



Amendment of Solicitation

Date of Issuance: 05/02/2016

Solicitation No. SW797 Additional Items

Requisition No. _____

Amendment No. 1

Hour and date specified for receipt of offers is changed: ☐ No ☒ Yes, to: 06/02/2016 3:00 PM CST/CDT

Pursuant to OAC 260:115-7-30(d), this document shall serve as official notice of amendment to the Solicitation identified above. Such notice is being provided to all suppliers to which the original solicitation was sent.

Suppliers submitting bids or quotations shall acknowledge receipt of this solicitation amendment prior to the hour and date specified in the solicitation as follows:

- (1) Sign and return a copy of this amendment with the solicitation response being submitted; or,
- (2) If the supplier has already submitted a response, this acknowledgement must be signed and returned prior to the solicitation deadline. All amendment acknowledgements submitted separately shall have the solicitation number and bid opening date printed clearly on the front of the envelope.

ISSUED BY and RETURN TO:

**U.S. Postal Delivery or Personal or Common
Carrier Delivery:**

Office of Management and Enterprise Services
Central Purchasing
5005 N. Lincoln Blvd., Ste. 300
Oklahoma City, OK 73105

Gerald Elrod
Contracting Officer

405 - 521 - 1037
Phone Number

Gerald.Elrod@omes.ok.gov
E-Mail Address

Description of Amendment:

a. This is to incorporate the following:

The RFP closing date has been extended. The new closing date will be June 2, 2016. Additional time has also been given for questions and answers. The new deadline for all questions is 3:00PM, May 17, 2016. All questions should be submitted to the listed contract officer, in writing, prior to the question submission deadline.

b. All other terms and conditions remain unchanged.

Creative Bus Sales, Inc.

Supplier Company Name (**PRINT**)

Ryan Frost

Authorized Representative Name (**PRINT**)

General Manager

Title

7-8-2016

Date

Authorized Representative Signature



Amendment of Solicitation

Date of Issuance: 05/27/2016

Solicitation No. SW797 Additional Items

Requisition No. _____

Amendment No. 2

Hour and date specified for receipt of offers is changed: ☐ No ☒ Yes, to: 06/09/2016 3:00 PM CST/CDT

Pursuant to OAC 260:115-7-30(d), this document shall serve as official notice of amendment to the Solicitation identified above. Such notice is being provided to all suppliers to which the original solicitation was sent.

Suppliers submitting bids or quotations shall acknowledge receipt of this solicitation amendment prior to the hour and date specified in the solicitation as follows:

- (1) Sign and return a copy of this amendment with the solicitation response being submitted; or,
- (2) If the supplier has already submitted a response, this acknowledgement must be signed and returned prior to the solicitation deadline. All amendment acknowledgements submitted separately shall have the solicitation number and bid opening date printed clearly on the front of the envelope.

ISSUED BY and RETURN TO:

**U.S. Postal Delivery or Personal or Common
Carrier Delivery:**

Office of Management and Enterprise Services
Central Purchasing
5005 N. Lincoln Blvd., Ste. 300
Oklahoma City, OK 73105

Gerald Elrod
Contracting Officer

405 - 521 - 1037
Phone Number

Gerald.Elrod@omes.ok.gov
E-Mail Address

Description of Amendment:

a. This is to incorporate the following:

The RFP closing date has been extended. The new closing date will be June 9, 2016.

b. All other terms and conditions remain unchanged.

Creative Bus Sales, Inc.

Supplier Company Name (**PRINT**)

Ryan Frost

Authorized Representative Name (**PRINT**)

General Manager

Title

7-8-2016

Date


Authorized Representative Signature



Amendment of Solicitation

Date of Issuance: 06/02/2016

Solicitation No. SW797 Additional Items

Requisition No. _____

Amendment No. 3

Hour and date specified for receipt of offers is changed: ☐ No ☒ Yes, to: 06/21/2016 3:00 PM CST/CDT

Pursuant to OAC 260:115-7-30(d), this document shall serve as official notice of amendment to the Solicitation identified above. Such notice is being provided to all suppliers to which the original solicitation was sent. Suppliers submitting bids or quotations shall acknowledge receipt of this solicitation amendment prior to the hour and date specified in the solicitation as follows:

- (1) Sign and return a copy of this amendment with the solicitation response being submitted; or,
- (2) If the supplier has already submitted a response, this acknowledgement must be signed and returned prior to the solicitation deadline. All amendment acknowledgements submitted separately shall have the solicitation number and bid opening date printed clearly on the front of the envelope.

ISSUED BY and RETURN TO:

**U.S. Postal Delivery or Personal or Common
Carrier Delivery:**

Office of Management and Enterprise Services
Central Purchasing
5005 N. Lincoln Blvd., Ste. 300
Oklahoma City, OK 73105

Gerald Elrod
Contracting Officer

405 - 521 - 1037
Phone Number

Gerald.Elrod@omes.ok.gov
E-Mail Address

Description of Amendment:

a. This is to incorporate the following:

The RFP closing date has been extended. The new closing date will be June 21, 2016.

b. All other terms and conditions remain unchanged.

Creative Bus Sales, Inc.

Supplier Company Name (**PRINT**)

Ryan Frost

Authorized Representative Name (**PRINT**)

General Manager

Title

7-8-2016

Date

Authorized Representative Signature



Amendment of Solicitation

Date of Issuance: 6/17/2016

Solicitation No. SW797

Requisition No. SW797

Amendment No. 4

Hour and date specified for receipt of offers is changed: ☐ No ☒ Yes, to: 7/07/2016 3:00 PM CST/CDT

Pursuant to OAC 260:115-7-30(d), this document shall serve as official notice of amendment to the Solicitation identified above. Such notice is being provided to all suppliers to which the original solicitation was sent.

Suppliers submitting bids or quotations shall acknowledge receipt of this solicitation amendment prior to the hour and date specified in the solicitation as follows:

- (1) Sign and return a copy of this amendment with the solicitation response being submitted; or,
- (2) If the supplier has already submitted a response, this acknowledgement must be signed and returned prior to the solicitation deadline. All amendment acknowledgements submitted separately shall have the solicitation number and bid opening date printed clearly on the front of the envelope.

ISSUED BY and RETURN TO:

**U.S. Postal Delivery or Personal or Common
Carrier Delivery:**

Office of Management and Enterprise Services
Central Purchasing
5005 N. Lincoln Blvd., Ste. 300
Oklahoma City, OK 73105

Gerald Elrod
Contracting Officer

405 - 522 - 1037
Phone Number

Gerald.elrod@omes.ok.gov
E-Mail Address

Description of Amendment:

a. This is to incorporate the following:

The closing date has been Extended a couple weeks to July 7, 2016
An Amendment will be sent out next week, 6-21-16 with Q&A's

b. All other terms and conditions remain unchanged.

Creative Bus Sales, Inc.

Supplier Company Name (PRINT)

Ryan Frost

Authorized Representative Name (PRINT)

General Manager

Title

7-8-2016

Date

Authorized Representative Signature



Amendment of Solicitation

Date of Issuance: 06/21/2016

Solicitation No. SW797 Additional Items

Requisition No. _____

Amendment No. 5

Hour and date specified for receipt of offers is changed: ☐ No ☒ Yes, to: July 12, 2016 3:00 PM CST/CDT

Pursuant to OAC 260:115-7-30(d), this document shall serve as official notice of amendment to the Solicitation identified above. Such notice is being provided to all suppliers to which the original solicitation was sent.

Suppliers submitting bids or quotations shall acknowledge receipt of this solicitation amendment prior to the hour and date specified in the solicitation as follows:

- (1) Sign and return a copy of this amendment with the solicitation response being submitted; or,
- (2) If the supplier has already submitted a response, this acknowledgement must be signed and returned prior to the solicitation deadline. All amendment acknowledgements submitted separately shall have the solicitation number and bid opening date printed clearly on the front of the envelope.

ISSUED BY and RETURN TO:

**U.S. Postal Delivery or Personal or Common
Carrier Delivery:**

Office of Management and Enterprise Services
Central Purchasing
5005 N. Lincoln Blvd., Ste. 300
Oklahoma City, OK 73105

Gerald Elrod
Contracting Officer

405 - 521 - 1037
Phone Number

Gerald.Elrod@omes.ok.gov
E-Mail Address

Description of Amendment:

a. This is to incorporate the following:

The following questions have been received and answered (see below and attached):

Question 1: (We have received several requests to extend)

Answer 1: Due to the delay in providing responses to the received questions, the RFP closing date has been extended to July 12, 2016. This will be the final extension.

Question 2: Award is "low bid", but they may negotiate & ask for BAFO - what does this mean?

Answer 2: All Suppliers should submit their lowest bid. Negotiation and BAFO terms are included in the event such a request is deemed necessary due to a conflict in terms and conditions or to clarify pricing, but in the case of such a request a Supplier will never be penalized for maintaining their lowest and best price.

Question 3: Bus quantity is indefinite - per FTA rules quantities must be identified mins and max numbers.

Answer 3: States are not required to give a minimum and maximum quantity. Furthermore, this is a Statewide contract from which individual purchase orders will be issued. Purchase orders will include the needed quantities.

Question 4: Bid expires 8-6-16; and has two 1-year renewals allowed with final expiration date as 8-6-18 - why not a 5 year agreement.

Answer 4: The contract period has been altered slightly (see below). The length of the contract term was decided at the discretion of the contract officer in order to keep the additional items in line with the rest of the contract.

Question 5: Delivery for the 30', 35', 40' CNG & Diesel buses is listed as 180 days; Trolley 120 days (if we are bidding on this one) - we cannot meet this delivery!

Description of Amendment - continuing

Answer 5: The delivery requirements are negotiable.

Question 6: There is an Administrative fee of 1% due from Gillig (not the customer) within 30 days after quarterly report is filled in by us (sample of form attached in specs) - Why?

Answer 6: This is an OMES Central Purchasing requirement on all statewide contracts and is used to cover the costs associated with managing contracts such as SW797.

Question 7: Missing in the specs are Acceptance & Payment terms, no PPI.

Answer 7: The State's Acceptance & Payment terms are listed in Section(s) A.17 and A.18, respectively.

Question 8: There have been several requests for deviation from the specifications requested in the RFP.

Answer 8: The State has listed their requirements in the solicitation, but a Supplier may submit alternate specifications. The State reserves the right to consider alternate specifications if they do not materially alter the scope of the RFP. In submitting an alternate bid, a Supplier must include a section in their response listing all deviations from the listed specifications and detailed explanations describing how the deviation is consistent with the scope of the RFP.

See attached for additional questions.

b. All other terms and conditions remain unchanged.

Creative Bus Sales, Inc.

