Robert E. Shannon
City Attorney of Long Beach
333 West Ocean Boulevard
Long Beach, California 90802-4664
Telephone (562) 570-2200

AGREEMENT

29769

THIS AGREEMENT is made and entered, in duplicate, as of August 22, 2006 for reference purposes only, pursuant to Resolution No. RES-06-0095 adopted by the City Council of the City of Long Beach at its meeting on August 22, 2006, by and between ROBERT STAPP, an individual doing business as SEAWAY BOAT CO. ("Contractor"), located at 1528 West 14th Street, Long Beach, California 90813 and the CITY OF LONG BEACH ("City"), a municipal corporation.

WHEREAS, Section 1802 of the Long Beach City Charter permits the City to make purchases under the purchasing contracts of other governmental agencies when authorized to do so by a resolution; and

WHEREAS, the City desires to purchase two (2) fire rescue boats; and

WHEREAS, the County of Orange (the "County") has a contract for the purchase of these vehicles, Purchase Order No. PC 060 P0400007453 ("County Purchase Order"); and

WHEREAS, Resolution No. RES-06-0095 authorizes the City Purchasing Agent to purchase this equipment from Contractor by virtue of the County Purchase Order;

NOW, THEREFORE, in consideration of the terms and conditions contained in this Agreement, the parties agree as follows:

1. The County Purchase Order with Contractor is incorporated by this reference as if fully set forth, and the same terms and conditions contained in the County Purchase Order shall be applicable here except as follows:

a. Wherever the County Purchase Order refers to the County, it shall be deemed to refer to the City of Long Beach;

b. Contractor shall sell, furnish and deliver to the City equipment of substantially the same type and kind purchased by the County of Orange and on the same terms and conditions offered to the County of Orange, except as modified by Exhibit "A" attached to and incorporated in this Agreement, for an amount not to exceed $797,170.32

including tax, with a 10 percent contingency for additional equipment and vehicles, extending until the warranty on the two (2) fire rescue boats expire. To the extent that the County Purchase Order and this Agreement are inconsistent, the following priority shall govern: (1) this Agreement and (2) the County Purchase Order.

c. Payment for the equipment purchased from Contractor by City shall be made by the City on delivery to and acceptance of the equipment by the City and submittal of an invoice to the City. Payment is due thirty (30) days after the date of the invoice.

d. All warranties shall accrue to the City of Long Beach.

e. The parties may, by mutual agreement, amend this Agreement with the approval of the City's City Council.

2. Neither this Agreement nor any money that becomes due to Contractor under this Agreement may be assigned by Contractor without the prior written consent of the City Manager or his designee.

3. Any notice given under this Agreement shall be in writing and personally delivered or deposited in the U.S. Postal Service, return receipt, and shall be delivered or mailed to Contractor at the relevant address first stated above, and to the City at 333 West Ocean Boulevard, Long Beach, California 90802 Attn: City Manager. Notice shall be deemed given three days after deposit in the mail.

4. The terms appearing on the County's Purchase Order are incorporated in this Agreement. Contractor is called "Vendor" in the County's Purchase Order.

5. Contractor shall cooperate with the City in all matters relating to self-accrual of use tax. Contractor shall contact the City Treasurer for additional information regarding self-accrual.

6. This Agreement and all documents which are incorporated by reference in this Agreement constitute the entire understanding between the parties and supersede all other agreements, oral or written, with respect to the subject matter of this Agreement. If there is any legal proceeding between the parties to enforce or interpret this Agreement, or to protect or establish any rights or remedies, the prevailing party shall be entitled to its

Robert E. Shannon
City Attorney of Long Beach
333 West Ocean Boulevard
Long Beach, California 90802-4664
Telephone (562) 570-2200

costs and expenses, including reasonable attorney's fees.

IN WITNESS WHEREOF, the parties have caused this document to be duly executed with all formalities required by law as of the date first stated above.

21 SEPTEMBER, 2006

ROBERT STAPP, an individual doing business as SEAWAY BOAT CO.

"Contractor"

CITY OF LONG BEACH, a municipal corporation

9·29·, 2006

By _____
City Manager

"City"

This Agreement is approved as to form on 9/26, 2006.

ROBERT E. SHANNON, City Attorney

By _____
Senior Deputy

DFG:bg 8/31/06;9/20/06(AGR_Seaway)06-03540
L:\APPS\CtyLaw32\WPDOCS\D031\P003\00093581.WPD

Robert E. Shannon
City Attorney of Long Beach
333 West Ocean Boulevard
Long Beach, California 90802-4664
Telephone (562) 570-2200

EXHIBIT “A”

Seaway Boat Co.

1528 WEST 14TH STREET

Telephone: 436-3831 • Long Beach, Calif. 90813

May 23, 2006

Mr. John Seevers
Fleet Services Bureau
City of Long Beach
2600 Temple Avenue
Long Beach, CA 90806

Dear Mr. Seevers,

I have reviewed the City of Long Beach specifications for a Class 2 Lifeguard/Fire Rescue Boat and compared them with the boat specifications for the vessel contracted with Orange County dated April 20, 2004, for $246,635 plus tax.

