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NORDHAVN 75 EYF STANDARD SPECIFICATIONS

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A.			GENERAL DIMENSIONS*
			*Dimensions are subject to change with Buyer's selected options and personal effects which may add to displacement and increase both draft and waterline length
	1		LOA: 74' 5" (22.68 m)
	2		LWL: 66' 8" (20.32 m)
	3		BEAM: 22' 4" (6.81 m)
	4		DRAFT: 6' 11" (2.11 m)
	5		DISPLACEMENT: 260,000 lbs. (117.93 METRIC TONS)
	6		WATER CAPACITY: 600 GALLONS (2,271.2 LITERS)
	7		FUEL CAPACITY: 4,540 GALLONS (17,185.8 LITERS)
	8		HOLDING TANK CAPACITY: 240 GALLONS (908.5 LITERS)
	9		GRAY WATER TANK CAPACITY: 240 GALLONS (908.5 LITERS)
B.			BASIC STRUCTURE
	1		Hull lamination schedule per construction plan. The area below water line to use "Isophthalic" Gelcoat and vinylester resin for the first three (3) layers. Deck lamination schedule per construction plan
	2		Standard colors from PAE provided color chart. All FRP surfaces to be painted with Awlgrip Awlcraft 2000 Acrylic Urethane paint except non skid

	a	Hull - "Gray Stone"
	b	Deck and deck house - "Snow White"
	c	Boot top - "Flag Blue"
	d	Non-skid - Arocoat Gelcoat to match Awlgrip "Gray stone"
	e	Engine room and lazarette - Arocoat Gelcoat to match Soundown white mesh engine room paneling
	f	All other bilges - Light gray Gelcoat same as N55
3		Coring:
	a	Cabin side (vertical surfaces): Klegecell # R80 varying degrees of thickness
	b	Cabin top and deck (horizontal surfaces): Baltec or equivalent vertical end grain balsa, 1" (2.5 cm) thick
	c	Hull and superstructure to have "Coremat" 2 mm anti print thru material in first series of lamination before roving is applied. Per construction drawing
4		Deck/hull joint:
	a	Between deck and hull flange: 3M 5200
	b	Inside of joint: Three (3) layers M. & W.R. (where accessible)
	c	Mechanical fastening: 1/2" (1.27 cm) thru-bolt on 6" (15.2 cm) centers
	d	Teak cap: Across stern and side deck forward to station 8
5		Longitudinal Stringer
	a	Hull: Ten (10) full length each port and starboard (total of 20), engine beds and floor stringers per drawing
	b	Deck: per design drawing
6		Interior transverse floors: per design
7		Ballast: Approx. 13,000 lbs (5897 kg) lead fixed per machinery layout drawing. 2,000 lbs (907 kg) of lead ingots supplied loose by builder. Vessel trimmed to suit during commissioning
8		Water tight bulkheads per construction drawing to include, but not limited to the following areas: Between lazarette and engine room , engine room and lower guest cabins, and chain locker/collision bulkhead. Use "Roxtec" thru bulkhead fittings
C.		STANDARD MACHINERY DETAILS:
1		Main Engine port side: Detroit Series 60 model #6062HK03 with commercial - intermittent maximum duty rating of 740 bhp (552 kW) @ 2300 rpm, wet exhaust & 24 volt starting
	a	Gear Box: Twin Disc MG 5114M with 3.43:1 reduction

	b	Engine Instrument Panel: Three (3) EDM (Electronic Display Module) instrument panels with alarm that will monitor tachometer, station active, engine oil pressure, engine water temp, fuel consumption GPH, system voltage, gear oil temp, gear oil pressure, alarm on/off button and five step illumination control. The following display choices are available by selection from the EDM menu as standard: Trip fuel consumption, engine load, turbo boost, ECM voltage, fuel pressure, fuel temp, smoke control status and Tttal fuel used
	c	Alternator: 100 amp 24 volt DC belt driven
	d	Engine Controls: DDC electronic controls with brushed stainless steel finish five (5) stations: wheel house, flybridge and upper aft deck coaming to starboard, Portuguese bridge to starboard and engine room
	e	Air Sep crankcase ventilation
	f	Two (2) 4D "Lifeline" AGM @ 200Ah each batteries connected in series for 24 volt start
	g	Engine bed to have 1/2" (1.27 cm) stainless steel cap
	h	Engine mounted on (4) vibration resilient mounts or MTU Detroit Diesel equivalent
	i	Raw water to be monitored with heat detector at exhaust elbow
	j	Raw water intake thru-hulls to be Groco #BV-3000 thru-hull/ball valve assembly x two (2)
	k	Intake thru-hulls to have Groco #ASC-3000 bronze slotted hull strainers on outside of hull x two (2)
	l	Intake strainers to be Duplex 3" (7.6 cm) bronze with monel baskets
	m	Groco bronze flange adapters for strainer x two (2)
2		Main Engine Starboard side: Detroit Series 60 model #6062HK02 with commercial - intermittent maximum duty rating of 740 bhp (552 kW) @ 2300 rpm, wet exhaust & 24 volt starting
	a	Gear Box: Twin Disc MG 5114DC with 3.43:1 reduction
	b	Engine Instrument Panel: Three (3) EDM (Electronic Display Module) instrument panels with alarm that will monitor tachometer, station active, engine oil pressure, engine water temp, fuel consumption GPH, system voltage, gear oil temp, gear oil pressure, alarm on/off button and five step illumination control. The following display choices are available by selection from the EDM menu as standard: Trip fuel consumption, engine load, turbo boost, ECM voltage, fuel pressure, fuel temp, smoke control status and total fuel used
	c	Alternator: 100 amp 24 volt DC belt driven
	d	Engine Controls: DDC Electronic controls with brushed stainless steel finish five (5) stations: wheel house, flybridge and upper aft deck coaming to starboard, Portuguese bridge to starboard and engine room
	e	Air Sep crankcase ventilation
	f	Two (2) 4D "Lifeline" AGM @ 200 Ah each batteries connected in series for 24 volt start
	g	Engine bed to have 1/2" (1.27 cm) stainless steel cap
	h	Engine mounted on (4) vibration resilient mounts or MTU Detroit Diesel equivalent
	i	Raw water to be monitored with heat detector at exhaust elbow
	j	Raw water intake thru-hulls to be Groco #BV-3000 thru-hull/ball valve assembly x two (2)
	k	Intake thru-hulls to have Groco #ASC-3000 bronze slotted hull strainers on outside of hull x two (2)
	l	Intake strainers to be Duplex 3" (7.6 cm) bronze with monel basket
	m	Groco bronze flange adapters for strainer x two (2)