Supplier Company Name (PRINT)

Ryan Frost

Authorized Representative Name (PRINT)

General Manager

Title

7-7-2016

Date

Authorized Representative Signature

Request Number	Page Number	Section	Title	Specification Language	Questions/Clarification/Approved Equal	Approved	Denied	State of Oklahoma Response
1	8	A.17.2	Delivery, Inspection and Acceptance	Supplier(s) awarded the Contract shall be required to deliver products and services as bid on or before the required date.	Please clarify whether or not there is a required delivery date and if so, what is that required delivery date			Per Spec, Vehicle must be delivered at a maximum of 180 calendar days from the date a purchase order is issued.
2	10	B.1.1	Contract Period	The Contract Period is the Date of Award through August 8, 2016 with the option to renew for up to two (2) additional one year periods	This particular date was in the original SW797 which was released last mid last year. It would make sense that this date should be effectively one (1) year following the anticipated contract award date for RFP SW797 Additional Items. Please clarify.			Please reference the revised contract date in the amendment. The contract period will not extend past the date of the current contract. This is to ensure that all agreements under this contract will be up to be rebid at the same time.
3	12	C	Solicitation Specifications	Entire section	Please clarify the quantity for the following manuals: 1. Parts 2. Maintenance 3. Operator's			1 of each
4	1-20		Solicitation Specifications	Entire section	Please clarify whether or not any training is required and if so, how many hours			yes depending on the system the company currently has and if the mechanics would need to update anything
5			Federal Changes		Approval to add a Regulatory Change clause as follows: "Changes of Law that become effective after the Proposal Due Date may result in price changes. If a price adjustment is indicated, either upward or downward, it shall be negotiated between OMES Central Purchasing and the Contractor and the final Contract price will be adjusted upwards or downwards to reflect such changes in Law. Such price adjustment may be audited, where required. All price increases must receive prior approval from OMES Central Purchasing."			The following clause will be added: "Changes of Law that become effective after the Proposal Due Date may result in price changes. If a price adjustment is indicated, either upward or downward, it shall be negotiated between OMES Central Purchasing and the Contractor and the final Contract price will be adjusted upwards or downwards to reflect such changes in Law. Such price adjustment may be audited, where required. All price increases must receive prior approval from OMES Central Purchasing."
6		2.3(d)	Overall Requirements	All systems, sub-systems, and components shall be individually and permanently labeled with Manufacturer, Part Number, and Serial Number.	Approval to include the manufacturers, part numbers and serial numbers as part of the ENC Parts Manual.		Not Approved	It is important for these items to be labeled per spec. in case a parts manual is not available.

Request Number	Page Number	Section	Title	Specification Language	Questions/Clarification/Approved Equal	Approved	Denied	State of Oklahoma Response
7		2.3(d)	Overall Requirements	This shall include an OEM to vendor cross reference listing.	Request deletion of the requirement for an OEM vendor cross-reference listing. Please note that in the event the need arises for this important information, ENC will provide this information on a case-by-case basis.		Not Approved	When buses are in need of repair having vendor cross-reference listings immediately available is important.
8		2.3 e	Overall Requirements	The manufacturer shall use FC-300 and FC-195 hoses for all flexible lines except...	Approval of Parker brand Super-Tough polymeric hose with multiple layers of steel wire reinforcement. Please see Exhibit A for a more thorough description of the proposed Parker brand hoses.	Approved		
9		2.4(a)	Worker and Protective Measures	All bolts or rods passing through wood shall be sealed with zinc chromate or other approved sealing compound.	Approval of Eck, Corrosion Prevention Coating as an approved equal to the specified zinc chromate sealing compound. Please note that the state of California has banned the use of zinc chromate in the production of vehicles within the state and since ENC is a California based bus manufacturer, it is not allowed to use zinc chromate. Further, all wood sub-floor fasteners are Floor-Tight brand Huck type stainless steel fasteners. The proposed coating has been industry proven and once applied, the coating does not need to be reapplied during routine maintenance. Please see Exhibit B for a thorough description of the proposed corrosion prevention coating.	Approved		
10		2.4(a)	Worker and Protective Measures	Where wood and wood are placed together, all outer edges of wood, as well as the edges of holes, cutouts and notches shall be coated with a linseed oil and titanium dioxide sealer or zinc chromate or other appropriate sealing compound.	Approval of BASF MasterSeal 630 undercoated and sealant as an approved equal to linseed oil and titanium dioxide or zinc chromate for all outer edges of wood. Please note that the proposed sealant is also utilized for the undersides of the vehicle sub-floor and wheel wells. Please see Exhibit C for supplier data sheet.	Approved		
11		2.5	Water Test Description	Entire section	Approval of ElDorado National-California, Inc.'s (ENC's) standard water test procedures which is included herewith as Exhibit D. The proposed water test procedures consist of water test nozzles with flow rates as follows: 1) fan nozzles with 2.1 gpm 2) cone nozzles with 2.0 gpm. These nozzles are arranged in such a manner that the entire vehicle including the undercarriage is fully involved during the water test.		Not Approved	Specification provides an adequate water test.

Request Number	Page Number	Section	Title	Specification Language	Questions/Clarification/Approved/Equal	Approved	Denied	State of Oklahoma Response
12		2.3 (c)	Total Bus Operation	All vehicles will road-tested and dyno-tested	Request deletion of the dyno-test requirement. ENC's entire manufacturing facility is ISO 9001-2000 certified and provides a significant and comprehensive quality control program for all of its bus production. Each bus is taken for a 30 mile road test. Once road test is complete, the bus is then driven 40 times across an on-site obstacle course that is patterned after cells matching the Altoona Durability test course in Altoona, PA. The road test is completed before the water test and prior to final inspection of the vehicle.		Not Approved	Dyno-tests are important to make sure the bus has the specified power.
13		2.13	OEM	Entire section	Please clarify that for the training to be provided by the OEM suppliers at the suppliers training facilities, CTT/LATS will be responsible for all of its own travel expenses including, air travel, rental car, hotel, meals, etc.			the training should be included in the base price, if training is necessary
14		2.21 (b)	Bus Length	30 Foot Bus (30 feet +or - 6 inches)	Approval of the 30-foot bus with 31' 2 1/2" length over body.	Approved		
15		2.21 (i)(2)	Floor Height	The floor may be inclined along the longitudinal axis of the bus, and the incline shall not exceed 3.5 degrees off	Approval of a 4 degree slope for the 30' bus only. Please note that the 35' and 40' buses comply with the 2 degree slope.		Not Approved	Spec provides the requirement to be met.
16		2.21 (k)(2)	Aisle Width	The aisle width between the front wheelhouses shall be at least 35.5 inches...	Approval of 34 inches between the front wheelhouses for the 30' bus only. Please note that the 35' and 40' buses have a 36" width between the front wheelhouses which, exceeds the specification requirement.			Not Approved 35.5 is the minimum to allow for the safety for the riders.
17		2.22 (e)	Acceleration - TABLE 3	1. 0-30 mph - 18 seconds 2. 0-40 mph - 30 seconds	Approval of the following acceleration times: 1. 0-30 mph - 21.5 seconds 2. 0-40 mph - 32.0 seconds		Not Approved	Spec provides the acceleration that shall be met.

Request Number	Page Number	Section	Title	Specification Language	Questions/Clarification/Approved/Equal	Approved	Denied	State of Oklahoma Response
18		2.23 (k) (4)	Cooling Systems	A spring-loaded, push-button type valve or lever shall be provided to safely release pressure or vacuum in the cooling system....	Approval of a non-hinged, positive lock radiator filler cap mounted on the surge tank which, is integral with the engine coolant recovery tank system that utilizes a screw-on type cap for checking the engine coolant level. The proposed design meets Cummins' recommended design requirements for EPA 2013 engines.		Not Approved	Spec provides the style to be met.
19		2.23(s)	Engine, Transmission Oil Fill/Filters	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.	Approval of twist-off/on engine and radiator filler caps. Each cap is secured to the filler neck by way of a chain type tether to ensure prevention of loss or misplacement of the caps while filling. The caps are designed to provide a positive lock which prevents leakage.		Not Approved	Spec provides the style to be met.
20		2.23(v)	Fluid Lines	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 hold that the lines pass through to prevent chafing and wear.	Approval of Trim-Lok highly flexible dense Neoprene Rubber material with excellent wear and ozone resistance that can be used for all lines passing through the bulkhead or, through the bus frame, panels, etc.		Not Approved	Lines passing through a panel, frame, or bulkhead shall be protected by grommets or similar devices.
21		2.25 (b)	Operating Range	Fuel system shall be capable of being filled (for 350 mile range),...	Approval of a 270 mile range for the 30' CNG bus. Please note that the 35' and 40' CNG buses have a 350 mile range.		Not Approved	Spec provides the range to be met.
22		2.25(a)(1))	Diesel Fuel Tank(s)	The fuel tank shall be made of 3CR12 structural stainless steel.	Approval of the diesel fuel tanks fabricated from Grade 304 Series stainless steel in lieu of the specified 3CR12 stainless steel material. The proposed Grade 304 Series stainless steel material meets and exceeds the specification requirement.	Approved		
23		2.28(d)	Engine Compartment Bulkhead	Piping through the bulkhead shall have fire-resistant fittings sealed at the bulkhead.	Approval of Nelson Firestop Putty (FSP) intumescent putty for wires passing through the rear firewall/bulkhead or upper compartment shelf. The proposed fire putty forms an immediate fire seal and when exposed to fire, the intumescent material expands to seal voids caused by deteriorating cable jackets and thus, maintaining the seal and preventing the passage of fire or smoke to adjacent areas. Please see Exhibit E for additional technical support information.	Approved		

Request Number	Page Number	Section	Title	Specification Language	Questions/Clarification/Approved/Equal	Approved	Denied	State of Oklahoma Response
24		2.28 (e) (5)	Crashworthiness	The bus chassis shall be stainless steel...	Approval of the ENC standard monocoque frame design constructed from HI-strength carbon steel. The proposed frame is a fully welded chassis and body structure that is combined into a single structure. Once the structure is welded, an extensive corrosion package is applied. This application starts with complete priming and underscaling of the entire welded structure including, applying cavity protection material to the inner walls of the structural tube members. And the application continues through the paint application. Please see Exhibit F for a thorough description/explanation of the proposed corrosion protection system.		Not Approved	Spec provides the metal and structure to be met.
25		2.28 (h)	Towing	Each towing device shall withstand, without permanent deformation, tension loads up to 1.2 times the curb weight of the bus within 20 degrees of the longitudinal axis of the bus.	Approval to waive the requirement for the towing device at the rear of the bus to withstand tension loads up to 1.2 times the curb weight of the bus within 20 degrees of the longitudinal axis of the bus. Please note that the rear towing device can be utilized for lift/towing but, only in emergency situations and for short distances in order to position the bus for being lifted/towed from the front tow device		Not Approved	Spec provides the requirement to be met.
26		2.31 (c)	Farebox (CNG)	Farebox to be a Diamond XV shall be provided unless the Agency submitting the PO requests for a different brand.	The CNG specification has a requirement for a Diamond farebox but, the Diesel specification has no such requirement. Please clarify whether or not there is a requirement for a Diamond farebox in the Bid Specifications for Heavy-Duty Transit Low-Floor Diesel Bus 30', 35' & 40'. If so, please confirm the model designation for the Diamond farebox.			Diamond SV for the HD Low floor diesel bus and the XV for the HD Low floor CNG bus.
27		2.33	Wheels and Tires	Note: There shall be seven (7) wheels and tires supplied which will include one (1) spare wheel and tire.	This "Note" appears in the CNG Technical Specifications but, not in the DIESEL Technical Specifications. Please clarify whether or not a spare wheel and tire is required in the Bid Specifications for the Heavy-Duty Transit Low-Floor Diesel Bus 30, 35 & 40 Foot			The language was not added to the diesel, therefore a spare is not required with the HD Low floor diesel specification.
28		2.36	Turning Radius	Maximum Turning Radius for 30' bus - 31 ft. (TRO)	Approval of a maximum turning radius of 32.6' for the 32' E-Z Rider II bus to be proposed. Please note that the proposed maximum turning radius is a critical design element and cannot be modified/changed.		Not Approved	Spec provides the requirement to be met.
29		2.37 (e) (2)	Drum Brakes	At a minimum, the front chamber shall be size 24 and the rear shall be size 36	Approval of an MGM rear brake chamber that is 3030" size for the 30', 35' and 40' bus buses. The proposed 3030" brake chamber size is ENC's standard for all three (3) lengths.		Not Approved	Spec provides the requirement to be met.

