

## Proposal 14303 – ADA Accessible Heavy Duty Buses

### Questions and Responses Set 1

- Q1)** Request to the DOT to update dates in the procurement timetable for Contract Begins and Contract length.
- R1)** The contract begin and end dates are estimated in the procurement timetable as many things can alter those dates through the procurement process. The begin and end date of the initial contract period will be negotiated with the awarded vendors at a later date.
- Q2)** Request to the DOT to update dates on the Bid Response form for contract begin and end dates.
- R2)** See answer to question 1
- Q3)** Is it normal that “Yes” is already checked on the Bid Response Form? Is this related to clause 3.3.3.10?
- R3)** It is normal for the DOT to have that box check marked as this bid is a state wide bid and the contract(s) need to be available to other State Agencies and Political Subdivisions. 3.3.3.10 does stand as does Exhibit Q, which provides a list of the potential customers who would be approved to buy of any contracts.
- Q4)** Schedule of Prices form: Availability after receipt of P.O. in days. We understand that the answer required is the number of days that the bidder commit to deliver bus(es) after a receipt of a P.O. Please confirm.
- R4)** This is correct. Please put the number of days a bus would be available to the customer after the receipt of the order.
- Q5)** Please clarify if payment term is Net 30 days after delivery and acceptance of each bus or if payment term will need to be negotiated with the Iowa DOT at contract award?
- R5)** We use the word "typically" because when dealing with funds from the FTA it is not feasible to pinpoint an exact date. What this is saying is once the transit agency supplies the DOT with the correct documentation and invoice, it may take up to 30 days to process the payment to the transit system. They have 3 days from receiving funds from the DOT to issue payment to the vendors.

**Q6)** In 3.5.10.4 the DOT says, “The State and/or public transit systems may conduct acceptance tests on each delivered vehicle. These tests shall be completed within 30 working days after vehicle delivery and shall be conducted in accordance with written test plans.” We request to change this requirement to the following: “Within fifteen (15) calendar days after arrival at the designated point of delivery, the bus shall undergo the Agency tests defined in this paragraph. If the bus passes these tests or if the Agency does not notify the Contractor of non-acceptance within 15 calendar days after delivery, then acceptance of the bus by the Agency occurs on the 15th day after delivery. If the bus fails these tests, it shall not be accepted until the repair(s) have been carried out and the bus retested until it passes. Acceptance occurs earlier if the Agency notifies the Contractor of early acceptance or places the bus in revenue service.”

**R6)** The DOT accepts this change but that there are potential delays that are out of our control and that could potentially affect the payment timeframe.

**Q7)** In 3.5.10.4 the DOT says, “The defects detected during these tests shall be repaired according to procedures defined in Article XIII of the Contract on Warranty Requirements. We request clarification.

**R7)** Disregard this reference to Section XIII.

**Q8)** We request the DOT changes “Comprehensive General Liability including Contractual Liability” in section 5.10 to “Commercial General Liability including Contractual Liability.”

**R8)** Section 5.10 will stand as written.

**Q9)** We request the DOT remove Pollution Liability insurance requirement since we don’t offer it and believe that this shall not apply to this type of contract.

**R9)** This is standard DOT contractual language and will stand for now. This will be evaluated in the award process. If it is deemed unnecessary, it will be negotiated with awarded bidder.

**Q10)** We request to be provided with the straight time wage rate from the following: The Agency shall be reimbursed by the Contractor for labor. The amount shall be determined by the Agency for a qualified mechanic at a straight time wage rate of [insert amount] per hour, which includes fringe benefits and overhead adjusted for the Agency’s most recently published rate in effect at the time the Work is performed, plus the cost of towing the bus if such action was necessary and if the bus was in the normal service area. (Addendum 2).

**R11)** Wage rates will reflect the current Davis-Bacon wage rate at the time of requested reimbursement.

**Q11)** We request to change requirement 3.5.22 with wording proposed in the APTA Standard Bus Procurement Guidelines.

**R11)** The DOT Standard Terms and Conditions and Section 5 of this Request for Bid will be the contractual language for any disputes arising from the awarded contract(s).

**Q12)** According to Exhibit N, a copy of the final Altoona test report needs to be sent to the recipient prior to the recipient's final acceptance of the first vehicle when a manufacturer of a new bus model or a bus produced with a major change in components or configuration is offered. Please confirm that Altoona test report may or may not be included in Bidder's proposal depending on its response in Exhibit N.

- R12)** Please provide if it is available. The only acceptable reason for it not being available is the exception in Exhibit N.
- Q13)** Please clarify if the word Supplier means the Contract Bidder or in other words, the Contractor.
- R13)** Supplier can mean the Bidder, Vendor, or Contractor.
- Q14)** Please clarify the reference to Section VI in 3.3.3.3 since we cannot find it in the RFB Document.
- R14)** Clause 3.3.3.3 is no longer applicable.
- Q15)** Please clarify how many operators, maintenance and vendors (suppliers) manuals shall be included I each bus price in reference to 3.3.3.5.
- R15)** Only one 3 ring binder per bus needs to be provided.
- Q16)** Will the potential client request a pilot bus?
- R16)** This will need to be addressed by each individual purchasing entity at the time the order is placed. We do not believe this will be required but each system has its own requirements. Pilots could be added as a upcharge option.
- Q17)** We would like to clarify that any change orders, options requested by a client that is not part of the bid response may require a longer delivery schedule. Such longer delivery schedule shall not be considered as a default by the Bus manufacturer.
- R17)** With each order an entity places, the delivery schedule can be negotiated with that purchasing entity based upon the complexity of the order.
- Q18)** We request to have a definition of Subcontractor included in the RFB.
- R18)** Subcontractor includes every person furnishing material, equipment or performing labor. The contract holder, or awarded bidder may use subcontractors but if any problems arise with the equipment purchased, the purchasing entity will work through the contract holder, or awarded bidder to fix any and all issues regarding the product purchased.
- Q19)** Same question as 18.
- R19)** See response to question 18.
- Q20)** Certain suppliers (subcontractors) request direct warranty process with the purchasing entity. We request the approval to respect these supplier agreements regarding warranty process in terms of delegated responsibility.
- R20)** There is no issue with the transit agency working directly with the subcontractors for warranty work, but we require the bus manufacturer to coordinate these services. The manufacturer will be the liaison between the transit agency and the subcontractor if the transit system requests this of the manufacturer. Our contract is with the manufacturer, not the subcontractors.
- Q21)** We request to have some major subsystem suppliers to be excluded from the fleet defect clause in the attachment with Addendum 2. Some subsystem suppliers refuse to participate in fleet defect clauses.
- R21)** If the subcontractor refuses to participate in the fleet defect clause, that is between the Bus Manufacturer and the subcontractor. The public transit system purchasing buses with tax payer dollars should not be held responsible for an agreement between the

