white bus with a 6” vinyl belt stripe.

J. Lifts (Platform) (Meet ADA Requirements)

All lifts listed below shall meet all of the lift requirements stated in Part II, Section Y except have an 800 lb capacity (in lieu of the standard Type I lift):

1. Type I: A type I platform lift shall be offered in lieu of the standard 1,000 lb lift. Suggested sources: Braun, Maxon, Ricon.
2. Type II; The Type II platform lift shall have a power operated outer barrier on the lift platform. Suggested sources: Braun, Maxon, Ricon.
3. Folding Platform: The folding platform lift shall have a platform that folds in the center during stowage and the lift platform is 32" usable width. The folding platform lift provides an unobstructed view from inside the bus through the lift opening. Suggested Sources: Ricon KlearVue model K-5005 ADA.

K. Wheelchair Securement Optional Systems

1. Single Point Securement System: A wheelchair single point securement system (in lieu of "L" track anchorage system) shall offer 360 degree directional usage "pucks" and shall be cast stainless steel with a 2 ½" bolt to be secured to the floor positions. Measurement of the securement locations shall be 54" from front plane to rear plane within the securement locations. The single point securement system shall meet the same requirements as listed in Section III Subsection-B-2- WHEELCHAIR SECUREMENT AREA. Center pucks between securement locations can share the same center of plane but the pucks shall not be shared from each securement locations. (i.e. separate single point securement systems for each wheelchair securement area). Pucks for each location, location #1 Location #2 etc, shall be identified with color coded debris/bolt covers available from the securement supplier. Spacing of front securement pucks shall be no less than 30". Spacing of rear securement pucks shall be centered in the rear plane of securment area 13"to 15" apart. Each securement space shall have an additional anchorage puck as to aid in the securement of scooters or difficult mobility devices. This additional anchorage puck shall be centered between the rear anchorages. Suggested Sources: Q'Straint Slide N' Click, Sure-Lok Solo Floor Anchor System.

2. Additional Wheelchair Securement Positions: Ordering agencies shall have the ability to add additional wheelchair securement positions to the provided floor plans. The position shall match the same system as installed on the bus (L-track or 360 degree single point securement) and shall meet requirements as stated in section III – WHEELCHAIR SECUREMENT AREA or section IV, subsection N – WHEELCHAIR SINGLE POINT SECUREMENT SYSTEM . Seating shall be added or deducted to accommodate the additional wheelchair systems (see section IV, subsection V – SEATING) and shall meet vehicle weight requirements.

L. Two-Way Radio Antenna/Power

All material and labor required for a pre-installation package for two-way radio equipment shall be furnished by the manufacturer. All equipment and accessories installed as part of the buses shall have no measurable radio frequency (RF) interference. All equipment installed on the bus must operate in its normal mode while radio transmissions are being made from an on board transmitter producing 100 watts or more of transmit power while operating in the range of 43 Megahertz (Mhz) to 900 Mhz. Proper RF suppression shall be provided by the manufacturer in any equipment and accessories that can produce interference to eliminate such interference. The bus frame and body shall be designed to provide no measurable radio interference (shielding) for improved radio emissions and reception performance.

1. Two (2) antenna mounting plates (.060" steel minimum) shall be mounted in the roof of the bus for the purpose of providing a connection to the ground plane and providing a secure mount for the antenna. On buses with a metal exterior skin, one plate shall be mounted forward of the roof escape hatch on the roof center line and the second plate shall be mounted to the left (driver's side) of the first plate just above the bus side window. For buses with FRP composite bodies, the mounting plates may be installed in the front cap of the bus-one centered in the roof section of the cap and one centered in the left (driver's) side section of the cap. Each mounting plate must be properly positioned in relation to its ground plane to ensure proper operation of an antenna installed at that mounting point. The total thickness of the exterior shell of the bus in the mounting plate area including the mounting plate shall be no more than ½".

2. Two (2) antenna ground planes, which are required for proper antenna operation, shall be mounted in each bus. All ground planes shall be radio frequency (RF) grounded to the chassis structure using high corrosion resistance and high conductivity braided ground straps of the proper size (3/8" minimum width). Ground planes shall provide a comparable area of radio transmission coverage whether buses have a metal exterior body covering or have a FRP composite exterior. At each antenna access opening and mounting plate area, the ground planes shall be of proper size and shape for proper communication operations. The ground planes shall be a solid piece and operate over the range of frequencies from 43 Mhz to 900 Mhz. The ground plane material used by the manufacturer must be a durable material that can be connected to the antenna mounting plate and grounded to the chassis frame. The ground plane shall be of the proper size to protect passengers in the bus from unnecessary radiation from the transmitting antenna at the bus's antenna access openings.

3. A 6" high branch deflector shall be installed on the roof of the bus 6" forward of the antenna mounting area.

4. Two threaded type access holes with covers approximately 6" in diameter shall be installed at the following antenna mounting plate locations:

    a. The interior ceiling forward of the roof escape hatch.

    b. For buses with metal exterior skin directly to the left (driver's) side above the side window line of the bus.

    c. For buses with FRP composite bodies the screw-type access holes may be installed in the front cap of the bus, one centered in the roof section of the cap and one centered in the left side section of the cap. Adequate space shall be provided between the installed access cover and the inner body to allow for routing of the antenna lead and its connections without interference.

5. A concealed thin wall plastic conduit, 5/8" I.D. minimum, (with antenna cable pull wire) shall extend from the antenna mounting plate locations (roof and above side window or in front cap) to the mounting location for the radio. When installed, the conduit shall have no sharp or right angle bends or be distorted to prevent insertion of the antenna lead. For both antenna mounting plate locations, sufficient space shall be left at each end of the conduit to allow easy removal and replacement of the devices attached to the cable. The

antenna pull wire shall terminate behind the driver's seat with 2 feet of extra length extending into the bus interior.

6. 12-Volt Power for the Two-Way Radio - The positive lead (red 8 ga wire fused at 40 amperes) for the radio connection shall be provided directly from the battery positive post. The ground lead (black, 8 ga) shall be connected directly to the chassis frame with a bolt, external tooth lock washers, and nut for fastening. Proper suppression equipment shall be incorporated in the bus's electrical system to eliminate interference with radio and television transmission and reception shall not cause interference with any electronic system on the bus. The radio power and ground leads shall terminate directly behind the driver's seat with 12 feet of extra length extending into the bus interior.

7. A split loom or other flexible wire race-way (1" minimum) shall be installed from the radio location to the dash mounted microphone control location.

8. The modesty panel behind the driver shall be used for radio mounting and shall be constructed to support 60 pounds of weight. To provide for radio mounting, a 5" minimum distance shall be provided between the driver's seat and the modesty panel when the driver's seat is in its most rearward travel position.