Request Number	Page Number	Section	Title	Specification Language	Questions/Clarification/Approved Equal	Approved	Denied	State of Oklahoma Response
30		2.38 (a)(3)	Passenger Door Interlocks	All door systems employing brake and accelerator interlocks shall be supplied with supporting failure mode effects analysis documentation (FEMA)	Approval to waive the requirement for a failure mode effects analysis (FMEA). Please note that this FMEA is extremely costly and will drive the cost of the buses up unnecessarily.		Not Approved	Spec provides the requirement to be met.
31		2.38 (d)	Air Reservoirs	Major structural members shall protect these valves and any automatic moisture ejector valves from road hazards	Please clarify whether or not automatic moisture ejector valves are required. If so, please clarify whether or not every air reservoir is to be outfitted with an automatic moisture ejector valve.			they are required and yes every air reservoir
32		2.40 (c)(17)	Environmental and Mounting Requirements	The windshield wiper and headlamps electric circuit shall be protected by modified auto-reset circuit breakers.	Approval of manually reset circuit breakers for the windshield wipers and headlamps.		Not Approved	Spec provides the requirement to be met.
33		2.40 (c)(16)	Environmental and Mounting Requirements	Provide constant power for powering systems, such as but not limited to the fire suppression, radio, farebox, and DC-DC converter...	Please clarify that a DC-DC converter is not required and thus, this mention of a DC-DC converter in this particular section should be deleted.			Correct, please delete
34		2.41 (a)	Batteries	Entire section	Please clarify that the DEK (should be DEKA) 8D batteries specified in this section are the base batteries and that the Four (4) Group 31 twelve volt (12V) lead acid thermal battery units are to be priced as an option.			please price as an option
35		2.41 (a)(1)	Batteries	Low-Voltage Batteries (24V) DEK 8D	The language in the CNG technical specifications has the language "DEK 8D" but the Diesel technical specifications does not. Please clarify whether DEKA 8D batteries or Group 31 batteries are required.			Group 31 batteries per the specification.
36		2.41 (f)	Alternator / Regulator	A EMP P450 alternator...	An EMP P450 alternator is required for the CNG technical specifications but, a Niehoff 803 alternator is required for the Diesel technical specifications. Please clarify whether the EMP P450 alternator is required for both CNG and Diesel technical specifications or, the Niehoff 803 alternator is required for both CNG and Diesel technical specifications or, is the EMP P450 alternator required for the CNG technical specifications and the Niehoff 803 alternator required for the Diesel technical specifications or, visa versa. Please note that Section 2.23 (k)(3) states that "A Modine E-Fan electric fan system or approved equal will be provided. And, that this particular further states that "As an option, an EMP electric fan system will be made available and priced separately."			Niehoff 803 or equivalent for the diesel bus and an EMP P450 for the CNG bus. A Modine E-fan electric fan system or approved equal shall be provided, however as an option, an EMP electric fan system will be made available and prices separately. This will be an option price.

Request Number	Page Number	Section	Title	Specification Language	Questions/Clarification/Approved Equal	Approved	Denied	State of Oklahoma Response
37		Table 6	Transit Bus Instruments and Alarms	Entire section	Owing to certain of the bus instruments and alarms in Table 6 being unique to one (1) particular bus builder, ENC requests approval of its standard dash layout as depicted in Exhibit G.		Not Approved	Spec provides the requirement to be met.
38		Table 6	Transit Bus Instruments and Alarms	Auxiliary Power-110 Volt power receptacle - Approved Location	Please provide an approximate location for the 110 volt power receptacle			rear of bus
39		2.48	Figure 6 Operator's Seat	Operator's Seat	Please clarify whether or not an arm rest is required.			price as option
40		2.49 (b)(2)	Interior Mirrors	mirror shall be provided on the	Approval of a Lucerix 8" X 15" rear view mirror.	Approved		
41		2.50 (d)(1)	Passenger Side Windows	The side windows shall be full sliders	Approval to waive requirement for full height slider feature in the 5-sided window on the streetside of the bus and in the two (2) smaller sized windows on the curbside of the bus. These particular windows are fixed and non-openable.		Not Approved	Spec provides the requirement to be met.
42		2.50 (d)(1)	Passenger Side Windows	Windows to be bonded/Transom	This particular language is only included in the CNG technical specifications. So, please clarify whether or not this same language is to be included in the Bid Specifications for Heavy-Duty Transit Low-Floor Diesel Bus 30, 35 & 40 Foot.			Bonded/Transom style windows are not required for the HD Low floor diesel bus.
43		2.50 (d)(1)	Passenger Side Windows	Windows to be bonded/transom. Windows shall be flat panel, transit applications with approved laminated safety glass (ANSI 25.1)	Please clarify whether the state of Oklahoma desires hidden frame type windows where the frame is on the inside of the window assembly and thus, is not visible from the exterior of the bus or, does the state of Oklahoma desire the traditional frame type window where the frame is visible from the exterior or outside of the bus. Please note that if the state of Oklahoma is actually desiring the above mentioned hidden frame type window, these type of window assemblies are not available with the specified laminated safety glass. The hidden frame type window assemblies are only available with tempered safety glass. Please clarify.			please price as option
44		2.50 (d)(1)	Passenger Side Windows	The side windows shall be full sliders	Approval for certain of the passenger side windows in the 35' and 40' length buses to be fixed, non-openable type windows. These particular side windows include one (1) 5-sided window on the roadside of the bus and two (2) smaller oblong windows on the curbside of the bus.		Not Approved	Spec provides the requirement to be met.

Request Number	Page Number	Section	Title	Specification Language	Questions/Clarification/Approved Equal	Approved	Denied	State of Oklahoma Response
45		2.50 (d)(1)	Passenger Side Windows	and frame windows will have black (dark) polyester powder coat aluminum frames inside and out.	Approval for the window frames to be painted with an electrostatic coating process (PPG "MACROFLEX") as an approved equal to powder coat. The proposed electrostatic coating of the window frames provides for an extremely flexible finish that is durable and long-lasting. Please see Exhibit H for a more thorough description including data sheet for the proposed coating process.		Not Approved	Spec provides the requirement to be met.
46		2.50 (d)(2)	Passenger Side Windows	A positive lock type emergency latch meeting the FMVSS-217 shall be furnished on each window frame.	Approval to waive the FMVSS-217 emergency egress requirement for the non-openable windows on the 35' and 40' lengths.		Not Approved	Spec provides the requirement to be met.
47		2.51 (a)(1)	HVAC	The Heating, Ventilation and Air Conditioning (HVAC) climate control system shall be rear-mounted Thermo King T-14...	Approval of the Thermo King Athenia II roof-mounted HVAC system for the Diesel bus only and which is a critical design element for the Diesel bus and cannot be changed. Please note the following extremely important comparison of the proposed roof-mount HVAC versus the specified T-14 rear-mount HVAC: 1. Cooling capacity: the roof-mount HVAC provides 92,000 BTU/hr. versus the rear-mount HVAC which, only provides 86,000 BTU/hr. 2. Heating Capacity: the roof-mount HVAC provides 115,000 BTU/hr. versus the rear-mount HVAC which, only provides 98,000 BTU/hr. 3. Air Flow (CFM): the roof-mount HVAC provides 3200 CFM versus the rear-mount HVAC which, only provides 2250 CFM. This is a 40% plus increase in CFM with proposed roof-mount HVAC. 4. Finally, the more central location of the evaporator and condenser units with the proposed roof-mount HVAC will provide a more even distribution of air flow than the specified rear-mount HVAC with the evaporator and condenser motors located in the rear of the bus and thus, having to push air all the way from the rear of the bus to the front of the bus. Please note that the proposed roof-mounted HVAC is a critical design element of the E-Z Rider II bus and cannot be modified/changed.	Approved		

Request Number	Page Number	Section	Title	Specification Language	Questions/Clarification/Approved Equal	Approved	Denied	State of Oklahoma Response
48		2.52 (d)(4)	Operator's Compartment Requirements	An auxiliary driver's fan shall be provided and installed in a location for best use of the driver	This particular language is only included in the CNG technical specifications. So, please clarify whether or not this same language is to be included in the Bid Specifications for Heavy-Duty Transit Low-Floor Diesel Bus 30, 35 & 40 Foot.			Auxiliary driver's fan was not included with the HD Low floor diesel specifications.
49		2.52 (g)	Roof Ventilators	One roof ventilator shall be provided in the roof of the bus, approximately over or just forward of the front axle of the bus	Approval for the roof ventilator to be located approximately over the rear axle.		Not Approved	Spec provides the requirement to be met.
50		2.53 (c)	Roof-Mounted Equipment	A non-skid walkway shall be incorporated on the roof to provide access to equipment without climbing or over any equipment	Approval for the roof-mounted CNG Tanks to be opened by standing/kneeling on one side of the roof enclosure/pod and opening the opposite side. Please note that the roof enclosure is structurally reinforced to allow for standing/walking on the CNG tank enclosure. Please also note that the proposed roof-top enclosure is accessible through the rear roof hatch for ease of access and maintenance.		Not Approved	Spec provides the requirement to be met.
51		2.53 (e)	Easily Replaceable Lower Side Body Panels	The lower section of the side body panels (low-floor buses) shall be made of aluminum can be quickly material and shall be easily and quickly replaceable.	Approval of composite side body panels that are lighter and completely rust and corrosion proof when compared to the specified aluminum material.		Not Approved	Spec provides the requirement to be met.
52		2.54 (b) (5)	Access Door Latch/Locks	Louvers shall be provided in the rear engine compartment door to optimize airflow	Approval to waive requirement for louvers in the rear engine compartment door and instead, allow for louvered vents in the area immediately above the engine compartment door for proper ventilation of the engine and accessory equipment located in the engine compartment.		Not Approved	Spec provides the requirement to be met.

