



December 9, 2019

AFFILIATED AGENCIES

*Orange County
Transit District*

*Local Transportation
Authority*

*Service Authority for
Freeway Emergencies*

*Consolidated Transportation
Service Agency*

*Congestion Management
Agency*

*Service Authority for
Abandoned Vehicles*

TO: ALL CALACT BIDDERS

FROM: ORANGE COUNTY TRANSPORTATION AUTHORITY

**SUBJECT: REQUEST FOR QUOTES (RFQ) 9-1570
CALACT CLASS B – 22-FOOT CUTAWAY BUSES**

The Orange County Transportation Authority (Authority) invites firms who are participants in the California Association for Coordinated Transportation (CalACT) / Morongo Basin Transit Authority (MBTA), Contract No. 15-03, to provide a quote for Class B – 2020/21 gasoline-powered cutaway buses. Firms are to submit quotes on only one bus type.

Quotes shall be received at or before 11:00 a.m. on Thursday, January 30, 2020. Quotes received after the date and time specified will not be accepted.

Questions or clarifications shall be submitted in writing and shall be received by the Authority no later than 11:00 a.m. on Tuesday, December 31, 2019. The Authority will respond to written questions via an addendum.

Quotes shall be sent via electronic mail to mbahadori@octa.net and shall be submitted on the attached form entitled, "Exhibit E, Price Summary Sheet."

Bidder will be required to comply with all applicable Equal Employment Opportunity Laws and Regulations.

Sincerely,

Masih Bahadori
Principal Contract Administrator
Contracts Administration and Materials Management

Enclosures:

Exhibit A: Scope of Work
Exhibit B: Quality Assurance
Exhibit C: Warranty Table
Exhibit D: Quotation Form
Exhibit E: Price Summary Sheet
Exhibit F: Insurance Requirements
Exhibit G: General Provisions
Exhibit H: Required Federal Clauses
Exhibit I: Buy America Certification
Exhibit J: Federal Motor Vehicle Safety Standards Certification
Exhibit K: Disadvantaged Business Enterprise (DBE) Approval Certification

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SCOPE OF WORK

The Authority intends to purchase up to 116, 22-foot (+/-2') cutaway buses, Class B, with an option to purchase up to ten additional buses no later than 24-months after the initial award. These buses are intended for the widest possible spectrum of passengers, including children, adults, the elderly and persons with disabilities.

The basic vehicle, both chassis and body, shall be 2020/21 model year, factory production, medium duty, Altoona tested cutaway vehicle rated to a seven year, 200,000 miles designed life equipped with five American with Disabilities Act (ADA) stations; a design that is cataloged by the manufacturer and for which manufacturer's published literature and printed specifications are currently available.

The specification is intended for use in the purchase of a new and complete vehicle unit and all equipment and accessories necessary for its operation. All parts, equipment and accessories shall be completely installed, assembled and/or adjusted as required. The buses are required to meet all regulations, standards and laws including revisions, at time of bus acceptance and through the term of the contract.

Contractor shall begin production of the First Article (FA) bus upon receipt of the Notice to Proceed (NTP) in accordance with the schedule provided by the Contractor and approved by the Authority. Upon approval of the FA, there will be a secondary NTP for the production run.

The schedule provided by Contractor shall be realistic and meet or exceed the Authority's requirements. **The cutaway bus deliveries shall be completed no later than December 31, 2021.**

Contractor, prior to delivery, shall be responsible for the licensing and registration of each vehicle. All buses shall be delivered, clean and with a full tank of gas.

As part of the quote submittal, Contractor shall provide:

1. One (1) copy of the California Air Resources Board Executive Order;
2. Table with Gross Vehicle Weight Rating (GVWR) and weight calculations to include ADA equipment, components, accessories, passenger and driver.
3. Scaled elevation drawings depicting exterior, interior views and five ADA accommodations.
4. Proposed gasoline tank capacity and estimated vehicle range at GVWR.
5. One (1) copy of the final Altoona Bus Testing report.

6. Using as a reference the Notice to Proceed with the FA unit, Contractor shall indicate in number of weeks the proposed production and delivery schedule for the following:
7. One FA unit;
The FA shall be delivered to the Authority in a fully functional and fully operational state of completion, ready to be deployed in revenue service, having all systems and components in operation, **no later than thirty-six (36) weeks after receiving the NTP with the FA.**
 - a) Authority's delivery location:
Santa Ana Base
4301 West MacArthur Boulevard
Santa Ana, California 92704
 - b) Contractor shall produce one (1) FA bus with respect to the base order. The FA bus shall demonstrate that the bus fully meets all contractual requirements. The FA bus shall be inspected, tested and approved by the Authority prior to making the decision to move forward with the production of the remaining order.
 - c) An FA inspection shall include both a physical configuration inspection and a functional demonstration. FA inspections shall be conducted at the Contractor's facility and the Contractor shall furnish to the Authority, prior to each inspection, a written inspection and demonstration plan for each item intended for review. The Authority's inspectors shall attend each FA inspection unless the Authority provides a written waiver of its right to attend any such inspection. The results of each FA inspection shall be documented by the Contractor in a format deemed acceptable to the Authority and all documents relating to the inspection shall be forwarded to the Authority's Contract Administrator.
 - d) Additionally, upon arrival to the Authority's facilities, the FA build shall be evaluated/tested for a period up to four (4) weeks. The evaluation/testing shall start after the bus is licensed, registered and delivered to the Authority and all, if any detected discrepancies are repaired and/or corrected to the Authority's satisfaction. The four (4) week evaluation/testing shall include, at the Authority's discretion, compliance with specifications, compliance with regulations, California Highway Patrol inspection, ergonomics, driver's reach and controls, wheelchair locations, securement, placement, pressure and actions required to activate pedals, switches, knobs, access doors, driver's field of view, windshield glare, interior and exterior lighting, vehicle handling, vehicle's ability to maintain its intended course and direction of travel, steering, braking, turning radius, suspension, approach and break over angles, vehicle range, handling of slopes, power plant, to include entire and individual pieces of the fuel system, fuel consumption, maintenance logging of break downs, fittings, connections, and others as applicable.

- e) At the Authority's discretion, the evaluation period may be extended based on exhibited vehicle performance and, required timelines to complete the evaluation processes.
- f) Upon acceptance of the FA, a second Notice to Proceed (NTP) letter will be provided to authorize the startup of production of the remaining vehicles.

8. Production Buses

- a) Using the second NTP with the production buses as a reference, Contractor shall indicate the number of weeks that it will take to commence and complete the manufacturing and final delivery, to the Authority's Santa Ana Base, of the complete production run.
 - b) Manufacturing Location(s) – Contractor shall indicate all the intended location(s) where the vehicles will be manufactured, assembled, integrated, etc., including the address, city and state of each location.
 - c) The Authority intends to secure contracted inspection services to provide the in-plant manufacturing inspection services for these vehicles. As such, the Contractor shall assume the financial responsibility for compensating the Authority's contracted inspection services resulting for any delays or deviations, from the proposed, and/or agreed upon manufacturing and production schedule and working weekends.
9. Particular attention is given to features that will provide the safest possible vehicle for transporting people. These features include a steel cage that surrounds the passengers to protect them during accidents. Wheel housings shall be constructed of heavy gauge steel and provide ample tire clearance during all operating conditions. Contractor shall provide structural drawings depicting the proposed structural configuration including steel plates and framing intended to protect the passengers from a broken driveshaft breaking through the floor into the passenger compartment.
10. Buses shall be delivered with complete Authority decal package using the Authority's identity package for cutaway buses in accordance with **Attachment No. 1**.
11. Each vehicle shall be equipped with seven (7) original equipment manufacturer (OEM) white matching steel-disc wheels (one spare). The rated capacity shall equal or exceed the gross vehicle weight rating (GVWR) of the vehicle.
12. The entrance step height shall not be more than 10.75-inches, as measured from ground level, and each step-riser shall be no higher than 8-inches. The step well shall incorporate light-emitting diode (LED) lights to illuminate the step tread area

when the entry door is opened. The steps shall be designed so that water will not pool at any time.

13. Intermotive Gateway or HighLock systems that provide a wheelchair interlock and high idle system to prevent the bus from moving with the wheelchair lift in operation; system shall go into fast idle mode while the lift is in operation, and during all extreme load conditions. The interlock system shall be a fully automatic, solid state, microprocessor-controlled unit (Ref. Intermotive ILIS 501) or approved equal capable of self-diagnosis. Interlock shall utilize an LED display panel to show subsystem status.
14. Contractor shall provide detailed warranty table to include at minimum all pertinent items, i.e. original equipment warranty, complete bus, powertrain, suspension, rust, destination sign, fire suppression system, on board video surveillance system, Conduent provided components intended for communication including all cabling and components, ADA equipment, flooring, Telma retarder, mirrors, roof hatch, seating, door system, body structure and others as applicable. **See Exhibit C.**
15. Contractor shall be responsible for providing detailed, scaled drawings with dimensions, including all views (front, rear, top and both sides) and, in electronic AutoCAD and Adobe Illustrator format. These files will be used by the Authority's Marketing Department to evaluate and re-design the identity package if needed.
16. A Kidde automatic fire suppression system shall be installed; using the component list in **Attachment No 2**. The fire suppression system shall be wired into the Intelligent Transportation Management System (ITMS) radio system IVU, so that fire alarms are broadcast through the ITMS radio.
17. A March Networks On-Board Video Surveillance System (OBVSS) shall be installed in accordance with **Attachment No. 3**.
18. The vehicle shall be prewired with a Conduent® ITMS radio system, in accordance with **Attachment No. 4**. For testing purposes, radio system components will be supplied to the manufacturer to ensure that the prewire is correctly installed before shipping.
19. All front stanchions, driver's entry door and windshield support stanchions to be yellow powder coat - stanchion fittings to remain stainless steel.
20. A yellow stanchion shall be located by the front entrance door for mounting a Diamond farebox; the farebox will require 12V power for the farebox light.
21. Entry door full length stanchions - yellow powder coat, yellow handles added to entry door to be yellow powder coat.
22. No towing from chassis, from manufacturer to dealer.

23. Key all units alike to the Authority's key code. Code to be provided.
24. Standard Authority battery box, cable routing and connections; terminal blocks to be used under the hood and in the battery box for power and Battery Terminal Connections. No stacking of cables. All harnesses that are added to the vehicle will be secured to the frame at a maximum of 24" intervals. Plastic wire ties are not acceptable. A wiring diagram shall be submitted upon vehicle delivery that will match the as-built wiring for each vehicle. See **Attachment No. 5** for example.
25. The fuse box shall be properly labeled to identify each circuit with a corresponding label identifying the function attached to the fuse box cover.
26. 36" "L" Track Mounted to StreetSide Wall, or under flip-up seats for QRT Storage.
27. Thermal insulation may be required for the underside of the driver's station and the battery box exposed to the heat of the exhaust system to prevent the temperature of battery box and the driver's floor area from exceeding ambient temperature.
28. The bus shall be equipped with a Fleet Watch combination bus mileage/fluid management system transponder that shall be installed and programmed with the Authority vehicle's ID number and odometer mileage. The system shall be capable of communication at the Authority fuel island, or other location to be determined in accordance with **Attachment No. 6**. Use of this device shall not impact or be impacted by other devices operating in the vehicle, or vehicles, on a CAN-bus network and/or platform.