M. Stereo/Radio and Public Address System

1. Option 1: An AM/FM stereo radio system shall be installed in the dashboard area within reach of the driver. At a minimum, the stereo system shall have an illuminated or LCD display along with controls for power, tuning, volume, and the ability to turn off sound to the rear speakers. A total of four (4) speakers shall be installed in the bus with two (2) speakers mounted in the front (audible to the driver and front passengers) and two (2) speakers mounted in the top rear wall of the bus. Suggested sources: OEM.

2. Option 2: A public address (PA) system shall be installed in the dashboard area within reach of the driver and utilize a hand held microphone. At a minimum, the PA system shall be equipped with controls for power and volume. A total of two (2) speakers shall be mounted with one in the front and one in the top rear wall of the bus. Suggested sources: Custom Radio Corporation model PA6, Jensen, Mobile Page Model 470, REI.

3. Option 3: A combined AM/FM stereo radio and a public address system shall be installed with four (4) speakers. The combined system shall meet or exceed the specifications outlined in option 1 and option 2. The speakers shall be mounted per locations specified in option 1. Suggested Sources: Jensen, Panasonic, REI.

4. Option 4: Additional speakers shall be offered at locations requested by the ordering agency.

N. Rear Air Ride Suspension (Medium Class One Only)

The rubber shear spring rear suspension will be replaced with rear axle air ride suspension. The rear axle air ride suspension shall be a spring-beam with air spring (Firestone or Monroe) on each side with a capacity to match the axle weight rating. Rear air suspension shall use original chassis spring hangers, original axle clamp group, original shock absorbers, and suspension stabilizer (where equipped). The air suspension shall have a single valve for the rear axle height control. The air system shall be complete with its own air compressor, air lines, and reservoir tank(s) with manual spitter and drain valves with pull chains (Berg manual). The air system shall have a dash mounted air pressure gauge, warning light and warning buzzer. Suggested sources: Chassis OEM equipment.

O. Rubber Flooring

1. In lieu of smooth, slip resistant flooring, the stepwell, entrance area, and center aisle floor area shall be overlaid with ribbed, slip resistant, oil resistant commercial 1/8" floor and 3/16" step tread thickness. Suggested Sources: RCA Rubber Transit-Flor®, Rubber Solutions N.A., SMI SpecFlor.

2. The aisle to door area flooring joint shall make a miter so that aisle and door area flooring grooves line up for easy cleaning.

3. The 1/8" thickness flooring under the seats and in the wheelchair area shall be smooth, slip resistant, oil resistant. The flooring shall extend up the sidewall and rear wall to the seat rail line and shall be coved at the floor/wall joint to form a smooth water-tight transition. A 3" cove molding radius backing block shall be installed behind all floor coving. Flooring adhesive shall be oil resistant. Suggested Sources: RCA Rubber Transit-Flor®, Rubber Solutions N.A., SMI SpecFlor.

4. Color of all rubber flooring and step treads shall be equal to RCA Rubber Transit-Flor® grey (#766) or tan (#777) as requested by agencies.

5. Step treads shall be one-piece ribbed rubber flooring with steel backing plate. Each tread shall have a band of bright yellow contrasting color molded in the full width of the step (must meet ADA contrast requirement). Step tread to stepwell joints shall be sealed to prevent intrusion of moisture and debris.

P. Entrance Stepwell Heater

The entrance stepwell shall include a 12-volt electric heating element/unit for the lower step to prevent icing of entrance steps. The low voltage step heater shall consist of one or more wire elements laminated and vulcanized between two plies of .026" silicone rubber impregnated fiberglass cloth to maintain an approximate temperature of 160° F with a low temperature (30°F) sensing switch (Warm Welcome® by Lighthouse International, Ltd.). The entire lower step heating unit with power wires shall be enclosed between the stepwell and the step tread (beneath the step tread) of the lower step. Lead wires shall be loomed, supported by brackets, and protected by grommets where they pass through structure. The heaters shall be controlled by a on/off switch (labeled and located in the driver's switch bank) with an indicator light showing when the unit is on.

Q. Electric Driveline Brake (Retarder)

The bus shall be equipped with a self air-cooled eddy current electric driveline brake (retarder). Main components of the brake shall be electromagnets (brake coils) fixed to the bus frame, two vented rotors, and a controller. The brake shall be mounted between the transmission and the rear axle. The brake shall be of sufficient capacity to match the bus GVWR. The brake control that energizes the brake coils shall be either electronic or mechanical and be compatible with ABS brakes (retarder deactivates when ABS controls wheel rotation). The controller shall be activated by stage switches engaged by brake pedal movement. Suggested sources: Telma.

R. Seating (Additional and Deductions)

1. On buses with a rear exit window, forward facing seating for five passengers shall replace two double place forward facing seats at the rear wall of the passenger compartment increasing the passenger capacity by one. The five passenger seating shall be available for

buses without a lift or with the lift forward of the rear axle (no wheelchair lift and/or securement location at the rear of the bus). The five passenger seat shall be 88" minimum width and shall not be equipped with grab handles.

2. Ordering agencies shall have the ability to add or deduct seats from the provided floor plans.

3. All additional transit style seats shall be of the same design and color as the other passenger seats, shall be equipped with passenger seat belts, and shall meet requirements stated in Section II subsection P , – Item 2, Item 3, Item 4, and Item 5.

S. Driver's Power Seat Base (Class One Only)

Provide a six-way power seat base for standard driver's seat that allows for fore and aft, up and down, front tilt and rear tilt for the driver. Suggested source: Chassis Original Equipment Manufacturer (OEM) Deluxe Power Seat Base.

T. Alternative Engines

1. **Gasoline:** In lieu of a diesel engine on the medium class one chassis, the engine shall be a gasoline V10, fuel injected, (6.8 litre) minimum.

2. **Liquified Petroleum Gas (LPG) or Compressed Natural Gas (CNG):** In lieu of a diesel engine on the medium class one chassis, The bus shall accept liquified petroleum gas (LPG) or compressed natural gas (CNG) application if required for fleet compliance by federal Environmental Protection Agency (EPA) alternate fuel application guidelines. The engine/chassis shall include a gaseous fuel preparation package and the cylinder heads shall have hardened valve seats. All LPG and CNG conversions shall maintain OEM powertrain warranties.

   a. On buses ordered with alternate fuels options (LPG, CNG, etc.) auxiliary heater systems installed shall meet the same specifications for the systems operating on diesel fuel. Additionally, a diesel fuel tank shall be added with a minimum working capacity of 8 gallons with a 1 gallon reserve. All heated air models shall have a 12-volt heater booster pump installed in the coolant line forward of the first rear heater. Additional equipment needed for auxiliary heater shall be included in the option. Suggested sources: Bergstrom 863040

U Stop Request System

1. An interior *"Stop Requested"* sign, chime, and driver signal activation system shall be installed, and activated by ¼" diameter yellow cord mounted on the side wall even with the bottom of the tip-in-transom portion of the windows. Signal touch buttons mounted in an ADA mandated wheelchair accessible area shall be no higher than 4' above the floor, with no exposed wiring. A single "*stop request*" chime shall sound when the system is first activated and a tell-tale light indicator on the driver console will stay light continuously until the passenger door is opened. A double chime shall sound when the system is first activated from wheelchair passenger areas.