Request Number	Page Number	Section	Title	Specification Language	Questions/Clarification/Approved/Equal	Approved	Denied	State of Oklahoma Response
53		2.56 (a)(5), (6) and (7)	Finish and Color	Within sixty (60) days of execution of the contract, the Procuring Agency will return these drawings to the Contractor with details of the color schemes included. Proposers shall provide listings of available colors. Current color schemes used by the various Procuring Agencies are publicly available.	Approval to provide a basic "white" paint for the body exterior in order to adequately price the bus at time of proposal submittal. Once an award is made and individual transit agencies express interest in wanting to purchase buses off the state contract, the contractor can enter into discussion regarding specific paint schemes and graphics for effectively and accurately quoting the specific transit agency prior to an order being placed. Please note that all required interior and exterior decals will be included in the base vehicle pricing.		Not Approved	Spec provides the requirement to be met.
54		2.56 (d)(2)	Exterior Lighting	Commercially available LED-type lamps shall be utilized at all exterior lamp locations except headlights	This section explicitly excludes the headlights from the LED requirement but, Section 2.56 (d)(4) explicitly specifies LED headlights are required. Please clarify.			LED headlights are required.
55		2.56 (g)(1)	Service Area Lighting (Interior and Exterior)	Additional 7" amber alternating Hazard flashers - Required, located @ upper corners of HVAC door.	We request confirmation that flashing lights on the rear of the bus are not in compliance with FMVSS 108 and thus, the requirement for rear hazard lamps to flash should be deleted. Please see Exhibit I for copy of the Federal Register Docket No. NHTSA 2001-10258, Notice 2 wherein the NHTSA states that pursuant to FMVSS 108, paragraph S5.5.10 turn signals that are caused to flash on the rear of the bus automatically are not in compliance with FMVSS 108.			Please remove this requirement.
56		2.58 (f)(1)	Fare Collection	Farebox shall be of Diamond manufactured SV Model Rectangular Farebox with an additional vault, mounted using a heavy duty stanchion (or approved equal)	This Section 2.58 (f)(1) states that an SV Model farebox is required. Yet, Section 2.30 (c) for the CNG technical specifications states that an XV model farebox is to be provided. Please clarify which model Diamond farebox is required.			Diamond SV for the HD Low floor diesel bus and the XV for the HD Low floor CNG bus.

Request Number	Page Number	Section	Title	Specification Language	Questions/Clarification/Approved/Equal	Approved	Denied	State of Oklahoma Response
57		2.59 (a)(1)	Passenger Seating	Arrangements and Seat Style - American Seating Insight passenger seats...	The CNG technical specification for the passenger seats specifically requires the American Seating 6468 passenger seat but, Section 2.59 (a)(1) of the Diesel technical specifications specifies the American Seating Insight passenger seat. Please clarify whether the CNG and Diesel technical specifications are correct or, both CNG and Diesel technical specifications are to be American Seating 6468 or Insight.			American Seating Insight passenger seats with molded shells, and vandal resistant inserts for the HD Low floor diesel buses and the American Seating 6468 for the HD Low floor CNG buses.
58		2.59 (a)(1)	Passenger Seating	Entire section	Please clarify the type of inserts...padded or non-padded.			Inserts should be non-padded.
59		2.59 (a)(6)	Passenger Seating	Rear seat platform shall be hinged to gain access to engine compartment.	Approval of ENC's standard design for the rear cross seat which, provides for the three (3) center seats that are bolted and not hinged. This arrangement allows for maximum access to the engine compartment.		Not Approved	Spec provides the requirement to be met.
60		2.59 (a)(7)	Passenger Seating	Proposers shall submit a certified test report as evidence of compliance with all testing activities, test diagrams, test equipment as well as test data related to loads, deflections, etc.	Approval to provide the required test data for the passenger seats after award of contract and during the first pre-production meeting when the passenger seat selection is finalized.		Not Approved	Spec provides the requirement to be met.
61		2.59 (n)(3)	Passenger Doors	The rear or exit door shall be a two panel swing out type...	Approval of a slide-glide rear or exit door with a clear opening width of 32 inches and clear opening height of 78 inches.		Not Approved	Spec provides the requirement to be met.
62		2.59 (o)	Passenger Doors	Entire section	Please clarify whether the rear door panels are to be outfitted with glazing in the upper and lower sections or just the upper section.			Glazing in both sections.
63		2.60 (a)	Two-Position Operator's Door Controller	two-position operator door controller	Approval of a five (5) position passenger door controller. Please note that Table 6 indicates a five-position handle	Approved		
64		2.61 (a)(2)	Destination Signs	One (1) side sign, on the curb side, 14 rows X 120 columns...	Approval of Luminator's 14 rows X 112 columns for the side sign. Please note that per Luminator a 14 rows X 120 columns is not available.	Approved		
65		2.61 (a)(4)	Destination Signs	Operator's Control Unit (OCU)	Per Luminator, the operator's control unit is now an MCU.			Correct

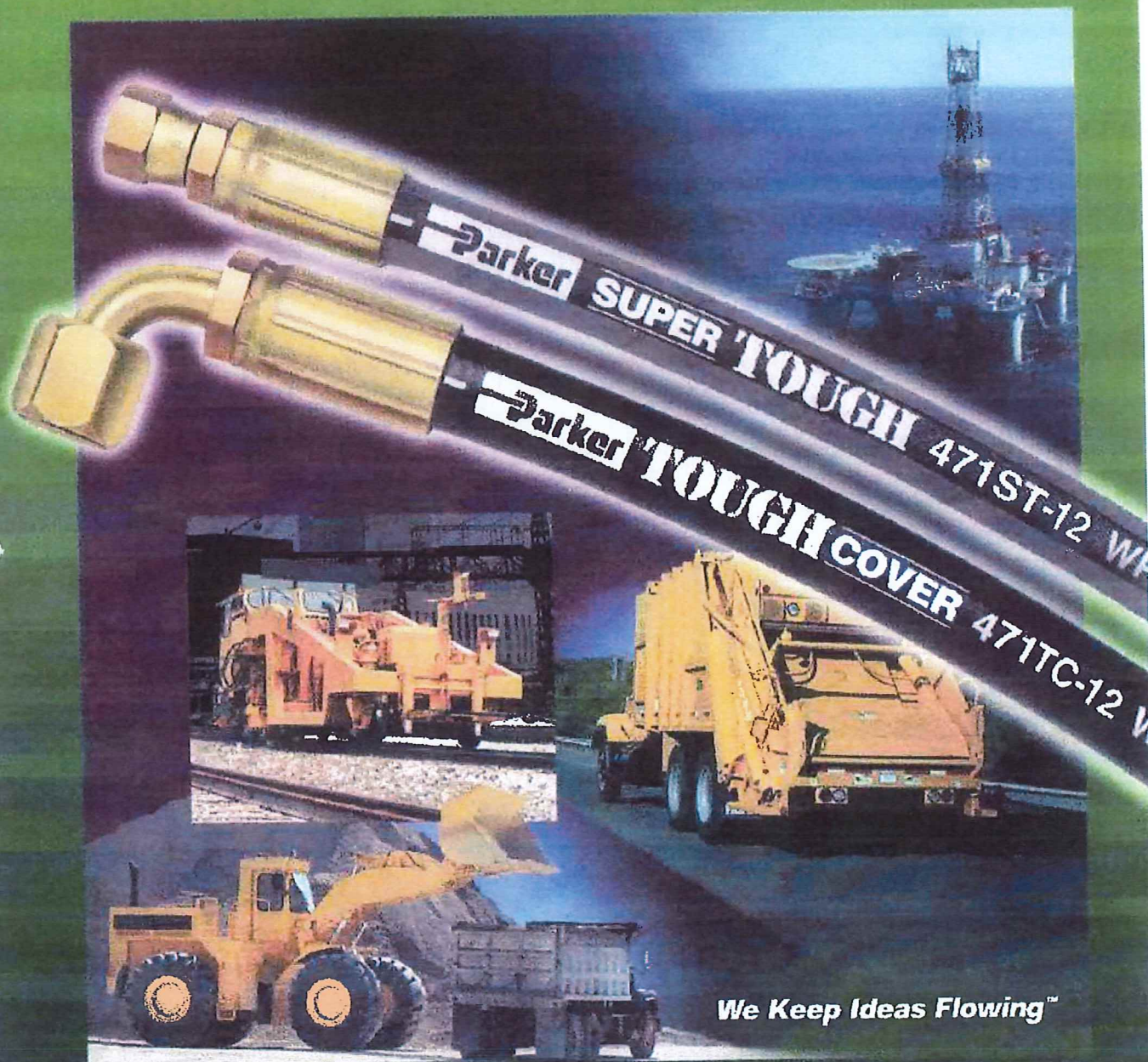
Request Number	Page Number	Section	Title	Specification Language	Questions/Clarification/Approved/Equal	Approved	Denied	State of Oklahoma Response
66		2.61 (b)(4)	Destination Signs	(4) Independent Controller Boards shall be mounted in the front and side destination Sign.	Approval of Luminator's MCU which, controls all of the destination signs on-board the bus and thus, eliminates the need for any independent controller boards.	Approved		
67		2.61 (b)(5)	Destination Signs	(5) Message memory shall be changeable by the use of a PCMCIA Card of not less than...	Per Luminator, PCMCIA cars are no longer used with the new Luminator sign systems. Instead, USB keys are now used for transfer of message listings to the sign system.			Correct
68		2.61 (d)	Sign Enclosures	any exterior rear sign enclosure used shall be made of polycarbonate material containing fiberglass reinforcement	Per Luminator, the rear sign enclosure material has been changed to aluminum owing to cracking and leaking occurring with the polycarbonate material. Please approve.	Approved		
69		2.61 (f)(2)	Operator Control (OCU)	Integration is required if the Twin Vision Sign and the Digital Recorders Talking Bus System are selected with a single OCU to control both Systems.	With the divesting of Twin Vision by Digital Recorders several years ago and with Twin Vision now owned by Luminator, it is no longer possible to have a single OCU to control both of these systems. So depending on the systems selected, a single OCU may not control both systems.			Correct
70		2.61 (f)(4)	Operator Control (OCU)	If the IBIS interface is required in the Destination Sign System...	Per Luminator, an IBIS is not likely since an interface to a VLU system is not possible.			Correct
71		2.61 (f)(5)	Operator Control (OCU)	If the J1708 interface is selected for the Destination Sign System, an auxiliary J1708 port shall be made available on the J1708 OCU so that auxiliary J1708 commands may be provided to the Destination Sign system from a wireless source that conforms to the J1708 command structure.	Per Luminator, the MCU has a port for interface to a VLU system			Correct
72		2.62 (b)(2)	Passenger Stop Request/Exit Signal	One such system that meets these minimum requirements is the Tap Switch Cor. 3.5" X 7" yellow push pad	Approval of a 3.5" X 7.5" touch pad as made by Switches and Sensors, Inc. and as recommended and provided by American Seating Company.	Approved		
73		2.62 (c)(1)	Video Surveillance System	The system will require pre-wire for six (6) internal cameras, one (1) external camera, and one (1) GPS antenna and wire to...	Please clarify whether or not the pre-wire includes providing the Apollo cameras and cabling for each camera.			No Cameras, wiring only
74		2.65	Voice Annunciation and ITS	as an option, the TFT INFOtransit system will be made available and priced separately.	Please clarify how many monitors are required for each bus.			6
75		2.62 (f)(2)	Electronics / Equipment Compartment	A location convenient to the operator shall be provided for the radio control head, speaker, and handset	Please clarify whether or not the radio control head, speaker and handset are to be provided/installed by the bus builder. If so, please supplier and contact information.			To be provided/ntalled by bus builder.

