



## Short Specification

Florida Sheriffs Association Bid 15-11-0116

Wheeled Coach Industries, Inc.  
Art Sprague

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Page 1

PART NO	DESCRIPTION	QTY	ID	REF. NO
	<b>CHASSIS:</b>	<b>1</b>	<b>WC</b>	
00-10-3332	Ford 2015 F-450,4x2,XLT, 6.7L, 170", #1170F 2015-4	1	WC	00-10-3332
	189" wheelbase			
	Autothrottle OEM Ford			
	Alternator OEM Ford			
	Mirrors, OEM, Heated/Remote			
	Cab seats OEM Captains chairs(no armrests)			
	Includes Link Air Suspension System			
	<b>CAB TO MODULE MOUNTING:</b>	<b>1</b>	<b>WC</b>	
10-10-1001	Bellows, Passthru, Unigrip, F1 2008+, Std	1	WC	10-10-1001
	With Aluminum cab insert.			
	<b>CHASSIS ADD-ONS:</b>	<b>1</b>	<b>WC</b>	
1F-30-7352	Air Suspension, Links Air Ryde, Dyna, F450/F550, Elect (no charge option only on #1153F & #1170F) with air intake tube for compressor terminating in compt "E" above fixed shelf, std	1	WC	1F-30-7352
1F-30-9000	Switch, (1), Momentary, Air Dump to be recessed in basewall cabt, near left rear entry door.	1	WC	1530123
2F-71-7103	Cab Flooring, Black Rubber, 2009+, F350/450, OEM	1	WC	2F-71-7103
	<b>HEATING/AIR CONDITIONING:</b>	<b>1</b>	<b>WC</b>	
5U-12-5000	Hoses, Heater, No Max, to Rear, STD	1	WC	9980003
5U-70-0160	Heat/AC, F1, 2011+, Pureair 2 (new code)	1	WC	5U-70-0160
	Note: Adding an external condenser is recommended !!			
	with thermostat in action area.			
	<b>BATTERY SWITCHES:</b>	<b>1</b>	<b>WC</b>	
60-22-1030	Battery Sw, 5min Timer, F1, Fig 5B, Batt under Hood Activated thru OEM ignition switch timer function upon ignition "off". Momentary rocker switch, on driver's side of cab console, to function as timer shutoff and also reactivate timer.	1	WC	60-22-1030
	(2) OEM batteries under hood			

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	ONLY Module power is turned on/off. Chassis power is NOT turned off.			
	<b>CONSOLES:</b>	<b>1</b>	<b>WC</b>	
7U-10-0602	Console, Center, Pass-thru, Mica Finish, F1, 2008+	1	WC	7U-10-0602
7U-10-7000	Console, A/A, Wood, Angled	1	WC	1301700
	<b>BULKHEAD CABINET:</b>	<b>1</b>	<b>WC</b>	
TF-50-1000	Bulkhead, Unigrip, Pass Thru, 153/170x67, Ford	1	WC	C931791
	<b>WHEELCOVERS:</b>	<b>1</b>	<b>WC</b>	
X5-10-3901	Covers, Wheel, Phoenix, F450, 4X2/4x4, 1153/1170 with Air Max Valve Extenders, std	1	WC	X5-10-3901
35-05-0055	Type 1 - 170" Module - Standard Model Series	1	WC	35-05-0055
35-05-0060	Type 1 - 170" Module General Body Construction Spec	1	WC	35-05-0060
35-05-0065	Type 1 - 170" Module Vehicle Body Structure Spec	1	WC	35-05-0065
35-05-2000	INTERIOR CABINETS -Duralite Construction, Wood	1	WC	35-05-2000
	<b>MODULE BODIES:</b>	<b>1</b>	<b>WC</b>	
35-10-0068	Aisle Space, 50 inches, STD, Type 1, Std Model Only (49-50" actual)	1	WC	35-10-0068
	Requires stainless steel wheelwell covers attached to squad bench and base wall cabts that will protrude up to 1.5" into aisleway on each side.			
	Install anti-slip decal with Wheeled Coach logo on curbside and rear stainless steel thresholds, STD			
35-10-0502	Headroom, 72 in. Type 1 - 170" module, #1170F/D	1	WC	35-10-0502
37-00-0350	Coating, Scorpion X02, Per Compt, (1), Std light gray	6	WC	3F-70-0520
37-00-0360	Coating, Scorpion, Rear Bumper Supports	1	WC	3F-70-0525
37-00-0500	Compartments, Std, Floor 3" Drop Down from Door Opening	4	WC	37-00-0500
	compts B1, B2, D, & E are STD drop down floor			
37-00-0600	Compartments, Sweepout - Compartments "A" & "F" are standard sweep out	2	WC	37-00-0600
37-00-0710	Duraseam Doors, with Hidden Jambs - Magnetic door switches, Standard	1	WC	37-00-0710
39-A0-0177	A, Compt, Single Door, Pureair, 170" Module, 72" HR, #1170F/	1	WC	39-A0-0177
39-B1-0155	B1, Compt, Std, 170" Module, 72" HR, #1170F/D	1	WC	39-B1-0155
39-B2-0177	B2, Compt, Std, 170" Module, 72" H.R, #1170F/D	1	WC	39-B2-0177
39-D0-0355	D, Compt, 3/4, 170" Module, 72" H.R, #1170F/D With Double Doors	1	WC	39-D0-0355
39-E0-0105	E, Compt, Std, 170" Module, #1170F/D With Double Doors	1	WC	39-E0-0105
39-F0-0305	F, Compt, Std, Full Height, 170" Module, 72" H.R, #1170F/D	1	WC	39-F0-0305
39-F0-0610	Without Dogleg for Stairchair in Compt "F"	1	WC	39-F0-00610
	<b>FUEL FILL HOUSING:</b>	<b>1</b>	<b>WC</b>	

PART NO	DESCRIPTION	QTY	ID	REF. NO
3A-10-1000	Housing, Fuel Fill, Cast, F1/C1/D1/M2	1	WC	1000775
	<b>EXTERIOR DIVIDERS:</b>	1	WC	
3F-10-1101	Divider, Vertical, B2, 3/16" Thick, Recessed Adj Track, Std Model only (divider to be full depth if a shelf is requested)  compt "B2", centered.	1	WC	3F-10-1101
	<b>SHELF- COMPARTMENT "A"/RF CABINET:</b>	1	WC	
3F-20-1000	Shelf, Adjustable,(1), RF Cabt Custom (1) RF Compt "A"/cabt "E1" area, centered. (change to cabt "E2" for Pureair 1 cabt)	1	WC	1101600
	<b>SHELF- COMPARTMENT "D":</b>	1	WC	
3F-40-3001	Shelf, Custom, Adj, Cmpt "D", (1), Std Model only at bottom of cabt "H" inside/outside access opening.	1	WC	3F-40-3001
	<b>SHELF- COMPARTMENT "E":</b>	1	WC	
3F-50-0100	Shelf, Fixed, Cmpt E, for Electrical storage, w/ Divider Area to right of divider will be used for bio-waste in A/A if selected. If no bio-waste, area to be left open for addtl customer storage.	1	WC	1101620
	<b>WINDOWS:</b>	1	WC	
3P-10-5201	Window, Upper, CS/Slider, Rr/Fixed, Priv Tint, PAN, Std Model only	1	WC	3P-10-5201
	<b>MODULE ENTRY DOOR HANDLES:</b>	1	WC	
3U-30-8000	Handles, Patient Entry, Trimark Black/Chrome "SafePass" STD	1	WC	3U-30-8000
	<b>EXTERIOR COMPT DOOR HANDLES:</b>	1	WC	
3U-40-0510	Handle, Module Compt, Trimark, Black/Chrome, STD	6	WC	3U-40-0510
3U-40-0514	Latch, Paddle, Trimark, For Trailing Door compts "D" &/or "E"	1	WC	3U-40-0514
	<b>DOOR HOLD OPENS:</b>	1	WC	
40-10-1611	Hold Opens, Rr Doors, Cast, Grabber (2), 5.5", Std Model only - Installed so doors will open as wide as possible - Mount at top of doors. - (relocate to bottom is backup camera is selected)	1	WC	40-10-1611
40-10-7200	Hold Open, Gas Strut, Ext Compt, 30lb, Std	6	WC	1100512
40-10-7205	Hold Open, Gas Strut, RF Compt, 30lb, Std	1	WC	1100516
	<b>DOOR PANELS:</b>	1	WC	
45-10-4505	Panels, Entry, Durasafe, Stainless Steel, w/ Chevrons, STD - Durasafe Design - Aluminum Center Panels covered: white/red reflective tape	1	WC	45-10-4505
	<b>FENDER FLARES:</b>	1	WC	
4A-10-1001	Flare, Fender, Rear, Black Rubber, Std Model only	1	WC	4A-10-1001
	<b>BUMPERS:</b>	1	WC	
4F-10-1101	Bumper, Rear, w/ Skids & Flip Up, F1/C1, w/LED DOT Lts, Std Model  w/ Gator Grip on flip up step.	1	WC	4F-10-1101
	<b>RUNNING BOARDS:</b>	1	WC	

PART NO	DESCRIPTION	QTY	ID	REF. NO
4K-10-2106	Running Boards, Standard,F450, w/ Gator Grip, #1153F/1170F	1	WC	4K-10-2106
<b>SKIRTRAILS</b>		<b>1</b>	<b>WC</b>	
4U-10-9210	Skirtrails,Extruded Rubber w/Refl Tape,170-175" Module	1	WC	4U-10-9210
4U-10-9500	Tape, Reflective, White, For Extruded Rubber Skirtrails	1	WC	4U-10-9500
<b>STONE GUARDS (FRONT):</b>		<b>1</b>	<b>WC</b>	
4U-11-2000	Stone Guard, Front, Dia Plate, 13.38"	1	WC	1100139
<b>KICKPLATES (w/STD. REAR STONEGUARDS):</b>		<b>1</b>	<b>WC</b>	
50-10-2105	Kickplate, W/Recess, No Light Holes,Duraseam	1	WC	1100137D
55-10-3000	Holder, License Plate, Cast, C30002, STD - in rear kick plate, centered	1	WC	1600055
<b>SILL PROTECTORS</b>		<b>1</b>	<b>WC</b>	
55-30-4001	Sill Protectors, Stainless, All Compts, Std Model only	1	WC	55-30-4001
<b>MUD FLAPS:</b>		<b>1</b>	<b>WC</b>	
5A-10-1001	Mud Flaps, Rear, W/Logo, Std Model only	1	WC	5A-10-1001
<b>PAINT/BELTS:</b>		<b>1</b>	<b>WC</b>	
5F-10-0800	Paint, OEM White Sikkens Crossover Codes Ford white: FA91:YZ Dodge/Chevy white: FLNA4738 (2015 Chevy- FLNA41383) International white: NAV9219(Y) Freightliner white: CHA88:GW6	1	WC	5F-10-0800
5F-10-4801	Paint, Belt, None, Std Model only Cab & Module, all white, std.	1	WC	5F-10-4801
<b>DECAL PACKAGES INSTALLED:</b>		<b>1</b>	<b>WC</b>	
5P-10-5001	Roof Star, White Border, Installed, Std Model Only	1	WC	5P-10-5001
<b>ELECTRICAL SYSTEM: Circuitboard</b>		<b>1</b>	<b>WC</b>	
<b>COAX CABLES/ANTENNAS:</b>		<b>1</b>	<b>WC</b>	
65-30-1000	Coax Cable, RG58/U, (1) Each, Standard, Terminate: - From module roof port number #3 to behind passenger seat standard - with 6' pigtails	1	WC	1850001
<b>12VDC POWER SOURCES &amp; OUTLETS:</b>		<b>1</b>	<b>WC</b>	
6A-22-200E	Outlet, Cigar Lighter, STD, (2), A/A - on standard 20-amp ignition hot circuit. ("elect batt sw")	1	WC	6A-22-200E
6A-22-5100	Outlet, Dual USB Port, 5VDC, 2.1Amp output, Standard Located on the passenger side of the center console, per Electrical Engineering	1	WC	6A-22-5100
<b>POWER SOURCE, 12 VDC</b>		<b>1</b>	<b>WC</b>	
6A-23-0910	Power Source, 12VDC, 20A, Ignition/Shoreline Hot 20amp 12 volt DC circuit ran to two locations, (1) pre-wire coil and tagged in action area and (1) pre-wire coil and tagged behind driver's seat.	1	WC	6A-23-0910
6A-23-3001	Power Source,12 VDC,30 Amp (+-), Std Model only - Constant Hot, to terminate behind the passenger seat - with 6 foot tails (hot and ground).	1	WC	6A-23-3001
<b>SHORELINE INLETS:</b>		<b>1</b>	<b>WC</b>	
6F-90-4101	Super Auto Eject,20 amp, ILOS, White, Std Model Only - with white cover; mounted above compartment "E"	1	WC	6F-90-4101

PART NO	DESCRIPTION	QTY	ID	REF. NO
	<b>110 VAC OUTLETS:</b>	<b>1</b>	<b>WC</b>	
6K-40-1000	Outlet, 110 VAC, Duplex, (2), STD - (1) outlet in action area - (1) outlet in the RF Cabinet "E1", wall #2, upper right. (change to cabt "E2" for Pureair 1 cabt)	1	WC	1800001
6U-10-5000	Battery Charger, Conditioner, Progressive Dynamics, PD9130  Charger/Conditioner mounted in Comp "E"	1	WC	6U-10-5000
	<b>GAUGES/METERS:</b>	<b>1</b>	<b>WC</b>	
D0-10-1200	Meter, Analog, Volts, F1	1	WC	1530160
D0-10-6500	Alarm, Low Voltage, Audio/Visual Light in cab console and Buzzer in cab.	1	WC	D0-10-6500
	<b>SIREN SPEAKERS:</b>	<b>1</b>	<b>WC</b>	
DF-10-1241	Siren Speakers, Cast SAD/P3806-11FSD-1, F1, 2011+, Std Thru Front Bumper	1	WC	DF-10-1241
	<b>SIRENS:</b>	<b>1</b>	<b>WC</b>	
DK-10-1400	Siren, Whelen, WS-295-SLSA1, Standard	1	WC	1700297
	<b>SWITCHING OPTIONS FOR AIR HORNS &amp; SIRENS:</b>	<b>1</b>	<b>WC</b>	
DP-11-1000	Switch, Siren/Horn Thru Horn Ring	1	WC	1700622
	<b>AUDIBLE ALARMS:</b>	<b>1</b>	<b>WC</b>	
F0-11-3501	Alarm, Back-Up, Auto Reset, Std Model only	1	WC	F0-11-3501
	<b>VEHICLE EXTERIOR LIGHTING</b>	<b>1</b>	<b>WC</b>	
	<b>WHELEN 45KKK ADVANTAGE PLUS LIGHT BAR</b>	<b>1</b>	<b>WC</b>	
FK-25-0141	LB,45KKFH,HRRHRRH,RCRCRCR, Std Model only  on front ILOS warning lights with ICC lights on top of LB	1	WC	FK-25-0141
	<b>WHELEN HALOGEN 9E WARNING LIGHTS:</b>	<b>1</b>	<b>WC</b>	
FU-30-051E	Light, 9H, Whelen, Red, Std Model - (2) each side standard location - (2) on rear in upper outer corners	6	WC	FU-30-050E
FU-30-250E	Light, 9H, Whelen, Amber, STD  on center rear	1	WC	FU-30-250E
	<b>5 SERIES(LIN6) NON-SPLIT LED LIGHTS:</b>	<b>1</b>	<b>WC</b>	
H4-06-5702	Light,5L LIN6,Whelen,Red,Red Lens,50R02ZRR, Std, F1/D1 Only (new code)  (2) as grille lights (Dodge & Ford) (2) as front intersection lights (Dodge only)  wired thru external flasher, std.	2	WC	H4-06-5702
	<b>WHELEN 5E FLANGES/HOUSINGS:</b>	<b>1</b>	<b>WC</b>	
H4-10-0044	Housing, 5L Series, #5LSMAC, (1),Std, F1/D1 Only	2	WC	H4-10-0044
	<b>INTERSECTION LIGHTS, FORD &amp; Chevy Type 1, WHELEN</b>	<b>1</b>	<b>WC</b>	
H5-59-500E	Light, Whelen, LINZ6R, LED-Red, Std, Ford & Chevy Type 1 with chrome flanges	2	WC	H5-59-500E