2. A *"Stop Requested"* message in Helvetica medium yellow letters on a green background shall be illuminated when the passenger *"Stop Requested"*system is activated. The *"Stop Requested"* message shall remain visible until doors are opened. The sign unit shall be flush mounted on the front destination compartment door and the message shall be visible to the seated operator and all seated passengers. The operator shall be able to deactivate the signal system from the operator's area as well as automatic deactivation each time the passenger door is opened.

V. Back-Up Sensor System

A rear back-up sensor system shall be installed with a minimum of four water-resistant and corrosion resistant sensors flush-mounted to the rear bumper (painted to match the bumper). The system shall automatically engage when the vehicle is in reverse and warn of objects and/or people up to a distance of seven feet (minimum). The system shall utilize an LED monitor, mounted within view of the driver, which displays the distance (in feet) from the object(s). The system shall also emit a pulsating alarm or beep that is audible to the driver as the vehicle approaches the object(s) and then the system shall emit a steady alarm within at a minimum of 1.5 feet from the object(s). Suggested Sources: Ackton Transportation Technologies, American Road Products, Intermotive Hawkeye.

W. Video Surveillance System

1. The onboard digital video surveillance system shall include a four channel (minimum) mobile rated digital video recorder (DVR) that can be configured for a one to four camera system. The on-board DVR System shall include a lockable/removable 320 gigabyte (minimum) hard disk drive caddy. USB data ports, analog audio/video RCA out terminals, a 10/100base-T Ethernet port, two analog audio/video (RCA) outputs, eight vehicle sensor inputs, a GPS input and one accelerometer input. The DVR shall begin recording at the start of the “engine run” switch of the vehicle or be programmable to begin recording at a specified time prior to “engine run” switch being activated. The DVR can remain functional up to 99 minutes after the ignition has been turned off, and shall record continuously without operator assistance. The DVR shall be able to retrieve video by alarm, calendar based date, time and camera search functions. The DVR shall be capable of a display resolution of 720 x 480. The DVR shall be constructed with a rugged, tamper-proof, outer housing that protects against shock, moisture and dust.

2. An accelerometer shall document hard breaking and other erratic driving events. A panic button or event marker shall also be installed within reach and view of the driver.

3. Sensors shall record bus signals including turn, hazards lights, and lift operations at a minimum.

4. A GPS receiver shall continuously monitor bus location, heading, and speed, as well as configurable and automatic time and date synchronization. The GPS antenna shall be roof mounted.

5. Microsoft® Windows compliant viewing software shall be included with the first bus delivered to the agency. Software shall be able to view and search video from the hard drive, display a GPS map, graph speed, and save the videos.

6. Interior and exterior cameras shall be color, infrared and shall supply an image that is clear and stable, free from vibration. Images shall be able to be used to positively identify a passenger riding in a vehicle. The interior cameras shall also have a high sensitivity microphone. Ordering agencies shall have the flexibility to position cameras. Below is a list of interior locations and optional cameras:

   a. Two Camera System: A two camera system shall be provided capturing the driver, passengers, stepwell, and farebox/donation box at a minimum.
   b. Four Camera System: The four camera system shall include the camera locations listed in option one and include a cameras capturing wheelchair lift and a rear passengers at a minimum.
   c. Six Camera System: A six camera system shall include an eight channel (minimum) DVR and a 500 gigabyte minimum hard drive. Camera locations shall be same the two and four camera system with the addition of another interior camera (located at the requested of the ordering agency) and an exterior camera facing forward capturing the passenger door.
   d. DVR System Upgrade: Provide an option to upgrade the DVR system to an eight channel and 500 gigabyte hard drive (minimum).
   e. Additional Interior Cameras: Ordering agencies shall have the ability to order additional cameras and select a location at time of order. Additional cameras shall include all additional wiring and mounting hardware.
   f. Exterior Cameras: Ordering agencies shall have the ability to order exterior cameras and select a location at time of order. Additional cameras shall include all additional wiring and mounting hardware.

7. Suggested sources: AngelTrax, Radio Engineering Incorporated (REI) Bus Watch

X. Video Surveillance Preparation Package

A video surveillance preparation package shall be offered (less cameras and digital video recorder system) allowing for one to four camera locations. The preparation package shall include the installation of camera wiring or conduit, DVR electrical connections, location for the DVR, and access covers for camera mounting/locations. Ordering agency shall specify the camera system to use and have the flexibility to position cameras.

VII. VENDOR/MANUFACTURER REQUIREMENTS

A. **Bus Information Furnished** - Bus information in this section shall be reviewed at the pre-pilot model review meeting, at final pilot model production. Bus information identified by " * " shall also be supplied with each bus at delivery where indicated. All manuals shall be provided in a hardcopy and an electronic copy (CD, DVD, or USB flash drive). The vendor/manufacturer shall maintain record or proof that all bus information was supplied to the transit agency.

1. Copy of manufacturer's statement of origin for a bus.

2.* Warranty papers for chassis, body, and additional equipment with each bus at delivery.

3.* As built drawings showing wiring schematics of all electrical circuits, body, and chassis with each specific bus at delivery. Wiring drawings shall be a 2' x 3' laminated poster.

4.* Operator's manual for bus and all add-on equipment with each bus.

5.* A complete set of repair manuals for the chassis and a manufacturer's parts manual for the body, and auxiliary equipment for the first bus of each model year delivered to each transit agency.

6.* Drivability and emissions manual for the first bus of each model year delivered to each transit agency.

7.* Bus operating instructions showing controls and operation for the first bus delivered to each transit agency.

8*. Standard manufacturer's production option sheet(s)/decal(s) for chassis and body shall be installed in manufacturer's standard location, with no holes or rivets obscuring writing and numbers. Sheet shall include rear axle ratio. A paper copy of the service broadcast sheet for chassis shall also be provided with each bus.

9.* Maintenance and inspection schedule incorporating the required maintenance and inspection of the basic bus and its subsystems (i.e., wheelchair lift) with each bus at delivery.

10. Detailed description and specifications of the frame structure, roof structure, side sheathing, inside panels, with particular reference to material used.

11. Detailed drawing on how body structure is mounted on chassis frame.

12. Certification that seating floor anchorage and floor fasteners shall meet all applicable FMVSS including FMVSS 207, 208, 209, and 210.

13.* Proof of bus suspension alignment (work order or bill) at final bus inspection and with each bus. Four wheel alignment shall include adjustments to front and rear suspension and steering parts so that axle alignment, camber, caster, and toe settings are within manufacturer's desired limits.

14.* Proof of undercoating (warranty) at final bus inspection and with each bus.

15.* Front end and rear towing and lifting instructions with each bus.

16.* Wheelchair securement product instructions and training program.

B. Manufacturer Quality Control

Bus contractor/manufacturer shall provide a plan for quality control during bus construction and include the plan as part of the bid documents. Bus contractor/manufacturer shall also provide the name of the chief of quality control for bus construction.