manufacturer and their subcontractors. If the subsystem supplier “opts out” of a fleet defect clause then the manufacturer will be responsible for costs just as the subcontractor would have.

- Q22)** We request that, “A Fleet Defect is defined as cumulative failures of twenty-five (25) percent of the same components in the same or similar application in a minimum fleet size of twelve (12) or more buses where such items are covered by warranty. A Fleet Defect shall apply only to the base warranty period in sections entitled “Complete Bus,” “Propulsion System” and “Major Subsystems.” When a Fleet Defect is declared, the remaining warranty on that item/component stops. The warranty period does not restart until the Fleet Defect is corrected” be changed to read as, A Fleet Defect is defined as cumulative failures of twenty-five (25) percent of the same components in the same or similar application in a minimum fleet size of twelve (12) or more buses where such items are covered by warranty. A Fleet Defect shall apply only to the base warranty period in sections entitled “Complete Bus,” “Propulsion System” and “Major Subsystems.”
- R22)** Agreed with the understanding of the responsibility the manufacturer has to fill the gap created by the sub system suppliers that do not participate in the fleet defect clause.
- Q23)** We request that the following requirement is deleted. “Default: Failure of the Supplier to adhere to specified delivery schedules or to promptly replace rejected materials shall render the Supplier liable for all costs in excess of the bid price when alternate procurement is necessary. This shall not be the exclusive remedy and the Iowa DOT reserves the right to pursue other remedies available to it by law or under the terms of the binding agreement.”
- R23)** This is standard DOT contract language and will stay in the RFB. We will allow the word shall to be read as may leaving negotiation between the parties an option.
- Q24)** We request that the following requirement is deleted. “Default: Failure of a Contractor other than a Supplier to meet any specified project completion deadline shall render the Contractor liable for all costs incurred by DOT that were: a) necessary to meet said deadline; or b) necessary to complete said project after said deadline. This shall not be the exclusive remedy and the Iowa DOT reserves the right to pursue other remedies available to it by law or under the terms of the agreement.”
- R24)** See answer to question 23.
- Q25)** Please clarify the following delivery requirements. “Each bus shall be delivered to the recipient within a time frame determined by the Responder’s offer. (3.3.3.3) / The equipment shall be delivered as agreed upon between the successful bidder and the Iowa DOT. (5.5)”
- R25)** There is a section where the vendor is required to enter the anticipated number of days it will take from date of order to date of delivery. This is only meant for transit agency planning.
- Q26)** As per the requirements of this RFB, the Contract Bidder is required to furnish usage data to the TPA (3.3.3.11). Please clarify what TPA means?
- R26)** This is defined in the body of the RFB. TPA is the Transit Programs Administrator at the Iowa DOT.

- Q27)** The Contract Bidder must notify the State of the manufacturer's cut-off dates on equipment furnished within five business days after notice is received from the manufacturer. (3.9.2) We request that it be changed to, "The Contract Bidder must notify the State of the manufacturer's cut-off dates on equipment furnished within thirty business days after notice is received from the manufacturer."
- R27)** The DOT feels 5 days is a sufficient amount of time to let the customers know cut off dates for the current model year once the contract holder knows what those dates are.
- Q28)** During the life of the Contract, any or all temporary price reductions, promotional price offers, introductory pricing, or any other offers or promotions that provide prices lower than or discounts higher than those stated in the Contract, must be given immediately to the entities eligible to purchase from the Contract. Invoices for goods ordered or shipped or services performed during the decrease, or promotion, must immediately reflect such pricing. (3.4.2) We request to delete this requirement.
- R28)** If at the time an order is placed there are any of the above described discounts/rebates available for the product being ordered, those discounts/rebates will be given to the customer for their purchase.
- Q29)** The contract terms contained in Section 6 are not intended to be a complete listing of all contract terms but are provided only to enable Bidders to better evaluate the costs associative with the RFB and the potential resulting contract. (5.1) Please clarify the reference to section 6 since we cannot find it in the RFB Document.
- R29)** The correct section is Section 5 of the RFB.
- Q30)** The Contractor shall include the cost for all software licenses and annual software maintenance fees require for its work. The Contractor must furnish a written copy of the software Terms and Conditions of software agreement with the submitted proposal. The Contractor shall give all notices and comply with all codes, laws, ordinances, rules and regulations of any public authority having jurisdiction that bears on the performance of its work. We request this to read, "The Contractor shall include the cost for all software licenses and annual software maintenance fees require for its work if applicable. The Contractor shall give all notices and comply with all codes, laws, ordinances, rules and regulations of any public authority having jurisdiction that bears on the performance of its work."
- R30)** This is standard DOT contractual language and will only apply if applicable.
- Q31)** **TS 5.5 Interchangeability.** This interchangeability shall extend to the individual components as well as to their locations in the buses. These components shall include, but are not limited to, passenger window hardware, interior trim, lamps, lamp lenses and seat assemblies. Individual components are interchangeable between buses at the same location on the bus. Most windows, with the exception of the last two windows on each side of the rear of the bus and the last window on each side of the front section of the articulated buses are interchangeable. On articulated buses, the front and rear axle wheels and tires are not interchangeable with those of the middle axle. Additionally, the rear bench seat as well as the longitudinal seats curbside and street side just before the articulation and the longitudinal seats curbside just after the articulation (in the case of

articulated buses) are molded/ fiberglass bench seats and are not interchangeable with other seats on the bus. We request your approval.

