Group 40523-23170, BUSES, TRANSIT (Adult Passenger)
Attachment 1: *Contract Pricelist (1/21/2020 updated 9/15/2021)*

A summary of the Lots and awarded Transist Buses is on this page. The following pages include specifications for the awarded Transit Buses and associated Optional Equipment, which are supplemental to the minimum specifications set forth in Contract Section 3.2 *Transit Bus Requirements*. The Contractors shall offer the Transit Buses and associated Optional Equipment awarded for each Lot at the Base Item Unit Prices and Optional Equipment Unit Prices set forth in this contract price list.

LOT	LOT A	LOT B	LOT C	LOT D	LOT E
Lot/Item Description	**Low Floor Vehicle <10,000 lb.**	**High Headroom Wagon <10,000 lb.**	**High Headroom Wagon <10,000 lb. (Flexible Floor Plan)**	**Dual Rear Wheel Cutaway <22ft.**	**Dual Rear Wheel Cutaway <22 ft.**
Min. Passenger Capacity [Ambulatory (A) plus Wheelchairs (WC)]	**4 Passenger [3A/1WC]**	**7 Passenger [5A/1WC]**	**7 Passenger [6A/1WC]**	**9 Passenger [8A/1WC]**	**11 Passenger [10A/1WC]**
Contractor	WMK, LLC DBA Mobility Works	Fenton Mobility Products,Inc.	Fenton Mobility Products,Inc.	Shepard Brothers, Inc.	Shepard Brothers, Inc.
Contract Number	PC69002	PC69000	PC69000	PC69003	PC69003
Chassis Make	Dodge	Ford	Ford	Ford	Ford
Chassis Model	Grand Caravan	Transit 350	Transit 350	E350	E350
Chassis Model Code	RTKH53 29S	X2X	X2X	E3F	E3F
Body Make	Braun	Ford	Ford	Coach and Equipment	Coach and Equipment
Body Model	Simple Stow Infloor	Transit 350	Transit 350	Phoenix	Phoenix
Body Model Code	I3	X2X	X2X	OAL 251	OAL 263
Base Item Unit Price	$42,429.16	$49,147.05	$53,245.83	$59,579.08	$61,557.12
Estimated Delivery Time	75 Days ARO	168-210 Days ARO	168-210 Days ARO	180-220 Days ARO	180-220 Days ARO

LOT	LOT F	LOT G	LOT H	LOT I	LOT J
Lot/Item Description	**Low Floor Cutaway**	**Dual Rear Wheel Cutaway >22 ft.**	**Dual Rear Wheel Cutaway >22 ft. (Electric)**	**Medium Duty Cutaway (Alternate Fuels)**	**Conventional Style**
Min. Passenger Capacity [Ambulatory (A) plus Wheelchairs (WC)]	**17 Passenger [15A/2WC]**	**16 Passenger [14A/2WC]**	**16 Passenger [14A/2WC]**	**20 Passenger [18A/2WC]**	**24 Passengers [22A/2WC]**
Contractor	Alliance Bus Group, Inc.	Shepard Brothers, Inc.	No Award	Matthews Bus Alliance, Inc. DBA Matthews Buses Commercial	Matthews Bus Alliance, Inc. DBA Matthews Buses Commercial
Contract Number	PC68997	PC69003	N/A	PC69001	PC69001
Chassis Make	Chevy	Ford		Ford	Freightliner Custom Chassis
Chassis Model	Express 4500 GM Cutaway	E450		F-550	S2C
Chassis Model Code	CG33803	E4F		XLT	N/A
Body Make	Arboc	Coach and Equipment		StarTrans Bus	StartTrans Bus
Body Model	Spirit of Mobility	Phoenix		Senator II HD	PS/2
Body Model Code	LB696	OAL 290		365 OAL	PS/2 382"
Base Item Unit Price	$143,493.35	$66,213.22		$99,099.18	$127,924.41
Estimated Delivery Time	240 Days ARO	180-220 Days ARO	N/A	150-210 Days ARO	150-210 Days ARO

LOT	LOT K	LOT L	LOT M
Lot/Item Description	**Conventional Style**	**Low Floor (Front Engine)**	**LOT M: Low Floor (Rear Engine)**
Min. Passenger Capacity [Ambulatory (A) plus Wheelchairs (WC)]	**28 Passengers [26A/2WC]**	**25 Passenger [23A/2WC]**	**35 Passenger [33A/2WC]**
Contractor	Matthews Bus Alliance, Inc. DBA Matthews Buses Commercial	Empire Bus Sales, LLC	Empire Bus Sales, LLC
Contract Number	PC69001	PC68998	PC68998
Chassis Make	Freightliner Custom Chassis	IC (International)	ENC
Chassis Model	S2C	TC	EZ-Rider II
Chassis Model Code	N/A	254	35
Body Make	StartTrans Bus	ENC Bus	ENC
Body Model	PS/2	Passport	EZ-Rider II
Body Model Code	PS/2 424"	35	35
Base Item Unit Price	$131,374.87	$269,804.72	$376,195.05
Estimated Delivery Time	150-210 Days ARO	356-416 Days ARO	356-416 Days ARO

Contractor:	WMK, LLC DBA Mobility Works

LOT A

Low Floor Vehicle<10,000 lb., 4 Passenger [3A/1WC]

PART 1: Product information for the Base Item awarded		
Chassis Make	The OEM company name of the Chassis Model.	Dodge
Chassis Model	A particular brand of Chassis sold by an OEM.	Grand Caravan
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	RTKH53 29S
Body Make	The OEM company name of the Body Model.	Braun
Body Model	A particular brand of Body sold by an OEM.	Simple Stow Infloor
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	I3

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §33, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section 3.1.1 Price and 3.1.4 Contract Pricelist for additional information about Contract pricing.	$42,429.16

PART 3: Base Item Specifications

The terms and conditions in Contract Section 3.2 Transit Bus Requirements shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information provided in Column D	Spec for Equipment Provided
General	Capacity: Minimum three (3) adult passenger seats, plus one (1) wheelchair station	Capacity:	3 seats plus 1 wheelchair
General	Floor plan matches "Figures" tab. The floor plan shall provide a minimum of 27.5" hip-to-knee for all seated positions.	Manufacturer Floor Plan #:	Simple Stow Infloor
General	Drive configuration: Low floor Converted Van or MPV		
General	Have completed federal STURAA (Altoona) bus testing of not less than four (4) years/100,000 miles or have been certified as exempt as specified under FTA provisions.		
General	Shall be manufactured and classified as a passenger vehicle.		
General	Shall be in compliance as defined as ambulettes under NYCRR Part 720-721 regulations		
General	GVWR: 5,000 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lb.]:	6050
General	Wheelbase: 121" (plus or minus 5")	Wheelbase [inches]:	121.2"
General	Minimum 58" continuous passenger aisle headroom	Headroom [inches]:	61"
General	Shall include an "Electronic Stability Control" system that improves stability by detecting and reducing loss of traction.		
Chassis (see specifications below)			
Engine	Minimum 3.0 liter gasoline engine rated minimum 250 HP x 250 lb. ft. torque.	Number of Cylinders:	6
		Liters:	3.6L
		Horsepower and Torque:	283
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 20-gallon tank	Tank Size [Gallons]:	20
Cooling System	Chassis manufacturers heaviest duty cooling system available for Chassis supplied and protected to minus 30°F		
Electrical	Minimum 150 amp OEM alternator	Alternator Capacity [amps]:	160
Electrical	Minimum 650 CCA battery which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative).	Rating of Batteries [at 0°F]:	730 CCA
		CCA each battery:	730 CCA
		Minutes RC:	140
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	OEM supplied automatic transmission	Transmission Model #:	62TE
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 2,500 lb.	FGAWR [lb.]:	2950
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 2,750 lb.	RGAWR [lb.]:	3100
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	OEM supplied	Front Spring Rating [lb.]:	2950
		Rear Spring Rating [lb.]:	3100
Shock Absorbers	Heavy Duty	Make and Model #:	OEM Supplied
Brakes	ABS power brakes meeting FMVSS 135.	Service Brakes [total lining or sweep area] both front & rear:	OEM 4 Wheel Disc Brakes
Parking Brake	OEM supplied foot-operated or electronic parking brake		
Tires/Rims	OEM supplied all-season radial tread or rib tread w/mud and snow rear, as required to meet the GVWR specified. A matching full size spare tire and rim shall be included.	Radial Tires [size]:	P225/65R17
		Radial Tires [load]:	7496 lbs
		Radial Tires [range]:	Standard Load
		Radial Tires [manufacturer]:	Yokohama
		Front Tires [tread design]:	M&S
		Front Tires [capacity/tire]:	1874 lbs
		Rear Tires [tread design]:	M&S
		Rear Tires [capacity/tire]:	1874 lbs
Front Bumper	Front bumper may be OEM chrome or high density rubber/plastic and affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	Rubber/Plastic
		Front Bumper [manufacturer]:	OEM
Rear Bumper	Rear bumper shall be OEM Chassis supplied carbon or high density rubber/plastic and shall be affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]:	Rubber/Plastic
		Rear Bumper [manufacturer]:	OEM
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the Transit Bus and shall comply with SAE J686.		
Steering	Power steering with adjustable steering wheel	Turning Diameter [at end of front bumper]:	19.55'

Contractor:	WMK, LLC DBA Mobility Works		
LOT A			
Low Floor Vehicle<10,000 lb., 4 Passenger [3A/1WC]			
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Interior Equipment	OEM rear view camera		
Radio	Chassis Manufacturer's standard AM/FM Digital Clock Radio, with four (4) cabin speakers.	Manufacturer:	OEM
		Model #:	430 RBZ
Exterior Equipment	OEM cruise control		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or fobs		
Body (see specifications below)			
Driver/Front Passenger Doors	Standard Factory OEM equipment		
Rear Passenger Doors	Manually operated or power sliding single left and right side mounted doors with a minimum of 56" clear height entry (no steps).	Entry Height [inches]:	56.25"
Doors/Windows	OEM power windows and power locks		
Body Structure	Certification of compliance with all FMVSS for passenger vehicles under 10,000 lb., plus documentation consisting of detailed explanation and dimensional drawing supporting the Body structures shall be supplied with bid submission.	Exterior Siding [material/thickness]:	OEM
		Interior Paneling [material/thickness]:	OEM
		Insulation [material/R Value]:	OEM
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	1
Exterior Equipment	Reverse alarm		
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior Body lights must meet current SAE standards and be armored (or low-profile design or sufficiently Body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door.		
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be remote controlled. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature.	Manufacturer:	OEM
		Model #:	No model #
Interior Mirror	OEM rear view mirror shall be provided		
Windows	OEM supplied. Rear window shall include a defogger/defroster with wiper/washer		
Floor Covering Material	Shall be a durable nonskid transit type flooring. The floor covering shall be butt jointed and cemented to the floor with a waterproof adhesive. Mobility aid restraint tracks and seat locks shall be beveled, with no sharp edges.		
Passenger Entry	Shall be a low height and comply with ADA 1192. (no entry steps)	Top of floor above ground [inches]:	11.5"
Passenger Access Door(s)	Door(s) shall comply with FMVSS 217. A passenger entry door located on the curbside (right side of vehicle) shall be wheelchair accessible. All items, including lighting, handrails, and interlock shall be in compliance with ADA and Title 17 NYCRR 720 and 721.	Entrance Door clear opening [inches]:	31.5
Interior	Material and treatments shall be flame retardant to meet FMVSS 302. Side panel and ceiling shall be finished with matching trim and color, and have smooth finishes without any unprotected sharp edges.		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		
Ramp	The ramp shall meet the requirements of Part 38 of the ADA relating to vehicle ramps. A manually operated, simple stow-in floor design shall include a stow/deploy handle for normal operations. Ramp shall deploy from the main passenger entry opening and be protected from moisture and debris from underside and sufficiently insulated to protect interior noise level. The ramp shall be of aluminum or stainless steel construction. The ramp must have a fail safe system that allows stowing if the ramp fails.	Manufacturer:	Braunability
		Model #:	507814ADS
Ramp Slope	Maximum ratio of 1:4 slope when ramp is deployed to sidewalk or roadway		
Interlock	An OEM or aftermarket interlock system shall be supplied that conforms with ADA requirements and NYCRR Part 720-721 regulations and FMVSS 403 and 404. A manual override system in case of power failure shall also be provided. The electric system shall be protected with fuse or circuit breaker. Labeled dash mounted visual alarm (in compliance with Chapter VI, Article III, Parts 720/721, NYCRR) to indicate special service door is not fully closed, shall be provided.		
ADA Compliance	All features required for a demand-response application shall be included in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs).		
Lighting- Driver Dome	OEM supplied.		
Lighting (Interior)	OEM supplied and meet ADA requirements.		
Heater	Sufficient BTU capacity heater shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F.		
Air Conditioning	OEM Chassis supplied, for cooling and moisture removal from the windshield and drivers area. The system shall consist of one evaporator installed in the front area with integral dash outlets and with rear outlet designed to direct the air throughout the Transit Bus.	Manufacturer:	OEM
		Model #:	Mahle Behr
		A/C Capacity [Body BTUH]:	31,903 BTU Front
		A/C Airflow [Body CFM]:	16,378 BTU Rear
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Manufacturer:	OEM
		Model #:	JPR
Seating	Upholstered transit type seats for a minimum of three (3) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		
Seating	OEM supplied mid-high back bench adult passenger seat shall be supplied. All passenger seats shall be of durable vinyl or Compatible Equivalent type materials that can be cleaned easily, and fully padded for occupant comfort and retention.	Manufacturer:	OEM
		Model #:	E51817K-11
Seating	An approved retractable style integrated 3-point lap and shoulder seat belt shall be provided for each seating space and shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space, and two (2) seat belt extensions shall be provided with each Transit Bus.		

Contractor:	WMK, LLC DBA Mobility Works		

LOT A

Low Floor Vehicle<10,000 lb., 4 Passenger [3A/1WC]

Wheelchair & Wheelchair Occupant Restraints	One (1) Wheelchair Restraint System (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Occupant restraint system (including lap belt, shoulder belt with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of Transit Bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belt, and shoulder belt with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-10007 or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouch shall be provided to completely secure belts/straps on Transit Bus sidewalls when not in use. All items shall be installed in accordance with manufacturer's standards and be in compliance with ADA, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the Transit Bus interior at a minimum of one (1) restraint position.	Manufacturer: Model #:	Q'Straint Q-10007
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver's seat position) in the front entry area of the Transit Bus. Equipment location shall be clearly identified.		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]: Chassis Warranty [miles]:	3 36000
Body Warranty	Covering the integrity of the Transit Bus Body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of four (4) years or 100,000 miles.	Body Warranty [years]: Body Warranty [miles]:	4 100000
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty.	Air Conditioning Warranty [years]:	2
Wheelchair Ramp Warranty	The ramp shall be fully guaranteed by the manufacturer for three (3) years (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section 3.2 Transit Bus Requirements. See Section 3.1.3 Optional Equipment Unit Price for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Camera Security System- 4 monitor	Provide and install a complete camera recording system, including software kit. Components include an eight (8) channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of five (5) Transit Bus functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of two (2) exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus two (2) interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for one (1) or more Transit Buses with matching camera system. Minimum components include software, mouse, 5-6" monitor (or DVR viewing software), HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR: Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:	SEON TH8H1T0 SEON CJ904A20 CQ903A20 SEON CA1004EI20	$3,578.67

Contractor:	Fenton Mobility Products, Inc.

LOT B

High Headroom Wagon <10,000 lb., 7 Passenger [5A/1WC]

PART 1: Product information for the Base Item awarded		
Chassis Make	The OEM company name of the Chassis Model.	Ford
Chassis Model	A particular brand of Chassis sold by an OEM.	Transit 350
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	X2X
Body Make	The OEM company name of the Body Model.	Ford
Body Model	A particular brand of Body sold by an OEM.	Transit 350
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	X2X

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §33, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section 3.1.1 Price and 3.1.4 Contract Pricelist for additional information about Contract pricing.	$49,147.05

PART 3: Base Item Specifications

The terms and conditions in Contract Section 3.2 Transit Bus Requirements shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information provided in Column D	Spec for Equipment Provided
General	Capacity: Minimum five (5) adult passenger seats, plus one (1) wheelchair station	Capacity:	5 amb plus 1 wc
General	Floor plan matches "Figures" tab. The floor plan shall provide a minimum of 27.5" hip-to-knee for all seated positions, with the wheelchair footprint a minimum of 50" x 30".	Manufacturer Floor Plan #:	Lot B Rear/ Lot B Side
General	Drive configuration: High Headroom Passenger Wagon or MPV		
General	Have completed federal STURAA (Altoona) bus testing of not less than four (4) years/100,000 miles or have been certified as exempt as specified under FTA provisions.		
General	Original "as built" vehicle shall be manufactured and classified as a passenger vehicle.		
General	Shall be in compliance as defined as ambulettes under NYCRR Part 720-721 regulations		
General	GVWR: 9,000 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lb.]:	9,250 lbs.
General	Wheelbase: 148" (plus or minus 3")	Wheelbase [inches]:	148"
General	Minimum 75" continuous passenger aisle headroom	Headroom [inches]:	77"
General	Shall include an "Electronic Stability Control" system that improves stability by detecting and reducing loss of traction.		
Chassis (see specifications below)			
Engine	Minimum 3.5 liter V6 gasoline engine rated minimum 250 HP x 250 lb. ft. torque.	Number of Cylinders:	6
		Liters:	3.5
		Horsepower and Torque:	271 hp 260 ft lbs
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 2 gallons) 25-gallon tank	Tank Size [Gallons]:	25
Cooling System	Chassis manufacturers heaviest duty cooling system available for Chassis supplied and protected to minus 30°F		
Electrical	Heavy Duty OEM, minimum 220 amp, alternator	Alternator Capacity [amps]:	250
Electrical	Dual Heavy Duty Batteries, minimum 1300 CCA total, which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0°F]:	650 min 70 ah
		CCA each battery:	650 min 70 ah
		Minutes RC:	120 70 ah
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	10-speed automatic transmission	Transmission Model #:	10 Speed Auto OD
Front Axle	OEM Front Gross Axle Weight Rating (FGAWR)	FGAWR [lb.]:	4230 min
Rear Axle	OEM Rear Gross Axle Weight Rating (RGAWR)	RGAWR [lb.]:	5515 min
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	OEM supplied	Front Spring Rating [lb.]:	2065 min
		Rear Spring Rating [lb.]:	2757.50 min
Shock Absorbers	Heavy Duty	Make and Model #:	McPherson
Brakes	ABS power brakes meeting FMVSS 49CFR571.105	Service Brakes [total lining or sweep area] both front & rear:	329.68 Front Sweep Area / 302 Rear Sweep Area 631.68 Total Sweep
Parking Brake	Foot-or hand-operated parking brake		
Tires/Rims	OEM supplied Steel Wheel with Full Silver Wheel Covers plus all-season radial tread or rib tread w/mud and snow rear, as required to meet the GVWR specified. A full size spare tire and rim shall be included.	Radial Tires [size]:	235/65R16C 121/119
		Radial Tires [load]:	3195 lbs
		Radial Tires [range]:	E
		Radial Tires [manufacturer]:	Continental
		Front Tires [tread design]:	All Season Radial
		Front Tires [capacity/tire]:	3195 lbs
		Rear Tires [tread design]:	All Season Radial
		Rear Tires [capacity/tire]:	3195 lbs

Contractor:	Fenton Mobility Products, Inc.		
LOT B			
High Headroom Wagon <10,000 lb., 7 Passenger [5A/1WC]			
Front Bumper	Front bumper may be OEM chrome or high density rubber/plastic and affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	Plastic
		Front Bumper [manufacturer]:	Ford
Rear Bumper	Rear bumper shall be OEM Chassis supplied carbon or high density rubber/plastic and shall be affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]:	Plastic
		Rear Bumper [manufacturer]:	Ford
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the Transit Bus and shall comply with SAE J686.		
Steering	Power steering with adjustable steering wheel	Turning Diameter [at end of front bumper]:	48'
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Interior Equipment	OEM rear view camera		
Radio	Chassis Manufacturer's standard AM/FM Digital Clock Radio, with four (4) cabin speakers.	Manufacturer:	Ford
		Model #:	Audio Pack 318
Exterior Equipment	OEM cruise control		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or fobs		
Body (see specifications below)			
Driver/Front	Standard Factory OEM equipment		
Passenger/Lift Door	Power sliding curb side (right side) door with window. Minimum clear dimensions shall be 62" vertical and 50" horizontal	Dimensions [inches]:	62" Late Availability on Power
Windows	OEM supplied windows all around		
Body Structure	Shall be a Unibody construction design. Provisions shall be made to ensure full side airbag deployment with all required specified equipment (wheelchair lift, barriers, etc.). Certification of compliance with all FMVSS for passenger vehicles under 10,000 lb., plus documentation consisting of detailed explanation and dimensional drawing supporting the Body structures shall be supplied with bid submission.	Exterior Siding [material/thickness]:	Steel .040 +/- .015
		Interior Paneling [material/thickness]:	Plastic .125 +/- .050
		Insulation [material/R Value]:	Insulation OEM Ford
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	1
Exterior Equipment	Reverse alarm		
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior Body lights must meet current SAE standards and be armored (or low-profile design or sufficiently Body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door.		
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and advertising is prohibited, other than for necessary safety information		
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature.	Manufacturer:	Ford
		Model #:	545
Interior Mirror	OEM rear view mirror shall be provided		
Floor Assembly	Shall be insulated and shall include a minimum 5/8” thick marine grade plywood, or 3/4" Advantech sub-floor, or Compatible Equivalent. A light colored (e.g. light gray), floor covering shall have a non-slip surface that remains effective in all weather conditions and meet FMVSS 302 and ADA requirements.		
Floor Covering	Shall be a durable nonskid transit type flooring.		
Entrance Step	Shall be a low height (lowest practical) running board, installed on the curb (right) side, continuous full length for entry assist at both the front of the sedan and side sliding doors.	Top of first step above ground [inches]:	11"-12"
Door Entry Grab Rails (right and left side)	If not OEM supplied, dual entry grab rails shall be installed on each side of the designated entry door, parallel to the steps. Handrails shall be securely fastened. A minimum 1 1/4" diameter, with a high visible yellow stainless steel powder coated material, or non-slip Compatible Equivalent shall be used.		
Twin Rear Doors	OEM twin doors shall be located in the rear of the Transit Bus and when used as an emergency exit door, in compliance with FMVSS 571.217 and title 17 NYCRR Part 720.5 and 720.8 requirements. When the Transit Bus is designed such that the emergency door can be locked and not unlocked when the door latch is operated, then an interlock system must be installed to prevent the propulsion unit from starting, or after the Transit Bus is started, then an audible or visible alarm must be activated. If an interior locking device (vandal lock or equivalent) is provided for emergency exit door(s), then appropriate interlocking must be provided as indicated above. Each door shall include a window and a positive fastening device to hold door in the open position (“hold open” feature) when a rear wheelchair lift is installed. A reflective device for each door shall occupy at least fourteen (14) square inches and provide maximum visibility when the doors are open.		
Padded Panels	Shall be provided, attached to a vertical and horizontal stanchions where appropriate. The gap between the floor and bottom of the panel shall be 5" (plus or minus .5")		
Insulation	OEM supplied in walls and ceiling.		
Wheelchair Lift Door	Wheelchair area opening height shall be a minimum of 56". All items, including lighting, shall be in compliance with ADA and FMVSS 403 & 404.	Opening Height [inches]:	68" Rear Door, 56" Side Door

Contractor:	Fenton Mobility Products, Inc.		
LOT B			
High Headroom Wagon <10,000 lb., 7 Passenger [5A/1WC]			
Wheelchair Lift	The wheelchair lift shall be a rear-mounted, automatic electric/hydraulic type (power-up, gravity down) using dual hydraulic cylinders. The hydraulic reservoir capacity shall be at least one (1) quart, with easy access for inspection and servicing. The maximum power draw shall not exceed 70 amps at 12 volts. Wheelchair lift unit shall be a Public Use Lift and shall be installed in accordance with manufacturer's standards. The lift must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the lift shall be provided in the event of a power failure.	Manufacturer:	Braun
		Model #:	NCL 1000
Wheelchair Lift	Shall be capable of a minimum of 2500 cycle operation with a minimum of 1000 lb. lift capacity.		
Wheelchair Lift	Platform size shall be minimum 34" x 54" (of useable space) and lift capacity shall be minimum 1,000 lb. Wheelchair lift platform shall be constructed of expanded metal grating with left and right side 2 1/2" high safety stops plus a spring loaded or power activated ADA front stop. A pendent type operating control with a cable length sufficient to allow operation of lift at outermost platform position shall be provided. Lift platform shall be automatic power fold/unfold design.	Platform Size [inches]:	34" x 54"
Wheelchair Lift	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the lift unless door(s) are opened and transmission is in park with parking brake applied. A manual override system in case of power failure shall also be provided. Lift electric system shall be protected with fuse or circuit breaker.	Manufacturer:	Intermotive
		Model #:	ILISC515-AD
Wheelchair Lift	The spring load, deck end, stop shall be retracted while the lift deck is in the load/unload (down) position. This shall enable the operator to load the lift without holding the stop in its retracted position.		
Wheelchair Lift	Two (2) folding handrails on lift platform shall be provided. Handrails shall not reduce platform size.		
Wheelchair Lift	Labeled dash mounted visual alarm (in compliance with Chapter VI, Article III, Parts 720/721, NYCRR) to indicate special service door is not fully closed, shall be provided.		
Wheelchair Lift Barrier	Protective panel shall be provided as needed to prevent shearing action between the lift platform and Transit Bus floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs).		
Lighting- Driver Dome Light	OEM supplied		
Lighting (Interior)	Overhead, entrance, step well, and lift lights shall provide no less than two (2) foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one (1) foot-candle of illumination on the street surface with three (3) feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and step well 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.		
Lighting (Interior)	Interior lighting shall provide a minimum of two (2) foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair lift support brackets, air conditioner units or other similar items shall be padded to prevent injury.		
Heater(s)	Sufficient BTU capacity of front and rear under seat heaters shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. Interior temperature shall be uniform throughout passenger compartment area by the use of heat registers in the floor structure.	Manufacturer:	Ford
		Model #:	STD Factory
Air Conditioning	Air conditioning system that shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside the Transit Bus (as measured from the approximate Transit Bus center) a minimum of 1°F for every ninety (90) seconds. (Air Conditioner Manufacturer's Certification that performance requirement for Transit Bus type can be met must be submitted with bid).		
Air Conditioning	The cabin evaporator shall include directional and adjustable discharge ports. It shall be floor mounted toward the rear of the Transit Bus. Any sharp edges and/or exposed metal associated with the AC unit must have these edges/surfaces appropriately padded to provide for passenger protection. Aisle height requirements will be measured from a point directly in front of the AC unit.		
Air Conditioning	Each air conditioning system shall use R134A refrigerant. All system components subject to corrosion from moisture shall be aluminum, copper, stainless steel, galvanized, or epoxy coated. All exterior exposed air conditioning electrical connections must utilize weather pac plugs or Compatible Equivalent. An air intake screen shall be installed on the skirt of the Transit Bus to ensure sufficient airflow through the skirt mounted condenser coil. All hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.		
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Manufacturer:	Ford
		Model #:	21

Contractor:	**Fenton Mobility Products, Inc.**		
LOT B			
High Headroom Wagon <10,000 lb., 7 Passenger [5A/1WC]			
Front Passenger Seat	Co-pilot (front passenger) seat shall be OEM supplied, matching driver seat (except vertical adjustment).		
Seating	Upholstered transit type seats for a minimum of six (6) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		
Seating	Seats aft of driver shall be mid-high back, adult passenger seats shall be supplied in individual passenger modules, Freedman model "GO Seat ES", or other Compatible Equivalent. All ambulatory seats shall be forward facing. Seat cushions per passenger shall be a minimum of 17” in width and 17” in depth, and seat back shall be a minimum of 24” in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the Transit Bus. All seat cushions shall have identical upholstery and a spring suspension system. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.	Manufacturer: Model # (foldaway): Model # (single seat):	Freeman 43705 NA
Seating	Seats aft of driver shall include three (3) two-passenger foldaway seats. Freedman model "GO ES Space Saver" seat or other Compatible Equivalent. Seats shall have a swing-up armrest securely attached to the aisle end of each seat. Minimum seat widths shall be 34” double seats. Aisle width shall be a minimum of 10”.	Single Seat Width [inches]: Double Seat Width [inches]: Minimum Aisle Width [inches]:	NA 34 10
Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		
Seating	An approved retractable style integrated 3-point lap and shoulder seat belt shall be provided for each seating space and shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space, and two (2) seat belt extensions shall be provided with each Transit Bus.		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all seats and shall be mounted/welded to seat frame structure.		
Wheelchair & Wheelchair Occupant Restraints	One (1) Wheelchair Restraint System (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Occupant restraint system (including lap belt, shoulder belt with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of Transit Bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belt, and shoulder belt with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-10007 or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouch shall be provided to completely secure belts/straps on Transit Bus sidewalls when not in use. All items shall be installed in accordance with manufacturer’s standards and be in compliance with ADA, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the Transit Bus interior at a minimum of one (1) restraint position.	Manufacturer: Model #:	Q Straint Q-10007 / QS00073
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver’s seat position) in the front entry area of the Transit Bus. Equipment location shall be clearly identified.		
Miscellaneous	OEM supplied storage shelf shall be provided over the windshield.		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]: Chassis Warranty [miles]:	3 Years 36,000
Body Warranty	Covering the integrity of the Transit Bus Body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of four (4) years or 100,000 miles.	Body Warranty [years]: Body Warranty [miles]:	4 Years min 100,000
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The Chassis OEM air conditioning system coverage falls under the Chassis warranty.	Air Conditioning Warranty [years]:	3 Years
Wheelchair Lift Warranty	The lift shall be fully guaranteed by the manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		

Contractor:	Fenton Mobility Products, Inc.

LOT B

High Headroom Wagon <10,000 lb., 7 Passenger [5A/1WC]

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section 3.2 Transit Bus Requirements. See Section 3.1.3 Optional Equipment Unit Price for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Wheelchair Lift, Side Mount Installation	In lieu of the standard rear-mounted wheelchair lift in the Base Item, supply and install a wheelchair lift in the OEM powered side sliding door, curb-side. Lift platform size shall be minimum 34" x 51" (of useable space) and lift capacity shall be a minimum of 800 lb. Wheelchair lift platform shall be constructed of expanded metal grating with left and right side 2 1/2" high safety stops plus a spring loaded or power activated ADA front stop. A pendent type operating control with a cable length sufficient to allow operation of lift at outermost platform position shall be provided. Lift platform shall be automatic power fold/unfold design, and capable of a minimum of 2500 cycle operation with a minimum of 800 lb. lift capacity.	Manufacturer: Model #: Platform Size [inches]: Lift Capacity [lb.]: Cycle Operation:	Braun NCL919 34' x 51" 800 lbs. 2500	-$206.80
Optional Wheelchair Restraint System	For each wheelchair position in the Base Item, plus additional optional restraint systems, if ordered, install complete "Omni" style floor securements and complete belts kits, Q-Straint Q-10008 or Sur-Lok AL860S-4C-SNC, or Compatible Equivalent.	Manufacturer and Model #:	Q-10008	$672.10
Additional Wheelchair Restraint System	Price one (1) additional wheelchair station above the quantity required in the Base Item. Price is per position to include all belts, floor/shoulder hardware, and storage container.			$672.10
Camera Security System- 6 monitor	Provide and install a complete camera recording system, including software kit. Components include an eight (8) channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of five (5) Transit Bus functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of two (2) exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus four (4) interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for one (1) or more Transit Buses with matching camera system. Minimum components include software, mouse, 5-6" monitor (or DVR viewing software), HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR: Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:	Angel Trax V12-1200 Angel Trax HD 2500 Angel Trax HD 3500	$2,481.60

Contractor:	Fenton Mobility Products Inc.