The module shall be accessible by a mechanic, without removing panels or other electronic devices or components. The Authority shall approve the location of the Fleetwatch datalogger module during the presentation/evaluation of the first article bus. Contractor shall contact Fleetwatch to obtain the latest transponder/interface required for the Authority's existing configuration. Please see contact info below:

S&A Systems Inc., Rockwell, Texas, phone (972) 722-1009.

29. Exterior

The exterior decals shall consist of following basic elements and the Authority reserves the right of final approval upon acceptance of the FA prototype. Decals shall consist of 3M reflective 680 series material with 9700 series ink.

- a) "Swoosh" Stripe decals consisting of PMS 2935 Blue and PMS 151 Orange colors
- b) Authority logos and identification
- c) Authority 4-digit vehicle ID numbers
- d) Rooftop ID number, 48 inches
- e) CA commercial carrier number (CA 468401)
- f) "OC ACCESS" text on all sides
- g) Authority approved roof line reflective arrows

Basic Exterior Sample

The basic color layout is white. Signs shall be durable and fade, chip, and peel-resistant; they may be painted signs, decals, or pressure-sensitive appliques. All decals shall be sealed with clear, waterproof sealant around all exposed edges if required by the decal supplier. Signs shall be provided in compliance with the ADA requirements defined in 49 CFR Part, Subpart B, 38.27. **See Attachment No. 1.**

30. Interior

The vehicles interior decal layout shall consist of the following basic items and the Authority reserves the right of final approval upon acceptance of the first article prototype:

- a) Information required by Federal/State regulations
- b) International graphic symbols typical of urban transit vehicles
- c) Authority vehicle ID numbers
- d) Driver/Passenger information typical to the proposed vehicle.

Note: All interior informational decals must be bilingual English/Spanish.

31. Parts Books, Manuals and Drawings

The following shall be provided at time of delivery. The information shall be organized in a thumb drive with each section clearly identified. A draft copy shall be available for review and acceptance prior to preproduction meeting.

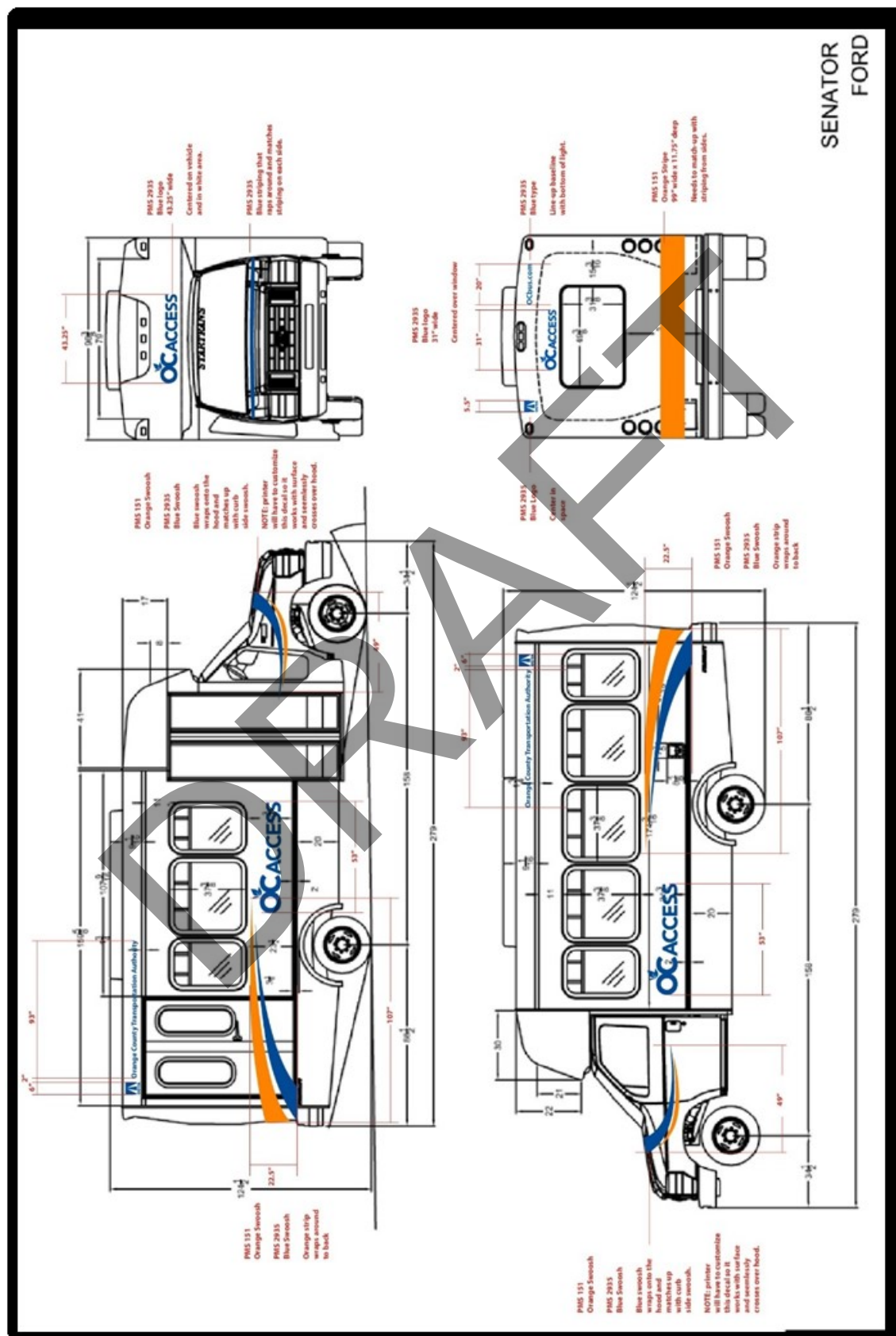
- a) A complete set of operating instructions, troubleshooting guide, inspection and service guide and detailed manufacturers parts list.
- b) A complete "as built" electrical wiring diagram covering all electrical equipment and electrical circuits installed, complete with wiring codes for each vehicle ordered, including the integration of the OBVSS, ITMS

radio system, fluid management system, and fire suppression systems with the bus electrical system.

- c) All manuals for the bus accessories, to include complete parts guide, and equipment to include wheelchair lift, air-conditioning system, tie downs, seating, heater, etc.
- d) Contractor shall have available complete bus maintenance manuals to include the engine, transmission and OEM chassis, as well as a complete parts manual for each component.

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Attachment No. 1 - Identity Package



Attachment No. 2

Kidde Automatic Fire Detection and Suppression System

QTY	PN	Description
1	4134840C-1457	Fire-Panel
1	421317	Manual Activation
1	421915-2	Battery backup module/battery
1	421440	Sys Reset
1	420421	EOL
2	420010	PM-3M Optical
1	421430-4	LTD
2	476845-30	ALTD Mount clips
2	4765265-8	8ft ALTD
4	474946	Nozzle Dry Chem
3	420584	Bracket Nozzle 90°
1	477163	Bracket, Straight, Nozzle
1	420588	Distribution block
1	5406-P-08	Plug 1/2" NPT
1	408876-123A	Extinguisher 22LB, PK, Gauge Right w/ PM - Bottle connection provides EOL
1	474959	Bracket Ext - floor mount
1	5406-16-12	BUSHING, REDUCE 1 X 3/4 NPT
1	421478	Engine Harness
1	420985	Harness Assy Battery Backup
1	474986	Harness Assy Battery Backup to Battery
3	420373-20	20FT Harness Interconnect
1	420373-16	16FT Harness Interconnect
1	420373-13	13FT Harness Interconnect
1	420373-10	10FT Harness Interconnect
1	420373-2	10FT Harness Interconnect
4	N/A	Discharge Lines Stainless Steel OEM built

Attachment No. 3

On-Board Vehicle Surveillance System (OBVSS)

The following general requirements shall be used to define the overall OBVSS. The OBVSS shall include the most current model of mobile digital video recording system manufactured by March Networks Incorporated (March Networks). The objective and general guidelines are as follows:

The system shall be a turnkey, digital OBVSS, fully supported by March Networks, an integrator, or both. The system at a minimum shall include the following:

1. The system shall operate on input vehicle power between 9-32 vdc.
2. Include a DVR with an internal Solid State Device (SSD) data storage capacity of 150 hours minimum at four (4) frames per second recording speed and 352 x 240 resolution with up to six (6) video input channels and two (2) audio input channels utilized and operating simultaneously.
3. Data review via all the following: remote wireless connectivity, direct Ethernet/serial interface via laptop, and removable hard drive utilizing an external docking station.
4. The system shall use MPEG-4 audio/video compression algorithm for data downloading.
5. Data download via secured WPA encrypted standard 802.11g protocols that permit remote wireless downloading of thirty (30) minutes of video and audio data from all audio/video channels (per item number 2 above) in ten (10) minutes or less.
6. The OBVSS shall be equipped with one impact sensor specifically designed for transit that responds to changes in acceleration on its X and Y axis. The OBVSS supplier shall provide engineering support to properly position, locate, and calibrate the impact sensor for proper circuit closure, approximately 4g's.
7. Events shall be "flagged" via a variety of programmable inputs, to include, operator activation of a switch, operator activation of the ITCS silent alarm function and automated inputs, such as, speed, acceleration, etc.
8. The on-board system shall be equipped with GPS and a means of synchronizing with actual time.
9. The on-board system shall be equipped with a UPS system capable of ten (10) minutes of back up.
10. The vehicle shall be equipped with a silent alarm / event flagging button for triggering events.
11. To the extent practical, all OBVSS devices mentioned in this section shall be installed within a single enclosure, excluding cameras, and located behind the driver above the left front wheel housing.

MOBILE DIGITAL VIDEO RECORDER (DVR)

The March Networks OBVSS DVR shall utilize an internal SSD hard drive with a minimum 150 hours of storage space, recording at least four (4) frames per second and a minimum 352 x 240 resolution with six (6) video input channels and one (1) audio input channel utilized and operating simultaneously. The DVR shall include a compatible hard drive

docking station for data retrieval and review. The DVR shall provide built-in secured file format using digital encryption security features to protect system and data integrity as well as system settings and cabling connections. Further, the DVR shall include the following features and functionality:

- The DVR shall be of a size and weight to permit installation and operation on board fixed route or Paratransit type vehicle and operate in an ambient temperature environment of 30°F – 130°F.
- DVR shall be certified to durability testing as defined in SAE J1455 for shock, vibration, J1113 for EMI/RFI, and meet NEMA 4 standards as defined in NEMA Standards Publication 250-2003 Enclosures for Electrical Equipment.
- The DVR shall capture data at vehicle startup and continue recording after shutdown (ignition off). The recording after shutdown shall be user programmable up to maximum of ninety (90) minutes.
- At a minimum two (2) motion detection sensors shall be installed for capturing movement on the vehicle when recording is necessary after fifteen (15) minutes of vehicle shutdown. The motion detectors shall be mounted on the curbside of vehicle and capable capturing any movement within the vehicle.
- The DVR shall digitally capture and store data to its hard drive in a linear continuous indefinite sequence that as disk space fills writes over old information not stored as a flagged event.
- The DVR shall record the time/date/latitude/longitude from the GPS and attach to the audio/video file.
- Include on separate channels, a minimum of six (6) video inputs.
- Each of the video channels shall independently permit user selectable frame rate recording speed up to thirty (30) frames per second.
- Minimum of one (1) audio input recording at full-motion rate fully synchronized with the video. Each audio input shall provide filtering for vehicle noises while recording.
- The DVR shall utilize a secured removable SSD hard drive for optional physical removal/exchange of the hard drive cartridge enclosure for review.
- The DVR shall capture and catalog a user-defined quantity of events that are time/date stamped and filed for easy removal/access. Events shall be stored in a non-volatile memory location that cannot be overwritten without proper system administration access.