**R31)** This is approved.

**Q32) TS 5.7 Operating Environment.** The bus shall achieve normal operation in ambient temperature ranges of 10 °F to 115 °F, at relative humidity between 5 percent and 100 percent, and at altitudes up to 3000 ft. above sea level. Degradation of performance due to atmospheric conditions shall be minimized at temperatures below 10 °F, above 115 °F or at altitudes above 3000 ft. Altitude requirements above 3000 ft. will need separate discussions with the engine manufacturer to ensure that performance requirements are not compromised. In terms of operating specifications, We apply the Cummins Application Engineer Bulletin // Cummins cooling system standards Level 1 Northern Africa, Middle East, and India, vehicles domiciled in Southwestern US such as Phoenix Arizona., min 115F LAT ( limiting Ambient temperature ) at peak power. We kindly request your approval.

**R32)** This is approved.

**Q33) TS 5.8 Noise, TS 5.8.1 Interior Noise.** Measurements of interior noise levels shall be taken in accordance with ISO 3381. We request approval to conduct noise level measurements in accordance with standard SAE J366.

**R33)** This is approved.

**Q34) TS 6.3 Bus Height.** Maximum Overall Height (Diesel):  
Maximum overall height shall be 126 in., including all rigid, roof-mounted items such as A/C, exhaust, fuel system and cover, etc. (Maximum Overall Height (Diesel)  
NOTE: For the Iowa City/Coralville metro area transit properties, maximum overall height shall be 123 in., including all rigid, roof mounted items such as A/C, exhaust, fuel systems, cover, etc. This height maximum is required due to a low clearance bridge over a roadway which all transit systems use routinely. All bidders must specify whether or not they can meet the Iowa City requirement. Clarification: Our diesel buses have an overall height (including all rigid roof-mounted items) of 126 inches.

**R34)** 126 is the maximum height so you would be eligible but the Iowa City area would not be able to purchase these buses.

**Q35) TS 6.3 Bus Height.** Maximum Overall Height (Diesel-Electric Hybrid):  
Maximum overall height shall be 130 in., including all rigid, roof-mounted items such as A/C, exhaust, fuel system and cover, etc. We request approval to have a maximum overall height (including all rigid roof-mounted items) of 131 inches.

**R35)** This is approved.

**Q36) TS 6.4 Step Height, TS 6.4.1 Transit Coach.** The step height shall not exceed 14 in. at either doorway without kneeling. A maximum of two steps are allowed to accommodate a raised aisle floor in the rear of the bus. Our vehicles have a step height of 14.6in at either doorway without kneeling. This is compliant to section 6.8 Floor Height. We request your approval.

**R36)** This is approved.

**Q37) TS 6.6 Ramp Clearances.** Default Breakover Angle

Angle	30 to 45 ft Bus	60 ft Bus
Approach	9 deg (min.)	9 deg (min.)
Front breakover	9 deg (min.)	12 deg (min.)
Rear breakover	n/a	9 deg (min.)
(articulated only)		
Departure	9 deg (min.)	9 deg (min.)

We request approval to have an approach angle of 8.6 degrees (including the front ramp replaceable skid bar) and a front and rear breakover angle of 10 deg.

**R37) This is approved.**

**Q38) TS 6.7 Ground Clearance.** Ground clearance shall be no less than 10 in., (8 in. at jacking pad) except within the axle zone and wheel area. Axle zone clearance, which is the projected area between tires and wheels on the same axial centerline, shall be no less than 5.6 in. We request your approval for ground clearance of 9 inches. Please note that clearance may be reduced by 3/8 inch at welding locations.

**R38) This is approved.**

**Q39) TS 6.7 Ground Clearance.** Wheel area clearance shall be no less than 8 in. for parts fixed to the bus body and 6 in. for parts that move vertically with the axles. We request approval for wheel area clearance of 5 in for parts fixed to the body and 5.8 in for parts that move vertically with the axles. We request approval for wheel area clearance of 5 in for parts fixed to the body and 5.8 in for parts that move vertically with the axles.

**R39) This is approved.**

**Q40) TS 7.2 Gradability.** Gradability requirements shall be met on grades with a dry commercial asphalt or concrete pavement at GVWR with all accessories operating. For buses equipped with the BAE Hybrid System gradability requirements are met until battery is at 20%. Please confirm your approval.

**R40) This is approved.**

**Q41) TS 10. Cooling Systems.** The fan control system shall be designed with a fail-safe mode of "fan on." We wish to clarify that the fan system is controlled by the VBEA Multiplex system. Any fan failure will be reported by the multiplex system. The fans are controlled in groups; therefore if a fan fails within the engine cooling group, then the load will be taken by the other remaining fans within the group.

**R41) This is ok.**

**Q42) TS 10.1 Engine Cooling.** A means of determining satisfactory engine coolant level shall be provided. A spring-loaded, push-button type valve or lever shall be provided to safely release pressure or vacuum in the cooling system with both it and the water filler no more than ±60 in. above the ground. Both shall be accessible through the same access door. Our cooling system is roof mounted at the rear of the bus, accessible through the radiator compartment door, located more than 60 inches above the ground. The surge tank has one sight glass, however, coolant level information is displayed on the electronic master gauge located on the engine control box in the engine compartment and the driver dash. The surge tank has three coolant sensor probes to transmit level information. The location of the radiator compartment has the advantage of providing the cleanest and coolest air. A pressure release valve is located in the engine compartment. Filling of the

system is accomplished via a remote filler located in the engine compartment, approximately 50 inches off the ground. We request your approval.