LOT C

High Headroom Wagon <10,000 lb. (Flexible Floor Plan) 7 Passenger [6A/1WC]

PART 1: Product information for the Base Item awarded		
Chassis Make	The OEM company name of the Chassis Model.	Ford
Chassis Model	A particular brand of Chassis sold by an OEM.	Transit 350
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	X2X
Body Make	The OEM company name of the Body Model.	Ford
Body Model	A particular brand of Body sold by an OEM.	Transit 350
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	X2X

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §33, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section 3.1.1 Price and 3.1.4 Contract Pricelist for additional information about Contract pricing.	$53,245.83

PART 3: Base Item Specifications

The terms and conditions in Contract Section 3.2 Transit Bus Requirements shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information provided in Column D	Spec for Equipment Provided
General	Capacity: Minimum six (6) adult passenger seats, plus one (1) wheelchair station	Capacity:	6 Amb 1 wc
General	Floor plan matches "Figures" tab. The floor plan shall provide a minimum of 27.5" hip-to-knee for all seated positions, with the wheelchair footprint a minimum of 50" x 30".	Manufacturer Floor Plan #:	AbiliTrax Rear Lift, Abilitrax Side Lift, Abilitrax Shift n Step
General	Transit Bus may be ordered with either a side-mounted or rear-mounted wheel chair lift.		
General	Drive configuration: High Headroom Passenger Wagon or MPV		
General	Have completed federal STURAA (Altoona) bus testing of not less than four (4) years/100,000 miles or have been certified as exempt as specified under FTA provisions.		
General	Original "as built" vehicle shall be manufactured and classified as a passenger vehicle.		
General	Shall be in compliance as defined as ambulettes under NYCRR Part 720-721 regulations		
General	GVWR: 9,000 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lb.]:	9250 lbs.
General	Wheelbase: 148" (plus or minus 3")	Wheelbase [inches]:	148"
General	Minimum 75" continuous passenger aisle headroom	Headroom [inches]:	77"
General	Shall include an "Electronic Stability Control" system that improves stability by detecting and reducing loss of traction.		
Chassis (see specifications below)			
Engine	Minimum 3.5 liter V6 gasoline engine rated minimum 250 HP x 250 lb. ft. torque.	Number of Cylinders:	6
		Liters:	3.5
		Horsepower and Torque:	271 hp 260 ft lbs
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 2 gallons) 25-gallon tank	Tank Size [Gallons]:	25
Cooling System	Chassis manufacturers heaviest duty cooling system available for Chassis supplied and protected to minus 30°F		
Electrical	Heavy Duty OEM, minimum 220 amp, alternator	Alternator Capacity [amps]:	250
Electrical	Dual Heavy Duty Batteries, minimum 1300 CCA total, which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0°F]:	650 min 70 ah
		CCA each battery:	650 min 70 ah
		Minutes RC:	120 70 ah
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	10-speed automatic transmission	Transmission Model #:	10 Speed Auto OD
Front Axle	OEM Front Gross Axle Weight Rating (FGAWR)	FGAWR [lb.]:	4230 min
Rear Axle	OEM Rear Gross Axle Weight Rating (RGAWR)	RGAWR [lb.]:	5515 min
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	OEM supplied	Front Spring Rating [lb.]:	2065 min
		Rear Spring Rating [lb.]:	2757.50 min
Shock Absorbers	Heavy Duty	Make and Model #:	McPherson
Brakes	ABS power brakes meeting FMVSS 49CFR571.105	Service Brakes [total lining or sweep area] both front & rear:	329.68 Front Sweep Area / 302 Rear Sweep Area 631.68 Total Sweep
Parking Brake	Foot-or hand-operated parking brake		

Contractor:	**Fenton Mobility Products Inc.**		
LOT C			
High Headroom Wagon <10,000 lb. (Flexible Floor Plan) 7 Passenger [6A/1WC]			
Tires/Rims	OEM supplied Steel Wheel with Full Silver Wheel Covers plus all-season radial tread or rib tread w/mud and snow rear, as required to meet the GVWR specified. A full size spare tire and rim shall be included.	Radial Tires [size]:	235/65R16C 121/119
		Radial Tires [load]:	3195 lbs
		Radial Tires [range]:	E
		Radial Tires [manufacturer]:	Continental
		Front Tires [tread design]:	All Season Radial
		Front Tires [capacity/tire]:	3195 lbs
		Rear Tires [tread design]:	All Season Radial
		Rear Tires [capacity/tire]:	3195 lbs
Front Bumper	Front bumper may be OEM chrome or high density rubber/plastic and affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	Plastic
		Front Bumper [manufacturer]:	Ford
Rear Bumper	Rear bumper shall be OEM Chassis supplied carbon or high density rubber/plastic and shall be affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]:	Plastic
		Rear Bumper [manufacturer]:	Ford
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the Transit Bus and shall comply with SAE J686.		
Steering	Power steering with adjustable steering wheel	Turning Diameter [at end of front bumper]:	48'
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Interior Equipment	OEM rear view camera		
Radio	Chassis Manufacturer's standard AM/FM Digital Clock Radio, with four (4) cabin speakers.	Manufacturer:	Ford
		Model #:	Audio Pack 318
Exterior Equipment	OEM cruise control		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or fobs		
Body (see specifications below)			
Driver/Front Passenger Doors	Standard Factory OEM equipment		
Passenger/Lift Door	Power sliding curb side (right side) door with window. Minimum clear dimensions shall be 62" vertical and 50" horizontal	Dimensions [inches]:	62" Late Availability on Power
Windows	OEM supplied windows all around		
Body Structure	Shall be a Unibody construction design. Provisions shall be made to ensure full side airbag deployment with all required specified equipment (wheelchair lift, barriers, etc.). Certification of compliance with all FMVSS for passenger vehicles under 10,000 lb., plus documentation consisting of detailed explanation and dimensional drawing supporting the Body structures shall be supplied with bid submission.	Exterior Siding [material/thickness]:	Steel .040 +/- .015
		Interior Paneling [material/thickness]:	Plastic .125 +/- .050
		Insulation [material/R Value]:	Insulation OEM Ford
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	1
Exterior Equipment	Reverse alarm		
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior Body lights must meet current SAE standards and be armored (or low-profile design or sufficiently Body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door.		
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and advertising is prohibited, other than for necessary safety information		
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature.	Manufacturer:	Ford
		Model #:	545
Interior Mirror	OEM rear view mirror shall be provided		
Floor Assembly	An Abilitrax floor system or Compatible Equivalent shall be installed to include a series of longitudinal, parallel floor mounted steel tracks. The system shall be capable of accepting "L" style wheelchair tiedown systems and passenger seat bases throughout the floor. The floor base shall be constructed of a water resistant composite material, and the floor tracks of A1011 HSLA 50 (High Strength Low Alloy) materials. The floor system shall incorporate heating ducts and heat registers. It shall also include a cavity that allows the wheelchair lift power and interlock signal wires to be routed through the floor, allowing the lift to be changed from a rear entry to a side entry application without drilling holes through the floor system.		
Floor Covering Material	Shall be a durable nonskid transit type flooring.		
Entrance Step	Shall be a low height (lowest practical) running board, installed on the curb (right) side, continuous full length for entry assist at both the front of the sedan and side sliding doors.	Top of first step above ground [inches]:	11"-12"
Door Entry Grab Rails (right and left side)	If not OEM supplied, dual entry grab rails shall be installed on each side of the designated entry door, parallel to the steps. Handrails shall be securely fastened. A minimum 1 1/4" diameter, with a high visible yellow stainless steel powder coated material, or non-slip Compatible Equivalent shall be used.		

Contractor:	Fenton Mobility Products Inc.		

LOT C

High Headroom Wagon <10,000 lb. (Flexible Floor Plan) 7 Passenger [6A/1WC]

Twin Rear Doors	OEM twin doors shall be located in the rear of the Transit Bus and when used as an emergency exit door, in compliance with FMVSS 571.217 and title 17 NYCRR Part 720.5 and 720.8 requirements. When the Transit Bus is designed such that the emergency door can be locked and not unlocked when the door latch is operated, then an interlock system must be installed to prevent the propulsion unit from starting, or after the Transit Bus is started, then an audible or visible alarm must be activated. If an interior locking device (vandal lock or equivalent) is provided for emergency exit door(s), then appropriate interlocking must be provided as indicated above. Each door shall include a window and a positive fastening device to hold door in the open position (“hold open” feature) when a rear wheelchair lift is installed. A reflective device for each door shall occupy at least fourteen (14) square inches and provide maximum visibility when the doors are open.		
Padded Panels	Shall be provided, attached to a vertical and horizontal stanchions where appropriate. The gap between the floor and bottom of the panel shall be 5" (plus or minus .5")		
Insulation	OEM supplied in walls and ceiling.		
Wheelchair Lift Door	Wheelchair area opening height shall be a minimum of 56". All items, including lighting, shall be in compliance with ADA and FMVSS 403 & 404.	Opening Height [inches]:	68" Rear Door, 56" Side Door
Wheelchair Lift	The wheelchair lift shall be automatic electric/hydraulic type (power-up, gravity down) using dual hydraulic cylinders. The hydraulic reservoir capacity shall be at least one (1) quart, with easy access for inspection and servicing. The maximum power draw shall not exceed 70 amps at 12 volts. Wheelchair lift unit shall be a Public Use Lift and shall be installed in accordance with manufacturer’s standards. The lift must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the lift shall be provided in the event of a power failure.	Manufacturer: Model #:	Braun NCL 1000
Wheelchair Lift	Side or rear mounted, the lift shall be capable of a minimum of 2500 cycle operation with a minimum of 1000 lb. lift capacity.		
Wheelchair Lift	Platform size shall be minimum 34" x 51" (of useable space) and lift capacity shall be minimum 1,000 lb. Wheelchair lift platform shall be constructed of expanded metal grating with left and right side 2 1/2" high safety stops plus a spring loaded or power activated ADA front stop. A pendent type operating control with a cable length sufficient to allow operation of lift at outermost platform position shall be provided. Lift platform shall be automatic power fold/unfold design.	Platform Size [inches]:	34" x 51"
Wheelchair Lift	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the lift unless door(s) are opened and transmission is in park with parking brake applied. A manual override system in case of power failure shall also be provided. Lift electric system shall be protected with fuse or circuit breaker.	Manufacturer: Model #:	Intermotive ILISC515-AD
Wheelchair Lift	The spring load, deck end, stop shall be retracted while the lift deck is in the load/unload (down) position. This shall enable the operator to load the lift without holding the stop in its retracted position.		
Wheelchair Lift	Two (2) folding handrails on lift platform shall be provided. Handrails shall not reduce platform size.		
Wheelchair Lift	Labeled dash mounted visual alarm (in compliance with Chapter VI, Article III, Parts 720/721, NYCRR) to indicate special service door is not fully closed, shall be provided.		
Wheelchair Lift Barrier	Protective panel shall be provided as needed to prevent shearing action between the lift platform and Transit Bus floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs).		
Lighting- Driver Dome Light	OEM supplied		
Lighting (Interior)	Overhead, entrance, step well, and lift lights shall provide no less than two (2) foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one (1) foot-candle of illumination on the street surface with three (3) feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and step well 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.		
Lighting (Interior)	Interior lighting shall provide a minimum of two (2) foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair lift support brackets, air conditioner units or other similar items shall be padded to prevent injury.		
Heater(s)	Sufficient BTU capacity of front and rear under seat heaters shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. Interior temperature shall be uniform throughout passenger compartment area by the use of heat registers in the floor structure.	Manufacturer: Model #:	Ford STD Factory

Contractor:	**Fenton Mobility Products Inc.**		
LOT C			
High Headroom Wagon <10,000 lb. (Flexible Floor Plan) 7 Passenger [6A/1WC]			
Air Conditioning	Air conditioning system that shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside the Transit Bus (as measured from the approximate Transit Bus center) a minimum of 1°F for every ninety (90) seconds. (Air Conditioner Manufacturer's Certification that performance requirement for Transit Bus type can be met must be submitted with bid).		
Air Conditioning	The cabin evaporator shall include directional and adjustable discharge ports. It shall be floor mounted toward the rear of the Transit Bus. Any sharp edges and/or exposed metal associated with the AC unit must have these edges/surfaces appropriately padded to provide for passenger protection. Aisle height requirements will be measured from a point directly in front of the AC unit.		
Air Conditioning	Each air conditioning system shall use R134A refrigerant. All system components subject to corrosion from moisture shall be aluminum, copper, stainless steel, galvanized, or epoxy coated. All exterior exposed air conditioning electrical connections must utilize weather pac plugs or Compatible Equivalent. An air intake screen shall be installed on the skirt of the Transit Bus to ensure sufficient airflow through the skirt mounted condenser coil. All hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.		
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Manufacturer: Model #:	Ford 21
Front Passenger Seat	Co-pilot (front passenger) seat shall be OEM supplied, matching driver seat (except vertical adjustment).		
Seating	Upholstered transit type seats for a minimum of six (6) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		
Seating	Seats aft of driver shall be mid-high back, adult passenger seats shall be supplied in individual passenger modules, Freedman model "GO Seat ES Space Saver", or other Compatible Equivalent. All ambulatory seats shall be forward facing. Seat cushions per passenger shall be a minimum of 17" in width and 17" in depth, and seat back shall be a minimum of 24" in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the Transit Bus. All seat cushions shall have identical upholstery and a spring suspension system. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.	Manufacturer: Model # (foldaway): Model # (single seat):	Freedman / AbiliTrax 43705 Freedman 71723
Seating	Seats aft of driver shall be two (2) two-passenger foldaway seats plus one (1) single passenger forward facing seat. Seat frames shall mount in track system with quick disconnect hardware. The single seat base shall include a "step and lock" type quick disconnect that features a foot activated seat base release plus wheels that allow for easy repositioning of the seat. Minimum seat widths shall be 17" single and 34" double seats. Aisle width shall be a minimum of 10".	Single Seat Width [inches]: Double Seat Width [inches]: Minimum Aisle Width [inches]:	17' 34" 10"
Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		
Seating	An approved retractable style integrated 3-point lap and shoulder seat belt shall be provided for each seating space and shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space, and two (2) seat belt extensions shall be provided with each Transit Bus.		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all seats and shall be mounted/welded to seat frame structure.		
Wheelchair & Wheelchair Occupant Restraints	One (1) Wheelchair Restraint System (Wheelchair and Wheelchair Occupant) shall be provided and installed. Occupant restraint system (including lap belt, shoulder belt with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of Transit Bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belt, and shoulder belt with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-10007 or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouch shall be provided to completely secure belts/straps on Transit Bus sidewalls when not in use. All items shall be installed in accordance with manufacturer's standards and be in compliance with ADA, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the Transit Bus interior at a minimum of one (1) restraint position.	Manufacturer: Model #:	Q Straint Q-10007

Contractor:	Fenton Mobility Products Inc.

LOT C

High Headroom Wagon <10,000 lb. (Flexible Floor Plan) 7 Passenger [6A/1WC]

Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver's seat position) in the front entry area of the Transit Bus. Equipment location shall be clearly identified.		
Miscellaneous	OEM supplied storage shelf shall be provided over the windshield.		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]:	3 years
		Chassis Warranty [miles]:	36,000 miles
Body Warranty	Covering the integrity of the Transit Bus Body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of four (4) years or 100,000 miles.	Body Warranty [years]:	4 years min
		Body Warranty [miles]:	100,000 miles
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The Chassis OEM air conditioning system coverage falls under the Chassis warranty.	Air Conditioning Warranty [years]:	3 Years
Wheelchair Lift Warranty	The lift shall be fully guaranteed by the manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section 3.1 Transit Bus Requirements. See Section 6.5 Optional Equipment Unit Price for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Sliding Wheelchair Lift Mounting System (Side Lift Only)	When ordering a side-mounted wheelchair lift location, provide a sliding wheelchair lift mounting system in the OEM side sliding door, "Shift-N-Step" or Compatible Equivalent. System shall slide the lift rearward, providing 30" clearance for ambulatory access. The wheelchair lift shall provide a minimum 800 lb. lift capacity.	Mounting System Lift Manufacturer:	Fenton Mobility Products	$5,167.93
		Model #:	SNS834	
		Clearance [inches]:	30"	
		Lift Capacity [lb.]:	800 lbs	
Additional Wheelchair Restraint System	Price one (1) additional wheelchair station above the quantity required in the Base Item. Price is per position to include all belts, floor/shoulder hardware, and storage container.			$465.30
Additional Seat (3-Step Fold Away; and Forward Facing)	Provide and install one (1) forward facing fold-away flip seat to accommodate two (2) ambulatory passengers, when not in use as a wheelchair station. Seat shall be of the same type (including grab handles) and color as standard seats.			$1,023.66
Camera Security System- 6 monitor	Provide and install a complete camera recording system, including software kit. Components include an eight (8) channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of five (5) Transit Bus functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of two (2) exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus four (4) interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for one (1) or more Transit Buses with matching camera system. Minimum components include software, mouse, 5-6" monitor (or DVR viewing software), HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR:	Angel Trax V12-1200	$2,481.60
		Manufacturer and Model # of interior camera head:	Angel Trax HD 2500	
		Manufacturer and Model # of exterior camera head:	Angel Trax HD 3500	

Contractor:	Shepard Bros., Inc.

LOT D

Dual Rear Wheel Cutaway <22 ft., 9 Passenger [8A/1WC]

PART 1: Product information for the Base Item awarded		
Chassis Make	The OEM company name of the Chassis Model.	Ford
Chassis Model	A particular brand of Chassis sold by an OEM.	E350
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	E3F
Body Make	The OEM company name of the Body Model.	Coach and Equipment
Body Model	A particular brand of Body sold by an OEM.	Phoenix
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	OAL 251

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §33, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section 3.1.1 Price and 3.1.4 Contract Pricelist for additional information about Contract pricing.	$59,579.08

PART 3: Base Item Specifications

The terms and conditions in Contract Section 3.2 Transit Bus Requirements shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information provided in Column D	Spec for Equipment Provided
General	Capacity: Minimum eight (8) adult passenger seats, plus one (1) wheelchair station	Capacity:	8 Passenger + 1 Wheelchair
General	Floor plan matches "Figures" tab. The floor plan shall provide a minimum of 27.5" hip-to-knee for all seated positions, with the wheelchair footprint a minimum of 50" x 30".	Manufacturer Floor Plan #:	LOT D RegF 8P1WC0FFF
General	When ordering additional wheelchair and foldaway seats, the floor plan shall be capable of providing up to four (4) wheelchairs, one (1) 2-passenger fixed seat, plus two (2) 2-passenger forward facing foldaway seats.		
General	Drive configuration: Minimum forward control dual rear wheel (DRW)		
General	Have completed federal STURAA (Altoona) bus testing of not less than five (5) years/150,000 miles or have been certified as exempt as specified under FTA provisions.		
General	GVWR: 11,500 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lb.]:	11500
General	Wheelbase: 140" (plus or minus 5")	Wheelbase [inches]:	138"
General	Minimum 72" continuous passenger aisle headroom	Headroom [inches]:	80"
General	Shall include an "Electronic Stability Control" system that improves stability by detecting and reducing loss of traction.		
Chassis (see specifications below)			
Cab	A standard sedan door on the driver's side shall be OEM Chassis supplied.		
Engine	Minimum 6.0 liter, 8 cylinder gasoline engine rated minimum 300 HP x 300 lb. ft. torque.	Number of Cylinders:	8
		Liters:	7.3L
		Horsepower and Torque:	300 Hp 425 lb. ft. torque
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 35-gallon tank	Tank Size [Gallons]:	40
Cooling System	Chassis manufacturers heaviest duty cooling system available for Chassis supplied and protected to minus 30°F		
Electrical	225 amp OEM alternator	Alternator Capacity [amps]:	240
Electrical	Dual Heavy Duty Batteries, minimum 1300 CCA total, which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0°F]:	750
		CCA each battery:	750
		Minutes RC:	140
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	Transmission shall include an automatic transmission with heavy duty or additional oil cooler.	Transmission Model #:	6 Speed O/D w/ Tow Haul w/ Aux Cooler
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 4,100 lb.	FGAWR [lb.]:	5000
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 7,500 lb.	RGAWR [lb.]:	7800
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	Front Springs rated at 4,600 lb. minimum and Rear Springs rated at 8,500 lb. minimum	Front Spring Rating [lb.]:	4600
		Rear Spring Rating [lb.]:	8500
Shock Absorbers	Heavy Duty	Make and Model #:	Ford OEM Gas Type
Brakes	ABS power brakes meeting FMVSS 49CFR571.105	Service Brakes [total lining or sweep area] both front & rear:	614.3 sq. in
Parking Brake	Foot-operated parking brake		

Contractor:	**Shepard Bros., Inc.**		
LOT D			
Dual Rear Wheel Cutaway <22 ft., 9 Passenger [8A/1WC]			
Tires	Manufacturer's standard all-season radial tread or rib tread w/mud and snow rear, as required to meet the GVWR specified	Radial Tires [size]:	LT225/75Rx16E BSW
		Radial Tires [load]:	E
		Radial Tires [range]:	E
		Radial Tires [manufacturer]:	Hankook
		Front Tires [tread design]:	A/S
		Front Tires [capacity/tire]:	2470
		Rear Tires [tread design]:	AS
		Rear Tires [capacity/tire]:	2470
Front Bumper	Shall be made of, or covered with, a rust proof material. Front bumper may be OEM chrome or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	Chrome
		Front Bumper [manufacturer]:	OEM
Steering	Power steering	Turning Diameter [at end of front bumper]:	48.6'
Steering Wheel	Tilt steering wheel		
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Radio	Chassis Manufacturer's standard AM/FM Digital Clock Radio, with one (1) driver speaker and two (2) cabin speakers.	Manufacturer:	Ford OEM
		Model #:	AM/FM/Bluetooth
Exterior Equipment	Rear tow hooks		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall be at the rear of the Transit Bus and shall exit on the street side, aft of the rear axle. The system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or fobs		
Body (See specifications below)			
Body Structure	Shall consist of a heavy-duty integral steel Body roll cage structure (from curbside to street side floor connections) fabricated of square or rectangular tubing (or structurally equivalent hat section member) and be in full compliance with Title 17 NYCRR Part 720.4(b)(1). Roll cage shall extend forward sufficiently to protect driver in the event of rollover. Documentation consisting of detailed explanation and dimensional drawing supporting the Body structures compliance shall be supplied with bid submission for each vehicle classification, including current substantiating documentation (not older than 5 years unless the structure has not been significantly modified as defined by 49 CFR 665) confirming compliance with FMVSS 220.		
Body	Minimum 90" interior Body width (from sidewall to sidewall). Exterior shall be smooth and free of any visible fasteners. Exterior Siding shall be 25-gauge protected (i.e. galvanized) steel (or 24-gauge aluminum) with smooth surface or laminated fiberglass composite reinforced with insulation that is foamed in place or resin hardened honeycomb. Body shall be compliant to all stated General Body specifications. Interior sidewalls shall be fiberglass, vinyl clad aluminum or Compatible Equivalent material. Insulation in walls and ceiling shall be fiberglass, resin-hardened honeycomb (FRP) material, polyurethane, or closed cell EPS foam. Vinyl padding may be used for finish to the drivers area, modesty panels, or other interior trim. All cover materials must meet FMVSS 302 flammability requirements.	Exterior Siding [material/thickness]:	Galvinized Steel 24 Guage
		Interior Paneling [material/thickness]:	FRP .06"
		Insulation [material/R Value]:	6
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	2
Exterior Equipment	Reverse alarm		
Exterior Equipment	Back up radar alarm with four (4) bumper mounted sensors. Alarm shall provide an audible alert plus include a dash area mounted LED distance display.	Manufacturer:	Hawkeye
		Model #:	A-Hawk401-A
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior Body lights (non-OEM Chassis) for these purposes must meet current SAE standards and shall be sealed Light Emitting Diode (LED) type lights on an active regulator circuit that assures uniform illumination of all the LED lighting down to eight (8) volts. All exterior clearance lights shall be armored (or low-profile design or sufficiently body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door. A mid-ship turn signal shall also be installed on each side of the Transit Bus Body.		
Batteries	One (1) auxiliary battery shall be mounted in an easily accessible fully enclosed and properly ventilated battery box with stainless steel (or an acceptable non-corrosive material) slide out (with roller track) battery tray located in the Transit Bus skirt or driver's step and shall include a clearly labeled disconnect switch that shuts off all current to the Transit Bus Body. Battery Box shall be accessible through a hinged door access which shall be labeled in conformance with Title 17 NYCRR Part 720.6(a). Door shall be affixed with stainless steel fasteners. One (1) OEM battery shall be located under the hood.		
Gutters/Drip Molding	Shall be installed above all windows and doors, preventing water from draining onto doors and windows.		
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and advertising is prohibited, other than for necessary safety information		
Rear Bumper	Shall be made of, or covered with, a rust proof material. Rear bumper shall be stainless steel or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]:	Stainless Steel
		Rear Bumper [manufacturer]:	Tru-Form

Contractor:	**Shepard Bros., Inc.**		
LOT D			
Dual Rear Wheel Cutaway <22 ft., 9 Passenger [8A/1WC]			
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the Transit Bus and shall comply with SAE J686.		

Contractor:	**Shepard Bros., Inc.**		
LOT D			
Dual Rear Wheel Cutaway <22 ft., 9 Passenger [8A/1WC]			
Exterior Mirror Frames	Mirror Frames and Extension Arms shall be made of rustproof material (i.e. stainless steel/durable plastic) and shall be adequate to prevent excessive vibration of the mirror(s).	Manufacturer: Model #:	Rosco ASM00500247/ASM00500248
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled, with the switch(s) to be installed at a prior approved location. In no case shall the switch be mounted above the windshield. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature. Extension Arms shall be provided on mirrors to allow for a clear and unobstructed view to rear regardless of Transit Bus width.	Manufacturer: Model #:	Rosco ASM00500247/ASM00500248
Interior Mirror	Rear view mirror 6" x 30" flat or 6” x 9” convex shall be provided	Mirror Size [inches]:	6"x30"
Windows	Passenger windows shall be “T” slider top ventilating or push-out horizontal transit slider type with a minimum 28% tint (light reduction in the passenger compartment). Side and rear windows shall be metal frame construction (painted black) with tempered safety or laminate glass and shall meet FMVSS 217 retention requirements.	Passenger Window [type]: Passenger Window [size]:	T-Slider 31.25"x25.5"
Windows	Twin rear windows are required and shall be manufacturer's standard (6” x 18” minimum) on each side of emergency exit door or special service door. Emergency exit door, when located in rear of Transit Bus, shall include an upper and lower window		
Windows	Window placement shall conform to manufacturer’s standard spacing for length of Transit Bus offered. Placement and installation of the windows shall not diminish the structural integrity of Transit Bus. Windows installed as emergency exits as required by FMVSS shall also comply with Title 17 NYCRR Part 720,5 requirements.		
Floor Assembly	Shall be insulated and shall include a minimum 5/8” thick marine grade plywood, or 3/4" Advantech sub-floor, or Compatible Equivalent. A light colored (e.g. light gray), floor covering shall have a non-slip surface that remains effective in all weather conditions and meet FMVSS 302 and ADA requirements.		
Entrance Step	Shall be a low height, front entrance step (lowest practical) and shall comply with ADA 1192. A low-voltage electric step heater shall be installed in the bottom step and activated by a rocker switch on the dash board.	Top of first step above ground [inches]:	12"
Steps	All step edges shall be a minimum of 9” in depth and have a high visible yellow nosing band running the full width of each step. Transit Buses shall have a maximum of two (2) steps (not including ground to first step) with risers not to exceed 10” in height. Steps shall comply with ADA 1192.		
Entrance Door(s)	A “walk through” minimum 74” high headroom right front entrance door with a minimum clear entry opening of 28” constructed with top and bottom (or length of door) viewing windows and a heavy duty electric opener shall be provided. An interlock (Intermotive Gateway or Compatible Equivalent) shall be installed and programmed that prevents the door from being opened or closed unless the Transit Bus speed equals zero (0). Door leading and sectional edges shall be equipped with approximately 2” extruded rubber edges to form weather-tight seal. Door shall be affixed with hinges that provide corrosion protection and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Entrance door surround (portal) and step well shall be constructed from stainless steel or material with Compatible Equivalent corrosion resistant properties. Entrance door shall comply with FMVSS 217.	Entrance Door clear opening [inches]:	30"
Door Entry Grab Rails (right and left side)	Shall be installed on each side of entry, parallel to the steps, securely fastened and a minimum 1 1/4" diameter made of stainless steel powder coated material, or non-slip Compatible Equivalent, and shall be a high visible yellow in color, accessible from first step to floor of Transit Bus.		
Emergency Exit Door	Shall be at the rear center of the Transit Bus, in compliance with FMVSS and Title 17 NYCRR Part 720.5 requirements. An interior locking device (vandal lock) shall be provided for emergency exit door(s) and an LED driver station warning light shall be provided to indicate when door is locked. A device shall be installed to prevent the engine from starting when the door is locked. Exterior door handle shall be non-locking. Door shall be constructed with two (minimum 12” x 18”) windows situated at the top and bottom of door. Door surround (portal) shall be stainless steel or material with equal corrosion resistant properties. Door shall be affixed with stainless steel hinges and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable).		
Overhead Hand Rail	Two (2) full-length overhead (ceiling) handrails shall be provided and securely attached to roof structure, which shall be continuous except for a gap at the rear doorway, in accordance with Part 38 of the ADA.		
Driver Barrier	Driver Barrier constructed of a vertical and horizontal stanchion, a padded modesty panel, and transparent durable plastic material, or Compatible Equivalent, shall be installed directly behind driver seat. A gap between the ceiling and top of the plexiglass shall be 2" (plus or minus .5").		
Padded Panels	Shall be provided attached to a vertical and horizontal stanchion behind the step well. The gap between the floor and bottom of the panel shall meet NYS DOT specifications.		
Intentionally Omitted	Intentionally Omitted		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		

Contractor:	Shepard Bros., Inc.		

LOT D

Dual Rear Wheel Cutaway <22 ft., 9 Passenger [8A/1WC]

Wheelchair Lift Door(s)	Install a wheelchair entrance/exit door(s) (special service door) affixed with stainless steel hinges, door trim and fasteners (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Door surround (portal) shall be stainless steel or material with equal corrosion resistant properties. Each door shall include a window and a positive fastening device to hold door in the open position ("hold open" feature). The special service door shall be equipped with a locking device (Padlock and hasp are not acceptable). All items, including lighting, shall be in compliance with ADA and FMVSS 403 & 404.		
Wheelchair Lift	The wheelchair lift shall be automatic electric/hydraulic type (power-up, gravity down) using dual hydraulic cylinders. The hydraulic reservoir capacity shall be at least one (1) quart, with easy access for inspection and servicing. The maximum power draw shall not exceed 70 amps at 12 volts. Wheelchair lift unit shall be a Public Use Lift and shall be installed in accordance with manufacturer's standards. The lift must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the lift shall be provided in the event of a power failure.	Manufacturer: Model #:	Braun NCL1000FIB3454-2
Wheelchair Lift	Shall be capable of a minimum of 2500 cycle operation with a minimum of 1000 lb. lift capacity.		
Wheelchair Lift	Platform size shall be minimum 34" x 54" (of useable space) and lift capacity shall be minimum 1,000 lb. Wheelchair lift platform shall be constructed of expanded metal grating with left and right side 2 1/2" high safety stops plus a spring loaded or power activated ADA front stop. A pendent type operating control with a cable length sufficient to allow operation of lift at outermost platform position shall be provided. Lift platform shall be automatic power fold/unfold design.	Platform Size [inches]:	34"x54"
Wheelchair Lift	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the lift unless door(s) are opened and transmission is in park with parking brake applied. A manual override system in case of power failure shall also be provided. Lift electric system shall be protected with fuse or circuit breaker.	Manufacturer: Model #:	Intermotive HL510-BD
Wheelchair Lift	The spring load, deck end, stop shall be retracted while the lift deck is in the load/unload (down) position. This shall enable the operator to load the lift without holding the stop in its retracted position.		
Wheelchair Lift	Two (2) folding handrails on lift platform shall be provided. Handrails shall not reduce platform size.		
Wheelchair Lift	Labeled dash mounted visual alarm (in compliance with Chapter VI, Article III, Parts 720/721, NYCRR) to indicate special service door is not fully closed, shall be provided.		
Wheelchair Lift Barrier	Protective panel with vertical stanchion (consistent with Door Entry Grab Rail specifications), constructed of durable material, shall be installed directly adjacent to the wheelchair lift (when installed) to prevent shearing action between the lift platform and Transit Bus floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs).		
Lighting- Driver Dome Light	An independently controlled LED overhead dome light over driver area producing six (6) foot candles when measured at the steering wheel.		
Lighting (Interior)	Overhead, entrance, step well, and lift lights shall provide no less than two (2) foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one (1) foot-candle of illumination on the street surface with three (3) feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and step well 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.		
Lighting (Interior)	Interior lighting shall provide a minimum of two (2) foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair lift support brackets, air conditioner units or other similar items shall be padded to prevent injury.		

Contractor:	**Shepard Bros., Inc.**		
LOT D			
Dual Rear Wheel Cutaway <22 ft., 9 Passenger [8A/1WC]			
Heater(s)	An OEM dash air conditioning system plus one (1) 60,000 BTU rear heater shall be provided. Sufficient BTU capacity of front and rear under seat heaters shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. A dash mounted (or other approved location) circulating fan shall be provided for increased circulation of heating and defrosting in driver area. Interior temperature shall be uniform throughout passenger compartment area. Shut-off valves shall be provided for shut-off of main and auxiliary heaters. The first valve shall be located below or behind the driver's entry step well. The second valve shall be located downstream of the second heater. Both shall be labeled providing clear indication of the shut-off valve locations to the driver. Passenger compartment heater hoses shall be equipped with full-flow quarter-turn valves located in a protected location. Location of valves shall be indicated with a label stating "Heater Shutoff Valves" and located to be visibly obvious. All heater hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.	Manufacturer: Model #:	Pro Air 66 000 441
Air Conditioning	Air conditioning system that shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside the Transit Bus (as measured from the approximate Transit Bus center) a minimum of 1°F for every ninety (90) seconds. (Air Conditioner Manufacturer's Certification that performance requirement for Transit Bus type can be met must be submitted with bid).		
Air Conditioning	Air Conditioning shall be designed as two (2) independent systems. One system shall be OEM Chassis supplied, dedicated for cooling and moisture removal from the windshield and drivers area. The second system shall function separate from the OEM dash, with separate controls, engine driven compressor, skirt condenser, and passenger cabin evaporator. BTU and CFM capacities (rear system and front system together) considered minimum required are 48,000 BTU and 800 CFM.	Manufacturer: Model #: A/C Capacity [Chassis BTUH]: A/C Capacity [Body BTUH]: A/C Airflow [Cab CFM]: A/C Airflow [Body CFM]:	MCC 7W12MAX 15k 50k 465 1600 CFM
Air Conditioning	The cabin evaporator shall include directional and adjustable discharge ports. The evaporator shall be installed so as not to intrude from the rear bulk head under or less than 12" horizontally into the passenger compartment. Any sharp edges and/or exposed metal associated with the AC unit must have these edges/surfaces appropriately padded to provide for passenger head protection. Aisle height requirements will be measured from a point directly in front of the AC unit. Side mounted evaporators are not permitted.		
Air Conditioning	Each air conditioning system shall use R134A refrigerant. All system components subject to corrosion from moisture shall be aluminum, copper, stainless steel, galvanized, or epoxy coated. All exterior exposed air conditioning electrical connections must utilize weather pac plugs or Compatible Equivalent. An air intake screen shall be installed on the skirt of the Transit Bus to ensure sufficient airflow through the skirt mounted condenser coil. All hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.		
Safety Vent (three way)	Shall be installed and centered on the roof of the passenger compartment. Vent shall provide for fresh air ventilation, static type exhaust with fresh air ventilation and static type exhaust; and shall be equipped with release handle to provide for emergency exit. Size shall be minimum of 24" x 24".	Make: Model #: Size [inches]:	Transpec T1176-004-1C1 24x24
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Manufacturer: Model #:	Ford OEM Power Pedestal
Seating	Upholstered transit type seats for a minimum of eight (8) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		
Seating	Mid-high back, adult passenger seats shall be supplied in individual passenger modules, Freedman model "GO Seat ES", or other Compatible Equivalent. All ambulatory seats shall be forward facing. Seat cushions per passenger shall be a minimum of 17" in width and 17" in depth, and seat back shall be a minimum of 24" in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the Transit Bus. All seat cushions shall have identical upholstery and a spring suspension system. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.	Manufacturer: Model #:	Freeman Go-Es
Seating	Minimum seat widths shall be 17" single and 34" double seats. Aisle width shall be a minimum of 14".	Single Seat Width [inches]: Double Seat Width [inches]: Minimum Aisle Width [inches]:	17.5" 35" 14"
Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, Regions, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		

Contractor:	**Shepard Bros., Inc.**

LOT D

Dual Rear Wheel Cutaway <22 ft., 9 Passenger [8A/1WC]

Seating	An approved retractable style integrated 3-point lap and shoulder seat belt shall be provided for each seating space and shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space, and two (2) seat belt extensions shall be provided with each Transit Bus.		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all forward facing seats (including flip seats) and shall be mounted/welded to seat frame structure. This does not apply to single seat positioned immediately forward of the wheelchair lift.		
Wheelchair & Wheelchair Occupant Restraints	One (1) Wheelchair Restraint System (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Occupant restraint system (including lap belt, shoulder belt with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of Transit Bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belt, and shoulder belt with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-10007 or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouch shall be provided to completely secure belts/straps on Transit Bus sidewalls when not in use. All items shall be installed in accordance with manufacturer's standards and be in compliance with ADA, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the Transit Bus interior at a minimum of one (1) restraint position.	Manufacturer: Model #:	Q'Straint Q-10007
Miscellaneous	Provide and install an electronic post-trip interior inspection system that emits an audible tone once the ignition is turned off, requiring the driver to walk to the rear interior bulkhead and depress a button to deactivate.	Manufacturer: Model #:	Child Checkmate EP1
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver's seat position) in the front entry area of the Transit Bus. Equipment location shall be clearly identified.		
Miscellaneous	Storage compartment with door shall be provided and recessed in the center front cap portion of the Transit Bus or positioned over the driver's area if the front cap portion is not used for destination signage or air conditioner evaporator placement. The compartment must be sealed and must not have any exposed wires, protrusions or sharp edges		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]: Chassis Warranty [miles]:	3 36k
Body Warranty	Covering the integrity of the Transit Bus Body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]: Body Warranty [miles]:	5 150k
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The Chassis OEM air conditioning system coverage falls under the Chassis warranty.	Air Conditioning Warranty [years]:	2
Wheelchair Lift Warranty	The lift shall be fully guaranteed by the manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section 3.2 Transit Bus Requirements. See Section 3.1.3 Optional Equipment Unit Price for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Additional Wheelchair Restraint System	Delete the minimum number of seats required for proper spacing (4 maximum) and price one (1) additional wheelchair station above the quantity required in the Base Item. Price is per position to includes all belts, floor/ shoulder hardware, and storage container			$69.28
Optional Wheelchair Restraint System	For each wheelchair position in the Base Item, plus additional optional restraint systems, if ordered, install complete "Omni" style floor securements and complete belts kits, Q-Straint Q-10008 or Sur-Lok AL860S-4C-SNC, or Compatible Equivalent.	Manufacturer: Model #:	Q'straint Q-10008	-$66.18
Continuous "L" track	Install five (5) lanes of continuous "L" track (four (4) lanes floor mounts, one (1) lane shoulder harness) for a single wheelchair position (48" length each)			$280.21
Raised Floor	Provide a flat Floor that is raised above the rear wheel well level of the same quality and materials as the Base Item. The raised floor shall add a third step at the step well only; any step aft of the step well is not acceptable.			$901.65

Contractor:	**Shepard Bros., Inc.**			
LOT D				
Dual Rear Wheel Cutaway <22 ft., 9 Passenger [8A/1WC]				
Additional Seat (3-Step Fold Away; and Forward Facing)	When not included in the Base Item, provide and install one (1) forward facing fold-away flip seat at a wheelchair station area which shall be a Freedman model "GO ES Space Saver" seat or other Compatible Equivalent. Flip seat may be lowered to accommodate two (2) ambulatory passengers, when not in use as a wheelchair station. Seat shall be of the same type (including grab handles) and color as standard seats measuring (per passenger) a minimum of 17” in width x 17” in depth x 24” in height as measured from the edge of the cushion. Raising/lowering of the seat shall be accomplished manually and shall include a lock to secure the seat in the raised position. Raised seat plus wheelchair shall not block legal aisle. Integrated 3-point lap and shoulder belts shall be provided at each seating location to accommodate an adult ambulatory passenger and shall be in compliance with FMVSS 210. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.			$1,001.95
Air Conditioning System (Roof Mounted Condenser)	Provide and install Air Conditioning System as specified in the Base Item, except air conditioning system condenser shall be a roof mounted unit.			$759.99
Camera Security System- 6 monitor	Provide and install a complete camera recording system, including software kit. Components include an eight (8) channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of five (5) Transit Bus functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of two (2) exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus four (4) interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for one (1) or more Transit Buses with matching camera system. Minimum components include software, mouse, 5-6" monitor (or DVR viewing software), HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR: Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:	Seon TH8 SEON CQ903A and CJ904A SEON CA104EI20	$3,047.20
Back Up Camera System	Upgrade the back up radar in Base Item to include a rear view camera.			$310.20
Spare Tire and Rim	Provide a matching spare tire and rim (shipped loose).			$227.48
Driver Side Running Board	Install a diamond plate additional step up for driver entry.			$240.92

Contractor:	Shepard Bros., Inc.