Request Number	Page Number	Section	Title	Specification Language	Questions/Clarification/Approved/Equal	Approved	Denied	State of Oklahoma Response
76		2.63	2-Way Radio	Vehicle to be equipped with a 2-way radio for the agency submitting the PO. 2-way radio must be UHF, VHF, or 800 MHz and include radio antenna.	This section 2.63 for a 2-way radio is only included in the CNG technical specifications. Please clarify whether the 2-way radio requirement only applies to the Bid Specification for the Heavy-Duty Transit Low-Floor CNG 30', 35' and 40' or, is to apply to both the CNG and the Diesel technical specifications.			Yes, include for HD low floor diesel bus also.
77		2.64	AM/FM/CD AUX Radio	Vehicle Radio shall be provided and configured in a manner that does not transmit to the passenger compartment speakers, only the speaker in the driver's area shall be connected to this system.	This section 2.64 for an AM/FM/CD/AUX radio is only included in the CNG technical specifications. Please clarify whether the AM/FM/CD/AUX radio requirement only applies to the Bid Specification for the Heavy-Duty Transit Low-Floor CNG 30', 35' and 40' or, is to apply to both the CNG and the Diesel technical specifications.			Yes, include for HD low floor diesel bus also.
78		2.65	Bike Rack	Sportworks DL2 SSTL or equivalent	Please clarify whether the bike rack is to be included in the "Base" bus as indicated in this particular section 2.65 or, priced separately as an option as indicated in Section 2.55. Please see Section 2.55 and NOTE: "as an option, 2-position stainless steel and black powder coated bike rack will be made available and priced separately."			Price as an option

- One-half SAE 100R2 minimum bend radius
- Exceeds SAE 100R18 and European EN857 Type 2SC requirements*
- Specially engineered TC and ST covers prolong hose life

Product Bulletin

Parker 471TC and 471ST High-Impulse Hoses



We Keep Ideas Flowing™

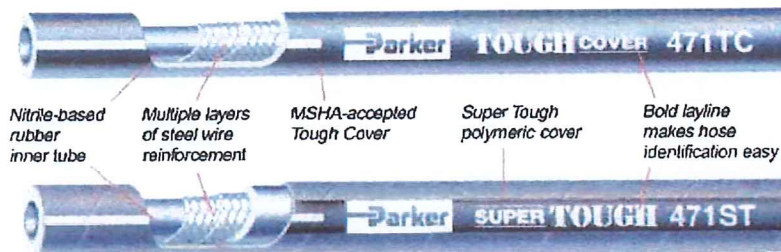
Bulletin No. 4480-B51-US September, 2001

Parker Hannifin Corporation
Hose Products Division
30240 Lakeland Blvd., Wickliffe, Ohio 44092
Phone: (440) 943-5700 • Fax: (440) 943-3129
www.parkerhose.com

Parker
FluidConnectors

New Parker 471TC and 471ST are the hoses that get you into the tight spots.

Whether your business is construction, refuse and recycling, railroad equipment, or the energy industry, Parker 471TC and 471ST are the hoses designed to meet your customers' high-pressure needs...around the world.



Superior flexibility, tight bend radius — Designed for plumbing hydraulic lines in tight spaces, Parker 471TC and 471ST feature a one-half SAE 100R2 minimum bend radius which equates to easy installation and less hose required.

Your choice of covers — Parker 471TC comes with our Tough Cover compound, while 471ST features Parker's Super Tough cover for the ultimate in abrasion resistance. So you can select your level of abrasion resistance.

Increased pressure — Engineered to handle high impulse and pressure applications, Parker 471TC and 471ST have a 15% to 35% higher working pressure versus standard SAE 100R2 hose.

Unmatched Parker quality and service — When you order 471TC and 471ST hoses, you get the finest hose plus the full support of Parker's network of service centers, training programs, prototyping, field representatives, and more. In short, you get the best value.

Construction

471TC hose features an oil-resistant Nitrile-based synthetic rubber tube, multiple high-tensile steel wire reinforcements, and an oil-, weather-, and abrasion-resistant black MSHA-accepted synthetic rubber cover. 471ST features the same construction except for a high abrasion-resistant Super Tough polymeric cover.

Applications and temperature ranges

- Petroleum-based hydraulic fluids and lubrication oils within a temperature range of -40°F to +212°F (-40°C to +100°C).
- Water, water/oil emulsion, and water/glycol hydraulic fluids up to +185°F (+85°C).
- Air up to +158°F (+70°C).

Parkrimp compatible

Parker 43 Series crimp fittings, 471TC hose, and 471ST hose are compatible with the Parkrimp system of crimpers. So assembly is as simple as 1-2-3.



#	Part Number	Hose I.D.		Hose O.D.		Maximum Working Pressure		Minimum Burst Pressure		Minimum Bend Radius		Weight		Crimp Fitting
		inch	mm	inch	mm	psi	MPa	psi	MPa	inch	mm	lbs/ft	kg/m	
471TC-4*	471ST-4*	1/4	6.3	0.52	13	5000	35.0	20000	140.0	2	50	0.20	0.30	43
471TC-6	471ST-6	3/8	10	0.68	17	5000	35.0	20000	140.0	2 1/2	65	0.28	0.42	43
471TC-8	471ST-8	1/2	12.5	0.80	20	4250	29.7	17000	110.0	3 1/2	90	0.35	0.52	43
471TC-10	471ST-10	5/8	16	0.94	24	3625	25.0	14500	100.0	4	100	0.44	0.66	43
471TC-12	471ST-12	3/4	19	1.09	28	3125	21.5	12500	86.0	4 3/4	120	0.58	0.86	43
471TC-16	471ST-16	1	25	1.39	35	2500	17.5	10000	70.0	6	150	0.79	1.17	43

NOTE: The silver die ring must be used when crimping 43 Series Parkrimp fittings onto 471TC and 471ST hoses.

*-4 sizes do not meet EN857 Type 2SC requirements.

⚠ DANGER

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

Before selecting or using any Parker hose or fittings or related accessories, it is important that you read and follow Parker Safety Guide for Selecting and Using Hoses, Fittings, and Related Accessories (Parker Publication No. 4400-B.1).

Hose Products Division
Parker Hannifin Corporation
30240 Lakeland Blvd.
Wickliffe, Ohio 44092
Phone: (440) 943-5700
Fax: (440) 943-3129
www.parkerhose.com

Distributed by:

The World Standard

Parker
FluidConnectors

Bulletin 4480-B51-US GL 7.5M 9/01
©2001 Parker Hannifin Corporation



TECHNICAL DATA SHEET

Eck® - Corrosion Prevention Coating

Description: Eck® is a coating used to prevent dissimilar metal corrosion of all metals including stainless steel, aluminum, copper, brass, cold rolled steel and black oxide. Eck® prevents corrosion by providing a barrier between dissimilar metals, sealing out moisture and absorbing energy created by a dissimilar metal reaction. Product can be applied by aerosol or liquid on an unpainted or painted surface. Once applied the coating does not need to be reapplied during routine maintenance. Eck® is dielectric and can be used on electrical connections.

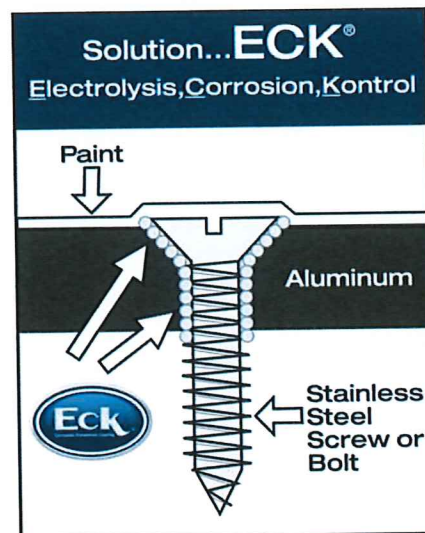
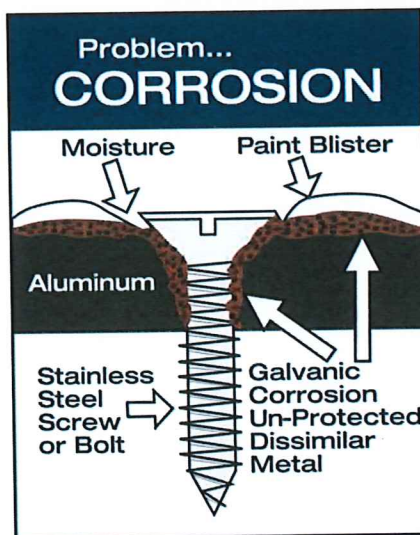
Testing: Eck® has successfully passed numerous independent laboratory tests including, ASTM B-117 Salt Spray, ASTM D-2247 Humidity, ASTM D-780 Immersion, ASTM G-85-A5 Prohesion and, a Gravel spray test. Paint coating companies such as AKZO, BASF, DuPont, PPG and Sherwin Williams have also successfully tested Eck®.

Features & Benefits:

- Field tested for over 12 years
- Successfully laboratory tested for 4000 hours
- Excellent with high temperatures, up to 1000 degrees Fahrenheit
- Prevents all types corrosion: electrolysis, galvanic and magnesium & cal-chloride corrosion
- Seals moisture out of unwanted areas (petroleum based) – never dries
- Will not harm paint: safe for painted and unpainted surfaces
- Low MSDS health rating “1” Safe for all manufacturing
- Dielectric: great for protecting electrical connections
- Provides excellent lubrication – contains **no** silicone
- Safe to use with rubber and plastic
- Zinc ingredients (sacrificial metal)
- Compatible with Loctite®

Product Characteristics:

- Shelf Life: unlimited
- Product Color: grey
- Petroleum based product
- Does not contain any silicone
- Easy clean up: with any surface cleaning solvent



Eck® - Corrosion Patent: United States # 5,744,197 & Canada # 2,213,065

Technical Data Sheets are intended as a guide for our customers and are based on tests believed reliable. Since usage of our products is beyond our control, we can make no warranty, expressed or implied, as to such use, or related activities, whether or not in accordance with directions. Our statements shall not be construed as inducements to infringe any patent.