**R42)** This is approved.

**Q 43) TS 10.1.1 Radiator Screen.** No screen in front of radiator. Clarification: A grill is incorporated in the radiator compartment cover.

**R43)** This is ok.

**Q44) TS 10.1.2 Coolant.** Standard Requirement for Coolant Filtration

The engine cooling system shall be equipped with a properly sized water filter with a spin-on element and an automatic system for releasing supplemental coolant additives as needed to replenish and maintain protection properties. We request approval to provide a water filter without an automatic system for releasing supplemental additives, as depending on the type of refrigerant used it may lead to overdosing of the refrigerant and damage to the system.

**R44)** Approved with the understanding that if the transit system ordering the bus requires an automatic system, and it is not available, they may choose another vendor.

**Q45) TS 10.1.3 Drive Design.** Electric Fans: The bus shall be equipped with an electric fan drive bus cooling system. A screen guard must be installed on electric motor fans per SAE J1308. The radiator is mounted on the roof. A screen guard is not installed on the electric motors, however, a grill is incorporated in the radiator compartment cover and performs the function of screen guard as per SAE J1308. We request your approval.

**R45)** This is approved.

**Q46) TS 10.1.4.** The radiator shall be mounted on the rear street side of the bus. We request your approval for a roof mounted radiator at the rear of the bus. Please refer to attachment RFA 16 eCooling.

**R46)** This is approved.

**Q47) TS 12.** Accessible Retarder Disable Switch: The retarder disable switch shall be accessible to the seated driver. We request approval to mount the retarder switch in the driver's overhead left console, accessible to the standing driver.

**R47)** This is approved.

**Q48) TS 13.1 Service.** Engine oil and the radiator filler caps shall be hinged to the filler neck and closed with spring pressure or positive locks to prevent leakage. All fluid fill locations shall be properly labeled to help ensure that correct fluid is added. All fillers shall be easily accessible with standard funnels, pour spouts and automatic dispensing equipment. We request your approval for a spring loaded pressurized radiator cap in lieu of a hinged cap.

**R48)** This is approved.

**Q49) TS 13.1 Service.** All lubricant sumps shall be fitted with magnetic-type drain plugs or magnets in pan. We request approval not to provide an engine magnetic drain plug as Cummins engines are not fitted with magnetic-type drain plugs.

**R49) This is approved.**

**Q50) TS 13.1 Service.** Engine Oil Pressure and Coolant Temperature Display  
Engine oil pressure and coolant temperature gauges required in engine compartment.  
Engine oil pressure and coolant temperature information is available through the ACTIA Electronic Master Gauge located on the engine control box and on the driver's dash.

**R51) This is approved.**

**Q51) TS 14.1 Fluid Lines.** All lines shall be rigidly supported to prevent chafing damage, Fatigue Failures, degradation and tension strain. Lines should be sufficiently flexible to minimize mechanical loads on the components. Lines passing through a panel, frame or bulkhead shall be protected by grommets (or similar devices) that fit snugly to both the line and the perimeter of the hole that the line passes through to prevent chafing and wear. We wish to clarify that we use HePEX ( crosslinked polyethylene ) tubing system that replaces traditional copper tubes in the passenger compartment. It complies with this section of technical specification. Copper tubes are used in the engine compartment. Please refer to attachment RFA 21 HePex. Please confirm approval.

**R51) This is approved.**

**Q52) TS 17.2.1 Design and Construction, Diesel Fuel Tank(s).** The fuel tank(s) shall be made of high-density cross-linked polyethylene plastic material with or without baffles. Our articulated buses are equipped with a type 304 Stainless Steel fuel tank located under a longitudinal molded seat on the curb side of the bus. We request your approval.

**R52) This is approved.**

**Q53) TS 17.2.1 Design and Construction, Diesel Fuel Tank(s).** The fuel tank(s) shall have an inspection plate or easily removable filler neck to permit cleaning and inspection of the tank(s) without removal from the bus. Our fuel tank needs to be removed from the bus for cleaning. We request your approval.

**R53) This is approved.**

**Q54) TS 17.2.1 Design and Construction, Diesel Fuel Tank(s).** The fuel filler shall be located 7 to 32 ft. behind the centerline of the front door on the curbside of the bus. We request approval for our fuel filler location which is located 32ft 8in behind the centerline of the front door for a 40ft bus and 35ft 8 in behind the centerline of the front door for an articulated bus.

**R54) This is approved.**

**Q55) TS 23. Corrosion. Corrosion-Resistance Requirements.** All exposed surfaces and the interior surfaces of tubing and other enclosed members below the lower window line shall be corrosion resistant through application of a corrosion protection system. We request your approval for a stainless steel corrosion resistant structure with the following corrosion protection. Hollow tubular frame members have open ends or drain holes close to weld joints to allow any moisture/condensation to escape. No coating is applied on interior surfaces of tubing. Corrosion protection is applied as follows: Lower half of the

structural frame walls are externally coated with Sicopoxy 577-623 coating. Sikaflex 221 caulking is applied between stitchwelds that join metal sheets to structural tubes. Underside of the structure and structural wheel housings is coated with Tectyl 3344 undercoating.

**R55) This is approved.**

**Q56) TS 24. Towing.** Each towing device shall withstand, without permanent deformation, tension loads up to 1.2 times the curb weight of the bus within 20 deg of the longitudinal axis of the bus. If applicable, the rear towing device(s) shall not provide a toehold for unauthorized riders. The method of attaching the towing device shall not require the removal, or disconnection, of front suspension or steering components. Removal of the bike rack is permitted for attachment of towing devices. We recommend to lift from the front in order to move an immobile bus. We do not recommend, at any time, rear-end lifting of any of its vehicles. In the case of an emergency and as long as, the proper locations on the bus are used (as proposed by us), rear towing may be acceptable. For example, pulling an immobile bus from the rear to remove it from a roadside ditch.