PART NO	DESCRIPTION	QTY	ID	REF. NO
	(2) front intersectors			
	<b>CORNER CAP LIGHTS</b>	<b>1</b>	<b>WC</b>	
HF-11-6049	Corner Cap Lts,Multi-LED,(2)Amber(2)Red w/Flashers,Std Model - High intensity flashers; thru separate switch	1	WC	HF-11-6049
	<b>CLEARANCE LIGHTS:</b>	<b>1</b>	<b>WC</b>	
HF-12-9601	Light, Clearance, Red LED, Std Model only - On rear as clearance lights.	3	WC	HF-12-9601
	<b>SCENE AND LOAD LIGHTS</b>	<b>1</b>	<b>WC</b>	
HK-20-110E	Light, Halogen, Whelen, 9H, Clear, 8-32 Deg, STD, (1) - (2) each side as scene lights	4	WC	HK-20-110E
HK-20-130E	Light, Halogen, Whelen, 9H, Clear, 8-32 Deg, STD, (1) - (2) on rear as load lights	2	WC	HK-20-130E
	<b>WARNING LIGHT FLASHERS</b>	<b>1</b>	<b>WC</b>	
HU-24-6400	Flasher, Vanner, 9860GCPE, Standard Flash Pattern will be Dual Burst unless otherwise Noted Rated at 140 total amps with one flasher for Halogen, LED and Selectable lamps.  (Available flash Patterns are Single Burst, Dual Burst, Triple Burst, and Quad Burst.)	1	WC	HU-24-6400
	<b>HARNES LAYOUT:</b>	<b>1</b>	<b>WC</b>	
J5-12-2000	Halogen, " E " Spec, Vanner, (1) Lightbar	1	WC	H960126
	<b>STOP/TURN/TAIL LIGHTS:</b>	<b>1</b>	<b>WC</b>	
JA-10-1000	Light, License Tag, (2), Grote 60101, STD (incandescent)	1	WC	1600017
JA-13-8010	Tailights, Whelen,LED Stop/Tail,Halogen/Backup, w/ WC logo  - Brake- Alert Flash before the steady Burn - Turn Arrow – sequential arrow	1	WC	JA-13-8010
	<b>MODULE OVERHEAD HEADLINER:</b>	<b>1</b>	<b>WC</b>	
JK-10-5510	Headliner, Flat, Expanded PVC, 160"+ MAV/Type 1	1	WC	JK-10-5510
	<b>12VDC INTERIOR LIGHTING:</b>	<b>1</b>	<b>WC</b>	
JP-10-0505	Lights, Weldon, 8046-0320-80, (4) S/S, (3) C/S	1	WC	JP-10-0505
JP-10-7005	Light, Stepwell, Trucklite, 2in, Std	1	WC	1600075
JP-10-8000	Light, Xantech, 105-500, 5 Inch,In A/A	1	WC	1600015
	<b>LIGHTS &amp; MISCELLANEOUS:</b>	<b>1</b>	<b>WC</b>	
JR-50-1401	Spotlight, Blue Eye, 400,000 CP, Std Model only	1	WC	JR-50-1401
JR-60-2003	Timer, Momentary Sw,15 Minute, Constant Hot, Std Model onl  (must have ECX timed battery switch with this option)  Mount switch on C/S wall at the head of the squad bench in the standard location. Switch to allow activation and also deactivation. Wire to fluorescent lights in liner.	1	WC	JR-60-2003
JR-70-0005	Light, in Circuit Board Area, for Electrical Troubleshooting - with integral switch; wired constant hot.	1	WC	JR-70-0005

PART NO	DESCRIPTION	QTY	ID	REF. NO
	<b>SUCTION PUMPS:</b>	<b>1</b>	<b>WC</b>	
LP-10-0500	Suction Pump, Standard	1	WC	2300363
	<b>INSULATION:</b>	<b>1</b>	<b>WC</b>	
LU-10-1000	Insulation, Fiberglass, Unfaced	1	WC	1000413
	<b>GRABRAIL(S)/GRABHANDLES:</b>	<b>1</b>	<b>WC</b>	
N0-10-9101	Grabrail,Overhead,117",Handicap Style,Yellow,Std Model Only	1	WC	N0-10-9101
	Yellow Powder Coat Finish			
N0-10-9703	Handrails,(3),Custom "L" Shape,1",Yellow,Entry Drs,Std Mode	1	WC	N0-10-9703
	- Yellow Powder Coat Finish Stainless Steel Grab Handles			
	<b>O2 CYLINDER RACKS:</b>	<b>1</b>	<b>WC</b>	
NA-10-2500	Rack, Cylinder, Ziamatic, "M", QRM-2	1	WC	2300209
	<b>O2 SYSTEMS COMPLETE:</b>	<b>1</b>	<b>WC</b>	
NF-50-1001	O2 Sys,LF,(2)O2/(1)Vac Port A/A,(1)O2 C/S, Std Model only Ohio style (2) oxygen outlets in action area (1) vacuum port in action area (1) oxygen outlet curbside wall at head of squad bench	1	WC	NF-50-1001
	<b>O2 SYSTEM PARTS:</b>	<b>1</b>	<b>WC</b>	
P0-59-7500	Regulator, Oxygen Cylinder, Preset 50PSI, Installed (new code)	1	WC	P0-59-7500
	<b>SUCTION CONTAINERS:</b>	<b>1</b>	<b>WC</b>	
PA-10-7001	Regulator/Holder, SSCOR 22000, Std Model only	1	WC	PA-10-7001
	<b>COT MOUNTS:</b>	<b>1</b>	<b>WC</b>	
PF-25-1900	Cot Mount, FW 175-4 Specify cot model _____	1	WC	2411754
	<b>IV HOOKS:</b>	<b>1</b>	<b>WC</b>	
PP-20-1000	IV Hook, Perko, (1), W/Straps, STD	2	WC	2350508
	curbside and streetside standard locations			
	<b>MODULE INTERIOR</b>	<b>1</b>	<b>WC</b>	
RU-05-0000	Interior Cabinets - Duralite Construction, Wood	1	WC	RU-05-0000
	<b>MICA COLOR:</b>	<b>1</b>	<b>WC</b>	
RU-10-3001	Mica, Light Gray Gloss, Std Model only	1	WC	RU-10-3001
	<b>SUB FLOORING:</b>	<b>1</b>	<b>WC</b>	
RZ-99-0050	Flooring, Wood, Type 1, Std	1	WC	RZ-99-0050
	<b>FLOORING:</b>	<b>1</b>	<b>WC</b>	
T0-11-8201	Flooring, Lonplate II,Gunpowder Grey #424TX, Std Model only	1	WC	T0-11-8201
	<b>SEAMLESS ATTENDANT SEATS:</b>	<b>1</b>	<b>WC</b>	
T5-10-5111	Seat, Attendant, EVS, Child,Gunmetal #1880CB, Std Model only	1	WC	T5-10-5111
	Vacuum formed EVS1880CB w/ 3 point seatbelt. Integrated child safety seat. Mounted metal box base.			
	<b>SEAMLESS UPHOLSTERY:</b>	<b>1</b>	<b>WC</b>	

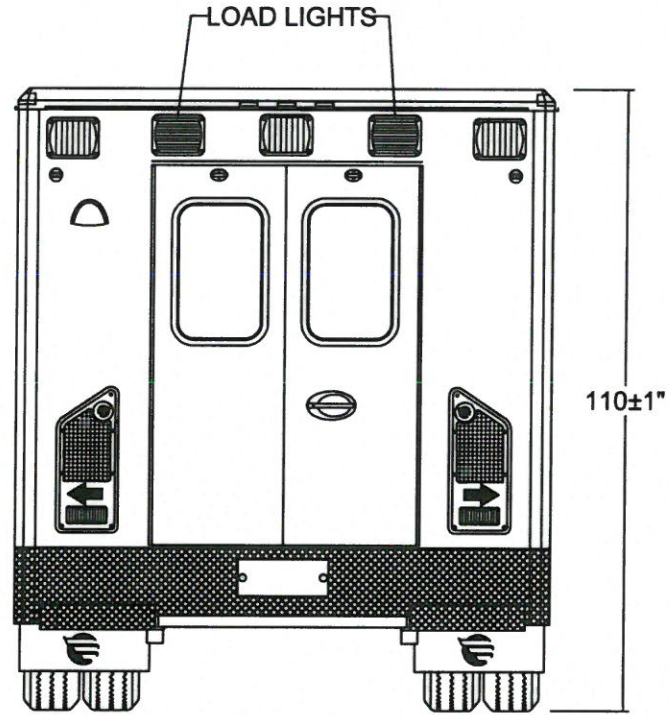
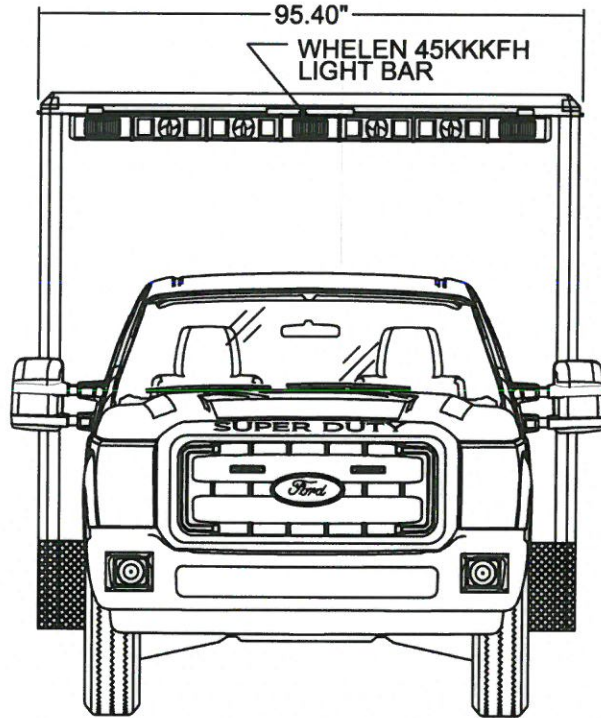
PART NO	DESCRIPTION	QTY	ID	REF. NO
T5-25-0500	Uph, Smless, Gunmetal,No Bio,No Post & Wheel	1	WC	1900389
	<b>O2 DOOR:</b>	1	WC	
TK-10-5010	Lexan Flaps, Hinged Left Side, Fixed Right Side, Std	1	WC	TK-10-5010
	<b>GLOVE HOLDERS:</b>	1	WC	
TN-20-1001	Cabinet, Glove Box Holder,(3),Above C/S door, Std Model only	1	WC	TN-20-1001
	(narrows cabt "E1" on Pureair 1 w/low headroom)			
	<b>RIGHT FRONT CABINET:</b>	1	WC	
TU-17-1560	Cabinet, Right Front, 2001 Pureair, Modified VA Style, 72" H	1	WC	TU-17-1560
	E1 and E2 with inside/outside access.			
	<b>RF CABINET DOORS W/2001 PUREAIR A/C</b>	1	WC	
TU-21-7350	Doors,Modified VA Style, E1 & E2, 2001	1	WC	TU-21-7350
	E-1 double doors.			
	E-2 single door hinged on left.			
	<b>HARDWARE,LATCHES AND LOCKS:</b>	1	WC	
V0-10-0500	Handle, C, Pull, Installed,(1) Ea,STD -RF Cabinet(s)	3	WC	2109707
V0-10-2000	Latch, Plunger Roller, Installed -RF Cabinet(s)	5	WC	2109714
V0-13-9001	Latch, Lever, No Key, Installed, STD, 2001 Style RF Cabt One (1) RF Cabinet Door E-1 Leading Door One (1) RF Cabinet Door E-2 Door	2	WC	V0-13-9001
V0-14-1001	Latch, Lever, W/Key, Installed, "L" Cabt Wood Door	1	WC	V0-14-1001
	<b>SQUAD BENCH:</b>	1	WC	
V5-20-3802	Squad Bench, Bio-Waste @ Head, 170", Std Model only	1	WC	V5-20-3802
	<b>LID 170 INCH BOX:</b>	1	WC	
V5-64-1501	Lid, Squad Bench, Single W/Bio-Waste, 170", Std Model only	1	WC	V5-64-1501
	<b>HARDWARE:</b>	1	WC	
V5-80-1005	Handle, Trimark, Squad Bench, STD	1	WC	V5-80-1005
V5-82-2500	Strut, Gas, 60 LB, Installed, ILOS, Mods	1	WC	2109706
	<b>CURBSIDE SPLINT CABINET 160-170 inch Module</b>	1	WC	
VA-40-2950	Curbside Splint Cabt, None	1	WC	
	<b>CURBSIDE REAR CABINET:</b>	1	WC	
VF-20-4700	Cabinet,Curbside Rear,Standard,170",72"HR	1	WC	2107001
	<b>CABINET H, BASEWALL 170", T1/T3</b>	1	WC	
VH-H2-0300	H, Cabinet, Inside/ Outside Access	1	WC	VH-H2-0300
	<b>CABINET I, BASEWALL 170", T1/T3</b>	1	WC	
VH-I2-0400	I, Cabinet, Deleted	1	WC	VH-I2-0400
	<b>CABINET M, BASEWALL 160" &amp; 170", T1/T9</b>	1	WC	
VH-M2-0300	M, Cabinet, deleted	1	WC	VH-M2-0300
	<b>CABINET O, BASEWALL 160-170", T1/T3</b>	1	WC	
VH-O1-0100	O, Cabinet, full height, std	1	WC	VH-O1-0100
	<b>CABINET CPR, BASEWALL, 149"-170", T1 &amp; T3</b>	1	WC	
VH-Q0-0101	CPR, side seat, Std Model only	1	WC	VH-Q0-0101
VH-Q0-0301	CPR, side seat, flip up lid, Std Model only	1	WC	VH-Q0-0301
	<b>CABINET J, STREETSIDE UPPER 170", T1/T3</b>	1	WC	
VI-J2-0300	J, Cabinet, 72" H.R.	1	WC	VI-J2-0300

PART NO	DESCRIPTION	QTY	ID	REF. NO
	<b>CABINET K, STREETSIDE UPPER 160-170", T1/T3</b>	<b>1</b>	<b>WC</b>	
VI-K1-0205	K, Cabinet, 2/3 depth, 72" H.R.	1	WC	VI-K1-0205
	<b>CABINET L, STREETSIDE UPPER 160-170", T1/T3</b>	<b>1</b>	<b>WC</b>	
VI-L1-0356	L,Cabts,L1 in Angled Area,L2 std,Full F,72"HR,Std Model only	1	WC	VI-L1-0356
	<b>BASEWALL DOORS:</b>	<b>1</b>	<b>WC</b>	
VK-15-4000	Cab H, Gray Lexan Slider	1	WC	2100003
VK-16-5000	Cab O, Gray Lexan Slider	1	WC	2100025
	<b>TELEMETRY AREA WORK SURFACE</b>	<b>1</b>	<b>WC</b>	
VP-10-5461	Telemetry Tray, Poured, Gray	1	WC	VP-10-5461
	<b>ACTION AREA WORK SURFACE</b>	<b>1</b>	<b>WC</b>	
VP-10-5918	A/A Tray, 160"-170",W/O Bio,Poured, Gray, MAV/1170F/1170I	1	WC	VP-10-5918
	(new code)			
	It will be necessary for the right end of poured tray to be cut off. There will be no raised ledge on right end of poured tray. Caulk/sealant to be applied.			
	<b>ACTION AREA 165/170 INCH BOX:</b>	<b>1</b>	<b>WC</b>	
VP-15-7005	Cab,A/A,Without Biowaste, 170" Type 1 (new code)	1	WC	VP-15-7005
VU-14-4000	Shelf, Interior, Adj, in Cabinet:	1	WC	2101503
VU-14-4000	Shelf, Interior, Adj, in Cabinet:	1	WC	2101503
VU-14-4000	Shelf, Interior, Adj, in Cabinet:	1	WC	2101503
VU-14-4000	Shelf, Interior, Adj, in Cabinet:	1	WC	2101503
VU-14-4001	Shelf Track, Cabt, #HA24663, Upgrade, Std Model only ("C" channel/exterior shelf style track)	4	WC	VU-14-4001
	**This option may require quantity adjustment**			
VU-15-2000	Cab "J" Gray Lexan Slider	1	WC	2100061
VU-15-4000	Cab "K" Gray Lexan Slider	1	WC	2100063
VU-15-9000	Cab "L1" Wood Door	1	WC	2100068
	hinged on right.			
VU-16-3000	Cab "L2" Gray Lexan Slider	1	WC	2100072
	<b>SHIP LOOSE ITEMS:</b>	<b>1</b>	<b>WC</b>	
YY-00-0001	Bracket, Spare Tire Mounting, Ship Loose	1	WC	YY-00-0001
YY-10-6400	Ship Loose, W.C. Standard Items	1	WC	2609998
YY-13-3000	Spare Tire, OEM only, Ship Loose	1	WC	1000800
	<b>WARRANTIES</b>	<b>1</b>	<b>WC</b>	
ZZ-10-0101	Warranty, Conversion, 12 Month	1	WC	0589998-14
ZZ-10-0201	Warranty, Paint, 60 month Prorated, Standard	1	WC	0599997-14
ZZ-10-0300	Warranty, Structural, 15 Years, Std., Mods	1	WC	0589996-14
ZZ-10-0601	Warranty, Limited Electrical	1	WC	0589993-14
ZZ-10-0701	Warranty, Cabinet Construction	1	WC	ZZ100701-14
ZZ-ZZ-0200	End Of Order	1	WC	9980002

CA112188

Specification 1, Ford, F450, 170 x 95 x 72

170 x 95 x 72



EXTERIOR COMPARTMENT DIMENSIONS IN INCHES

INTERIOR DIMENSIONS				JAMB OPENING		INTERIOR DIMENSIONS				JAMB OPENING	
COMPT.	HEIGHT	WIDTH	DEPTH	HEIGHT	WIDTH	COMPT.	HEIGHT	WIDTH	DEPTH	HEIGHT	WIDTH