LOT E

Dual Rear Wheel Cutaway <22 ft., 11 Passenger [10A/1WC]

PART 1: Product information for the Base Item awarded		
Chassis Make	The OEM company name of the Chassis Model.	Ford
Chassis Model	A particular brand of Chassis sold by an OEM.	E350
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	E3F
Body Make	The OEM company name of the Body Model.	Coach and Equipment
Body Model	A particular brand of Body sold by an OEM.	Phoenix
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	OAL 263

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §33, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section 3.1.1 Price and 3.1.4 Contract Pricelist for additional information about Contract pricing.	$61,557.12

PART 3: Base Item Specifications

The terms and conditions in Contract Section 3.2 Transit Bus Requirements shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information provided in Column D	Spec for Equipment Provided
General	Capacity: Minimum ten (10) adult passenger seats, plus one (1) wheelchair station	Capacity:	10 Passenger + 1 Wheelchair
General	Floor plan matches "Figures" tab. The floor plan shall provide a minimum of 27.5" hip-to-knee for all seated positions, with the wheelchair footprint a minimum of 50" x 30".	Manufacturer Floor Plan #:	LOT E FlatF 10P1WC0FFF
General	When ordering additional wheelchair and foldaway seats, the floor plan shall be capable of providing up to four (4) wheelchairs, one (1) 2-passenger fixed seat, plus four (4) 2-passenger forward facing foldaway seats.		
General	Drive configuration: Minimum forward control dual rear wheel (DRW)		
General	Have completed federal STURAA (Altoona) bus testing of not less than five (5) years/150,000 miles or have been certified as exempt as specified under FTA provisions.		
General	GVWR: 12,300 minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lb.]:	12500
General	Wheelbase: 160" (plus or minus 10")	Wheelbase [inches]:	158"
General	Minimum 72" continuous passenger aisle headroom	Headroom [inches]:	74"
General	Shall include an "Electronic Stability Control" system that improves stability by detecting and reducing loss of traction.		
Chassis (see specifications below)			
Cab	A standard sedan door on the driver's side shall be OEM Chassis supplied.		
Engine	Minimum 6.0 liter, 8 cylinder gasoline engine rated minimum 300 HP x 300 lb. ft. torque.	Number of Cylinders:	8
		Liters:	7.3L
		Horsepower and Torque:	300 Hp 425 lb. ft. torque
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 35-gallon tank	Tank Size [Gallons]:	40
Cooling System	Chassis manufacturers heaviest duty cooling system available for Chassis supplied and protected to minus 30°F		
Electrical	225 amp OEM alternator	Alternator Capacity [amps]:	240
Electrical	Dual Heavy Duty Batteries, minimum 1300 CCA total, which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0°F]:	750
		CCA each battery:	750
		Minutes RC:	140
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	Transmission shall include an automatic transmission with heavy duty or additional oil cooler.	Transmission Model #:	6 Speed O/D w/ Tow Haul w/ Aux Cooler
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 4,100 lb.	FGAWR [lb.]:	5000
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 7,500 lb.	RGAWR [lb.]:	8500
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	Front Springs rated at 5,000 lb. minimum and Rear Springs rated at 8,500 lb. minimum	Front Spring Rating [lb.]:	5000
		Rear Spring Rating [lb.]:	8500
Shock Absorbers	Heavy Duty	Make and Model #:	Ford Oem Gas Typ
Brakes	ABS power brakes meeting FMVSS 49CFR571.105	Service Brakes [total lining or sweep area] both front & rear:	614.3 sq in.
Parking Brake	Foot-operated parking brake		

Contractor:	**Shepard Bros., Inc.**		
LOT E			
Dual Rear Wheel Cutaway <22 ft., 11 Passenger [10A/1WC]			
Tires	Manufacturer's standard all-season radial tread or rib tread w/mud and snow rear, as required to meet the GVWR specified	Radial Tires [size]:	LT225/75Rx16E BSW
		Radial Tires [load]:	E
		Radial Tires [range]:	E
		Radial Tires [manufacturer]:	Hankook
		Front Tires [tread design]:	A/S
		Front Tires [capacity/tire]:	2470
		Rear Tires [tread design]:	A/S
		Rear Tires [capacity/tire]:	2470
Front Bumper	Shall be made of, or covered with, a rust proof material. Front bumper may be OEM chrome or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	Chrome
		Front Bumper [manufacturer]:	Ford OEM
Steering	Power steering	Turning Diameter [at end of front bumper]:	54.8'
Steering Wheel	Tilt steering wheel		
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Radio	Chassis Manufacturer's standard AM/FM Digital Clock Radio, with one driver speaker and two cabin speakers.	Manufacturer:	Ford OEM
		Model #:	AM/FM/Bluetooth
Exterior Equipment	Rear tow hooks		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall be at the rear of the Transit Bus and shall exit on the street side, aft of the rear axle. The system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or fobs		
Body (see specifications below)			
Body Structure	Shall consist of a heavy-duty integral steel Body roll cage structure (from curbside to street side floor connections) fabricated of square or rectangular tubing (or structurally equivalent hat section member) and be in full compliance with Title 17 NYCRR Part 720.4(b)(1). Roll cage shall extend forward sufficiently to protect driver in the event of rollover. Documentation consisting of detailed explanation and dimensional drawing supporting the Body structures compliance shall be supplied with bid submission for each vehicle classification, including current substantiating documentation (not older than 5 years unless the structure has not been significantly modified as defined by 49 CFR 665) confirming compliance with FMVSS 220.		
Body	Minimum 90" interior Body width (from sidewall to sidewall). Exterior shall be smooth and free of any visible fasteners. Exterior Siding shall be 25-gauge protected (i.e. galvanized) steel (or 24-gauge aluminum) with smooth surface or laminated fiberglass composite reinforced with insulation that is foamed in place or resin hardened honeycomb. Body shall be compliant to all stated General Body specifications. Interior sidewalls shall be fiberglass, vinyl clad aluminum or Compatible Equivalent material. Insulation in walls and ceiling shall be fiberglass, resin-hardened honeycomb (FRP) material, polyurethane, or closed cell EPS foam. Vinyl padding may be used for finish to the drivers area, modesty panels, or other interior trim. All cover materials must meet FMVSS 302 flammability requirements.	Exterior Siding [material/thickness]:	Galvinized Steel 24 Guage
		Interior Paneling [material/thickness]:	FRP .06"
		Insulation [material/R Value]:	6
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	2
Exterior Equipment	Reverse alarm		
Exterior Equipment	Back up radar alarm with four (4) bumper mounted sensors. Alarm shall provide an audible alert plus include a dash area mounted LED distance display.	Manufacturer:	Hawkeye
		Model #:	A-Hawk401-A
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior Body lights (non-OEM Chassis) for these purposes must meet current SAE standards and shall be sealed Light Emitting Diode (LED) type lights on an active regulator circuit that assures uniform illumination of all the LED lighting down to eight (8) volts. All exterior clearance lights shall be armored (or low-profile design or sufficiently body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door. A mid-ship turn signal shall also be installed on each side of the Transit Bus Body.		
Batteries	One (1) auxiliary battery shall be mounted in an easily accessible fully enclosed and properly ventilated battery box with stainless steel (or an acceptable non-corrosive material) slide out (with roller track) battery tray located in the Transit Bus skirt or driver's step and shall include a clearly labeled disconnect switch that shuts off all current to the Transit Bus Body. Battery Box shall be accessible through a hinged door access which shall be labeled in conformance with Title 17 NYCRR Part 720.6(a). Door shall be affixed with stainless steel fasteners. One (1) OEM battery shall be located under the hood.		
Gutters/Drip Molding	Shall be installed above all windows and doors, preventing water from draining onto doors and windows.		
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and advertising is prohibited, other than for necessary safety information		
Rear Bumper	Shall be made of, or covered with, a rust proof material. Rear bumper shall be stainless steel or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]:	Stainless Steel
		Rear Bumper [manufacturer]:	Tru-Form
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the Transit Bus and shall comply with SAE J686.		
Exterior Mirror Frames	Mirror Frames and Extension Arms shall be made of rustproof material (i.e. stainless steel/durable plastic) and shall be adequate to prevent excessive vibration of the mirror(s).	Manufacturer:	Rosco
		Model #:	ASM00500247/ASM0

Contractor:	Shepard Bros., Inc.		

LOT E

Dual Rear Wheel Cutaway <22 ft., 11 Passenger [10A/1WC]

Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled, with the switch(s) to be installed at a prior approved location. In no case shall the switch be mounted above the windshield. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature. Extension Arms shall be provided on mirrors to allow for a clear and unobstructed view to rear regardless of Transit Bus width.	Manufacturer: Model #:	Rosco ASM00500247/ASM00500248
Interior Mirror	Rear view mirror 6" x 30" flat or 6” x 9” convex shall be provided	Mirror Size [inches]:	6"x30"
Windows	Passenger windows shall be “T” slider top ventilating or push-out horizontal transit slider type with a minimum 28% tint (light reduction in the passenger compartment). Side and rear windows shall be metal frame construction (painted black) with tempered safety or laminate glass and shall meet FMVSS 217 retention requirements.	Passenger Window [type]: Passenger Window [size]:	T-Slider 31.25"x25.5"
Windows	Twin rear windows are required and shall be manufacturer's standard (6” x 18” minimum) on each side of emergency exit door or special service door. Emergency exit door, when located in rear of Transit Bus, shall include an upper and lower window		
Windows	Window placement shall conform to manufacturer’s standard spacing for length of Transit Bus offered. Placement and installation of the windows shall not diminish the structural integrity of Transit Bus. Windows installed as emergency exits as required by FMVSS shall also comply with Title 17 NYCRR Part 720,5 requirements.		
Floor Assembly	Shall be insulated and shall include a minimum 5/8” thick marine grade plywood, or 3/4" Advantech sub-floor, or Compatible Equivalent. A light colored (e.g. light gray), floor covering shall have a non-slip surface that remains effective in all weather conditions and meet FMVSS 302 and ADA requirements.		
Entrance Step	Shall be a low height, front entrance step (lowest practical) and shall comply with ADA 1192. A low-voltage electric step heater shall be installed in the bottom step and activated by a rocker switch on the dash board.	Top of first step above ground [inches]:	12
Steps	All step edges shall be a minimum of 9” in depth and have a high visible yellow nosing band running the full width of each step. Transit Buses shall have a maximum of two (2) steps (not including ground to first step) with risers not to exceed 10” in height. Steps shall comply with ADA 1192. *NOTE: A raised floor (3 steps) is acceptable in the Base Item, if a standard floor cannot be offered. If a raised floor is included in the Base Item, pricing for the "Raised Floor" Optional Equipment should be listed as $0.00.*		
Entrance Door(s)	A “walk through” minimum 74” high headroom right front entrance door with a minimum clear entry opening of 28” constructed with top and bottom (or length of door) viewing windows and a heavy duty electric opener shall be provided. An interlock (Intermotive Gateway or Compatible Equivalent) shall be installed and programmed that prevents the door from being opened or closed unless the Transit Bus speed equals zero (0). Door leading and sectional edges shall be equipped with approximately 2” extruded rubber edges to form weather-tight seal. Door shall be affixed with hinges that provide corrosion protection and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Entrance door surround (portal) and step well shall be constructed from stainless steel or material with Compatible Equivalent corrosion resistant properties. Entrance door shall comply with FMVSS 217.	Entrance Door clear opening [inches]:	30"
Door Entry Grab Rails (right and left side)	Shall be installed on each side of entry, parallel to the steps, securely fastened and a minimum 1 1/4" diameter made of stainless steel powder coated material, or non-slip Compatible Equivalent, and shall be a high visible yellow in color, accessible from first step to floor of Transit Bus.		
Emergency Exit Door	Shall be at the rear center of the Transit Bus, in compliance with FMVSS and Title 17 NYCRR Part 720.5 requirements. An interior locking device (vandal lock) shall be provided for emergency exit door(s) and an LED driver station warning light shall be provided to indicate when door is locked. A device shall be installed to prevent the engine from starting when the door is locked. Exterior door handle shall be non-locking. Door shall be constructed with two (minimum 12” x 18”) windows situated at the top and bottom of door. Door surround (portal) shall be stainless steel or material with Compatible Equivalent corrosion resistant properties. Door shall be affixed with stainless steel hinges and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable)		
Overhead Hand Rail	Two (2) full-length overhead (ceiling) handrails shall be provided and securely attached to roof structure, which shall be continuous except for a gap at the rear doorway, in accordance with Part 38 of the ADA.		
Driver Barrier	Driver Barrier constructed of a vertical and horizontal stanchion, a padded modesty panel, and transparent durable plastic material, or Compatible Equivalent, shall be installed directly behind driver seat. A gap between the ceiling and top of the plexiglass shall be 2" (plus or minus .5").		
Padded Panels	Shall be provided attached to a vertical and horizontal stanchion behind the step well. The gap between the floor and bottom of the panel shall meet NYS DOT specifications.		
Intentionally Omitted	Intentionally Omitted		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		
Wheelchair Lift Door(s)	Install a wheelchair entrance/exit door(s) (special service door) affixed with stainless steel hinges, door trim and fasteners (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Door surround (portal) shall be stainless steel or material with equal corrosion resistant properties. Each door shall include a window and a positive fastening device to hold door in the open position (“hold open” feature). The special service door shall be equipped with a locking device (Padlock and hasp are not acceptable). All items, including lighting, shall be in compliance with ADA and FMVSS 403 & 404.		

Contractor:	Shepard Bros., Inc.		

LOT E

Dual Rear Wheel Cutaway <22 ft., 11 Passenger [10A/1WC]

Wheelchair Lift	The wheelchair lift shall be automatic electric/hydraulic type (power-up, gravity down) using dual hydraulic cylinders. The hydraulic reservoir capacity shall be at least one (1) quart, with easy access for inspection and servicing. The maximum power draw shall not exceed 70 amps at 12 volts. Wheelchair lift unit shall be a Public Use Lift and shall be installed in accordance with manufacturer's standards. The lift must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the lift shall be provided in the event of a power failure.	Manufacturer: Model #:	Braun NCL1000FIB3454-2
Wheelchair Lift	Shall be capable of a minimum of 2500 cycle operation with a minimum of 1000 lb. lift capacity.		
Wheelchair Lift	Platform size shall be minimum 34" x 54" (of useable space) and lift capacity shall be minimum 1,000 lb. Wheelchair lift platform shall be constructed of expanded metal grating with left and right side 2 1/2" high safety stops plus a spring loaded or power activated ADA front stop. A pendent type operating control with a cable length sufficient to allow operation of lift at outermost platform position shall be provided. Lift platform shall be automatic power fold/unfold design.	Platform Size [inches]:	34x54
Wheelchair Lift	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the lift unless door(s) are opened and transmission is in park with parking brake applied. A manual override system in case of power failure shall also be provided. Lift electric system shall be protected with fuse or circuit breaker.	Manufacturer: Model #:	Intermotive HL510-BD
Wheelchair Lift	The spring load, deck end, stop shall be retracted while the lift deck is in the load/unload (down) position. This shall enable the operator to load the lift without holding the stop in its retracted position.		
Wheelchair Lift	Two (2) folding handrails on lift platform shall be provided. Handrails shall not reduce platform size.		
Wheelchair Lift	Labeled dash mounted visual alarm (in compliance with Chapter VI, Article III, Parts 720/721, NYCRR) to indicate special service door is not fully closed, shall be provided.		
Wheelchair Lift Barrier	Protective panel with vertical stanchion (consistent with Door Entry Grab Rail specifications), constructed of durable material, shall be installed directly adjacent to the wheelchair lift (when installed) to prevent shearing action between the lift platform and Transit Bus floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs).		
Lighting- Driver Dome Light	An independently controlled LED overhead dome light over driver area producing six (6) foot candles when measured at the steering wheel.		
Lighting (Interior)	Overhead, entrance, step well, and lift lights shall provide no less than two (2) foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one (1) foot-candle of illumination on the street surface with three (3) feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and step well 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.		
Lighting (Interior)	Interior lighting shall provide a minimum of two (2) foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair lift support brackets, air conditioner units or other similar items shall be padded to prevent injury.		
Heater(s)	An OEM dash air conditioning system plus one (1) 60,000 BTU rear heater shall be provided. Sufficient BTU capacity of front and rear under seat heaters shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. A dash mounted (or other approved location) circulating fan shall be provided for increased circulation of heating and defrosting in driver area. Interior temperature shall be uniform throughout passenger compartment area. Shut-off valves shall be provided for shut-off of main and auxiliary heaters. The first valve shall be located below or behind the driver's entry step well. The second valve shall be located downstream of the second heater. Both shall be labeled providing clear indication of the shut-off valve locations to the driver. Passenger compartment heater hoses shall be equipped with full-flow quarter-turn valves located in a protected location. Location of valves shall be indicated with a label stating "Heater Shutoff Valves" and located to be visibly obvious. All heater hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.	Manufacturer: Model #:	Pro Air 66 000 441
Air Conditioning	Air conditioning system that shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside the Transit Bus (as measured from the approximate Transit Bus center) a minimum of 1°F for every ninety (90) seconds. (Air Conditioner Manufacturer's Certification that performance requirement for Transit Bus type can be met must be submitted with bid).		

Contractor:	**Shepard Bros., Inc.**		
LOT E			
Dual Rear Wheel Cutaway <22 ft., 11 Passenger [10A/1WC]			
Air Conditioning	Air Conditioning shall be designed as two (2) independent systems. One system shall be OEM Chassis supplied, dedicated for cooling and moisture removal from the windshield and drivers area. The second system shall function separate from the OEM dash, with separate controls, engine driven compressor, skirt condenser, and passenger cabin evaporator. BTU and CFM capacities (rear system and front system together) considered minimum required are 52,000 BTU and 800 CFM.	Manufacturer: Model #: A/C Capacity [Chassis BTUH]: A/C Capacity [Body BTUH]: A/C Airflow [Cab CFM]: A/C Airflow [Body CFM]:	MCC 7W12MAX 15k 50k 465 1600
Air Conditioning	The cabin evaporator shall include directional and adjustable discharge ports. The evaporator shall be installed so as not to intrude from the rear bulk head under or less than 12" horizontally into the passenger compartment. Any sharp edges and/or exposed metal associated with the AC unit must have these edges/surfaces appropriately padded to provide for passenger head protection. Aisle height requirements will be measured from a point directly in front of the AC unit. Side mounted evaporators are not permitted.		
Air Conditioning	Each air conditioning system shall use R134A refrigerant. All system components subject to corrosion from moisture shall be aluminum, copper, stainless steel, galvanized, or epoxy coated. All exterior exposed air conditioning electrical connections must utilize weather pac plugs or Compatible Equivalent. An air intake screen shall be installed on the skirt of the Transit Bus to ensure sufficient airflow through the skirt mounted condenser coil. All hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.		
Safety Vent (three way)	Shall be installed and centered on the roof of the passenger compartment. Vent shall provide for fresh air ventilation, static type exhaust with fresh air ventilation and static type exhaust; and shall be equipped with release handle to provide for emergency exit. Size shall be minimum of 24" x 24".	Make: Model #: Size [inches]:	Transpec T1176-004-1C1 24x24
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Manufacturer: Model #:	Ford OEM Power Pedestal
Seating	Upholstered transit type seats for a minimum of ten (10) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		
Seating	Mid-high back, adult passenger seats shall be supplied in individual passenger modules, Freedman model "GO Seat ES", or other Compatible Equivalent. All ambulatory seats shall be forward facing. Seat cushions per passenger shall be a minimum of 17" in width and 17" in depth, and seat back shall be a minimum of 24" in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the Transit Bus. All seat cushions shall have identical upholstery and a spring suspension system. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.	Manufacturer: Model #:	Freedman GO-ES
Seating	Minimum seat widths shall be 17" single and 34" double seats. Aisle width shall be a minimum of 14".	Single Seat Width [inches]: Double Seat Width [inches]: Minimum Aisle Width [inches]:	17.5 35 14
Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, Regions, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		
Seating	An approved retractable style integrated 3-point lap and shoulder seat belt shall be provided for each seating space and shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space, and two (2) seat belt extensions shall be provided with each Transit Bus.		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all forward facing seats (including flip seats) and shall be mounted/welded to seat frame structure. This does not apply to single seat positioned immediately forward of the wheelchair lift.		

Contractor:	**Shepard Bros., Inc.**

LOT E

Dual Rear Wheel Cutaway <22 ft., 11 Passenger [10A/1WC]

Wheelchair & Wheelchair Occupant Restraints	One (1) Wheelchair Restraint System (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Occupant restraint system (including lap belt, shoulder belt with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of Transit Bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belt, and shoulder belt with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-10007 or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouch shall be provided to completely secure belts/straps on Transit Bus sidewalls when not in use. All items shall be installed in accordance with manufacturer's standards and be in compliance with ADA, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the Transit Bus interior at a minimum of one (1) restraint position.	Manufacturer: Model #:	Qstraint Q-10007
Miscellaneous	Provide and install an electronic post-trip interior inspection system that emits an audible tone once the ignition is turned off, requiring the driver to walk to the rear interior bulkhead and depress a button to deactivate.	Manufacturer: Model #:	Child Checkmate EP1
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver's seat position) in the front entry area of the Transit Bus. Equipment location shall be clearly identified.		
Miscellaneous	Storage compartment with door shall be provided and recessed in the center front cap portion of the Transit Bus or positioned over the driver's area if the front cap portion is not used for destination signage or air conditioner evaporator placement. The compartment must be sealed and must not have any exposed wires, protrusions or sharp edges		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]: Chassis Warranty [miles]:	3 36k
Body Warranty	Covering the integrity of the Transit Bus Body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]: Body Warranty [miles]:	5 150k
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The Chassis OEM air conditioning system coverage falls under the Chassis warranty.	Air Conditioning Warranty [years]:	2
Wheelchair Lift Warranty	The lift shall be fully guaranteed by the manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section 3.2 Transit Bus Requirements. See Section 3.1.3 Optional Equipment Unit Price for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Additional Interior Cabin Space	Increase the Body length a minimum of 12" above the Base Item Body length, (Note: may require a second wheelchair to comply with ADA).	Overall Body Length: Wheelbase:	278" 158"	$0.00
Additional Wheelchair Restraint System	Delete the minimum number of seats required for proper spacing (4 maximum) and price one (1) additional wheelchair station above the quantity required in the Base Item. Price is per position to includes all belts, floor/ shoulder hardware, and storage container			-$146.83
Optional Wheelchair Restraint System	For each wheelchair position in the Base Item, plus additional optional restraint systems, if ordered, install complete "Omni" style floor securements and complete belts kits, Q-Straint Q-10008 or Sur-Lok AL860S-4C-SNC, or Compatible Equivalent.	Manufacturer: Model #:	Qstraint Q-10008	-$62.04
Continuous "L" track	Install five (5) lanes of continuous "L" track (four (4) lanes floor mounts, one (1) lane shoulder harness) for a single wheelchair position (48" length each)			$274.01
Raised Floor	Provide a flat Floor that is raised above the rear wheel well level of the same quality and materials as the Base Item. The raised floor shall add a third step at the step well only; any step aft of the step well is not acceptable.			$0.00
Additional Seat (3-Step Fold Away; and Forward Facing)	When not included in the Base Item, provide and install one (1) forward facing fold-away flip seat at a wheelchair station area which shall be a Freedman model "GO ES Space Saver" seat or other Compatible Equivalent. Flip seat may be lowered to accommodate two (2) ambulatory passengers, when not in use as a wheelchair station. Seat shall be of the same type (including grab handles) and color as standard seats measuring (per passenger) a minimum of 17" in width x 17" in depth x 24" in height as measured from the edge of the cushion. Raising/lowering of the seat shall be accomplished manually and shall include a lock to secure the seat in the raised position. Raised seat plus wheelchair shall not block legal aisle. Integrated 3-point lap and shoulder belts shall be provided at each seating location to accommodate an adult ambulatory passenger and shall be in compliance with FMVSS 210. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.			$978.16

Contractor:	Shepard Bros., Inc.			
LOT E				
Dual Rear Wheel Cutaway <22 ft., 11 Passenger [10A/1WC]				
Air Conditioning System (Roof Mounted Condenser)	Provide and install Air Conditioning System as specified in the Base Item, except air conditioning system condenser shall be a roof mounted unit.			$741.38

Contractor:	**Shepard Bros., Inc.**			
LOT E				
Dual Rear Wheel Cutaway <22 ft., 11 Passenger [10A/1WC]				
Camera Security System- 6 monitor	Provide and install a complete camera recording system, including software kit. Components include an eight (8) channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of five (5) Transit Bus functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of two (2) exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus four (4) interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for one (1) or more Transit Buses with matching camera system. Minimum components include software, mouse, 5-6" monitor (or DVR viewing software), HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR: Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:	Seon TH8 SEON CQ903A and CJ904A SEON CA104EI20	$3,047.20
Back Up Camera System	Upgrade the back up radar in Base Item to include a rear view camera.			$310.20
Spare Tire and Rim	Provide a matching spare tire and rim (shipped loose).			$227.48
Driver Side Running Board	Install a diamond plate additional step up for driver entry.			$237.82

Contractor:	Alliance Bus Group Inc.

LOT F

Low Floor Cutaway, 17 Passenger [15A/2WC]

PART 1: Product information for the Base Item awarded		
Chassis Make	The OEM company name of the Chassis Model.	Chevrolet
Chassis Model	A particular brand of Chassis sold by an OEM.	Express 4500 GM Cutaway
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	CG33803
Body Make	The OEM company name of the Body Model.	ARBOC
Body Model	A particular brand of Body sold by an OEM.	Spirit of Mobility
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	LB696

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §33, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section 3.1.1 Price and 3.1.4 Contract Pricelist for additional information about Contract pricing.	$143,493.35

PART 3: Base Item Specifications

The terms and conditions in Contract Section 3.2 Transit Bus Requirements shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information provided in Column D	Spec for Equipment Provided
General	Capacity: Minimum fifteen (15) adult passenger seats, plus two (2) wheelchair stations	Capacity:	15 & 2
General	Floor plan matches "Figures" tab. The floor plan shall provide a minimum of 27.5" hip-to-knee for all seated positions, with the wheelchair footprint a minimum of 50" x 30".	Manufacturer Floor Plan #:	1206331-2
General	Drive configuration: Minimum forward control dual rear wheel (DRW)		
General	Have completed federal STURAA (Altoona) bus testing of not less than five (5) years/150,000 miles or have been certified as exempt as specified under FTA provisions.		
General	GVWR: 14,000 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lb.]:	14200
General	Wheelbase: 195" (plus or minus 15")	Wheelbase [inches]:	191"
General	Minimum 75" continuous passenger aisle headroom	Headroom [inches]:	77" minimum
General	Shall include an "Electronic Stability Control" system that improves stability by detecting and reducing loss of traction.		
Chassis (see specifications below)			
Cab	A standard sedan door on the driver's side shall be OEM Chassis supplied.		
Engine	Minimum 6.0 liter, V-8 gasoline engine rated minimum 300 HP x 300 lb. ft. torque.	Number of Cylinders:	8
		Liters:	6
		Horsepower and Torque:	HP: 341 @ 5400 Torque: 373 @ 4200
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 60-gallon tank	Tank Size [Gallons]:	57
Cooling System	Chassis manufacturers heaviest duty cooling system available for Chassis supplied and protected to minus 30°F		
Electrical	145 amp OEM alternator		
Electrical	Dual Heavy Duty Batteries, minimum 1300 CCA total, which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0°F]:	1540
		CCA each battery:	(2) 770
		Minutes RC:	120RC
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	Transmission shall include an automatic transmission with heavy duty or additional oil cooler.	Transmission Model #:	MYD
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 4,600 lb.	FGAWR [lb.]:	4600
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 9,500 lb.	RGAWR [lb.]:	9600
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	Front /rear air suspension with engine driven or electric driven compressors that shall automatically kneel a minimum of 4".	Front Suspension Rating [lb.]:	4600
		Rear Suspension Rating [lb.]:	9600
Shock Absorbers	Heavy Duty	Make and Model #:	Front: OEM
Brakes	ABS power brakes meeting FMVSS 49CFR571.105	Service Brakes [total lining or sweep area] both front & rear:	Front: 12.8 x 1.5" Rear: 13.58 x 1.6"
Parking Brake	Foot-operated parking brake		

Contractor:	**Alliance Bus Group Inc.**		
LOT F			
Low Floor Cutaway, 17 Passenger [15A/2WC]			
Tires	Manufacturer's standard all-season radial tread or rib tread w/mud and snow rear, as required to meet the GVWR specified	Radial Tires [size]:	LT225/75R16E
		Radial Tires [load]:	Front-115, Rear-112
		Radial Tires [range]:	E
		Radial Tires [manufacturer]:	OEM
		Front Tires [tread design];	All Weather
		Front Tires [capacity/tire]:	2680
		Rear Tires [tread design];	All Weather
		Rear Tires [capacity/tire]:	2470
Front Bumper	Shall be made of, or covered with, a rust proof material. Front bumper may be OEM chrome or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	Chrome
		Front Bumper [manufacturer]:	OEM
Steering	Power steering	Turning Diameter [at end of front bumper]:	34'6"
Steering Wheel	Tilt steering wheel		
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Radio	Chassis Manufacturer's standard AM/FM Digital Clock Radio, with one driver speaker and two cabin speakers.	Manufacturer:	OEM
		Model #:	U0F
Exterior Equipment	Rear tow hooks		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall be at the rear of the Transit Bus and shall exit on the street side, aft of the rear axle. The system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or fobs		
Body (see specifications below)			
Body Structure	Shall consist of a heavy-duty integral steel Body roll cage structure (from curbside to street side floor connections) fabricated of square or rectangular tubing (or structurally equivalent hat section member) and be in full compliance with Title 17 NYCRR Part 720.4(b)(1). Roll cage shall extend forward sufficiently to protect driver in the event of rollover. Documentation consisting of detailed explanation and dimensional drawing supporting the Body structures compliance shall be supplied with bid submission for each vehicle classification, including current substantiating documentation (not older than 5 years unless the structure has not been significantly modified as defined by 49 CFR 665) confirming compliance with FMVSS 220, and 214.		
Body	Minimum 90" interior Body width (from sidewall to sidewall). Exterior shall be smooth and free of any visible fasteners. Exterior Siding shall be 25-gauge protected (i.e. galvanized) steel (or 24-gauge aluminum) with smooth surface or laminated fiberglass composite (0.090" -0.095" thick) reinforced with insulation that is foamed in place or resin hardened honeycomb. Body shall be compliant to all stated General Body specifications. Interior sidewalls shall be fiberglass, vinyl clad aluminum or Compatible Equivalent material. Insulation in walls and ceiling shall be fiberglass, resin-hardened honeycomb (FRP) material, polyurethane, or closed cell EPS foam. Vinyl padding may be used for finish to the drivers area, modesty panels, or other interior trim. All cover materials must meet FMVSS 302 flammability requirements.	Exterior Siding [material/thickness]:	1.0mm FRP laminated to 2.7mm
		Interior Paneling [material/thickness]:	1.0mm FRP laminated to 2.0mm Azdel for a total of
		Insulation [material/R Value]:	Closed cell EPS foam / R9
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	2
Exterior Equipment	Reverse alarm		
Exterior Equipment	Back up radar alarm with four (4) bumper mounted sensors. Alarm shall provide an audible alert plus include a dash area mounted LED distance display.	Manufacturer:	Intermotive
		Model #:	Hawkeye
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior Body lights (non-OEM Chassis) for these purposes must meet current SAE standards and shall be sealed Light Emitting Diode (LED) type lights on an active regulator circuit that assures uniform illumination of all the LED lighting down to eight (8) volts. All exterior clearance lights shall be armored (or low-profile design or sufficiently body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door. A mid-ship turn signal shall also be installed on each side of the Transit Bus Body.		
Batteries	One (1) auxiliary battery shall be mounted in an easily accessible fully enclosed and properly ventilated battery box with stainless steel (or an acceptable non-corrosive material) slide out (with roller track) battery tray, and shall include a clearly labeled disconnect switch that shuts off all current to the Transit Bus Body. Battery Box shall be accessible through a hinged door access which shall be labeled in conformance with Title 17 NYCRR Part 720.6(a). Door shall be affixed with stainless steel fasteners. One (1) OEM battery shall be located under the hood.		
Gutters/Drip Molding	Shall be installed above all windows and doors, preventing water from draining onto doors and windows.		
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and advertising is prohibited, other than for necessary safety information		
Rear Bumper	Shall be made of, or covered with, a rust proof material. Rear bumper shall be stainless steel or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]:	Rubber
		Rear Bumper [manufacturer]:	Transpec
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the Transit Bus and shall comply with SAE J686.		
Exterior Mirror Frames	Mirror Frames and Extension Arms shall be made of rustproof material (i.e. stainless steel/durable plastic) and shall be adequate to prevent excessive vibration of the mirror(s).	Manufacturer:	Velvac
		Model #:	2020XG