- The DVR shall include a user programmable pre-alarm and post-alarm recording buffer up to maximum ten (10) minutes for all connected inputs.
- The DVR shall receive impact sensor data, Authority selected discrete ON/OFF or J1708, J1939/CAN vehicle signals, operator-initiated incident/event trigger, and silent alarm activation (panic button) via auxiliary inputs (minimum 4 inputs).
- The DVR shall be capable of providing wireless live-feed or image transfer to a remotely accessed vehicle fitted with appropriate optional router equipment.
- The DVR shall include a health monitoring / system diagnostic function that during system startup checks functionality of all connected inputs, backup system, network connection, and hard drive integrity. The system supplier is encouraged to deploy methods that can determine if camera lenses are dirty, etched, or partially covered. The system shall include a system fault indicator, which provides indication only during system faults. System faults shall be transferred automatically via wireless download upon site/vehicle interface.
- The DVR shall be capable of communicating and synchronizing with an on-board event data recorder.

CAMERAS

The OBVSS shall include mobile environment rated low profile, vandal resistant housed cameras. All the interior cameras shall be designed to operate in low lighting conditions. The interior and exterior camera housings shall be resistant to scratching, moisture, fogging, dust, shock, and vibration and meet NEMA 4X standards.

The vehicle shall be equipped with two IR illuminating devices to assist proper interior camera operation during complete darkness.

Interior cameras shall be positioned to provide the best possible coverage. The exterior cameras shall be positioned with one (1) forward facing located within the display head sign compartment and the other providing parallel vehicle side coverage from the curbside front to the rear of the vehicle.

The Contractor shall submit a proposed camera, IR illuminator, and audio layout and receive Authority approval prior to installation, approval to include camera quantity and location. Authority suggested layout of cameras and related equipment is in the following diagram.

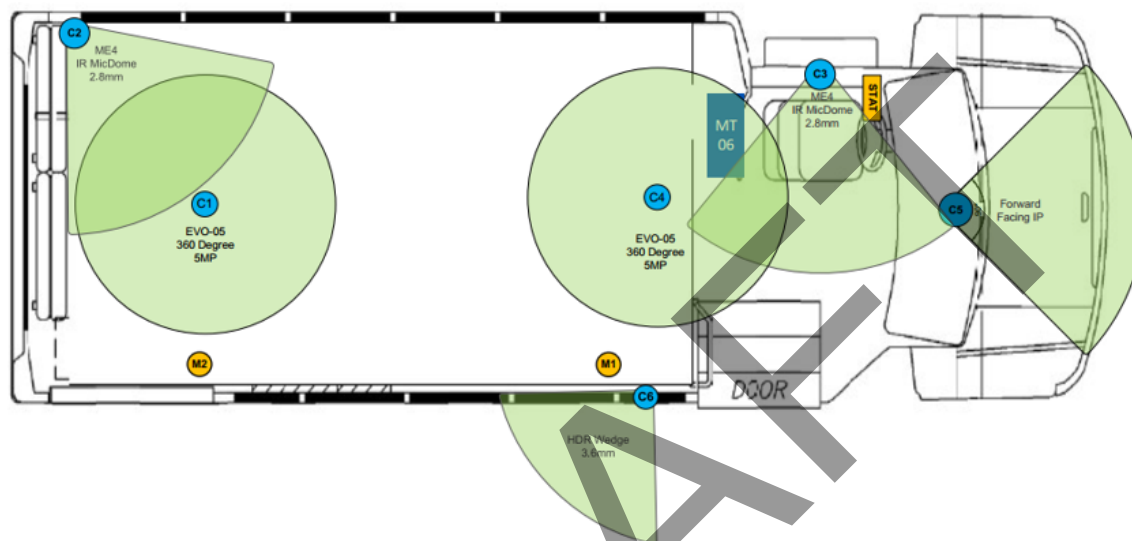
ACCESS BUS CAMERA/AUDIO LAYOUT

Cameras

- 4 Interior, (2) 360 cameras, (2) IP cameras with built-in microphone
- 1 HD camera Forward Facing
- 1 HD camera Curbside

Audio

Digital microphone built-in with IP camera



Main components bill of materials

Device	Description	Lens (mm)	Location
C1, C4	Front and Rear 360	360	Ceiling
C2, C3	Rear to Front and Front with Digital Microphone	2.8	Ceiling
C5	Forward Facing HD camera	2.9	Ceiling
C6	Curbside HD camera	3.6	
STAT	Status Tag Module		Driver, Overhead
M1, M2	Motion Sensor		Curbside, above windows
MT06 (NVR)	NVR with SSD and 6 inputs		Behind Operator Modesty Panel

The interior and exterior cameras at a minimum shall meet the following technical specification requirements.

Description	Minimum Requirements
Image Device	1/3-inch color CCD Day/Night
Scanning System	525 lines, 60 fields/30 frames, 2:1 interlace
Picture Element	810(H) x 500(V) min 270K pixels
Effective Picture Element	765(H) x 490(V)
Horizontal Resolution	480 TV lines
Electronic Iris	1/60 ~ 1/100,000 sec continuously variable shutter
Minimum Illumination	0.4 Lux (color) @ F1.0
S/N Ratio	50dB (AGC Off, Weight ON)
Operating Temperature	30° ~ 120° F
Lens Mounting	IR compensated auto-iris (2.6 - 9mm) vari-focal lens
Lens	Zoom and Focus have a lockable setting
Back Lighting Compensation	ON/OFF selectable
Synchronizing System	Internal
Video Connector	Pigtail w/ a BNC
Automatic Gain Control (AGC)	Up to 24dB on/off switch selectable
White Balance	Range shall be 2K° ~ 10K° Kelvin

SOFTWARE

The DVR and system support software shall include, but not be limited to the following minimum capabilities and functionalities:

- Software provides intuitive, user-friendly viewing with an Administrator controlled hierarchy level password, protecting DVR and camera access.
- System creates designated event files and inserts searchable markers or flags for ease of data mining and review.
- The system software shall be capable of converting the audio/video file into a non-proprietary video format (i.e. avi) to permit viewing via a standard Windows Media Player. The converted file shall include audio/video synchronization from either single or multiple video channels.
- System software includes user programmable start time, before actual event, and stop time, after event, for all connected input devices to all flagged event files.
- System software permits synchronized concurrent viewing of GPS mapping and all audio/video channels.

- System software features image enhancement capabilities, including full screen view, zoom, play forward and play reverse, pause, single frame forward & single frame reverse, up to 16x normal view fast forwarding, still image file save, brightness and color balance, etc.
- System shall include an auto extraction feature allowing the Authority to schedule an audio/video search by either one or more search criteria. The search criteria are from at least one of the following GPS long/lat coordinates. The extracted audio/video file shall be addressed for easy access. The auto extraction feature shall have the ability to alert the originator of the search with a message indicating “failed/successful” search results.
- System software provides remote data review, download, system configuration, diagnostics, and management.
- System software provides encryption of recorded data (or other secure method for ensuring data integrity).
- System maintains a secure log file of DVR system errors, usage, and history.
- System shall be expandable and if available, open/publicly available standards with unlimited software upgrades.
- Software shall be user-configurable and licensed to the Authority for its use.

Attachment No. 4

Conduent Radio System Pre-wire

Contractor shall install two-way radio pre-wire preparation, including all necessary brackets, looms, conduits and radio accessories. These items for the pre-wire are to be included in the equipment furnished and installed by the Contractor, who shall submit a detailed bill of materials for Authority approval after the contract is awarded but prior to installation.

Preparation for the 800 MHz, Harris Remote-Mount M7300 radio, IVU2100T & OrbStar MDT 8400: The vehicle shall be delivered in a state of readiness to accept the 800 MHz, Harris radio and Orbstar, to include all necessary brackets, components mounting provisions, wiring, cabling, system interfaces, antennas and any associated items necessary for installation of the major hardware.

The referenced major components shall consist only of the 800 MHz Harris Remote Mounted M7300, Harris radio, and the IVU2100T & OrbStar MDT 8400; Authority will supply the referenced major components for a "plug-and-play" installation.

All wire harness shall be custom fitted to a Paratransit Chassis, so that there is no excess cabling bundled under the dashboard or in the overhead compartment. There shall be no more than six (6) to eight (8) inches of extra cable for each component, anything more is excessive, and may cause damage to cables or wire harnesses.

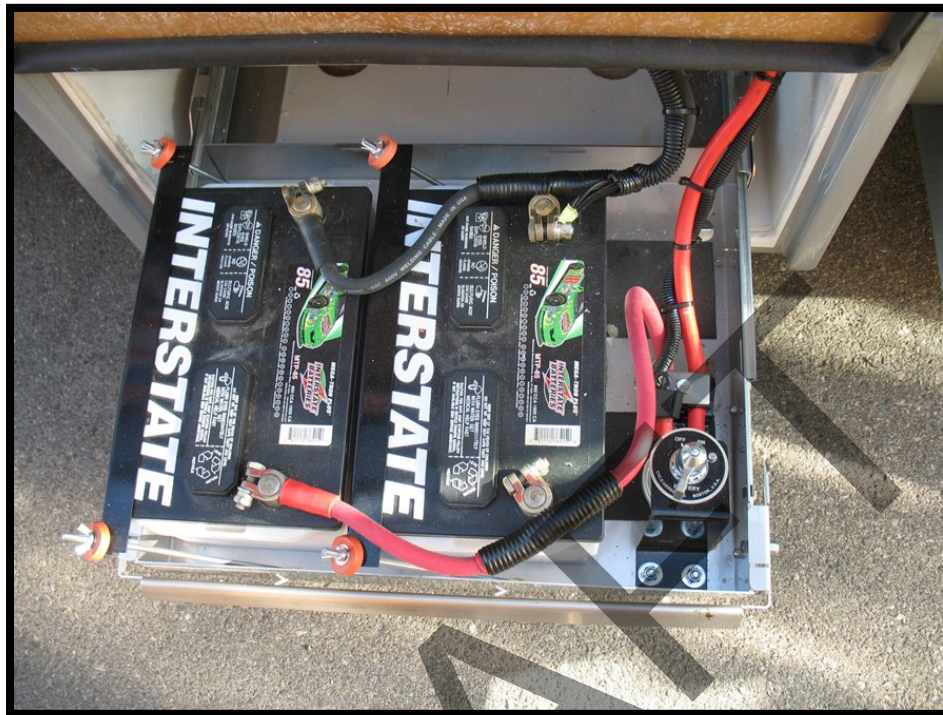
Fire Suppression System Alarms shall be capable of being transmitted over the ITMS Radio system, as well as other predetermined trouble codes to be determined during the building of the First Article Bus.