TYPE I FORD 189 W.B.  
FRONT / REAR  
EXTERIOR VIEWS  
DURASEAM DOOR SYSTEM

DATE: 08/18/11  
SCALE:  
OWN BY: LJG  
DWG NO: CA112188

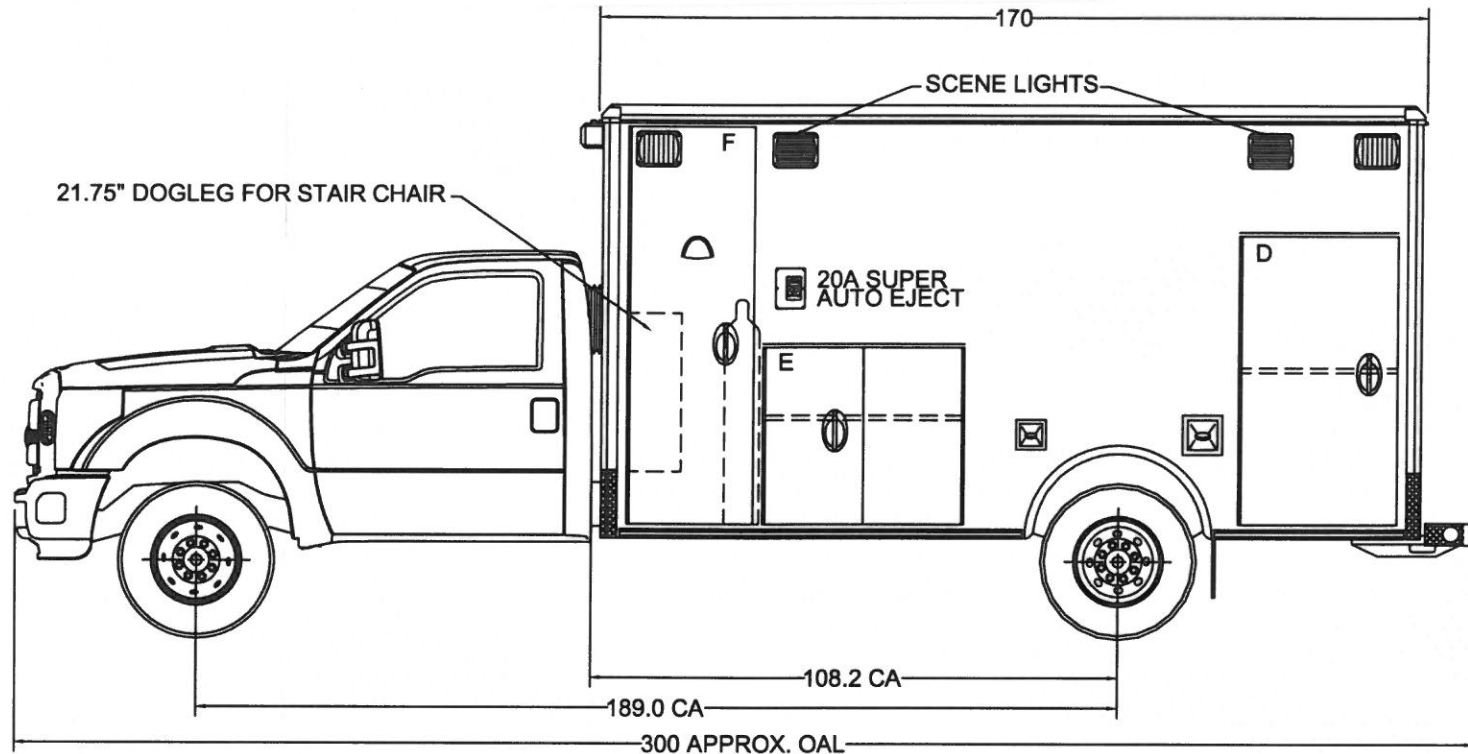
50" AISLE SPACE

BE ADVISED THAT THESE ARE PRELIMINARY LAYOUTS INTENDED TO ILLUSTRATE DESIGN INTENT AND DIMENSIONS ARE FOR REFERENCE ONLY PRIOR TO FINAL ENGINEERING

CA112189

Specification 1, Ford, F450, 170 x 95 x 72

170 x 95 x 72



EXTERIOR COMPARTMENT DIMENSIONS IN INCHES

INTERIOR DIMENSIONS				JAMB OPENING		INTERIOR DIMENSIONS				JAMB OPENING	
COMPT.	HEIGHT	WIDTH	DEPTH	HEIGHT	WIDTH	COMPT.	HEIGHT	WIDTH	DEPTH	HEIGHT	WIDTH
D	61.50	34.00	17.00	58.50	30.50						
E	39.00	39.25	17.00	36.25	37.00						
F	82.25	28.25	17.00	81.75	27.25						



TYPE I FORD 165" WB  
LEFT EXTERIOR

50" AISLE SPACE  
REV. 03/29/12 LJG

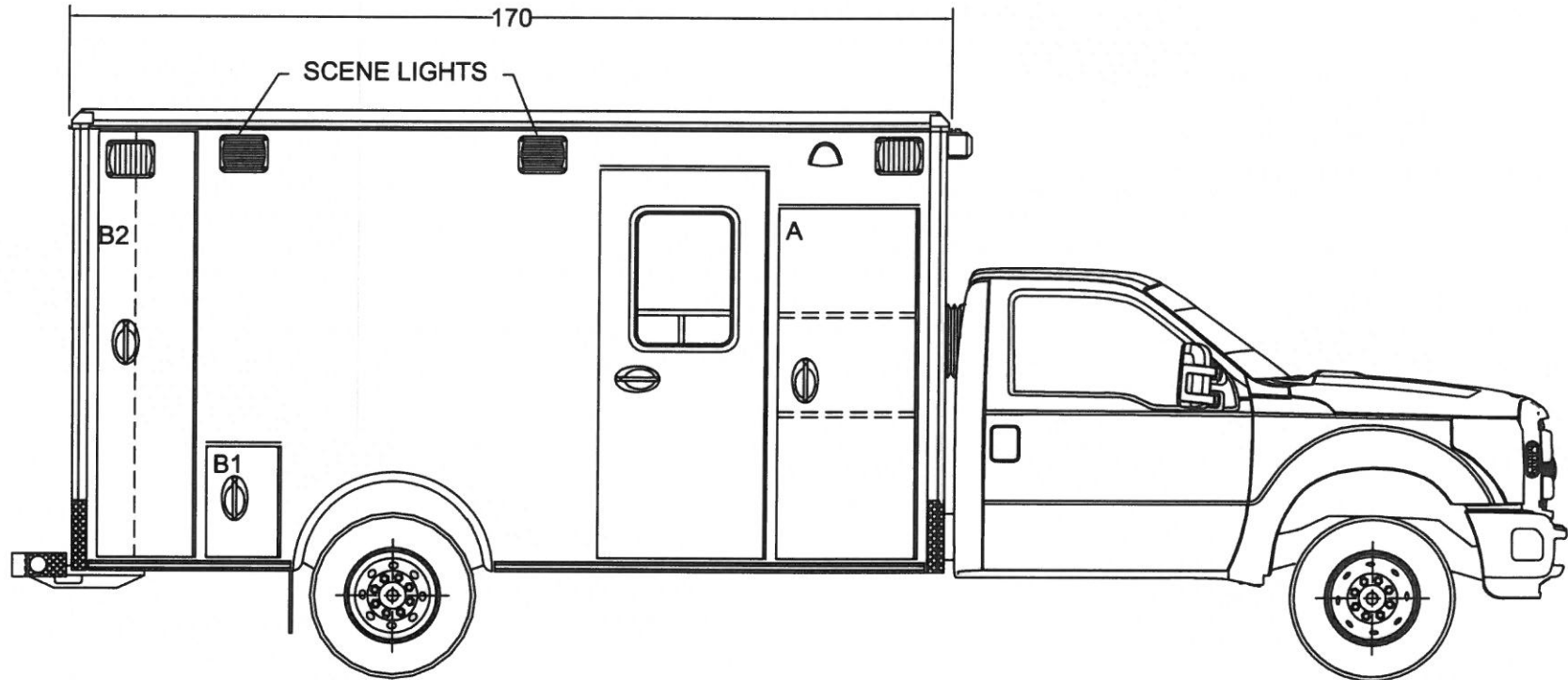
BE ADVISED THAT THESE ARE PRELIMINARY LAYOUTS INTENDED TO ILLUSTRATE DESIGN INTENT AND DIMENSIONS ARE FOR REFERENCE ONLY PRIOR TO FINAL ENGINEERING

DATE: 08/18/11  
SCALE:  
OWN BY: LJG  
DRAWING NO: CA112189

CA112190

Specification 1, Ford, F450, 170 x 95 x 72

170 x 95 x 72



EXTERIOR COMPARTMENT DIMENSIONS IN INCHES

INTERIOR DIMENSIONS				JAMB OPENING		INTERIOR DIMENSIONS				JAMB OPENING	
COMPT.	HEIGHT	WIDTH	DEPTH	HEIGHT	WIDTH	COMPT.	HEIGHT	WIDTH	DEPTH	HEIGHT	WIDTH
A				65.50	27.25						
B1	22.25	14.25	17.00	19.25	11.75						
B2	84.75	19.00	18.50	81.75	16.75						



TYPE I FORD 189 WB  
RIGHT EXTERIOR

50" AISLE SPACE

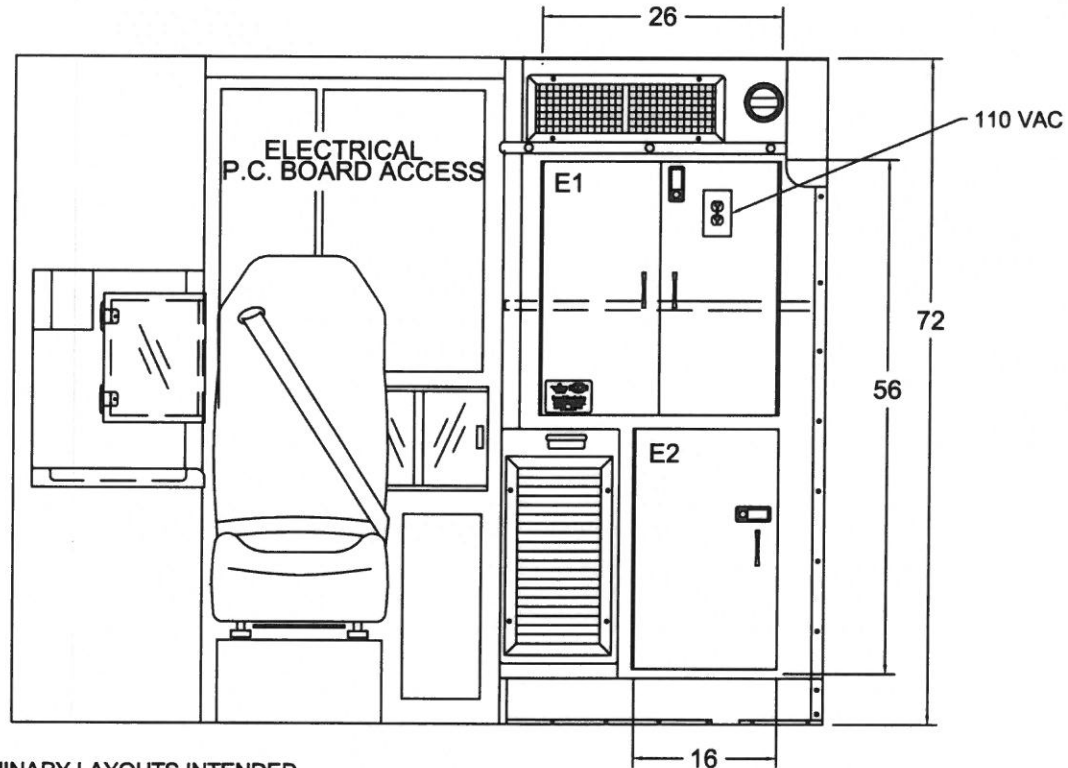
BE ADVISED THAT THESE ARE PRELIMINARY LAYOUTS INTENDED TO ILLUSTRATE DESIGN INTENT AND DIMENSIONS ARE FOR REFERENCE ONLY PRIOR TO FINAL ENGINEERING

DATE: 08/18/11	SCALE:
DWG BY: LJJ	DWG NO: CA112190


CA112191

Specification 1, Ford, F450, 170 x 95 x 72

170 x 95 x 72



BE ADVISED THAT THESE ARE PRELIMINARY LAYOUTS INTENDED TO ILLUSTRATE DESIGN INTENT AND DIMENSIONS ARE FOR REFERENCE ONLY PRIOR TO FINAL ENGINEERING

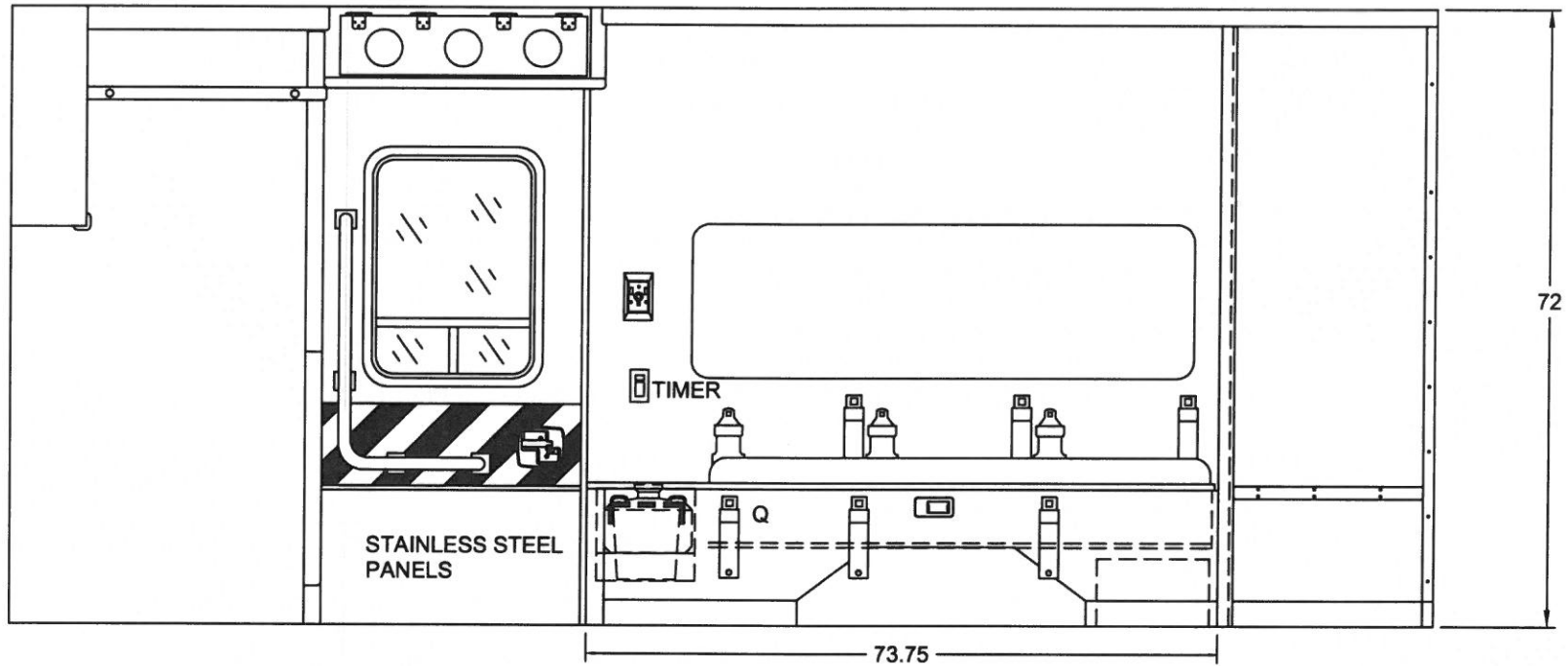
INTERIOR CABINET DIMENSIONS IN INCHES								
CABINET	HEIGHT	WIDTH	DEPTH	CABINET	HEIGHT	WIDTH	DEPTH	
E1	29.25	33.50	32.00					TYPE I FORD BULKHEAD INTERIOR PASS THRU 2001 PAF RIGHT FRT CABINET
E2	26.75	20.50	32.00					
								DATE
								08/18/11
								SCALE
								DRAWN BY
								LJG
								DWG NO
								CA112191

50" AISLE SPACE


CA112193

Specification 1, Ford, F450, 170 x 95 x 72

170 x 95 x 72



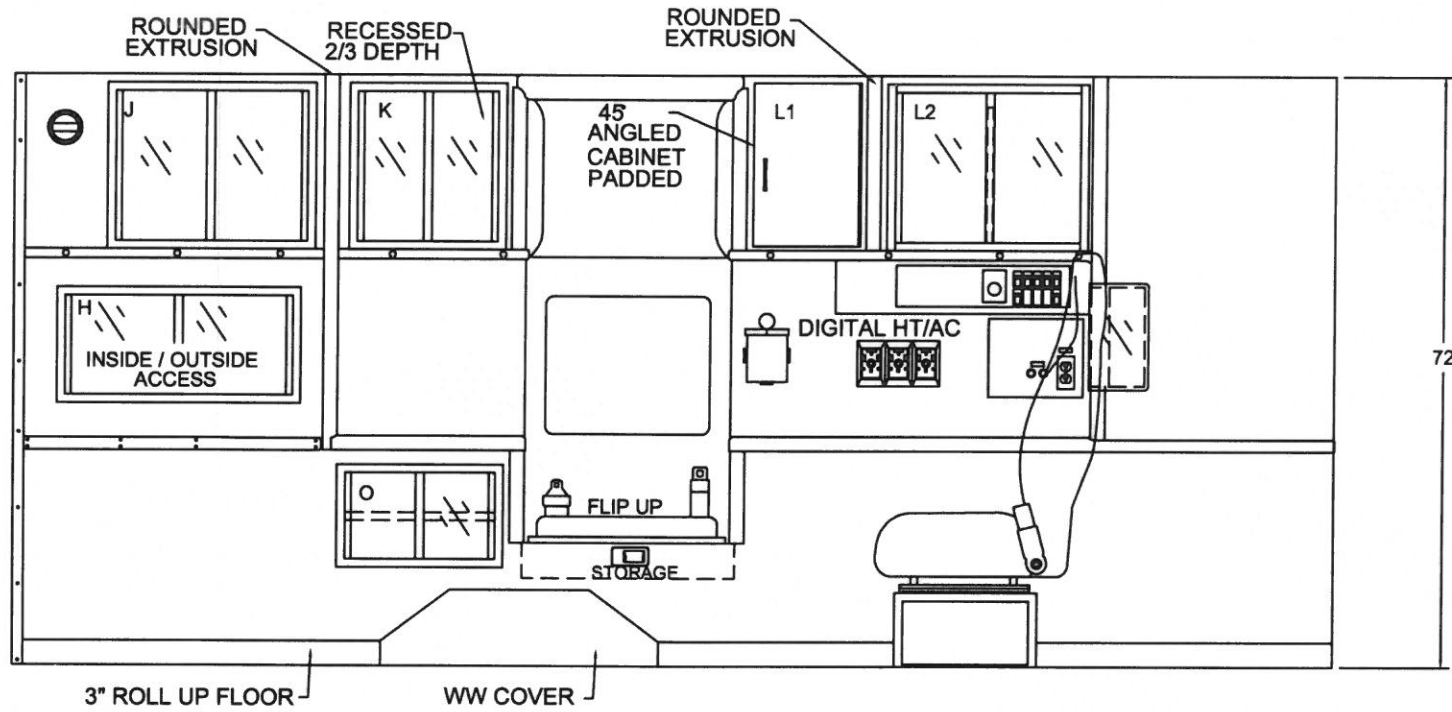
BE ADVISED THAT THESE ARE PRELIMINARY LAYOUTS INTENDED TO ILLUSTRATE DESIGN INTENT AND DIMENSIONS ARE FOR REFERENCE ONLY PRIOR TO FINAL ENGINEERING