Contractor:	Alliance Bus Group Inc.		
LOT F			
Low Floor Cutaway, 17 Passenger [15A/2WC]			
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled, with the switch(s) to be installed at a prior approved location. In no case shall the switch be mounted above the windshield. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature. Extension Arms shall be provided on mirrors to allow for a clear and unobstructed view to rear regardless of Transit Bus width.	Manufacturer: Model #:	Velvac 2020XG
Interior Mirror	Rear view mirror 6" x 30" flat or 6” x 9” convex shall be provided	Mirror Size [inches]:	6" x 9" Convex
Windows	Passenger windows shall be “T” slider top ventilating or push-out horizontal transit slider type with a minimum 28% tint (light reduction in the passenger compartment). Side and rear windows shall be metal frame construction (painted black) with tempered safety or laminate glass and shall meet FMVSS 217 retention requirements.	Passenger Window [type]: Passenger Window [size]:	T-Slide 36 x 36" and 20 x 36"
Windows	Twin rear windows are required and shall be manufacturer's standard (6” x 18” minimum) on each side of emergency exit door or special service door. Emergency exit door, when located in rear of Transit Bus, shall include an upper and lower window		
Windows	Window placement shall conform to manufacturer’s standard spacing for length of Transit Bus offered. Placement and installation of the windows shall not diminish the structural integrity of Transit Bus. Windows installed as emergency exits as required by FMVSS shall also comply with Title 17 NYCRR Part 720,5 requirements.		
Floor Assembly	Shall be single piece insulating 5/8” thick marine grade plywood with sealed edges and underside of flooring completely sealed from moisture and debris using poly-urea coating, or Compatible Equivalent, and seamless transit grade flooring surface material, or Compatible Equivalent. Low floor must be sufficiently insulated to protect Interior Noise Level, which may not exceed 83 dBA anywhere within passenger compartment area. Floor covering that shall meet FMVSS 302 and ADA requirements for slip resistance.		
Floor Aisle	Any fixed ramp or inclined plane within the cabin shall conform to NYCRR 720.8 (A) (9) aisle requirements. A separate step up aft of the entry stepwell is not acceptable.		
Entrance Step	Shall be a low height, front entrance step (lowest practical) and shall comply with ADA 1192.	Top of first step above ground [inches]:	10.5" kneeling
Steps	Passenger steps are not permitted		
Entrance Door(s)	A “walk through” minimum 74” high headroom right front entrance door with a minimum clear entry opening of 28” constructed with top and bottom (or length of door) viewing windows and a heavy duty electric opener shall be provided. An interlock (Intermotive Gateway or Compatible Equivalent) shall be installed and programmed that prevents the door from being opened or closed unless the Transit Bus speed equals zero (0). Door leading and sectional edges shall be equipped with approximately 2” extruded rubber edges to form weather-tight seal. Door shall be affixed with hinges that provide corrosion protection and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Entrance door surround (portal) and step well shall be constructed from stainless steel or material with Compatible Equivalent corrosion resistant properties. Entrance door shall comply with FMVSS 217.	Entrance Door clear opening [inches]:	39" x 75"
Door Entry Grab Rails (right and left side)	Shall be installed on each side of entry, parallel to the steps, securely fastened and a minimum 1 1/4" diameter made of stainless steel powder coated material, or non-slip Compatible Equivalent, and shall be a high visible yellow in color, accessible from first step to floor of Transit Bus.		
Emergency Exit Door	Shall be at the rear center of the Transit Bus, in compliance with FMVSS and Title 17 NYCRR Part 720.5 requirements. An interior locking device (vandal lock) shall be provided for emergency exit door(s) and an LED driver station warning light shall be provided to indicate when door is locked. A device shall be installed to prevent the engine from starting when the door is locked. Exterior door handle shall be non-locking. Door shall be constructed with two (minimum 12” x 18”) windows situated at the top and bottom of door. Door surround (portal) shall be stainless steel or material with Compatible Equivalent corrosion resistant properties. Door shall be affixed with stainless steel hinges and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable).		
Overhead Hand Rail	Two (2) full-length overhead (ceiling) handrails shall be provided and securely attached to roof structure, which shall be continuous except for a gap at the rear doorway, in accordance with Part 38 of the ADA.		
Driver Barrier	Driver Barrier constructed of a vertical and horizontal stanchion, a padded modesty panel, and transparent durable plastic material, or Compatible Equivalent, shall be installed directly behind driver seat. A gap between the ceiling and top of the plexiglass shall be 2" (plus or minus .5").		
Padded Panels	Shall be provided attached to a vertical and horizontal stanchion behind the step well. The gap between the floor and bottom of the panel shall meet NYS DOT specifications.		
Intentionally Omitted	Intentionally Omitted		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		
Wheelchair and Passenger Access	Modify Transit Bus to provide a power (and manual in event of power failure) transit ramp at entrance door. All items, including lighting, shall be in compliance with ADA,		
Ramp	The ramp shall meet the requirements of Part 38 of the ADA relating to vehicle ramps. Power switches for ramp shall be provided and easily accessible on both the driver console and	Manufacturer: Model #:	Braun RA300

Contractor:	**Alliance Bus Group Inc.**		
LOT F			
Low Floor Cutaway, 17 Passenger [15A/2WC]			
	Body exterior near passenger entry opening. Ramp shall deploy through the main passenger entry opening and be protected from moisture and debris from underside and sufficiently insulated to protect interior noise level. The ramp shall be of aluminum or stainless steel construction, with stainless steel housing. The ramp must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the lift shall be provided in the event of a power failure.		

Contractor:	Alliance Bus Group Inc.		

LOT F

Low Floor Cutaway, 17 Passenger [15A/2WC]

Ramp slope	Maximum ratio of 1:4 slope when ramp is deployed to sidewalk or roadway		
Interlock	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the ramp unless door(s) are opened and transmission is in park with parking brake applied. A manual override system in case of power failure shall also be provided. Ramp electric system shall be protected with fuse or circuit breaker.	Manufacturer: Model #:	I/O Controls G2 Module
Wheelchair Ramp Barrier	Protective panel with vertical stanchion (consistent with Door Entry Grab Rail specifications), constructed of durable material, shall be installed directly adjacent to the passenger entrance to prevent shearing action between the ramp and Transit Bus floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs).		
Lighting- Driver Dome Light	An independently controlled LED overhead dome light over driver area producing six (6) foot candles when measured at the steering wheel.		
Lighting (Interior)	Overhead, entrance, step well, and lift lights shall provide no less than two (2) foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one (1) foot-candle of illumination on the street surface with three (3) feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and step well 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.		
Lighting (Interior)	Interior lighting shall be LED and provide a minimum of two (2) foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair ramp support brackets, air conditioner units or other similar items shall be padded to prevent injury.		
Heater(s)	An OEM dash air conditioning system plus two (2) rear heaters shall be provided. Sufficient BTU capacity of front and rear under seat heaters shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. A dash mounted (or other approved location) circulating fan shall be provided for increased circulation of heating and defrosting in driver area. Interior temperature shall be uniform throughout passenger compartment area. Shut-off valves shall be provided for shut-off of main and auxiliary heaters. The first valve shall be located below or behind the driver's entry step well. The second valve shall be located downstream of the second heater. Both shall be labeled providing clear indication of the shut-off valve locations to the driver. Passenger compartment heater hoses shall be equipped with full-flow quarter-turn valves located in a protected location. Location of valves shall be indicated with a label stating "Heater Shutoff Valves" and located to be visibly obvious. All heater hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.	Manufacturer: Model #:	ProAir 435
Air Conditioning	Air conditioning system that shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside vehicle (as measured from the approximate vehicle center) a minimum of 1°F for every ninety (90) seconds. (Air Conditioner Manufacturer's Certification that performance requirement for vehicle type can be met must be submitted with bid).		
Air Conditioning	Air Conditioning shall be designed as two (2) independent systems. One system shall be OEM Chassis supplied, dedicated for cooling and moisture removal from the windshield and drivers area. The second system shall function separate from the OEM dash, with separate controls, engine driven compressor, roof mounted condenser, and passenger cabin evaporator. BTU and CFM capacities (rear system and front system together) considered minimum required are 68,000BTU and 1,600CFM.	Manufacturer: Model #: A/C Capacity [Chassis BTUH]: A/C Capacity [Body BTUH]: A/C Airflow [Cab CFM]: A/C Airflow [Body CFM]:	Trans/Air TA73 15K 55K 400 1480
Air Conditioning	The cabin evaporator shall include directional and adjustable discharge ports. The evaporator shall be installed so as not to intrude from the rear bulk head under or less than 12" horizontally into the passenger compartment. Any sharp edges and/or exposed metal associated with the AC unit must have these edges/surfaces appropriately padded to provide for passenger head protection. Aisle height requirements will be measured from a point directly in front of the AC unit. Side mounted evaporators are not permitted.		
Air Conditioning	Each air conditioning system shall use R134A refrigerant. All system components subject to corrosion from moisture shall be aluminum, copper, stainless steel, galvanized, or epoxy coated. All exterior exposed air conditioning electrical connections must utilize weather pac plugs or Compatible Equivalent. An air intake screen shall be installed on the skirt of the Transit Bus to ensure sufficient airflow through the skirt mounted condenser coil. All hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.		
Safety Vent (three way)	Shall be installed and centered on the roof of the passenger compartment. Vent shall provide for fresh air ventilation, static type exhaust with fresh air ventilation and static type exhaust; and shall be equipped with release handle to provide for emergency exit. Size shall be minimum of 24" x 24".	Make: Model #: Size [inches]:	Transpec #T1176-016-101 24" x 24"

Contractor:	Alliance Bus Group Inc.		
LOT F			
Low Floor Cutaway, 17 Passenger [15A/2WC]			
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Manufacturer: Model #:	Freedman Shield Sport
Seating	Upholstered transit type seats for a minimum of fourteen (14) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		
Seating	Mid-high back, fixed and 3-step foldaway adult passenger seats shall be supplied in individual passenger modules, Freedman model "GO Seat ES", "GO-ES Seat Space Saver Foldaway", or other Compatible Equivalent. All ambulatory seats shall be forward facing. Seat cushions per passenger shall be a minimum of 17” in width and 17” in depth, and seat back shall be a minimum of 24” in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the Transit Bus. All seat cushions shall have identical upholstery and a spring suspension system. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.	Manufacturer: Model #:	Freedman GO ES 3 PT
Seating	Minimum seat widths shall be 17” single and 34” double seats. Aisle width shall be a minimum of 14”.	Single Seat Width [inches]: Double Seat Width [inches]: Minimum Aisle Width [inches]:	17" 34" 16"
Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, Regions, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		
Seating	An approved retractable style integrated 3-point lap and shoulder seat belt shall be provided for each seating space and shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space, and two (2) seat belt extensions shall be provided with each Transit Bus.		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all forward facing seats (including flip seats) and shall be mounted/welded to seat frame structure. This does not apply to single seat positioned immediately forward of the wheelchair lift.		
Wheelchair & Wheelchair Occupant Restraints	Two (2) Wheelchair Restraint System (Wheelchair and Wheelchair Occupant)shall be provided and installed and designed for "L" track systems. Occupant restraint system (including lap belt, shoulder belt with height adjustment, floor inserts, retractable wheelchair restraint/tidowns, and restraint mounting hardware) meeting the required 30" wide x 48" longADA envelope (or amendments thereto) adjacent to lift at rear of Transit Bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belt, and shoulder belt with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-10007 or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouch shall be provided to completely secure belts/straps on Transit Bus sidewalls when not in use. All items shall be installed in accordance with manufacturer’s standards and be in compliance with ADA, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the Transit Bus interior at a minimum of one (1) restraint position.	Manufacturer: Model #:	Q'Straint Q-10007
Miscellaneous	Provide and install an electronic post-trip interior inspection system that emits an audible tone once the ignition is turned off, requiring the driver to walk to the rear interior bulkhead and depress a button to deactivate.	Manufacturer: Model #:	Child Check Mate EP 1
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver’s seat position) in the front entry area of the Transit Bus. Equipment location shall be clearly identified.		
Miscellaneous	Storage compartment with door shall be provided and recessed in the center front cap portion of the Transit Bus or positioned over the driver’s area if the front cap portion is not used for destination signage or air conditioner evaporator placement. The compartment must be sealed and must not have any exposed wires, protrusions or sharp edges		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]: Chassis Warranty [miles]:	3 years 36,000
Body Warranty	Covering the integrity of the Transit Bus Body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]: Body Warranty [miles]:	5 years 150,000
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The Chassis OEM air conditioning system coverage falls under the Chassis warranty.	Air Conditioning Warranty [years]:	3 years
Wheelchair Ramp Warranty	The ramp shall be fully guaranteed by the manufacturer for three (3) years (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		

Contractor:	Alliance Bus Group Inc.

LOT F

Low Floor Cutaway, 17 Passenger [15A/2WC]

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section 3.2 Transit Bus Requirements. See Section 3.1.3 Optional Equipment Unit Price for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Hybrid System Propulsion	Add a hybrid propulsion system to the Base Item. The hybrid system will be installed downstream of the OEM engine and transmission, conserving energy through regenerative braking, and storing that energy in ultracapacitor(s) or battery(s) for an assist launch. The hybrid system installation and operation shall not void the OEM Chassis warranty. The hybrid system shall provide a minimum 2 year/36,000 mile warranty. Compliant with SAE J2343 and NFPA 52, if applicable.	Hybrid Propulsion System Make and Model #:	XL Fleet Electrification - Model: XL-XLH-GM3500-4500	$25,643.20
Additional Wheelchair Restraint System	Delete the minimum number of seats required for proper spacing (4 maximum) and price one (1) additional wheelchair station above the quantity required in the Base Item. Price is per position to includes all belts, floor/ shoulder hardware, and storage container			-$517.00
Optional Wheelchair Restraint System	For each wheelchair position in the Base Item, plus additional optional restraint systems, if ordered, install complete "Omni" style floor securements and complete belts kits, Q-Straint Q-10008 or Sur-Lok AL860S-4C-SNC, or Compatible Equivalent.	Manufacturer: Model #:	Q'Straint Q-10008	$25.85
Continuous "L" track	Install five (5) lanes of continuous "L" track (four (4) lanes floor mounts, one (1) lane shoulder harness) for a single wheelchair position (48” length each)			$284.35
Additional Seat (3-Step Fold Away; and Forward Facing)	When not included in the Base Item, provide and install one (1) forward facing fold-away flip seat at a wheelchair station area which shall be a Freedman model "GO ES Space Saver" seat or other Compatible Equivalent. Flip seat may be lowered to accommodate two (2) ambulatory passengers, when not in use as a wheelchair station. Seat shall be of the same type (including grab handles) and color as standard seats measuring (per passenger) a minimum of 17” in width x 17” in depth x 24” in height as measured from the edge of the cushion. Raising/lowering of the seat shall be accomplished manually and shall include a lock to secure the seat in the raised position. Raised seat plus wheelchair shall not block legal aisle. Integrated 3-point lap and shoulder belts shall be provided at each seating location to accommodate an adult ambulatory passenger and shall be in compliance with FMVSS 210. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.			$1,395.90
Delete four (4) Passenger Seat Option	Reduce Body length and wheelbase as referenced in the floor plan shown in the "Figures" tab for LOT F, "Delete 4 seat option". Remove four (4) passenger seats on the curb side and forward of the rear wheel well and replace with a dedicated wheelchair station. The capacity will be reduced to thirteen (13) adults (11 seats plus 2 wheelchairs), exclusive of ordering optional foldaway seats.	Body Model #: Overall Body Length : Wheelbase:	SOM 23' 165"	-$3,360.50
Supplemental ADA Transit Package	Provide and install the following items (All items to be in compliance with ADA): Front and side electronic destination signs – LED type (14 rows and 72 columns minimum) and programmable with a USB key, Twin Vision Mobi-Lite or Compatible Equivalent, interior/exterior PA system, pull cord and touch strips chime signal system (at wheelchair positions), two-way radio pre-wire with 30 amp fused circuit, consisting of roof mounted antenna location access, antenna cable conduit with pull cord, and a dedicated circuit with electrical wire terminating in drivers area.			$5,687.00
Camera Security System- 6 monitor	Provide and install a complete camera recording system, including software kit. Components include an eight (8) channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of five (5) Transit Bus functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of two (2) exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus four (4) interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for one (1) or more Transit Buses with matching camera system. Minimum components include software, mouse, 5-6" monitor (or DVR viewing software), HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR: Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:	AngelTrax V12-1200 AngleTrax HD2100V, HD2500V & AngleTrax HD3600V	$4,115.32
Fiberglass Seating	Provide and install FMVSS certified fiberglass transit style seating (4ONE Gemini model, American Seating (Metropolitan and Insight) models, Freedman CitiSeat model or Compatible Equivalent) in lieu of previously specified Base Item seating. Seats shall include a plastic back shell, anti-microbial grab rails, and padded, tough to cut vandal resistant			$775.50
Fare Box (Manual)	Provide and install a fare collection system, cDiamond Model NV or Compatible Equivalent model, complete with all floor mounting hardware and spare vault.	Manufacturer and Model #:	Diamond NV	$1,654.40
Bike Rack	Provide and install a folding device attached to the front of the Transit Bus that is designed and used exclusively for transporting bicycles. The device shall be stainless steel material and may not extend more than 36" from the front Body, and the handlebars of a bicycle transported on such device may not extend more than 42" from the front Body of the Transit Bus. A deployment warning light shall be visible to the driver whenever the bike rack is not in the stowed position.			$2,843.50
Back Up Camera System	Upgrade the back up radar in Base Item to include a rear view camera.			$439.45
Spare Tire and Rim	Provide a matching spare tire and rim (shipped loose).			$387.75

Contractor:	**Alliance Bus Group Inc.**			
LOT F				
Low Floor Cutaway, 17 Passenger [15A/2WC]				
Driver Side Running Board	Install a diamond plate additional step up for driver entry.			$0.00
Alternate Transit Flooring	In lieu of standard floor covering, supply an alternate floor covering, to be a smooth slip resistant vinyl with aluminum oxide granules throughout the entire thickness of the wear layer with silicon carbide and base color quartz in the surface layer. The floor covering shall be a minimum of 2.7mm thick. The floor covering is to include a bacteriostat to prevent growth of mold and mildew for the life of the product. Term of warranty shall be 15 years.	Brand and Model #: Thickness [mm]: Warranty [years]:	Altro Storm 2.7mm 15 years	$646.25

Contractor:	Shepard Bros., Inc.

LOT G

Dual Rear Wheel Cutaway >22 ft., 16 Passenger [14A/2WC]

PART 1: Product information for the Base Item awarded		
Chassis Make	The OEM company name of the Chassis Model.	FORD
Chassis Model	A particular brand of Chassis sold by an OEM.	E450
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	E4F
Body Make	The OEM company name of the Body Model.	Coach and Equipment
Body Model	A particular brand of Body sold by an OEM.	Phoenix
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	OAL 290

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §33, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section 3.1.1 Price and 3.1.4 Contract Pricelist for additional information about Contract pricing.	$66,213.22

PART 3: Base Item Specifications

The terms and conditions in Contract Section 3.2 Transit Bus Requirements shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information provided in Column D	Spec for Equipment Provided
General	Capacity: Minimum fourteen (14) adult passenger seats, plus two (2) wheelchair stations	Capacity:	14 Passengers + 2 Wheelchairs
General	Floor plan matches "Figures" tab. The floor plan shall provide a minimum of 27.5" hip-to-knee for all seated positions, with the wheelchair footprint a minimum of 50" x 30".	Manufacturer Floor Plan #:	LOT G FlatF 14P2WC0FFF
General	When ordering additional wheelchair and foldaway seats, the floor plan shall be capable of providing up to six (6) wheelchairs, one (1) 2-passenger fixed seat, plus five (5) 2-passenger forward facing foldaway seats.		
General	Drive configuration: Minimum forward control dual rear wheel (DRW)		
General	Have completed federal STURAA (Altoona) bus testing of not less than five (5) years/150,000 miles or have been certified as exempt as specified under FTA provisions.		
General	GVWR: 14,200 minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lb.]:	14500
General	Wheelbase: 180" (plus or minus 10")	Wheelbase [inches]:	176
General	Minimum 72" continuous passenger aisle headroom	Headroom [inches]:	74
General	Shall include an "Electronic Stability Control" system that improves stability by detecting and reducing loss of traction.		
Chassis (see specifications below)			
Cab	A standard sedan door on the driver's side shall be OEM Chassis supplied.		
Engine	Minimum 6.0 liter, 8 cylinder gasoline engine rated minimum 300 HP x 300 lb. ft. torque.	Number of Cylinders:	8
		Liters:	7.3L
		Horsepower and Torque:	350 Hp 468 lb. ft. torque
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 60-gallon tank	Tank Size [Gallons]:	55
Cooling System	Chassis manufacturers heaviest duty cooling system available for Chassis supplied and protected to minus 30°F		
Electrical	225 amp OEM alternator	Alternator Capacity [amps]:	240
Electrical	Dual Heavy Duty Batteries, minimum 1300 CCA total, which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0°F]:	750
		CCA each battery:	750
		Minutes RC:	140
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	Transmission shall include an automatic transmission with heavy duty or additional oil cooler.	Transmission Model #:	Elec 6 Speed O/D with Tow Haul
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 4,600 lb.	FGAWR [lb.]:	5000
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 9,500 lb.	RGAWR [lb.]:	9600
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	Front Springs rated at 5,000 lb. minimum and Rear Springs rated at 9,500 lb. minimum	Front Spring Rating [lb.]:	5000
		Rear Spring Rating [lb.]:	9600
Shock Absorbers	Heavy Duty	Make and Model #:	Ford OEM Gas Type
Brakes	ABS power brakes meeting FMVSS 49CFR571.105	Service Brakes [total lining or sweep area] both front & rear:	614.3 sq. in.
Parking Brake	Foot-operated parking brake		

Contractor:	**Shepard Bros., Inc.**		
LOT G			
Dual Rear Wheel Cutaway >22 ft., 16 Passenger [14A/2WC]			
Tires	Manufacturer's standard all-season radial tread or rib tread w/mud and snow rear, as required to meet the GVWR specified	Radial Tires [size]:	LT225/75R16
		Radial Tires [load]:	E
		Radial Tires [range]:	E
		Radial Tires [manufacturer]:	Hankook
		Front Tires [tread design];	A/S
		Front Tires [capacity/tire]:	2470
		Rear Tires [tread design];	A/S
		Rear Tires [capacity/tire]:	2470
Front Bumper	Shall be made of, or covered with, a rust proof material. Front bumper may be OEM chrome or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	Chrome
		Front Bumper [manufacturer]:	OEM
Steering	Power steering	Turning Diameter [at end of front bumper]:	60.3'
Steering Wheel	Tilt steering wheel		
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Radio	Chassis Manufacturer's standard AM/FM Digital Clock Radio, with one driver speaker and two cabin speakers.	Manufacturer:	Ford Oem
		Model #:	AM/FM Bluetooth
Exterior Equipment	Rear tow hooks		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall be at the rear of the Transit Bus and shall exit on the street side, aft of the rear axle. The system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or fobs		
Body (see specifications below)			
Body Structure	Shall consist of a heavy-duty integral steel Body roll cage structure (from curbside to street side floor connections) fabricated of square or rectangular tubing (or structurally equivalent hat section member) and be in full compliance with Title 17 NYCRR Part 720.4(b)(1). Roll cage shall extend forward sufficiently to protect driver in the event of rollover. Documentation consisting of detailed explanation and dimensional drawing supporting the Body structures compliance shall be supplied with bid submission for each vehicle classification, including current substantiating documentation (not older than 5 years unless the structure has not been significantly modified as defined by 49 CFR 665) confirming compliance with FMVSS 220.		
Body	Minimum 90" interior Body width (from sidewall to sidewall). Exterior shall be smooth and free of any visible fasteners. Exterior Siding shall be 25-gauge protected (i.e. galvanized) steel (or 24-gauge aluminum) with smooth surface or laminated fiberglass composite reinforced with insulation that is foamed in place or resin hardened honeycomb. Body shall be compliant to all stated General Body specifications. Interior sidewalls shall be fiberglass, vinyl clad aluminum or Compatible Equivalent material. Insulation in walls and ceiling shall be fiberglass, resin-hardened honeycomb (FRP) material, polyurethane, or closed cell EPS foam. Vinyl padding may be used for finish to the drivers area, modesty panels, or other interior trim. All cover materials must meet FMVSS 302 flammability requirements.	Exterior Siding [material/thickness]:	Galvinized Steel 24 Guage
		Interior Paneling [material/thickness]:	FRP .06"
		Insulation [material/R Value]:	6
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	2
Exterior Equipment	Reverse alarm		
Exterior Equipment	Back up radar alarm with four (4) bumper mounted sensors. Alarm shall provide an audible alert plus include a dash area mounted LED distance display.	Manufacturer:	Hawkeye
		Model #:	A-Hawk401-A
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior Body lights (non-OEM Chassis) for these purposes must meet current SAE standards and shall be sealed Light Emitting Diode (LED) type lights on an active regulator circuit that assures uniform illumination of all the LED lighting down to eight (8) volts. All exterior clearance lights shall be armored (or low-profile design or sufficiently body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door. A mid-ship turn signal shall also be installed on each side of the Transit Bus Body.		
Batteries	One (1) auxiliary battery shall be mounted in an easily accessible fully enclosed and properly ventilated battery box with stainless steel (or an acceptable non-corrosive material) slide out (with roller track) battery tray located in the Transit Bus skirt or driver's step and shall include a clearly labeled disconnect switch that shuts off all current to the Transit Bus Body. Battery Box shall be accessible through a hinged door access which shall be labeled in conformance with Title 17 NYCRR Part 720.6(a). Door shall be affixed with stainless steel fasteners. One (1) OEM battery shall be located under the hood.		
Gutters/Drip Molding	Shall be installed above all windows and doors, preventing water from draining onto doors and windows.		
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and advertising is prohibited, other than for necessary safety information		
Rear Bumper	Shall be made of, or covered with, a rust proof material. Rear bumper shall be stainless steel or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]:	Stainless Steel
		Rear Bumper [manufacturer]:	Tru - Form
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the Transit Bus and shall comply with SAE J686.		
Exterior Mirror Frames	Mirror Frames and Extension Arms shall be made of rustproof material (i.e. stainless steel/durable plastic) and shall be adequate to prevent excessive vibration of the mirror(s).	Manufacturer:	ROSCO
		Model #:	ASM00500247/ASM0

Contractor:	Shepard Bros., Inc.		
LOT G			
Dual Rear Wheel Cutaway >22 ft., 16 Passenger [14A/2WC]			
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled, with the switch(s) to be installed at a prior approved location. In no case shall the switch be mounted above the windshield. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature. Extension Arms shall be provided on mirrors to allow for a clear and unobstructed view to rear regardless of Transit Bus width.	Manufacturer: Model #:	Rosco ASM00500247/ASM0
Interior Mirror	Rear view mirror 6" x 30" flat or 6” x 9” convex shall be provided	Mirror Size [inches]:	6x30
Windows	Passenger windows shall be “T” slider top ventilating or push-out horizontal transit slider type with a minimum 28% tint (light reduction in the passenger compartment). Side and rear windows shall be metal frame construction (painted black) with tempered safety or laminate glass and shall meet FMVSS 217 retention requirements.	Passenger Window [type]: Passenger Window [size]:	T-Slider 31.25x25.5
Windows	Twin rear windows are required and shall be manufacturer's standard (6” x 18” minimum) on each side of emergency exit door or special service door. Emergency exit door, when located in rear of Transit Bus, shall include an upper and lower window		
Windows	Window placement shall conform to manufacturer’s standard spacing for length of Transit Bus offered. Placement and installation of the windows shall not diminish the structural integrity of Transit Bus. Windows installed as emergency exits as required by FMVSS shall also comply with Title 17 NYCRR Part 720,5 requirements.		
Floor	Shall be manufacturer’s raised or flat floor design over the rear wheels. The floor gradient shall remain constant from the entry stepwell to the rear bulkhead. A separate step up aft of the entry stepwell is not acceptable.		
Floor Assembly	Shall be insulated and shall include a minimum 5/8” thick marine grade plywood, or 3/4" Advantech sub-floor, or Compatible Equivalent. A light colored (e.g. light gray), floor covering shall have a non-slip surface that remains effective in all weather conditions and meet FMVSS 302 and ADA requirements.		
Entrance Step	Shall be a low height, front entrance step (lowest practical) and shall comply with ADA 1192. A low-voltage electric step heater shall be installed in the bottom step and activated by a rocker switch on the dash board.	Top of first step above ground [inches]:	12
Steps	All step edges shall be a minimum of 8.5" in depth and have a high visible yellow nosing band running the full width of each step. Transit Buses shall have a maximum of three (3) steps (not including ground to first step) with risers not to exceed 10” in height. Steps shall comply with ADA 1192.		
Entrance Door(s)	A “walk through” minimum 74” high headroom right front entrance door with a minimum clear entry opening of 28” constructed with top and bottom (or length of door) viewing windows and a heavy duty electric opener shall be provided. An interlock (Intermotive Gateway or Compatible Equivalent) shall be installed and programmed that prevents the door from being opened or closed unless the Transit Bus speed equals zero (0). Door leading and sectional edges shall be equipped with approximately 2” extruded rubber edges to form weather-tight seal. Door shall be affixed with hinges that provide corrosion protection and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Entrance door surround (portal) and step well shall be constructed from stainless steel or material with Compatible Equivalent corrosion resistant properties. Entrance door shall comply with FMVSS 217.	Entrance Door clear opening [inches]:	28
Door Entry Grab Rails (right and left side)	Shall be installed on each side of entry, parallel to the steps, securely fastened and a minimum 1 1/4" diameter made of stainless steel powder coated material, or non-slip Compatible Equivalent, and shall be a high visible yellow in color, accessible from first step to floor of Transit Bus.		
Emergency Exit Door	Shall be at the rear center of the Transit Bus, in compliance with FMVSS and Title 17 NYCRR Part 720.5 requirements. An interior locking device (vandal lock) shall be provided for emergency exit door(s) and an LED driver station warning light shall be provided to indicate when door is locked. A device shall be installed to prevent the engine from starting when the door is locked. Exterior door handle shall be non-locking. Door shall be constructed with two (minimum 12” x 18”) windows situated at the top and bottom of door. Door surround (portal) shall be stainless steel or material with Compatible Equivalent corrosion resistant properties. Door shall be affixed with stainless steel hinges and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable).		
Overhead Hand Rail	Two (2) full-length overhead (ceiling) handrails shall be provided and securely attached to roof structure, which shall be continuous except for a gap at the rear doorway, in accordance with Part 38 of the ADA.		
Driver Barrier	Driver Barrier constructed of a vertical and horizontal stanchion, a padded modesty panel, and transparent durable plastic material, or Compatible Equivalent, shall be installed directly behind driver seat. A gap between the ceiling and top of the plexiglass shall be 2" (plus or minus .5").		
Padded Panels	Shall be provided attached to a vertical and horizontal stanchion behind the step well. The gap between the floor and bottom of the panel shall meet NYS DOT specifications.		
Intentionally Omitted	Intentionally Omitted		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		
Wheelchair Lift Door(s)	Install a wheelchair entrance/exit door(s) (special service door) affixed with stainless steel hinges, door trim and fasteners (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Door surround (portal) shall be stainless steel or material with equal corrosion resistant properties. Each door shall include a window and a positive fastening device to hold door in the open position (“hold open” feature). The special service door shall be equipped with a locking device (Padlock and hasp are not acceptable). Wheelchair area opening height shall be a minimum of 68". All items, including lighting, shall be in compliance with ADA and FMVSS 403 & 404.	Opening Height [inches]:	71

Contractor:	**Shepard Bros., Inc.**		
LOT G			
Dual Rear Wheel Cutaway >22 ft., 16 Passenger [14A/2WC]			
Wheelchair Lift	The wheelchair lift shall be automatic electric/hydraulic type (power-up, gravity down) using dual hydraulic cylinders. The hydraulic reservoir capacity shall be at least one (1) quart, with easy access for inspection and servicing. The maximum power draw shall not exceed 70 amps at 12 volts. Wheelchair lift unit shall be a Public Use Lift and shall be installed in accordance with manufacturer's standards. The lift must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the lift shall be provided in the event of a power failure.	Manufacturer:	Braun
		Model #:	NCL1000FIB3454-2
Wheelchair Lift	Shall be capable of a minimum of 2500 cycle operation with a minimum of 1000 lb. lift capacity.		
Wheelchair Lift	Platform size shall be minimum 34" x 54" (of useable space) and lift capacity shall be minimum 1,000 lb. Wheelchair lift platform shall be constructed of expanded metal grating with left and right side 2 1/2" high safety stops plus a spring loaded or power activated ADA front stop. A pendent type operating control with a cable length sufficient to allow operation of lift at outermost platform position shall be provided. Lift platform shall be automatic power fold/unfold design.	Platform Size [inches]:	34x54
Wheelchair Lift	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the lift unless door(s) are opened and transmission is in park with parking brake applied. A manual override system in case of power failure shall also be provided. Lift electric system shall be protected with fuse or circuit breaker.	Manufacturer:	Intermotive
		Model #:	HL510-BD
Wheelchair Lift	The spring load, deck end, stop shall be retracted while the lift deck is in the load/unload (down) position. This shall enable the operator to load the lift without holding the stop in its retracted position.		
Wheelchair Lift	Two (2) folding handrails on lift platform shall be provided. Handrails shall not reduce platform size.		
Wheelchair Lift	Labeled dash mounted visual alarm (in compliance with Chapter VI, Article III, Parts 720/721, NYCRR) to indicate special service door is not fully closed, shall be provided.		
Wheelchair Lift Barrier	Protective panel with vertical stanchion (consistent with Door Entry Grab Rail specifications), constructed of durable material, shall be installed directly adjacent to the wheelchair lift (when installed) to prevent shearing action between the lift platform and Transit Bus floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs).		
Lighting- Driver Dome Light	An independently controlled LED overhead dome light over driver area producing six (6) foot candles when measured at the steering wheel.		
Lighting (Interior)	Overhead, entrance, step well, and lift lights shall provide no less than two (2) foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one (1) foot-candle of illumination on the street surface with three (3) feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and step well 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.		
Lighting (Interior)	Interior lighting shall be LED and provide a minimum of two (2) foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair lift support brackets, air conditioner units or other similar items shall be padded to prevent injury.		
Heater(s)	An OEM dash air conditioning system plus two (2) rear heaters shall be provided. Sufficient BTU capacity of front and rear under seat heaters shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. A dash mounted (or other approved location) circulating fan shall be provided for increased circulation of heating and defrosting in driver area. Interior temperature shall be uniform throughout passenger compartment area. Shut-off valves shall be provided for shut-off of main and auxiliary heaters. The first valve shall be located below or behind the driver's entry step well. The second valve shall be located downstream of the second heater. Both shall be labeled providing clear indication of the shut-off valve locations to the driver. Passenger compartment heater hoses shall be equipped with full-flow quarter-turn valves located in a protected location. Location of valves shall be indicated with a label stating "Heater Shutoff Valves" and located to be visibly obvious. All heater hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.	Manufacturer:	Pro
		Model #:	66 000
Air Conditioning	Air conditioning system that shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside vehicle (as measured from the approximate vehicle center) a minimum of 1°F for every ninety (90) seconds. (Air Conditioner Manufacturer's Certification that performance requirement for vehicle type can be met must be submitted with bid).		