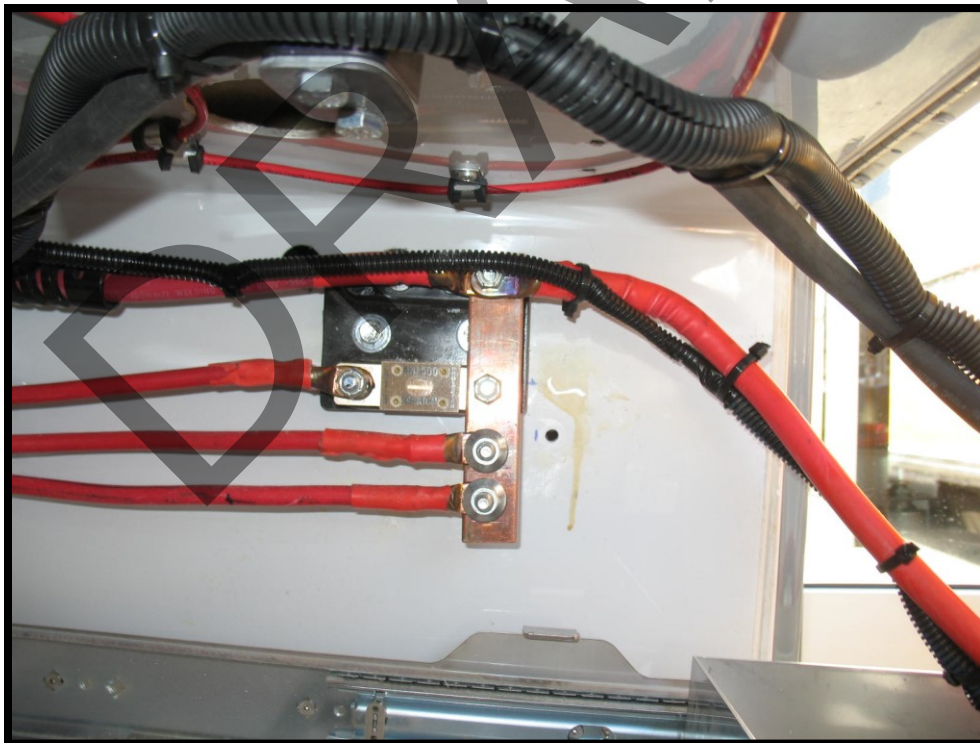
AUTHORITY PARATRANSIT IVU-2100 REV-A			
ITEM #	CONDUENT PART #	DESCRIPTION	QTY
1	110383-2	IVU, 2100T (Authority Provided)	1
2	110385-4	OrbStar 8400 (Authority Provided)	1
3	120094-1	Truion Knob, Orbstar (Authority Provided)	2
4	M7300	RADIO, HARRIS WITH POWER CABLE AND BRACKET (Authority Provided)	1
5	120004-7	HANDSET, COIL CORD	1
6	130615-1	BRACKET, ORBSTAR, ANGLED	1
7	131400-1	Mounting Plate, IVU & Radio Equipment Paratransit	1
8	110xxx-1	FIRE SUPPRESSION RELAY ASSY	1

9	141369-120	CABLE ASSY, RADIO to ANTENNA, W20 (TNC M TO MINI-UHF FEMALE), NON-HALOGEN	1
10	141075-36	IVU-2100T TO HARRIS, W04	1
11	140861-120	CABLE ASSY, IVU-2100T TO ODOMETER SIGNAL	1
12	141093-240	CABLE ASSY, ORBSTAR TO WLAN ANTENNA W/SMA, W21	1
13	141094-216	CABLE ASSY, IVU-2100T TO ORBSTAR, W01	1
14	141096-216	CABLE ASSY, IVU-2100T TO HANDSET, W09	1
15	141097-240	CABLE ASSY, IVU-2100T TO EA SWITCH, W10B	1
16	141098-240	CABLE ASSY, IVU-2100T TO WC-DOOR-FIRE, W10C	1
17	141099-120	CABLE ASSY, IVU-2100T TO GPS ANTENNA, W11	1
18	141100-48	CABLE ASSY, IVU-2100T TO VEHICLE POWER, W14	1
19	141XXX-96	CABLE ASSY, EA ALARM SWITCH TO DVR	1
20	TMS-005184	GROUND PLANE DISK	1
21	SMW-305-3B3C2G-WHT-12	ANTENNA, RADIO, WIFI, GPS, (694-894 MHz), MINIUHF-M, SMA-M, BNC-M	1