The contractor shall establish and maintain an effective in-plant quality assurance organization. It shall be a specifically defined organization and should be directly responsible to the contractor's management and completely independent from production. The quality assurance organization shall exercise quality control over all phases of production from initiation of design through manufacture and preparation for delivery. The organization shall also control the quality of supply articles. The quality assurance organization shall verify inspection operation instructions to ascertain that the manufactured product meets all prescribed requirements. The quality assurance organization shall detect and promptly assure correction of any conditions that may result in the production of defective transit buses. These conditions may occur in design, purchases, manufacture, tests or operations that culminate in defective supplies, services, facilities, technical data, or standards. The contractor shall maintain drawings and other documentation that completely describe a qualified bus that meets all of the options and special requirements of this procurement. The quality assurance organization shall verify that each transit bus is manufactured in accordance with these controlled drawings and documentation.

The contractor shall ensure that all basic production operations, as well as other processing and fabricating, are performed under controlled conditions. Establishment of these controlled conditions shall be based on the documented work instructions, adequate production equipment, and special work environments if necessary. A system for final inspection and test of completed transit buses shall be provided by the quality assurance organization. It shall measure the overall quality of each completed bus. A system shall be maintained by the quality assurance organization for identifying the inspection status of components and completed transit buses. Identification may include cards, tags, or other quality control devices. Inspection stations shall be at the best locations to provide for the work content and characteristics to be inspected. Stations shall provide the facilities and equipment to inspect structural, electrical, hydraulic, and other components and assemblies for compliance with the design requirements. Stations shall also be at the best locations to inspect or test characteristics before they are concealed by subsequent fabrication or assembly operations. These locations shall minimally include, as practical, under-body structure completion, body framing completion, body prior to paint preparation, water test before interior trim and insulation installation, engine installation completion, under-body dress-up and completion, bus prior to final paint touch-up, bus prior to road test, bus final road completion and presentation to resident inspectors. Tests shall be performed by the bus manufacturer to ensure that the unit is dustproof, water-tight, fumeproof, and that all bus fluids are per specifications. The quality assurance organization shall be responsible for presenting the completed bus to the resident inspectors. Sufficiently trained inspectors shall be used to ensure that all materials, components, and assemblies are inspected for conformance with the qualified bus design.

The State may be represented at the contractor's plant by resident inspectors. They shall monitor, in the contractor's plant, the manufacture of transit buses built under this procurement. The contractor shall provide office space for the resident inspectors in close proximity to the final assembly area. This office space shall be equipped with desks, chairs, outside and interplant telephones, and other items sufficient to accommodate the resident inspector staff. Inspectors shall have lifting equipment available for raising vehicles for under vehicle inspections.

C. Air Conditioning Certification

The bus manufacturer shall provide air conditioning system performance certification (conducted by an independent laboratory, or testing agency, or the air conditioner manufacturer and supported by documentation of the actual test on the pilot model bus) that the air conditioning system installed in the bus meets or exceeds performance levels required by these specifications. Tests shall be performed on all classes of buses.

1. The air conditioning system performance testing shall be conducted using a heating chamber of sufficient size to contain the basic bus, to heat soak the bus at 100°F for 4 hours minimum, to simulate sun load entering windshield, and to maintain 100°F exterior temperature continuously after heat soak during testing. An interior temperature of 72°F (±3°F) must be reached within 30 minutes from the beginning of the test. Engine speed shall be maintained at 1300 RPM (± 200 RPM) during the test.

2. Instrumentation for temperature monitoring of the bus interior shall be a minimum of 3 points in the passenger area 30" above the floor - one in driver's area at knee level, and one at the evaporators' air inlets and air outlets. Instrumentation and recording equipment shall be able to monitor all points, record data at one minute intervals, and print a data report.

D. Heating/Ventilating Certification

The bus manufacturer shall provide test results that certify the performance of the heating/ventilating system as installed in the bus meets or exceeds performance levels required by these specifications. Tests shall be performed on all classes of buses. The test should be conducted by an independent laboratory or testing agency and supported by documentation of the actual tests on the pilot model bus. Testing may be performed in natural cold climate conditions. Testing of the diesel engine equipped bus shall be deemed sufficient. Tests shall be performed on all classes of buses.

1. The bus will be cold soaked at 0 degrees F (+/- 3 degrees F) for 4 hours minimum. An exterior temperature of 0 degrees F (+/- 3 degrees F) shall be maintained during the test. An interior temperature of 64 degrees F (+/- 3 degrees F) must be reached within 30 minutes from the beginning of the test. Engine speed shall be maintained at 1300 RPM (+/- 200 RPM) during the test. No dynamometer will be used.

2. Instrumented monitoring for the bus interior temperature to determine pass/fail, shall be a minimum of three points located front, center, and rear in the passenger area 30” above the floor. Additional monitoring points shall be; one in driver’s area at knee level 22” above the floor, at front heater’s air inlets and air outlets, and at rear heater’s air inlets and air outlets. Other temperature monitoring points shall be: engine operating (coolant) at radiator; engine outlet to rear heater; rear heater return to engine; and exterior ambient.

3. Coolant flow shall be monitored from the engine outlet to the heaters only. Supplemental heat shall be supplied to raise engine to normal operating temperature. Supplemental heat shall be engaged 60 minutes prior to the start of the test. Instrumentation and recording equipment shall be able to monitor all points, record data at one minute intervals, and print a data report.

E. Purchaser Inspection

The purchaser reserves the right and shall be at liberty to inspect all material and workmanship at all times during the progress of the work, and shall have the right to reject all material and workmanship which do not conform with the specifications or accepted practice. Where a resident inspector is used, upon the request to the quality assurance supervisor, the resident inspectors shall have access to the Contractor's quality assurance files related to this procurement. These files shall include drawings, material standards, parts lists, inspection processing and records, and record of defects.

F. Warranty

Warranty shall become effective on the date the bus is placed into service by the purchaser. Warranty service performed at the manufacturer’s facilities at the manufacturer’s request shall have all costs covered by the manufacturer. Warranty for the bus shall be the following as a minimum:

1. Two (2) years unlimited mileage on chassis.

2. Two (2) years unlimited mileage on transmission.

3. Three (3) years on body structure, exterior and paint.

4. Eighteen (18) months on lift.

5. All wiring shall be warranted for one 1 year from date of delivery.

6. Manufacturer's standard warranty of one (1) year 12,000 miles, minimum, on other add-on components and items.

7. The chassis, body, and all add-on components shall be warranted by the successful contractor.

G. Miscellaneous

1. The vendor shall furnish the State with the delivery schedule of chassis to vendor and a delivery date of completed buses within 30 calendar days from date of order.

2. Any in-line equipment changes shall have prior written approval of the State.

3. The vendor shall supply the bus turning radius: wheel-to-wheel and wall-to-wall.

4. The vendor shall furnish warranty procedure instructions and necessary forms used by customers to obtain necessary warranty repairs.