**R56) This is approved.**

**Q57) TS 27. Floor TS 27.1 Design (Transit Coach).** Where the floor meets the walls of the bus, as well as other vertical surfaces such as platform risers, the surface edges shall be blended with a circular section of radius not less than ¼ in. or installed in a fully sealed butt joint. Similarly, a molding or cover shall prevent debris accumulation between the floor and wheel housings. Since a composite floor is installed, the floor to wall transition does not require to make a radius with the wall. Our floor covering is bonded to the floor during the manufacturing process of the floor, resulting in a superior adhesion which eliminates the possibility of water infiltration or of the edges separating. Additionally, a pultrusion is installed as a seatrail and protection against debris accumulation. The composite floor offers a good protection to water and is resistant to rot, mildew and water damage. We request your approval.

**R58) This is approved.**

**Q59) TS 27. Floor, TS 27.4 Construction.** Pressure-Preserved Plywood Panel. We request your approval for the use of a composite floor as described in the Attachment RFA 29 Composite Flooring.

**R59) This is approved.**

**Q60) TS 28. Platforms, TS 28.1 Driver's Area.** Stainless steel trim material. We request your approval to have no stainless steel trim. Rationale: Our floor covering is bonded to the floor during the manufacturing process of the floor, resulting in a superior adhesion which eliminates the possibility of water infiltration or of the edges separating; therefore, it does not require any additional trim or protection. The driver platform has integral Yellow nosing.

**R60) This is approved.**

**Q61) TS 29.3 Articulated Joint (Articulated Transit Coach).** Turntable seats shall be quickly and easily removable by one person. We request approval to provide dorsal supports in place of turntable seats. Turntable seats are not offered.

**R61) This is approved.**

**Q62) TS 29.3 Articulated Joint (Articulated Transit Coach).** The bus shall be equipped with a reverse speed governor that shall apply the brake and accelerator interlocks when the bus speed in reverse gear exceeds 1.5 mph, but the bus shall have sufficient power in reverse to back out of wheel locator depressions at a floor hoist. We request approval for our reverse speed governor which limits the reverse speed to approximately 3MPH, which is the idle speed.

**R62) This is approved.**

**Q63) TS 29.3 Articulated Joint (Articulated Transit Coach).** Floor plates must be easily lifted and secured in the open position by one person for inspection and repairs....An access hatch shall be provided for routine maintenance (i.e., greasing, adjusting potentiometer, maintenance items). We request approval for our configuration in which the floor plates must be disassembled and removed, instead of lifted and secured in an open position. The access hatch has the required functionality; however, the floor plates must be removed for greasing.

**R63) This is approved.**

**Q64) TS 29.3 Articulated Joint (Articulated Transit Coach).** An anti-jackknife joint shall be provided. .... The Agency shall approve the anti-jackknife joint. The interconnecting structure shall be designed to prevent separation of the lead and trailing units as a result of a road accident with a commercial or private vehicle. A means shall be provided so that the driver can override the control or recover from the situation. The bus shall be equipped with a reverse speed governor that shall apply the brake and accelerator interlocks when the bus speed in reverse gear exceeds 1.5 mph, but the bus shall have sufficient power in reverse to back out of wheel locator depressions at a floor hoist. The proposed configuration of these devices and the reverse-speed requirements shall be submitted for approval of the Agency. We request approval for the anti-jackknife, interconnecting structure and other safety devices as described in attachment RFA 34 Articulated Joint.

**R64) This is approved.**

**Q65) TS 29.4 Raceway (Articulated Transit Coach).** Lines shall be secured, separated and labeled at the lead and trailing unit bulkheads. Separation shall be maintained on the flexible portion of all lines through the use of a raceway. All electrical terminations and hose fittings shall be easily visible and easily tightened or removed without removing any other component. Lines, routing, securement and labeling shall be approved by the Agency.

Bulkhead fitting shall be provided for all lines: air coolant, electrical and AC at both ends of the raceway. The bulkhead area shall be easily accessible for servicing. We wish to clarify that ground line is connected at both sides within the articulation. Also the A/C refrigerant lines have removable fittings at both sides' locations within the articulation.

However, air lines, coolant lines and hydraulic lines have fittings before and after of the articulation accessible from the baselight.

Electrical harness is connected through a main electrical connector located forward of the articulation accessible from the baselight.

**R65)** This is ok.

**Q66) TS 29.5 Bellows.** The Contractor shall supply information on the actual service life achieved by the type of bellows being proposed. We request approval for the bellows proposed. Please refer to Attachment RFA 36 Bellow for more details.

**R66)** This is approved.

**Q67) TS 31.2 Tires.** The tires shall be provided by the bus manufacturer. Please clarify if a certain brand of tires or tire pressure is required. Please note that this will impact the bus capacity.

**R67)** No brand can be specified. Provide least expensive brand that can be used safely on route with no modifications as base and others as an option. Pressure will be determined by transit system at time of order as each system may have different needs, it is not possible for us to specify.

**Q68) TS 31.2 Tires.** Sufficient space shall be provided to allow the Agency to carry a spare tire, if required. We request approval not to provide space for a spare tire, as there is no such space designated on the bus.

**R68)** This is approved.

**Q69) TS 32.1 Steering Axle (Transit Coach) and TS 35.4 Hubs and Drums/Discs.** Solid Beam Axle with "Unitized" lubricated for life wheel bearings and seals: The front axle shall be solid beam, non-driving with a load rating sufficient for the bus loaded to GVWR and shall be equipped with "Unitized" lubricated for life type front wheel bearings and seals and Wheel bearing and hub seals and unitized hub assemblies. Hubs have grease type bearings, unitized seals are offered on the rear and middle axle only. We request approval.