Attachment No. 5

Battery Box Configuration

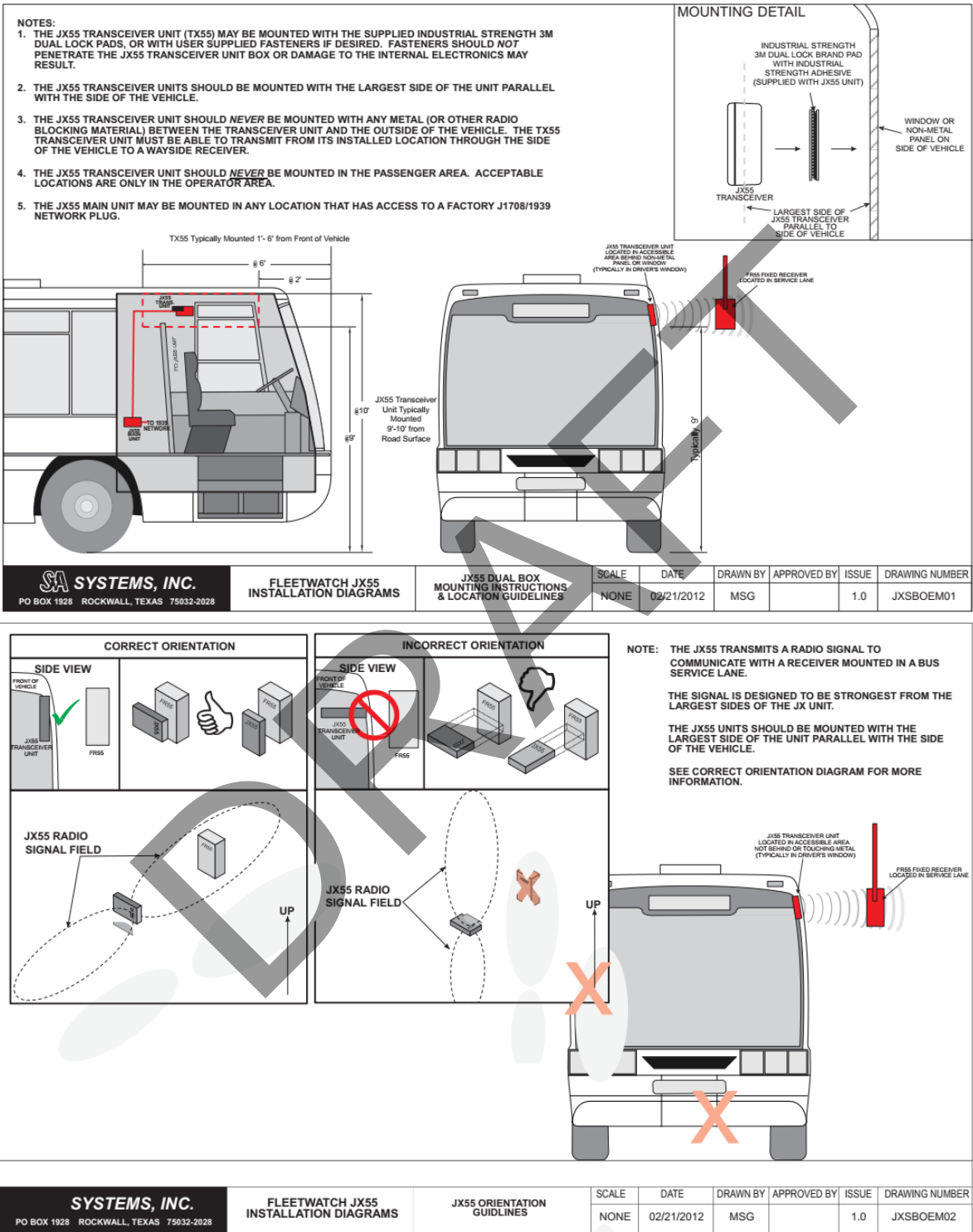


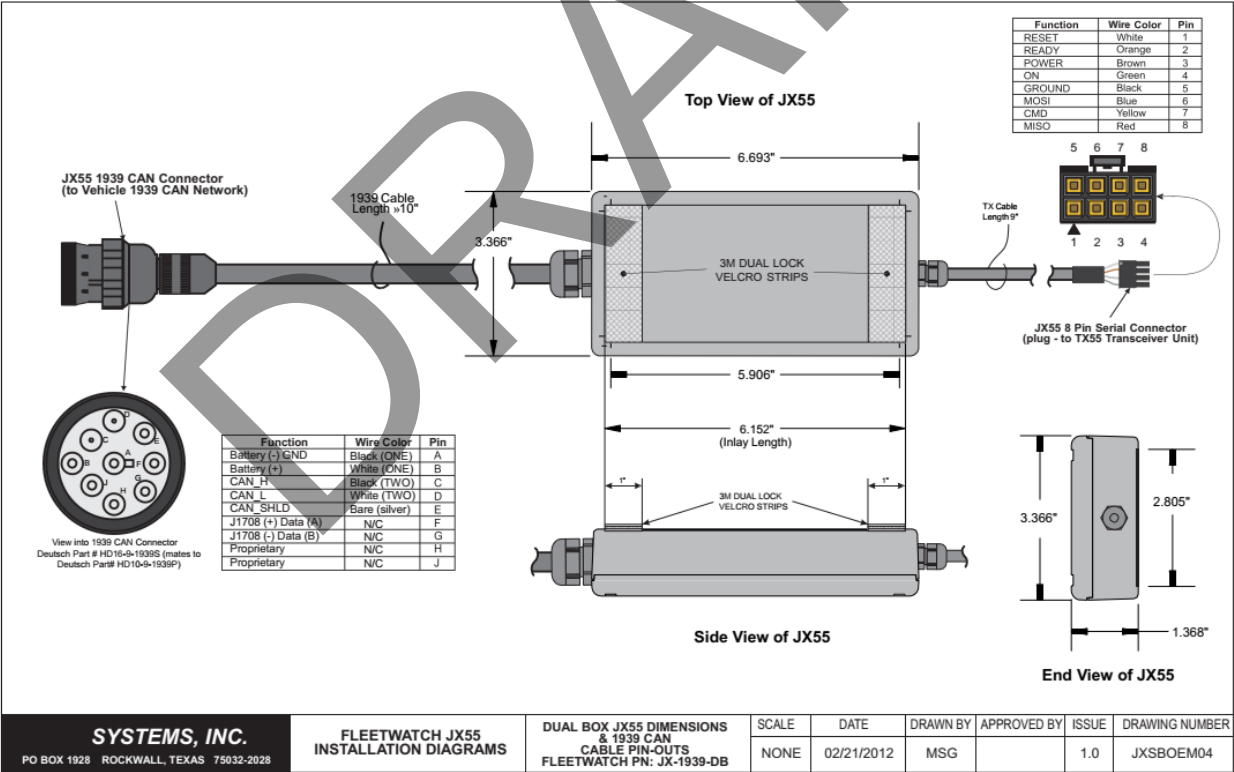
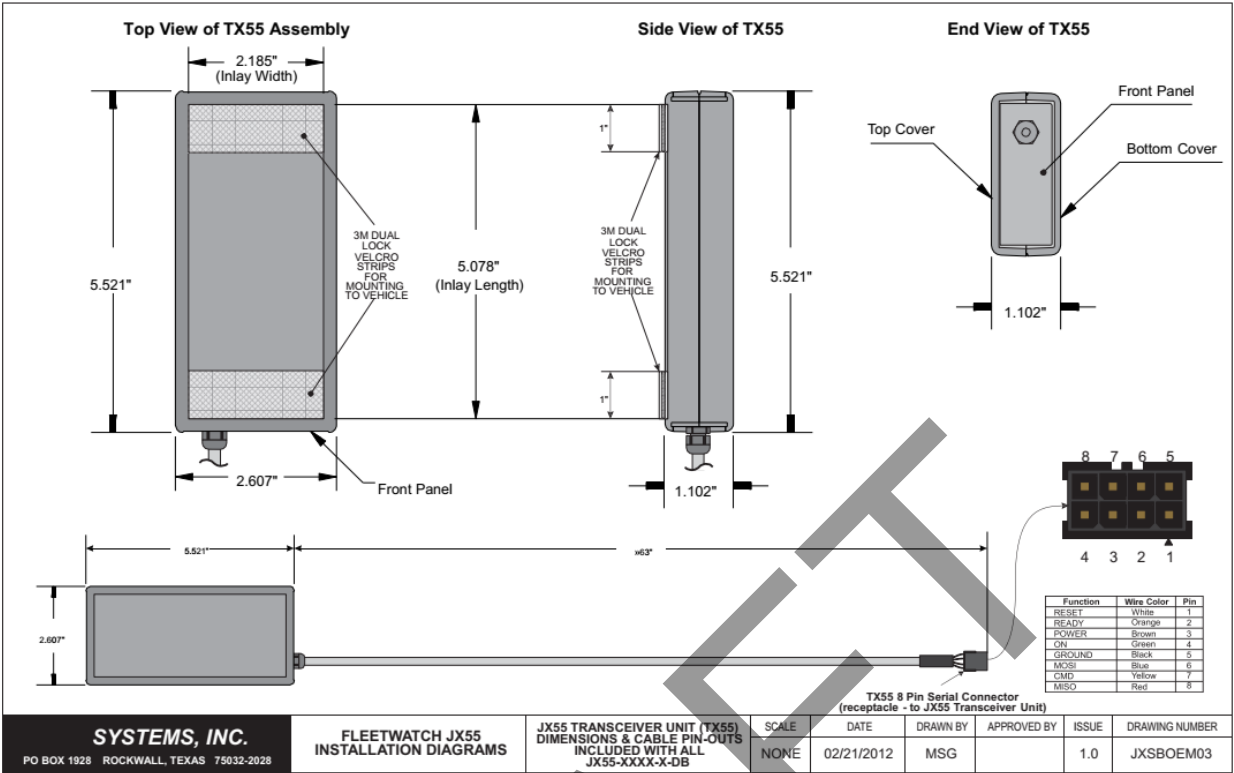


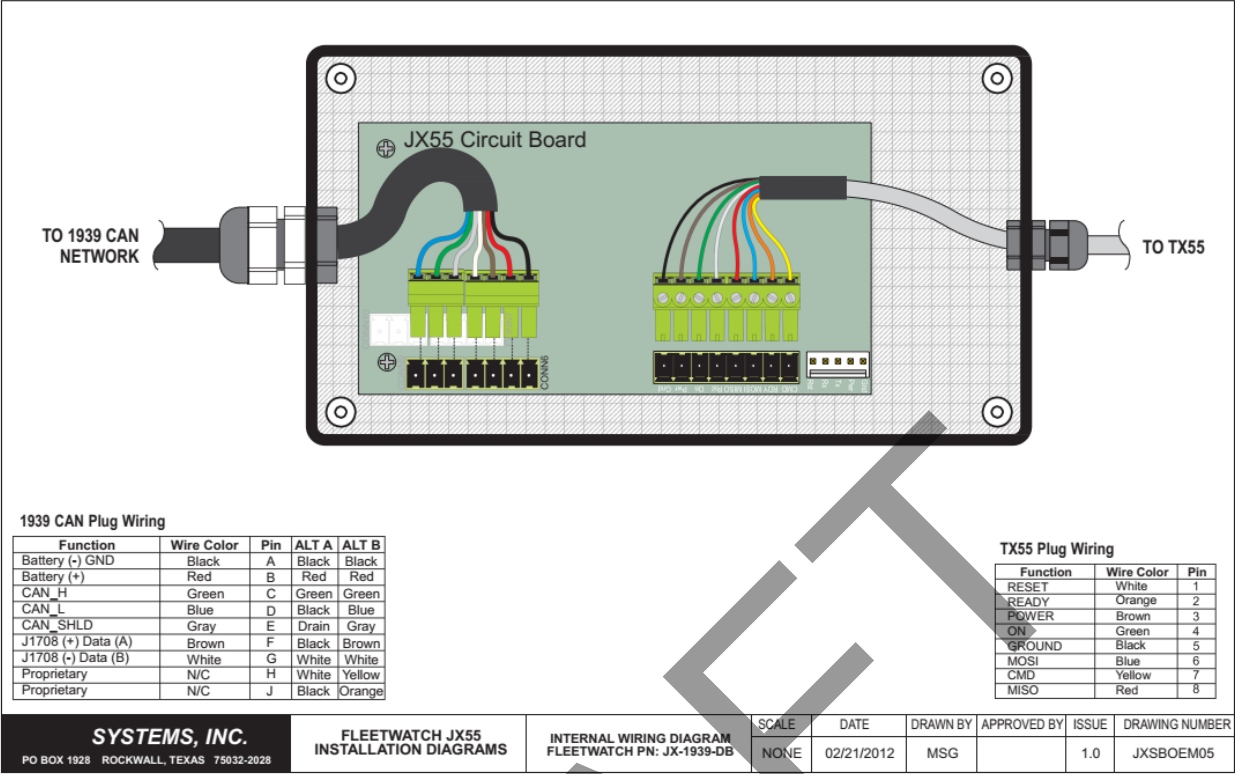


Attachment No. 6

Fleetwatch Fluid Management System







QUALITY ASSURANCE

CONTRACTOR'S IN-PLANT QUALITY ASSURANCE REQUIREMENTS

1. QUALITY ASSURANCE (QA) REQUIREMENTS

Contractor, Contractor's manufacturing plant and organization shall be certified to the appropriate QS-9000/ISO 9000 series of standards.

2. QUALITY ASSURANCE ORGANIZATION

a. ORGANIZATION ESTABLISHMENT

Contractor shall establish and maintain an effective in-plant quality assurance organization. It shall be a specifically defined organization and shall be directly responsible to the Contractor's top management.

b. CONTROL

The quality assurance organization shall exercise quality control over all phases of production from initiation of design through manufacture and preparation for delivery. The organization shall also control the quality of supplied articles.

c. AUTHORITY AND RESPONSIBILITY

The quality assurance organization shall have the authority and responsibility for reliability, quality control, inspection planning, establishment of the quality control system, and acceptance/rejection of materials and manufactured articles in the production of the transit buses.

3. QUALITY ASSURANCE ORGANIZATION FUNCTIONS

The quality assurance organization shall include the following minimum functions.

a. WORK INSTRUCTIONS

The quality assurance organization shall verify inspection operation instructions to ascertain that the manufactured product meets all prescribed requirements.

b. RECORDS MAINTENANCE

The quality assurance organization shall maintain and use records and data essential to the effective operation of its program. These records and data shall be available for review by the Resident Inspectors. Inspection and test records for this procurement shall be available for a minimum of one (1) year after inspections and tests are completed.

c. **CORRECTIVE ACTION**

The quality assurance organization shall detect and promptly assure correction of any conditions that may result in the production of defective transit buses. These conditions may occur in designs, purchases, manufacture, tests, or operations that culminate in defective supplies, services, facilities, technical data, or standards.

4. **QUALITY ASSURANCE ORGANIZATION FUNCTIONS**

a. **BASIC STANDARDS AND FACILITIES**

The following standards and facilities shall be basic in the quality assurance process.

b. **CONFIGURATION CONTROL**

Contractor shall maintain drawings, assembly procedures, and other documentation that completely describe a qualified bus that meets all of the options and special requirements of this procurement. The quality assurance organization shall verify that each transit bus is manufactured in accordance with these controlled drawings, procedures, and documentation.

c. **MEASURING AND TESTING FACILITIES**

Contractor shall provide and maintain the necessary gauges and other measuring and testing devices for use by the quality assurance organization to verify that the buses conform to all specification requirements. These devices shall be calibrated at established periods against certified measurement standards that have known valid relationships to national standards.

d. **PRODUCTION TOOLING AS MEDIA OF INSPECTION**

When production jigs, fixtures, tooling masters, templates, patterns, and other devices are used as media of inspection, they shall be proved for accuracy at formally established intervals and adjusted, replaced, or repaired as required to maintain quality.

e. **EQUIPMENT USED BY RESIDENT INSPECTORS**

Contractor's gauges and other measuring and testing devices shall be made available for use by the resident inspectors to verify that the buses conform to all specification requirements. If necessary, the Contractor's personnel shall be made available to operate the devices and to verify their condition and accuracy.

5. CONTROL OF PURCHASES

Contractor shall maintain quality control of purchases.

a. SUPPLIER CONTROL

Contractor shall require that each supplier maintains a quality control program for the services and supplies that it provides. Contractor's quality assurance organization shall inspect and test materials provided by suppliers for conformance to specification requirements. Materials that have been inspected, tested, and approved shall be identified as acceptable to the point of use in the manufacturing or assembly processes. Controls shall be established to prevent inadvertent use of nonconforming materials.

b. PURCHASING DATA

Contractor shall verify that all applicable specification requirements are properly included or referenced in purchase orders of articles to be used on transit buses.

6. MANUFACTURING CONTROL

a. CONTROLLED CONDITIONS

Contractor shall ensure that all basic production operations, as well as all other processing and fabricating, are performed under controlled conditions. Establishment of these controlled conditions shall be based on the documented work instructions, adequate production equipment, and special working environments if necessary.

b. COMPLETED ITEMS

A system for final inspection and test of completed transit buses shall be provided by the quality assurance organization. It shall measure the overall quality of each completed bus.

c. NONCONFORMING MATERIALS

The quality assurance organization shall monitor the Contractor's system for controlling nonconforming materials. The system shall include procedures for identification, segregation, and disposition.

d. STATISTICAL TECHNIQUES

Statistical analysis, tests, and other quality control procedures may be used when appropriate in the quality assurance processes.

e. INSPECTION STATUS

A system shall be maintained by the quality assurance organization for identifying the inspection status of components and completed transit buses. Identification may include cards, tags, or other normal quality control devices.