3			Propellers: Hung Shen 42" diameter x 37.5" pitch (106.7 cm d x 101.6 cm p) 5-blade counter rotating propellers. Port engine propeller to turn CCW and the starboard engine propeller to turn CW. Propellers to be built to I.S.O. class 1
4			Propeller Shafts: A22 4" (10.2 cm) diameter
	a		Taper details: Standard SAE
	b		Spurs line cutters Model #F on two (2) main engine shafts
5			Stern tube: FRP
	a		Bearing: Rubber cutlass type at aft end. Cooling with raw water diverted from the cooling system for the power steering
	b		Shaft seals to be PSS #02-400-512 dripless for 4" (10.2 cm) shaft
6			Fuel Filter: Two (2) Racor 75-900MAX duplex with 30 micron filter elements in addition to secondary engine mounted filter
7			Noise Control
	a		Hull Damping - Area above the propeller rotation plane to be treated with two (2) layers of E-A-R specialty composites isodamp CN tiles (CN-62), alternating between resin and chopped glass to form a constrained layer damping system to be the inboard side of the shell plate per drawing
	b		Engine room ceiling and fwd bulkhead treated with 2" (5.08 cm) of Soundown lead foam and 2" (5.08) of 3M Thinsulate. Inboard tank sides, aft bulkhead, underside of deck, forward side of engine room bulkhead and ventilation ducts to be treated with 2" (5.08 cm) of Soundown lead foam and 2" (5.08) of 3M Thinsulate and covered with white aluminum panels by Soundown
	c		Salon/galley cabin sole to have 1-3/4" (45 mm) "Nida Core" core system and 1/4" (6.35 mm) Soundown "decoupler" layer
	d		Engine room hatches to have rubber gasket and lock down mechanism
	e		Soundown Quiet Pro lining covering engine room intake and exhaust ventilating ducts, 1" (2.5 cm) thick secured with epoxy and mechanical fasteners
	f		Insulated bulkheads in all living areas with 3M Thinsulate per drawing
	g		Forward accommodation areas between hull and hull ceiling to be insulated with 3M Thinsulate
	h		Salon overhead between deck underside and Majilite overhead panels is to be treated with 1" (2.5 cm) thick 3M Thinsulate
	i		Overhead of owner's cabin to have 1" (2.5 cm) thick 3M Thinsulate insulation
8			Engine Room Ventilation: (See Air Conditioning Systems and Ventilation Systems)
9			Main engine Exhaust system:
	a		Wet exhaust system from Marine Exhaust
	b		Dry exhaust to overhead and down to water lift muffler with water injected elbow
	c		Wet exhaust from water lift muffler to exhaust tube

	d	Last section of exhaust tube gel coated black inside
10		#1 Generator Onan model #MDDCA e-QD 40 kW 133/230 volt AC 3-phase 60 Hz
	a	Wet exhaust system using gen-sep
	b	24 volt DC start
	c	Alternator: 20 amp
	d	Main start panel located in pilot house and start stop panel in engine room
11		#2 Generator Onan model #MDKBE e-QD 21.5 kW 133/230 volt AC 3-phase 60 Hz
	a	Wet exhaust system using gen-sep
	b	24 volt DC start
	c	Alternator: 20 amp
	d	Main start panel located in pilot house and start stop panel in engine room
12		ABT hydraulic system per ABT quote #10615, to include following:
	a	38 hp bow and stern thrusters using 12" (30.5 cm) tunnels with proportional controls at four (4) stations
	b	Hydraulically powered anchor wash pump - 180 gallons (681.37 liters) per minute
	c	Hydraulically powered 180 gallons (681.37 liters) per minute emergency bilge pump with manifold system and plumbing to all bilge sump areas
	d	TRAC #370 digital stabilizer system with 16 sq. ft. (1.49 sq. m) fins and dual station control. Stainless steel kelp cutters forward of fins tied to bonding system. Kelp cutters 3/8" thick x 8" tall (9.5 mm thick x 20.32 cm tall) - system is without winglet assembly
	e	Two (2) Maxwell VWC 4500 windlasses with dual station controls for each
13		Water maker: 2000 gallons (7,571 liters) per day Village Marine # PW2000 with UV sterilizer, media filter and remote panel
14		Install one (1) Brownie's Yacht Pro 35 dive compressor with a manifold block for a four (4) tank whip connection and a remote filling station. 230 volt AC 60 Hz 3-phase power
D.		AIR CONDITIONING SYSTEM AND VENTILATION SYSTEMS
1		Air Conditioning System:
		CRUISAIR Tempered Water System (chilled water) ten (10) tons, 2-stage, 208 volt AC - 230 volt AC, 3-phase 60 Hz per PAE design
	a	Modular Tempered Unit: #FMTC2X5HDC framed chiller, ten (10) tons, 2-stage, 208 volt - 230 volt 60 Hz, 3-phase
	b	Control Panel: MPEDR2UDC1 TWLC2-Unit Panel, two (2) Pump Relays, 230 volt, 3-phase
	c	Air Handlers 162 Btu/hr total 230 volt AC 60 Hz :
	1	Three (3) x AT9HVZ-FC-1.5 kW 6" (16.2 cm) MR 230 volt - lower cabins and heads
	2	Two (2) x AT12HVZ-FC-2 kW 6" (16.2 cm) MR 230 volt - master stateroom and head
	3	Two (2) x AT24HVZ-FC-3 kW 8" (20.3 cm) MR 230 volt - galley/salon
	4	Two (2) x AT24HVZ-FC-3 kW 8" (20.3 cm) MR 230 volt - wheelhouse/head
	5	One (1) x AH24SLL-Z BFC/COS/CBBL/HRNS - engine room

		d	Circ Pump: CPOD180B3X
		e	Sea Water Pump: PS2100B3X
		f	Room Controllers:
		1	Six (6) x SMXHT, SMX LCD key pad/display, grey
		2	Six (6) x PLTX-HVSTAT, SMXII PWR LGC BX for TW/New HV board
		3	Three (3) x CXP30 cable interconnect 30' (9.4 m) SMXir
		4	Three (3) x CXP10 cable interconnect 10' (3.05 m) SMXir
		5	Six (6) x TSEP5 cable temp sensing element with RJ-11 5'-3" (160 cm)
		g	Accessories:
		1	EXT240 expansion tank-TW-bladder
		2	BFC42 balancing flow control
		3	1060915 automatic vent
		4	1070200 backflow preventer valve
		5	1070201 pressure regulator valve
		6	1060915 vent auto 30 gallons (113.56 liters) per minute Max Flow 1.5
		7	1010015 strainer
		h	763300006 VFD31-3C/5D 230 volt 17.5A 60 Hz
	2		Engine Room Ventilation System
		a	Two (2) intake fans - Multifan model #4E50-240 volt 60 Hz 20" (50.8 cm) diameter rated at 4638 CFM @ 0.0" SP
		b	Two (2) exhaust fans - Multifan model #4E50-240 volt 60 Hz 18" (47.5 cm) diameter rated at 4,638 CFM @ 0.0" SP. Two (2) FRP louvered vents on port and starboard side deck at forward end of engine room with screened blower inlet
		c	Fire/smoke dampers – Ruskin low leakage control damper, (18" x 18") (47.5 cm x 47.5 cm) - stainless steel rear flanged equipped with a side mounted Honeywell H-2024 (24 volt DC) fast-acting, 2-position actuator. One (1) damper each installed on the engine room side of each blower for easy access, four (4) total. Each damper will be normally open and will close on SEAFIRE actuation
		d	Two (2) intake fans and two (2) exhaust fans have adjustable speed controls Grainger #3C955 to adjust engine room air flow
		e	Auto blower stop and damper closure on engineRoom SEAFIRE actuation (See Fire Protection System)
			Note: See Noise Control item F
	3		Lazarette
		a	Two (2) exhaust blowers - Dayton 1TDT6 110 volt 60 Hz 10" (25.4 cm) diameter rated at 428/283 each CFM @ 0.0" SP. Intake air will be passive from holes in the cockpit lockers - (2) two speed switches #IDG29
		b	One (1) General Service temperature switch - bulb and capillary type, range 1-150 degrees F, SPDT rated at 15 amps at 125/480 volt AC. McMaster-Carr # 47525K62. Switches wired in blower circuit with contacts closing on rising temperature
		c	Auto blower stop on SEAFIRE actuation in the compartment
	4		Heads