**R69)** This is approved.

**Q70) TS 35. Brakes, TS 35.2 Actuation.** Force to activate the brake pedal control shall be an essentially linear function of the bus deceleration rate and shall not exceed 75 lbs at a point 7 in. above the heel point of the pedal to achieve maximum braking. The force to activate the brake pedal for maximum braking can reach up to 80 pounds. We request approval.

**R70)** This is approved.

**Q71) TS 35. Brakes, TS 35.2 Actuation.** The total braking effort shall be distributed among all wheels in such a ratio as to ensure equal friction material wear rate at all wheel locations. Manufacturer shall demonstrate compliance by providing a copy of a thermodynamic brake balance test upon request. We request approval to provide such test report after the recommendation for award since we consider any of our test reports as proprietary / confidential information.

**R71)** This is approved.

**Q72) TS 35. Brakes, TS 35.2 Actuation.** No automatic traction control. We request approval to provide an Automatic Traction Control in the base offer. The ATC system is an integral part of our brake system.

**R72) This is approved.**

**Q73) TS 35.3 Friction Material.** In order to aid maintenance personnel in determining extent of wear, a provision such as a scribe line or a chamfer indicating the thickness at which replacement becomes necessary shall be provided on each brake lining. The complete brake lining wear indicator shall be clearly visible from the hoist or pit without removing backing plates.

No remote brake wear indicator shall be required. Instead of providing a provision on each brake pad to indicate brake wear we request approval for the following:

Brake wear information is displayed on the electronic master gauge (LCD display) on the dash and the engine control box. Brake lining wear sensors are integrated to each caliper. The sensor reads the displacement of the brake cylinder and sends the data to the bus computer. The displacement is converted into a percentage of wear, a thickness in mm and a thickness in inches of the brake lining. This information is transmitted every 100ms for all wheels. When the Brake State menu option is selected in the Message Display Center of the electronic master gauge LCD, the system displays the brake lining status in inches, millimeters or percentage (%) brake wear for each brake lining. When one of the brake linings reaches the preset wear limit for brake replacement, the yellow Brake Light telltale on the dash starts flashing.

**R73) This is approved.**

**Q74) TS 35.4 Hubs and Drums/Discs.** Drum Brakes on All Axles: The bus shall be equipped with drum brakes on all axles. Our buses are equipped with disk brakes on all wheels as standard. Drum brakes are not offered. Please refer to attachment RFA 44 All-Wheel Disc Brakes for more details and advantages of the disk brakes offered. We request approval.

**R74) This is approved.**

**Q75) TS 40.3 Low Voltage/Low Current Wiring and Terminals.** All power and ground wiring shall conform to specification requirements of SAE Recommended Practice J1127, J1128 and J1292. We request approval to also use TFZ wiring in the engine compartment, where required, due to high temperature in addition to the wiring specified.

**R75) This is approved.**

**Q76) TS 40.3 Low Voltage/Low Current Wiring and Terminals.** Strain-relief fittings shall be provided at all points where wiring enters electrical compartments. We request approval to install backshells only where available for the specific connector.

**R76) This is approved.**

**R77) TS 40.4 Electrical Components.** All electric motors shall be heavy-duty brushless type where practical, and have a continuous duty rating of no less than 40,000 hours (except cranking motors, washer pumps, auxiliary heater pumps, defroster and wiper motors). All electric motors shall be easily accessible for servicing. We request your approval for the booster pump to have a 4 year life based on 7300 hours per year which correspond to 20 hrs per day over a year.

R77) This is approved.

**Q78) TS 40.1.5 Auxiliary Electronic Power Supply.** If required, gel-pack, or any form of sealed (non-venting) batteries used for auxiliary power are allowed to be mounted on the interior of the vehicle if they are contained in an enclosed, non-airtight compartment and accessible only to maintenance personnel. This compartment shall contain a warning label prohibiting the use of lead-acid batteries. Please clarify if an ultra-capacitor is required.

R78) It is not in the spec, so no, it is not required.

**Q79) TS 42. Multiplexing, TS 42.1 General.** Ten percent of the total number of inputs and outputs, or at least one each for each voltage type utilized (0 V, 12 V, 24 V) at each module location shall be designated as spares. Since our vehicle is mostly 24 volts, we have only one 12 volt module, which may have less than ten percent of the total number of inputs and outputs designated as spares. We request approval.

R79) This is approved.

**Q80) TS 43. Data Communications, TS 43.1 General.** All data communication networks shall be either in accordance with a nationally recognized interface standard, such as those published by SAE, IEEE or ISO, or shall be published to the Agency with the following minimum information:

- Protocol requirements for all timing issues (bit, byte, packet, inter-packet timing, idle line timing, etc.) packet sizes, error checking and transport (bulk transfer of data to/from the device).
- Data definition requirements that ensure access to diagnostic information and performance characteristics.
- The capability and procedures for uploading new application or configuration data.
- Access to revision level of data, application software and firmware.
- The capability and procedures for uploading new firmware or application software.

We request approval for our VBEA (Volvo Bus Electronic Architecture) network which is CANBUS compliant but using a proprietary Volvo protocol. This System is also used by Volvo Buses and Prevost globally. We wish to clarify that the VBEA protocol is not public domain. The VBEA does interface with J1939. We do not provide the protocol, however we will include in the special tool list the cable extension DB-9 which is needed to connect the VBEA system to a laptop for diagnostic and troubleshoot of the system. Please refer to attachment RFA 50 VBEA system.

R80) This is approved.

**Q81) TS 43.3 Multiplex Level, TS 43.3.1 Data Access.** The communication port(s) shall be located as specified by the Agency. We request approval for the VBEA multiplex communication port to be located on the overhead left console in the driver's area.

R81) This is approved.

**Q82) TS 43.3.3 Programmability (Software).** Provisions for programming the multiplex system shall be possible through a PC or laptop. Clarification: The Multiplexing System is a critical nerve center finely tuned by our engineers to provide the client with a dependable product on a daily basis. We do not provide the source code, however, a set of parameters can be changed within pre-defined limits by the client without the need to modify the program logic.