INTERIOR CABINET DIMENSIONS IN INCHES									
CABINET	HEIGHT	WIDTH	DEPTH	CABINET	HEIGHT	WIDTH	DEPTH		
Q	6.00	61.50	16.75					TYPE I FORD RIGHT INTERIOR	
50" AISLE SPACE								DATE	SCALE
								08/18/11	
50" AISLE SPACE								DRAWN BY	DWG NO
								LJG	CA112193


CA112192

Specification 1, Ford, F450, 170 x 95 x 72

170 x 95 x 72



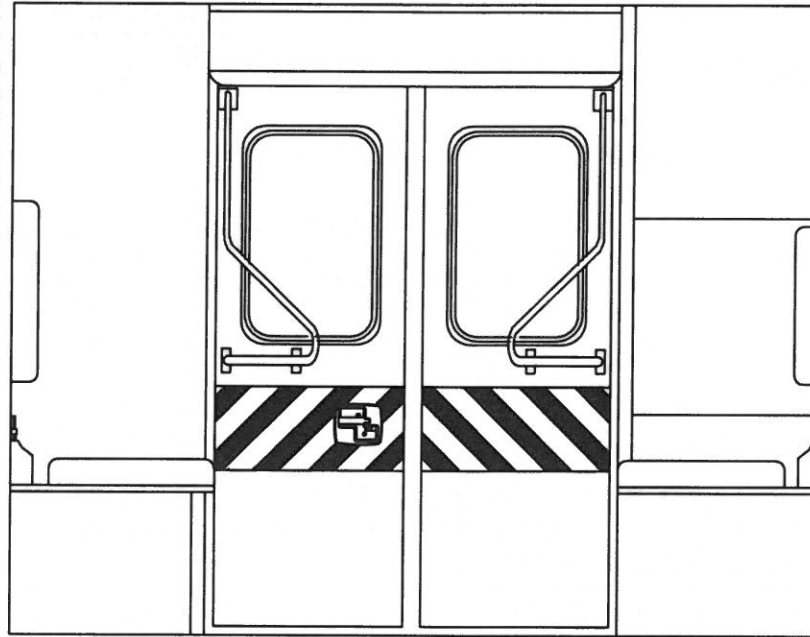
BE ADVISED THAT THESE ARE PRELIMINARY LAYOUTS INTENDED TO ILLUSTRATE DESIGN INTENT AND DIMENSIONS ARE FOR REFERENCE ONLY PRIOR TO FINAL ENGINEERING

50" AISLE SPACE	INTERIOR CABINET DIMENSIONS IN INCHES								
	CABINET	HEIGHT	WIDTH	DEPTH	CABINET	HEIGHT	WIDTH	DEPTH	
	H	13.50	29.50						TYPE I FORD LEFT INTERIOR  DATE 08/18/11 SCALE DRAWN BY LJG DWG NO CA112192
	J	20.25	24.00	18.00					
	K	20.25	18.75	12.00					
	L1	20.25	17.50	16.00					
	L2	20.25	24.50	16.00					
	O	15.00	22.25	18.00					

CA112194

Specification 1, Ford, F450, 170 x 95 x 72

170 x 95 x 72



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INTERIOR CABINET DIMENSIONS IN INCHES

COMPT.	HEIGHT	WIDTH	DEPTH	COMPT.	HEIGHT	WIDTH	DEPTH



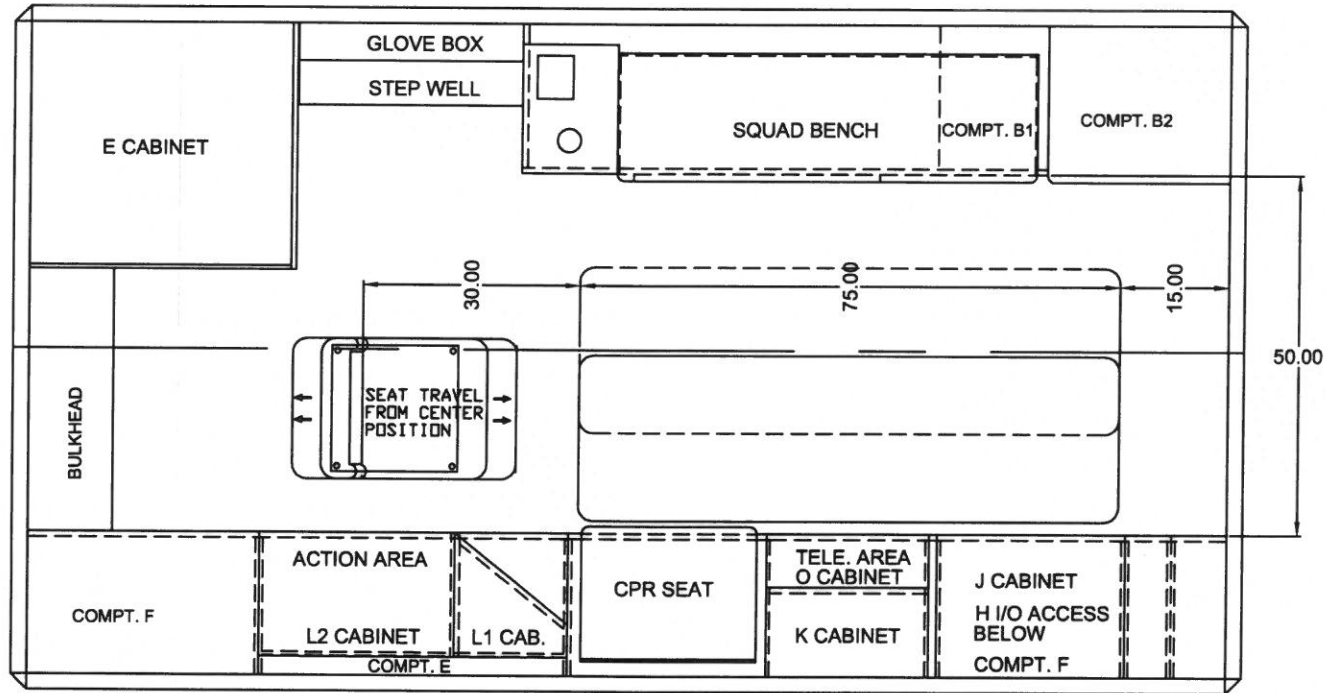
TYPE I FORD  
REAR BULKHEAD INTERIOR

DATE:	08/18/11	SCALE:	
DWN BY:	LJG	DWG NO:	CA112194

CA112195

Specification 1, Ford, F450, 170 x 95 x 72

170 x 95 x 72



BE ADVISED THAT THESE ARE PRELIMINARY LAYOUTS INTENDED TO ILLUSTRATE DESIGN INTENT AND DIMENSIONS ARE FOR REFERENCE ONLY PRIOR TO FINAL ENGINEERING

REV. 03/29/12 LJG

INTERIOR CABINET DIMENSIONS IN INCHES

CABINET	HEIGHT	WIDTH	DEPTH	CABINET	HEIGHT	WIDTH	DEPTH



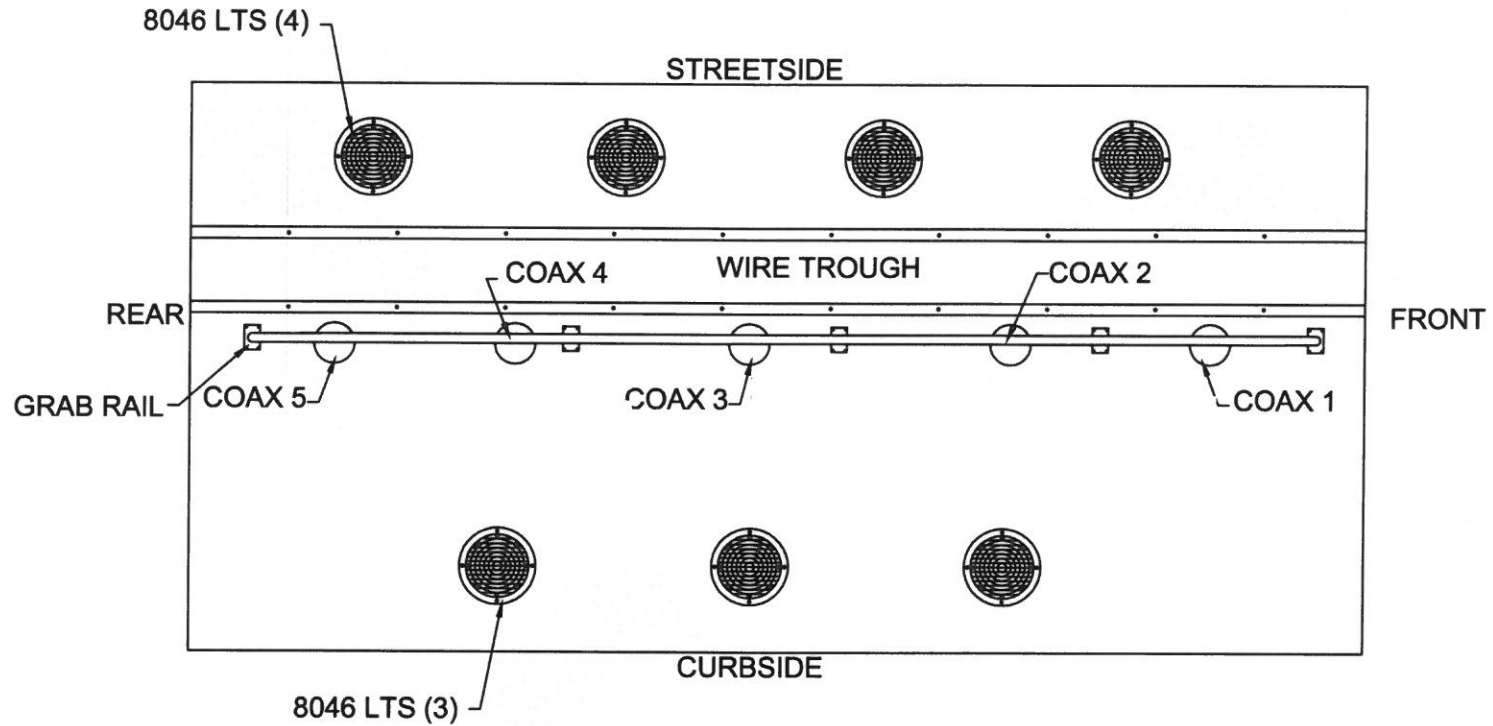
TYPE 1 FORD FLOOR PLAN

DATE: 08/18/11  
 DWG BY: LJG  
 SCALE:  
 DWG NO: CA112195

CA112196

Specification 1, Ford, F450, 170 x 95 x 72

170 x 95 x 72



INTERIOR CABINET DIMENSIONS IN INCHES

COMPT.	HEIGHT	WIDTH	DEPTH		COMPT.	HEIGHT	WIDTH	DEPTH	



TYPE 1 FORD  
LINER

DATE:	08/18/11	SCALE:	
DWG BY:	LJG	DWG NO:	CA112196

BE ADVISED THAT THESE ARE PRELIMINARY LAYOUTS INTENDED TO ILLUSTRATE DESIGN INTENT AND DIMENSIONS ARE FOR REFERENCE ONLY PRIOR TO FINAL ENGINEERING

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

### 3.0 TECHNICAL REQUIREMENTS CAB - CHASSIS

#### 3.1 GENERAL VEHICULAR DESIGN, TYPES, AND FLOOR PLAN

The ambulance and the allied equipment furnished under this specification shall be the primary manufacturer's current commercial vehicle of the type and class specified. The ambulance shall be complete with the operating accessories as specified herein. It shall be furnished with such modifications and attachments as necessary and specified to enable the vehicle to function reliably and efficiently in sustained operation. The design of the vehicle and the specified equipment shall permit accessibility for servicing, replacement and adjustment of component parts and accessories with minimum disturbance to other components and systems.

##### 3.1.2

The ambulance shall be a Type I, Class I, and shall be a chassis furnished with a two (2) door conventional cab. The chassis shall be suitable for subsequent mounting of a modular (containerized), transferable equipped ambulance body conforming to the requirements herein.

##### 3.1.3

The design of the vehicle shall utilize floor plan "A" loading arrangement of patients into the patient compartment. All litters shall be loaded into position with the heads of the patients forward in the vehicle.

#### 3.2 VEHICLE COMPONENTS, EQUIPMENT, AND ACCESSORIES.

The emergency medical care vehicle, chassis ambulance body, equipment, devices medical accessories and electronic equipment to be delivered under this contract shall be standard commercial products, tested and certified, to meet this specification. The vehicle shall comply with all Federal Motor Vehicle Safety Standards (FMVSS) and United States regulations applicable or specified for the year of manufacture. The primary manufacturer shall procure the chassis, components, equipment and accessories as specified and be the current technical data and materials of all suppliers.

#### 3.3 MATERIALS

Materials used in the construction shall be new and meet the quality conforming to this specification. Materials shall be free of defects.

#### 3.4 VEHICLE OPERATION, PERFORMANCE, AND PHYSICAL CHARACTERISTICS

The following is a description of the cab and chassis that will meet the requirements of this specification. In addition, the chassis will comply with paragraphs 3.4.1 through 3.6.14 of Federal Specification KKK-A-1822F.

# Wheeled Coach Industries Specification 1, Ford, F450, 170 x 95 x 72

## 3.5 CHASSIS MANUFACTURER AND MODEL YEAR

The chassis shall meet the requirements of this specification. It shall be a 2015 Ford.

## 3.6 MODEL PHYSICAL CHARACTERISTICS

Vehicle:	Ford Chassis Cab	
Body Style:	Super Duty F-450 Dual Rear Wheel	
Drive Train:	Rear Wheel Drive	
Model Number body code:	F4G Regular Cab 189" wheel base XLT	
Gross Axle Weight:	Front 7,000 lb.	Rear 11,000 lb.
Gross Vehicle Weight	Rating 16,500 lb.	
Engine Type:	99T 6.7L Diesel V8 with 98R Manual Regen	
Displacement	6.7 liters	
Fuel System	Turbocharged DI	
SAE net HP	325 @ 3300 RPM	
SAE net Torque	570 foot pounds @ 2000 RPM	
Wheelbase:	189 inches	
Transmission:	6 - speed Automatic, Electronic	
Rear Axle Ratio:	4:10 Ltd Slip	
Tire Size:	LT225/70Rx19.5F, BSW All Season, 2 front, 4 rear	
Spare Tire Size:	LT225/70Rx19.5F, BSW All Season	
Wheels	All including spare, steel 19.5 x 6.0	
Brakes:	4-Wheel ABS System	

# Wheeled Coach Industries Specification 1, Ford, F450, 170 x 95 x 72

Engine Block Heater:	Code 41H
Alternators:	Dual 130 Alternators, Code 67A
Batteries:	Dual, 78-AH, 750 CCA
Fuel Tank:	Single 40 Gallon, aft of rear axle
Exterior Upgrade Package:	647A
Interior Upgrade Package:	647A
Cab seating:	Code 3- 40/20/40 cloth
Ambulance Prep. Package:	Code 47L
A/C Heater Connector Pkg:	Code 57L
Steering:	Power
Stereo	AM/FM, Single CD Player, Clock
Running Lights	Day time Running Lights, Code 942
Pedals	Adjustable Gas and Brake Pedals, Code 62M
Suspension	Link, UltraRide, Parallelogram design

## 4.5 ELECTRICAL GENERATING SYSTEM

The vehicle shall be equipped with the OEM supplied dual 130 ampere alternator.

## 4.6 ENGINE AUTOMATIC HIGH IDLE SPEED CONTROL

The Engine high idle shall be regulated by the OEM supplied high idle speed control. The control shall be mounted in the cab console.

## 4.7 DRIVER'S COMPARTMENT

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

The driver's compartment shall be as required by paragraphs 3.9.1, 3.9.2, and 3.9.4 of Federal specification KKK - A - 1822F as well as section 3.0 of this document. The cab shall be equipped with the chassis manufacturer's high back seats. The safety restraint system for the driver and passenger shall be installed by the chassis manufacturer. Modifications or substitutions of the chassis manufacturer's cab seats or restraint system will not be acceptable.

### 4.8 OUTSIDE REAR VIEW MIRRORS

The vehicle mirrors should be firmly secured, vibration less rear view mirrors totaling at least one hundred and twenty five square inches. The mirrors shall be OEM, manually telescoping trailer tow, power/heated glass, integrated clearance lights and turn signals, and a two-way fold.

### CAB FLOORING MATERIAL

The OEM cab carpet shall be replaced with an OEM purchased black rubber flooring.

### SUSPENSION SYSTEM

There shall be a Links Air Ryde Air Suspension installed on the rear chassis axle. The model shall be Dyna 8M000097 with the 800M1200 Electric Air kit and shall be installed per the manufacturer's instruction. The rear suspension shall only lower the module when the vehicle is in neutral or park and the parking brake is set.

### SWITCHING

A Momentary Air Dump switch shall be installed as directed by this Agency.

### CAB PATIENT COMPARTMENT

The modular body shall be attached to the cab chassis by means of a rubber bellows with one hundred and fifty square inches of open viewing area.

### HEATER HOSES

Nomax heater hoses shall be installed.