	a	One (1) exhaust blower each head - Jabsco Model #36770-0115 rated at 250 CFM 120 volt AC
	b	One (1) Imtra on/off switch with indicator light for each head
	c	Ducting is to be 4" (10.2 cm) I.D
5		Staterooms
	a	One (1) supply blower for master, and lower staterooms (3 total). McMaster-Carr model #19135K85 rated at 122 CFM 120 volt AC. On/off wall switch for blower start and stop
	b	Blower located to insure minimal noise in stateroom
	c	Ducting is to be 4" (10.2 cm) I.D.
	d	Cabin intake air is to come from a louvered intake from outside the boat and ducted to the stateroom
E.		FIRE PROTECTION SYSTEM
1		SEAFIRE Fixed System Fire Extinguishers - Two (2) systems per PAE design
	a	Engine Room:
	1	One (1) SEAFIRE Model #130-053 120 lb (52 liter) FM200 cylinder - 2" (5.08 cm) valve 16" x 29" (40.6 cm x 73.7 cm) with 2" (5.08 cm) discharge hose
	2	One (1) SEAFIRE automatic engine shutdown system model #131-260
	3	24 volt DC for main engines, generators, engine room blowers, fire/smoke dampers
	4	One (1) SEAFIRE manual discharge cable 30' (9.4 m) Model #134-030
	b	Lazarette:
	1	One (1) SEAFIRE Model #FD-1300
	2	One (1) SEAFIRE deluxe discharge alarm model #131-290
	3	One (1) SEAFIRE pull cable
2		Portable Fire Extinguishers
	a	Pilothouse, galley, salon, and master stateroom: One (1) each USCG TYPE B-II (3 total)
	b	Guest cabins: One (1) each USCG TYPE B-1 (2 total)
	c	Fire pump - refer to section G17
F.		STEERING SYSTEM
1		Kobelt Hydraulic Steering System - 35 degree rudder deflection, single station (wheel house) per quote no. SQ-15872
	a	One (1) helm pump: Model #7005-AL long shaft
	b	Cylinders: One (1) model # 7085-B16 balanced cylinder with 3-1/2" (8.9 cm) Bore with 16" (40.6 cm) stroke and one (1) model# 7085-SB16 servo cylinder with 3-1/2" (8.9 cm) bore and 16" (40.6 cm) stroke
	c	Safety and bypass valve: Model #7020
	d	Double arm for 7080 cylinder arm: Model #7084-T
	e	Single arm tiller arm: Model #7084-S
	f	Two (2) rod ends model #7085-0004
	g	Two (2) 7085 tie bar ends with nut model #7085-1004

		h	Filler tank: Model #7002-A
		i	Rudder feedback unit model #7168-P
		j	Master rudder angle indicator model #7175-BMA
		k	Rudder angle indicator model #7175-BSA
		l	Transfer box : One (1) station +AP model # 7173-TX2
		m	Jog lever for five (5) stations model # 7170-A1
		n	Single solenoid valve base (no sol) model #7144
		o	Solenoid valve model #7148-SOL24V
		p	Power pack is two (2) Eaton model #04223-LH 7/8-13 tooth 2 bolt SAE "B" pad, PC pumps including reservoir, tank top return filter, low level/high temperature switch and pressure gauge. Cooling of hydraulic oil is done through two heat exchangers that are fed with raw water from a gear driven pump on each main engine
		q	Flow control model #3005
		r	Flow control model #3005-B
		s	Auto pilot interface #7085-SAP-24
		t	Non drain back valve #7143
		u	Owner's manual
	2		Hydraulic lines: Seamless copper tubing 5/8" (16 mm) I.D. with reinforced rubber hydraulic lines to the hydraulic rams and helm pump
	3		Steering wheel: 30" (11.8 cm) stainless steel destroyer type in wheel house x one (1)
	4		Emergency tiller: To attach to top of starboard rudderpost and stow in lazarette - fabricated of stainless steel
G.			RUDDERS x two (2)
	1		Rudder stock: 4" (10.2 cm) A22 x two (2)
	2		Rudder: FRP and stainless steel per PAE design
	3		Rudder carrier shoes: Two (2) , 2-piece fabricated 316 stainless steel per drawing. Main piece fastened to hull by rivets. Aft piece removable so that rudders can be removed. Shoes to be tied into bonding system and to have attached zinc plate
	4		Rudder carrier per drawing
	5		Rudder stock stuffing box: Bronze traditional style x two (2)
	6		Rudder stock tube: FRP with bronze/rubber cutlass bearing at the bottom x two (2)
		a	"T" bolt clamps at stuffing box x four (4) (8 total)
H.			PLUMBING SYSTEM

1.		Water Tanks
	a	Number and capacity: One (1) tank totaling 600 gallons (2,271.25 liters)
	b	Material: Fiberglass from male mold with FDA approved gel coated interior
	c	Inspection plates: Appropriately positioned and sized for access
	d	Tanks air tested to 4.5 lbs (0.3 bar) per sq. inch
	e	Each tank to have "Wema" level gauge
	f	Each tank to be fitted with sight gauge
	g	Tank baffles to be spaced on 24" (61 cm) centers as shown in design
	h	Exterior of tanks finished in blue gel coat
	i	Tank to comply with ABYC section H-23 for potable water systems for use on boats
	j	Cleanliness: Tank interior surfaces to be thoroughly vacuumed and wiped down prior to final closure
2.		Fuel Tanks
	a	Number and capacity: Four (4) main tanks totaling 4,410 gallons (16,694 liters) with one (1) centerline aluminum "day tank" at 130 gallons (492 liters) which will gravity feed from main tanks in engine room. Two forward tanks will be transferred to main engine room tanks thru the fuel transfer system section G.2.H
	b	FRP construction from male molds using Vinylester resin. To comply with all ABYC codes for diesel fuel tanks. Tanks to be coated with fire retardant gelcoat on outside to comply with ABYC section H -33.20 for fire resistance
	c	Inspection plates appropriately positioned for interior access by average size man. Plates to be fitted with labels that contain all information as stated in ABYC section H -33.16.3. Each internal baffle to have a removable panel to allow access to entire interior of all fuel tanks
	d	Fuel system to include a powder coated aluminum supply reservoir, which feeds by gravity from two engine room fuel tanks. Reservoir to be approximately 130 gallons (492 liters) fitted with a drain valve at the bottom of the reservoir for water and debris purging and with a water sensor – illuminating a light and audible alarm in wheelhouse if excessive water is present. Reservoir fitted with five (5) draw spigots for two (2) main engines, two (2) generators and spares - mounted at lower level of reservoir but above water sensing probe. All returns from mains and generators to be plumbed into reservoir via a return manifold. Sight gauge at front of tank to read fuel level in port and starboard main fuel tanks - one at a time
	e	Single sight gauge provided for checking fuel level of two engine room tanks and used for checking fuel consumption. Two forward fuel tanks use a Wema fuel gauges. Forward tanks are for fuel transfer only to main tanks only
	f	Each tank to be air tested to 4.5 lbs (0.3 bar) per sq. inch
	g	Provide baffles on 24" (61 cm) centers
	h	Transfer manifold and 24 volt DC Oberdorfer gear pump (#OB992Q-10-F18BCT) 3.86 gallons (14.61 liters) per minute fuel pump with timer switch and Racor 1000 fuel filter with 10 micron element which can transfer fuel from one tank to another and scrub fuel while transferring
	i	Transfer polishing system is through an Alfa Laval fuel centrifuge. This can draw in from any fuel tank and return to any tank while boat is under way
	j	System to be built per PAE design
	k	Exterior of tanks finished in red gel coat
	l	Cleanliness: tank interior surfaces to be vacuumed and wiped clean before final closure