R82) This is approved.

**Q83) TS 44.5 Normal Bus Operation Instrumentation and Controls.** The indicator panel shall be located in Area 1 or Area 5, within easy view of the operator instrument panel. All indicators shall have a method of momentarily testing their operation. The audible alarm shall be tamper-resistant and shall have an outlet level between 80 and 83 DBA when measured at the location of the operator's ear. We request approval to provide an audible alarm of 67 DBA.

R83) This is approved.

**Q84) TS 44.5 Normal Bus Operation Instrumentation and Controls.** TABLE 6 (Transit Coach)  
Transit Bus Instruments and Alarms, Rear door ramp/kneel enable, Rear door, ramp Rear kneel. Please confirm that only front door kneeling and only a front door ramp are required.

R84) Yes, that is correct, but in the case that a vendor has a rear door ramp or in the future they have a rear door ramp, the kneeling alarm will be required.

**Q85) TS 44.5 Normal Bus Operation Instrumentation and Controls.** TABLE 6 (Transit Coach)  
Transit Bus Instruments and Alarms, Auxiliary power - 110 V power receptacle. Please clarify the required functionality of the 110V power receptacle and the power required.

R85) This should be discussed with the transit system at the time of order. Each system may have different power needs.

**Q86) TS 44.5 Normal Bus Operation Instrumentation and Controls.** Bike rack deployed indicator. This conflicts with section TS 68.2 No provisions for installing a bike rack shall be made. Please clarify.

R86) Correct, but if there is a bike rack added as an option, then the indicator is required.

**Q87) TS 44.6.1 Pedal Angle.** The vertical angle of the accelerator and brake pedals shall be determined from a horizontal plane regardless of the slope of the cab floor. The accelerator and brake pedals shall be positioned at an angle of 37 to 50 deg at the point of initiation of contact and extend downward to an angle of 10 to 18 deg at full throttle. We request approval to extend downward to an angle of 27 degree from the horizontal in lieu of 10 to 18 degrees.

R87) This is approved.

**Q88) TS 45.3 Storage Box.** Storage Box, An enclosed driver storage area shall be provided with a positive latching door and/or lock. The minimum size is 2750 in.3. We request approval for a storage location integrated to the dashboard with a capacity of approximately 1100 cubic inches. The Dash storage area provides a positive latching door. Please refer to attachment RFA 58 Operator Storage Box.

R88) This is approved.

**Q89) TS 50. Driver's Side Window.** The driver's side window shall be the sliding type, requiring only the rear half of the sash to latch upon closing, and shall open sufficiently to permit the seated operator to easily adjust the street-side outside rearview mirror. The rear section of the driver window is fixed to prevent injuries by the passenger seating behind the driver. Since the driver cannot reach adjust the street-side mirror from a seated position, remote controlled mirrors are offered as standard.

**R89) This is approved.**

**Q90) TS 50. Driver's Side Window and TS 51. Side Windows.** The RFP requests both Frame and hidden frame windows in the base offer. Please clarify which type of windows should be included.

**R90) The least expensive should be in the base with the other as an option.**

**Q91) HEATING, VENTILATING AND AIR CONDITIONING TS 52.** Capacity and Performance. The air conditioning system shall meet these performance requirements using R134a. We request approval to offer an electric-driven HVAC system, using R407c refrigerant for serial Hybrid (BAE) buses.

**R91) This is approved.**

**Q92) TS 53.1 Auxiliary Heater.** No auxiliary heater. We request approval to include an auxiliary heater as it is required to meet Cummins IQA requirements and temperature operating conditions mentioned in the RFP.

**R92) This is approved.**

**Q93) TS 56. Roof Ventilators.** The ventilator shall cover an opening area no less than 425 sq in. and shall be capable of being positioned as a scoop with either the leading or trailing edge open no less than 4 in., or with all four edges raised simultaneously to a height of no less than 3½ in. We offer Specialty Manufacturing SafetyGuard roof hatches. Specialty Manufacturing roof hatches complies with the specification except for the following: Four edges opening height of 3.25in. We request approval.

**R93) This is approved.**

**Q94) TS 59. Floor-Level Heating TS 59.1, Transit Coach and TS 52.** Capacity and Performance. No requirements for floor-level heating and when the bus is operated in outside ambient temperatures in the range of -10 to 10 °F, the interior temperature of the bus shall not fall below 55 °F while the bus is running on the design operating profile and Colder Ambient Conditions - With ambient temperature at -20 °F. In order to meet operating temperature requirements described in section TS52 Capacity and Performance, we request approval to provide floor-level heating.

**R94) This is not approved. Please list this as an option. Depending on the location of the transit system, this may be needed or it may not. We want to be able to provide the least expensive option to those systems that do not want to pay for something they do not need.**

**Q95) TS 69. Finish and Color, TS 69.1 Appearance.** The bus shall be the manufacturer's basic white bus, with no clear coat and no customer specific exterior decals such as agency logos. Fleet number & Safety decals are still required. We request approval to provide color impregnated Lili White gel-coated panels (high gloss -90 +/-10 at 60deg)

instead of painted finish. Gel coated panels have no orange peel, minimize maintenance by providing ease of repair and eliminating the need to re-paint the bus.

**R95)** This is approved.

**Q96) TS 69. Finish and Color, TS 69.1 Appearance.** The Paint shall be DuPont® Imron Elite (or approved equal). We request approval to provide color impregnated Lili White gel-coated panels (high gloss -90 +/-10 at 60deg) instead of painted finish with decal striping instead of paint to render the Agency's colour scheme.

**R96)** This is approved.

**Q97) TS 71.4 Headlights.** LED: Headlamps shall be LED/halogen, sealed beam. We request your approval for two 24 volts combined high and low beam LED Headlight from Dialight.