The City of Long Beach specifications are designed to provide an Ocean Surf Rescue/Fireboat as opposed to the vessel contracted for with Orange County which is designed as a harbor patrol/fire response boat.

Listed below I have itemized the cumulative impact to build an ocean-worthy rescue boat including various additional items included in the City of Long Beach specifications.

1. Labor costs associated with the double 1-1/4" as opposed to single 5/8" surfboat hull have increased. Seaway Boat Company labor rates have increased from $60 in 2004 to $70 in 2006. The specifications for the City of Long Beach boat will require 2910 hours to build verses 2200 hours to build the single lay up of the Orange County boat.

   CLB $70 x 2910 hours = $203,700
   OC $60 x 2200 hours = $132,000
   $ 71,700 cost increase

2. Engines and Running Gear
   Orange County specified Crusader (2) 8.1 liter and (1) four-cylinder gas engine along with shafts, struts and props for $43,800.

   Long Beach has specified (2) Cummins QSB 5.9 diesel engines for propulsion and (1) Cummins 4BT pump engine. This increased power will require structurally stronger shafts, struts and props. These engines cost $74,900 and the enhanced shafts, struts and props to support ocean use will cost $2,300.

CLB	Engines including shafts, struts and props	$77,200
OC	Engines including shafts, struts and props	$43,800
		$33,400 cost increase

3. Additional Stainless Work
The Orange County boat specified only stainless handrails and transom corners. The Long Beach boat specified an adjustable stainless mast/radar tower, cut water, sheer rails, tow bit, swim step, transom opening, stern corners and gunwales including stainless steel on miscellaneous wear surfaces at $8,500.

Stainless Steel $8,500 cost increase

4. Materials for construction have increased by six (6) percent since 2004 when the Seaways Boat Company entered into a contract with Orange County. The Long Beach boat requires more materials such as plywood, fasteners, etc. The increased cost for materials is $7,973.

Construction Materials $7,973 cost increase

Summary of additional construction costs:

1.	Additional labor to build surf boat	$ 71,700
2.	Upgrade gas engine to diesel	33,400
3.	Additional stainless work	8,500
4.	Increase price & additional construction materials	7,973
Total of additional construction costs		125,573
Orange County Boat, PO #400007453		246,635
Price to design and build new Rescue/Fireboat		$ 368,208

Sincerely,

Robert G. Stapp

c: Mark Boone, Marine Safety Chief, Fire

Attachment
Purchasing/RB

CITY OF LONG BEACH
DETAILED SPECIFICATIONS NO. FS0408
CLASS 2 LIFEGUARD/FIRE RESCUE BOAT

	Comply Yes	Comply No	Comments and Exceptions
INSTRUCTIONS: State comments and or exceptions in the blank spaces provided for each section regarding the vehicle or equipment offered corresponding to the specifications set forth. FAILURE TO COMPLETE ALL BLANK SPACES WILL OTHERWISE BE DETERMINED AS VENDOR MEETING SPECIFICATIONS MINIMUMS.			
GENERAL: It is the intent of these specifications to describe the type, size, quality and performance of the boat desired by the City of Long Beach. The design of the vessel must embody the latest approved marine engineering practices and the workmanship must be of the highest quality in its respective field. Unit shall comply with the latest editions of the United States Coast guard regulations, SAE Standards and applicable Cal OSHA Regulations. In the case of details, which are impractical to fully specify or of inadvertent omissions from the plans and specifications or inadvertent inclusions therein, it is understood that the intent of the plans and specifications are to be carried out in all respects, according to the American Bureau of Shipping Guides for Builders of Boats and Yachts. Materials, construction, and equipment are to be first class in every particular to produce a boat of the maximum strength, quality, and durability for at least a ten (10) year first line service life. All material/components used shall be of the most current production/specifications and have local availability unless otherwise specified.			
ENGINE, MARINE: Two (2) Cummins QSB5.9-355 intermittent 355 maximum HP, B/2800 rpm, including specified instrument panel and instrumentations, flexible engine mounts,			

	Comply		Comments and Exceptions
	Yes	No	
alarms, two groove pulleys, with Model #5061A twin disc reduction gear. The transmissions shall have a one and one half (1-1/2) to one (1) reduction ratio.			
ENGINE/REDUCTION GEAR COOLING: Engine and reduction gear cooling to be manufacturers' specifications.			
REDUCTION GEAR COUPLINGS: Walter skirted couplings five (5") inches shall be used to connect the transmission to the drive shaft on all three (3) engines. The pin used to connect the coupling to the drive shaft shall extend through both the coupling and the drive shaft.			
COOLING SYSTEM: Individual semi-positive displacement, self-priming water pumps. Full flow to exhaust manifolds, thermostatic control of engine circulation system. Heavy-duty one hundred and eighty-two (182) degree thermostat for closed cooling system as supplied by Cummins.			
ELECTRICAL SYSTEM: Twelve (12) volt, negative ground, pre-wired electrical system with at least one hundred and five (105) -amp minimums rated capacity marine-type alternator.			
DEWATERING ENGINE: Fire pump/dewatering engine shall consist of a Cummins 4BT3.9-M engine model, 112KW, 150 BHP, 2800 rpm intermittent duty cycle WITH A Borg Warner 72C reduction gear with a 1.0 to 1.0 ratio (reconditioned engine or approved equal may be required to facilitate EPA restrictions).			