### ENVIRONMENTAL SYSTEMS

The driver's compartment shall be furnished with the environmental package as set forth in section 3.6. This agency is committed to keep safe our staff and patients by technology available in day's market place. Therefore, it shall be incumbent for all primary manufacturers to provide the maximum protection from airborne pathogens and eliminate obnoxious odors that can create discomfort for staff and patients. The patient compartment shall be heated and air conditioned by the following method:

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

\*The air conditioning and heating unit shall be accessible for service through a tilt out access panel in a dedicated environmental cabinet on the bulkhead.

\*The air conditioning and heating system shall employ a three stage filtration system.

\*The first stage filter shall be one hundred percent Dacron fiber pre filter with an applied microbial system which destroys microorganisms with which it comes in contact.

The filter shall remove particles ten microns and larger at thirty five percent efficiency.

\*The second stage filter shall be an activated charcoal dispersed over a fiber medium to assist in the removal of odors.

\*The third stage filter shall be a high efficiency particulate air filter that removes particles of decimal three (0.3) microns and larger at ninety nine decimal ninety seven

(99.97)

percent efficiency.

The air delivery and return system must be a sealed system to not allow the passage of air other than through the three stage filter. The conditioned air shall pass through a multi-directional vent capable of dispersing high volumes of conditioned air at low velocity. This system must meet KKK - A -1822F performance parameters 3.13.4 and 3.13.5. Testing must be certified with filters in place. Primary manufacturers shall submit drawings and testing documentation from an independent laboratory with this proposal.

Note: Adding an external condenser is recommended !!  
with thermostat in action area.

### BATTERY SYSTEM

The vehicle shall be supplied with a dual 12 volt battery system. Two OEM batteries. The battery system shall be wired in accordance with KKK - A - 1822F. The system must meet SAE J541 for starter circuit voltage drop. The batteries shall be activated through the OEM ignition switch. The ignition switch shall only turn off power to the module and not to the chassis circuits. When the ignition is shut off a five minute time keeps the module powered up for unloading patients. A momentary rocker switch shall be installed which will disable the timer. It shall be labeled TIMER BYPASS. It shall be located on the side of the center console.

### INSTRUMENT CONSOLE

A console shall be installed to house the switching panel and radio installation. This console shall be attached under the dash below the line of sight of the driver. The console shall extend the full length of the cab between the driver's and passenger's seats. Provisions shall be made available for storage of convenience items for the crew. An access panel shall be installed on the top of the console to facilitate servicing. The switches shall be full size rocker switches with LED on the indicators. The switch assembly shall be 1.97 inches tall by 1.064 inches wide with silver plated copper contacts and a .250 inch spade type terminal. The switch and rocker material shall be a thermal set molding material. The complete switch assembly will be tested to withstand one thousand (1,000) volts RMS dielectric. Documentation of switch testing to be included with the bid. The switches must have a positive "throw" feel and an audible "click" upon activation.

### ACTION AREA CONSOLE

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

There shall be a console in the action area of the rear patient compartment to house the switches. The console shall be manufactured out of 3/4" birch wood and be angled so that the switches will be easily accessible for an EMT in the attendant seat or a CPR seat.

### WHEEL COVERS

There shall be Phoenix Wheel Covers installed prior to delivery. They shall be model GDF16 and shall include the extender kit for the rear wheels, model #AML1.

### VEHICLE BODY AND PATIENT AREA

#### BODY ACCOMMODATIONS

The ambulance body and patient compartment shall be sufficient in size to meet the requirements of paragraph 3.10.1 of Federal Specification KKK - A1822 - F. The interior layout shall be such that a technician can administer life support treatments to at least one person during transport. The modular body shall be 153 inches in length and 95 inches wide.

#### PATIENT COMPARTMENT INTERIOR DIMENSIONS

**Length:** As measured from the bulkhead to the inside edge of the rear doors at the floor shall be at least (143") one hundred and forty three inches. There shall be at least (25") twenty five inches but not more than (30") thirty inches of clear space at the head of the primary patient, measured from the face of the backrest of the attendant's to the forward edge of the style one cot.

**Width:** Shall be measured after the installation of the street side cabinets will be (44 3/4") forty four and three quarter inches between the cabinet wall and the face of the squad bench.

**Height:** The patient compartment shall provide at least (67") sixty six inches of height over the primary patient area from the floor to the ceiling.

#### GENERAL BODY CONSTRUCTION

It is the intention of this agency to specify a modular body that is constructed solely of aluminum including side skins, roof skin, all structural box tubing, corner and roof extrusions, tapping plates, gusset plates, retention plates, doors, door extrusions, sub structure moisture barrier and drip rails. The modular shall be engineered, built and warranted by the primary manufacturer. This agency will not accept a proposal from a primary manufacturer, as defined within this document, that supplies a modular from an agency, builder, supplier, other than the primary manufacturer. This section shall be the construction parameters this agency has deemed as fair value. Primary manufacturers that deviate from these specifications may take exception as set forth in section A1.1.2.

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

The exterior of the body shall be constructed utilizing a full six sided box framework with a combination of high strength 6061-T1 and 6063-T6 alloy aluminum and having an outer surface of aluminum sheet with a temper and alloy of 5052-H32 for strength, weld integrity and corrosion resistance. The front, sides, and rear of the modular shall be configured from a single sheet of .090 aluminum. The one piece sheets shall be used to maximize integrity against dust, toxic fumes, cracking, and moisture penetration. The openings for doors, warning lights and exterior compartments shall be cut on the horizontal plane with a computer controlled plasma cutter for accuracy and integrity of temper. The roof and side skins shall be installed utilizing a very high bond adhesive to allow absorption of vibration and to eliminate "panning". The skins shall be welded to the interlocking extrusion framework at the outer perimeter of the sheets by a programmable robotic welder using a MIG welding tip and Argon gas.

The roof shall be a single .090 sheet of 5052-H32 alloy aluminum. The roof sheet shall be completely welded to the extruded roof assembly. The use of multi-section roofs shall not be acceptable due to the possibility of cracks causing environmental intrusion.

The roof substructure assembly shall consist of four perimeter roof rail extrusions, lateral roof bows and interconnecting corner caps. The roof rail extrusions shall be engineered and designed by the primary manufacturer and shall be double hollow of 6063-T6 .125 aluminum. An integrated roof recess shall be incorporated to create a smooth transition from the one piece roof sheet to the perimeter drip rail. The perimeter drip rail shall be extruded as a design feature of the roof rail extrusion. The roof rail extrusion shall overlay the side skin by one half inch. The roof sheet shall be seam welded to the perimeter roof extrusion. The lateral roof bows shall be two inch by two inch by .125 square extrusions of 6061-T6 alloy aluminum. The structural members shall be located to support the roof skin on fourteen inches between roof bows. The roof bows shall interconnect with the roof rails and be continuously welded at all contact points. The finished roof shall incorporate a machine rolled crown of not less than one and half inches in height to provide additional strength and allow water run off. A one inch by two inch by .125 6063-T6 extrusion shall be secured to the top of the vertical extrusions. The perimeter extrusion shall be welded to the vertical structures with a minimum of six inches of weld. An industrial adhesive shall be applied around the perimeter before the roof assembly is mated to the sill. The roof structure shall be attached to the sill and welded. To insure a complete contact with the industrial adhesive mechanical fasteners shall be employed to cinch the roof structure to the sill.

The corner caps shall be designed to interlock with the roof perimeter, vertical corner extrusions and roof sheet. The corner caps shall be cast aluminum made from matched metal dies to insure a smooth and pleasing appearance. The caps shall act as a stress relief device to absorb energy and disperse the force along the roof extrusions in the event of a collision. The outer edge DOT lights shall be installed as described in section 5.1.

The corners of the modular body shall be designed and engineered by the primary manufacturer and constructed of 6063-T6 alloy aluminum. The corner extrusion shall be double hollow with a minimum thickness of .125 and .250 at the outer corner. The extrusion is designed with a unique forty five degree angled appearance while maintaining very high strength and impact energy absorption. A polyurethane sealer shall be applied to seal the crevice between the corner extrusions and the side assemblies.

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

The side assemblies shall be reinforced utilizing 6061-T6 alloy aluminum two by two box tubing. The side structures shall frame a perimeter around all door openings and shall be a minimum of .125 in thickness. Intermediate skin stiffeners shall be located to preclude skin deformation. Additional gusset plates shall be .250 inch aluminum and shall be welded at all contact points between the corner assembly and the roof perimeter.

This agency is extremely concerned with purchasing a vehicle from a primary manufacturer who can provide the necessary service after sale. Therefore, as previously stated the modular shall have a fifteen year warranty and be engineered, designed and built by the primary manufacturer.

This agency is extremely concerned that the modular body be designed and built with the highest level of integrity and quality. Documentation and certification that the modular body being proposed meets Static Load Test Code for Ambulance Body Structure AMD Standard 001 must be included with this proposal.

### **Quality and Safety Documentation.**

The ambulance manufacturer responding to this vehicle specification shall demonstrate to this Agency that the ambulance being proposed offers the highest possible quality and safety standards.

To meet this Agency's requirements for quality the Bidder shall provide documentation that the ambulance manufacturer has in place a quality management system that meets the requirements of the International Organization for Standardization (ISO). A copy of the ISO Registration Certificate shall be included in the bid response.

To meet this Agency's requirements for safety standards the Bidder shall provide documentation that the ambulance manufacturer has conducted "dynamic" testing to validate the design, manufacturing processes, materials and workmanship used in the production of the ambulance proposed in response to this specification.

To validate the materials, manufacturing processes, quality management system and workmanship utilized in the installation of seats, seat belts, secondary restraining devices, cabinet construction, oxygen cylinder retention and module to chassis attachment a Hygee sled test shall be performed. This test shall simulate a frontal impact to the ambulance module at a minimal impact force of 20 g. A test report from a third party testing agency independent of the ambulance manufacturer shall be submitted with the bid response proving compliance to this requirement.

To validate the materials, manufacturing processes, quality management system and workmanship utilized in the construction of the modular body the Bidder shall provide documentation that the ambulance manufacturer has conducted a side impact crash test. The Institute for Highway Safety (IIHS) Crash Test Protocol Version 5 shall be used as a guideline for this testing requirement.

The "target" vehicle (Ambulance) shall be struck by the "bullet" (SUV / Pickup Truck) vehicle at the fore and aft center of gravity of the target vehicle. To comply with the requirements of this specification the bullet vehicle shall be a SUV or pickup truck with a minimum gross vehicle weight (GVW) of at least 4,000 lbs. To provide this Agency accurate data in a "real world" environment the use of a Moving Deformable Barrier (MDB) and cart as the "bullet" vehicle is not permissible.

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

The “target” vehicle (Ambulance) shall contain instrumented Anthropomorphic Test Devices (crash test dummy) meeting the following requirements and seating locations.

1. Squad Bench Hybrid 3 ATD instrumented with head, chest, and pelvic accelerometers, upper neck load cell, chest potentiometer, and femur load cells.
2. Ambulance Cot - Hybrid 3 ATD instrumented with head, chest, and pelvic accelerometers, upper neck load cell, chest potentiometer, and femur load cells.
3. Street Side CPR Seat - Hybrid 3 ATD instrumented with head, chest, and pelvic accelerometers, upper neck load cell, chest potentiometer, lumbar load cell, and femur load cells.
4. Attendant Seat EuroSID 2 ATD instrumented with head accelerometers, upper neck, abdomen, and pubic load cells, and rib potentiometers.

For the purpose of determining **PASS FAIL** results the Injury Assessment Reference Values (IARVs) from FMVSS 208, FMVSS 214 and the Insurance Institute for Highway Safety (IIHS) shall be used. A test report from a third party testing agency independent of the ambulance manufacturer shall be submitted with the bid response proving compliance to this requirement.

The above requirements are in addition to the current minimum requirements for testing as outlined in KKK-A-1822.

Additionally, all welders employed by the primary manufacturer shall be certified to the American Welding Society Standard AWS D12, and certification documents must be provided if requested.

All body welds shall not only be inspected by the primary manufacturer but shall also be inspected by an outside engineering firm and said firm shall conduct another visual inspection and a dye penetration test designed to reveal any flaws or imperfections in the welds. Documentation on this process must be provided if requested.

### VEHICLE BODY STRUCTURE

All parts of the ambulance body, as specified in paragraph 3.10.6 of Federal Specification KKK - A - 1822F, shall, where applicable, be of welded construction. Where fasteners are used in such areas as hinge attachment, hardware attachment, etc., the fasteners shall be ceramic coated aluminum and stainless steel. Any hole drilled into the modular body painted surface shall be coated with an ECK corrosion inhibitor prior to installation of the part. NO EXCEPTION.

Tapping plates of 6061-T6 alloy aluminum varying in widths of one quarter to one half inch shall be welded to the framing to secure the installation of equipment such as; cabinets, benches, partitions, cylinders, cot fasteners, etc. The body and panel joints shall be watertight and all openings between the chassis and modular shall be sealed. In addition a drip rail shall be supplied over each exterior compartment. The drip rail attached in such a manner as to provide for quick and easy replacement. Drips rails attached by mechanical fasteners shall not be used.

### BODY MOUNTING

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

The mounting system shall not cause any chassis frame deformation. There shall be ten mounting points, five on each frame rail. The modular body shall have full perimeter welded sill rails of one half inch by two inch of 6061-T6 alloy aluminum and be attached to the vehicle utilizing one inch by three inch sill plates of 6061-T6 alloy aluminum. The modular body shall be welded to the sill plates at every exposed seam. At all outrigger mounting locations a double compression, neoprene rubber isolator mounts shall be used to minimize chassis vibration transfer to the modular body. The modular body and sill plates shall be attached to the frame rails using three quarter inch grade eight bolts. Any method contrary to QVM which may void the chassis warranty shall not be accepted.

### FLOOR

The floor shall be at lowest level permitted by clearances, but not more than thirty three inches from the ground. The floor structure shall consist of two by two by .125 structural box section with 6061-T6 alloy aluminum. The floor structure shall be welded with eight inches of weld at every joint. The openings created for the placement of exterior compartments shall have six inches of weld to insure a smooth surface to fit the compartment in the structure. Tapping plates of one quarter inch and one half inch of 6061-T6 aluminum shall be completely welded both sides to the floor assembly. The finished floor assembly shall be securely welded to the wall structures with eight inches of weld and skipped welded every four inches to the exterior compartments. All critical load points shall be reinforced with one quarter inch by three inch by four inch gusset plates. Above the floor channels there shall be an aluminum moisture shield .050 inches thick. The entire underside of the modular shall be sealed with a waterproof sealant. All hollow structural shapes or cavities shall be sealed utilizing an approved expandable foam.

The rear patient access shall be equipped with an exterior aluminum threshold mount to the lower door jamb. This threshold will protect the bottom door jamb, in addition the rear patient floor shall have a fourteen gauge stainless steel cot protector.

### EXTERIOR STORAGE ACCOMMODATIONS

The exterior compartments shall be constructed of .090 aluminum and shall be formed by a computer controlled brake and shear to decrease the amount of welding to fully enclose the compartment. The compartment therefore, shall be water tight. The compartment shall be welded in place to the side and floor structure with an additional bracket welded to a bracket connecting the exterior wall two with the floor structure. The floor of the exterior compartments shall be at least two inches below the lower door frame lip to help prevent equipment from falling out should a door not be closed. The compartment floor shall be supported from beneath with one by two by .125 6061 T-6 rectangular tubing welded to the underside and the floor structure. All exterior compartments shall be vented above the floor line with machine stamp louvers. The exterior compartment shall be lockable with one key fitting all doors. The compartments shall be equipped with handle and door locks. Each exterior compartment shall be provided with a sealed light to be illuminated upon the door opening. The light shall be activated by a magnetic switch. A door open indicator light shall be visible on the driver's console. The compartment configuration shall be as described.

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

### PATIENT COMPARTMENT SOUND LEVEL

Shall meet the requirements of paragraph 3.13.8 of Federal Specification KKK - A - 1822F.

### INTERIOR SURFACES

All vertical edges of cabinets shall be of an aluminum extrusion with a  $\frac{3}{4}$  inch radius designed to free the interior of the patient's compartment of all sharp edges or projections. The face and inside of the cabinets shall be covered by a commercial grade laminate, adhered to the cabinet face by a high quality poly vinyl adhesive using a thermal press application. The wood, adhesive and laminate shall be pressed together at 200 degrees for four minutes in a thermal platen press. There shall be no voids of the adhesive between the laminate and the cabinet surfaces.

### CABINET CONSTRUCTION

The interior cabinets, squad bench assembly, shelves and doors shall be constructed of Marine Grade Featherply plywood; due to the product's ability to be customized to fulfill the needs of this agency, the additional acoustical and thermal insulation properties, repair ability, and the safety factor of not producing sharp fragments or shards in the event of a serious collision. The thickness of the finished panels used to construct the cabinets, shelves and doors shall be  $\frac{3}{4}$  inches including mica and adhesive. Any construction materials that provides anything less than  $\frac{3}{4}$  inch panels in cabinet construction is not acceptable to this agency. .

The squad bench lid shall be attached to the squad bench assembly via a stainless steel piano hinge the entire length of the bench. The squad bench shall be equipped with a locking device to automatically secure the lid upon closing. The patient compartment wall panel (behind the squad bench) and the cab compartment wall panel shall be constructed of  $\frac{1}{4}$  inch plywood and covered with color coordinating high pressure laminate.

The cabinets shall be constructed using 8 mm dowels placed no farther than 32 mm apart. The dowels shall be a hardwood and pre-glued.

The doors on the upper cabinets shall be surface mounted with European hinges and 3mm edge banding. The doors on the center and lower cabinets shall be flush mounted using continuous stainless steel piano hinge and a 3 mm edge banding. All doors and cabinet openings shall be covered with a 3 mm edge banding with radius edges.