	m	Each tank to have two (2) 1-1/2" (3.8 cm) I.D. vent lines
	n	Each tank to have separate 2" (5.08 cm) I.D. fill pipe located a minimum distance of 18" (45.7 cm) from any ventilation openings
	o	All hardware that comes in contact with fuel to be bonded into the 24 volt DC ground system
3.		Fuel Pipe and Hose
	a	Supply lines from engine room tanks to supply reservoir are 1-1/2" (3.8 cm) I.D. with Aeroquip brand fuel hose and swaged brass fittings
	b	Fuel line from supply reservoir to main engine filters is 3/4" (1.9 cm) I.D. with Aeroquip brand fuel hose and swaged brass fittings
	c	Fuel lines from supply reservoir to generators to be 1/2" (1.27 cm) I.D. with Aeroquip brand fuel hose and swaged fittings
	d	Vent lines to be Trident fuel certified, reinforced hose 1-1/2" (3.8 cm) I.D.
4		Water Hoses
	a	Cold water: Hose from water tanks to water pump and to accumulator to be 1" (2.5 cm) diameter reinforced and approved for potable water; Branch lines to be 1/2" (1.27 cm) PVC pipe (blue) Whale brand or equivalent
	b	Hot water: Reinforced 1/2" (2.5 cm) PVC pipe (red) Whale brand or equivalent
	c	Sea water hoses: Trident brand reinforced for marine use and provided with double stainless steel clamps below the water line
	d	All hoses used shall meet the requirements for service as set out by ABYC for the system intended
5		Hot Water Heater System: Per PAE design
	a	Heater: Two Rheem Vanguard Low Boy, 30 gallons (113.56 Liters) with 240 volt AC element for quick recovery. Grainger part #3WA67
6		Thru Hulls: Bronze body, stainless steel balls and Teflon seats
	a	Grounding wire: #6 gauge green wire
	b	Each thru hull to have a clearly visible tag indicating use
	c	Each thru hull to be easily accessible
7		Fresh Water System: Per PAE design
	a	Main Pump: Headhunter Mach 5 # M5-115 - 120 volt with pressure regulator and Groco WSA-1000 strainer on pump inlet
	b	Groco # PST5 accumulator tank with pressure gauge
	c	Hose from water tanks to water pumps and to accumulator and supply hose to all toilets to be 1" (2.5 cm) diameter reinforced and approved for potable water
	d	Back up Pump: Shurflo Extreme pump # 5901-1211, 24 volt DC auto pressure system installed as back up to main pump
	e	Filter: US water filter housing with a 5 micron sediment filter installed downstream of fresh water discharge manifold
	f	Pump selection manifolds x two (2): Pump inlet and discharge manifolds made of stainless steel standard pipe. Supply manifold furnished with isolation ball valves from fresh water

			tank, to each fresh water pump, and from the water maker. Discharge manifold furnished with isolation valves from each pump
	8		Plumbing fixtures
		a	Head sinks - six (6) total: Owner's, day head , guest lowers x two (2), and wheel house Kohler #K2210 43.2 cm x 35.6 cm (17" x 14") oval white
		b	Galley sink: Double stainless steel Kohler #K3355
		c	Head faucets - five (5) total: one (1) in owner's stateroom, three (3) in guest staterooms and one (1) in pilothouse head. Grohe - Kensington 20.124 000 - chrome with lever handles 18.087 000 - chrome
		d	Head faucets - Two (2) total: One (1) each in day head and forward bilge sink - Grohe - Eurodisc 33.413 000 - chrome
		e	Galley faucet - One (1) total: Grohe - Eurostyle 33.890 000 high profile with side spray - chrome
		f	Engine room sink, and aft deck sink: local made stainless steel
		g	Shower fixtures - five (5) total: Grohe Rainshower Rustic unit 27.140 000 - chrome, pressure balance valve trim Kensington 19.268 000 - chrome, rough-in valve 35251
		h	Aft deck sink faucet: Scandvik model #MR2500-10810 folding type
	9		Bilge Pumps: Per PAE design
		a	Electric: Four (4) Par Jabsco 34600-0031 120 volt 60 Hz 10.8GPM diaphragm 1" (2.5 cm) diameter ports, with "Ultra Senior" 24 volt auto float switch #UPS-01-24/32. With relay for 120 volt operation - one (1) in each water tight compartment
		b	Manual: One (1) Edson #117AL-200-230-PC
		c	Hydraulic driven emergency pump: One (1) Pacer model #PACSE2BHYP plumbed to all water tight compartments with 2" (5.08 cm) PVC piping. Manifold for emergency pump to be located in easily accessible location. Pump to operate by manually switching on. Per PAE design
		d	Electric driven emergency bilge pump: One (1) Pacer model #DP900C-30W36CT plumbed to the emergency bilge manifold for use as a back up if the hydraulic driven emergency pump fails
		e	High Water Bilge Alarm Panel - Pilot House per PAE design. . High water bilge sense will come from standard Ultra Senior in each bilge compartment. Visual and audio alarm panel in pilot house
	10		Toilets and Holding Tank System: Per PAE drawing
		a	Toilets to operate from the standard pressure water system
		b	All toilets, five (5) total, to be Tecma "Silence Plus" (white) with "two switch " panel 24 volt DC
		c	Water supply to toilets to be fresh water only
		d	Holding Tank: One (1) FRP 200 gallon (757.08 liter) holding tank
		e	Use only PVC pipe or Trident "Odor Shield" #102 sanitation hose
		f	Holding tank overboard pumps: Edson "Bone Dry" #120ELB 20 gallons (75.71 liters) per minute 120 volt AC electric and Edson "Bone Dry" #557BR 30 gallons (113.56 liters) per minute manual pump per drawing
		g	Holding tank vent to use Sealand# 310002 vent filter