Contractor:	**Shepard Bros., Inc.**		
LOT G			
Dual Rear Wheel Cutaway >22 ft., 16 Passenger [14A/2WC]			
Air Conditioning	Air Conditioning shall be designed as two (2) independent systems. One system shall be OEM Chassis supplied, dedicated for cooling and moisture removal from the windshield and drivers area. The second system shall function separate from the OEM dash, with separate controls, engine driven compressor, skirt condenser, and passenger cabin evaporator. BTU and CFM capacities (rear system and front system together) considered minimum required are 68,000BTU and 1,600CFM.	Manufacturer:	MCC
		Model #:	7W13 MAX
		A/C Capacity [Chassis BTUH]:	15000
		A/C Capacity [Body BTUH]:	55000
		A/C Airflow [Cab CFM]:	465
		A/C Airflow [Body CFM]:	1600
Air Conditioning	The cabin evaporator shall include directional and adjustable discharge ports. The evaporator shall be installed so as not to intrude from the rear bulk head under or less than 12" horizontally into the passenger compartment. Any sharp edges and/or exposed metal associated with the AC unit must have these edges/surfaces appropriately padded to provide for passenger head protection. Aisle height requirements will be measured from a point directly in front of the AC unit. Side mounted evaporators are not permitted.		
Air Conditioning	Each air conditioning system shall use R134A refrigerant. All system components subject to corrosion from moisture shall be aluminum, copper, stainless steel, galvanized, or epoxy coated. All exterior exposed air conditioning electrical connections must utilize weather pac plugs or Compatible Equivalent. An air intake screen shall be installed on the skirt of the Transit Bus to ensure sufficient airflow through the skirt mounted condenser coil. All hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.		
Safety Vent (three way)	Shall be installed and centered on the roof of the passenger compartment. Vent shall provide for fresh air ventilation, static type exhaust with fresh air ventilation and static type exhaust; and shall be equipped with release handle to provide for emergency exit. Size shall be minimum of 24" x 24".	Make:	Transpec
		Model #:	T1176-004-1C1
		Size [inches]:	24x24
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Manufacturer:	Ford OEM
		Model #:	Power Pedestal
Seating	Upholstered transit type seats for a minimum of fourteen (14) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		
Seating	Mid-high back, adult passenger seats shall be supplied in individual passenger modules, Freedman model "GO Seat ES", or other Compatible Equivalent. All ambulatory seats shall be forward facing. Seat cushions per passenger shall be a minimum of 17" in width and 17" in depth, and seat back shall be a minimum of 24" in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the Transit Bus. All seat cushions shall have identical upholstery and a spring suspension system. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.	Manufacturer:	Freedman
		Model #:	GO-ES
Seating	Minimum seat widths shall be 17" single and 34" double seats. Aisle width shall be a minimum of 14".	Single Seat Width [inches]:	17.5
		Double Seat Width [inches]:	35
		Minimum Aisle Width [inches]:	14
Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, Regions, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		
Seating	An approved retractable style integrated 3-point lap and shoulder seat belt shall be provided for each seating space and shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space, and two (2) seat belt extensions shall be provided with each Transit Bus.		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all forward facing seats (including flip seats) and shall be mounted/welded to seat frame structure. This does not apply to single seat positioned immediately forward of the wheelchair lift.		
Wheelchair & Wheelchair Occupant Restraints	Two (2) Wheelchair Restraint System (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Occupant restraint system (including lap belt, shoulder belt with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of Transit Bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belt, and shoulder belt with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-10007 or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouch shall be provided to completely secure belts/straps on Transit Bus sidewalls when not in use. All items shall be installed in accordance with manufacturer's standards and be in compliance with ADA, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the Transit Bus interior at a minimum of one (1) restraint position.	Manufacturer:	Q-Straint
		Model #:	Q-10007
Miscellaneous	Provide and install an electronic post-trip interior inspection system that emits an audible tone once the ignition is turned off, requiring the driver to walk to the rear interior bulkhead and depress a button to deactivate.	Manufacturer:	Child Checkmate
		Model #:	EP1

Contractor:	Shepard Bros., Inc.

LOT G

Dual Rear Wheel Cutaway >22 ft., 16 Passenger [14A/2WC]

Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver's seat position) in the front entry area of the Transit Bus. Equipment location shall be clearly identified.		
Miscellaneous	Storage compartment with door shall be provided and recessed in the center front cap portion of the Transit Bus or positioned over the driver's area if the front cap portion is not used for destination signage or air conditioner evaporator placement. The compartment must be sealed and must not have any exposed wires, protrusions or sharp edges		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]:	3
		Chassis Warranty [miles]:	36k
Body Warranty	Covering the integrity of the Transit Bus Body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]:	5
		Body Warranty [miles]:	150k
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The Chassis OEM air conditioning system coverage falls under the Chassis warranty.	Air Conditioning Warranty [years]:	2
Wheelchair Lift Warranty	The lift shall be fully guaranteed by the manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section 3.2 Transit Bus Requirements. See Section 3.1.3 Optional Equipment Unit Price for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Additional Interior Cabin Space	Increase the Body length a minimum of 12" above the Base Item Body length	Overall Body Length:	307"	$0.00
		Wheelbase:	176"	
Hybrid System Propulsion	Add a hybrid propulsion system to the Base Item. The hybrid system will be installed downstream of the OEM engine and transmission, conserving energy through regenerative braking, and storing that energy in ultracapacitor(s) or battery(s) for an assist launch. The hybrid system installation and operation shall not void the OEM Chassis warranty. The hybrid system shall provide a minimum 2 year/36,000 mile warranty. Compliant with SAE J2343 and NFPA 52, if applicable.	Hybrid Propulsion System Make and Model #:	XL Hybrid X3.1-FCEX50	$22,436.77
Additional Wheelchair Restraint System	Delete the minimum number of seats required for proper spacing (4 maximum) and price one (1) additional wheelchair station above the quantity required in the Base Item. Price is per position to includes all belts, floor/ shoulder hardware, and storage container			-$246.09
Optional Wheelchair Restraint System	For each wheelchair position in the Base Item, plus additional optional restraint systems, if ordered, install complete "Omni" style floor securements and complete belts kits, Q-Straint Q-10008 or Sur-Lok AL860S-4C-SNC, or Compatible Equivalent.	Manufacturer:	Qstraint	-$86.86
		Model #:	Q-10008	
Continuous "L" track	Install five (5) lanes of continuous "L" track (four (4) lanes floor mounts, one (1) lane shoulder harness) for a single wheelchair position (48" length each)			$266.77
Additional Seat (3-Step Fold Away; and Forward Facing)	When not included in the Base Item, provide and install one (1) forward facing fold-away flip seat at a wheelchair station area which shall be a Freedman model "GO ES Space Saver" seat or other Compatible Equivalent. Flip seat may be lowered to accommodate two (2) ambulatory passengers, when not in use as a wheelchair station. Seat shall be of the same type (including grab handles) and color as standard seats measuring (per passenger) a minimum of 17" in width x 17" in depth x 24" in height as measured from the edge of the cushion. Raising/lowering of the seat shall be accomplished manually and shall include a lock to secure the seat in the raised position. Raised seat plus wheelchair shall not block legal aisle. Integrated 3-point lap and shoulder belts shall be provided at each seating location to accommodate an adult ambulatory passenger and shall be in compliance with FMVSS 210. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.			$953.35
Air Conditioning System (Roof Mounted Condenser)	Provide and install Air Conditioning System as specified in the Base Item, except air conditioning system condenser shall be a roof mounted unit.			$600.75
Supplemental ADA Transit Package	Provide and install the following items (All items to be in compliance with ADA): Front and side electronic destination signs – LED type (14 rows and 72 columns minimum) and programmable with a USB key, Twin Vision Mobi-Lite or Compatible Equivalent, interior/exterior PA system, pull cord and touch strips chime signal system (at wheelchair positions), two-way radio pre-wire with 30 amp fused circuit, consisting of roof mounted antenna location access, antenna cable conduit with pull cord, and a dedicated circuit with electrical wire terminating in drivers area.			$4,617.84

Contractor:	**Shepard Bros., Inc.**			
LOT G				
Dual Rear Wheel Cutaway >22 ft., 16 Passenger [14A/2WC]				
Camera Security System- 6 monitor	Provide and install a complete camera recording system, including software kit. Components include an eight (8) channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of five (5) Transit Bus functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of two (2) exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus four (4) interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for one (1) or more Transit Buses with matching camera system. Minimum components include software, mouse, 5-6" monitor (or DVR viewing software), HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR: Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:	Seon TH8 SEON CQ903A and CJ904A SEON CA104EI20	$3,047.20
Fiberglass Seating	Provide and install FMVSS certified fiberglass transit style seating (4ONE Gemini model, American Seating (Metropolitan and Insight) models, Freedman CitiSeat model or Compatible Equivalent) in lieu of previously specified Base Item seating. Seats shall include a plastic back shell, anti-microbial grab rails, and padded, tough to cut vandal resistant inserts.			-$542.85
Fare Box (Manual)	Provide and install a fare collection system, cDiamond Model NV or Compatible Equivalent model, complete with all floor mounting hardware and spare vault.	Manufacturer and Model #:	Diamond NV	$920.26
Bike Rack	Provide and install a folding device attached to the front of the Transit Bus that is designed and used exclusively for transporting bicycles. The device shall be stainless steel material and may not extend more than 36" from the front Body, and the handlebars of a bicycle transported on such device may not extend more than 42" from the front Body of the Transit Bus. A deployment warning light shall be visible to the driver whenever the bike rack is not in the stowed position.			$1,258.38
Back Up Camera System	Upgrade the back up radar in Base Item to include a rear view camera.			$310.20
Spare Tire and Rim	Provide a matching spare tire and rim (shipped loose).			$227.48
Driver Side Running Board	Install a diamond plate additional step up for driver entry.			$233.68
Alternate Transit Flooring	In lieu of standard floor covering, supply an alternate floor covering, to be a smooth slip resistant vinyl with aluminum oxide granules throughout the entire thickness of the wear layer with silicon carbide and base color quartz in the surface layer. The floor covering shall be a minimum of 2.7mm thick. The floor covering is to include a bacteriostat to prevent growth of mold and mildew for the life of the product. Term of warranty shall be 15 years.	Brand and Model #: Thickness [mm]: Warranty [years]:	Altro 2.7mm 15	$1,018.49

Contractor:	Matthews Bus Alliance DBA Matthews Buses Commercial

LOT I

Medium Duty Cutaway (Alternate Fuels), 20 Passenger [18A/2WC]

PART 1: Product information for the Base Item awarded		
Chassis Make	The OEM company name of the Chassis Model.	Ford
Chassis Model	A particular brand of Chassis sold by an OEM.	F-550
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	XLT
Body Make	The OEM company name of the Body Model.	StarTrans Bus
Body Model	A particular brand of Body sold by an OEM.	Senator II HD
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	365 OAL

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §33, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section 3.1.1 Price and 3.1.4 Contract Pricelist for additional information about Contract pricing.	$99,099.18

PART 3: Base Item Specifications

The terms and conditions in Contract Section 3.2 Transit Bus Requirements shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information provided in Column D	Spec for Equipment Provided
General	Capacity: Minimum eighteen (18) adult passenger seats, plus two (2) wheelchair stations	Capacity:	18A/2WC
General	Floor plan matches "Figures" tab. The floor plan shall provide a minimum of 27.5" hip-to-knee for all seated positions, with the wheelchair footprint a minimum of 50" x 30".	Manufacturer Floor Plan #:	18 2 WC 217 WB 226 BDY-3 USA
General	When ordering additional wheelchair and foldaway seats, the floor plan shall be capable of providing up to eight (8) wheelchairs, one (1) 2-passenger fixed seat, plus seven (7) 2-passenger forward facing foldaway seats.		
General	Drive configuration: Minimum forward control dual rear wheel (DRW)		
General	Have completed federal STURAA (Altoona) bus testing of not less than seven (7) years/200,000 miles or have been certified as exempt as specified under FTA provisions.		
General	GVWR: 19,500 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lb.]:	19,500
General	Wheelbase: 252" maximum	Wheelbase [inches]:	217
General	Minimum 75" continuous passenger aisle headroom	Headroom [inches]:	75
General	Shall include an "Electronic Stability Control" system that improves stability by detecting and reducing loss of traction.		
Chassis (see specifications below)			
Cab	A standard sedan door on the driver's side shall be OEM Chassis supplied.		
Engine	Minimum 6.0 liter, 8 cylinder gasoline engine rated minimum 300 HP x 300 lb. ft. torque.	Number of Cylinders:	8
		Liters:	7.3
		Horsepower and Torque:	350 HP / 468 TQ
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 40-gallon tank	Tank Size [Gallons]:	40
Cooling System	Chassis manufacturers heaviest duty cooling system available for Chassis supplied and protected to minus 30°F		
Electrical	175 amp OEM alternator	Alternator Capacity [amps]:	397
Electrical	Dual Heavy Duty Batteries, minimum 1300 CCA total, which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative)	Rating of Batteries [at 0°F]:	1500
		CCA each battery:	750
		Minutes RC:	140
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	Transmission shall include an automatic transmission with heavy duty or additional oil cooler.	Transmission Model #:	Ford 10 Speed
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 7,000 lb.	FGAWR [lb.]:	7,000
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 14,500 lb.	RGAWR [lb.]:	14,706
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	Front Springs rated at 7,000 lb. minimum and Rear Springs rated at 14,500 lb. minimum	Front Spring Rating [lb.]:	7,000
		Rear Spring Rating [lb.]:	14,706
Shock Absorbers	Heavy Duty	Make and Model #:	Ford OEM
Brakes	ABS power brakes meeting FMVSS 49CFR571.105	Service Brakes [total lining or sweep area] both front & rear:	15.39 - Front 15.75 - Rear
Parking Brake	Foot-operated parking brake		
Tires	Manufacturer's standard all-season radial tread or rib tread w/mud and snow rear, as required to meet the GVWR specified	Radial Tires [size]:	225/75R19.5
		Radial Tires [load]:	G
		Radial Tires [range]:	G
		Radial Tires [manufacturer]:	Continental / OEM STD
		Front Tires [tread design];	All Season
		Front Tires [capacity/tire]:	3970
		Rear Tires [tread design];	M&S Traction Tire
		Rear Tires [capacity/tire]:	3970
Front Bumper	Shall be made of, or covered with, a rust proof material. Front bumper may be OEM chrome or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	Chrome
		Front Bumper [manufacturer]:	Ford
Steering	Power steering	Turning Diameter [at end of front bumper]:	34'0"
Steering Wheel	Tilt steering wheel		
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Radio	Chassis Manufacturer's standard AM/FM Digital Clock Radio, with one driver speaker and 4 cabin speakers.	Manufacturer:	Ford
		Model #:	OEM XLT Touchscreen
Exterior Equipment	Rear tow hooks		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall be at the rear of the Transit Bus and shall exit on the street side, aft of the rear axle. The system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or FOBS		

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Medium Duty Cutaway (Alternate Fuels), 20 Passenger [18A/2WC]

Body (see specifications below)			
Body Structure	Shall consist of a heavy-duty integral steel Body roll cage structure (from curbside to street side floor connections) fabricated of square or rectangular tubing (or structurally equivalent hat section member) and be in full compliance with Title 17 NYCRR Part 720.4(b)(1). Roll cage shall extend forward sufficiently to protect driver in the event of rollover. Documentation consisting of detailed explanation and dimensional drawing supporting the Body structures compliance shall be supplied with bid submission for each vehicle classification, including current substantiating documentation (not older than 5 years unless the structure has not been significantly modified as defined by 49 CFR 665) confirming compliance with FMVSS 220.		
Body	Minimum 90” interior Body width (from sidewall to sidewall). Exterior shall be smooth and free of any visible fasteners. Exterior Siding shall be 25-gauge protected (i.e. galvanized) steel (or 24-gauge aluminum) with smooth surface or laminated fiberglass composite reinforced with insulation that is foamed in place or resin hardened honeycomb. Body shall be compliant to all stated General Body specifications. Interior sidewalls shall be fiberglass, vinyl clad aluminum or Compatible Equivalent material. Insulation in walls and ceiling shall be fiberglass, resin-hardened honeycomb (FRP) material, polyurethane, or closed cell EPS foam. Vinyl padding may be used for finish to the drivers area, modesty panels, or other interior trim. All cover materials must meet FMVSS 302 flammability requirements.	Exterior Siding [material/thickness]:	Galvanized Steel / .024"
		Interior Paneling [material/thickness]:	FRP / .125"
		Insulation [material/R Value]:	R6
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	3
Exterior Equipment	Reverse alarm		
Exterior Equipment	Back up radar alarm with four (4) bumper mounted sensors. Alarm shall provide an audible alert plus include a dash area mounted LED distance display.	Manufacturer:	Rosco
		Model #:	BSK-1000
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior Body lights (non-OEM Chassis) for these purposes must meet current SAE standards and shall be sealed Light Emitting Diode (LED) type lights on an active regulator circuit that assures uniform illumination of all the LED lighting down to eight (8) volts. All exterior clearance lights shall be armored (or low-profile design or sufficiently body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door. A mid-ship turn signal shall also be installed on each side of the Transit Bus Body.		
Gutters/Drip Molding	Shall be installed above all windows and doors, preventing water from draining onto doors and windows.		
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and advertising is prohibited, other than for necessary safety information		
Rear Bumper	Shall be made of, or covered with, a rust proof material. Rear bumper shall be stainless steel or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]:	Stainless Steel
		Rear Bumper [manufacturer]:	StarTrans Bus
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the Transit Bus and shall comply with SAE J686.		
Exterior Mirror Frames	Mirror Frames and Extension Arms shall be made of rustproof material (i.e. stainless steel/durable plastic) and shall be adequate to prevent excessive vibration of the mirror(s).	Manufacturer:	Rosco
		Model #:	Accustyle Arms
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled, with the switch(s) to be installed at a prior approved location. In no case shall the switch be mounted above the windshield. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature. Extension Arms shall be provided on mirrors to allow for a clear and unobstructed view to rear regardless of Transit Bus width.	Manufacturer:	Rosco
		Model #:	Accustyle
Interior Mirror	Rear view mirror 6" x 30" flat or 6” x 9” convex shall be provided	Mirror Size [inches]:	6x9"
Windows	Passenger windows shall be “T” slider top ventilating or push-out horizontal transit slider type with a minimum 28% tint (light reduction in the passenger compartment). Side and rear windows shall be metal frame construction (painted black) with tempered safety or laminate glass and shall meet FMVSS 217 retention requirements.	Passenger Window [type]:	T-Slider
		Passenger Window [size]:	36x36" and 36x24" Filler
Windows	Twin rear windows are required and shall be manufacturer's standard (6” x 18” minimum) on each side of emergency exit door or special service door. Emergency exit door, when located in rear of Transit Bus, shall include an upper and lower window		
Windows	Window placement shall conform to manufacturer’s standard spacing for length of Transit Bus offered. Placement and installation of the windows shall not diminish the structural integrity of Transit Bus. Windows installed as emergency exits as required by FMVSS shall also comply with Title 17 NYCRR Part 720,5 requirements.		
Floor	Shall be manufacturer’s raised or flat floor design over the rear wheels. The floor gradient shall remain constant from the entry stepwell to the rear bulkhead. A separate step up aft of the entry stepwell is not acceptable.		
Floor Assembly	Shall be insulated and shall include a minimum 5/8” thick marine grade plywood or 3/4" Advantech sub-floor, or Compatible Equivalent. A light colored (e.g. light gray), floor covering shall have a non-slip surface that remains effective in all weather conditions and meet FMVSS 302 and ADA requirements.		
Entrance Step	Shall be a low height, front entrance step (lowest practical) and shall comply with ADA 1192. A low-voltage electric step heater shall be installed in the bottom step and activated by a rocker switch on the dash board.	Top of first step above ground [inches]:	12.5"
Steps	All step edges shall be a minimum of 9” in depth and have a high visible yellow nosing band running the full width of each step. Transit Buses shall have a maximum of three (3) steps (not including ground to first step) with risers not to exceed 10” in height. Steps shall comply with ADA		
Entrance Door(s)	A “walk through” minimum 74” high headroom right front entrance door with a minimum clear entry opening of 28” constructed with top and bottom (or length of door) viewing windows and a heavy duty electric opener shall be provided. An interlock (Intermotive Gateway or Compatible Equivalent) shall be installed and programmed that prevents the door from being opened or closed unless the Transit Bus speed equals zero (0). Door leading and sectional edges shall be equipped with approximately 2” extruded rubber edges to form weather-tight seal. Door shall be affixed with hinges that provide corrosion protection and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Entrance door surround (portal) and step well shall be constructed from stainless steel or material with Compatible Equivalent corrosion resistant properties. Entrance door shall comply with FMVSS 217.	Entrance Door clear opening [inches]:	32"
Door Entry Grab Rails (right and left side)	Shall be installed on each side of entry, parallel to the steps, securely fastened and a minimum 1 1/4" diameter made of stainless steel powder coated material, or non-slip Compatible Equivalent, and shall be a high visible yellow in color, accessible from first step to floor of Transit Bus.		
Emergency Exit Door	Shall be at the rear center of the Transit Bus, in compliance with FMVSS and Title 17 NYCRR Part 720.5 requirements. An interior locking device (vandal lock) shall be provided for emergency exit door(s) and an LED driver station warning light shall be provided to indicate when door is locked. A device shall be installed to prevent the engine from starting when the door is locked. Exterior door handle shall be non-locking. Door shall be constructed with two (minimum 12” x 18”) windows situated at the top and bottom of door. Door surround (portal) shall be stainless steel or material with Compatible Equivalent corrosion resistant properties. Door shall be affixed with stainless steel hinges and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also		

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Overhead Hand Rail	Two (2) full-length overhead (ceiling) handrails shall be provided and securely attached to roof structure, which shall be continuous except for a gap at the rear doorway, in accordance with Part 38 of the ADA.		
Driver Barrier	Driver Barrier constructed of a vertical and horizontal stanchion, a padded modesty panel, and transparent durable plastic material, or Compatible Equivalent, shall be installed directly behind driver seat. A gap between the ceiling and top of the plexiglass shall be 2" (plus or minus .5").		
Padded Panels	Shall be provided attached to a vertical and horizontal stanchion behind the step well. The gap between the floor and bottom of the panel shall meet NYS DOT specifications.		
Intentionally Omitted	Intentionally Omitted		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		
Wheelchair Lift Door(s)	Install a wheelchair entrance/exit door(s) (special service door) affixed with stainless steel hinges, door trim and fasteners (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Door surround (portal) shall be stainless steel or material with equal corrosion resistant properties. Each door shall include a window and a positive fastening device to hold door in the open position ("hold open" feature). The special service door shall be equipped with a locking device (Padlock and hasp are not acceptable). Wheelchair area opening height shall be a minimum of 68". All items, including lighting, shall be in compliance with ADA and FMVSS 403 & 404.	Opening Height [inches]:	68.5"
Wheelchair Lift	The wheelchair lift shall be automatic electric/hydraulic type (power-up, gravity down) using dual hydraulic cylinders. The hydraulic reservoir capacity shall be at least one (1) quart, with easy access for inspection and servicing. The maximum power draw shall not exceed 70 amps at 12 volts. Wheelchair lift unit shall be a Public Use Lift and shall be installed in accordance with manufacturer's standards. The lift must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the lift shall be provided in the event of a power failure.	Manufacturer: Model #:	BraunAbility NCL-1000
Wheelchair Lift	Shall be capable of a minimum of 2500 cycle operation with a minimum of 1000 lb. lift capacity.		
Wheelchair Lift	Platform size shall be minimum 34" x 54" (of useable space) and lift capacity shall be minimum 1,000 lb. Wheelchair lift platform shall be constructed of expanded metal grating with left and right side 2 1/2" high safety stops plus a spring loaded or power activated ADA front stop. A pendent type operating control with a cable length sufficient to allow operation of lift at outermost platform position shall be provided. Lift platform shall be automatic power fold/unfold design.	Platform Size [inches]:	34x54"
Wheelchair Lift	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the lift unless door(s) are opened and transmission is in park with parking brake applied. A manual override system in case of power failure shall also be provided. Lift electric system shall be protected with fuse or circuit breaker.	Manufacturer: Model #:	Intermotive Gateway
Wheelchair Lift	The spring load, deck end, stop shall be retracted while the lift deck is in the load/unload (down) position. This shall enable the operator to load the lift without holding the stop in its retracted position.		
Wheelchair Lift	Two (2) folding handrails on lift platform shall be provided. Handrails shall not reduce platform size.		
Wheelchair Lift	Labeled dash mounted visual alarm (in compliance with Chapter VI, Article III, Parts 720/721, NYCRR) to indicate special service door is not fully closed, shall be provided.		
Wheelchair Lift Barrier	Protective panel with vertical stanchion (consistent with Door Entry Grab Rail specifications), constructed of durable material, shall be installed directly adjacent to the wheelchair lift (when installed) to prevent shearing action between the lift platform and Transit Bus floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs).		
Lighting- Driver Dome Light	An independently controlled LED overhead dome light over driver area producing six (6) foot candles when measured at the steering wheel.		
Lighting (Interior)	Overhead, entrance, step well, and lift lights shall provide no less than two (2) foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one (1) foot-candle of illumination on the street surface with three (3) feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and step well 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.		
Lighting (Interior)	Interior lighting shall be LED and provide a minimum of two (2) foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair lift support brackets, air conditioner units or other similar items shall be padded to prevent injury.		
Heater(s)	An OEM dash air conditioning system plus two (2) rear heaters (with circulation pump) shall be provided. Sufficient BTU capacity of front and rear under seat heaters shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. A dash mounted (or other approved location) circulating fan shall be provided for increased circulation of heating and defrosting in driver area. Interior temperature shall be uniform throughout passenger compartment area. Shut-off valves shall be provided for shut-off of main and auxiliary heaters. The first valve shall be located below or behind the driver's entry step well. The second valve shall be located downstream of the second heater. Both shall be labeled providing clear indication of the shut-off valve locations to the driver. Passenger compartment heater hoses shall be equipped with full-flow quarter-turn valves located in a protected location. Location of valves shall be indicated with a label stating "Heater Shutoff Valves" and located to be visibly obvious. All heater hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.	Manufacturer: Model #:	ProAir (1) 35k BTU, (1) 65k BTU
Air Conditioning	Air conditioning system that shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside vehicle (as measured from the approximate vehicle center) a minimum of 1°F for every ninety (90) seconds. (Air Conditioner Manufacturer's Certification that performance requirement for vehicle type can be met must be submitted with bid).		

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Air Conditioning	Air Conditioning shall be designed as two (2) independent systems. One system shall be OEM Chassis supplied, dedicated for cooling and moisture removal from the windshield and drivers area. The second system shall function separate from the OEM dash, with separate controls, engine driven compressor, skirt condenser, and passenger cabin evaporator(s). BTU and CFM capacities (rear system and front system together) considered minimum required are 80,000BTU and 2,400CFM.	Manufacturer:	ProAir
		Model #:	963HD
		A/C Capacity [Chassis BTUH]:	15,000
		A/C Capacity [Body BTUH]:	82,000
		A/C Airflow [Cab CFM]:	300
		A/C Airflow [Body CFM]:	2,600
Air Conditioning	A low-profile evaporator shall be installed on the rear bulkhead and over the emergency exit door. In the event the rear evaporator is insufficient to produce sufficient BTU and/or CFM requirements, an additional flush mounted evaporator shall be added over the windshield. The cabin evaporator(s) shall include directional and adjustable discharge ports. The rear evaporator shall be installed so as not to intrude from the rear bulk head under or less than 12” horizontally into the passenger compartment. Any sharp edges and/or exposed metal associated with the AC unit must have these edges/surfaces appropriately padded to provide for passenger head protection. Aisle height requirements will be measured from a point directly in front of the AC unit. A secondary side mounted evaporator in the cabin is permitted only when system capacity dictates plus the space over the windshield is occupied with a front destination sign.		
Air Conditioning	Each air conditioning system shall use R134A refrigerant. All system components subject to corrosion from moisture shall be aluminum, copper, stainless steel, galvanized, or epoxy coated. All exterior exposed air conditioning electrical connections must utilize weather pac plugs or Compatible Equivalent. An air intake screen shall be installed on the skirt of the Transit Bus to ensure sufficient airflow through the skirt mounted condenser coil. All hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.		
Safety Vent (three way)	Shall be installed and centered on the roof of the passenger compartment. Vent shall provide for fresh air ventilation, static type exhaust with fresh air ventilation and static type exhaust; and shall be equipped with release handle to provide for emergency exit. Size shall be minimum of 24” x 24”.	Make:	Transpec
		Model #:	1170 Safety Vent
		Size [inches]:	24x24"
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Manufacturer:	Ford
		Model #:	XLT Power Seat Package
Seating	Upholstered transit type seats for a minimum of eighteen (18) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		
Seating	Mid-high back, adult passenger seats shall be supplied in individual passenger modules, Freedman model "GO Seat ES", or other Compatible Equivalent. All ambulatory seats shall be forward facing. Seat cushions per passenger shall be a minimum of 17” in width and 17” in depth, and seat back shall be a minimum of 24” in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the Transit Bus. All seat cushions shall have identical upholstery and a spring suspension system. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.	Manufacturer:	Freedman
		Model #:	GO-ES 3PT Double
Seating	Minimum seat widths shall be 17” single and 34” double seats. Aisle width shall be a minimum of 14”.	Single Seat Width [inches]:	17.5"
		Double Seat Width [inches]:	35"
		Minimum Aisle Width [inches]:	14"
Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, Regions, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		
Seating	An approved retractable style integrated 3-point lap and shoulder seat belt shall be provided for each seating space and shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space, and two (2) seat belt extensions shall be provided with each Transit		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all forward facing seats (including flip seats) and shall be mounted/welded to seat frame structure. This does not apply to single seat positioned immediately forward of the wheelchair lift.		
Wheelchair & Wheelchair Occupant Restraints	Two (2) Wheelchair Restraint System (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Occupant restraint system (including lap belt, shoulder belt with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of Transit Bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belt, and shoulder belt with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-10007 or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouch shall be provided to completely secure belts/straps on Transit Bus sidewalls when not in use. All items shall be installed in accordance with manufacturer’s standards and be in compliance with ADA, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the Transit Bus interior at a minimum of one (1) restraint position.	Manufacturer:	Q'Straint
		Model #:	Q-10007
Miscellaneous	Provide and install an electronic post-trip interior inspection system that emits an audible tone once the ignition is turned off, requiring the driver to walk to the rear interior bulkhead and depress a button to deactivate.	Manufacturer:	Child Checkmate
		Model #:	EP-1
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver’s seat position) in the front entry area of the Transit Bus. Equipment location shall be clearly identified.		
Miscellaneous	Storage compartment with door shall be provided and recessed in the center front cap portion of the Transit Bus or positioned over the driver’s area if the front cap portion is not used for destination signage or air conditioner evaporator placement. The compartment must be sealed and must not have any exposed wires, protrusions or sharp edges		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]:	3
		Chassis Warranty [miles]:	36,000
Body Warranty	Covering the integrity of the Transit Bus Body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]:	5
		Body Warranty [miles]:	150,000
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The Chassis OEM air conditioning system coverage falls under the Chassis warranty.	Air Conditioning Warranty [years]:	3
Wheelchair Lift Warranty	The lift shall be fully guaranteed by the manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using		