### INTERIOR STOWAGE ACCOMMODATIONS

The interior of the patient compartment shall provide but not be limited to a minimum volume of thirty cubic feet of enclosed cabinets. Interior cabinet, shelf and compartment space shall be conveniently located for medical supplies, devices or other equipment. All interior cabinets shall be fully lined inside with high-pressure plastic laminate. The equipment and supplies necessary for airway management shall be within easy reach of the medic at the head of the stretcher. Interior cabinet dimensions are as described.

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

### INTERIOR HEADROOM

The interior headroom shall be a minimum of 72 inches.

### RUBBER COATING

The interior of the compartments shall be sprayed with Scorpion X02 rubber coating in a gray color. Scorpion X02 is a three component acrylic-reinforced aliphatic, aromatic polyurethane protective coating system. The product has high tensile strength, excellent abrasion resistance, superior elongation, high non-skid rating, and excellent UV stability and weathering characteristics.

light gray

### RUBBER COATING

The rear bumper supports shall be sprayed with Scorpion X02 rubber coating in a black color. Scorpion X02 is a three component acrylic-reinforced aliphatic, aromatic polyurethane protective coating system. The product has high tensile strength, excellent abrasion resistance, superior elongation, high non-skid rating, and excellent UV stability and weathering characteristics.

### EXTERIOR COMPARTMENTS

The bottom of compartments B1, B2, D and E shall drop down 3 inches from the door opening for maximum storage space in the compartment. This will also help prevent items stored in the compartment from falling out if on uneven surface.

### EXTERIOR COMPARTMENTS

The bottom of compartments A and F shall be flush with the door opening to provide for a sweep out design. Sweep out on compartment F shall allow for ease of loading the oxygen bottle.

### **Duraseam Doors**

All door frames to be cut to size using a programmable double miter saw to ashore accuracy and repeatability of components. All latch, door pins, switch and tapped hinge holes are to be added to door frame and jamb by means of a programmable milling operation to maintain consistency of all hardware cutout positions.

The outer face of door shall be formed from one sheet of 5052-H32 aluminum. The door shall be flush with the body side. The outer skin shall be bonded to the door frame with structural adhesive that meets ASTM D 412 tensile strength, elongation, and elastic modulus. Adhesive to utilize micro spheres to maintain a constant bond thickness around the inside skin edge to seal entire skin to frame. The door frame shall meet exterior skin with a smooth seamless transition. There shall be no seams or crevices on the door or door frame which allows the possibility of corrosion.

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

Both patient compartment and exterior compartment doors shall be provided with extruded rubber seal system consisting of a hollow cell bulb gasket. The gasket shall insert into an appropriately designed groove in the inner door extrusion. This will provide the best seal possible. Glued on seals or seals that are mounted to the compartment openings are unacceptable as they will easily be torn by loading of equipment stored in the compartments.

All doors shall be attached using minimum ¼-20 stainless steel hex bolts with stainless steel piano hinge with a pin size of at least 0.250 inch in diameter. The hinge must be punched with 0.265 diameter holes for exact fit of door to jamb with ¼- 20 hex bolts. Maintaining the close tolerances allows a replacement door to be fabricated that will match the old door bolt pattern that can be mounted in exactly the same place with the close tolerances.

All compartment doors shall be constructed the same as the entry doors to ensure continued door alignment and matched latching capabilities. All access doors must be encased by a door jamb that is separate from the body skin and bonded in place with the same structural adhesive as described in paragraph two on page one. After jamb is bonded to skin both skin and jamb are to be routed with the same radii as the door skin. After bonding to skin, the jamb is also welded to the 2" X 2" tubular body frame members. The door jamb shall be a 0.125"/0.380 thick 6063-T6 aluminum extrusion

The interior surface of the patient compartment doors (rear and curb side) shall be finished in a safe and attractive manner that harmonizes with the interior finish. The door panels shall be designed to allow removal without disturbing the door latching hardware. The door panels shall be attached using automotive speed clips in conjunction with foam pads to enhance sound deadening. Door panels must be flush fitting not overlay. Doors using pliable materials such as upholstery are prohibited due to greater risk of contamination by blood borne pathogens through stitching or when cut or torn.

The three (3) patient compartment doors shall be fitted with stainless steel, flush fit, "paddle latch" hardware on the interior and an "automotive style" handles on the exterior. The patient compartment doors shall be provided with a keyed lock and the rear doors and side door shall be lockable from the inside without a key per FVMSS. All

patient compartment doors shall have emergency release handles to activate rotary latches in the event of door component failure.

All entry and compartment doors shall be insulated with 2-1/2" thick closed cell block foam insulation.

When the doors are opened, the hinges, latches and door checks shall not protrude into the access area. All patient compartment doors shall employ the same type locking hardware. All door latches shall comply with requirements of FVMSS 206

The locking devices shall be two-stage rotary latches and shall be FMVSS 206 certified .Where applicable there shall be two door latches, one at the top and one at the bottom, controlled by a single locking handle. The Latches shall into an adjustable "Nader "type pin located in the door frame. The Nader pin will utilize a captive nut to provide adjustment and replacement without loss of nut plate. The locking system shall be activated from the locking handle by metal push rods.

The outside door handles shall be a rugged "automotive style" that are near flush with door skin. These handles shall provide adequate clearance for the use of gloves. The hand/ glove clearance area of the handle shall be a minimum of .812" deep and 4.125 long. On the curb side and rear doors, the inside handle shall be a "paddle

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

style” type constructed from stainless steel and shall be equipped with an inside door lock. All exterior storage compartments and module entry doors shall be lockable with the same key.

The compartment and entry doors shall be painted separately from the body. The doors shall then be installed on the painted module jamb. A Corrosion inhibitor shall be applied to both the door frame and jamb side of the hinge leafs. Additional corrosion inhibitor to be applied in all screw holes in both door frame and jamb.

- Magnetic door switches, Standard

### COMPARTMENT A

Compartment A is the passenger side forward compartment. The door opening dimensions shall be a minimum of 46 inches high and 19.25 inches wide. This door shall access the right front cabinet.

### COMPARTMENT B1

Compartment B1 is on the passenger side just behind the rear wheel. The door opening dimensions shall be a minimum of 19.25 inches high and 15 inches wide. The interior dimensions shall be approximately 22.5 inches high and 16.5 inches wide and 18.75 inches deep.

### COMPARTMENT B2

Compartment B2 is the passenger side rear compartment. The door opening dimensions shall be a minimum of 81.75 inches high and 22 inches wide. The interior dimensions shall be approximately 85 inches high and 24.75 inches wide and 18.25 inches deep.

### COMPARTMENT D

Compartment D is the driver’s side rear compartment. The door opening dimensions shall be a minimum of 58.5 inches high and 32.25 inches wide. The interior dimensions shall be approximately 62 inches high and 36.5 inches wide and 18.25 inches deep.

With single door

### COMPARTMENT E

Compartment E is on the driver’s side just forward of the rear wheel. The door opening dimensions shall be a minimum of 36 inches high and 39 inches wide. The interior dimensions shall be approximately 38.75 inches high and 40.5 inches wide and 18.25 inches deep.

With double doors.

### COMPARTMENT F

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

Compartment F is the driver's side forward compartment. The door opening dimensions shall be a minimum of 80.5 inches high and 18.25 inches wide. The interior dimensions shall be approximately 81.5 inches high and 18.5 inches wide and 18.25 inches deep. Compartment F shall NOT have a dogleg for storage of a stair chair.

### FUEL FILL HOUSING

A cast aluminum fuel fill housing shall be installed according to the chassis manufacturer instructions.

### EXTERIOR VERTICAL DIVIDERS

One (1) vertical divider(s) shall be located in compartment B2. They shall be manufactured of 3/16 inch thick aluminum and be painted with scratch resistant gray rubber coating. The divider shall be approximately 11 inches wide and extend from the top of the compartment to the bottom.

(divider to be full depth if a shelf is requested)

### EXTERIOR COMPARTMENT SHELF

The exterior compartment shelves shall be manufactured from 0.125 inch aluminum. Each shelf shall have a 0.125 inch thick ribbed rubber mat. The shelf track shall be a heavy duty extruded aluminum. There shall be a shelf in the RF Compartment/Cabinet.

### EXTERIOR ELECTRICAL SHELF

A fixed exterior shelf shall be located in the left center compartment "E" near the top of the compartment. It shall serve the sole purpose of holding electrical equipment.

### STEP WELL AND WINDOWS

The curb side door step well shall have a light recessed into wall one of the step well. It shall be automatically lit when the side and rear doors are opened. The light shall be activated by a switch. The step well shall be finished with a polished aluminum diamond plate. There shall be a window in each of the three patient access doors. The window frame shall be of an extruded aluminum design with a protective anodized finish. The curbside entry door window shall include a sliding window to allow for fresh air when needed. The two rear door windows shall have fixed glass. The glass shall have a privacy tint.

The curbside window shall have the following dimensions: 26 1/2 inches high and 19 1/2 inches wide. The rear windows shall be 22 1/2 inches high and 13 1/2 inches wide.

### PATIENT ENTRY DOOR LATCHES, HINGES AND HARDWARE

When the doors are opened, the hinges, latches and door checks shall not protrude into the patient compartment. All patient doors shall employ the same type of locking hardware. All door latches shall comply with FMVSS

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

206. The locking devices shall be two stage rotary latches and shall be in accordance with FMVSS. There shall be two door latches, one at the top and one at the bottom, controlled by a single locking handles. The latches shall lock into an adjustable Nader type pin located in the door frame. The Nader will utilize a captive nut to provide adjustment and replacement without loss of the nut plate. The door latching mechanism shall have an upper and lower patented "Emergency Release Latch" to allow egress from the vehicle if a system failure should occur.

The door handles shall be Trimark OEM style handle with a large enough space for gloved hands to operate the handle. The door handles shall be free floating with 1008 cold rolled steel mechanical components with Nitrotec treated wear components. The locks shall be a KeyOne Plus lock cylinder with a reversible key. The KeyOne Plus system allows the lock core to be removed with a special key and allows it to be rekeyed for additional security and keying fleets the same. The rear trailing door shall have a patented side release paddle handle that removes the necessity of reaching inside the patient compartment door. The door entry system shall have been tested to 100,000 cycles.

The locking system shall be from the locking handle by aluminum push rods. The patient compartment doors will be equipped with an inside door lock. All entry doors shall have horizontal aluminum reinforcements welded to the door frame and the entry doors shall have closed cell block foam insulation.

### COMPARTMENT DOOR LATCHES, HINGES AND HARDWARE

When the doors are opened, the hinges, latches and door checks shall not protrude into the patient compartment. All compartment doors shall employ the same type of locking hardware. All door latches shall comply with FMVSS 206. The locking devices shall be two stage rotary latches and shall be in accordance with FMVSS. There shall be two door latches, one at the top and one at the bottom, controlled by a single locking handles. The latches shall lock into an adjustable Nader type pin located in the door frame. The Nader will utilize a captive nut to provide adjustment and replacement without loss of the nut plate.

The compartment door handles shall be Trimark OEM style handle with a large enough space for gloved hands to operate the handle. The door handles shall be free floating with 1008 cold rolled steel mechanical components with Nitrotec treated wear components. The locks shall be a KeyOne Plus lock cylinder with a reversible key. The KeyOne Plus system allows the lock core to be removed with a special key and allows it to be rekeyed for additional security and keying fleets the same. The compartment door entry system shall have been tested to 50,000 cycles. The door handle shall be mounted to the exterior door panel using mechanical fasteners and rubber gaskets that will eliminate the possibility of electrolysis. All doors shall have closed cell block foam insulation.

### REAR DOOR HOLD OPENS

The rear doors shall be held open by (2) 5.5 inch Cast Grabber. The U shaped piece shall be attached to the door. It shall enter into a rubber insert when the door is in the open position. A corrosion inhibitor shall be applied to the mounting holes prior to installation.

- Installed so doors will open as wide as possible

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

### COMPARTMENT DOOR HOLD OPEN

The right front compartment shall have a 30 pound gas strut in lieu of a spring loaded hold open. Panels, Entry,

### DOOR PANELS

The upper and lower portion of the curbside and rear access door panels shall be brushed stainless steel. The center shall be reflective chevron covered aluminum.

### REAR FENDERS

Rubber aluminum fender flares shall be provided around the rear wheel well openings to provide protection from wheel wash. A corrosion inhibitor shall be applied to the mounting holes prior to installation.

### BUMPERS AND STEP

The chassis manufacturer shall supply the vehicle's front bumper. The rear bumper and step assembly shall be a single unit constructed of ten gauge steel "C" formed channel and .100 inch thick aluminum tread plate as measured at the thinnest point of the tread plate. The center step of the bumper assembly shall be designed to allow it to flip up and out of the way to facilitate patient loading. The flip up section of the of the rear bumper shall be diamond plate to meet the requirements of KKK - A - 1822F specification. The diamond plate flip up step shall be punched with three rows of raised star-shaped holes to create additional non-skid surface. A 1.5" x 2" x 0.125" aluminum box tube shall be welded inside the step full width on the side farthest from the rear of the vehicle. A stainless steel hinge with a center pin of .250 inch shall be used to attach the flip up section of the rear step to the main rear bumper assembly. There shall be eye beam constructed skid plates with tow eyes mounted as part of the frame of the bumper. This assembly shall be bolted to the frame of the chassis with 5/8 inch Grade 8 bolts. There shall be a one half inch clearance between the bumper assembly and the rear of the modular body to allow water drainage and inhibit water collection. There shall be a two inch red LED marker light on the street side and curb side of the bumper assembly. These lights shall be a sealed unit and the connectors protected with an adhesive heat shrink. The lights shall illuminate with the vehicle head light control.

### RUNNING BOARDS

Diamond plate running boards shall be installed just under the cab doors for both the driver and passenger. The diamond plate step shall be punched with rows of raised star-shaped holes to create additional non-skid surface. The boards shall allow for easy entry into the cab.

### SKIRT RAILS

Extruded aluminum channel with extruded rubber insert shall be provided on street side and curbside of modular body. The rails shall be installed along the lower edge of the body. The rails shall be offset from the sides by a minimum of one quarter inch to allow water and road wash not to collect between the rail and

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

modular rail. Rubber spacers shall be used to install the rails to eliminate the possibility of electrolysis. A corrosion inhibitor shall be applied to the mounting holes prior to installation.

### SKIRT RAIL REFLECTIVE TAPE

Reflective tape shall be inserted into channel in extruded rubber skirtrail and secured with stainless steel screw at each end. Color shall be white.

### FRONT STONE GUARDS

The lower front corners of the patient compartment shall have stone guards attached to the corner extrusion. They shall be diamond plate aluminum and extend from the bottom edge of the corner extrusion up approximately 13 inches. A corrosion inhibitor shall be applied to the mounting holes prior to installation.

### REAR KICK PLATE

Above the rear bumper and below the rear doors, there shall be a full length riser of aluminum diamond plate for a protective kick panel. The kick panel shall be securely fastened with ceramic coated stainless steel screws to inhibit rust that could result from electrolysis and run the full rear width of the module. Pop rivets are not acceptable. There shall be a recess in the center of the kick plate for the installation of the tag holder.

### LICENSE PLATE HOLDER

A Cast Products license plate holder shall be installed in the rear kickplate.

### COMPARTMENT SILL PROTECTORS

All compartments shall have a stainless steel sill protector. The sill protectors shall be manufactured from 20 gauge stainless steel and cover the bottom door frame protecting it from scratches.

### REAR MUD FLAPS

Wheeled Coach Logo mud flaps shall be installed just behind the rear tires.

## **PREPARATION FOR PAINTING, COLOR AND MARKINGS**

10.1 Color, Paint and Finish. Ambulance body and all attached equipment exterior surfaces, except polished metal parts, shall be thoroughly cleaned, treated, and coated with a firm primer and preservative with rust inhibiting properties, and painted white to match the OEM chassis. Ferrous metal interior surfaces shall be painted or, when not exposed for painting, shall be treated or coated to resist corrosion.

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

The final stage manufacturer's painted components shall have a paint film not less than 1.25 mils. thick and a minimum total thickness of 4 mils., including primers. The final film of painted surfaces shall be smooth and uniform, free of grit, streaks, blushing, runs, sagging, blisters, "fish-eyes," "orange peel", pinholes, or other surface irregularities. Exterior finish paint shall not be required on the underbody and inside surface of the body skirting. The modular body shall be painted with an AkzoNobel (or equal) high quality automotive polyurethane acrylic paint.

10.1.1 All modular body doors shall be removed prior to paint and shall be painted separately from the modular body. After painting, the doors are to be re-installed. The doors shall be painted using the same method as the modular body.

10.2 Modular Body Preparation. The entire exterior of the modular body shall be cleaned and prepared for painting according to the following minimum requirements:

10.2.1 Substrate Preparation:

- The modular body shall be thoroughly degreased using an acetone degreaser and the wipe on – wipe off method.
- Any areas that require filling will be first be abraded with 80 grit sandpaper using a DA orbital sander. If any welds require grinding, 24 grit paper shall be used. Any plastic filler used shall be mixed and applied per Manufacturer's instructions. After filler application, the surface shall be prepared using 80 grit sandpaper followed by 120 grit paper using a DA orbital sander.
- A minimum of two (2) coats of Wash primer EMCF shall be applied to all plastic filler areas allowing to flash five (5) minutes between coats.
- The Wash primer shall be sanded with 320 grit sandpaper using a DM orbital sander.
- A fine textured glazing putty shall be used to fill any additional surface flaws, pinholes and/or scratch marks. After curing, the surface shall be sanded with 320 grit sandpaper using a DA orbital sander.
- The substrate shall be sanded with 180 grit sandpaper using a DA orbital sander to remove any final imperfections.
- The modular body shall again be thoroughly degreased using M-600 degreaser and the wipe on – wipe off method.
- All corner extrusions and the top drip rail to be caulked as necessary.