		h	Deck fitting for portable evacuation facility
		i	Holding Tank Level Monitor: Sealand 24 volt "Tank Watch" 4 panel and cap with vent, 45" (114.3 cm) probes #600115, including universal flange 3" (7.6 cm) NPT with gasket and stainless steel hardware, 24 volt "Do Not Flush" status panel #700024 and shut down relay #342490 warning system at each toilet
11			Fresh water outlets on the foredeck, aft deck, upper aft deck and one (1) in engine room using stainless steel "Scandvik" spigots #11204
12			Gray Water System: Per PAE design
		a	Tank: One (1) FRP 160 gallon (605.67 liter) tank. All sinks, showers, and air conditioning condensate to drain to tank. All drains to have "P" traps and sloped down-hill run to tank. Exception: laundry and forward guest cabin head drains will be pumped to gray water tank with the "Lancaster" sump-less sump pumps as described in section G.9.A and G.10.A. Tank equipped with electric and manual discharge pumps, level switch for pump starting, and level monitor system
		b	Electric Discharge Pump: Jabsco #JA18690-0000 115 volt AC with auto/manual switching. Pump inlet to draw within 1" (2.5 cm) of the absolute bottom of the tank. Pump to discharge overboard through anti siphon loop
		c	Level Switch: McMaster-Carr model #50195K93, 24 volt to auto start and stop the gray water pump in the Auto mode. In Auto mode, switch to start pump at 2.5 inch (6.4 cm) depth and stop pump at 1 inch (2.5 cm) depth
		d	Level Monitor System: Sealand 24 volt "Tank Watch" 4 panel and cap with vent, 45" (114.3 cm) probes #600115, including universal flange (3-inch NPT) with gasket and stainless steel hardware
		e	Manual back up pump: Edson Model #117AL-200-230-PC
13			Deck shower - "Scandvik" #10640640 aft deck shower installed on transom per PAE design
14			Washer/Dryer - Maytag MHWE300VW washer and MEDE300VW drier
15			Salt water inlets via individual sea strainers
		a	Generators one and two to each have sea strainer mounted in bilge on centerline in engine room
		b	Dual 2" (5.08 cm) diameter sea strainers port and starboard of keel using two (2) Groco #ARG2000 strainers with Monel basket to feed water maker - air con - ice maker - freezers - etc.
16			Oil Change System
		a	System utilizes a 24 volt Oberdorfer gear pump #OBN993-M-F36-RC 4.8 gallons (18.7 liters) per minute to drain and fill engine lube oil from/to crankcases of main and generator(s) engines. Pump is controlled by a three (3) position switch mounted at pump location. Switch positions to be labeled "ENGINE OIL DRAIN", "OFF", "ENGINE OIL FILL"

	b	Oil change manifold per PAE design. Manifold, pump and control switch to be located in an accessible and comfortable location. Engine side of manifold to include isolation valves for each engine. Pump discharge/fill side to include a hose of suitable length for drawing from and discharging to a locally placed container
	c	All hose used in oil change system to be Aeroquip model #FC234-8 type wire reinforced
17		Hydraulic drive anchor wash/fire fighting pump: One (1) Pacer model #PACSE2BHYP to 2" (5.08 cm) intake thru-hull and Groco #SA-2000 strainer at bow. Provide "Y" valve to switch from anchor wash to fire fighting system. Fire fighting hose to be "Izerwaren" valve #91.778 , Nozzle #91.718, 100' (30.48 m) fire hose with couplings, stowed in #91.727 container
18		Beam central vacuum system - Serenity Plus quiet package Model #2775
	a	Serenity plus power team wand kit
	b	Inlet valves - Beam plastic inlet valves with wires in brown
	c	Hose sock - gray
	d	Floor rug combo tool
19		Saltwater wash down system
	a	Head Hunter "Sting Ray" 120 volt AC pump
	b	Outlets located on aft deck and foredeck
	c	Sea water supply to come from group sea strainer
I.		ELECTRICAL SYSTEM
1		The AC electrical system is a three phase 120/208 volt distribution system with a maximum capacity of 60 kW. Power is supplied from two Onan generators and through one (1) 100 amp shore power connection. The vessel is fitted with a 35kVA shore power converter allowing connection to any shore connection worldwide. Provisions have been made for the seamless transfer of power from generator to generator, or generator to shore side power connection (Does not include shore power adaptor)
	a	3.5 kva shore power converter with seamless transfer
	b	3.5 kva 120 volt AC inverter system for emergency power, control power to the helm station and for refrigeration during times when the generators are offline
	c	AC outlets are standard US format 120 volt AC. Location shown on drawing
	d	All outlets in head compartments, mechanical spaces, exterior and galley are GFCI type. All external outlets have water proof covers
	e	One (1) Glendinning shore power cord retrieval system provided for the 120/208 volt AC, 100 amp. ships shore power connection. The system to be provided with 100' (30.48 m) of shore power cable. Shore power inlet to be located at the stern of the vessel
2		The DC electrical system is a 24 volt distribution system with a maximum capacity of 765 amp/hours. The DC system is to provide limited power the ships inverter system and provide power to the helm station DC equipment
	a	Standard batteries are located per PAE machinery drawing and are provided as follows:

		1	24 volt DC house battery bank - consists of six (6) 8D, 12 volt "Lifeline" AGM batteries @ 255 Ah each. connected in series/parallel. A total battery bank capacity of 765 amp/hours is provided for emergency, control, ships equipment and limited operation without operation of a generator or shore power connection
		2	12 volt DC helm power is drawn from one (1) 4D battery
		3	Port main engine starting - two (2) 4D "Lifeline" AGM connected in series for 24 volt starting. Switching logic to parallel with 24 volt house bank for emergency starting
		4	Starboard main engine starting - two (2) 4D "Lifeline" AGM connected in series for 24 volt starting. Switching logic to parallel with 24 volt house bank for emergency starting
		5	#1 Generator starting - two (2) Group 31 "Lifeline" AGM connected in series for 24 volt starting. Switching logic to parallel with 24 volt house bank for emergency starting
		6	#2 Generator starting - two (2) Group 31 "Lifeline" AGM connected in series for 24 volt starting. Switching logic to parallel with 24 volt house bank for emergency starting
	b		24 volt battery charging is provided in the following ways:
		1	Inverter/charger provides a total of 70 amps at 24 volts for the house battery bank
		2	Main engine starting battery bank is charged from the respective engine alternator
		3	Generator starting battery bank is charged from the respective engine alternator
		4	Each charging source can be switched to accommodate any single failure of a charging device.
	c		12 volt wheel house battery is charged by a Victron Energy Model #CCH012050000 Centaur battery charger 12 volt / 50A
	3		All wire to be marine grade, tinned conductor, 600 volt insulation type and sized according to the ABYC Standards
	4		When possible wiring to be color coded per ABYC standards
	5		Connectors to be ring type with closed end seamless construction
	7		SSB radio round plate and lightning ground systems per PAE drawing
	8		Electrolysis control per PAE drawing
	a		All thru hulls to be bonded together with a #6 green wire and tied into the DC grounding system
	b		All hardware mounted below water line - i.e. stuffing box, rudder shoe, rudder frame, all thru hulls, engines, and strainers to be connected to bonding system
	c		Zinc plates to be tied into the bonding system based on the hull potential requirements of the vessel
	d		One (1) "Perry nut" zinc on the end of each main engine propeller shaft
	9		Electrical Panels
	a		Main AC distribution and control panel located in salon to starboard of salon door, sub panels located fore and aft on each deck as required
	b		Main DC distribution and control panel located in engine room, sub panels located fore and aft on each deck as required