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PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section 3.2 Transit Bus Requirements. See Section 3.1.3 Optional Equipment Unit Price for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Additional Interior Cabin Space	Increase the Body length a minimum of 12" above the Base Item Body length.	Overall Body Length: Wheelbase:	397 1/8" 234"	$2,272.50
Diesel Engine and Fuel Tank(s)	Minimum 6.7 liter, 8 cylinder power stroke diesel engine rated minimum 300 HP x 600 lb. ft. torque. Nominal (plus or minus 5 gallons) 40-gallon single or dual fuel tank(s) with DEF tank. Must meet OEM requirements. Minimum 200 amp OEM alternator.	Number of Cylinders: Liters: Horsepower and Torque: Fuel Tank Size [Gallons]: DEF Tank Size [Gallons]:	8 6.7 330 HP / 825 TQ 40 6	$9,595.00
LPG Engine and Fuel Tank(s)	Minimum 6.8L V10 gasoline engine rated minimum 300 HP x 425 lb. ft. torque. Add a gaseous prep package (hardened exhaust valves) and install a Propane Autogas conversion for dedicated LPG fuel. Fuel tanks shall provide a minimum 65 GGE (Gallon Gas Equivalent) useable. Compliant with SAE J2343 and NFPA 52.	Number of Cylinders: Liters: Horsepower and Torque:	8 7.3 350/468	$17,170.00
Additional Wheelchair Restraint System	Delete the minimum number of seats required for proper spacing (4 maximum) and price one (1) additional wheelchair station above the quantity required in the Base Item. Price is per position to includes all belts, floor/ shoulder hardware, and storage container			-$909.00
Optional Wheelchair Restraint System	For each wheelchair position in the Base Item, plus additional optional restraint systems, if ordered, install complete "Omni" style floor securements and complete belts kits, Q-Straint Q-10008 or Sur-Lok AL860S-4C-SNC, or Compatible Equivalent.	Manufacturer: Model #:	Q'Straint Q-10008	$424.20
Continuous "L" track	Install five (5) lanes of continuous "L" track (four (4) lanes floor mounts, one (1) lane shoulder harness) for a single wheelchair position (48” length each)			$393.90
Additional Seat (3-Step Fold Away; and Forward Facing)	When not included in the Base Item, provide and install one (1) forward facing fold-away flip seat at a wheelchair station area which shall be a Freedman model "GO ES Space Saver" seat or other Compatible Equivalent. Flip seat may be lowered to accommodate two (2) ambulatory passengers, when not in use as a wheelchair station. Seat shall be of the same type (including grab handles) and color as standard seats measuring (per passenger) a minimum of 17” in width x 17” in depth x 24” in height as measured from the edge of the cushion. Raising/lowering of the seat shall be accomplished manually and shall include a lock to secure the seat in the raised position. Raised seat plus wheelchair shall not block legal aisle. Integrated 3-point lap and shoulder belts shall be provided at each seating location to accommodate an adult ambulatory passenger and shall be in compliance with FMVSS 210. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.			$1,454.40
Air Conditioning System (Roof Mounted Condenser)	Provide and install Air Conditioning System as specified in the Base Item, except air conditioning system condenser shall be a roof mounted unit.			$2,509.85
Supplemental ADA Transit Package	Provide and install the following items (All items to be in compliance with ADA): Front and side electronic destination signs – LED type (14 rows and 72 columns minimum) and programmable with a USB key, Twin Vision Mobi-Lite or Compatible Equivalent, interior/exterior PA system, pull cord and touch strips chime signal system (at wheelchair positions), two-way radio pre-wire with 30 amp fused circuit, consisting of roof mounted antenna location access, antenna cable conduit with pull cord, and a dedicated circuit with electrical wire terminating in drivers area.			$5,514.60
Camera Security System- 6 monitor	Provide and install a complete camera recording system, including software kit. Components include an eight (8) channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of five (5) Transit Bus functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of two (2) exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus four (4) interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for one (1) or more Transit Buses with matching camera system. Minimum components include software, mouse, 5-6" monitor (or DVR viewing software), HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR: Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:	AngelTrax Vulcan Series 12 Channel HD V12-1200 Vulcan Series Anvil 170-Degree HD 1080P Low Profile Vulcan Series Anvil 3600 HD 1080P IP68 Weather Resistant Low Profile Camera	$3,232.00
Fiberglass Seating	Provide and install FMVSS certified fiberglass transit style seating (4ONE Gemini model, American Seating (Metropolitan and Insight) models, Freedman CitiSeat model or Compatible Equivalent) in lieu of previously specified Base Item seating. Seats shall include a plastic back shell, anti-microbial grab rails, and padded, tough to cut vandal resistant inserts.			-$3,535.00
Fare Box (Manual)	Provide and install a fare collection system, cDiamond Model NV or Compatible Equivalent model, complete with all floor mounting hardware and spare vault.	Manufacturer and Model #:	Diamond NV	$1,919.00
Bike Rack	Provide and install a folding device attached to the front of the Transit Bus that is designed and used exclusively for transporting bicycles. The device shall be stainless steel material and may not extend more than 36" from the front Body, and the handlebars of a bicycle transported on such device may not extend more than 42" from the front Body of the Transit Bus. A deployment warning light shall be visible to the driver whenever the bike rack is not in the stowed position.			$2,525.00
Back Up Camera System	Upgrade the back up radar in Base Item to include a rear view camera.			$0.00
Spare Tire and Rim	Provide a matching spare tire and rim (shipped loose).			$333.30
Rear Suspension upgrade	Replace the rear spring hangers and install rear rubber shear springs to work in conjunction with the existing leaf spring suspension system.	Manufacturer and Model #:	Mor/Ryde F-550	$1,969.50
Driver Side Running Board	Install a diamond plate additional step up for driver entry.			$555.50
Alternate Transit Flooring	In lieu of standard floor covering, supply an alternate floor covering, to be a smooth slip resistant vinyl with aluminum oxide granules throughout the entire thickness of the wear layer with silicon carbide and base color quartz in the surface layer. The floor covering shall be a minimum of 2.7mm thick. The floor covering is to include a bacteriostat to prevent growth of mold and mildew for the life of the product. Term of warranty shall be 15 years.	Brand and Model #: Thickness [mm]: Warranty [years]:	Altro Meta 2.7 15	$808.00

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Conventional Style, 24 Passenger [22A/2WC]

PART 1: Product information for the Base Item awarded		
Chassis Make	The OEM company name of the Chassis Model.	Freightliner Custom Chassis
Chassis Model	A particular brand of Chassis sold by an OEM.	S2C
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	S2C 238"
Body Make	The OEM company name of the Body Model.	StarTrans Bus
Body Model	A particular brand of Body sold by an OEM.	PS/2
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	PS/2 382"

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §33, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section 3.1.1 Price and 3.1.4 Contract Pricelist for additional information about Contract pricing.	$127,924.41

PART 3: Base Item Specifications

The terms and conditions in Contract Section 3.2 Transit Bus Requirements shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information provided in Column D	Spec for Equipment Provided
General	Capacity: Minimum twenty-two (22) adult passenger seats, plus two (2) wheelchair stations	Capacity:	22A/2WC
General	Floor plan matches "Figures" tab. The floor plan shall provide a minimum of 27.5" hip-to-knee for all seated positions, with the wheelchair footprint a minimum of 50" x 30".	Manufacturer Floor Plan #:	22 2 WC 238 WB 265 BDY-3 USA
General	When ordering additional wheelchair and foldaway seats, the floor plan shall be capable of providing up to nine (9) wheelchairs, one (1) 2-passenger fixed seat, plus eight (8) 2-passenger forward facing foldaway seats.		
General	Drive configuration: Minimum forward control dual rear wheel (DRW)		
General	Have completed federal STURAA (Altoona) bus testing of not less than seven (7) years/200,000 miles, or been certified as exempt from testing as specified under FTA provisions.		
General	GVWR: 25,000 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lb.]:	25,000
General	Wheelbase: 227" (plus or minus 15")	Wheelbase [inches]:	238
General	Minimum 77" continuous passenger aisle headroom	Headroom [inches]:	80
General	Shall include an "Electronic Stability Control" system that improves stability by detecting and reducing loss of traction.		
Chassis (see specifications below)			
Cab	If provided, the door on the driver's side shall be a standard sedan door supplied by the Chassis OEM. A cab that does not have a drivers side door is also acceptable.		
Engine	6 or 8 cylinder diesel engine, 6.4L minimum displacement, with Diesel Particulate Filter (DPF) Temperature Stabilization, rated at 220 HP x 520 lb. ft. torque or greater.	Number of Cylinders:	6
		Liters:	6.7
		Horsepower and Torque:	220/520
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 60-gallon tank	Tank Size [Gallons]:	60
DEF Tank	Must meet OEM requirements	Tank Size [Gallons]:	10
Cooling System	Chassis manufacturers heaviest duty cooling system available for Chassis supplied and protected to minus 30°F		
Electrical	Alternator 270 amp minimum	Alternator Capacity [amps]:	270
Electrical	Dual batteries (minimum 1800 CCA total) which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0°F]:	1900
		CCA each battery:	850
		Minutes RC:	175
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	Allison 2200 PTS five (5) Speed Electronic Automatic Transmission, or Compatible	Transmission Model #:	2200 PTS
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 8,000 lb.	FGAWR [lb.]:	8000
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 15,500 lb.	RGAWR [lb.]:	17500
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	Spring ratings of front 8,000 lb. minimum. Rear suspension shall be air ride rated at a minimum of 20,000 lb. Dual leveling valves shall be included.	Front Spring Rating [lb.]:	9000
		Rear Spring Rating [lb.]:	23000
Shock Absorbers	Heavy Duty	Make and Model #:	Sachs
Brakes	ABS power air brake system in compliance with FMVSS 49CFR571.121. The air system shall include an air dryer w/ heater; Bendix AD-IP or Compatible Equivalent.	Service Brakes [total lining or sweep area] both front & rear:	762 Inches
Parking Brake	Foot or other FMVSS certified parking brake system		

Contractor:	**Matthews Bus Alliance DBA Matthews Buses Commercial**		
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Conventional Style, 24 Passenger [22A/2WC]			
Tires	Radial 14 ply rib tread front w/mud and snow rear	Radial Tires [size]:	255/70R22.5
		Radial Tires [load]:	H
		Radial Tires [range]:	H
		Radial Tires [manufacturer]:	Michelin
		Front Tires [tread design];	A/S
		Front Tires [capacity/tire]:	5510
		Rear Tires [tread design];	M&S
		Rear Tires [capacity/tire]:	5510
Front Bumper	Shall be made of, or covered with, a rust proof material. Front bumper may be OEM chrome or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	Chrome
		Front Bumper [manufacturer]:	Freightliner OEM 3 Pc
Steering	Power steering	Turning Diameter [at end of front bumper]:	32'5"
Steering Wheel	Tilt steering wheel		
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Radio	Chassis Manufacturer's standard AM/FM Digital Clock Radio, with one driver speaker and 4 cabin speakers.	Manufacturer:	Jensen
		Model #:	OEM
Exterior Equipment	Rear tow hooks		
Exterior Equipment	Standard OEM horn(s)		
Exterior Equipment	Rear tow hooks		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall be at the rear of the Transit Bus and shall exit on the street side, aft of the rear axle. The system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or FOBS		
Body (see specifications below)			
Body Structure	Shall consist of a heavy-duty integral steel Body roll cage structure (from curbside to street side floor connections) fabricated of square or rectangular tubing (or structurally equivalent hat section member) and be in full compliance with Title 17 NYCRR Part 720.4(b)(1). Roll cage shall extend forward sufficiently to protect driver in the event of rollover. Documentation consisting of detailed explanation and dimensional drawing supporting the Body structures compliance shall be supplied with bid submission for each vehicle classification, including current substantiating documentation (not older than 5 years unless the structure has not been significantly modified as defined by 49 CFR 665) confirming compliance with FMVSS 220.		
Body	Minimum 90” interior Body width (from sidewall to sidewall). Exterior shall be smooth and free of any visible fasteners. Exterior Siding shall be 25-guage protected (i.e. galvanized) steel (or 24-guage aluminum) with smooth surface or laminated fiberglass reinforced with insulation that is foamed in place or resin hardened honeycomb. Body shall be compliant to all stated General Body specifications. Interior sidewalls shall be fiberglass, vinyl clad aluminum or Compatible Equivalent material. Insulation in walls and ceiling shall be fiberglass, resin-hardened honeycomb (FRP) material, polyurethane, or closed cell EPS foam. Vinyl padding may be used for finish to the drivers area, modesty panels, or other interior trim. All cover materials must meet FMVSS 302 flammability requirements.	Exterior Siding [material/thickness]:	Galvanized Steel / .024"
		Interior Paneling [material/thickness]:	FRP / .125"
		Insulation [material/R Value]:	R6
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	3
Exterior Equipment	Reverse alarm		
Exterior Equipment	Back up radar alarm with four (4) bumper mounted sensors. Alarm shall provide an audible alert plus include a dash area mounted LED distance display.	Manufacturer:	Rosco
		Model #:	BSK-1000
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior Body lights (non-OEM Chassis) for these purposes must meet current SAE standards and shall be sealed Light Emitting Diode (LED) type lights on an active regulator circuit that assures uniform illumination of all the LED lighting down to eight (8) volts. All exterior clearance lights shall be armored (or low-profile design or sufficiently body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door. A mid-ship turn signal shall also be installed on each side of the Transit Bus Body.		
Batteries	Batteries shall be mounted in an easily accessible battery box with stainless steel (or an acceptable non-corrosive material) slide out (with roller track) battery tray and shall include a clearly labeled disconnect switch that shuts off all current to the Transit Bus Body. Battery Box shall be labeled in conformance with Title 17 NYCRR Part 720.6(a). Door shall be affixed with stainless steel fasteners.		
Gutters/Drip Molding	Shall be installed above all windows and doors, preventing water from draining onto doors and windows.		
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and advertising is prohibited, other than for necessary safety information		
Rear Bumper	Shall be made of, or covered with, a rust proof material. Rear bumper shall be stainless steel or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]:	Stainless Steel
		Rear Bumper [manufacturer]:	StarTrans OEM
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the Transit Bus and shall comply with SAE J686.		
Exterior Mirror Frames	Mirror Frames and Extension Arms shall be made of rustproof material (i.e. stainless steel/durable plastic) and shall be adequate to prevent excessive vibration of the mirror(s).	Manufacturer:	Rosco
		Model #:	Accustyle

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Conventional Style, 24 Passenger [22A/2WC]			
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled, with the switch(s) to be installed at a prior approved location. In no case shall the switch be mounted above the windshield. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature. Extension Arms shall be provided on mirrors to allow for a clear and unobstructed view to rear regardless of Transit Bus width.	Manufacturer: Model #:	Rosco Accustyle
Interior Mirror	Rear view mirror 6" x 30" flat or 6” x 9” convex shall be provided	Mirror Size [inches]:	6x9
Windows	Passenger windows shall be “T” slider top ventilating or push-out horizontal transit slider type with a minimum 28% tint (light reduction in the passenger compartment). Side and rear windows shall be metal frame construction (painted black) with tempered safety or laminate glass and shall meet FMVSS 217 retention requirements.	Passenger Window [type]: Passenger Window [size]:	T-Slider 36x36"
Windows	Twin rear windows are required and shall be manufacturer's standard (6” x 18” minimum) on each side of emergency exit door or special service door. Emergency exit door, when located in rear of Transit Bus, shall include an upper and lower window		
Windows	Window placement shall conform to manufacturer’s standard spacing for length of Transit Bus offered. Placement and installation of the windows shall not diminish the structural integrity of Transit Bus. Windows installed as emergency exits as required by FMVSS shall also comply with Title 17 NYCRR Part 720,5 requirements.		
Floor	Shall be manufacturer’s raised or flat floor design over the rear wheels. The floor gradient shall remain constant from the entry stepwell to the rear bulkhead. A separate step up aft of the entry stepwell is not acceptable.		
Floor Assembly	Shall be insulated and shall include a minimum 5/8” thick marine grade plywood, or 3/4" Advantech sub-floor, or Compatible Equivalent. A light colored (e.g. light gray), floor covering shall have a non-slip surface that remains effective in all weather conditions and meet FMVSS 302 and ADA requirements.		
Entrance Step	Shall be a low height, front entrance step (lowest practical) and shall comply with ADA 1192. A low-voltage electric step heater shall be installed in the bottom step and activated by a rocker switch on the dash board.	Top of first step above ground [inches]:	15
Steps	All step edges shall be a minimum of 9” in depth and have a high visible yellow nosing band running the full width of each step. Transit Buses shall have a maximum of three (3) steps (not including ground to first step) with risers not to exceed 10” in height. Steps shall comply with ADA 1192.		
Entrance Door(s)	A “walk through” minimum 74” high headroom right front entrance door with a minimum clear entry opening of 28” constructed with top and bottom (or length of door) viewing windows and a heavy duty electric opener shall be provided. An interlock (Intermotive Gateway or Compatible Equivalent) shall be installed and programmed that prevents the door from being opened or closed unless the Transit Bus speed equals zero (0). Door leading and sectional edges shall be equipped with approximately 2” extruded rubber edges to form weather-tight seal. Door shall be affixed with hinges that provide corrosion protection and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Entrance door surround (portal) and step well shall be constructed from stainless steel or material with Compatible Equivalent corrosion resistant properties. Entrance door shall comply with FMVSS 217.	Entrance Door clear opening [inches]:	32
Door Entry Grab Rails (right and left side)	Shall be installed on each side of entry, parallel to the steps, securely fastened and a minimum 1 1/4" diameter made of stainless steel powder coated material, or non-slip Compatible Equivalent, and shall be a high visible yellow in color, accessible from first step to floor of Transit Bus.		
Emergency Exit Door	Shall be at the rear center of the Transit Bus, in compliance with FMVSS and Title 17 NYCRR Part 720.5 requirements. An interior locking device (vandal lock) shall be provided for emergency exit door(s) and an LED driver station warning light shall be provided to indicate when door is locked. A device shall be installed to prevent the engine from starting when the door is locked. Exterior door handle shall be non-locking. Door shall be constructed with two (minimum 12” x 18”) windows situated at the top and bottom of door. Door surround (portal) shall be stainless steel or material with Compatible Equivalent corrosion resistant properties. Door shall be affixed with stainless steel hinges and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable)		
Overhead Hand Rail	Two (2) full-length overhead (ceiling) handrails shall be provided and securely attached to roof structure, which shall be continuous except for a gap at the rear doorway, in accordance with Part 38 of the ADA.		
Driver Barrier	Driver Barrier constructed of a vertical and horizontal stanchion, a padded modesty panel, and transparent durable plastic material, or Compatible Equivalent, shall be installed directly behind driver seat. A gap between the ceiling and top of the plexiglass shall be 2" (plus or minus .5").		
Padded Panels	Shall be provided attached to a vertical and horizontal stanchion behind the step well. The gap between the floor and bottom of the panel shall meet NYS DOT specifications.		
Intentionally Omitted	Intentionally Omitted		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		

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Wheelchair Lift Door(s)	Install a wheelchair entrance/exit door(s) (special service door) affixed with stainless steel hinges, door trim and fasteners (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Door surround (portal) shall be stainless steel or material with equal corrosion resistant properties. Each door shall include a window and a positive fastening device to hold door in the open position ("hold open" feature). The special service door shall be equipped with a locking device (Padlock and hasp are not acceptable). Wheelchair area opening height shall be a minimum of 68". All items, including lighting, shall be in compliance with ADA and FMVSS 403 & 404.	Opening Height [inches]:	68.5
Wheelchair Lift	The wheelchair lift shall be automatic electric/hydraulic type (power-up, gravity down) using dual hydraulic cylinders. The hydraulic reservoir capacity shall be at least one (1) quart, with easy access for inspection and servicing. The maximum power draw shall not exceed 70 amps at 12 volts. Wheelchair lift unit shall be a Public Use Lift and shall be installed in accordance with manufacturer's standards. The lift must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the lift shall be provided in the event of a power failure.	Manufacturer: Model #:	BraunAbility NCL-1000
Wheelchair Lift	Shall be capable of a minimum of 2500 cycle operation with a minimum of 1000 lb. lift capacity.		
Wheelchair Lift	Platform size shall be minimum 34" x 54" (of useable space) and lift capacity shall be minimum 1,000 lb. Wheelchair lift platform shall be constructed of expanded metal grating with left and right side 2 1/2" high safety stops plus a spring loaded or power activated ADA front stop. A pendent type operating control with a cable length sufficient to allow operation of lift at outermost platform position shall be provided. Lift platform shall be automatic power fold/unfold design.	Platform Size [inches]:	34x54
Wheelchair Lift	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the lift unless door(s) are opened and transmission is in park with parking brake applied. A manual override system in case of power failure shall also be provided. Lift electric system shall be protected with fuse or circuit breaker.	Manufacturer: Model #:	Intermotive Gateway
Wheelchair Lift	The spring load, deck end, stop shall be retracted while the lift deck is in the load/unload (down) position. This shall enable the operator to load the lift without holding the stop in its retracted position.		
Wheelchair Lift	Two (2) folding handrails on lift platform shall be provided. Handrails shall not reduce platform size.		
Wheelchair Lift	Labeled dash mounted visual alarm (in compliance with Chapter VI, Article III, Parts 720/721, NYCRR) to indicate special service door is not fully closed, shall be provided.		
Wheelchair Lift Barrier	Protective panel with vertical stanchion (consistent with Door Entry Grab Rail specifications), constructed of durable material, shall be installed directly adjacent to the wheelchair lift (when installed) to prevent shearing action between the lift platform and Transit Bus floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs).		
Lighting- Driver Dome Light	An independently controlled LED overhead dome light over driver area producing six (6) foot candles when measured at the steering wheel.		
Lighting (Interior)	Overhead, entrance, step well, and lift lights shall provide no less than two (2) foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one (1) foot-candle of illumination on the street surface with three (3) feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and step well 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.		
Lighting (Interior)	Interior lighting shall be LED and provide a minimum of two (2) foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair lift support brackets, air conditioner units or other similar items shall be padded to prevent injury.		

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Heater(s)	An OEM dash air conditioning system plus two (2) rear heaters (with circulation pump) shall be provided. Sufficient BTU capacity of front and rear under seat heaters shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. A dash mounted (or other approved location) circulating fan shall be provided for increased circulation of heating and defrosting in driver area. Interior temperature shall be uniform throughout passenger compartment area. Shut-off valves shall be provided for shut-off of main and auxiliary heaters. The first valve shall be located below or behind the driver's entry step well. The second valve shall be located downstream of the second heater. Both shall be labeled providing clear indication of the shut-off valve locations to the driver. Passenger compartment heater hoses shall be equipped with full-flow quarter-turn valves located in a protected location. Location of valves shall be indicated with a label stating "Heater Shutoff Valves" and located to be visibly obvious. All heater hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.	Manufacturer:	ProAir
		Model #:	(2) 65k BTU
Air Conditioning	Air conditioning system that shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside vehicle (as measured from the approximate vehicle center) a minimum of 1°F for every ninety (90) seconds. (Air Conditioner Manufacturer's Certification that performance requirement for vehicle type can be met must be submitted with bid).		
Air Conditioning	Air Conditioning shall be designed as two (2) independent systems. One system shall be OEM Chassis supplied, dedicated for cooling and moisture removal from the windshield and drivers area. The second system shall function separate from the OEM dash, with separate controls, engine driven compressor, skirt condenser, and passenger cabin evaporator(s). BTU and CFM capacities (rear system and front system together) considered minimum required are 80,000BTU and 2,400CFM.	Manufacturer:	ProAir
		Model #:	963HD
		A/C Capacity [Chassis BTUH]:	20,000
		A/C Capacity [Body BTUH]:	82,000
		A/C Airflow [Cab CFM]:	300
		A/C Airflow [Body CFM]:	2,600
Air Conditioning	A low-profile evaporator shall be installed on the rear bulkhead and over the emergency exit door. In the event the rear evaporator is insufficient to produce sufficient BTU and/or CFM requirements, an additional flush mounted evaporator shall be added over the windshield. The cabin evaporator(s) shall include directional and adjustable discharge ports. The rear evaporator shall be installed so as not to intrude from the rear door or window under or less than 12" horizontally into the passenger compartment. Any sharp edges and/or exposed metal associated with the AC unit must have these edges/surfaces appropriately padded to provide for passenger head protection. Aisle height requirements will be measured from a point directly in front of the AC unit. A secondary side mounted evaporator in the cabin is permitted only when system capacity dictates plus the space over the windshield is occupied with a front destination sign.		
Air Conditioning	Each air conditioning system shall use R134A refrigerant. All system components subject to corrosion from moisture shall be aluminum, copper, stainless steel, galvanized, or epoxy coated. All exterior exposed air conditioning electrical connections must utilize weather pac plugs or Compatible Equivalent. An air intake screen shall be installed on the skirt of the Transit Bus to ensure sufficient airflow through the skirt mounted condenser coil. All hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.		
Safety Vent (three way)	Shall be installed and centered on the roof of the passenger compartment. Vent shall provide for fresh air ventilation, static type exhaust with fresh air ventilation and static type exhaust; and shall be equipped with release handle to provide for emergency exit. Size shall be minimum of 24" x 24".	Make:	Transpec
		Model #:	1170 Safety Vent
		Size [inches]:	24x24
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Manufacturer:	National
		Model #:	Premium HB / Full Air
Seating	Upholstered transit type seats for a minimum of twenty-two (22) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		
Seating	Mid-high back, adult passenger seats shall be supplied in individual passenger modules, Freedman model "GO Seat ES", or other Compatible Equivalent. All ambulatory seats shall be forward facing. Seat cushions per passenger shall be a minimum of 17" in width and 17" in depth, and seat back shall be a minimum of 24" in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the Transit Bus. All seat cushions shall have identical upholstery and a spring suspension system. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.	Manufacturer:	Freedman
		Model #:	GO-ES 3PT Double
Seating	Minimum seat widths shall be 17" single and 34" double seats. Aisle width shall be a minimum of 14".	Single Seat Width [inches]:	17.5
		Double Seat Width [inches]:	35
		Minimum Aisle Width [inches]:	14
Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, Regions, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		

Contractor:	**Matthews Bus Alliance DBA Matthews Buses Commercial**		
LOT J			
Conventional Style, 24 Passenger [22A/2WC]			
Seating	An approved retractable style integrated 3-point lap and shoulder seat belt shall be provided for each seating space and shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space, and two (2) seat belt extensions shall be provided with each Transit Bus.		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all forward facing seats (including flip seats) and shall be mounted/welded to seat frame structure. This does not apply to single seat positioned immediately forward of the wheelchair lift.		
Wheelchair & Wheelchair Occupant Restraints	Two (2) Wheelchair Restraint System (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Occupant restraint system (including lap belt, shoulder belt with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of Transit Bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belt, and shoulder belt with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-10007 or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouch shall be provided to completely secure belts/straps on Transit Bus sidewalls when not in use. All items shall be installed in accordance with manufacturer's standards and be in compliance with ADA, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the Transit Bus interior at a minimum of one (1) restraint position.	Manufacturer: Model #:	Q'Straint Q-10007
Miscellaneous	Provide and install an electronic post-trip interior inspection system that emits an audible tone once the ignition is turned off, requiring the driver to walk to the rear interior bulkhead and depress a button to deactivate.	Manufacturer: Model #:	Child Checkmate EP-1
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver's seat position) in the front entry area of the Transit Bus. Equipment location shall be clearly identified.		
Miscellaneous	Storage compartment with door shall be provided and recessed in the center front cap portion of the Transit Bus or positioned over the driver's area if the front cap portion is not used for destination signage or air conditioner evaporator placement. The compartment must be sealed and must not have any exposed wires, protrusions or sharp edges		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]: Chassis Warranty [miles]:	3 36,000
Body Warranty	Covering the integrity of the Transit Bus Body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]: Body Warranty [miles]:	5 150,000
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The Chassis OEM air conditioning system coverage falls under the Chassis warranty.	Air Conditioning Warranty [years]:	3
Wheelchair Lift Warranty	The lift shall be fully guaranteed by the manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section 3.2 Transit Bus Requirements. See Section 3.1.3 Optional Equipment Unit Price for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Additional Interior Cabin Space	Increase the Body length a minimum of 12" above the Base Item Body length.	Overall Body Length: Wheelbase:	424" 259"	$2,047.32
Hydraulic Brakes	Substitute a complete ABS power brake system meeting FMVSS 49CFR571.105 in lieu of air brakes, with no change to Base Item suspension specified.	Service Brakes [total lining or sweep area] both front & rear:	776 Inches	-$1,044.34
Additional Wheelchair Restraint System	Delete the minimum number of seats required for proper spacing (4 maximum) and price one (1) additional wheelchair station above the quantity required in the Base Item. Price is per position to includes all belts, floor/ shoulder hardware, and storage container			-$718.63
Optional Wheelchair Restraint System	For each wheelchair position in the Base Item, plus additional optional restraint systems, if ordered, install complete "Omni" style floor securements and complete belts kits, Q-Straint Q-10008 or Sur-Lok AL860S-4C-SNC, or Compatible Equivalent.	Manufacturer: Model #:	Q'Straint Q-10008	$537.68
Continuous "L" track	Install five (5) lanes of continuous "L" track (four (4) lanes floor mounts, one (1) lane shoulder harness) for a single wheelchair position (48" length each)			$299.86

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Conventional Style, 24 Passenger [22A/2WC]				
Additional Seat (3-Step Fold Away; and Forward Facing)	When not included in the Base Item, provide and install one (1) forward facing fold-away flip seat at a wheelchair station area which shall be a Freedman model "GO ES Space Saver" seat or other Compatible Equivalent. Flip seat may be lowered to accommodate two (2) ambulatory passengers, when not in use as a wheelchair station. Seat shall be of the same type (including grab handles) and color as standard seats measuring (per passenger) a minimum of 17” in width x 17” in depth x 24” in height as measured from the edge of the cushion. Raising/lowering of the seat shall be accomplished manually and shall include a lock to secure the seat in the raised position. Raised seat plus wheelchair shall not block legal aisle. Integrated 3-point lap and shoulder belts shall be provided at each seating location to accommodate an adult ambulatory passenger and shall be in compliance with FMVSS 210. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.			$1,199.44
Air Conditioning System (Roof Mounted Condenser)	Provide and install Air Conditioning System as specified in the Base Item, except air conditioning system condenser shall be a roof mounted unit.			$1,778.48
Supplemental ADA Transit Package	Provide and install the following items (All items to be in compliance with ADA): Front and side electronic destination signs – LED type (14 rows and 72 columns minimum) and programmable with a USB key, Twin Vision Mobi-Lite or Compatible Equivalent, interior/exterior PA system, pull cord and touch strips chime signal system (at wheelchair positions), two-way radio pre-wire with 30 amp fused circuit, consisting of roof mounted antenna location access, antenna cable conduit with pull cord, and a dedicated circuit with electrical wire terminating in drivers area. When purchasing this option, the transmission shall be upgraded to the Allison B200 series or Compatible Equivalent.			$4,663.34
Camera Security System- 6 monitor	Provide and install a complete camera recording system, including software kit. Components include an eight (8) channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of five (5) Transit Bus functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of two (2) exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus four (4) interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for one (1) or more Transit Buses with matching camera system. Minimum components include software, mouse, 5-6" monitor (or DVR viewing software), HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR: Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:	AngelTrax Vulcan Series 12 Channel HD Vulcan Series Anvil 170-Degree HD 1080P Low Profile Vulcan Series Anvil 3600 HD 1080P IP68 Weather Resistant Low Profile Camera	$3,391.52
Fiberglass Seating	Provide and install FMVSS certified fiberglass transit style seating (4ONE Gemini model, American Seating (Metropolitan and Insight) models, Freedman CitiSeat model or Compatible Equivalent) in lieu of previously specified Base Item seating. Seats shall include a plastic back shell, anti-microbial grab rails, and padded, tough to cut vandal resistant inserts.			-$2,068.00
Fare Box (Manual)	Provide and install a fare collection system, cDiamond Model NV or Compatible Equivalent model, complete with all floor mounting hardware and spare vault.	Manufacturer and Model #:	Diamond NV	$1,897.39
Bike Rack	Provide and install a folding device attached to the front of the Transit Bus that is designed and used exclusively for transporting bicycles. The device shall be stainless steel material and may not extend more than 36" from the front Body, and the handlebars of a bicycle transported on such device may not extend more than 42" from the front Body of the Transit Bus. A deployment warning light shall be visible to the driver whenever the bike rack is not in the stowed position.			$2,678.06
Back Up Camera System	Upgrade the back up radar in Base Item to include a rear view camera.			$0.00
Spare Tire and Rim	Provide a matching spare tire and rim (shipped loose).			$1,023.66
Driver Side Running Board	Install a diamond plate additional step up for driver entry.			$0.00
Alternate Transit Flooring	In lieu of standard floor covering, supply an alternate floor covering, to be a smooth slip resistant vinyl with aluminum oxide granules throughout the entire thickness of the wear layer with silicon carbide and base color quartz in the surface layer. The floor covering shall be a minimum of 2.7mm thick. The floor covering is to include a bacteriostat to prevent growth of mold and mildew for the life of the product. Term of warranty shall be 15 years.	Brand and Model #: Thickness [mm]: Warranty [years]:	Altro Meta 2.7 15	$1,416.58

Contractor:	Matthews Bus Alliance DBA Matthews Buses Commercial

LOT K

Conventional Style, 28 Passenger [26A/2WC]

PART 1: Product information for the Base Item awarded		
Chassis Make	The OEM company name of the Chassis Model.	Freightliner Custom Chassis
Chassis Model	A particular brand of Chassis sold by an OEM.	S2C
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	S2C 259"
Body Make	The OEM company name of the Body Model.	StarTrans Bus
Body Model	A particular brand of Body sold by an OEM.	PS/2
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	PS/2 424"

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §33, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section 3.1.1 Price and 3.1.4 Contract Pricelist for additional information about Contract pricing.	$131,374.87

PART 3: Base Item Specifications

The terms and conditions in Contract Section 3.2 Transit Bus Requirements shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information provided in Column D	Spec for Equipment Provided
General	Capacity: Minimum twenty-six (26) adult passenger seats, plus two (2) wheelchair stations	Capacity:	26A/2WC
General	Floor plan matches "Figures" tab. The floor plan shall provide a minimum of 27.5" hip-to-knee for all seated positions, with the wheelchair footprint a minimum of 50" x 30".	Manufacturer Floor Plan #:	26 2 WC 259 WB 305 BDY USA
General	When ordering additional wheelchair and foldaway seats, the floor plan shall be capable of providing up to ten (10) wheelchairs, one (1) 2-passenger fixed seat, plus eight (8) 2-passenger forward facing foldaway seats.		
General	Drive configuration: Minimum forward control dual rear wheel (DRW)		
General	Have completed federal STURAA (Altoona) bus testing of not less than ten (10) years/350,000 miles, or been certified as exempt from testing as specified under FTA provisions.		
General	GVWR: 26,500 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lb.]:	26,500
General	Wheelbase: 265" (plus or minus 15")	Wheelbase [inches]:	259
General	Minimum 77" continuous passenger aisle headroom	Headroom [inches]:	80
General	Shall include an "Electronic Stability Control" system that improves stability by detecting and reducing loss of traction.		
Chassis (see specifications below)			
Cab	If provided, the door on the driver's side shall be a standard sedan door supplied by the Chassis OEM. A cab that does not have a drivers side door is also acceptable.		
Engine	6 or 8 cylinder diesel engine, 6.4L minimum displacement, with Diesel Particulate Filter (DPF) Temperature Stabilization, rated at 220 HP x 520 lb. ft. torque or greater.	Number of Cylinders:	6
		Liters:	6.7
		Horsepower and Torque:	220/520
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 60-gallon tank	Tank Size [Gallons]:	60
DEF Tank	Must meet OEM requirements	Tank Size [Gallons]:	10
Cooling System	Chassis manufacturers heaviest duty cooling system available for Chassis supplied and protected to minus 30°F		
Electrical	Alternator 270 amp minimum	Alternator Capacity [amps]:	270
Electrical	Dual batteries (minimum 1800 CCA total) which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0°F]:	1900
		CCA each battery:	850
		Minutes RC:	175
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	Allison 2500 PTS 5 Speed Electronic Automatic Transmission, or Compatible Equivalent or better	Transmission Model #:	2500 PTS
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 9,500 lb.	FGAWR [lb.]:	10,000
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 17,500 lb.	RGAWR [lb.]:	20,000
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	Front springs rated at 10,000 lb. Minimum. Rear suspension shall be air ride rated at a minimum of 20,000 lb. Dual leveling valves shall be included.	Front Spring Rating [lb.]:	10,000
		Rear Suspension Rating [lb.]:	23,000
Shock Absorbers	Heavy Duty	Make and Model #:	Sachs
Brakes	ABS power air brake system in compliance with FMVSS 49CFR571.121. The air system shall include an air dryer w/ heater; Bendix AD-IP or Compatible Equivalent.	Service Brakes [total lining or sweep area] both front & rear:	762 Inches
Parking Brake	Spring brake chamber controlled by a push-pull dash mounted control valve.		