10.2.2 Aluminum Pretreatment. The modular body shall be pretreated with a chromium free conversion coating that is specifically formulated for treating aluminum and its alloys. Prior to the pretreatment application, all diamond plate is to either be removed or properly masked to prevent staining. After application, the modular body shall again be thoroughly degreased using M-600 degreaser and the wipe on – wipe off method.

10.2.3 Wash Primer. The modular body shall be primed with a medium build, chromate-free, self-etching wash primer that offers excellent corrosion resistance without the use of metal preps and conditioners. There shall be a minimum of two (2) medium wet coats applied allowing a five (5) minute flash between each coat. The final coat shall be allowed to flash for 30 minutes. The primer shall be sanded with 320 grit

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

sandpaper using a DA orbital sander or 400 grit dry sandpaper by hand. After sanding, the modular body shall again be thoroughly degreased using M-600 degreaser and the wipe on – wipe off method.

10.2.4 Sealer. To enhance the adhesion between the substrate and top coat of paint, a transparent sealer/adhesion promoter shall be applied to the modular body. A minimum of two (2) wet coats of sealer shall be applied. The initial coat shall be allowed to flash 10 minutes before the application of the second coat. Once the sealer has cured, the body is to be sanded smooth with 320 grit sandpaper using a DA orbital sander.

10.2.5 Top Coat. The top coat of paint shall be a high solid two-component polyurethane enamel, suitable for automotive refinishing, trucks and equipment. Paint shall provide an easy application with excellent flow along with superior gloss and durability in a two-coat application.

10.2.6 Final Sand and Buff The entire exterior surface of the module shall be sanded with a minimum 1200 to 1500 grit sand paper and then followed by 3000 grit wet sandpaper. The exterior of the module will then be polished using the 3M 3000 buffing system with 3M Perfect-It III buffing compound to provide a smooth, high gloss final surface finish. This process shall provide a smooth, high gloss finish that is resistant to scratching and chipping. If proper vehicle care is taken.

10.3 Color Standards and Tolerances. Shall be as required by paragraph 3.16.2.1 of Federal Specification KKK-A-1822F.

10.4 Salt Spray Resistance. Shall meet the requirements of paragraph 3.16.3 of Federal Specification KKK-A-1822F.

### ROOF TOP MARKINGS

A "Star of Life" of not less than 32 inches and conforming to KKK-1822F section 3.16.4.C shall be installed on the ambulance rooftop.

### ELECTRICAL SYSTEMS AND COMPONENTS

The emergency medical vehicle's electrical system must meet KKK - A1822 - F Section 3.7.1. This agency will specify systems, components, materials, and production methods within this section. However, a failure can occur whether the vehicle is under warranty or outside the warranty parameters. This agency operates the vehicle on a twenty four hours a day, seven day a week (24/7) basis. Therefore, the primary manufacturer will provide a local service facility during regular business hours and a 24/7 support service staffed by trained technicians to assist this agency.

The driver and patient compartment control consoles shall be constructed in a way that the switches and any gauges are easily serviced. They shall be accessible through service panels. These panels will be secured in the closed position in a positive manner, yet can be easily opened for service.

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

5V-10-0050

The control console gauges shall be internally illuminated and controlled by the headlight switch rheostat. All lights and fixtures installed on the module exterior shall have a corrosion inhibitor applied to all mounting holes prior to installation.

5V-10-0055

The driver and patient console shall incorporate full size "Euro-Style" rocker switches. The switch assembly shall be 1.97 inches tall by 1.064 inches wide with silver plated copper contacts and a .250 inch spade type terminal. The rocker switch shall incorporate a LED indicator lamp and rated at 15 Amps continuous service. The switch and rocker shall be of a thermo set molding material. The complete switch assembly shall be designed to withstand one thousand (1,000) volts RMS dielectric test. The switches shall have a positive "throw" feel and an audible click upon activation and deactivation

5V-10-0060

The rocker switches, as described in section 4.1.3, shall have integrated label lens area that is illuminated by two independent LED's. The LED brightness shall be controlled by the headlight rheostat. The label shall be white legends on black poly carbonate background.

5V-10-0065

The OEM throttle monitor shall be mounted in the primary manufacturer's console. It shall be mounted to be easily accessible to the driver.

5V-10-0070

### WARNING INDICATORS

The electrical system shall incorporate a warning light panel in the driver's console. It shall provide indicator lights for showing when a patient compartment door(s), side and rear, are open. This shall be a flashing red LED light. There shall be an exterior compartment "door open" warning light. This shall be a flashing red LED light of the same size.

5V-10-0075

A battery indicator light shall be provided. It will be a green light located in the warning light panel. It shall illuminate when the battery switch is in the "ON" position. The light shall be steady burn to indicate the batteries have been selected.

5V-10-0080

10178-0002

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

### WIRING INSTALLATION

The ambulance body and accessory electrical equipment shall be served by circuit(s) separate and distinct from the vehicle chassis circuits. Wiring methods must conform to SAE J1292. All wiring provided by the primary manufacturer shall be copper and conform to all the SAE J1127 and SAE J1128 requirements. All low tension primary cable shall have GXL or better insulation. All low tension battery cable shall have SGX insulation. Documentation from the wiring manufacturer that the wire used by the primary manufacturer is in compliance with this requirement shall be submitted with the proposal. Bids not meeting this requirement will not be accepted.

#### 5V-10-0085

The wiring shall be permanently color coded to identify wire function. Wires shall be permanently heat ink embossed with both number and function codes. The function code shall be the descriptive name of the circuit served. The number code shall be the exact purpose of that circuit. This number code shall be completely referenced in a detailed wiring schematic provided with the vehicle. The function and number code shall be embossed at a minimum of four inch intervals the entire length of the wire terminating into all switch and control panels. The use of multi-conductor cable must be function and color coded and shown on the wiring diagram.

#### 5V-10-0090

Wiring shall be routed in conduit or high temperature looms with a rating of 300 degrees Fahrenheit where necessary to protect it. All added wiring shall be located in accessible, enclosed, and protected locations and kept at least six inches from the exhaust system components. Electrical wiring and components shall not terminate or be routed in the oxygen storage compartment except for the oxygen controlled solenoid, compartment light, and switch. All conduits, looms, and wiring shall be secured to the body or frame with insulated metal cable straps in order to prevent sagging and movement which results in chafing, pinching, snagging or any other damage. All apertures on the vehicle shall be properly grommeted and sealed for passing wiring and conform to SAE 1292. All items used for protecting or securing the wiring shall be appropriate for the specific application and be standard automotive, aircraft marine, or electronic hardware.

#### 5V-10-0095

Circuit connections shall be made on barrier style terminal blocks utilizing binding post screws for positive mechanical connections. minimize the potential for wiring shorts and voltage drops all wiring terminals shall be brass, tin plated, annealed, ETP copper with nylon high heat insulation. Serration's, inside the barrel, provide maximum contact and tensile strength after crimping. Connection shall be machine crimped, UL standards, with a high quality crimping tool that produces crimps for a given size wire and terminal that are precisely alike in appearance and performance. Crimping pressure must be controlled by a ratchet device on the hand tool or a corresponding pre-calibration in the crimping jaws of an automated machine. Crimping pressure can neither over-stress nor under stress the terminal-barrel-machined dies.

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

5V-10-0100

No splices shall be permitted except for connection of "pig-tail" devices. Butt splices are permitted for connection of "pig-tail" devices. The use of IDC (Insulation Displacement Conductor) connectors, ie: "3M Scotchlok" type fasteners, is not acceptable.

5V-10-0105

The various wiring installations as supplied with this vehicle shall be of the automotive "harness" design. For ease of identification and future replacement these harnesses shall be engineered and manufactured in the following sections.

1. Engine compartment harness.
2. Driver's control console harness.
3. Main module harness.
4. Chassis rear lighting harness.

This agency is extremely concerned the primary manufacturer has the ability to control, warranty and replace the harnesses. To that end, the primary manufacturer shall not subcontract the construction of these harnesses.

5V-10-0110

### WIRING CRITERIA AND CIRCUIT BOARD

All wiring devices, switches, outlets, etc., except circuit breakers, shall be rated carry a minimum of one hundred and twenty-five percent (125%) of the maximum ampere load for which the circuit is protected. All wires carrying a load of more than 5 amperes shall be a minimum of 16 AWG. There shall be a master electrical component panel located in the vehicle. It is preferred that the master panel be mounted on or near the bulkhead of the patient compartment. Standard circuit breakers, relays, and diodes shall be mounted on a printed circuit board that is easily accessible. All components on the circuit board are to be permanently labeled as to their function.

5V-10-0115

The printed circuit board shall be designed and manufactured as follows: A screen printed board with all circuits fully numbered and labeled. The circuit board shall be a double-sided copper trace printed circuit with a double-sided laminated isolator. The board shall be non photo imageable solder mask over bare copper with hot air leveled solder over non masked copper. Fuse capacity is the beginning factor in calculating trace width to ensure proper current carrying capability. The circuits shall then be oversized as much as space permits for maximum cooling of the board. All holes shall be plated through. The terminal strips shall be mounted on the board for connection of the above mentioned wiring harness. Automotive transient suppressers must be incorporated into circuit board at the point of cable entry to the board. All relays must include built in noise

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

suppression. The suppression must be accomplished with a IN4001 parallel with the coil. The relay must have a 40 ampere continuous contact rating with one form C contact arrangement. Normally open contact must have a maximum initial voltage drop of 200 milli-volts at 40 ampere contact load. The relays must withstand 24 VDC for five minutes conducting rated contact current in case of accidental 24 volt jump start condition. Circuit board options must be programmable via jumpers to facilitate addition of options. The color of wire and circuit number must be screened printed at the terminal block connections on the board for rapid identification and relational schematics.

5V-10-0120

The printed circuit board shall incorporate red LED indicators for on board diagnostics for input, output, and switching circuits for troubleshooting at a glance.

5V-10-0125

### CIRCUIT BOARD CERTIFICATION

The printed circuit board must meet the following specifications:

1. Packaging and Interconnecting Acceptability Standard number IPC 600
2. UL-796
3. Solder mask, IPC number SM-840
4. Solder in conformance with MIL SPEC QS-571
5. Laminate in conformance with IPC number 4101

Certification must be included with this bid.

5V-10-0130

A service loop of wire or harness, per KKK-A1822-F specification, shall be provided at all electrical components, terminals, and connection points. All relays shall be mounted for ease of serviceability. All high current diodes greater than 5 amperes shall be heat sink mounted. provide the optimum circuit "overload" protection, the electrical system's main circuit board shall allow for the use of stud type automatic reset pole breakers. One spare 15 ampere circuit breaker shall be provided for future use. A solid state electronic flasher shall be heat sink mounted to the panel for control of the flashing warning light system. All wiring between the cab and module shall be connected to a terminal strip(s) or block(s) or use multi pin connectors on the electrical component panel and shall provide for future module replacement. All connectors and terminals provided shall comply with SAE J163, J561, or J928 as applicable.

5V-10-0135

### MASTER MODULE DISCONNECT SWITCH OR DEVICE

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

This device shall be located on the driver's compartment console and shall be permanently labeled and back lighted with a LED light and the brightness controlled by the head light rheostat. The "MASTER" disconnect switch shall be considerably different in size and feel from the other console switches.

5V-10-0140

### PATIENT COMPARTMENT CONTROLS

All switches and controls for the patient compartment shall be located on a service panel in the Action Area angled slightly toward the rear of the vehicle. The switches and controls shall be identical as referenced in section 4.1.3 of this document. These switches shall not function until the "MASTER" switch in the driver's console is in the "ON" position. The patient compartment switches shall be permanently marked and back lighted by a LED light.

5V-10-0145

### ELECTROMAGNETIC RADIATION AND SUPPRESSION

Must meet KKK - A1822 - F specification. Documentation from an independent testing laboratory must be included with the bid.

### ANTENNA CABLE INSTALLATION

Shall meet the requirements of paragraph 3.14.3 of Federal Specification KKK - A - 1822E.

### INTERNAL 12 VOLT DC POWER

The patient compartment shall be furnished with a 12 volt DC, 20 ampere capacity, separately protected circuit, with two outlets. The outlets shall be Cigar Lighters and shall be located in the Action Area.

### PORT 5 VOLT DC POWER USB STYLE

The Drivers compartment shall be furnished with a 5 volt DC, 2.1 ampere capacity, separately protected circuit, with a Dual USB outlet. It shall be located in the center console to the passenger side.

Located on the passenger side of the center console, per Electrical Engineering

### POWER SOURCE

A 12VDC power source shall power customer supplied portable battery charging devices. It shall be 20 amp and ignition/shoreline switch hot. The power source shall be split into two locations tagged and identified (1) behind driver's seat and (1) behind action area in module.

20amp 12 volt DC circuit ran to two locations, (1) pre-wire coil and tagged in action area and (1) pre-wire coil and tagged

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

behind driver's seat.

### POWER SOURCE

A 12VDC power source shall power radio's. It shall be 30 amp and constant hot.

### SHORELINE INLET

A 20 amp Super Auto Eject shoreline inlet with a GFI and interrupter shall be installed and located above compartment E.

### 115 VOLT AC UTILITY POWER

115 volt AC utility power must meet KKK - A-1822 - E. Utility power shall be as described in KKK - A1822 - E paragraph 3.7.8.1. Electrical 115 volt AC receptacles shall be as described in KKK - A1822 - E paragraph 3.7.8.2.

### 110 VAC OUTLETS

Two 110VAC duplex outlets shall be installed in the patient compartment. One outlet shall be located in the action area, and one outlet shall be located in the right front cabinet.

### BATTERY CHARGER

A Progressive Dynamics, PD9130 Auto battery charger shall be installed. It shall be a 12 amp charger/conditioner.

Charger/Conditioner mounted in Comp "E"

### VOLTMETER

The vehicle shall include a Datcon analog voltmeter. It shall be located in the front center console next to the ammeter.

### LOW VOLTAGE ALARM

The electrical system shall be monitored by a system that provides both an audible and visual warning in case of low voltage in the ambulance. The alarm shall sound if the system voltage at the batteries drops below 11.8 Volts for a 12 Volt nominal system for more than 120 seconds.

Light in cab console and Buzzer in cab.

Siren Speakers, Cast SAD/P3806-11FSD-1 Thru Front Bumper

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

### SIREN, PUBLIC ADDRESS SYSTEM

The ambulance shall be equipped with hands free electronic siren with silent testing. The siren shall be a Whelen WS-295-SLSA1.

### SIREN/HORN SWITCHING

The siren shall be switched through the horn ring.

### BACKUP ALARM

A backup alarm with a cut-off switch shall activate when the vehicle is shifted into reverse. The alarm shall automatically be reset and engage when the vehicle is placed in reverse again. The device must meet OSHA and SAE J994 requirements, and shall be rated (SAE) for Type C or B.

### VEHICLE EXTERIOR LIGHTING REQUIREMENTS

The basic exterior ambulance lighting shall comply to FMVSS standard number 108 and the requirement herein and include:

1. Amber front, rear directional signals, red brake and hazard warning lights.
2. Front and rear side marker lights.
3. Back up light(s).
4. Loading lights.
5. Clearance lights
6. Ambulance emergency lights.
7. Flood lights.
8. Spotlight(s)

Note: This agency is concerned for the safety of the patients, crew, and the public sharing the roadways. Therefore, this agency requires the primary manufacturer to incorporate recessed DOT marker lights at the highest point of the vehicle. The marker lights shall be visible 360 degrees. In addition each corner marker light shall be visible 180 degrees, also at each corner the marker light lens cover shall be tilted upward on a 45 degree angle to be visible above the horizontal plane for 360 degrees. These measures will insure the vehicle will be visible in low light conditions with the headlights in the "on" position. The rear side marker light shall be a minimum of two inches in diameter and shall function as a turn signal indicator as described in KKK - A1822 - E.

F3-10-1000

### EMERGENCY LIGHTING SYSTEM

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

The emergency lighting system must provide the vehicle with 360 degrees of visual warn-ing ability The system must display highly perceptible and attention getting signals that function in a modal system and convey the message in the primary mode to clear the right of way. In the secondary mode hazard vehicle stopped on right of way.

F3-10-2000

The basic warning light system shall contain twelve red, one clear and one amber light These lights shall function in a dual mode system as shown in KKK - A - 1822E and meet the physical and photo metric requirements of paragraph 3.8.2.1 of that same document. The upper body warning lights shall be identical and mounted at the extreme upper corner areas of the ambulance body below the horizontal roof line, with the single clear light mounted between the two front facing red upper corner lights and the amber light centered above the rear doors. The two red grill lights shall be mounted per KKK - A - 1822E specifications without compromising the chassis manufacturer's air intake into the engine compartment.

F3-10-3000

### PHOTO METRIC AND PHYSICAL REQUIREMENTS

As specified by KKK - A - 1822E. All emergency light switches shall be labeled as specifi-ed in paragraph 3.7.11 of KKK - A - 1822E, and the primary/secondary mode switch(s) shall have an indicator light to show the driver which mode is activated. All warning light control switches, as described in section 4.3.1 of this document, shall be located in the driver control console and arranged to provide the warning signal modes and combinations as specified in Table 1 of KKK - A - 1822E, page 19. An independent test-ing laboratory will certify that the system meets these requirements. Test documents to be included with this proposal.

### LIGHT BAR

A Whelen 45 Series Advantedge light bar shall be installed on the front of the patient compartment module. The lenses shall be Red-Clear-Red-Clear-Red-Clear-Red. The bulbs shall be Halogen-Rotator-Rotator-Halogen-Rotator-Rotator-Halogen. The light bar shall be 86 inches long. The ICC light shall be located on the top of the light bar.

### WARNING LIGHTS

The following Warning Light package shall be installed on the patient compartment module. The lights shall be Red Whelen Halogen 90F000RB warning lights.

- (2) each side, upper corners
- (2) on rear, upper corners

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

A Whelen 90F000AB Amber Halogen light shall be installed in the rear upper center of the patient compartment module.

Two Whelen 50R02ZRR Red Super LED light shall be installed as grille lights. The lens shall be Red and the LED lights shall be Red.