		c	AC/DC distribution panel in wheel house for helm instrumentation and equipment.
		d	House battery control panel in lazarette, control of the panel at the helm station
		e	Engine/gen start battery and emergency parallel control panel at entrance to engine room
		f	Generator start/stop panel in wheel house
		g	Helm station control and monitoring panel for bilge pumps, engine room ventilation, navigation lights, high water alarms, pump monitoring and other shipboard system
J.			INTERIOR
	1		General: Per PAE drawing with standard N86 style joiner work
		a	Cushions throughout boat per drawing with buyer's choice of Ultraleather or fabric of equal value to Ultraleather
		b	Interior steps to all teak. Corner of steps to have non-skid varnish
		c	Interior lockers and drawers to be locking Timage with chrome push button
		d	Interior overhead panels - Majilite, "Nova Suede" #T3D4 Champagne . Removable, held in place by Velcro
		e	Interior door lock sets to be Mobella "Mc Coy" chrome finish
		f	Interior cabin doors to be 1-1/4" (3.2 cm) thick and have rubber gaskets for sound reduction and door hooks
		g	Hanging lockers to have automatic interior lights controlled by micro switch. Lined with Japanese cedar
		h	Solid (non louvered) cored doors for heads and staterooms 1-1/4" (3.2 cm) thick with rubber gaskets on door jambs
		i	Interior teak woodwork including cabin sole in pilot house to be varnished with 60% gloss varnish
		j	Salon tables, pilothouse table to be varnished with high gloss varnish
		k	All hand rails to be teak.
		l	Structural bulkheads dividing staterooms and heads to have 3/4" (1.9 cm) furring strips on each side to allow application of 3/4" (1.9 cm) thick sound insulation. The finished bulkhead material of 3/8" (9.5 mm) thickness to be applied over this
		m	Mirrors are located thru out vessel as shown on interior drawings
		n	All drawers to have sliders
	2		Galley
		a	Sub Zero #736TCIL refrigerator/freezer with teak panels . Left hand hinge
		b	Counter top: Granite w/ bull nosed edges
		c	Flooring: Ceramic tile or stone
		d	Cabinet paneling: All teak
		e	G.E. Profile Stainless steel drop in electric range #JD968SFSS with custom stainless steel sea rails and pot holders
		f	Locker and drawer interior finish: Formica
		g	GE "Advantium" #SCA1001DSS microwave oven with exhaust blower
		h	GE Profile #GCG1540FSS 15" (38.1 cm) stainless steel trash compactor
		i	Dishwasher 24" (61 cm) Bosch #SHV6803 stainless steel
		j	Garbage disposal Insinkerator 3/4 hp #444SS
		k	Stove alcove to be lined with fire retardant material

	3		Main Salon
		a	Floors: Carpet with 2 lb./sq.ft 1/2" (1.27 cm) thick Soundown underlayment pad
		b	Cabinet/paneling: Varnished teak
		c	Teak coffee table on port side
		d	Furniture made by Jeddy's Interiors: One (1) "L" shaped sofa and one (1) ottoman
		e	Locker interior finish: Teak
		f	Three (3) South Coast Marine Bar stools - stainless steel with cushion
		g	Aritex lift for 42" (106.7 cm) flat screen TV on starboard side of salon (TV not included)
		h	Teak valance/air con soffit port and starboard and aft sides of salon
		i	Two overhead teak hand rails
		j	Custom glass and teak fishing rod storage locker forward starboard. With book shelves outboard
		k	"U" shaped dinette on starboard side with high gloss teak table
		l	Mullions along port and starboard side for installation of widow treatments
	4		Day Head (accessed from aft deck)
		a	Floors: FRP
		b	Counter top: Granite with bull nosed edge
		c	Mirror and hand towel bar as shown on drawing
		d	Cabinet/joiner work: FRP
		e	Locker and drawer interior finish: Formica
		f	Toilet paper holder
	5		Master Cabin
		a	Floors: Carpet with 2 lb./sq. ft. 1/2" (1.27 cm) thick Soundown underlayment pad
		b	Cabinet/paneling: Varnished teak
		c	Hanging locker interior finish: Cedar wood
		d	Alcove for flat screen 42" (106.7 cm) TV forward centerline (TV not included)
		e	Vanity/desk with chair
		f	Lounge area with custom sofa and book shelves outboard
		g	Mattress: Custom king size
		h	Hanging lockers to be Japanese cedar lined with full length mirrors on inside of doors
		i	Night stands next to bunk
		j	Teak headboard frame
	6		Master Head
		a	Floors: Ceramic or stone tile to be specified with order
		b	Counter top: Granite with bull nosed edges
		d	Mirrors and towel bars: As shown on drawings
		c	Molded FRP shower stall with glass shower door.
		d	Cabinet/joiner work: All teak
		e	Locker and drawer interior finish: Formica
		f	Toilet paper holders and towel bars: Grohe
		g	Shower to have glass door

	7		Pilothouse - Layout per PAE drawing
		a	Floors: Teak - varnish
		b	Cabinet/joiner work: Varnished teak
		c	Counter tops and instrument panel faces: Formica #939 black
		d	Teak table at settee.
		e	Settee with chart drawer under
		f	Helm seat - two (2) Stidds 500N-2X2 Low Back "Slimline". Vinyl and pedestal color are buyer's choice
		g	Locker interior finish: Formica
		h	Book shelves and chart drawers and lockers as shown on PAE drawing
		i	Drinks refrigerator under dash Model # TBD
		j	Compass - Ritchie SS 5000 5" (12.7 cm) mounted on teak block
		k	Top of instrument console to be wrapped in black leather or Ultraleather
	8		Pilothouse Head
		a	Floors: Teak - varnished
		b	Cabinet/joiner work: All teak
		c	Toilet paper holder: Grohe
		d	Counter tops: Granite with bull nosed edges
		e	Locker interior finish: Formica
		f	Towel bars: Grohe
		g	FRP shower stall with aluminum and glass bi-fold door
	9		Forepeak (Chain Locker) - water tight collision bulkhead
		a	Shelves: Longitudinal plywood shelf with 5" (12.7 cm) fiddles provided port and starboard for storage
		b	Pad eye in each locker for bitter end of chain
		c	Finish: Painted with light gray gel coat
		d	Locker to be divided for dual anchors and chain
		e	Both lockers to be self draining thru thru-hulls at boot top
	10		Laundry/Passageway
		a	Floors: teak/spruce
		b	Cabinetry: teak
	11		Port Guest Cabin
		a	Floors: Carpet with 2 lb./sq. ft. 1/2" (1.27 cm) thick Soundown underlayment pad
		b	Cabinet/paneling: Varnished teak
		c	Hanging locker interior finish: Japanese cedar wood
		d	Dresser
		e	Drawers under bunk
		f	Mattress: Twin size x two (2)
		g	Night stand between bunks