5. The manufacturer(s) shall produce as the pilot model the first bus ordered by the State for its transit agencies. The bus shall be: 1) lift equipped, 2) air conditioned, and 3) the largest size on request by the transit agencies. All necessary testing and equipment placement shall be performed on the pilot models before final inspection/acceptance by the State. The pilot model shall serve as a standard for the following units as ordered but shall not relieve the contractor from an obligation to manufacture all units in compliance with all specifications.

VIII. BID DOCUMENTS

The bidder shall supply the following with the bid quotation and class of bus (if applicable). Failure to submit could result in a bid disqualification:

A.The Michigan request of proposal (RFP) and bus specification forms completed in detail.

B.A floor plan of the bus shall be provided indicating dimensions and showing the interior layout of the bus. The plan shall include wheelchair placement, stanchion locations, engineering calculated loaded bus axle weights, and be drawn to scale for all configurations.

C.Detailed engineering drawing for the design of the entrance door and door opening device (with drawings).

D.Detailed engineering drawing for the design of the entrance step configuration (with drawings).

E.Roof, sidewall, and flooring drawings showing structure and structural specifications indicating metal size and type used. Include side sheathing and inside panels.

F.A description of the manufacturer's chassis (specifications).

G.Detailed engineering drawing on how body structure is mounted on chassis frame.

H.All bidders must supply manufacturer's technical specifications for wheelchair lifts and wheelchair restraints. Manufacturer's sales literature is acceptable if it contains the technical specifications.

I.The warranties for body, chassis, and drive train.

J.If applicable, as required by Title 49 of the CFR, Part 663 – Subpart D, a copy of the manufacturer's self-certification information concerning the bus's compliance with relevant Federal Motor Vehicle Safety Standards (pre-award)

K.A copy of the Bus Rollover Protection Test (FMVSS 220) results of the bus offered as specified in the bid.

L.The required Federal Transit Administration (FTA) clauses shall be attached to bid quotation.

M.Buy America analysis of manufacturer's list of component and subcomponent parts (pre-award).

N.The technical data sheet including flammability and smoke emissions for the seat covering material supplied.

O.Seat frame Salt Spray, humidity and impact resistance tests' results

P.Certification test data showing that the seats, the seat belts, and the installation are in compliance with FMVSS-207, 208, 209, and 210 where applicable for the bus model being offered in this bid.

Q.Certification that the wiring and the switches for air conditioning and all add-on components are adequate to withstand transient loads expected.

R.A copy of the dealer agreement between the Bus Manufacturer and the designated bidder.

S.Proof of valid motor vehicle dealer licensing from state, county, or municipality.

T.Certification that the bus model offered is a 7 year or 200,000 mile (medium class one or two) or 10 years/350,000 mile (medium-heavy class) bus and will meet the requirements of Federal Register Rules and Regulations 49 CFR Part 665, Bus Testing Program. Stating from § 665.13 Test Report and Manufacturer Certification, Section (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".

U.Certification for 1,000 hour salt spray test per ASTM procedure B-117.

IX. TABLE 1

1. Materials tested for surface flammability should not exhibit any flaming running, or flaming dripping.

2. The surface flammability and smoke emission characteristics of seat cushion materials should be demonstrated to be permanent after testing according to ASTM D–3574 Dynamic Fatigue Tests I_s (Procedure B).

3. The surface flammability and smoke emission characteristics of a material should be demonstrated to be permanent by washing, if appropriate, according to FED–STD–191A Textile Test Method 5830.

4. The surface flammability and smoke emission characteristics of a material should be demonstrated to be permanent by dry cleaning, if appropriate, according to ASTM D–2724. Materials that cannot be washed or dry-cleaned should be so labeled, and should meet the applicable performance criteria after being cleaned as recommended by the manufacturer.

5. ASTM E–662 maximum test limits for smoke emission (specific optical density) should be measured in either the flaming or non-flaming mode, depending on which mode generates more smoke.

6. Flooring and Fire Wall assemblies should meet the performance criteria during a nominal test period determined by the transit property. The nominal test period should be twice the maximum expected period of time, under normal circumstances, for a vehicle to come to a complete, safe stop from maximum speed, plus the time necessary to evacuate all passengers from a vehicle to a safe area. The nominal test period should not be less than 15 minutes. Only one specimen need be tested. A proportional reduction may be made in dimensions of the specimen provided that it represents a true test of its ability to perform as a barrier against vehicle fires. Penetrations (ducts, piping, etc.) should be designed against acting as conduits for fire and smoke.

7. Carpeting should be tested in according with ASTM E–648 with its padding, if the padding is used in actual installation.

8. Arm rests, if foamed plastic, are tested as cushions.

9. Testing is performed without upholstery.

Definition of Terms

1. Flame spread index (I_s) as defined in ASTM E–162 is a factor derived from the rate of progress of the flame front (F) and the rate of heat liberation by the material under test (Q), such that $I_s=F_s \times Q$.

2. Specific optical density (D_s) is the optical density measured over unit path length within a chamber of unit volume produced from a specimen of unit surface area, that is irradiated by a heat flux of 2.5 watts/cm^2 for a specified period of time.

3. Surface flammability denotes the rate at which flames will travel along surfaces.

4. Flaming running denotes continuous flaming material leaving the site of the during material at its installed location.

5. Flaming dripping denotes periodic dripping of flaming material from the site of burning material at its installed location.

Referenced Fire Standards

The source of test procedures listed in Table 1 is as follows:

(1) Leaching Resistance of Cloth, FED–STD–191A–Textile Test Method 5830.

Availability from: General Services Administration Specifications Division, Building 197, Washington, Navy Yard, Washington, DC 20407.

(2) Federal Aviation Administration Vertical Burn Test, FAR–25–853.

Available from: Superintendent of Documents, US Government Printing Office, Washington, DC 20402.

(3) American Society for Testing Materials (ASTM)

(a) Surface Flammability of Materials Using a Radiant Heat Energy Source, ASTM E–162;

(b) Surface Flammability for Flexible Cellular Materials Using a Radiant Heat Energy Source, ASTM D–3675;

(c) Fire Tests of Building Construction and Materials, ASTM E–119;

(d) Specific Optical Density of Smoke Generated by Solid Materials, ASTM E–662;

(e) Bonded and Laminated Apparel Fabrics, ASTM D–2724;

(f) Flexible Cellular Materials—Slab, Bonded, and Molded Urethane Foams, ASTM D–3574.

Available from: American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

In all instances, the most recent issue of the document or the revision in effect at the time of request should be employed in the evaluation of the material specified herein.

Issued: October 14, 1993.

Grace Crunican,

Deputy Administrator.