Two Whelen, LINZ6R RED, Super LED Red light shall be installed on the front fender as intersection lights.

### CLEARANCE LIGHTS

The primary manufacturer shall incorporate DOT marker lights at the highest point of the vehicle. The marker lights shall be visible 360 degrees. In addition, each corner marker light shall be recessed and visible 180 degrees. Also at each corner, the marker light lens cover shall be tilted upward on a 45 degree angle to be visible above the horizontal plane for 360 degrees. These measures will insure the vehicle will be visible in low light conditions with the headlights in the "on" position. Bolt on upper clearance lights or clearance lights within the support corner extrusions will not be acceptable. Amber lenses shall be installed on the front corners and Red lenses shall be installed on the rear corners. The light shall be LED and flash at high intensity when activated through a separate switch located on the cab console.

### MARKER LIGHTS

Two red LED marker lights shall be installed in the rear bumper. One shall be installed on the driver's side and one installed on the passenger side of the rear bumper pontoons.

### EXTERIOR FLOOD LIGHTS

Four Whelen 90E000ZB Clear lights shall be installed. Flood and loading lights shall not be less than seventy-five inches above the ground and shall not be obstructed by open doors. Two floodlights shall be located on each sides of the vehicle and be firmly fastened to the body surfaces below the roof line. The side flood lights shall be controlled from the cab console and be independently switched.

### EXTERIOR LOADING LIGHTS

Two Whelen, 90E000ZB, halogen loading lights shall be provided above the rear doors and shall illuminate the area surrounding the back loading and unloading doors. Rear loading lights shall activate automatically when the rear doors are open regardless of the switch position in the cab console. The rear load lights shall be incorporated with the FMVSS backup lighting system.

### FLASHER

A Vanner 9860GCPE flasher shall be installed and provide a flash pattern to meet KKK-1822 E specification.

Flash Pattern will be Dual Burst unless otherwise noted.

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

Rated at 140 total amps with one flasher for Halogen, LED and Selectable lamps.

(Available flash Patterns are Single Burst, Dual Burst, Triple Burst, and Quad Burst.)

### LICENSE TAG LIGHT

There shall be two license tag lights installed on either side of the rear license plate.

### TAILLIGHT PACKAGE

There shall be a Whelen taillight package installed on the rear of the vehicle. The stop/tail lights shall be LED with a minimum of 32 square inches of lighted surface area. The turn signals shall be a 5" LED arrow shaped design. The backup lights shall be Halogen. All three lights per side shall be in a common housing. A waterproof connection to the OEM tail light harness is required.

- Brake- Alert Flash before the steady Burn
- Turn Arrow – sequential arrow

### MODULE HEADLINER

The module headliner shall be manufactured out of expanded PVC material. The liner shall be white and installed to allow flush mounting of the interior lighting.

### VEHICLE INTERIOR LIGHTING

The basic interior compartment shall be provided with seven overhead dual intensity halogen lights. The lights shall be Weldon 8046. There shall be four lights located over the primary patient stretcher and three over the squad bench. These lights shall be mounted into the patient compartment head liner and shall not protrude into the patient compartment. The overhead shall have two levels of intensity, a high and low settings. The attendant shall be able to control the level of light via switches in the action area control panel. The dual lighting shall work together or may be separately selected from side to side. The four lights over the primary patient shall illuminate on the low setting when the side modular or rear modular doors are open. Certification shall be provided by an independent testing laboratory with this proposal.

### STEP WELL LIGHT

A step well light shall be provided in the step well area of the modular curb side door and shall be activated upon opening the curb side or rear modular doors.

### ACTION AREA LIGHT

A twelve volt direct current incandescent light with integral switch shall be provided in the attendant action area. The light shall be a Xantech 105-500.

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

### HANDHELD SPOTLIGHT

A hand held spotlight shall be provided with a minimum of four hundred thousand candle power lamp. The spotlight shall be a Blue Eye. It shall be in a corrosion proof housing with a protected momentary switch to prevent accidental activation. A minimum eight feet of heavy duty coiled cord will be supplied and it shall be hard wired in the cab area and accessible to the driver and passenger.

### TIMER

A 15 minute Timer shall be installed CS wall. The timer shall be wired constant hot and shall power street side domes.

### ELECTRICAL TROUBLESHOOTING LIGHT

A small light with a switch shall be installed in the circuit board area for troubleshooting. The light shall be wired battery hot.

### SUCTION PUMP

A suction pump shall be installed that shall comply with Federal Specifications KKK-1822E.

### ACOUSTIC AND CLIMATE INSULATION

The primary manufacturer shall supply an insulating material that is non flammable with a Class A, Class 1 fire rating. It shall be certified to meet the smoke and flammability requirements of FMVSS 302. The exposed walls of the exterior compartments and wheel wells that intrude into the interior of the modular shall be covered with reflective insulating material with a value of R-14. The side, front, rear, walls as well as the ceiling shall be insulated with three inch thick temperature rated un-faced fiberglass with a value of R-11. Fiberglass has been proven to provide excellent sound and thermal barrier over other materials. Fiberglass insulation is safe and widely used in the automotive and construction industry.

### OVERHEAD GRABRAIL

An overhead grabrail shall be installed in the patient compartment head liner. The grabrail shall be yellow powder coated stainless steel and handicapped style with rounded ends. The grabrail shall be a minimum of 117 inches long and shall be mounted in a recess in the liner.

### ENTRY DOOR GRAB HANDLES

On each entry door there shall be an L shaped grab handle. The vertical portion of the L shall be close to the hinge of the door and run the full length of the upper window in the door. The horizontal portion of the L shall be located just under the upper window. The grab handles shall be 1 inch diameter brushed stainless steel and handicapped style.

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

### OXYGEN CYLINDER RACK

A Ziamatic oxygen cylinder rack shall be located in compartment XXXXX. The rack shall be QRM-2 for an "M" cylinder.

### OXYGEN, MAIN SUPPLY AND INSTALLATION

The ambulance shall have a hospital type piped oxygen system capable of storing and supplying three thousand liters of medical oxygen. The cylinder controls shall be accessible from inside the patient compartment. The pressure gauge shall be visible from either the attendant's seat or from the squad bench. The oxygen shall be piped to two self sealing Ohio adaptable oxygen outlets located in the action area and one located on the curbside wall at the head of the squad bench. The oxygen system will incorporate electrically conducted oxygen hose with a working pressure of one hundred and fifty pounds per square inch. All oxygen hose and outlets will use machine crimped brass ferrules and high pressure connectors. The entire oxygen delivery system will be pressured tested with a minimum of one hundred and fifty pounds per square inch of pressure of nitrogen gas for a period of four hours. The testing documentation will be delivered with the vehicle.

A vacuum port shall also be located in the action area to supply the vacuum to the suction container.

One (1) REGULATOR,LGE CYL,PRESET 50PSI

### SUCTION ASPIRATOR

The ambulance shall be equipped with an on board vacuum aspirator. The unit shall be mounted on the action area wall above the action area tray to collect any bio fluids that may be spilled. The unit shall be an SSCOR 22000 with a stainless steel container holder. The container shall be disposable and the regulator panel shall be located in the action area panel. The vacuum pump shall be installed via a twelve volt direct current system. The on/off switch shall be located in the attendant's console.

### SEAT, LITTER, RESTRAINT ANCHORAGE

Patient restraints shall be as specified in paragraph 3.11.8 of Federal Specification KKK - A - 1822E. Cot fasteners and safety bets shall be mounted in tapping plates. The cot fastener shall be a Ferno Washington 175-4.

### IV HOLDERS FOR INTRAVENOUS FLUID CONTAINERS

Shall be as specified in paragraph 3.11.9 of Federal Specification KKK - A - 1822E.

### RU-05-0000-2 INTERIOR STOWAGE ACCOMMODATIONS

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

The interior of the patient compartment shall provide but not be limited to a minimum volume of thirty cubic feet of enclosed cabinets. Interior cabinet, shelf and compartment space shall be conveniently located for medical supplies, devices or other equipment. All interior cabinets shall be fully lined inside with high-pressure plastic laminate. The equipment and supplies necessary for airway management shall be within easy reach of the medic at the head of the stretcher. Interior cabinet dimensions are as described.

### INTERIOR SURFACES

The cabinets shall be a light gray gloss color.

### FLOOR

A top floor of seven ply three quarter inch marine grade plywood, sanded both sides with no voids, shall be installed over the moisture barrier. The plywood shall be marine resin coated prior to installation to prevent warping due to ambient moisture absorption. The plywood floor shall be one piece from the bulkhead to the rear doors between the patient door steeple and squad bench and extend under the street side cabinets. The plywood floor shall be securely anchored to the floor sub structure with one quarter inch UNF machine by two and one half inch screws.

### FLOOR COVERINGS

The patient compartment floor covering shall be a heavy duty material that is impervious to fluids. The flooring shall be glued to the plywood floor using an adhesive compound. The flooring shall be Lonplate II and the color Gunpowder Gray #424. There shall be no adhesive voids between the flooring and the plywood. The floor shall be designed to roll up the side of the street side and bulk head cabinets and squad bench.

### ATTENDANT SEATING

Seating for the attendant shall consist of a contoured high back padded bucket seat. The seat covering shall be an easy clean vinyl material and be impervious to blood borne pathogens and other contaminants. Therefore, cloth seats or seats with welting seams or visible stitching will not be accepted. The vinyl shall be Gunmetal. Seating must meet OSHA regulation 1910.1030. The seat belt must be certified to KKK - A1822 - E specification and to FMVSS and shall be an integrated three-point harness. An integrated child safety seat shall be incorporated in the seat. Installation shall comply with FMVSS. The seat shall be mounted on a metal box base.

### UPHOLSTERY

The finish of the entire patient's compartment, including storage cabinets and equipment, shall be impervious to soap and water, disinfectants, bio fluids, mildew and shall be fire resistant per FMVSS 302. Upholstered cushions shall be a minimum of thirty two ounce nylon reinforced commercial vinyl material. Squad bench cushions and attendant seat and backrest cushions shall be fabricated in such a manner to eliminate exposed

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

welting. Cushions with welting or beaded seams shall not be accepted due to the risk of bio fluid penetration. The color of the upholstery shall be gunmetal gray.

### INTERIOR OXYGEN VIEWING DOOR

A Lexan door shall be installed on the oxygen viewing opening.

### RIGHT FRONT CABINET

The right front cabinet shall house the Heating and Air Conditioning unit. The intake vent shall be located in the lower left corner of the cabinet. The air shall blow out of a vent located in the upper portion of the cabinet. Cabinet E1 shall be the upper portion of the cabinet with dimensions 23.25 inches high and 33.25 inches wide and 22.25 inches deep. The lower E2 cabinet shall be located next to the intake vent and shall be 26.75 inches high and 20.5 inches wide and 22.5 inches deep. Both E1 and E2 shall allow access from exterior compartment A.

### RIGHT FRONT CABINET DOORS

The right front cabinet shall have two wood doors. The door for the upper cabinet E-1 shall be a dual wood door, and the door for the lower cabinet E-2 shall be hinged on the left. The doors shall be manufactured from 3/4 inch marine grade plywood and be covered in color coordinated high pressure laminate. The doors shall be mounted flush with the cabinet opening.

### CABINET HANDLE

A "C" pull handle shall be installed on each door on the right front cabinet.

### CABINET LATCH

A plunger roller latch shall be installed on the right front cabinet doors to keep them secure during transit.

### CABINET LATCH

A lever latch shall be installed One (1) RF Cabinet Door E-1 Leading Door  
One (1) RF Cabinet Door E-2 Door

### SQUAD BENCH CABINET

The squad bench cabinet shall be located on the curb side of the patient compartment over the rear wheel well. The squad bench shall be a minimum of 72 inches long and be constructed of three quarter inch birch. The lid shall be attached to the squad bench assembly via a stainless steel piano hinge the entire length of the bench. The hinge shall attach with fasteners in a vertical position through the face of the lid and not through the edge of the cabinet and lid. The squad bench shall be equipped with a locking device to automatically secure the lid

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

upon closing. The squad bench shall be furnished with three sets of lap safety belts for seated occupants and for the retention of a cot when positioned on the squad bench. The anchorages for the side facing seat belt assembly shall withstand a minimum of 2,500 pounds force when tested in accordance with FMVSS 210-S5.1. A full length cushion shall be installed on the squad bench lid and on the wall as a back rest. The interior of the squad bench shall provide storage. At the head of the squad bench shall be a built in trash disposal area. A trash can shall be accessible under a red flip up lid, and a sharps container's circular opening shall be accessible through a round cutout in the squad bench lid. Both the trash can and the sharps container may be removed from the squad bench by lifting up a sectioned portion of the squad bench lid.

### SQUAD BENCH LID

The squad bench shall have a full length lid that shall be manufactured from three quarter inch birch. The lid shall be covered in color coordinating high pressure laminate.

### SQUAD BENCH LATCH

The squad bench lid shall be secured with a paddle handle that latches automatically when the squad bench lid is closed. The latch shall hold the lid secure during transit and shall not open unless the handle is lifted.

### SQUAD BENCH HOLD OPEN

When the squad bench lid is lifted, it shall be held in place by a 60 pound pneumatic hold open.

### CURBSIDE SPLINT CABINET (NONE)

There shall NOT be a cabinet shall be located above the squad bench near the headliner.

### STREETSIDE REAR MIDDLE CABINET

Cabinet "H" shall be located on the street side of the patient compartment. It shall be the rear most middle cabinet and shall be 20.75 inches high and 31.75 inches wide. The opening shall provide access to compartment "D".

### STREETSIDE MIDDLE LOWER CABINET

Cabinet "O" shall be located on the street side of the patient compartment. It shall be the middle lower cabinet just below cabinet "M" and shall be 15.0 inches high, 22.0 inches wide, and 19.5 inches deep.

### CPR SIDE SEAT

A CPR side seat shall be located just above the rear street side wheel well. Seamless upholstered cushions shall be located on the bottom and rear wall of the seat area. Cushions shall also be located above the head area for safety.

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

### CPR SEAT STORAGE

A small storage area shall be located under the CPR seat and just above the wheel well. The storage shall be accessed by lifting a lid which holds the bottom seat cushion.

### STREETSIDE REAR UPPER CABINET

Cabinet "J" shall be located on the street side of the patient compartment. It shall be the rear upper cabinet and shall be 13.5 inches high, 20.25 inches wide, and 19.5 inches deep.

### STREETSIDE REAR UPPER CABINET

Cabinet "K" shall be located on the street side of the patient compartment. It shall be the rear upper cabinet just above cabinet "M" and shall be 13 inches high, 23.5 inches wide, and 19.5 inches deep.

### STREETSIDE FORWARD UPPER CABINET

Cabinet "L" shall be located on the street side of the patient compartment. It shall be the forward upper cabinet just above the action area. The cabinet shall be divided into two separate cabinets "L1 and "L2". Cabinets "L1" and "L2" shall be equal in size 14 inches high, 25 3/4 inches wide and 17 3/4 inches deep.

### STORAGE COMPARTMENTS AND CABINET DESIGN

All storage cabinets shall be easily opened but shall not come open during transit. The cabinets shall be accessible through a variety of door options.

When specified to be Lexan, the doors shall be reciprocating horizontal sliding Lexan doors. The door shall be transparent to permit viewing of supplies and the door shall open with a grab anywhere device. The handle shall run the full vertical length of the Lexan. The Lexan shall be three sixteenths of an inch in thickness and shall be enclosed in an extruded aluminum frame. The frame shall cover the entire perimeter of the cabinet opening and the Lexan set within the frame on a track lined with a material to prevent the Lexan from sliding open and shut during transport.

### CABINET "H" DOOR

The door to cabinet "H" shall be a Lexan slider. The Lexan shall be gray.

### CABINET "O" DOOR

The door to cabinet "O" shall be a Lexan slider. The Lexan shall be gray.

### ACTION AREA CABINET

# Wheeled Coach Industries

## Specification 1, Ford, F450, 170 x 95 x 72

The action area shall provide for easy access to switches located in the action from the attendant seat, squad bench and CPR seat, if applicable. The switches shall be located in an angled cabinet on the back wall of the action area.

### TELEMETRY TRAY

The top of the telemetry cabinet shall provide a clean work area. The countertop shall be one piece with a one inch lip around the tray. The tray shall be manufactured from molded polyester resin to provide a seamless countertop. The tray shall be topped with a durable top coat of gray gel coat. NO EXCEPTION.

### ACTION AREA TRAY

The top of the action area cabinet shall provide a clean work area. The countertop shall be one piece with a one inch lip around the tray. The tray shall be manufactured from molded polyester resin to provide a seamless countertop. NO EXCEPTION. This tray is mandatory to facilitate cleaning and contain any fluids or bio.

### CABINET "J" DOOR

The door to cabinet "J" shall be a Lexan slider. The Lexan shall be gray.

### CABINET "K" DOOR

The door to cabinet "K" shall be a Lexan slider. The Lexan shall be gray.

### CABINET "L1" DOOR

The door to cabinet "L1" shall be a solid wood door hinged on the right.

### CABINET "L2" DOOR

The door to cabinet "L2" shall be a Lexan slider. The Lexan shall be gray.

### STANDARD MANDATORY MISCELLANEOUS EQUIPMENT

Unless otherwise precluded elsewhere in this specification the vehicle shall be equipped with the following:

- \*One five pound fire extinguisher that is ABC dry chemical multipurpose with a quick release bracket.
- \*No smoking oxygen equipment signs conspicuously place in the cab and patient compartment.
- \*A back up alarm, audible warning device activated when the vehicle is shifted into or moving in reverse.

### SPARE TIRE MOUNTING

The spare tire mounting brackets shall be shipped loose in the vehicle.

# Wheeled Coach Industries Specification 1, Ford, F450, 170 x 95 x 72

## SPARE TIRE

The OEM spare tire shall be shipped with the vehicle.