		h	Teak headboard frames
		i	Lockers and book shelf over head of bunks
		j	Pipe berth outboard
		k	Forced air ventilation system with adjustable blower per PAE design
	12		Starboard Guest Cabin
		a	Floors: Carpet with 2 lb./sq. ft. 1/2" (1.27) thick Soundown underlayment pad
		b	Cabinet/paneling: Varnished teak
		c	Teak headboard frame
		d	Hanging locker with Japanese cedar wood lining x two (2)
		e	Drawers under berths
		f	Mattresses: Queen size 5" (12.7 cm) thick foam
		g	Forced air ventilation system with adjustable blower per PAE design
		h	Pipe berth outboard
	13		Port and Starboard Guest Heads
		a	Floors: Tile or stone
		b	Cabinetry: Varnished teak
		c	Shower to be molded FRP
		d	Counter tops: Granite with bull nosed edges
		e	Aluminum/glass bi-fold shower door
		f	Towel bars
		g	Toilet paper holder
		h	Full height mirror over sink
K.			LIGHTING (Per PAE lighting plans)
	1		Main overhead lighting throughout interior: Daniel R. Smith "Pearl" 35 watt 120 volt AC . Lighting controlled by wall switches (Approx. 65 lights). Selected circuits to have dimmer function
	2		Exterior overhead lights , F/B and side decks: Daniel R. Smith "Cosica" 20 watt 24 volt DC (approximately 20 lights)
	3		Overhead reading lights : Daniel R. Smith "Pearl" 35 watt 120 volt AC direction spot lights controlled from separate switches (approximately 32 lights)
	4		Engine room and lazarette lights
		a	120 volt AC fluorescent (approximately 8 lights)
		b	24 volt DC as emergency lighting Imtra "ER" LED lights (approximately 10 lights)
	5		Courtesy Lights
		a	Exterior: 24 volt DC Imtra "Kodiak" white LED #CN70603 (approximately 30 lights)
		b	Interior: 24 volt DC Imtra "Electra T" white LED #CN72815 stainless steel (approximately 36 lights)

		c	24 volt DC LED white rope lighting under toe space in selected areas interior and exterior. Imtra part #ILMDL-WH-24LED . Per PAE drawing
	6		Hanging locker lights and miscellaneous locker lights interior and exterior: 24 volt DC Imtra "Resolux" Stainless steel with micro switches (approximately 20 lights)
	7		Navigation lights and signal lights for vessels over 39' (12 m): Hella Navled Pro
		a	Port navigation light - #2LT 959 900 211 - 9-33 volt
		b	Stbd navigation light - #2LT 959 908 211 - 9-33 volts
		c	Stern light - #2LT 959 909 211 - 9-33 volts
		d	Steaming light - Aqua signal 9-33 volts
		e	Anchor light - #2LT 980 010 011 - 9-33 volts
		f	Restricted maneuverability lights: #55000 x two (2) all around white - #55004 x four (4) all around red. 24 volt
		g	Stainless steel "Light Tower" per PAE design
	8		Owner's cabin and port and starboard guest cabins to have two (2) each 120 volt AC Imtra "Ondine" chrome bronze swing arm reading lights with off-white/chrome hem shades. (6 total)
	10		Accent lights in heads: Two (2) owner's head, Two (2) Port guest head, Two (2) Stbd. Guest head, Two (2) Wheel house head: Imtra "Zeus" 24 volt DC
	11		Deck Floodlights: Two (2) Aqua signal 120 volt/500 watt series 1069 mounted on port and starboard cockpit overhang
	12		Spotlight: Carlisle & Finch 200 watt 120 volt AC spotlight #XY2EDE-RF with dual station remote controls. Unit mounted on forward wheel house roof
	13		Under water lights across transom Imtra #IML Halogen UW thru-hull light 24 volt DC. (5 total)
L.			EXTERIOR, DECK HARDWARE and EQUIPMENT
	1		Non-Skid - All horizontal surfaces on deck to have a diamond pattern non-skid as shown in deck plan - standard non-skid to be a contrasting color to parameter deck
	2		Stainless 316 handrails 2" (5.08 cm) O.D. with electro polished bases. All rails shown on PAE drawings to be standard in addition to those specified
		a	Handrails at transom
		b	Hand rail around aft deck seating area 2" (5.08 cm) diameter
		c	Handrail on underside of aft deck overhang 1-1/2" (3.8 cm) O.D.
		d	Hand rail at port and starboard side boarding doors
		e	

3		Eleven (11) S/S 316 Hawse fittings with rollers by Aritex Model no. D08Z: Five (5) P&S per drawing 7" x 16" (17.8 cm x 40.6 cm) with rollers. Four (4) at port and starboard side deck bulwarks to be recessed and to have cleat option. One (1) on aft center line with cleat
4		Bollards - S/S 316 16" (40.6 cm) bollards x two (2) total per drawing
5		Upper rub rail cap to be 316 stainless steel 2-1/2" W x 3/8" thick (6.4 cm x 9.5 mm) fastened with flush 316 stainless steel fasteners. Stainless steel caps on upper and lower rub rails as shown in design
6		Lower rub rail cap to be 316 stainless steel 2" W x 1/4" thick (5.08 cm x 6.35 mm)
7		Manship ports in hull and deck as shown on design. Ports positioned as follows:
	a	Six (6) starboard side hull 8" x 18" (20.3 cm x 45.7 cm) oval opening
	b	Six (6) port side hull 8" x 18" (20.3 cm x 45.7 cm) oval opening
	c	All opening ports to be fitted with screens and deadlights
8		Stainless steel 316 double bow roller - 1/2" (1.27 cm) chain. Roller to be built per PAE design
9		Rails and Stanchions - Stainless steel 2" (5.08 cm) diameter 316 rails and stanchions on upper deck and flybridge deck . Rails to have welded on bases with fasteners - 1 - 1/2" (3.8cm) divider rails as shown on drawing
10		Foredeck rail - foredeck to have 2" (5.08 cm) diameter 316 stainless rail with 2" (5.08 cm) diameter stanchions. Welded to bases with fasteners with 1-1/2" (3.8cm) divider rails as shown on drawing
11		Windshield Wipers: "Exalto" 2-speed self-parking motor, with wash system for four (4) front windows
	a	#EX2167.32 wiper motor 223BS 24 volt/23Nm, for 1-3/8" (9.5 mm) bulkheads x four (4)
	b	#EX2135 T1 pantograph arm 17.7"- 23.6" (45 cm - 60 cm) adjustable x four (4)
	c	#EX2174 curved wiper blade 17.7" (45 cm) x four (4)
	d	#EX2159 combo switch for single wiper 24 volt x four (4) (custom engraved panel per PAE design)
	e	#EX2143 24 volt solenoid valve for wash system x one (1)
	f	#EX2136.03 tubing retainer strip x four (4)
	g	#EX2184 washing jet for type 1 adjustable pantograph arm x four (4)
	h	#EX2186 plastic bulkhead connector for 19.7" (50 cm) (new style)
	i	#EX2154 tubing _" (6.35 mm) soft black x 16' 5" (5 m)
	j	#EX2157 tubing _" (6.35 mm) hard black for push fit plumbing fittings x 16' 5" (5 m)
	k	#EX2129 elbow .24" (6 mm) x six (6)
	l	#EX2166 T-coupling 6x6x6mm x four (4)
	m	#EX2119 straight coupling , _" (6.35 mm) x one (1)
	n	#EX2105.025 gallery with adjustable spring to tension wiper against window x four (4)