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IX. TABLE 1

TABLE 1: RECOMMENDATIONS FOR TESTING THE FLAMMABILITY AND SMOKE EMISSION CHARACTERISTICS OF TRANSIT BUS AND VAN MATERIALS

Category	Function of Material	Test Procedure	Performance Criteria
Seating	Cushion[1;2;3;5;9*]	ASTM D-3675	$I_s \leq 25$
		ASTM E-662	$D_s(1.5) \leq 100; D_s(4.0) \leq 200$
	Frame[1;5;8]	ASTM E-162	$I_s \leq 35$
		ASTM E-662	$D_s(1.5) \leq 100; D_s(4.0) \leq 200$
	Shroud[1;5]	ASTM E-162	$I_s \leq 35$
		ASTM E-662	$D_s(1.5) \leq 100; D_s(4.0) \leq 200$
	Upholstery[1;3;4;5]	FAR 25.853 (Vertical)	Flame time ≤ 10 seconds; burn length ≤ 6 inches
		ASTM E-662	$D_s(4.0) \leq 250$ coated; $D_s(4.0) \leq 100$ uncoated
Panels	Wall[1;5]	ASTM E-162	$I_s \leq 35$
		ASTM E-662	$D_s(1.5) \leq 100; D_s(4.0) \leq 200$
	Ceiling[1;5]	ASTM E-162	$I_s \leq 35$
		ASTM E-662	$D_s(1.5) \leq 100; D_s(4.0) \leq 200$
	Partition[1;5]	ASTM E-162	$I_s \leq 35$
		ASTM E-662	$D_s(1.5) \leq 100; D_s(4.0) \leq 200$
	Windscreen[1;5]	ASTM E-162	$I_s \leq 35$
		ASTM E-662	$D_s(1.5) \leq 100; D_s(4.0) \leq 200$
	HVAC Ducting[1;5]	ASTM E-162	$I_s \leq 35$
		ASTM E-662	$D_s(4.0) \leq 100$
	Light Diffuser[5]	ASTM E-162	$I_s \leq 100$
		ASTM E-662	$D_s(1.5) \leq 100; D_s(4.0) \leq 200$
Flooring	Wheel Well and Structural[6]	ASTM E-119	Pass
	Carpeting[7]	ASTM E-648	C.R.F. ≥ 0.5 w/cm^2
Insulation	Thermal[1;3;5]	ASTM E-162	$I_s \leq 25$
		ASTM E-662	$D_s(4.0) \leq 100$
	Acoustic[1;3;5]	ASTM E-162	$I_s \leq 25$
		ASTM E-662	$D_s(4.0) \leq 100$
Miscellaneous	Firewall[6]	ASTM E-119	Pass
	Exterior Shell[1;5]	ASTM E-162	$I_s \leq 35$
		ASTM E-662	$D_s(1.5) \leq 100; D_s(4.0) \leq 200$

* Refers to Notes on Table 1

X. BUS SEATING ARRANGEMENTS

Standard nonlift buses and lift buses shall be supplied as requested in the following seating arrangements:

24-passenger (26 foot bus):

A. 24 passenger without lift
- i. 12 standard double forward facing seats

B. 14+2 passenger with lift
- i. 7 standard double forward facing seats
- ii. 3 double foldaway forward facing seats
- iii. 2 wheelchair positions

C. 10+3 passenger with lift
- i. 5 standard double forward facing seats
- ii. 3 double foldaway forward facing seats
- iii. 1 double forward facing flip seat
- iv. 3 wheelchair positions

28-passenger (29 foot bus):

D. 28 passenger without lift
- i. 14 standard double forward facing seats

E. 18+2 passenger with lift
- i. 9 standard double forward facing seats
- ii. 3 double foldaway forward facing seats
- iii. 2 wheelchair positions

F. 14+3 passenger with lift
- i. 7 standard double forward facing seats
- ii. 3 double foldaway forward facing seats
- iii. 1 double forward facing flip seat
- iv. 3 wheelchair positions

G. 10+4 passenger with lift
- i. 5 standard double forward facing seats
- ii. 5 double foldaway forward facing seats
- iii. 1 double forward facing flip seat
- iv. 4 wheelchair positions

32-passenger (32 foot bus):

H. 32 passenger without lift
- i. 16 standard double forward facing seats

I. 22+2 passenger with lift
- i. 11 standard double forward facing seats
- ii. 3 double foldaway forward facing seats
- iii. 2 wheelchair positions

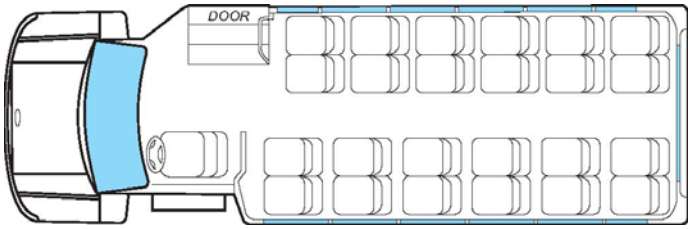
J. 18+3 passenger with lift
- i. 9 standard double forward facing seats
- ii. 3 double foldaway forward facing seats
- iii. 1 double forward facing flip seat
- iv. 3 wheelchair positions

K. 14+4 passenger with lift
- i. 7 standard double forward facing seats
- ii. 5 double foldaway forward facing seats
- iii. 1 double forward facing flip seat
- iv. 4 wheelchair positions

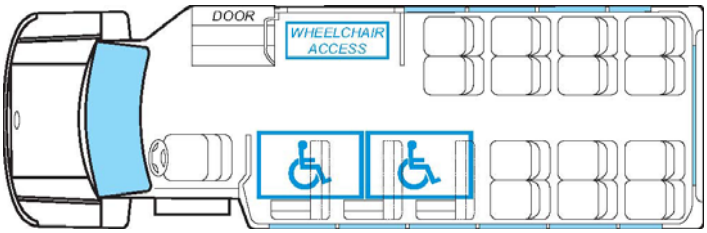
Drawings for the suggested seating arrangements are supplied on the following pages.