We create chemistry

Technical Data Guide

MasterSeal® 631

General purpose underbody protective coating

FORMERLY DEGACOAT™ 310

PACKAGING

- 53 gallon (200.6 L) drums
- 16 gallon (60.48 L) kegs
- 275 gallon (1041 L) totes

COLORS

Applies dark brown and dries to a durable matte black finish

STORAGE

Store in unopened containers in a cool, clean, dry area. Do not allow these materials to freeze in the container; do not store below 35° F (2° C).

SHELF LIFE

1 year when properly stored

VOC CONTENT

24 g/L or 0.20 lbs/gal, less water and exempt solvents.

DESCRIPTION

MasterSeal 631 is a non-fibred asphalt emulsion specifically formulated for use as a protective underbody coating. It provides preventative corrosion barriers for transport applications. MasterSeal 631 is fiber-free for application by brush or spray.

PRODUCT HIGHLIGHTS

- Anti-corrosion coating beautifies and protects the underbody of transportation equipment
- Nonflammable formulation minimizes fire hazards during application for improved worker safety
- Cleans easily with water for easier use and faster production process time
- Fast drying formulation speeds the production process time

LOCATION

- Truck and trailer
- Bus
- RV
- House/cargo trailers
- Rail cars
- As a protective coating on various metals

SUBSTRATE

- Metals
- Aluminum
- Plywood
- OSB
- Can be sprayed over oxidized metals

Technical Data

Composition

MasterSeal 631 is an asphalt-based emulsion.

Compliances

- ASTM D 1187, Type 1
- ASTM D 1227, Type 3, Class I
- ASTM D 1227, Type 2, Class I

Test Data

PROPERTY	RESULTS	TEST METHOD
Density, lbs/gal	9.1 – 9.9	Industry Method
Solid content, % by weight	50.0	Industry Method
Clay content, % by weight	4	Industry Method
Asphalt content, % by weight	46	Industry Method
Median particle size, μ	15	Industry Method
Specific gravity	1.1 – 1.2	Industry Method
Dry to the touch	1 hour	Industry Method
Consistency	Semi-paste like	Industry Method
Color	Black	Industry Method
Water resistance		ASTM 2939-94
Blistering	None	
Reemulsification	Nil	

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

HOW TO APPLY

SURFACE PREPARATION

Surface should be free of oil, grease, dirt and loose material.

APPLICATION

Spray with the proper equipment. Consult the spray equipment manufacturer for more information.

UNDERBODY COATING

1. MasterSeal 631 is recommended to be used for corrosion protection on steel surfaces and other metal substrates.
2. MasterSeal 631 is designed for spray application using airless equipment. A 15:1 or higher ratio pump with a minimum .023 orifice size is recommended.

CLEAN UP

Tools and hands should be cleaned with soap and water before emulsion sets. Dried material can be removed with the appropriate solvent.

FOR BEST PERFORMANCE

- Keep from freezing in the container.
- Do not apply at temperatures below 40° F (4° C) or when temperatures are expected to fall to 40° F (4° C) in the next 24 hours.
- Make certain the most current versions of product data sheet and SDS are being used; call Customer Service (1-800-433-9517) to verify the most current versions.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

HEALTH, SAFETY AND ENVIRONMENTAL

Read, understand and follow all Safety Data Sheets and product label information for this product prior to use. The SDS can be obtained by visiting www.master-builders-solutions.basf.us, e-mailing your request to basfbscst@basf.com or calling 1(800)433-9517. Use only as directed.

**For medical emergencies only,
call ChemTrec® 1(800) 424-9300.**

LIMITED WARRANTY NOTICE

BASF warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. BASF MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is the replacement of product or refund of the purchase price, at the sole option of BASF. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. BASF WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on BASF's present knowledge and experience. However, BASF assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. BASF reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.

BASF Corporation
Construction Systems

889 Valley Park Drive, Shakopee, MN 55379
www.master-builders-solutions.basf.us

Customer Service 1(800)433.9517
Technical Service 1(800)243.6739





WATER TEST PROCEDURE

The roof, side windows, windshield, all doors as well as the underside of each bus undergoes a thorough water test procedure as follows:

The Eldorado National water test facility is the most advanced in the industry. It incorporates a 20' x 51' water test booth. A total of 130 nozzles have been installed/integrated into the water test booth. Seventy five (75) nozzles are strategically located around the perimeter of the vehicle (including the roof area). An additional fifty five (55) nozzles are positioned on the floor of the booth to facilitate spraying the underside of the bus. This nozzle pattern provides a complete 360 degree water spray coverage.

Two (2) types of nozzles are utilized in the water test booth...a fan type nozzle with a flow rate of 2.1 gallons per minute for pointing down along the roof line and a cone type nozzle with a flow rate of 2.0 gallons per minute for all other locations. All nozzles operate under a pressure range of 18-20 psi measured at the nozzle tip. All water used is filtered, de-chlorinated and recycled. The actual water test is performed after road testing on city streets and following twenty circuits through our on-site simulated Altoona test track cells.

Each bus is water-tested in the test booth for 20-30 minutes and then the entire bus, while remaining in the water test booth, is checked for any leaks and water intrusion. The interior access panels and compartment doors are also checked for leaks/water intrusion. All leaks/water intrusion are red-tagged. The bus is then removed from the water test booth and driven in the back lot on the property making a total of six (6) 360 degree turns (3 to the left and 3 to the right) with sudden stops after each series of turns and rechecked for leaks after each stop. Any leaks found are corrected during the final finish process with the water test being repeated, if necessary, until no leaks are observed.



NELSON

Firestop Products

FSP™

Firestop Putty

Technical Data

➤ Product Description

Nelson Firestop Putty (FSP™) is a completely pre-mixed and ready-to-use firestop product that can be hand pressed into place forming an immediate fire seal. When exposed to fire the putty material forms a hard char that creates a formidable barrier to smoke and flame. FSP™ is a blend of organic and inorganic materials that is hand moldable. FSP™ is reusable when adding or changing penetrating items since the material remains pliable and does not set up.

➤ Application

Nelson FSP™ requires no special skills or tools to install. To ensure adequate adhesion, all surfaces should be clean and free of dust, grease, oil, loose materials, rust or other substances. Apply the required depth of FSP™ over various backing materials as required. Ensure that the FSP™ makes complete contact with the inside surface of the opening and also the surface of each penetrating item. FSP™ is ideal for cable penetrations where cable additions are common due to the characteristic of FSP™ remaining pliable. It can also be used for metallic, non-metallic and insulated pipes, cable tray and ductwork applications in a variety of fire rated floor or wall constructions. Actual installation may vary according to the type of firestop application. Refer to available firestop systems.

➤ Availability

Bar AA445 – 1" x 3" x 12" (36.0 cu. in.) – 10/Ctn.
Bulk AA0439 – 20 Lbs. (432 cu. in.)
Pads AA458 – 1/8" x 6" x 7" – 20/Ctn.
AA452 – 1/4" x 6" x 7" – 20/Ctn.
AA447 – 1/4" x 4" x 8" – 20/Ctn.

➤ Approvals

Underwriters Laboratories Inc. "Fill, Void or Cavity Material (XHHW)", FM, ABS and USCG.
California State Fire Marshal.
City of New York, New York, Department of Buildings

- MEA 135-00-M
- MEA 196-84-M Vol. 3

➤ Features

- Up to a 3-Hour Rating
- Reusable for Convenient Retrofit
- Smoke and Gas Tight
- Weather Resistant
- Excellent Shelf Life
- Acoustically Tested – Reduces noise transmission
- Halogen Free

➤ Physical Properties

- Color.....Tan
- Density.....0.049 lbs/cu. in.
- Consistency.....7.00mm (Penetrometer)
- Application Temp...40°F (4°C) to 110°F (43°C)
- Dielectric strength...>356v/mil.
- STC Rating.....54

➤ Test Compliance

- ASTM E84 Flame spread.....5
Smoke developed.....10
- ASTM E90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
- ASTM E814 and UL1479 - Test method for through stop fire penetrations.
- ANSI/UL 263, "Fire Tests of Building Construction and Materials."
- NFPA 70 "Wall Opening Protective Materials"

➤ Testing Data

For specific test criteria, refer to the UL Fire Resistance Directory.

➤ Storage & Handling

Nelson FSP™ should be stored indoors. Long term storage temperature: 140°F (60°C) maximum. There is no indication of shelf-life limitations. Partially used bars should be re-wrapped in their original packaging before being stored.

➤ Related References

Underwriters Laboratories Inc. "Fire Resistance Directory". Application details are available in AutoCAD® format on request.

NELSON FIRESTOP PRODUCTS

P.O. Box 726
Tulsa, OK 74101

Toll Free: 800-331-7325
www.nelsonfirestop.com

Direct: 918-627-5530
e-mail: info@nelsonfirestop.com

Fax: 918-641-7336

NELSON

Firestop Products

FSP™ Firestop Putty

► INSTALLATION INSTRUCTIONS

GENERAL: Areas to be protected must be clean and free of oil, loose dirt or rust. Installation temperatures must be between 40°F (4°C) and 110°F (43°C).

APPLICATION SYSTEM SELECTION: Selection of an appropriate firestop application system design is critical to the fire protection process. Please consult the Nelson Firestop directory and application guide as well as the UL® Fire Resistance Directory for additional information.

FORMING: Some installations may require forming as either an integral part of the system or as an option to facilitate installation. In systems where forming is required, mineral wool batt with a minimum nominal density of 4PCF is generally required. Cut forming material oversized to allow for tight packing or use bulk fiber. Recess forming material to allow for proper depth of Putty.

FILL MATERIAL: Nelson Firestop FSP™ putty is suggested to be installed by hand. The putty should be installed no thinner than 3/4". FSP™ is normally installed from one side on floor penetrations and from both sides of a wall penetration. The putty should be packed from the bottom of the opening, starting at the back and working forward. FSP™ should be pushed into all voids. A minimum of 1/2" of FSP™ should surround each penetrating item (annular space). When this is not possible (such as a cable tray), a crown shall be built up around the bundle of penetrating items, using a second layer of putty. The crown should have a 30° slope with the wall or floor surface. Wall openings should not have an unsupported space of putty greater than 4". Floor openings should not have unsupported spaces of putty greater than 1-1/2".