Contractor:	Matthews Bus Alliance DBA Matthews Buses Commercial		

LOT K

Conventional Style, 28 Passenger [26A/2WC]

Tires	Minimum Radial 14 ply rib tread front w/mud and snow rear	Radial Tires [size]:	255/70R22.5
		Radial Tires [load]:	H
		Radial Tires [range]:	H
		Radial Tires [manufacturer]:	Michelin
		Front Tires [tread design];	A/S
		Front Tires [capacity/tire]:	5510
		Rear Tires [tread design];	M&S
		Rear Tires [capacity/tire]:	5510
Front Bumper	Shall be made of, or covered with, a rust proof material. Front bumper may be OEM chrome or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	Chrome
		Front Bumper [manufacturer]:	Freightliner OEM 3 Pc
Steering	Power steering	Turning Diameter [at end of front bumper]:	35'1"
Steering Wheel	Tilt steering wheel		
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Radio	Chassis Manufacturer's standard AM/FM Digital Clock Radio, with one driver speaker and 4 cabin speakers.	Manufacturer:	Jensen
		Model #:	OEM
Exterior Equipment	Rear tow hooks		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall be at the rear of the Transit Bus and shall exit on the street side, aft of the rear axle. The system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or FOBS		
Body (see specifications below)			
Body Structure	Shall consist of a heavy-duty integral steel Body roll cage structure (from curbside to street side floor connections) fabricated of square or rectangular tubing (or structurally equivalent hat section member) and be in full compliance with Title 17 NYCRR Part 720.4(b)(1). Roll cage shall extend forward sufficiently to protect driver in the event of rollover. Documentation consisting of detailed explanation and dimensional drawing supporting the Body structures compliance shall be supplied with bid submission for each vehicle classification, including current substantiating documentation (not older than 5 years unless the structure has not been significantly modified as defined by 49 CFR 665) confirming compliance with FMVSS 220.		
Body	Minimum 90” interior Body width (from sidewall to sidewall). Exterior shall be smooth and free of any visible fasteners. Exterior Siding shall be 25-guage protected (i.e. galvanized) steel (or 24-guage aluminum) with smooth surface or laminated fiberglass reinforced with insulation that is foamed in place or resin hardened honeycomb. Body shall be compliant to all stated General Body specifications. Interior sidewalls shall be fiberglass, vinyl clad aluminum or Compatible Equivalent material. Insulation in walls and ceiling shall be fiberglass, resin-hardened honeycomb (FRP) material, polyurethane, or closed cell EPS foam. Vinyl padding may be used for finish to the drivers area, modesty panels, or other interior trim. All cover materials must meet FMVSS 302 flammability requirements.	Exterior Siding [material/thickness]:	Galvanized Steel / .024"
		Interior Paneling [material/thickness]:	FRP / .125"
		Insulation [material/R Value]:	R6
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	3
Exterior Equipment	Reverse alarm		
Exterior Equipment	Back up radar alarm with four (4) bumper mounted sensors. Alarm shall provide an audible alert plus include a dash area mounted LED distance display.	Manufacturer:	Rosco
		Model #:	BSK-1000
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior Body lights (non-OEM Chassis) for these purposes must meet current SAE standards and shall be sealed Light Emitting Diode (LED) type lights on an active regulator circuit that assures uniform illumination of all the LED lighting down to eight (8) volts. All exterior clearance lights shall be armored (or low-profile design or sufficiently body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door. A mid-ship turn signal shall also be installed on each side of the Transit Bus Body.		
Batteries	Batteries shall be mounted in an easily accessible battery box with stainless steel (or an acceptable non-corrosive material) slide out (with roller track) battery tray and shall include a clearly labeled disconnect switch that shuts off all current to the Transit Bus Body. Battery Box shall be labeled in conformance with Title 17 NYCRR Part 720.6(a). Door shall be affixed with stainless steel fasteners.		
Gutters/Drip Molding	Shall be installed above all windows and doors, preventing water from draining onto doors and windows.		
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and advertising is prohibited, other than for necessary safety information		
Rear Bumper	Shall be made of, or covered with, a rust proof material. Rear bumper shall be stainless steel or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]:	Stainless Steel
		Rear Bumper [manufacturer]:	StarTrans OEM
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the Transit Bus and shall comply with SAE J686.		
Exterior Mirror Frames	Mirror Frames and Extension Arms shall be made of rustproof material (i.e. stainless steel/durable plastic) and shall be adequate to prevent excessive vibration of the mirror(s).	Manufacturer:	Rosco
		Model #:	Accustyle
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled, with the switch(s) to be installed at a prior approved location. In no case shall the switch be mounted above the windshield. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature. Extension Arms shall be provided on mirrors to allow for a clear and unobstructed view to rear regardless of Transit Bus width.	Manufacturer:	Rosco
		Model #:	Accustyle
Interior Mirror	Rear view mirror 6" x 30" flat or 6” x 9” convex shall be provided	Mirror Size [inches]:	6x9

Contractor:	**Matthews Bus Alliance DBA Matthews Buses Commercial**		
LOT K			
Conventional Style, 28 Passenger [26A/2WC]			
Windows	Passenger windows shall be “T” slider top ventilating or push-out horizontal transit slider type with a minimum 28% tint (light reduction in the passenger compartment). Side and rear windows shall be metal frame construction (painted black) with tempered safety or laminate glass and shall meet FMVSS 217 retention requirements.	Passenger Window [type]: Passenger Window [size]:	T-Slider 36x36"
Windows	Twin rear windows are required and shall be manufacturer's standard (6” x 18” minimum) on each side of emergency exit door or special service door. Emergency exit door, when located in rear of Transit Bus, shall include an upper and lower window		
Windows	Window placement shall conform to manufacturer’s standard spacing for length of Transit Bus offered. Placement and installation of the windows shall not diminish the structural integrity of Transit Bus. Windows installed as emergency exits as required by FMVSS shall also comply with Title 17 NYCRR Part 720,5 requirements.		
Floor	Shall be manufacturer’s raised or flat floor design over the rear wheels. The floor gradient shall remain constant from the entry stepwell to the rear bulkhead. A separate step up aft of the entry stepwell is not acceptable.		
Floor Assembly	Shall be insulated and shall include a minimum 5/8” thick marine grade plywood, or 3/4" Advantech sub-floor, or Compatible Equivalent. A light colored (e.g. light gray), floor covering shall have a non-slip surface that remains effective in all weather conditions and meet FMVSS 302 and ADA requirements.		
Entrance Step	Shall be a low height, front entrance step (lowest practical) and shall comply with ADA 1192. A low-voltage electric step heater shall be installed in the bottom step and activated by a rocker switch on the dash board.	Top of first step above ground [inches]:	15
Steps	All step edges shall be a minimum of 9” in depth and have a high visible yellow nosing band running the full width of each step. Transit Buses shall have a maximum of three (3) steps (not including ground to first step) with risers not to exceed 10” in height. Steps shall comply with ADA 1192.		
Entrance Door(s)	A “walk through” minimum 74” high headroom right front entrance door with a minimum clear entry opening of 28” constructed with top and bottom (or length of door) viewing windows and a heavy duty electric opener shall be provided. An interlock (Intermotive Gateway or Compatible Equivalent) shall be installed and programmed that prevents the door from being opened or closed unless the Transit Bus speed equals zero (0). Door leading and sectional edges shall be equipped with approximately 2” extruded rubber edges to form weather-tight seal. Door shall be affixed with hinges that provide corrosion protection and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Entrance door surround (portal) and step well shall be constructed from stainless steel or material with Compatible Equivalent corrosion resistant properties. Entrance door shall comply with FMVSS 217.	Entrance Door clear opening [inches]:	32
Door Entry Grab Rails (right and left side)	Shall be installed on each side of entry, parallel to the steps, securely fastened and a minimum 1 1/4" diameter made of stainless steel powder coated material, or non-slip Compatible Equivalent, and shall be a high visible yellow in color, accessible from first step to floor of Transit Bus.		
Emergency Exit Door	Shall be at the rear center of the Transit Bus, in compliance with FMVSS and Title 17 NYCRR Part 720.5 requirements. An interior locking device (vandal lock) shall be provided for emergency exit door(s) and an LED driver station warning light shall be provided to indicate when door is locked. A device shall be installed to prevent the engine from starting when the door is locked. Exterior door handle shall be non-locking. Door shall be constructed with two (minimum 12” x 18”) windows situated at the top and bottom of door. Door surround (portal) shall be stainless steel or material with Compatible Equivalent corrosion resistant properties. Door shall be affixed with stainless steel hinges and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable).		
Overhead Hand Rail	Two (2) full-length overhead (ceiling) handrails shall be provided and securely attached to roof structure, which shall be continuous except for a gap at the rear doorway, in accordance with Part 38 of the ADA.		
Driver Barrier	Driver Barrier constructed of a vertical and horizontal stanchion, a padded modesty panel, and transparent durable plastic material, or Compatible Equivalent, shall be installed directly behind driver seat. A gap between the ceiling and top of the plexiglass shall be 2" (plus or minus .5").		
Padded Panels	Shall be provided attached to a vertical and horizontal stanchion behind the step well. The gap between the floor and bottom of the panel shall meet NYS DOT specifications.		
Intentionally Omitted	Intentionally Omitted		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		
Wheelchair Lift Door(s)	Install a wheelchair entrance/exit door(s) (special service door) affixed with stainless steel hinges, door trim and fasteners (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Door surround (portal) shall be stainless steel or material with equal corrosion resistant properties. Each door shall include a window and a positive fastening device to hold door in the open position (“hold open” feature). The special service door shall be equipped with a locking device (Padlock and hasp are not acceptable). Wheelchair area opening height shall be a minimum of 68". All items, including lighting, shall be in compliance with ADA and FMVSS 403 & 404.	Opening Height [inches]:	68.5
Wheelchair Lift	The wheelchair lift shall be automatic electric/hydraulic type (power-up, gravity down) using dual hydraulic cylinders. The hydraulic reservoir capacity shall be at least one (1) quart, with easy access for inspection and servicing. The maximum power draw shall not exceed 70 amps at 12 volts. Wheelchair lift unit shall be a Public Use Lift and shall be installed in accordance with manufacturer’s standards. The lift must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the lift shall be provided in the event of a power failure.	Manufacturer: Model #:	BraunAbility NCL-1000
Wheelchair Lift	Shall be capable of a minimum of 2500 cycle operation with a minimum of 1000 lb. lift capacity.		

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Conventional Style, 28 Passenger [26A/2WC]			
Wheelchair Lift	Platform size shall be minimum 34" x 54" (of useable space) and lift capacity shall be minimum 1,000 lb. Wheelchair lift platform shall be constructed of expanded metal grating with left and right side 2 1/2" high safety stops plus a spring loaded or power activated ADA front stop. A pendent type operating control with a cable length sufficient to allow operation of lift at outermost platform position shall be provided. Lift platform shall be automatic power fold/unfold design.	Platform Size [inches]:	34x54
Wheelchair Lift	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the lift unless door(s) are opened and transmission is in park with parking brake applied. A manual override system in case of power failure shall also be provided. Lift electric system shall be protected with fuse or circuit breaker.	Manufacturer: Model #:	Intermotive Gateway
Wheelchair Lift	The spring load, deck end, stop shall be retracted while the lift deck is in the load/unload (down) position. This shall enable the operator to load the lift without holding the stop in its retracted position.		
Wheelchair Lift	Two (2) folding handrails on lift platform shall be provided. Handrails shall not reduce platform size.		
Wheelchair Lift	Labeled dash mounted visual alarm (in compliance with Chapter VI, Article III, Parts 720/721, NYCRR) to indicate special service door is not fully closed, shall be provided.		
Wheelchair Lift Barrier	Protective panel with vertical stanchion (consistent with Door Entry Grab Rail specifications), constructed of durable material, shall be installed directly adjacent to the wheelchair lift (when installed) to prevent shearing action between the lift platform and Transit Bus floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs).		
Lighting- Driver Dome Light	An independently controlled LED overhead dome light over driver area producing six (6) foot candles when measured at the steering wheel.		
Lighting (Interior)	Overhead, entrance, step well, and lift lights shall provide no less than two (2) foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one (1) foot-candle of illumination on the street surface with three (3) feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and step well 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.		
Lighting (Interior)	Interior lighting shall be LED and provide a minimum of two (2) foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair lift support brackets, air conditioner units or other similar items shall be padded to prevent injury.		
Heater(s)	An OEM dash air conditioning system plus two (2) rear heaters (with circulation pump) shall be provided. Sufficient BTU capacity of front and rear under seat heaters shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. A dash mounted (or other approved location) circulating fan shall be provided for increased circulation of heating and defrosting in driver area. Interior temperature shall be uniform throughout passenger compartment area. Shut-off valves shall be provided for shut-off of main and auxiliary heaters. The first valve shall be located below or behind the driver's entry step well. The second valve shall be located downstream of the second heater. Both shall be labeled providing clear indication of the shut-off valve locations to the driver. Passenger compartment heater hoses shall be equipped with full-flow quarter-turn valves located in a protected location. Location of valves shall be indicated with a label stating "Heater Shutoff Valves" and located to be visibly obvious. All heater hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.	Manufacturer: Model #:	ProAir (2) 65k BTU
Air Conditioning	Air conditioning system that shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside vehicle (as measured from the approximate vehicle center) a minimum of 1°F for every ninety (90) seconds. (Air Conditioner Manufacturer's Certification that performance requirement for vehicle type can be met must be submitted with bid).		
Air Conditioning	Air Conditioning shall be designed as two (2) independent systems. One system shall be OEM Chassis supplied, dedicated for cooling and moisture removal from the windshield and drivers area. The second system shall function separate from the OEM dash, with separate controls, engine driven compressor, skirt condenser, and passenger cabin evaporator(s). BTU and CFM capacities (rear system and front system together) considered minimum required are 80,000BTU and 2,400CFM.	Manufacturer: Model #: A/C Capacity [Chassis BTUH]: A/C Capacity [Body BTUH]: A/C Airflow [Cab CFM]: A/C Airflow [Body CFM]:	ProAir 963HD 20,000 82,000 300 2,600
Air Conditioning	A low-profile evaporator shall be installed on the rear bulkhead and over the emergency exit door. In the event the rear evaporator is insufficient to produce sufficient BTU and/or CFM requirements, an additional flush mounted evaporator shall be added over the windshield. The cabin evaporator(s) shall include directional and adjustable discharge ports. The rear evaporator shall be installed so as not to intrude from the rear door or window under or less than 12" horizontally into the passenger compartment. Any sharp edges and/or exposed metal associated with the AC unit must have these edges/surfaces appropriately padded to provide for passenger head protection. Aisle height requirements will be measured from a point directly in front of the AC unit. A secondary side mounted evaporator in the cabin is permitted only when system capacity		

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LOT K

Conventional Style, 28 Passenger [26A/2WC]

Air Conditioning	Each air conditioning system shall use R134A refrigerant. All system components subject to corrosion from moisture shall be aluminum, copper, stainless steel, galvanized, or epoxy coated. All exterior exposed air conditioning electrical connections must utilize weather pac plugs or Compatible Equivalent. An air intake screen shall be installed on the skirt of the Transit Bus to ensure sufficient airflow through the skirt mounted condenser coil. All hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.		
Safety Vent (three way)	Two (2) vents shall be installed on the roof of the passenger compartment. Each vent shall provide for fresh air ventilation, static type exhaust with fresh air ventilation and static type exhaust; and shall be equipped with release handle to provide for emergency exit. Size shall be minimum of 24” x 24”.	Make: Model #: Size [inches]:	Transpec 1170 Safety Vent 24x24
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Manufacturer: Model #:	National Premium HB / Full Air
Seating	Upholstered transit type seats for a minimum of twenty-six (26) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		
Seating	Mid-high back, adult passenger seats shall be supplied in individual passenger modules, Freedman model "GO Seat ES", or other Compatible Equivalent. All ambulatory seats shall be forward facing. Seat cushions per passenger shall be a minimum of 17” in width and 17” in depth, and seat back shall be a minimum of 24” in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the Transit Bus. All seat cushions shall have identical upholstery and a spring suspension system. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.	Manufacturer: Model #:	Freedman GO-ES 3PT Double
Seating	Minimum seat widths shall be 17” single and 34” double seats. Aisle width shall be a minimum of 14”.	Single Seat Width [inches]: Double Seat Width [inches]: Minimum Aisle Width [inches]:	17.5 35 14
Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, Regions, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test		
Seating	An approved retractable style integrated 3-point lap and shoulder seat belt shall be provided for each seating space and shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space, and two (2) seat belt extensions shall be provided with each Transit Bus.		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all forward facing seats (including flip seats) and shall be mounted/welded to seat frame structure. This does not apply to single seat positioned immediately forward of the wheelchair lift.		
Wheelchair & Wheelchair Occupant Restraints	Two (2) Wheelchair Restraint System (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Occupant restraint system (including lap belt, shoulder belt with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of Transit Bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belt, and shoulder belt with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-10007 or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouch shall be provided to completely secure belts/straps on Transit Bus sidewalls when not in use. All items shall be installed in accordance with manufacturer’s standards and be in compliance with ADA, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the Transit Bus interior at a minimum of one (1) restraint position.	Manufacturer: Model #:	Q'Straint Q-10007
Miscellaneous	Provide and install an electronic post-trip interior inspection system that emits an audible tone once the ignition is turned off, requiring the driver to walk to the rear interior bulkhead and depress a button to deactivate.	Manufacturer: Model #:	Child Checkmate EP-1
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver’s seat position) in the front entry area of the Transit Bus. Equipment location shall be clearly identified.		
Miscellaneous	Storage compartment with door shall be provided and recessed in the center front cap portion of the Transit Bus or positioned over the driver’s area if the front cap portion is not used for destination signage or air conditioner evaporator placement. The compartment must be sealed and must not have any exposed wires, protrusions or sharp edges		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]: Chassis Warranty [miles]:	3 36,000
Body Warranty	Covering the integrity of the Transit Bus Body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]: Body Warranty [miles]:	5 150,000
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The Chassis OEM air conditioning system coverage falls under the Chassis warranty.	Air Conditioning Warranty [years]:	3
Wheelchair Lift Warranty	The lift shall be fully guaranteed by the manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		

Contractor:	Matthews Bus Alliance DBA Matthews Buses Commercial

LOT K

Conventional Style, 28 Passenger [26A/2WC]

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section 3.2 Transit Bus Requirements. See Section 3.1.3 Optional Equipment Unit Price for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Additional Interior Cabin Space	Increase the Body length a minimum of 12" above the Base Item Body length.	Overall Body Length: Wheelbase:	436" 259"	$1,416.58
Additional Wheelchair Restraint System	Delete the minimum number of seats required for proper spacing (4 maximum) and price one (1) additional wheelchair station above the quantity required in the Base Item. Price is per position to includes all belts, floor/ shoulder hardware, and storage container			-$718.63
Optional Wheelchair Restraint System	For each wheelchair position in the Base Item, plus additional optional restraint systems, if ordered, install complete "Omni" style floor securements and complete belts kits, Q-Straint Q-10008 or Sur-Lok AL860S-4C-SNC, or Compatible Equivalent.	Manufacturer: Model #:	Q'Straint Q-10008	$496.32
Continuous "L" track	Install five (5) lanes of continuous "L" track (four (4) lanes floor mounts, one (1) lane shoulder harness) for a single wheelchair position (48” length each)			$299.86
Additional Seat (3-Step Fold Away; and Forward Facing)	When not included in the Base Item, provide and install one (1) forward facing fold-away flip seat at a wheelchair station area which shall be a Freedman model "GO ES Space Saver" seat or other Compatible Equivalent. Flip seat may be lowered to accommodate two (2) ambulatory passengers, when not in use as a wheelchair station. Seat shall be of the same type (including grab handles) and color as standard seats measuring (per passenger) a minimum of 17” in width x 17” in depth x 24” in height as measured from the edge of the cushion. Raising/lowering of the seat shall be accomplished manually and shall include a lock to secure the seat in the raised position. Raised seat plus wheelchair shall not block legal aisle. Integrated 3-point lap and shoulder belts shall be provided at each seating location to accommodate an adult ambulatory passenger and shall be in compliance with FMVSS 210. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.			$1,199.44
Air Conditioning System (Roof Mounted Condenser)	Provide and install Air Conditioning System as specified in the Base Item, except air conditioning system condenser shall be a roof mounted unit.			$1,778.48
Supplemental ADA Transit Package	Provide and install the following items (All items to be in compliance with ADA): Front and side electronic destination signs – LED type (14 rows and 72 columns minimum) and programmable with a USB key, Twin Vision Mobi-Lite or Compatible Equivalent, interior/exterior PA system, pull cord and touch strips chime signal system (at wheelchair positions), two-way radio pre-wire with 30 amp fused circuit, consisting of roof mounted antenna location access, antenna cable conduit with pull cord, and a dedicated circuit with electrical wire terminating in drivers area. When purchasing this option, the transmission shall be upgraded to the Allison B300 series.			$4,663.34
Camera Security System- 6 monitor	Provide and install a complete camera recording system, including software kit. Components include an eight (8) channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of five (5) Transit Bus functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of two (2) exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus four (4) interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for one (1) or more Transit Buses with matching camera system. Minimum components include software, mouse, 5-6" monitor (or DVR viewing software), HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR: Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:	AngelTrax Vulcan Series 12 Channel HD Vulcan Series Anvil 170-Degree HD 1080P Low Profile Vulcan Series Anvil 3600 HD 1080P IP68 Weather Resistant Low Profile Camera	$3,391.52
Fiberglass Seating	Provide and install FMVSS certified fiberglass transit style seating (4ONE Gemini model, American Seating (Metropolitan and Insight) models, Freedman CitiSeat model or Compatible Equivalent) in lieu of previously specified Base Item seating. Seats shall include a plastic back shell, anti-microbial grab rails, and padded, tough to cut vandal resistant inserts.			-$4,963.20
Fare Box (Manual)	Provide and install a fare collection system, cDiamond Model NV or Compatible Equivalent model, complete with all floor mounting hardware and spare vault.	Manufacturer and Model #:	Diamond NV	$1,897.39
Bike Rack	Provide and install a folding device attached to the front of the Transit Bus that is designed and used exclusively for transporting bicycles. The device shall be stainless steel material and may not extend more than 36" from the front Body, and the handlebars of a bicycle transported on such device may not extend more than 42" from the front Body of the Transit Bus. A deployment warning light shall be visible to the driver whenever the bike rack is not in the stowed position.			$2,678.06
Back Up Camera System	Upgrade the back up radar in Base Item to include a rear view camera.			$0.00
Spare Tire and Rim	Provide a matching spare tire and rim (shipped loose).			$1,023.66
Driver Side Running Board	Install a diamond plate additional step up for driver entry.			$0.00
Alternate Transit Flooring	In lieu of standard floor covering, supply an alternate floor covering, to be a smooth slip resistant vinyl with aluminum oxide granules throughout the entire thickness of the wear layer with silicon carbide and base color quartz in the surface layer. The floor covering shall be a minimum of 2.7mm thick. The floor covering is to include a bacteriostat to prevent growth of mold and mildew for the life of the product. Term of warranty shall be 15 years.	Brand and Model #: Thickness [mm]: Warranty [years]:	Altro Meta 2.7 15	$1,416.58

Contractor:	Empire Bus Sales LLC

LOT L

Low Floor (Front Engine), 25 Passenger [23A/2WC]

PART 1: Product information for the Base Item awarded		
Chassis Make	The OEM company name of the Chassis Model.	IC (International)
Chassis Model	A particular brand of Chassis sold by an OEM.	TC
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	254
Body Make	The OEM company name of the Body Model.	ENC Bus
Body Model	A particular brand of Body sold by an OEM.	Passport
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	35

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §33, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section 3.1.1 Price and 3.1.4 Contract Pricelist for additional information about Contract pricing.	$269,804.72

PART 3: Base Item Specifications

The terms and conditions in Contract Section 3.2 Transit Bus Requirements shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information provided in Column D	Spec for Equipment Provided
General	Capacity: Minimum twenty-three (23) adult passenger seats, plus two (2) wheelchair stations	Capacity:	23 Seated adutls plus 2 wheelchair stations
General	Floor plan matches "Figures" tab. The floor plan shall provide a minimum of 27.5" hip-to-knee for all seated positions, with the wheelchair footprint a minimum of 50" x 30".	Manufacturer Floor Plan #:	P61F3AF0008
General	Drive configuration: Minimum forward control dual rear wheel (DRW)		
General	Have completed federal STURAA (Altoona) bus testing of not less than ten (10) years/350,000 miles, or been certified as exempt from testing as specified under FTA provisions.		
General	GVWR: 29,000 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lb.]:	29,900
General	Wheelbase: 254" (plus or minus 10")	Wheelbase [inches]:	254
General	Minimum 74" passenger aisle headroom	Headroom [inches]:	95 front and 76 rear
General	Shall include an "Electronic Stability Control" system that improves stability by detecting and reducing loss of traction.		
Chassis (see specifications below)			
Cab	A standard sedan door on the driver's side shall be OEM Chassis supplied.		
Engine	6 or 8 cylinder diesel engine, 6.4L minimum displacement, with Diesel Particulate Filter (DPF) Temperature Stabilization, rated at 230 HP x 660 lb. ft. torque or greater	Number of Cylinders:	6
		Liters:	6.7
		Horsepower and Torque:	260 hp, 660 lb.ft.torque
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 50-gallon tank	Tank Size [Gallons]:	50
DEF Tank	Must meet OEM requirements	Tank Size [Gallons]:	50
Cooling System	Chassis manufacturers heaviest duty cooling system available for Chassis supplied and protected to minus 30°F		
Electrical	320 amp OEM alternator or greater	Alternator Capacity [amps]:	320
Electrical	Dual or triple batteries (minimum 1800 CCA total) which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0°F]:	1,980 CCA
		CCA each battery:	660
		Minutes RC:	240
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	Allison 3000 PTS with Telma Focal Retarder or Compatible Equivalent	Transmission Model #:	3000 PTS
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 10,000 lb.	FGAWR [lb.]:	10,000
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 19,500 lb.	RGAWR [lb.]:	21,000
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	Shall have front taper leaf spring rated at 10,000 lb. minimum, rear air suspension with dual leveling valves rated at 20,000 lb. minimum	Front Spring Rating [lb.]:	10,000
		Rear Suspension Rating [lb.]:	20,000
Shock Absorbers	Heavy Duty	Make and Model #:	Navistar HD
Brakes	ABS power air brake system in compliance with FMVSS 49CFR571.121. The air system shall include an air dryer w/ heater; Bendix AD-IP or Compatible Equivalent.	Service Brakes [total lining or sweep area] both front & rear:	380 sq. in.
Parking Brake	Spring brake chamber controlled by a push-pull dash mounted control valve.		

Contractor:	**Empire Bus Sales LLC**		
LOT L			
Low Floor (Front Engine), 25 Passenger [23A/2WC]			
Tires	Radial "G" rated 14 ply rib tread front w/mud and snow rear	Radial Tires [size]:	265/70R19.5
		Radial Tires [load]:	5510 lbs.
		Radial Tires [range]:	G
		Radial Tires [manufacturer]:	Michelin
		Front Tires [tread design];	M/S
		Front Tires [capacity/tire]:	5510 lbs.
		Rear Tires [tread design];	M/S
		Rear Tires [capacity/tire]:	5205 lbs.
Front Bumper	Shall be made of, or covered with, a rust proof material. Front bumper may be OEM chrome or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	chromed steel
		Front Bumper [manufacturer]:	International
Steering	Power steering	Turning Diameter [at end of front bumper]:	73". 10"
Steering Wheel	Tilt steering wheel		
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Radio	Chassis Manufacturer's standard AM/FM Digital Clock Radio, with one driver speaker and 4 cabin speakers.	Manufacturer:	International
		Model #:	AM/FM/CD
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall be at the rear of the Transit Bus and shall exit on the street side, aft of the rear axle. The system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or fobs		
Body (see specifications below)			
Body Structure	Shall consist of a heavy-duty integral steel Body roll cage structure (from curbside to street side floor connections) fabricated of square or rectangular tubing (or structurally equivalent hat section member) and be in full compliance with Title 17 NYCRR Part 720.4(b)(1). Roll cage shall extend forward sufficiently to protect driver in the event of rollover. Documentation consisting of detailed explanation and dimensional drawing supporting the Body structures compliance shall be supplied with bid submission for each vehicle classification, including current substantiating documentation (not older than 5 years unless the structure has not been significantly modified as defined by 49 CFR 665) confirming compliance with FMVSS 220.		
Crashworthiness	Construction design shall conform with the APTA Bus Procurement Guidelines TS23.2 Crashworthiness standards. The Body and roof structure shall withstand a static load equal to 150 percent of the curb weight evenly distributed on the roof with no more than a six (6) inch reduction in any interior dimension. Windows shall remain in place and shall not open under such a load. These requirements must be met without the roof-mounted equipment installed. The Transit Bus shall withstand a 25 mph impact by a 4,000-pound automobile at any side, excluding doorways along either side of the Transit Bus with no more than three (3) inches of permanent structural deformation at seated passenger hip height. This impact shall not result in sharp edges or protrusions in the Transit Bus interior. Exterior panels below 35 inches from ground level shall withstand a static load of 2,000 lb. applied perpendicular to the Transit Bus by a pad no larger than five (5) square inches. This load shall not result in deformation that prevents installation of new exterior panels to restore the original appearance of the Transit Bus.		
Body	Minimum 90” interior Body width (from sidewall to sidewall). Exterior shall be smooth and free of any visible fasteners. Exterior Siding shall be laminated fiberglass siding reinforced with insulation that is foamed in place or resin hardened honeycombed craft, 15-guage exterior laminated galvanized steel siding, or 15-guage exterior laminated aluminum. Interior sidewalls shall be fiberglass, vinyl clad aluminum or Compatible Equivalent material. Insulation in walls and ceiling shall be fiberglass, resin-hardened honeycomb (FRP) material, polyurethane, or closed cell EPS foam. Vinyl padding may be used for finish to the drivers area, modesty panels, or other interior trim. All cover materials must meet FMVSS 302 flammability requirements.	Exterior Siding [material/thickness]:	Non-corrosive composite, min. .15"
		Interior Paneling [material/thickness]:	Laminated Melamine 1/10"
		Insulation [material/R Value]:	Fiberglass R-5
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	4
Exterior Equipment	Reverse alarm		
Exterior Equipment	Back up radar alarm with four (4) bumper mounted sensors. Alarm shall provide an audible alert plus include a dash area mounted LED distance display.	Manufacturer:	Armatron
		Model #:	Echovision
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior Body lights (non-OEM Chassis) for these purposes must meet current SAE standards and shall be sealed Light Emitting Diode (LED) type lights on an active regulator circuit that assures uniform illumination of all the LED lighting down to eight (8) volts. All exterior clearance lights shall be armored (or low-profile design or sufficiently body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door. A mid-ship turn signal shall also be installed on each side of the Transit Bus Body.		
Batteries	Batteries shall be mounted in an easily accessible fully enclosed and properly ventilated battery box with stainless steel (or an acceptable non-corrosive material) slide out (with roller track) battery tray located in the Transit Bus skirt or driver's step and shall include a clearly labeled disconnect switch that shuts off all current to the Transit Bus Body. Battery Box shall be accessible through a hinged door access which shall be labeled in conformance with Title 17 NYCRR Part 720.6(a). Door shall be affixed with stainless steel fasteners.		
Gutters/Drip Molding	Shall be installed above all windows and doors, preventing water from draining onto doors and windows.		