12			Horn: Kahlenberg dual trumpet #D-1 with chrome finish and fog timer 120 volt compressor with 24 volt DC solenoid
13			Deck hatches: Per deck plan, Three (3) Lewmar #60 "Ocean Series" to include insect and privacy screens on foredeck
14			Windows with 5/8" (16 mm) thick tempered glass
	a		All side windows to be tinted glass
	b		All salon and wheel house windows are recessed 1" (2.5 cm).
	c		All salon windows to have storm plate receptacles
	d		Aft wheel house and wheel house head windows to be opening 3/8" (9.5 mm) tempered glass
	e		Aft salon window to port
	f		Forward wrap around windows on saloon deck to be fixed with 3/4" (1.9 cm) thick tempered glass
15			Aluminum doors by Pacific Coast Marine as follows (Note: interior as well as exterior PCM doors are included in this schedule):
	a		Wheel house aft - one (1) each Weather Tight door with all glass panels. 21" x 73" (53.3 cm x 185.4 cm) , two (2) each Weather Tight "Dutch" doors port and starboard 21" x 73" (53.3 cm x 185.4 cm)
	b		Salon after - one (1) each Weather Tight single opening door with all glass panels. 28" x 73" (71.1 cm x 185.4 cm)
	c		Aft deck day head - weather tight single with window 21"x 73" (53.3 cm x 185.4 cm)
	d		Lazarette - one (1) each with port hole, Water Tight model no. PCM4170-W with sound blanket core, painted. Right hand surface mount hinge. C.O. 21" x 56" (53.3 cm x 142.2 cm)
	e		Hatch to engine room from aft deck (like flybridge companionway on N86)
16			Boarding doors: Stern door on port and starboard side on transom per drawing. Doors to have Aritex "blind" dog lock/handles
17	a		Nautical Structures EURO2000 LB capacity hydraulic/208 volt AC 3 phase davit with 13'-10" (396.2 cm) maximum reach, mounted on fore deck per drawing. Davit sized and positioned to launch dinghies from port and starboard side
	b		Max single dinghy weight placed on the foredeck to be no more than 1500 lbs. (680.39 kg) max multiple dinghy or water craft weight placed on foredeck to be limited to 2000 lbs. (907.18 kg)
18			Upper Aft deck exterior cabinet per drawing
	a		FRP locker and refer opening to starboard
19			Bottom treatment: Five (5) layers of epoxy barrier coat and three (3) coats of anti fouling paint, Pettit "Trinidad"

20		Fishing cockpit to drain through six (6) freeing ports with flaps
	a	Side decks to drain through twelve (12) freeing ports
21		Anchor well to drain through two (2) drains 2" (5.08 cm) diameter
22		Stern capstan winches: Two (2) Maxwell VC 3000 24 volt DC electric port and starboard per PAE design with single foot switch each
23		Flag staff - 60" (152.4 cm) teak flag staff with 2" (5.08 cm) socket for aft deck rail
24		Anchor: One (1) x 300 lb. (136.08 kg) stainless steel plow x one (1) x 200 lb (90 kg) stainless steel plow
25		Chain - 700' (243.84 m) 5/8" HT (16 mm) chain in two (2) 400' stbd (121.92 m) and 300' port (91.44 m) lengths
26		Swim ladder: Stainless steel mounted in swim step, accessible from water
27		Cleats - Two (2) fold up style 10" (25.4 cm) cleats above swim step port and starboard for dinghy tie up
28		Windlass: Dual matched set of Maxwell VWC 4500 hydraulic, two (2) station controls in W/H, and aft deck and foot switches with chain counters and band brake and 5/8" HT (16 mm) chain gypsy x two (2)
29		Aritex chain stopper with devils claw chain tensioner for 5/8"HT (16 mm) diameter chain for starboard side anchor - port side to have chain stopper
30		All exterior locker doors to use flush SS pull rings for latches same as N86
31		All exterior locker doors to have louvered vents
32		All exterior door keepers to have hold open keepers
33		Six (6) Fishing pole holders flushed into bulwarks in cockpit. Two (2) each port and starboard sides with drains and two across transom
34		Stainless steel stem plate at waterline
35		Life raft areas port and starboard side of pilothouse deck
36		Swim step rails - Three (3) 2-1/2" (6.4 cm) diameter "U" shaped rails across swim step
37		Gasoline storage tank - 50 gallon (189.27 liter) gasoline storage tank with electric pump installed inside Portuguese bridge, accessed from foredeck deck. With 15' (4.5m) fuel hose

38			Six foot (1.8m) Marquipt Sea ladder with brackets at port and starboard side of bow for access to dinghy after launching
39			Three (3) aft deck hatches. Port and starboard are kill boxes and center is access to lazarette
40			Life rings - 30" (76.2 cm) diameter Life ring port and starboard
41			Aft deck seating upper cockpit port and starboard with teak tables
42			Deep Freezer: 35 cu. ft. (10.7 sq m) on port side of lazarette Cruisair cold plate refrigeration system 208 volt AC 3-phase 50/60 Hz
43			Kill Boxes port and starboard aft deck with hinged lids. Boxes are to be FRP with polished gelcoat finish. Draining with Shurflo #3200-011 24 volt Macerator pump
44			Install flush plate in deck for removable fighting chair
45			Live bait tanks port and starboard aft cockpit. Glass window on aft side with Imtra 24 volt Livewell light and 24 volt "Pro Bait Master" pump by Shurflo with alarm system and "Kodiac #KW1 plumbing kit
46			Tackle lockers/drawers port and starboard on inboard sides of bait tanks
47			Inside of aft deck bulwark to be smooth FRP or padded. Owners choice
48			Isotherm outdoor refer upper aft deck Model #Cruise 42
49			Stainless steel ladder from aft deck to wheel house deck port side
50			Out riggers x two (2) port and starboard from Rupp
51			Rocket launcher style rod holder for up to twelve (12) rods stainless steel
52			Dive bottle storage for up to four (4) dive tanks in lazarette
53			Door from Portuguese bridge to foredeck on center line to use Aritex Pantograph style hinge and Aritex dog set
54			Freeman watertight deck hatch over chain locker, #18HAALR x two (2)
55			Flybridge and stack: per PAE drawing
	a		Single control consol to starboard. Consol to have engine control and gauges, single jog lever in lieu of wheel for rudder control, spot light controls, stabilizer and thruster controls

		b	Single Stidd chair, slimline, low back, high pedestal, white vinyl, white base helm chair
		c	Bench seat as per FB drawing with cushions
		d	Venturi
		e	Ladder from pilothouse aft deck
		f	Painted on non-skid - color to match lower deck non-skid
			* Specifications are subject to change at the discretion of desingers and builders