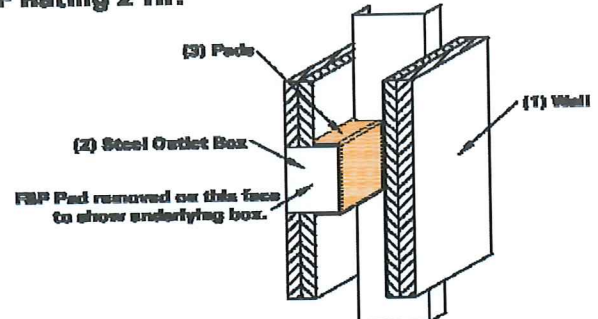
PUTTY PADS:

Installation of FSP™ putty pads is determined by construction of wall "F" rating and size of electrical box to be covered. Using gloves, remove pad from plastic film. Apply pad onto electrical box by forming over backside of electrical box to completely cover exposed surfaces. It is not necessary to cover the side of the box against the stud to which it is mounted. An additional 1/4" thickness of putty is to be formed around the connector securing the end of each electrical metallic tube or conduit to the box. Installation of putty pads will allow the horizontal separation between outlet

boxes, on opposite sides of the wall, to be less than 24" provided that the boxes are not installed back-to-back.

**Well Openings Protective Materials (CLW)
UL File R10764**

F Rating 2 Hr.



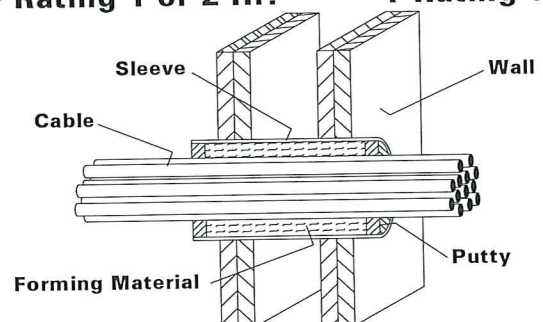
WALL ASSEMBLY - Constructed in the manner specified in the U400 series designs as shown in the UL Fire Resistance Directory.

STEEL OUTLET BOX - Max. 4" X 4" (102mm x 102mm) steel outlet box installed in accordance with NFPA 70 regulations. The box can be installed within the same stud cavity, provided they are not installed back-to-back.

NELSON FSP PUTTY PADS (part # AA452) - Min. 1/8" (3mm) thickness Putty pad. Putty pads are to be installed to completely cover the exterior surfaces of the outlet box (except for the side of the outlet box against the stud) and completely seal against the stud within the stud cavity. An additional 1/4" (6mm) thickness of putty is to be formed around the connector securing the end of each electrical metallic tube or conduit to the box. When metallic putty pad outlet box protective material is used on boxes on both sides of wall as directed, the horizontal separation between outlet boxes on opposite sides of the wall may be less than 24 in. (610mm) provided that the boxes are not installed back-to-back.

DWG NO. FS-0210 R5

**UL System No. W-L-3190
F Rating 1 or 2 Hr. T Rating 0 Hr.**



- **WALL ASSEMBLY** - Construct as specified in the U300 or U400 series designs. The max. diam. of the opening is 4". Annular space is 1/2" to 1".
- **METALLIC SLEEVE** - Max. nominal 4" diameter min. 28 GA steel sleeve having a min. 2" lap. Sleeve installed by coiling the sheet steel to a diameter smaller than the opening and releasing the coil to let it uncoil against the periphery of the opening. Sleeve will extend a nominal 2" beyond each surface of the wall.
- **CABLES** - Max. 40% fill of 100pr. #24awg., or smaller PVC jacketed telecommunications cables.
- **FORMING MATERIAL** - Tightly pack min. 4pcf mineral wool into the sleeve to the full depth.
- **NELSON FSP PUTTY** - Apply over the forming material to a min. 1-1/2" depth, flush with both ends of the sleeve.

DWG NO. FS-0382 R0

NELSON FIRESTOP PRODUCTS

P.O. Box 726
Tulsa, OK 74101

Toll Free: 800-331-7325
www.nelsonfirestop.com

Direct: 918-627-5530
e-mail: info@nelsonfirestop.com

Fax: 918-641-7336

EIDorado National – California **Low-Floor Bus Body Construction/Body Panel Installation** **and Corrosion Protection Program**

EIDorado National-California uses the following methods and processes for the structural steel body fabrication/exterior body panel installation and corrosion protection for the Axess and E-Z Rider II low-floor buses:

- The integrated body is structurally fabricated using Grade C, ASTM500 high-strength carbon steel rectangular tubing with plate and formed sheet welded into a 100% monocoque type space frame. Stainless steel is integrated in corrosion critical areas including wheelwells, stepwells, battery compartment and rear engine bulkhead. The body frame structure as presented has been third party tested for meeting and exceeding the rollover requirements of FMVSS 220 and side impact requirements of FMVSS 214D.
- Prior to frame weld assembly, the inside of all structural tubing in the floor, sidewalls and roof are sprayed with Ziebart - Formula A, rust proofing material for internal corrosion protection.
- The carbon steel or stainless steel cage structure and all related metals parts are welded into a complete frame assembly. This assembly is moved into a grit-blasting booth where it is blasted entirely with a 40/50 mix of steel grit medial. This gives all steel parts a 1-mil physical profile for excellent paint adhesion. No other corrosion protection program offers this level of metal preparation.
- After grit-blasting the cage, it is moved to a cross-flow paint booth. The cage is prepared and primed using PPG corrosion resistant epoxy primer/sealer #CRE 904. In critical areas where there is the potential for rust/corrosion (under-carriage, wheelhouses, etc.), PPG Corashield #8071 is applied which, has been ASTM B-117 tested to 1,000 hours of salt spray. The protected cage is then baked at 140°F for 20 minutes to ensure proper curing.
- All cage and metal joints are completely sealed with Sikaflex
- 3M double face tape is used between the body panels and the steel frame for bonding and separation of dissimilar metals and thus, mitigating the risk of galvanic reaction.
- The understructure of the vehicle floor and underside of the side skirt panels are coated with BASF – Degacoat #310 undercoating material.
- For the body paneling installation, various lightweight, durable and inherently corrosion-resistant materials are utilized as follows and with all paneling fastened using Sikaflex 221 adhesive/sealant and applications methods that allow for a smooth surface without exposed fasteners:
 1. Sidewall Panels - .100 inch roller leveled Noble-Select all-composite panels
 2. Roof Panels - .063 inch single-piece roller leveled aluminum panel. The single-piece panel is installed as one continuous section along the center with structural sealing and rivets (no rivets are exposed) around the perimeter edge seam

3. Lower Sidewall, Skirt Panels - .155 inch roller leveled Noble-Select all-composite panels. The top of the panel is fitted into a slot on a full-length aluminum extrusion just below the window line and fastened to the frame. For non-removable skirt panels, 3M double face tape is utilized between the body panels and steel frame in addition to the Sikaflex 221 adhesive/sealant for increased bonding and separation of dissimilar materials. For removable skirt panels, Sikasil-GP clear silicone sealant is utilized which, is excellent for dynamic joint movement and dissimilar materials.
4. Roof Shoulder Panels - .063 inch contoured molded fiber-reinforced resin. Panels are full length and installed with Sika Adhesive/Sealant and rivets (no rivets are exposed)
5. Front and Rear Crowns - .125 inch contoured and aesthetically molded fiber-reinforced resin. Sections are installed with Sika Adhesive/Sealant and rivets (no rivets are exposed) and moldings

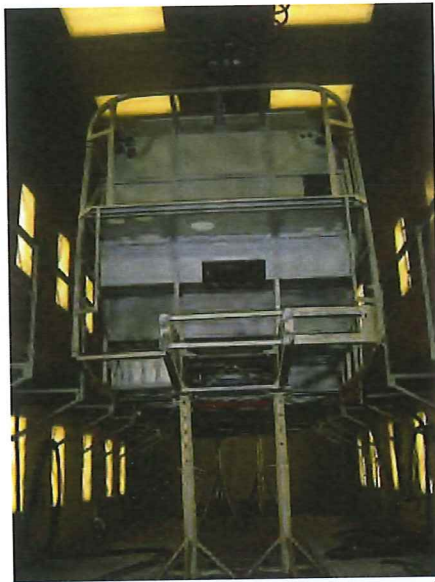
Photos of the Axess and E-Z Rider II body construction/exterior body panel installation and corrosion protection process can be found on the following pages:



1. The inner walls of all tubular structures are coated with Ziebart - Formula A prior to tube cutting and welding. The entire cage is then fixture-welded for build consistency throughout the order.



2. Completed monocoque cage construction. All welded structural components including wheelwells, stepwells and bulkheads are attached prior to the corrosion protection process.



3. The frame assembly is moved into a grit-blast booth where it is blasted entirely with a 40/50 mix of steel grit medial. This process gives all steel parts a 1-mil physical profile for superior paint adhesion.



4. After grit-blasting the cage, it is moved to a cross-flow paint booth. The entire cage is prepared and primed using PPG corrosion resistant epoxy primer/sealer #CRE 904.



5. In critical corrosive areas, including the entire under-carriage and rear section of the bus an additional coating of PPG - Corashield #8071 is applied. The protected cage is then baked at 140°F for 20 minutes to ensure proper curing.



6. Low floor bus cage upon completion of the body construction and corrosion protection process. The finished corrosion protection coverage has been ASTM tested to 1,000 hours of salt spray.



7. The final stage of the corrosion protection process is complete sealing with Sikaflex7-221 Elastic Adhesive/Sealant.



8. The final stage of the corrosion protection process is complete sealing with Sikaflex 7-221 Elastic Adhesive/Sealant.

END OF CORROSION PROTECTION PROGRAM PRESENTATION



PPG Extrusion Coatings

MACROFLEXTM COATINGS

PRODUCT DATA

PRODUCT DESCRIPTION

MACROFLEX flexible polyester extrusion coatings are spray-applied, one-coat systems which are recommended for use in a variety of transportation, residential and interior applications.

MACROFLEX coatings were developed for use with end products that require post-forming after application. Because of their degree of flexibility, level of durability, corrosion resistance and higher solids, MACROFLEX coatings fill a market niche by combining performance and economics. MACROFLEX coatings also meet the requirements of AAMA 2603 specifications.

SYSTEM OVERVIEW

MACROFLEX flexible polyester spray-applied extrusion coatings are the ideal products for post-forming applications. They are available in white, black and pastel colors, in a wide range of glosses.

Metallic colors are also available upon request.

MACROFLEX flexible polyester coatings combine ease of application with economics and durability.

COMMERCIAL USES

MACROFLEX extrusion coatings are recommended for use in transportation applications such as RV components, as well as interior residential components,

including door and window frames, railings and trim. MACROFLEX coatings also provide excellent mar, burnish and metal mark characteristics.

DURABILITY

MACROFLEX extrusion coatings meet AAMA 2603 specifications and offer excellent flexibility in addition to their mar and burnish resistance. They must

be applied by an approved applicator on properly cleaned and pretreated aluminum for optimum product performance.

The PPG logo is a registered trademark of PPG Industries, Inc.
MACROFLEX is a trademark of PPG Industries, Inc.