7. INSPECTION SYSTEM

a. INSPECTION SYSTEM SCOPE

The quality assurance organization shall establish, maintain, and periodically audit a fully-documented inspection system. The system shall prescribe inspection and test of materials, work in process, and completed articles.

b. INSPECTION PERSONNEL

Sufficient trained inspectors shall be used to ensure that all materials, components, and assemblies are inspected for conformance with the qualified bus design.

c. INSPECTION RECORDS

Acceptance, rework, or rejection identification shall be attached to inspected articles. Articles that have been accepted as a result of approved materials review actions shall be identified. Articles that have been reworked to specified drawing configurations shall not require special identification. Articles rejected as unsuitable or scrap shall be plainly marked and controlled to prevent installation on the bus. Articles that become obsolete as a result of engineering changes or other actions shall be controlled to prevent unauthorized assembly or installation. Unusable articles shall be isolated and then scrapped.

- (1) Discrepancies noted by the Contractor or resident inspectors during assembly shall be entered by the inspection personnel on a record that accompanies the major component, subassembly, assembly, or bus from start of assembly through final inspection. Actions shall be taken to correct discrepancies or deficiencies in the manufacturing processes, procedures, or other conditions that cause articles to be in nonconformity with the requirements of the contract specifications. The inspection personnel shall verify the corrective actions and mark the discrepancy record. If discrepancies cannot be corrected by replacing the nonconforming materials, the Authority shall approve the modification, repair, or method of correction to the extent that the contract specifications are affected.

d. QUALITY ASSURANCE AUDITS

The quality assurance organization shall establish and maintain a quality control audit program. Records of this program shall be subject to review by the Authority.

INSPECTIONS

8. INSPECTION STATIONS

- a. Inspection stations shall be at the best locations to provide for the work content and characteristics to be inspected. Stations shall provide the facilities and equipment to inspect structural, electrical, hydraulic, and other components and assemblies for compliance with the design requirements.
- b. Stations shall also be at the best locations to inspect or test characteristics before they are concealed by subsequent fabrication or assembly operations. These locations shall minimally include underbody structure completion, body framing completion, body prior to paint preparation, water test before interior trim and insulation installation, engine installation completion, underbody dress-up and completion, bus prior to final paint touchup, bus prior to road test, and bus final road test completion.

9. RESIDENT INSPECTOR

a. RESIDENT INSPECTOR ROLE

The Authority shall be represented at the Contractor's plant by resident inspectors. They shall monitor, in the Contractor's plant, the manufacture of transit buses built under the procurement. The presence of these resident inspectors in the plant shall not relieve the Contractor of its responsibility to meet all of the requirements of this procurement. The Authority shall designate a primary resident inspector, whose duties and responsibilities are delineated in "Pre-Production Meetings", "Authority" and "Pre-Delivery Tests". Contractor and resident inspector relations shall be governed by the "Guidelines" and "Quality Assurance" Provisions.

b. PRE-PRODUCTION MEETINGS

The primary resident inspector shall participate in design review and pre-production meetings with the Authority. At these meetings the configuration of the buses and the manufacturing processes shall be finalized, and all contract documentation provided to the inspector.

- (1) No less than thirty (30) days prior to the beginning of bus manufacture, the primary resident inspector shall meet with the Contractor's quality assurance manager and shall conduct a pre-production audit meeting. They shall review the inspection procedures and finalize inspection checklists. The resident inspectors may begin monitoring bus construction activities two (2) weeks prior to the start of bus fabrication.

c. **AUTHORITY**

Records and data maintained by the quality assurance organization shall be available for review by the resident inspectors. Inspection and test records for this procurement shall be available for a minimum of one (1) year after inspections and tests are completed.

- (1) Contractor's gauges and other measuring and testing devices shall be made available for use by the resident inspectors to verify that the buses conform to all specification requirements. If necessary, the Contractor's personnel shall be made available to operate the devices and to verify their condition and accuracy.
- (2) Discrepancies noted by the resident inspector during assembly shall be entered by the Contractor's inspection personnel on a record that accompanies the major component, subassembly, assembly, or bus from start of assembly through final inspection. Actions shall be taken to correct discrepancies or deficiencies in the manufacturing processes, procedures, or other conditions that cause articles to be in nonconformity with the requirements of the contract specifications. The inspection personnel shall verify the corrective actions and mark the discrepancy record. If discrepancies cannot be corrected by replacing the nonconforming materials, the Authority shall approve the modification, repair, or method of correction to the extent that the contract specifications are affected.
- (3) The primary resident inspector shall remain in the Contractor's plant for the duration of bus assembly work under this contract. Only the primary resident inspector or designee shall be authorized to release the buses for delivery. The resident inspectors shall be authorized to approve the pre-delivery acceptance tests. Upon request to the quality assurance supervisors, the resident inspectors shall have access to the Contractor's quality assurance files related to this procurement. These files shall include drawings, assembly procedures, material standards, parts lists, inspection processing and reports, and records of defects.

d. **SUPPORT PROVISIONS**

Contractor shall provide office space for the resident inspectors in close proximity to the final assembly area. This office space shall be equipped with desks, outside and interplant telephones, file cabinet, chairs, and clothing lockers sufficient to accommodate the resident staff.

ACCEPTANCE TESTS

10. RESPONSIBILITY

Fully-documented tests shall be conducted on each production bus following manufacture to determine its acceptance to the Authority. These acceptance tests shall include pre-delivery inspections and testing by the Contractor and inspections and testing by the Authority after the buses have been delivered.

11. PRE-DELIVERY TESTS

- a. Contractor shall conduct acceptance tests at its plant on each bus following completion of manufacture and before delivery to the Authority. These pre-delivery tests shall include visual and measured inspections, as well as testing the total bus operation. The tests shall be conducted and documented in accordance with written test plans, approved by the Authority.
- b. Additional tests may be conducted at the Contractor's discretion to ensure that the completed buses have attained the desired quality and have met the Authority's requirements. The Authority may, prior to commencement of production, demand that the Contractor demonstrate compliance with any requirement in "Technical Vehicles Specifications", if there is evidence that prior tests have been invalidated by Contractor's change of supplier or change in manufacturing process. Such demonstration shall be by actual test or by supplying a report of a previously performed test on similar or like components and configuration. Any additional testing shall be recorded on appropriate test forms provided by the Contractor and shall be conducted before approval of bus delivery to the Authority.
- c. The pre-delivery tests shall be scheduled and conducted with 15 days' notice so that they may be witnessed by the resident inspectors, who may accept or reject the results of the tests. The results of pre-delivery tests, and any other tests, shall be filed with the assembly inspection records for each bus. The underfloor equipment shall be available for inspection by the resident inspectors, using a pit or bus hoist provided by the Contractor. A hoist, scaffold, or elevated platform shall be provided by the Contractor to easily and safely inspect bus roofs. Delivery of each bus shall require written authorization of the primary resident inspector. Authorization forms for the release of each bus for delivery shall be provided by the Contractor. An executed copy of the authorization shall accompany the delivery of each bus.

1. INSPECTION – VISUAL AND MEASURED

Visual and measured inspections shall be conducted with the bus in a static condition. The purpose of the inspection testing is to verify overall dimensional and weight requirements, to verify that required components are included and are ready for operation, and to verify that components and subsystems that are designed to operate with the bus in a static condition do function as designed.

2. TOTAL BUS OPERATION

Total bus operation shall be evaluated during road tests. The purpose of the road tests is to observe and verify the operation of the bus as a system and to verify the functional operation of the subsystems that can be operated only while the bus is in motion.

Each bus shall be driven for a minimum of fifteen (15) miles during the road tests. Observed Defects shall be recorded on the test forms. The bus shall be retested when Defects are corrected, and adjustments are made. This process shall continue until defects or required adjustments are no longer detected. Results shall be pass/fail for these bus operation tests.

12. POST-DELIVERY TESTS

- a. The Authority may conduct vehicle inspection tests on each delivered bus. These tests shall be completed within thirty (30) calendar days after bus delivery and shall be conducted in accordance with written test plans. The purpose of these tests is to identify defects that have become apparent between the time of bus release and delivery to the Authority. The post-delivery tests shall include visual inspection and bus operations. No post-delivery test shall apply criteria that are different from the criteria applied in an analogous pre-delivery test (if any).
- b. Buses that fail to pass the post-delivery tests are subject to rejection. The Authority shall record details of all Defects on the appropriate test forms and shall notify the Contractor of each bus status within thirty (30) calendar days according to "Acceptance of Bus" after completion of the tests. The Defects detected during these tests shall be repaired according to procedures defined in the Agreement, "Repairs After Non-Acceptance."

1. VISUAL INSPECTION

The post-delivery inspection is similar to the inspection at the Contractor's plant and shall be conducted with the bus in a static condition. Any visual delivery damage shall be identified and recorded during the visual inspection of each bus.

2. BUS OPERATION

Road tests will be used for total bus operation similar to those conducted at the Contractor's plant. In addition, the Authority may elect to perform chassis dynamometer tests. Operational deficiencies of each bus shall be identified and recorded.

GUIDE FOR INSPECTION

The following provides the Authority's general criteria of the manufacturing and bus inspections intended for each one of the buses procured under this solicitation, including product quality assurance, audit, certifications required by Federal Transit Administration

(FTA), Buy America regulations pertaining to rolling stock purchases and the Authority's on-site inspection tests and acceptance guidelines.

This inspection is intended to be in compliance with all Code of Federal Regulations (CFR), 49 CFR 661 Buy America, 49 CFR 668 Pre-Award and Post Delivery Audits of Rolling Stock purchases, 49 CFR 668 Bus Testing, United States Code (USC) 49 USC 5323 (j) Buy America, Federal Acquisitions Regulations, FTA Master Agreement, FTA Circular 4220.1F, FTA Circular 5000 Grants Management, FTA Handbook Conducting Pre and Post-Delivery Audits, FTA Best Practices Procurement manual to include Buy America Certification, Buy America and Buy America Requirements and all applicable standards set forth in 49 CFR, Part 571 – Federal Motor Vehicle Safety Standards (FMVSS).

13. TASKS

- a. Pre-production meeting in Orange County, California, with representatives from the Authority and the Contractor prior to the manufacturing of First Article bus.
- b. Authority's issuing of the Notice to Proceed with the manufacturing of the First Article bus.
- c. In-plant inspection of the First Article bus at the Contractor's facility/location, to include configuration review of the Authority's first article, Buy America Audit.
- d. Contractor's presentation of a fully completed First Article bus at the manufacturer's location.
- e. The Authority personnel perform the in-plant review of the First Article bus and, if in compliance with all the requirements, approval for shipment is provided to the Contractor.
- f. Contractor performs licensing and registration of the First Article bus prior to delivery to the Authority.
- g. Continued inspection at the final delivery location, any of the Authority facilities in Orange County, California, including forty (40) hours of uninterrupted revenue service testing.
- h. Completion of First Article testing and review after all discrepancies are corrected to Authority's satisfaction.
- i. Authority issues Notice to Proceed with the Production Run.
- j. Same above listed steps are followed with the Production Run.