Bus Floor Plans

26 Foot



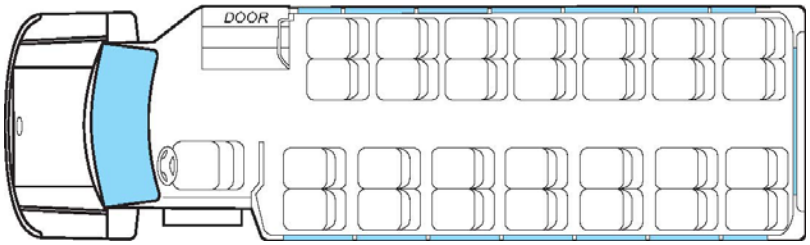
A. 24 Passenger bus without lift



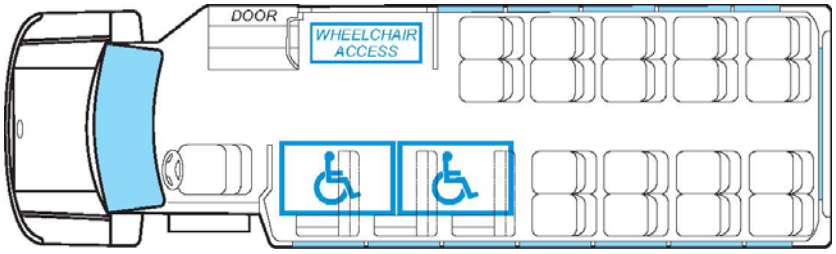
B. 14+2 Passenger bus with lift

C. 10+3 Passenger bus with lift

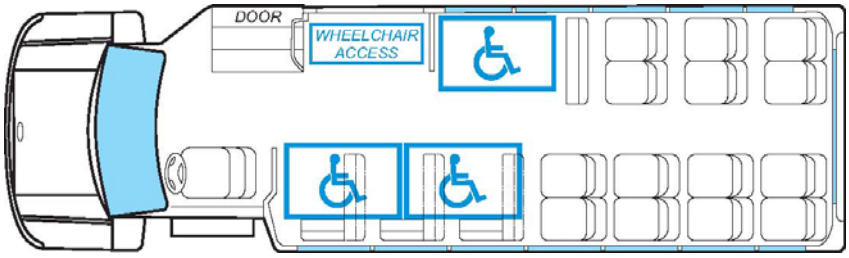
29 Foot



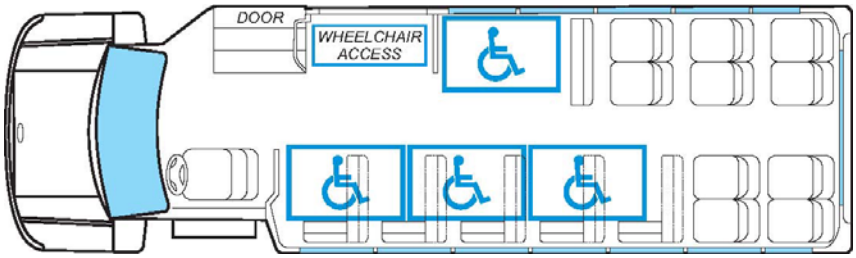
D. 28 Passenger bus without lift



E. 18+2 Passenger bus with lift

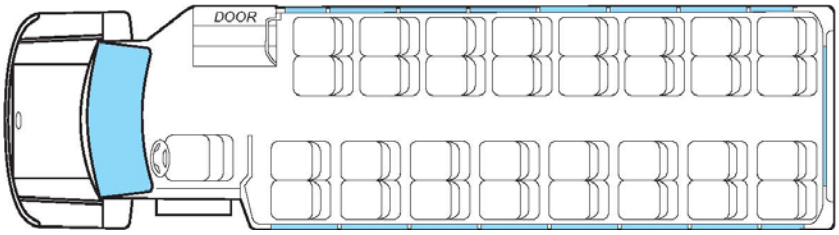


F. 14+3 Passenger bus with lift

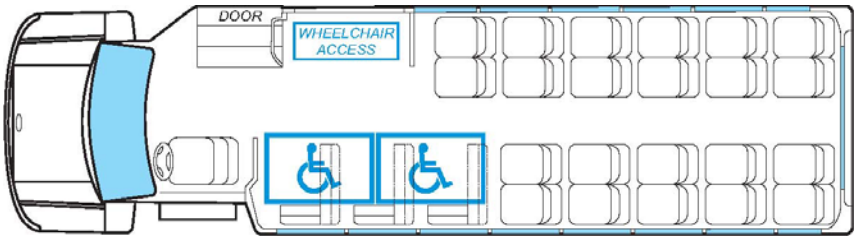


G. 10+4 Passenger bus with lift

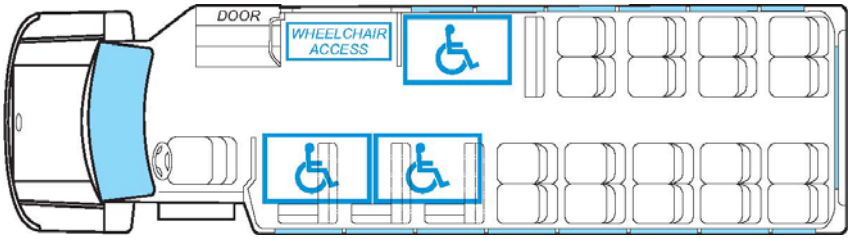
32 Foot



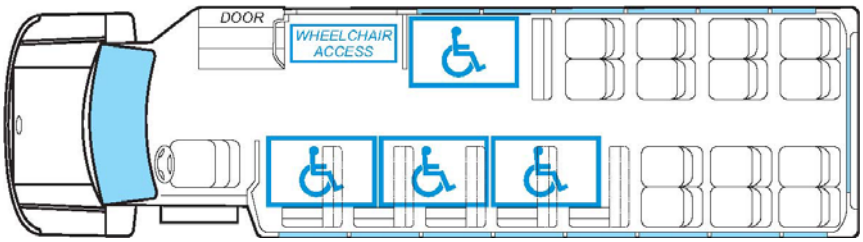
H. 32 Passenger bus without lift



I. 22+2 Passenger bus with lift



J. 18+3 Passenger bus with lift



K. 14+4 Passenger bus with lift

This specification was developed as a cooperative effort between the Michigan Department of Transportation and a committee of representatives from various Michigan public transit agencies. Upon request, this specification can be obtained in alternative format such as braille, large print, or audio tape. Contact Amy Nobach, Michigan Department of Transportation, Program Administration Section, at (517) 335-3282.

Attachment D, Authorized Michigan Public Transit Agencies

Adrian Dial-A-Ride

Allegan County - Transportation Services

Alma Dial-A-Ride

City of Alma

ALTRAN Transit Authority

American Red Cross of Greater Grand Rapids

American Red Cross Serving Muskegon, Oceana and Newaygo Counties

Ann Arbor Transportation Authority

Antrim County Transportation

Antrim

Area Agency on Aging Region 1-B

Area Community Service Employ. and Trng.

Baraga/Houghton/Keweenaw CAA

Baragaland Senior Citizen, Inc.

Barry County Transit

Battle Creek Transit

Bay Area Transportation Authority

Bay Metro Transportation Authority

Bedford Health Van

Beaver Island Transportation Authority

Belding Dial-A-Ride

Belleville, City of

Benzie Transportation Authority

Berkley

Berrien County

Authorized Michigan Public Transit Agencies

Big Rapids Dial-A-Ride

Birmingham Area Seniors

Blue Water Transportation Commission

Boysville of Michigan, Inc.

Branch Area Transit Authority

Brandon

Brighton Community Education

Brownstown Township

Buchanan Dial-A-Ride

Cadillac/Wexford Transit Authority

Campbell Lewellyn Montrose Senior Center Advisory Council

Canton Township

Capital Area Transportation Authority

Carmen Ainsworth-Flint Twp.

Caro Transit Authority

Cass County Transportation Authority

Catholic Services of Macomb

Catholic Social Serv of Wayne (Macomb Co.)