**R97)** This is approved.

**Q98) TS 71.5 Brake Lights, TS 71.5.1 Transit Coach.** High and Center Mount Red Brake Lamp:

Bus shall include red, high and center mount brake lamp(s) along the backside of the bus in addition to the lower brake lamps required under FMVSS. The high and center mount brake lamp(s) shall illuminate steadily with brake application. Agency to specify the size of the high and center mount brake lamp(s). We wish to clarify that the brake lamps are mounted on each side of the rear shell. Additionally, a single LED strip (cyclop) stop light is mounted in the middle of the rear shell, on the engine compartment door at a height of approximately 63 inches off the ground. We kindly request your approval.

**R98)** This is approved.

**Q99) TS 73.8 Floor Covering.** A one-piece center strip shall extend from the vertical wall of the rear settee between the aisle sides of transverse seats to the standee line. If the floor is of a bi-level construction, then the center strip shall be one piece at each level. The covering between the center strip and the wheel housings may be separate pieces. At the rear door, however, a separate strip as wide as the door shall extend from the center strip to the outboard edge of the rear/exit area. The floor covering is designed to maximize area covered and minimize joints. Transverse joints are however used at the junction with the rear podium and after the front wheelhouses. A longitudinal joint is used on the lower podium. Please refer to attachment RFA 69 Floor Covering Joints for additional information. We request your approval.

**R99)** This is approved.

**Q100) TS 73.9 Interior Lighting and TS 73.10 Passenger.** The interior lighting design shall require the approval of the Agency. We request approval to offer our interior lighting system described in the attached presentation RFA 70 Passenger Interior Lighting. We provide Pretoria LED interior Lighting system.

**R100)** This is not approved. This will need to be addressed by each individual transit system at the time of order. The DOT will not change this spec speaking for the transit systems.

**Q101) TS 77.5 Overhead (Transit Coach).** This assist shall be located over the center of the aisle seating position of the transverse seats. The assist shall be no less than 70 in. above the floor. On the upper level podium, the overhead assist is at a minimum height of 67.25 inches above the floor, due to a sloping floor at the rear upper level. Please confirm your acceptance.

**R101) This is approved.**

**Q102) TS 78.2 Materials and Construction.** Door edges shall be sealed to prevent infiltration of exterior moisture, noise, dirt and air elements from entering the passenger compartment, to the maximum extent possible based on door types. We request your approval for Slide glide doors that are equipped with brush-type seals at bottom and top (at top the brushes are installed on the door frame). Therefore not hermetically sealed.

**R102) This is approved.**

**Q103) TS 79.1 Loading System for 30 to 60 ft Low-Floor Bus.** An automatically controlled, power-operated ramp system...Front Door Location of Loading System, Flip-Out Design Ramp with 7:1 Slope: The wheelchair loading system shall be located at the front door, with the ramp being of a simple hinged, flip-out type design being capable of deploying to the ground at a maximum 7:1 slope. We request approved equal status for a front door 6:1 slope ramp (Fedico/Calmo) which is hydraulically powered.

**R103) This is approved.**

**Q104) TS 79.1 Loading System for 30 to 60 ft Low-Floor Bus.** An automatically controlled, power-operated ramp ...Front Door Location of Loading System, Flip-Out Design Ramp with 7:1 Slope: The wheelchair loading system shall be located at the front door, with the ramp being of a simple hinged, flip-out type design being capable of deploying to the ground at a maximum 7:1 slope. We request approved equal status for a front door 6:1 slope ramp Lift-U LU-11 which is electrically powered.

**R104) This is approved.**

**Q105) TS 79.3 Interior Circulation.** When the positions are fully utilized, an aisle space of no less than 20 in. shall be maintained. We request your approval that in the case of 2 wheelchair positions occupied (Streetside and Curbside) behind the front wheelhouse, when fully utilized and considering a standardized 30 x 48 inch mobility device/wheelchair, the remaining aisle width is no less than the 16 inches, depending on the seat design selected as flip-up.

**R106) This is approved.**

**Q106) TS 81. Passenger Information and Advertising (Transit Coach).** Advertising media 11 in. high and 0.09 in. thick shall be retained near the juncture of the bus ceiling and sidewall. The retainers may be concave and shall support the media without adhesives. The media shall be illuminated by the interior light system. Our vehicles use adhesive type advertising media on the street side. We request your approval.

**R106) This is approved.**

**Q107) TS 81. Passenger Information and Advertising (Transit Coach).** Provisions shall be made on the rear of the driver's barrier or equipment box located on the wheel well for a frame to retain information such as routes and schedules. We request approval for our electronic equipment box, which is located in the street-side baselights. Please refer to Attachment RFA 77 Equipment Box for more details.

**R107) This is approved.**

**Q108) TS 83.5.3 Driver Display Unit (DDU).** Contractor shall install a driver display unit as close to the driver's instrument panel as possible. We request that the DDU shall be supplied with the AVL option instead of the base bus, as described in TS 85. Automatic Vehicle Annunciation /Automatic Vehicle Location.

**R108) This is not approved. Not all systems will request/require the AVL option. No AVL is the base.**

**Q109) TS 83.5.2 Handset.** Contractor will install a handset for driver use. Please clarify this requirement as the PA system of the base bus shall be provided with a gooseneck microphone. Therefore we understand that the handset shall be required in option for the radio option.

**R109) Correct, the handset is for the radio option.**

**Q110) IOWA Code 321.463.** As per IOWA Code 321.463 MAXIMUM GROSS WEIGHT:  
Maximum axle weights 20 000 lbs GAWR, Maximum vehicle weights 51 000 lbs GVWR.  
Please confirm acceptance of vehicles with the following weights:  
Axle weight - 29 000 lbs GAWR, Vehicle weight - 62 700 lbs.

**R110) Public transit buses are exempt from this code. We accept the axle and vehicle weights.**