14. PRE-PRODUCTION PHASE

- a. The Authority personnel or its on-site inspector will conduct a review of Contractor's supplied documents for areas such as Buy America Pre-Award Compliance audit, Buy America Pre-Award Purchasers Requirements Certification, Buy America Pre-Award FMVSS Certification, DOT Safety requirements/specifications/regulations; and Quality Control/Quality Assurance procedures. Formal reports to the Authority in these areas are required.
- b. The Authority personnel and its on-site inspector will be provided with all contract documentation with bus manufacturer prior to start of manufacture.
- c. The Authority personnel and/or its on-site inspector will attend a pre-production audit meeting with the bus manufacturer. At this meeting, primary contact persons from the Authority, the bus manufacturer and In-Plant inspection representatives are expected to be present to finalize vehicle configuration decisions/documentation; and review manufacturing processes and schedule.

15. MANUFACTURING PHASE

- a. Authority personnel or its on-site inspectors will be on site at the manufacturer's location during all phases of manufacture, unless otherwise instructed by the Authority in writing.
- b. The Authority personnel or its on-site inspectors will provide continuity of inspectors during each vehicle acquisition for the Authority.
- c. The Authority or its on-site inspectors will ensure sufficient staffing on site based on the production schedules and quantity of buses to ensure expedited production. Inspection delays cannot be allowed to slow down the manufacturing process, except for documented quality problems.
- d. On-site inspectors will be available during all normal work hours of the manufacturer.
- e. On-site inspectors will work cooperatively with manufacturers and the Authority representatives. The expected result is a high-quality transit vehicle completed on schedule, and in conformance with federal, state & local specifications, with minimal changes in configuration during manufacture.
- f. The Authority or its on-site inspectors will designate a project "Team Leader" (in the event more than one inspector is assigned to a project). This person will be the primary point of contact for the Authority staff, and will be the direct liaison with the manufacturer's personnel, and the only person delegated to make "stop work" or "stop ship" decisions on behalf of the Authority, based on

pre-agreed criteria. The Authority will similarly appoint a single point of contact.

- g. The on-site inspector will provide daily and weekly summary reports by e-mail or facsimile to the designated Authority Project Manager. The written reports will include, at a minimum, the following items:
 - 1. Production progress during the period.
 - 2. Production schedule.
 - 3. Vehicle shipment status.
 - 4. Production line movement identified by stage and Authority vehicle numbers.
 - 5. Specific problems encountered during the period.
 - 6. Status of problems/issues reported during the previous reporting periods.
 - 7. Recommended solutions to problems/issues reported.
 - 8. Request for input from the Authority to make a decision or support the on-site inspector's position.
 - 9. General comments.
- h. The on-site inspector will ensure that the manufacture of the vehicles is in a manner consistent with all 49 CFR Part 571 & California State regulations (Title 13 CCR and specifications; as well as Authority's specifications incorporating any approved changes).
- i. The on-site inspector will meet with the Authority Project Manager at the end of production of the First Article, to conduct a configuration audit on the First Article bus. Once the configuration has been established, the on-site inspector will produce the required Buy America post-delivery audit documents prior to Authority's issuing of the Notice to Proceed to the Manufacturer.
- j. The on-site inspector will inspect and certify that each bus complies with the Buy America content/requirement, and Authority's configuration requirements, as approved with the first article.
- k. The on-site inspector will maintain and distribute meeting minutes for any formal meeting (i.e., pre-production audit meeting) held with the manufacturer and/or the Authority.
- l. Except for those differences among vehicles in a single order that might be required for in the specifications, the on-site inspector will ensure that all transit vehicles manufactured are identical and interchangeable within the same order. The on-site inspector will similarly ensure that vehicle manuals and other documentation are updated with any changes to match actual vehicle configuration.
- m. During the production of the first buses, the production line will be thoroughly evaluated for its conformity to the agreements set forth during the initial audit process. This will include compliance to the quality assurance program, testing

requirements, documentation of certification testing, including but not limited to fastener testing, steel treatment, torque wrench calibration, welding testing (ultra sound and die penetrant testing), paint adhesion testing, paint thickness testing, electrical wiring and component ratings, etc.

- n. All final operating tests will be checked during the final buy-off stage to help ensure that all of the appropriate testing has been completed. If the tests fail to meet the standard of the technical specifications, the on-site inspector will develop a list that will be forwarded to the manufacturer requesting adjustments in the process. The goal is to adjust the testing within the final stages of the first two to five buses.
- o. As part of the final inspection phase, the on-site inspector will perform a road test, riding each bus and listening for abnormal power train noises, interior rattles, and observing for proper shift points, acceleration, braking performance, ride quality, and appropriate functioning of other bus systems.
- p. Upon completion of manufacture of each unit, the on-site inspector will perform a full inspection test at the manufacturer's location prior to shipment to the Authority. Any defects noted will be made known to the manufacturer and tracked for correction prior to shipment to the Authority. Upon approval for shipment by the on-site inspector, the on-site inspector will transmit a copy of the inspection sheet to the Authority for each vehicle as quickly as practical to expedite final vehicle inspection at the Authority. On-site inspector will not allow the manufacturer to ship any vehicle that has not successfully passed this inspection, unless approved in writing by the Authority.
- q. Specific emphasis will be placed on undercarriage, electrical installation, brakes, wheelchair lift, air conditioning, differential, and interior seating. It cannot be over-emphasized that the production line is a critical point for identification and documentation of non-compliant matters and to clarify and resolve noted discrepancies and issues to including but not limited to:
 - 1. QC production procedures.
 - 2. Weld integration (Zyglow, ultrasound test methods, etc.)
 - 3. Frame undercoating thickness.
 - 4. Sheet metal application, fit and finish, sidewall trueness as well as sheet metal quality.
 - 5. Paint adherence pull test and thickness tests.
 - 6. Paint Quality (orange peel, fish eye, sagging, and dirt)
 - 7. Detailed Inspection to include hydraulic lines, fuel lines and electrical harnesses.
 - 8. Electrical component ratings and proper grounding.
 - 9. Proper clamping, routing and spacing of air lines from making contact with other components.
 - 10. Proper clamping, routing and spacing of electrical wire harnesses from making contact with other components.
 - 11. Etc.

- r. The on-site inspector will be responsible for providing at a minimum, the following (as applicable) with each individual bus record:
1. Inspection Report verifying conformity to all specifications
 2. Methane Detection System Test
 3. Wheel alignment
 4. Fire Suppression System Test
 5. Water test certification
 6. Front end alignment and steering stop adjustment certification
 7. "Completed Bus" inspection document
 8. Copy of defects and corrections noted during bus inspection
 9. VIN number (copy of bus data plate)
 10. Manufacturer inspection records
 11. Certificate of Origin
 12. Certified Weight slip (curb weight)
 13. On-Site Inspector's inspection documents
 14. Final factory bus inspection Report
 15. Road Test Function Report to Include:
 - a) Acceleration Test
 - b) Top Speed Test
 - c) Service Brake Test
 - d) Parking Brake Test
 - e) Turning Effort Test
 - f) Turning Radius Test
 - g) Shift Quality
 - h) Retarder Deceleration Test
 16. During the road test, one vehicle shall be taken to a weigh station to record the vehicle's front axle weight; rear axle weight and total vehicle (curb) weight.
 17. A list of major component serial numbers will be documented for each bus; at a minimum the following components will be listed:
 - a) Engine
 - b) Transmission
 - c) Alternator
 - d) Starter
 - e) HVAC Unit
 - f) AC Compressor
 - g) Drive Axle
 - h) Power Steering Unit
 - i) Air Compressor
 - j) Engine Cooling System
 - k) All other components that the manufacturer will require in order to process warranty claims.

- s. The on-site inspector will be responsible for providing at a minimum, the following (as applicable) with each separate bus build:
 - 1. Pre-Award Purchasers Requirements certification, which certifies that the product meets the Authority's specifications and is being built within the requirements outlined in 49 CFR, Sections 663.27, 663.25 & 663.23.
 - 2. Copy of the Pre-Award and Post-Delivery manufacturer's self-certification of compliance with the FMVSS stating that the bus manufactured meets the requirements of those standards (49 CFR, Sec. 663.41).
 - 3. Post-Delivery Audit. The on-site inspector will certify that each bus was built to the specified FTA requirements/specifications and Authority configuration in accordance with 49 CFR, Sections, 663.33, 663.35, 663.37 & 663.39.
- t. The on-site inspector is not responsible for final bus acceptance. This task will be performed by Authority personnel.

16. POST PRODUCTION ACTIVITIES

- a. The on-site inspector will provide final written documentation to the Authority summarizing the production processes and issues supplemented for each bus; and copies of the inspection write-ups of each vehicle inspected.
- b. In addition to the bus production documents, and Road Test Sheets, all memoranda and QA correspondence will be stored and chronologically organized and provided in the final production report.

17. VEHICLE INSPECTION PHASE AT AUTHORITY

- a. Upon delivery of the bus to the Authority's facilities, Authority personnel shall perform a complete delivery/vehicle inspection/verification to include, among others, recording of all vehicle serialized components, e.g., VIN number, transmission serial number, engine, serial number, axles, etc.
- b. Visual checks to include, among others, all exterior lights, body finish, paint, decals, installation of bike rack, operation of all interior and exterior access panels and doors, latches, condition of tires, etc.
- c. Mechanical checks to include verification of lug nuts torque, belt tensions, lubrication of chassis, lubrication of driveshaft, lubrication of components, re-torqueing of components, testing of fire suppression and methane detection systems, drain and replace engine oil, check of transmission and engine mounts, etc.

- d. Operational checks to include, among others, seat belts, steering column, horn, sun visors, mirrors, windows, parking brake, wiper blades, ventilation system, transmission shifting quality, air conditioning, parking brake, fluid and fuel leaks, plumbing, radio system, on board video surveillance system, passenger counters, voice announcement, destination signs, sun visors, driver's controls, passenger circulation, lights, switches, knobs, emergency releases, etc.
- e. Drivability tests to include, among others, at a minimum, 40-hours of continuous uninterrupted service testing to evaluate performance, driving ability, steering response, cooling system's performance, vehicle speed, system's operation and interaction, acceleration, engine compartment temperature, braking distances, etc.
- f. Dimensional and performance tests to include complete electrical system audit, dimensional requirements audit, seating capacity, water test, water runoff test, function test of systems and subsystems and components, sound/noise level tests, airflow test, PA function, silent alarm, interior lighting, exterior lighting, gradability test, kneeling, HVAC pull-down test, wheelchair ramp, axle weight, engine and transmission performance test among others.
- g. Additional tests and/or verifications maybe included based on the outcome of previously listed tests, inspections and checks.
- h. If any discrepancies are noted, the bus shall be rejected and the list of discrepancies shall be provided to the bus manufacturer. The bus manufacturer shall be responsible for removing the bus from the Authority property, performing the corrections and repairs to the highlighted deficiencies and redelivering the bus to Authority for a secondary vehicle inspection.
- i. Upon receipt of the re-delivered bus, the Authority shall perform a new bus inspection to verify that all items are individually, and/or as a system, in working order to include all items provided in the discrepancy list. If existing or additional discrepancies are noted, the bus shall be rejected and the bus manufacturer will be required to remove the bus from Authority's property to perform the necessary repairs. Upon completion of the manufacturer's repairs, the bus will be re-delivered to Authority for a follow up inspection and at that point, if all repairs were performed to the Authority's satisfaction, the bus shall be released for revenue service and Authority personnel will start the necessary paperwork to add the bus to the revenue fleet and will complete the internal paperwork e.g., forms, approvals, signature of invoices, etc. If the bus is rejected, the bus manufacturer shall be required to remove the bus from Authority property and to continue the repairs until completion of a satisfactory and fully functional bus.