PPG Extrusion Coatings

MACROFLEXTM COATINGS

PRODUCT DATA

MACROFLEX SPECIFICATIONS	
Colors Available	White, black and pastels. Metallics available upon request
Dry Film Thickness ASTM D1400	1.0 - 1.2 mils on aluminum substrate
Gloss ASTM D523 @ 60°	19 - 80
Pencil Hardness ASTM D3363	F - H
Flexibility T-bend , ASTM D4145	2-T, No pick-off
Cross Hatch Adhesion 1/16" wet and dry	Excellent - No removal
Direct Impact 1/10" distortion	Excellent - No removal
Salt Spray Resistance ASTM B117, 1500 hrs. 5% NaCl @ 100°F	Meets or exceeds spec of 1/16" max. undercutting
Humidity Resistance ASTM D714 ASTM D2247, 1500 hrs. 100% relative humidity @ 100°F	Few #8 blisters max.
Exterior Exposure 1 yr. @ 45°, south Florida	No loss of adhesion Max. 8 fade Max. 6 chalk

MACROFLEX WARRANTY INFORMATION

PPG offers a comprehensive warranty on MACROFLEX extrusion coatings. For complete warranty information and a copy of the MACROFLEX extrusion coatings warranty, please call PPG at **1-800-258-6398**.



DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety
Administration

[Docket No. NHTSA 2001-10258, Notice 2]

NovaBUS, Inc.; Denial of Application
for Decision of Inconsequential
Noncompliance

NovaBUS, Inc. (Nova) of Roswell, New Mexico, manufactured a number of buses that were equipped with one of two types of auxiliary lamp systems. Both of these lamp systems are wired to flash. Federal Motor Vehicle Safety Standard (FMVSS) No. 108, "Lamps, Reflective Devices, and Associated Equipment," requires that all lamps, except those specified, be wired to be steady burning. Nova determined that these buses fail to comply with FMVSS No. 108 and has filed an appropriate report pursuant to 49 CFR part 573, "Defect and Noncompliance Reports." Nova has also applied to be exempted from the notification and remedy requirements of 49 U.S.C. Chapter 301—"Motor Vehicle Safety" on the basis that the noncompliance is inconsequential to motor vehicle safety.

Notice of receipt of the application was published in the **Federal Register** (66 FR 41307) on August 7, 2001. Opportunity was afforded for public comment until September 6, 2001. No comments were received.

In FMVSS No. 108, paragraph S5.5.10 requires that, other than turn signal lamps, hazard warning signal lamps, school bus warning lamps, and headlamps and side marker lamps wired to flash for signaling purposes, all other lamps shall be wired to be steady burning.

Between January 1994 and March 2001, Nova produced 742 buses with optional deceleration lamps that flash at a rate related to the deceleration of the vehicle. These lamps are amber and are located on the rear center of the bus.

During the same period of time, Nova also produced 1,819 buses with "hoodlum" lamps that flash when the driver activates a switch. The purpose of these lamps is to provide an alert to the police or public that a dangerous situation is occurring on the bus and that the driver requires assistance. These lamps are green and are located on the top front and rear of the bus.

Nova supported its application for inconsequential noncompliance by stating the following:

The [deceleration and hoodlum] lights do not pose a safety risk to the bus, passengers, driver, or other vehicles on the roadway. They in no way interfere with the normal operation of the bus. Their size, location, color, and flashing pattern make it impossible to confuse them with stop and turn lights. There are no other green lights on the vehicle. There is a slight chance the amber lens color may be confused with hazard lights. However, this is not a hindrance as the [deceleration] and hazard lights heighten other drivers' awareness of the bus.

These lights were requested by our customers to help attract attention to the buses in the stated situations. Since the requirement that "all other lamps shall be wired to be steady burning" applies to Nova as an [original equipment manufacturer] but not to our customers, Nova believes these lights would not be changed to be steady burning if a recall process was executed.

Nova no longer offers these options and is now compliant with [FMVSS No. 108].

The agency has reviewed the application and has decided that the noncompliance is not inconsequential to motor vehicle safety. Regarding the flashing amber lamps, the standard states explicitly that only certain original equipment lamps are permitted to flash. The main reason for limiting the flashing function to these lamps is to minimize confusion that may be caused to other drivers who observe the flashing lights. If manufacturers include a flashing function in other lamps, the importance of the safety meaning of required lamps can be diminished. Standardization of lighting functions is paramount to the necessary and instant recognition of their meaning by other drivers.

This concern was expressed by the agency in a March 1996, legal interpretation to the Gillig Corporation (Gillig). Gillig asked whether it was permitted to install four amber lamps that would act as supplemental stop lamps on its buses. These four lamps would flash when the brake pedal was depressed and be extinguished when the pedal was released. The agency stated that this was not permitted, as it could impair the effectiveness of the required red brake lamps. When confronted with an array of red steady

burning lamps (the required ones) and amber flashing ones (the ones Gillig wished to add), the agency said that there is a strong likelihood of momentary confusion in the mind of a driver following the vehicle. Quick understanding of and appropriate reaction to motor vehicle safety signals is fundamental to safe motor vehicle operation.

The agency also expressed a similar view in an August 1999 legal interpretation in response to a request from the law firm of Helfgott and Karas, P.C. A client of this firm wanted to install a steady burning amber lamp in the rear of the vehicle that would be illuminated whenever the ignition was activated and the brake lamps were not activated. In this interpretation, the agency stated that:

Traffic safety is enhanced by the familiarity of drivers with established lighting schemes, which facilitates their ability to instantly and unhesitatingly recognize the meaning a lamp conveys and to respond to it. Any modification to the required lamps or any supplemental lamp that could be perceived to have signals different from the required functions when these functions are operating, or could be perceived incorrectly as signals from required functions would be deemed by us to impair the effectiveness of the required lighting.

Regarding the green "hoodlum" lamps, the agency addressed a similar issue in an April 2001 interpretation to Peter Hoffman of I.D. Lite Products Group, Inc. (I.D. Lite). I.D. Lite asked whether it would be permitted to include a green lamp that highlights signage on commercial vehicles. The agency stated that, because FMVSS No. 108 only allows the use of white, red, or amber lamps, a green lamp would not be permitted.

Also regarding the "hoodlum" lamps, the agency issued an interpretation in the early 1970s (the exact date could not be found in the interpretation database) in response to the Flxible Company (Flxible). Flxible asked whether a flashing "hoodlum warning system" that was requested by the city of Boston, Massachusetts would be allowable. The agency stated that, after January 1, 1972, this lamp would not be permitted because of the requirements limiting the flashing function to certain lamps.

Nova supported its application by stating that the lamps do not pose a safety risk. It does not explain what leads it to believe that there is no possibility of confusing the subject amber lamps with required lamps or why flashing green lamps also would not confuse observers. It does admit that there is "a slight chance" that the amber ones could be confused with the hazard lamps. The fact remains that they will attract attention, while having no readily apparent safety meaning, given that they are unique in the motor vehicle environment. This dilutes driver attention that needs to be focused on the driving task.

In addition, Nova states that because its customers specifically requested these noncompliant lamps and the agency cannot force the customers to return the buses to make them compliant, it would be unlikely they would return the vehicles in a recall campaign. This does not persuade us to grant the application. It is necessary that Nova notify its customers that the vehicles it sold them were noncompliant. It must also explain to the customers why they are noncompliant and the potential consequences of the noncompliance. If a large percentage of owners decide not to return their vehicles for remedy, the agency may investigate whether the Nova notification was adequate, and further action could be required.

In consideration of the foregoing, NHTSA has decided that the applicant has not met its burden of persuasion that the noncompliance it describes is inconsequential to motor vehicle safety, and that it should not be exempted from the notification and remedy requirements of the statute. Accordingly, its application is hereby denied.

(49 U.S.C. 30118(d) and 30120(h); delegations of authority at 49 CFR 1.50 and 501.8)

Issued on: May 6, 2002.

Stephen R. Kratzke,
Associate Administrator for Safety
Performance Standards.

[FR Doc. 02-11714 Filed 5-9-02; 8:45 am]

BILLING CODE 4910-59-P

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

[Docket No. NHTSA-01-10411; Notice 2]

Reliance Trailer Company, LLC; Grant of Application for Decision of Inconsequential Noncompliance

Reliance Trailer Company, LLC, of Spokane, Washington ("Reliance"), has determined that 26 of its dump body trailers, manufactured between February and June 2001, fail to comply with Federal Motor Vehicle Safety Standard (FMVSS) No. 224, "Rear Impact Protection," and has filed an appropriate report pursuant to 49 CFR part 573, "Defects and Noncompliance Reports."

On May 29, 2001, Reliance submitted a petition to the agency and requested that it be exempted from the notification and remedy requirements of 49 U.S.C. Chapter 301—Motor Vehicle Safety" on the basis that the noncompliance is inconsequential to motor vehicle safety.

We published a notice of receipt of the application on August 24, 2001, affording an opportunity to comment (66 FR 44663). We did not receive any comments on the notice. This notice grants the application.

The dump body trailers Reliance manufactured between February and June 2001 do not comply with FMVSS No. 224, "because their wheels were located farther ahead of the 12" wheels back dimension," and hence do not qualify for exclusion from FMVSS No. 224. Paragraph S4 of FMVSS No. 224 defines a wheels back vehicle as a trailer or semitrailer whose rearmost axle is permanently fixed and is located such that the rearmost surface of tires of the size recommended by the vehicle manufacturer for the vehicle on that axle is not more than 305 mm [12 inches] forward of the transverse vertical plane tangent to the rear extremity of the vehicle." Reliance's Part 573 report acknowledged that the 26 affected dump body trailers are not in compliance with FMVSS No. 224, since the rearmost surface of their tires

must be 16"-18" forward of the rear extremity of the trailers to accommodate asphalt lay down equipment used in road construction.

Reliance supported its petition for a determination of inconsequential noncompliance with the following reasons:

1. *The noncompliance has no safety concerns*—Reliance knows "of no rear end collisions, involving injuries, with this type of trailer." Typical hauls of these trailers are short and have minimal amount of time traveling on highways compared with most freight trailers.

2. *There is no practical way to remedy the noncompliance*—"Currently, no one has been able to get paver manufacturers to revise, or users to retrofit all their equipment so that under-ride could be accommodated." Reliance stated that "any device behind the tires will interfere with [the trailer's] operation unless it can be moved out of the way when [the] dumping takes place."

3. *NHTSA granted temporary exemptions to competitors and similarly designed trailers*—Reliance noted that NHTSA granted a renewal of a temporary exemption from FMVSS No. 224 to Beall Trailers of Washington, Inc., another manufacturer of dump body trailers; the agency also granted a temporary exemption to Dan Hill & Associates, and Red River Manufacturing, Inc., manufacturers of trailers having similar interference problems with paving equipment.

4. *Reliance will aggressively proceed to conduct remedial activities*—Reliance will conduct "a review of paving equipment that these trailers mate with to determine if they can be retrofitted or modified to accommodate trailers with tires located within 12" of the rear." Further, Reliance "will aggressively proceed to design, build, test and provide prototypes to determine the feasibility and usefulness of these devices."

Based on the above stated reasons, Reliance requested that the agency grant the inconsequential petition. Our analysis of the Reliance request follows.