Contractor:	**Empire Bus Sales LLC**		
LOT L			
Low Floor (Front Engine), 25 Passenger [23A/2WC]			
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and advertising is prohibited, other than for necessary safety information		

Contractor:	**Empire Bus Sales LLC**		
LOT L			
Low Floor (Front Engine), 25 Passenger [23A/2WC]			
Rear Bumper	Shall be made of, or covered with, a rust proof material. Rear bumper shall be stainless steel or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]:	Rubber Help
		Rear Bumper [manufacturer]:	Romeo Rim
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the Transit Bus and shall comply with SAE J686.		
Exterior Mirror Frames	Mirror Frames and Extension Arms shall be made of rustproof material (i.e. stainless steel/durable plastic) and shall be adequate to prevent excessive vibration of the mirror(s).	Manufacturer:	Navistar
		Model #:	Stainless
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled, with the switch(s) to be installed at a prior approved location. In no case shall the switch be mounted above the windshield. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature. Extension Arms shall be provided on mirrors to allow for a clear and unobstructed view to rear regardless of Transit Bus width.	Manufacturer:	Navistar
		Model #:	Heated/Remote
Interior Mirror	Rear view mirror 6" x 30" flat or 6” x 9” convex shall be provided	Mirror Size [inches]:	6 x 9
Windows	Passenger windows shall be “T” slider top ventilating or push-out horizontal transit slider type with a minimum 28% tint (light reduction in the passenger compartment). Side and rear windows shall be metal frame construction (painted black) with tempered safety or laminate glass and shall meet FMVSS 217 retention requirements.	Passenger Window [type]:	Tinted T-Slide
		Passenger Window [size]:	Front 43" High,rear 33" high Widths 46",39"and 22"
Windows	Window placement shall conform to manufacturer’s standard spacing for length of Transit Bus offered. Placement and installation of the windows shall not diminish the structural integrity of Transit Bus. Windows installed as emergency exits as required by FMVSS 217 shall also comply with Title 17 NYCRR Part 720,5 requirements.		
Floor Assembly	Shall include insulating 5/8” thick marine grade plywood with sealed edges and underside of flooring completely sealed from moisture and debris using poly-urea coating, or Compatible Equivalent, and seamless transit grade flooring surface material, or Compatible Equivalent. Low floor must be sufficiently insulated to protect Interior Noise Level, which may not exceed 83 dBA anywhere within passenger compartment area. Floor covering that shall meet FMVSS 302 and ADA requirements for slip resistance.		
Entrance Step	Shall be a low height, front entrance step (lowest practical) and shall comply with ADA 1192.	Top of first step above ground [inches]:	13" kneeled
Steps	Passenger steps in entry stepwell are not permitted		
Entrance Door(s)	A “walk through” minimum 74” high headroom right front entrance door with a minimum clear entry opening of 34" constructed with top and bottom (or length of door) viewing windows and a heavy duty electric opener shall be provided. An interlock shall be installed prohibiting the Transit Bus from moving while the door is in the open position. Door leading and sectional edges shall be equipped with approximately 2” extruded rubber edges to form weather-tight seal. Door shall be affixed with hinges that provide corrosion protection and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Entrance door surround (portal) and step well shall be constructed from stainless steel or material with Compatible Equivalent corrosion resistant properties. Entrance door shall comply with FMVSS 217.	Entrance Door clear opening [inches]:	36"
Door Entry Grab Rails (right and left side)	Shall be installed on each side of entry, parallel to the steps, securely fastened and a minimum 1 1/4" diameter made of stainless steel powder coated material, or non-slip Compatible Equivalent, and shall be a high visible yellow in color, accessible from first step to floor of Transit Bus.		
Overhead Hand Rail	Two (2) full-length overhead (ceiling) handrails shall be provided and securely attached to roof structure, which shall be continuous except for a gap at the rear doorway, in accordance with Part 38 of the ADA.		
Driver Barrier	Driver Barrier constructed of a vertical and horizontal stanchion, a padded modesty panel, and transparent durable plastic material, or Compatible Equivalent, shall be installed directly behind driver seat. A gap between the ceiling and top of the plexiglass shall be 2" (plus or minus .5").		
Padded Panels	Shall be provided attached to a vertical and horizontal stanchion behind the step well. The gap between the floor and bottom of the panel shall meet NYS DOT specifications.		
Intentionally Omitted	Intentionally Omitted		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		
Wheelchair and Passenger Access	Modify Transit Bus to provide a power (and manual in event of power failure) transit ramp at entrance door. All items, including lighting, shall be in compliance with ADA.		
Ramp	The ramp shall meet the requirements of Part 38 of the ADA relating to vehicle ramps. Power switches for ramp shall be provided and easily accessible on both the driver console and body exterior near passenger entry opening. Ramp shall deploy through the main passenger entry opening and be protected from moisture and debris from underside and sufficiently insulated to protect interior noise level. The ramp shall be of aluminum or stainless steel construction. The ramp must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the ramp shall be provided in the event of a power failure.	Manufacturer:	Braun
		Model #:	RA-300
Ramp slope	Maximum ratio of 1:4 slope when ramp is deployed to sidewalk or roadway		

Contractor:	**Empire Bus Sales LLC**		
LOT L			
Low Floor (Front Engine), 25 Passenger [23A/2WC]			
Interlock	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the ramp unless door(s) are opened and transmission is in neutral with parking brake applied. A manual override system in case of power failure shall also be provided. Ramp electric system shall be protected with fuse or circuit breaker.	Manufacturer: Model #:	ENC P1
Wheelchair Ramp Barrier	Protective panel with vertical stanchion (consistent with Door Entry Grab Rail specifications), constructed of durable material, shall be installed directly adjacent to the passenger entrance to prevent shearing action between the ramp and Transit Bus floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs).		
Lighting- Driver Dome Light	An independently controlled LED overhead dome light over driver area producing six (6) foot candles when measured at the steering wheel.		
Lighting (Interior)	Overhead, entrance, step well, and lift lights shall provide no less than two (2) foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one (1) foot-candle of illumination on the street surface with three (3) feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and step well 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.		
Lighting (Interior)	Interior lighting shall be LED and provide a minimum of two (2) foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair ramp support brackets, air conditioner units or other similar items shall be padded to prevent injury.		
Heater(s)	An OEM dash air conditioning system plus two (2) rear heaters (with circulation pump) shall be provided. Sufficient BTU capacity of front and rear under seat heaters shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. A dash mounted (or other approved location) circulating fan shall be provided for increased circulation of heating and defrosting in driver area. Interior temperature shall be uniform throughout passenger compartment area. Shut-off valves shall be provided for shut-off of main and auxiliary heaters. The first valve shall be located below or behind the driver's entry step well. The second valve shall be located downstream of the second heater. Both shall be labeled providing clear indication of the shut-off valve locations to the driver. Passenger compartment heater hoses shall be equipped with full-flow quarter-turn valves located in a protected location. Location of valves shall be indicated with a label stating "Heater Shutoff Valves" and located to be visibly obvious. All heater hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.	Manufacturer: Model #:	Proair 465
Air Conditioning	Air conditioning system that shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside vehicle (as measured from the approximate vehicle center) a minimum of 1°F for every ninety (90) seconds. (Air Conditioner Manufacturer's Certification that performance requirement for vehicle type can be met must be submitted with bid).		
Air Conditioning	Air Conditioning shall be designed as two (2) independent systems. One system shall be OEM Chassis supplied, dedicated for cooling and moisture removal from the windshield and drivers area. The second system shall function separate from the OEM dash, with separate controls, engine driven compressor, skirt condenser, and passenger cabin evaporator(s). BTU and CFM capacities (rear system and front system together) considered minimum required are 80,000BTU and 2,400CFM.	Manufacturer: Model #: A/C Capacity [Chassis BTUH]: A/C Capacity [Body BTUH]: A/C Airflow [Cab CFM]: A/C Airflow [Body CFM]:	Thermo Kiing SR50 24,000 110,000 800 2,100
Air Conditioning	The cabin evaporator shall be installed on the rear bulkhead and over the emergency exit window. The evaporator shall include directional and adjustable discharge ports. Any sharp edges and/or exposed metal associated with the AC unit must have these edges/surfaces appropriately padded to provide for passenger head protection. At the rear davenport, minimum clearance between the top of seat cushions adjacent to the seat back and any overhead component shall be 35" and in compliance with Title 17 NYCRR Part 720.4(P)(1)(e). Side mounted evaporators are not permitted.		
Air Conditioning	Each air conditioning system shall use R134A refrigerant. All system components subject to corrosion from moisture shall be aluminum, copper, stainless steel, galvanized, or epoxy coated. All exterior exposed air conditioning electrical connections must utilize weather pac plugs or Compatible Equivalent. All hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.		
Safety Vent (three way)	Two (2) vents shall be installed on the roof of the passenger compartment. Each vent shall provide for fresh air ventilation, static type exhaust with fresh air ventilation and static type exhaust; and shall be equipped with release handle to provide for emergency exit. Size shall be minimum of 24" x 24".	Make: Model #: Size [inches]:	Transpec 1000 Series 24" x 24"

Contractor:	Empire Bus Sales LLC		
LOT L			
Low Floor (Front Engine), 25 Passenger [23A/2WC]			
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Manufacturer: Model #:	National 2000 Series
Seating	Upholstered transit type seats for a minimum of twenty-three (23) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		
Seating	Mid-high back, adult passenger seats shall be supplied in individual passenger modules, Freedman model "Featherweight", or other Compatible Equivalent. All ambulatory seats shall be forward facing. Seat cushions per passenger shall be a minimum of 17” in width and 17” in depth, and seat back shall be a minimum of 24” in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the Transit Bus. All seat cushions shall have identical upholstery and a spring suspension system. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.	Manufacturer: Model #:	Freedman Mid-High
Seating	Minimum seat widths shall be 17” single and 34” double seats. Aisle width shall be a minimum of 14”.	Single Seat Width [inches]: Double Seat Width [inches]: Minimum Aisle Width [inches]:	17" 34" 24"
Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, Regions, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all forward facing seats (including flip seats) and shall be mounted/welded to seat frame structure. This does not apply to the rear davenport seats.		
Wheelchair & Wheelchair Occupant Restraints	Two (2) Wheelchair Restraint System (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Occupant restraint system (including lap belt, shoulder belt with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of Transit Bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belt, and shoulder belt with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-10007 or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouch shall be provided to completely secure belts/straps on Transit Bus sidewalls when not in use. All items shall be installed in accordance with manufacturer’s standards and be in compliance with ADA, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the Transit Bus interior at a minimum of one (1) restraint position.	Manufacturer: Model #:	Q'Straint Q-10007
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver’s seat position) in the front entry area of the Transit Bus. Equipment location shall be clearly identified.		
Miscellaneous	Storage compartment with door shall be provided and recessed in the center front cap portion of the Transit Bus or positioned over the driver’s area if the front cap portion is not used for destination signage or air conditioner evaporator placement. The compartment must be sealed and must not have any exposed wires, protrusions or sharp edges		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]: Chassis Warranty [miles]:	3 36,000
Body Warranty	Covering the integrity of the Transit Bus Body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]: Body Warranty [miles]:	5 150,000
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The Chassis OEM air conditioning system coverage falls under the Chassis warranty.	Air Conditioning Warranty [years]:	2 Years
Wheelchair Ramp Warranty	The ramp shall be fully guaranteed by the manufacturer for three (3) years (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		

Contractor:	**Empire Bus Sales LLC**

LOT L

Low Floor (Front Engine), 25 Passenger [23A/2WC]

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section 3.2 Transit Bus Requirements. See Section 3.1.3 Optional Equipment Unit Price for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Additional Wheelchair Restraint System	Delete the minimum number of seats required for proper spacing (4 maximum) and price one (1) additional wheelchair station above the quantity required in the Base Item. Price is per position to includes all belts, floor/ shoulder hardware, and storage container			$616.26
Optional Wheelchair Restraint System	For each wheelchair position in the Base Item, plus additional optional restraint systems, if ordered, install complete "Omni" style floor securements and complete belts kits, Q-Straint Q-10008 or Sur-Lok AL860S-4C-SNC, or Compatible Equivalent.	Manufacturer: Model #:	Q'Straint QRT-360 Slide and Click	$439.45
Additional Seat (3-Step Fold Away; and Forward Facing)	When not included in the Base Item, provide and install one (1) forward facing fold-away flip seat at a wheelchair station area which shall be a Freedman model "Featherweight" seat or other Compatible Equivalent. Flip seat may be lowered to accommodate two (2) ambulatory passengers, when not in use as a wheelchair station. Seat shall be of the same type (including grab handles) and color as standard seats measuring (per passenger) a minimum of 17” in width x 17” in depth x 24” in height as measured from the edge of the cushion. Raising/lowering of the seat shall be accomplished manually and shall include a lock to secure the seat in the raised position. Raised seat plus wheelchair shall not block legal aisle. Integrated 3-point lap and shoulder belts shall be provided at each seating location to accommodate an adult ambulatory passenger and shall be in compliance with FMVSS 210. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.			$2,006.99
Supplemental ADA Transit Package	Provide and install the following items (All items to be in compliance with ADA): Front and side electronic destination signs – LED type (14 rows and 72 columns minimum) and programmable with a USB key, Twin Vision Mobi-Lite or Compatible Equivalent, interior/exterior PA system, pull cord and touch strips chime signal system (at wheelchair positions), two-way radio pre-wire with 30 amp fused circuit, consisting of roof mounted antenna location access, antenna cable conduit with pull cord, and a dedicated circuit with electrical wire terminating in drivers area.			$8,738.33
Camera Security System- 6 monitor	Provide and install a complete camera recording system, including software kit. Components include an eight (8) channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of five (5) Transit Bus functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of two (2) exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus four (4) interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for one (1) or more Transit Buses with matching camera system. Minimum components include software, mouse, 5-6" monitor (or DVR viewing software), HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR: Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:	SEON T8H1T00 SEON CQ903A20 SEON CA904W120	$6,138.86
3-Point Seating	Provide and install a retractable style integrated 3-point lap and shoulder seat belt (Freedman "GO-ES" or Compatible Equivalent) for each seating space in specified in Base Item. Seats shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space.			$3,743.08
Fiberglass Seating	Provide and install FMVSS certified fiberglass transit style seating (4ONE Gemini model, American Seating (Metropolitan and Insight) models, Freedman CitiSeat model or Compatible Equivalent) in lieu of previously specified Base Item seating. Seats shall include a plastic back shell, anti-microbial grab rails, and padded, tough to cut vandal resistant			$5,450.21
Fare Box (Manual)	Provide and install a fare collection system, cDiamond Model NV or Compatible Equivalent model, complete with all floor mounting hardware and spare vault.	Manufacturer and Model #:	Diamond NV	$1,828.11
Bike Rack	Provide and install a folding device attached to the front of the Transit Bus that is designed and used exclusively for transporting bicycles. The device shall be stainless steel material and may not extend more than 36" from the front Body, and the handlebars of a bicycle transported on such device may not extend more than 42" from the front Body of the Transit Bus. A deployment warning light shall be visible to the driver whenever the bike rack is not in the stowed position.			$2,155.89
Back Up Camera System	Upgrade the back up radar in Base Item to include a rear view camera.			$1,016.42
Spare Tire and Rim	Provide a matching spare tire and rim (shipped loose).			$923.36
Driver Side Running Board	Install a diamond plate additional step up for driver entry.			$51.70
Alternate Transit Flooring	In lieu of standard floor covering, supply an alternate floor covering, to be a smooth slip resistant vinyl with aluminum oxide granules throughout the entire thickness of the wear layer with silicon carbide and base color quartz in the surface layer. The floor covering shall be a minimum of 2.7mm thick. The floor covering is to include a bacteriostat to prevent growth of mold and mildew for the life of the product. Term of warranty shall be 15 years.	Brand and Model #: Thickness [mm]: Warranty [years]:	Altro 2.7 15	$1,442.43

Contractor:	Empire Bus Sales LLC

LOT M

Low Floor (Rear Engine), 35 Passenger [33A/2WC]

PART 1: Product information for the Base Item awarded		
Chassis Make	The OEM company name of the Chassis Model.	ENC
Chassis Model	A particular brand of Chassis sold by an OEM.	EZ-Rider II
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	35
Body Make	The OEM company name of the Body Model.	ENC
Body Model	A particular brand of Body sold by an OEM.	EZ-Rider II
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	35

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §33, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section 3.1.1 Price and 3.1.4 Contract Pricelist for additional information about Contract pricing.	$376,195.05

PART 3: Base Item Specifications

The terms and conditions in Contract Section 3.2 Transit Bus Requirements shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information provided in Column D	Spec for Equipment Provided
General	Capacity: Minimum thirty-three (33) adult passenger seats, plus two (2) wheelchair stations	Capacity:	33 Seated plus 2 Wheelcahirs
General	Floor plan matches "Figures" tab. The floor plan shall provide a minimum of 27.5" hip-to-knee for all seated positions, with the wheelchair footprint a minimum of 50" x 30".	Manufacturer Floor Plan #:	E61F3AC0005
General	Drive configuration: Minimum forward control, rear engine drive		
General	Have completed federal STURAA (Altoona) bus testing of not less than twelve (12) years/500,000 miles, or been certified as exempt from testing as specified under FTA provisions.		
General	GVWR: 30,000 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lb.]:	35,000
General	Wheelbase: 220" (plus or minus 10")	Wheelbase [inches[:	220
General	Minimum 75" continuous passenger aisle headroom forward of the rear axle. No less than 72" if slope or rear deck is required aft of rear axle.	Headroom [inches]:	95" front section 78" raised rear section
General	Shall include an "Electronic Stability Control" system that improves stability by detecting and reducing loss of traction.		
Chassis (see specifications below)			
Engine	6 or 8 cylinder diesel engine, 6.4L minimum displacement, with Diesel Particulate Filter (DPF) Temperature Stabilization, rated at 250 HP x 660 lb. ft. torque or greater	Number of Cylinders: Liters: Horsepower and Torque:	6 6.7 280hp, 660 ft. lb. torque
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 70-gallon tank	Tank Size [Gallons]:	80
DEF Tank	Must meet OEM requirements	Tank Size [Gallons]:	10
Cooling System	Chassis manufacturers heaviest duty cooling system available for Chassis supplied and protected to minus 30°F		
Electrical	Multiplex system of modular design, capable of operating both 12V and 24V electrical functions through a single master controller or PLC. The system shall manage all electrical components as specified in the Body and Chassis specifications, and future expansion shall be provided for by expandable system architecture.		
Electrical	Single or dual alternator configuration rated with a minimum total output of 300 amps at 12V DC.	Alternator Capacity [amps]:	300
Electrical	Dual batteries (minimum 1800 CCA total) which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0°F]: CCA each battery: Minutes RC:	2,200 CCA 1,100 380
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	Allison B300R or Compatible Equivalent	Transmission Model #:	B300R
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 10,500 lb.	FGAWR [lb.]:	12,000
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 20,500 lb.	RGAWR [lb.]:	23,000
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	Shall have front air suspension rated at 10,000 lb. minimum, rear air suspension with dual leveling valves rated at 20,000 lb. minimum. Front suspension shall incorporate a kneeling feature with brake and throttle interlock, that lowers the front entrance door approximately 3" from ride height.	Front Suspension Rating [lb.]: Rear Suspension Rating [lb.]:	12,000 23,000
Shock Absorbers	Heavy Duty	Make and Model #:	Koni 13006501
Brakes	ABS power air brake system in compliance with FMVSS 49CFR571.121. The air system shall include an air dryer w/ heater; Bendix AD-IP or Compatible Equivalent.	Service Brakes [total lining or sweep area] both front & rear:	Front 384 sq. in. Rear 462 sq. in. Total 846 sq. in.
Parking Brake	Spring brake chamber controlled by a push-pull dash mounted control valve.		

Contractor:	**Empire Bus Sales LLC**		
LOT M			
Low Floor (Rear Engine), 35 Passenger [33A/2WC]			
Tires	Radial front w/mud and snow rear to match GVWR.	Radial Tires [size]:	275/70R 22.5
		Radial Tires [load]:	6940 lbs.
		Radial Tires [range]:	J
		Radial Tires [manufacturer]:	Michelin
		Front Tires [tread design];	M/S
		Front Tires [capacity/tire]:	6940 lbs.
		Rear Tires [tread design];	M/S
		Rear Tires [capacity/tire]:	6395 lbs.
Front Bumper	Shall be made of, or covered with, a rust proof material. Front bumper shall be high density rubber/plastic (i.e. HELP bumper) and shall be affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	Rubber
		Front Bumper [manufacturer]:	Transpec
Steering	Power steering	Turning Diameter [at end of front bumper]:	73'
Steering Wheel	Tilt steering wheel		
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Radio	Chassis Manufacturer's standard AM/FM Digital Clock Radio, with one driver speaker and 4 cabin speakers.	Manufacturer:	Jensen
		Model #:	JHB363BT
Exterior Equipment	Rear tow hooks		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall be at the rear of the Transit Bus and shall exit to the road side rear upper corner of the roof, aft of the rear axle. The system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or fobs		
Body (see specifications below)			
Body Structure	Shall consist of a heavy-duty integral steel Body roll cage structure (from curbside to street side floor connections) fabricated of square or rectangular tubing (or structurally equivalent hat section member) and be in full compliance with Title 17 NYCRR Part 720.4(b)(1). Roll cage shall extend forward sufficiently to protect driver in the event of rollover. Documentation consisting of detailed explanation and dimensional drawing supporting the Body structures compliance shall be supplied with bid submission for each vehicle classification, including current substantiating documentation (not older than 5 years unless the structure has not been significantly modified as defined by 49 CFR 665) confirming compliance with FMVSS 220.		
Crashworthiness	Construction design shall conform with the APTA Bus Procurement Guidelines TS23.2 Crashworthiness standards. The Body and roof structure shall withstand a static load equal to 150 percent of the curb weight evenly distributed on the roof with no more than a six (6) inch reduction in any interior dimension. Windows shall remain in place and shall not open under such a load. These requirements must be met without the roof-mounted equipment installed. The Transit Bus shall withstand a 25 mph impact by a 4,000-pound automobile at any side, excluding doorways along either side of the Transit Bus with no more than three (3) inches of permanent structural deformation at seated passenger hip height. This impact shall not result in sharp edges or protrusions in the Transit Bus interior. Exterior panels below 35 inches from ground level shall withstand a static load of 2,000 lb. applied perpendicular to the Transit Bus by a pad no larger than five (5) square inches. This load shall not result in deformation that prevents installation of new exterior panels to restore the original appearance of the Transit Bus.		
Body	Minimum 90” interior Body width (from sidewall to sidewall). Exterior shall be smooth and free of any visible fasteners. Exterior Siding shall be laminated fiberglass siding reinforced with insulation that is foamed in place or resin hardened honeycombed craft, 15-guage exterior laminated galvanized steel siding, or 15-guage exterior laminated aluminum. Interior sidewalls shall be fiberglass, vinyl clad aluminum or Compatible Equivalent material. Insulation in walls and ceiling shall be fiberglass, resin-hardened honeycomb (FRP) material, polyurethane, or closed cell EPS foam. Vinyl padding may be used for finish to the drivers area, modesty panels, or other interior trim. All cover materials must meet FMVSS 302 flammability requirements.	Exterior Siding [material/thickness]:	Composite Sheeting .15"
		Interior Paneling [material/thickness]:	Reinforced Melamine 1/10"
		Insulation [material/R Value]:	R6
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	Chassis Frame Integrated (2)
Exterior Equipment	Reverse alarm		
Exterior Equipment	Back up radar alarm with four (4) bumper mounted sensors. Alarm shall provide an audible alert plus include a dash area mounted LED distance display.	Manufacturer:	Audiovox
		Model #:	PSP audible alarm and distance display
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior body lights (non-OEM chassis) for these purposes must meet current SAE standards and shall be sealed Light Emitting Diode (LED) type lights on an active regulator circuit that assures uniform illumination of all the LED lighting down to 8 volts. All exterior clearance lights shall be armored (or low-profile design or sufficiently body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door. A mid-ship turn signal shall also be installed on each side of the bus body.		

Contractor:	**Empire Bus Sales LLC**		
LOT M			
Low Floor (Rear Engine), 35 Passenger [33A/2WC]			
Batteries	Batteries shall be mounted in an easily accessible fully enclosed and properly ventilated battery box (if skirt mounted) with stainless steel (or an acceptable non-corrosive material) slide out (with roller track) battery tray located in the Transit Bus skirt or engine compartment and shall include a clearly labeled disconnect switch that shuts off all current to the Transit Bus Body. Batteries shall be accessible through a hinged door access which shall be labeled in conformance with Title 17 NYCRR Part 720.6(a). Door shall be affixed with stainless steel fasteners.		
Gutters/Drip Molding	Shall be installed above all windows and doors, preventing water from draining onto doors and windows.		

Contractor:	Empire Bus Sales LLC		
LOT M			
Low Floor (Rear Engine), 35 Passenger [33A/2WC]			
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and advertising is prohibited, other than for necessary safety information		
Rear Bumper	Shall be made of, or covered with, a rust proof material. Rear bumper shall be stainless steel or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to Body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]:	Rubber
		Rear Bumper [manufacturer]:	Transpec
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the Transit Bus and shall comply with SAE J686.		
Exterior Mirror Frames	Mirror Frames and Extension Arms shall be made of rustproof material (i.e. stainless steel/durable plastic) and shall be adequate to prevent excessive vibration of the mirror(s).	Manufacturer:	Lucerex
		Model #:	Eldorado
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled, with the switch(s) to be installed at a prior approved location. In no case shall the switch be mounted above the windshield. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature. Extension Arms shall be provided on mirrors to allow for a clear and unobstructed view to rear regardless of Transit Bus width.	Manufacturer:	Lucerex
		Model #:	Eldorado
Interior Mirror	Rear view mirror 6" x 30" flat or 6” x 9” convex shall be provided	Mirror Size [inches]:	6" x 9"
Windows	Passenger windows shall be ventilating transit type with a minimum 28% tint (light reduction in the passenger compartment). Windows shall be metal frame construction (painted black) with tempered safety or laminate glass and shall meet FMVSS 217 retention requirements.	Passenger Window [type]:	Tinted T-Slide
		Passenger Window [size]:	Varies by location
Windows	Window placement shall conform to manufacturer’s standard spacing for length of Transit Bus offered. Placement and installation of the windows shall not diminish the structural integrity of Transit Bus. Windows installed as emergency exits as required by FMVSS 217 shall also comply with Title 17 NYCRR Part 720,5 requirements.		
Floor Assembly	Shall include insulating 5/8” thick marine grade plywood with sealed edges and underside of flooring completely sealed from moisture and debris using poly-urea coating, or Compatible Equivalent, and seamless transit grade flooring surface material, or Compatible Equivalent. Low floor must be sufficiently insulated to protect Interior Noise Level, which may not exceed 83 dBA anywhere within passenger compartment area. Floor covering that shall meet FMVSS 302 and ADA requirements for slip resistance.		
Entrance Step	Shall be a low height, front entrance step (lowest practical) and shall comply with ADA 1192.	Top of first step above ground [inches]:	11" kneeled 14" raised
Steps	Passenger steps in entry stepwell are not permitted		
Entrance Door(s)	A “walk through” minimum 74” high headroom right front entrance door with a minimum clear entry opening of 32" constructed with top and bottom (or length of door) viewing windows and a heavy duty electric opener shall be provided. An interlock shall be installed prohibiting the Transit Bus from moving while the door is in the open position. A kneeling function shall also be provided allowing the driver to reduce the ground to step height. Door leading and sectional edges shall be equipped with approximately 2” extruded rubber edges to form weather-tight seal. Door shall be affixed with hinges that provide corrosion protection and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Entrance door surround (portal) and step well shall be constructed from stainless steel or material with Compatible Equivalent corrosion resistant properties. Entrance door shall comply with FMVSS 217.	Entrance Door clear opening [inches]:	34"
Door Entry Grab Rails (right and left side)	Shall be installed on each side of entry, parallel to the steps, securely fastened and a minimum 1 1/4" diameter made of stainless steel powder coated material, or non-slip Compatible Equivalent, and shall be a high visible yellow in color, accessible from first step to floor of Transit Bus.		
Overhead Hand Rail	Two (2) full-length overhead (ceiling) handrails shall be provided and securely attached to roof structure, which shall be continuous except for a gap at the rear doorway, in accordance with Part 38 of the ADA.		
Driver Barrier	Driver Barrier shall be installed directly behind driver seat.		
Padded Panels	Shall be provided attached to a vertical and horizontal stanchion behind the step well. The gap between the floor and bottom of the panel shall meet NYS DOT specifications.		
Intentionally Omitted	Intentionally Omitted		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		
Wheelchair and Passenger Access	Modify Transit Bus to provide a power (and manual in event of power failure) transit ramp at entrance door. All items, including lighting, shall be in compliance with ADA.		
Ramp	The ramp shall meet the requirements of Part 38 of the ADA relating to vehicle ramps. Power switches for ramp shall be provided and easily accessible on both the driver console and body exterior near passenger entry opening. Ramp shall deploy through the main passenger entry opening and be protected from moisture and debris from underside and sufficiently insulated to protect interior noise level. The ramp shall be of aluminum or stainless steel construction. The ramp must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the ramp shall be provided in the event of a power failure.	Manufacturer:	Ricon
		Model #:	SSR
Ramp slope	Maximum ratio of 1:4 slope when ramp is deployed to sidewalk or roadway		

Contractor:	**Empire Bus Sales LLC**		
LOT M			
Low Floor (Rear Engine), 35 Passenger [33A/2WC]			
Interlock	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the ramp unless door(s) are opened and transmission is in neutral with parking brake applied. A manual override system in case of power failure shall also be provided. Ramp electric system shall be protected with fuse or circuit breaker.	Manufacturer: Model #:	ENC EZ1
Wheelchair Ramp Barrier	Protective panel with vertical stanchion (consistent with Door Entry Grab Rail specifications), constructed of durable material, shall be installed directly adjacent to the passenger entrance to prevent shearing action between the ramp and Transit Bus floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs).		
Lighting- Driver Dome Light	An independently controlled LED overhead dome light over driver area producing six (6) foot candles when measured at the steering wheel.		
Lighting (Interior)	Overhead, entrance, step well, and lift lights shall provide no less than two (2) foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one (1) foot-candle of illumination on the street surface with three (3) feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and step well 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.		
Lighting (Interior)	Interior lighting shall be LED and provide a minimum of two (2) foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair ramp support brackets, air conditioner units or other similar items shall be padded to prevent injury.		
HVAC System	A roof or rear-mounted Heating, Ventilating, and Air Conditioning (HVAC) climate control system shall be integrated into the Transit Bus. The air conditioning portion shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside vehicle (as measured from the approximate vehicle center) a minimum of 1°F for every ninety (90) seconds. The heating portion shall provide sufficient BTU capacity to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. System capacity testing, including pull-down/warm-up, stabilization and profile, shall be conducted in accordance to APTA's Recommended Practice "Transit Bus HVAC System Instrumentation and Performance Testing (Air Conditioner Manufacturer's Certification that performance requirement for vehicle type can be met must be submitted with bid). Heater hoses shall be equipped with full-flow quarter-turn valves located in a protected location. Location of valves shall be indicated with a label stating "Heater Shutoff Valves" and located to be visibly obvious. All heater hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.	Manufacturer: Model #: A/C Capacity [BTUH]: A/C Capacity [BTUH]: A/C Airflow [Cab CFM]: A/C Airflow [Body CFM]:	Thermo King Athenia AMII 24,000 front 90,000 rear 475 3,200
Air Distribution	The driver's area shall be regulated with separate controls for a forced air heater and defroster, with sufficient capacity to maintain visibility across the windshield and side windows. The cabin shall be heated and cooled through a combination of ducted airflow above and convective heating on each sidewall at floor level and designed to prevent hot and/or cold spots. Interior temperature distribution shall be regulated by a fully automatic climate control system.		
Auxiliary Heater	An auxiliary heater fired by diesel fuel shall be provided to supplement the heat supplied by the engine as well as assist in quick starts on cold mornings. The "preheat" mode shall be manually controlled. The "supplemental" mode shall be automatic, cycling the auxiliary heater "on" and "off" according to the coolant temperature and without driver input.	Manufacturer: Model #:	Webasto Thermo 300
Safety Vent (three way)	Two (2) vents shall be installed on the roof of the passenger compartment. Each vent shall provide for fresh air ventilation, static type exhaust with fresh air ventilation and static type exhaust; and shall be equipped with release handle to provide for emergency exit. Size shall be minimum of 24" x 24".	Make: Model #: Size [inches]:	SMI 1070 24" x 24"
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Manufacturer: Model #:	Recaro Ergo-Metro
Seating	Upholstered transit type seats for a minimum of thirty-three (33) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		
Seating	Provide and install FMVSS certified fiberglass transit style seating (4ONE Gemini model, American Seating (Metropolitan and Insight) models, Freedman CitiSeat model or Compatible Equivalent). Seats shall include a plastic back shell, anti-microbial grab rails, and padded, tough to cut vandal resistant inserts.	Manufacturer: Model #:	Freedman Citi-Seat
Seating	Minimum seat widths shall be 17" single and 34" double seats. Aisle width shall be a minimum of 14".	Single Seat Width [inches]: Double Seat Width [inches]: Minimum Aisle Width [inches]:	17" 34" 22"

Contractor:	Empire Bus Sales LLC		

LOT M

Low Floor (Rear Engine), 35 Passenger [33A/2WC]

Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, Regions, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all forward facing seats (excluding rear davenport and side facing seats) and shall be mounted/welded to seat frame structure.		
Wheelchair & Wheelchair Occupant Restraints	Two (2) Wheelchair Restraint System (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Occupant restraint system (including lap belt, shoulder belt with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of Transit Bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belt, and shoulder belt with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-10007 or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouch shall be provided to completely secure belts/straps on Transit Bus sidewalls when not in use. All items shall be installed in accordance with manufacturer's standards and be in compliance with ADA, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the Transit Bus interior at a minimum of one (1) restraint position.	Manufacturer: Model #:	Q'Straint Q-10007
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver's seat position) in the front entry area of the Transit Bus. Equipment location shall be clearly identified.		
Miscellaneous	Storage compartment with door shall be provided and recessed in the center front cap portion of the Transit Bus or positioned over the driver's area if the front cap portion is not used for destination signage or air conditioner evaporator placement. The compartment must be sealed and must not have any exposed wires, protrusions or sharp edges		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]: Chassis Warranty [miles]:	3 years 36,000
Body Warranty	Covering the integrity of the Transit Bus Body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]: Body Warranty [miles]:	5 years 150,000
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The Chassis OEM air conditioning system coverage falls under the Chassis warranty.	Air Conditioning Warranty [years]:	2 years
Wheelchair Ramp Warranty	The ramp shall be fully guaranteed by the manufacturer for three (3) years (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section 3.2 Transit Bus Requirements. See Section 3.1.3 Optional Equipment Unit Price for pricing information relative to Optional Equipment

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Additional Wheelchair Restraint System	Delete the minimum number of seats required for proper spacing (4 maximum) and price one (1) additional wheelchair station above the quantity required in the Base Item. Price is per position to includes all belts, floor/ shoulder hardware, and storage container			$616.26
Optional Wheelchair Restraint System	For each wheelchair position in the Base Item, plus additional optional restraint systems, if ordered, install complete "Omni" style floor securements and complete belts kits, Q-Straint Q-10008 or Sur-Lok AL860S-4C-SNC, or Compatible Equivalent.	Manufacturer: Model #:	Q'Straint QRT-360 Slide and Click (Q'10008)	$439.45
Center Passenger Door	Delete seats (four (4) maximum) and provide an additional transit door, located in the center of the Transit Bus. The door actuation is controlled by a five-position door controller, mounted within the drivers compartment. The center door is interlocked by a door switch controlling the brakes and accelerator. Sensitive door edges shall be included that cycle the center door back to the open position should an obstruction be encountered during the closing cycle.	Manufacturer and Model #	Vapor Air/Electric	$6,934.00
Delete Eight (8) Passenger Seat Option	Reduce Body length and wheelbase as referenced in the floor plan shown in the "Figures" tab for LOT M, "Delete 8 Passenger Seat option". This removes eight (8) passenger seats and the capacity will be reduced to twenty-seven (27) adults (25 seats plus 2 wheelchairs).	Body Model #: Overall Body Length : Wheelbase:	EZR-II Max32 371" 168"	-$4,897.02

Contractor:	**Empire Bus Sales LLC**			
LOT M				
Low Floor (Rear Engine), 35 Passenger [33A/2WC]				
Supplemental ADA Transit Package	Provide and install the following items (All items to be in compliance with ADA): Front and side electronic destination signs – LED type (14 rows and 72 columns minimum) and programmable with a USB key, Twin Vision Mobi-Lite or Compatible Equivalent, interior/exterior PA system, pull cord and touch strips chime signal system (at wheelchair positions), two-way radio pre-wire with 30 amp fused circuit, consisting of roof mounted antenna location access, antenna cable conduit with pull cord, and a dedicated circuit with electrical wire terminating in drivers area.			$8,738.33

Contractor:	**Empire Bus Sales LLC**			
LOT M				
Low Floor (Rear Engine), 35 Passenger [33A/2WC]				
Camera Security System- 6 monitor	Provide and install a complete camera recording system, including software kit. Components include an eight (8) channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of five (5) Transit Bus functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of two (2) exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus four (4) interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for one (1) or more Transit Buses with matching camera system. Minimum components include software, mouse, 5-6" monitor (or DVR viewing software), HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR: Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:	SEON TH8H1T0 SEON CQ903A20 SEON CA904E120	$6,138.86
Fare Box (Manual)	Provide and install a fare collection system, cDiamond Model NV or Compatible Equivalent model, complete with all floor mounting hardware and spare vault.	Manufacturer and Model #:	Diamond NV	$1,828.11
Bike Rack	Provide and install a folding device attached to the front of the Transit Bus that is designed and used exclusively for transporting bicycles. The device shall be stainless steel material and may not extend more than 36" from the front Body, and the handlebars of a bicycle transported on such device may not extend more than 42" from the front Body of the Transit Bus. A deployment warning light shall be visible to the driver whenever the bike rack is not in the stowed position.			$2,155.89
Back Up Camera System	Upgrade the back up radar in Base Item to include a rear view camera.			$1,016.42
Spare Tire and Rim	Provide a matching spare tire and rim (shipped loose).			$982.30
Alternate Transit Flooring	In lieu of standard floor covering, supply an alternate floor covering, to be a smooth slip resistant vinyl with aluminum oxide granules throughout the entire thickness of the wear layer with silicon carbide and base color quartz in the surface layer. The floor covering shall be a minimum of 2.7mm thick. The floor covering is to include a bacteriostat to prevent growth of mold and mildew for the life of the product. Term of warranty shall be 15 years.	Brand and Model #: Thickness [mm]: Warranty [years]:	Altro 2.7 15	$1,442.43