WARRANTY TABLE

Clarify each type of warranty that will be provided with each bus, i.e. standard, structural, etc. by completing this form.

Component / System	Term (i.e. Years, Miles)
Ford Motor Company	
Ford Powertrain	
Ford Safety Restraint System	
Ford Corrosion	
Manufacturer Base Warranty	
Manufacturer Body Structure	
Manufacturer Electrical System	
Thermo King A/C	
Air Heater	
A & M Entry Door	
Intermotive Components	
Rubber Flooring	
Ricon Lift	
LED lights	
Rosco Rear View Mirrors	
Q-Straint Tiedowns	
Telma Retarder	
Roof Hatch	
Seating	
Windows	
Conduent / Communication / Voice	
Kidde	
March Networks OBVSS	
Fleetwatch	
Towing	
Mobile Router	
Other - Specify	

QUOTATION FORM

REQUEST FOR QUOTES NUMBER: 9-1570

DESCRIPTION: CALACT CLASS B – 22-FOOT (+/-2")
CUTAWAY BUSES

BIDDER'S NAME AND ADDRESS

NAME OF AUTHORIZED REPRESENTATIVE

TELEPHONE NUMBER

FAX NUMBER

EMAIL ADDRESS

I acknowledge receipt of RFQ and Addenda Numbers:

AUTHORIZED SIGNATURE TO BIND QUOTE:

PRINT SIGNATOR'S NAME AND TITLE:

DATE SIGNED:

BLANKET PURCHASE ORDER

For the Authority's requirements as specified in Exhibit A, entitled "Scope of Work" and Exhibit E entitled "Price Summary Sheet" for up to 116, 22-foot (+/- 2') cutaway buses with the option to purchase an additional ten (10) buses. Price quotes are firm for the life of the blanket purchase order.

Contractor agrees to the terms and conditions stated in the CalACT / MBTA contract. In signing this form, Contractor acknowledges receipt of Exhibit F, entitled "Insurance Requirements" and Exhibit G, entitled "General Provisions" which by this reference is incorporated herein.

Deliveries will be made to 4301 West MacArthur Boulevard, Santa Ana, California 92704.

Enter onto the spreadsheet, pricing for each line item described in the Quotation Form, based on CalACT / MBTA pricing and the Authority's specifications. Prices shall include direct costs, indirect costs, and profits. The Authority's intention is to award a firm-fixed price contract.

Pricing shall remain firm for 180 days from the quotation submittal date.

PRICE SUMMARY SHEET

Complete Excel Spreadsheet, included as a separate attachment, and submit electronically as part of the bid submittal. All line items on the spreadsheet shall be acknowledged; if Bidder is not bidding on one or more line items, Bidder shall indicate "No Bid" or "Not Applicable" on the spreadsheet next to that particular item.

Note: There are two tabs for completion on the Excel Spreadsheet; Initial Purchase and Optional Purchase.

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INSURANCE REQUIREMENTS

The Authority recognizes that the Contractor may be a dealer whose role is warranty and service of the vehicles. In such cases, the Contractor shall maintain in effect during the term of this Contract, including any warranty period, at its own expense, at least the following coverage and limits of insurance:

- Statutory Workers' Compensation and Employers Liability insurance covering Supplier's employees while on Authority property.
- Commercial General Liability Insurance:
 - Bodily Injury and Property Damage, including Contractual Liability covering the indemnification contained herein, \$1,000,000 combined single limits per occurrence, \$5,000,000 aggregate, where applicable.
 - Product liability: \$1,000,000 per occurrence, for a period of five (5) years after acceptance of the last bus delivered under this Contract (Products Liability coverage may be effected through one or more excess liability policies).
- Automobile Liability Insurance: Bodily Injury and Property Damage, \$1,000,000 combined single limits per occurrence.

In addition, the vehicle manufacturer whose role is to provide the vehicle shall maintain in effect during the term of this Contract, including any warranty period, at its own expense, at least the following coverage and limits of insurance:

- Commercial General Liability Insurance:
 - Bodily Injury and Property Damage, including Contractual Liability covering the indemnification contained herein, \$1,000,000 combined single limits per occurrence, \$5,000,000 aggregate, where applicable.
 - Product liability: \$1,000,000 per occurrence, for a period of five (5) years after acceptance of the last bus delivered under this Contract (Products Liability coverage may be effected through one or more excess liability policies).

Proof of such coverage, in the form of a certificate of insurance with the Authority, its officers, directors, employees and agents, designated as additional insureds as required by contract, shall be received by the Authority prior to commencement of any work. Proof of insurance coverage shall be received by the Authority within ten (10) calendar days from the effective date of the Agreement. Such insurance shall be primary and non-contributive to any insurance or self-insurance maintained by Authority. Furthermore, Authority reserves the right to request certified copies of all related insurance policies.

Contractor shall include on the face of the Certificate of Insurance the Agreement Number C91570; and, the Principal Contract Administrator's Name, Masih Bahadori.

Contractor shall also include in each subcontract the stipulation that subcontractors shall maintain insurance coverage in the amounts required from Contractor as provided in the Agreement.

GENERAL PROVISIONS

1. **INSPECTION AND ACCEPTANCE** - All items are subject to final inspection and acceptance by AUTHORITY at destination notwithstanding any payment or prior inspection at SELLER'S facilities. Final inspection will be made within a reasonable time after receipt of items hereunder.
2. **CHANGES** - By written notice or order. AUTHORITY may, from time to time, order work suspension or make changes in quantities, drawings, designs, specifications, place of delivery or delivery schedules, methods of shipment and packaging, and property and services furnished by A. If any such change causes an increase or decrease in the price of this agreement or in the time required for its performance. SELLER OR AUTHORITY shall promptly notify the other party thereof and assert its claim for adjustment within (30) days after the change is ordered, and an equitable adjustment shall be made. However, nothing in this clause shall excuse SELLER from proceeding immediately with the agreement as changed.
3. **DEFAULT AND EXCESS REPROCUREMENT LIABILITY** - AUTHORITY may terminate this agreement if a federal or state proceeding for the relief of debtors is undertaken by or against Seller, or if SELLER makes an assignment for the benefit of creditors, or if SELLER fails after reasonable notice by AUTHORITY to cure a deficiency in performance or lack of progress thereto, and AUTHORITY shall have, such additional remedies as may be available whether or not it so terminates this agreement, including but not limited to the payment by SELLER to AUTHORITY of expenses incurred by AUTHORITY in reprocurring elsewhere the same or similar items or services defaulted by SELLER hereunder provided such Seller's reprocurement expenses obligation shall be limited to the excess over the price specified herein for such items or services.
4. **INDEMNIFICATION** - SELLER shall indemnify, defend, and hold harmless AUTHORITY from and against any loss, damage, claim, or harm for bodily injuries, including death or damage to property caused by SELLER or its employees, subcontractors, or supplies in connection with the performance of this agreement.
5. **ASSIGNMENTS AND SUBCONTRACTORS** - Neither this agreement nor any interest herein nor claim hereunder may be assigned by SELLER either voluntarily or by operation of law, nor may all or substantially all of this agreement be further subcontracted by SELLER without the prior written consent of AUTHORITY. No consent shall not be deemed to relieve SELLER of its obligations to comply fully with the requirements hereof.
6. **FEDERAL, STATE, AND LOCAL LAWS** - SELLER warrants that in the performance of this agreement is shall comply with all applicable Federal, State and local laws and ordinances and all lawful orders, rules and regulations thereunder.
7. **INFRINGEMENT INDEMNITY** - In lieu of any other warranty by AUTHORITY or SELLER against infringement statutory, or otherwise, it is agreed that SELLER shall defend at its expense and suit against AUTHORITY based on a claim that any item furnished under this agreement or the normal use or sale thereof infringes any United States Letters Patent or copyright and shall pay cost and damages finally awarded in any such suit, provided that SELLER is notified in writing of the suit and given authority, information, assistance at SELLER'S expense for the defense of same. If the use or sale of said item is enjoined as a result of such suit, SELLER, at no expense to AUTHORITY, shall obtain for AUTHORITY the right to use and sell said item, or shall substitute an equivalent item acceptable to AUTHORITY and extend this patent indemnity hereto.
8. **TITLE AND RISK OF LOSS** - Unless otherwise provided in this agreement, SELLER shall have title to and bear the risk of any loss of or damage to the items purchased hereunder until they are delivered in conformity with this agreement at the F.O.B. point specified herein, and upon such delivery title shall pass from SELLER and SELLER'S responsibility for loss or damage shall cease, except for loss or damage resulting from SELLER'S negligence. Passing of title upon such delivery shall not constitute acceptance of the item by AUTHORITY.
9. **NOTICE OF LABOR DISPUTE** - Whenever SELLER has knowledge that any actual or potential labor dispute may delay this agreement, SELLER shall immediately notify and submit all relevant information to AUTHORITY. SELLER shall insert the substance of this entire clause in any subcontract hereunder as to which a labor dispute may delay this agreement. However, any subcontractor need give notice and information only to its next higher-tier subcontractor.
10. **EQUAL EMPLOYMENT OPPORTUNITY** - In connection with the execution of this agreement, the SELLER shall not discriminate against any employee or applicant because of race, religion, color, sex or national origin. The SELLER shall take affirmative action to ensure that applicants are employed, and that employees are treated during their employment without regard to their race, religion, color, sex or national origin. Such actions shall include pay, or other forms of compensation and selection for training, including apprenticeship.
11. **DISADVANTAGE BUSINESS ENTERPRISE** - In connection with the performance of this agreement, the SELLER will cooperate with the AUTHORITY in meeting its commitments and goals with regard to the maximum utilization of Disadvantaged business enterprises, and seller will use its best efforts to ensure that disadvantaged business enterprises shall have an equitable opportunity to compete for subcontract work under this agreement.
12. **PROHIBITED INTEREST** - A. SELLER covenants that no member of, or delegate to, the Congress of the United States shall have any interest, direct or indirect, in the agreement or the proceeds hereof.

B. SELLER further covenants that, for the term of this agreement, no director, member, officer, or employee of the AUTHORITY during his tenure in office or one (1) year thereafter shall have any interest, direct or indirect, in this agreement or the proceeds thereof.
13. **TERMINATION FOR CONVENIENCE** - the Authority may terminate this agreement at any time by giving written notice to SELLER of such termination, effective on the date of such notice. Upon receipt of said notice, SELLER shall immediately take action not to incur any further obligations, costs, or expenses, except as may be reasonably necessary to terminate its activities. All finished or unfinished documents and other materials procured or produced by SELLER hereunder shall, at the option of AUTHORITY, become AUTHORITY property upon the date of such termination.
14. **AUDIT AND INSPECTION OF RECORDS** - SELLER shall provide AUTHORITY such access to SELLER'S books, records, and facilities as may be deemed necessary to examine, audit, and inspect all work data, documents, and activities related to the goods or services described herein. SELLER shall maintain such books, records, data and documents on a generally accepted accounting basis and shall clearly identify and make such items readily accessible to such parties during SELLER'S performance hereunder and for a period of four (4) years from the date of final payment by AUTHORITY hereunder.