Catholic Social Serv of Wayne (SMART)

Catholic Social Services of Oakland County

Catholic Social Services of Oakland County

Center for Gerontology

Center Line, City of

Charlevoix County Public Transportation

Attachment D, Authorized Michigan Public Transit Agencies

Cheboygan County COA

Chesterfield Township

Chippewa-Luce- Mackinac Comm Action

Clare County Transit Corporation

Clinton Area Transit System

Clinton Township

Community Action

Community Inclusive Recreation

Comprehensive Serv for the Develop. Disabled

Court Street Village Non-Profit Housing Corporation

Crawford County Transportation Authority

Delta Area Transit Authority

Destination Transportation

Detroit Area Agency on Aging

Detroit East Mental Health

Detroit Department of Transportation

Detroit Transportation Corporation

Disability Connection

Dowagiac Dial-A-Ride

Downriver Community Conference

Eastern U.P. Transportation Authority

Eaton County Transportation Authority

Emmet County Medical Care Facility

Family Service Agency of Mid Michigan

Farmington Hills

Ferndale, City of

Friendship Center of Emmet County

Flint Mass Transportation Authority

Georgetown Seniors, Inc.

Gladwin City/County Transit

Gogebic County Transit

Goodwill Industries (Kent County)

Goodwill Industries (Muskegon County)

Goodwill Industries of Northern Wisconsin and Upper Michigan

Gratiot County COA

Greater Lapeer Transportation Authority

Greenville Transit

Hancock, City of

Handicappers Information Council

Harbor Transit

Harrison, Charter Township of

Hartland Senior Center

Healthsource Saginaw, Inc.

Highland/Milford

Hillsdale Dial-A-Ride

Hope Network, Inc.

Houghton Motor Transit Line

Huron Transit Corporation

Independence Twp

Interurban Transit Authority

Interurban Transit Partnership (RAPID)

Ionia County Commission on Aging

Ionia Dial-A-Ride

Iosco Transit Corporation

Isabella County Transportation Commission

Jackson Transportation Authority, City of

Jewish Community Services

Jewish Family Services of Washtenaw County

JVS

Kalamazoo Metro Transit System

Kalkaska Public Transit Authority

Kent County Community Mental Health

Key Opportunities

Lapeer Team Work, Inc.

Lenawee County

Lenawee County Department on Aging

Livingston Essential Transportation

Livonia, City of

Ludington Mass Transportation Authority

Lutheran Home of Frankenmuth

Macatawa Area Express (MAX) (Holland)

Mackinac County Transportation

Macomb Co. Community Services Agency

Macomb Co. Interfaith Volunteer Caregivers

Macomb County Dept of Sr Citizens Adult Day Care Program

Manchester Area Senior Center

Manistee County Transportation, Inc.

Marian Burch Center

Marquette County Transit Authority

Marshall, City of

Meadow Brook Medical Care Facility

Mecosta County COA

Mecosta Osceola Transit Authority

Menominee/Delta/Schoolcraft

Midland County Board of Commissioners

Midland Dial-A-Ride

Milan Public Transportation, City of

Missaukee County

Monroe County Community Mental Health

Monroe County Opportunity Program

Montcalm County Commission on Aging

Montmorency County Specialized Services

Mt. Clemens

Muskegon Area Transit System

Newaygo County COA

Niles Dial-A-Ride

Northern Michigan Regional Health System

Northfields Human Service Agency/People's Express

Northville

Oceana County COA

Ogemaw County Public Transportation

Older Persons Commission

Ontonagon County Public Transit

Oscoda County Area Transit Specialists

Otis W. Henry VFW Post

Otsego County Bus System

Ottawa, County of

Peoples Community Services

Pioneer Resources

Pointe Area Assisted Transp.

Pontiac Schools - SCAMP

Pontiac, City of

Presque Isle County COA

Redford Township

Region 3B Area Agency on Aging

Response Transportation

Roscommon County Transportation Authority

Saginaw COA

Saginaw Transit Authority Regional Services

Sanilac Transportation Corporation

Sault Ste. Marie, City of

Senior Neighbors

Schoolcraft County Public Transportation

Shiawassee Area Transportation Agency

SMART

SMART - Bedford

SMART - Lake Erie Transit

SMART - North Oakland Transportation Authority

SMART - Royal Oak

Southfield Senior Adult Ctr

Southwest Counseling and Development Services

St Marys Guardian Angel Respite and Day Care Serv

St. Clair County COA

St. Clair Shores

St. Joseph Community Co-Op

St. Joseph County COA

St. Joseph County Transportation Authority

STAR Transportation

Straits Regional Ride

Sumpter Twp

Thunder Bay Transportation Authority

TRICO, Inc.

Troy Medi-Go

Twin Cities Area Transportation Authority

U.P. Community Service Inc.

Attachment D, Authorized Michigan Public Transit Agencies

United Methodist Community House

Van Buren County Board of Commissioners

Virginia Park CT Service Corp.

Vocational Independence Program Transportation

Walter & May Reuther Senior Services

Warren Parks & Rec.

Waterford Senior Center

Western-Washtenaw Area Value Express

White Lake Township

Yates Township

Attachment E, Warranty Overview

This is a basic overview of warranties for various components of the bus build. Hoekstra Transportation and Eldorado agree to the specifications and approved equals for both Class I Ford and Class II International chassis warranties.

ElDorado National
a THOR company

WARRANTY OVERVIEW

ENC Base Warranty	12 Months / 12,000 Miles
ENC Body Structure	5 Year / 100,000 Miles
Ford Motor Co.	*Gas*: 5 Year / 100,000 Miles | *Diesel*: 5 Year / 100,000 Miles
General Motors	G-Cutaway 3 Year / 36,000 Miles C4500 & C5500 Chassis 2 Years Unlimited Miles
International	5 Year / 150,000 Miles
A.C.T. A/C	2 Years Unlimited
A/C Carrier*	2 Year Limited
Thermo King A/C	2 Years
ProAir Heaters*	2 Years
Freedman Seating*	Recliner/Rigid Frames & Foam 5 Years Level 1 & 2 Covers / 1 Year Level 3 & up Covers / 2 Years
Q-Straint Tie-downs*	Q-8200 / 1 Year Q-8100 / 2 Years Q-8300 / 3 Years
Sure-Lok Tie-downs	1 Year Limited
Luminator Signs TwinVision Signs	3 Years 3 Years
Braun Lifts*	3 Years Parts, 1 Year Labor
Ricon Lifts	5 Years Parts, 1st year Parts & Labor
A&M Doors*	1 Year
ASA Radio Components*	2 Years Unlimited
Intermotive Interlock	2 Years
Intermotive Fast Idle	2 Years
MOR/ryde Suspensions	3 Years / 70,000 Miles
PennTex Alternators	18 Months / 75,000 Miles
Telma Retarders	2 Years Unlimited Mileage

* Preferred Suppliers

3/6/07

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Web Page: www.enconline.com • E-mail: sales@enconline.com