	Comply		Comments and Exceptions
	Yes	No	
Installed above the keel on the center bilge stringers in the lazarette, between the fuel tanks. Connected to a marine grade three inch (3") copper one eighth inch (1/8") wall pipe, silver soldered sweated pipe joints, with a "T", one going aft on the afterdeck (location specified by previous installations) and to a two (2) one inch x one half inch by one half inch (1" x 1/2" x 1/2") "Y" valve Akro N/brass "ball" valve. The pipe going forward along one (1) of the center bilge stringers will connect to a valve controlled at the steering console with a Morse combined shift (valve) throttle cables. The valve is then connected through the foredeck by a pipe to a pedestalled Stange Monitor, Model BB 309 all stainless with stainless steel Elkhart Stange monitor handle, Jumbo Mystery 5006 PM chrome bronze nozzle with two and one half inch (2-1/2") coupling Model #M-R-2 5006 PM. Installed in line, with a 0-200 psi pressure gauge. The engine, the pump, and the bow monitor to be installed as per above specifications and approved by Department representatives.			
FIRE/DEWATERING PUMP: Fybrok, series 1500 horizontal ANSI pump, pump impeller x suction x discharge – 3 x 4 x 10; ANSI designation is A70. Minimum six hundred (600) GPM connected to one (1) to one (1) Borg Warner 72C drive gear between the engine and the pump, to control the pump while the engine is operating. All piping shall be marine grade one eight-inch (1/8") wall, three inch (3") silver solder sweated fitted to a line flanged at the pump Y valves with monitor. A Waterous pressure relief valve shall be installed also.			
FOAM TANK: A twenty (20) gallon polyethylene tank shall be mounted on the port side with a through-deck fill fitting. The tank is to be plumbed with a one half			

	Comply Yes	Comply No	Comments and Exceptions
inch (1/2") connection going through a twelve (12) volt bronze solenoid valve to a stainless steel intake fitting on the fire pump. Solenoid installation shall be easily replaced for servicing			
FRESH WATER WASH DOWN TANK: Fresh water wash down tank mounted on the starboard side of the vessel with a through-deck fill fitting properly marked (water). A bronze twelve (12) volt pump and valve assembly for delivering water. Size of tank to be determined at construction not to exceed the capacity of the foam tank. Solenoid shall be easily replaced for servicing.			
INSTRUMENTATION: Controls, gauges and instrumentation shall be weatherproof, in a dash mounted on top of the steering station. Morse single shifters/throttles final location to be determined during construction. Cummins standard Smart Craft system gauge clusters including tachometer option with gauges for battery voltage, water temperature, oil temperature, intake manifold, pressure/temperature, and hour meter. The final installation and run of all electrical and plumbing shall be determined during construction by City Inspectors in conjunction with the boat builder. Electrical and plumbing runs shall be designed to minimize friction loss.			
COOLING SYSTEM: Each engine shall have a water pump inlet two inch (2") in I.D or per the engine manufacturer's specifications. The through-hull fittings shall be installed near engine bulkhead inboard of the engine stringers.			

	Comply		Comments and Exceptions
	Yes	No	
The water scoops (one [1] for each engine) shall be a Wilcox/Crittenden scoops to match intake strainer two inch (2"), two (2) piece, high-speed intake strainer with screens removable from the hull exterior, cast bronze, pipe size two inch (2"). The seacock shall have a two (2") inch stainless ball valves. All valves and thru hulls to be two inch (2") I.D. fitting stainless steel or bronze ball valves. All nipples used shall be two inch (2") bronze pipe, minimum length of two inches (2"). All hoses used shall be of a heavy-duty non-collapsible type; each end shall have two (2) all-stainless steel clamps. A "Perko" salt-water strainer shall be installed after the ball valves in each system or per manufacturer's specifications.			
EXHAUST SYSTEMS: Shall be wet type. One (1) six inch (6") exhaust hose shall be used. A single six-inch (6") I.D. fiberglass tube shall be connected to the transom exhaust pipe. The exhaust six-inch (6") I.D. seamless stainless steel pipe shall be approximately six inches (6") long with a flange welded six inches (6") from the end so that it may be bolted to the transom. Exhaust systems shall be placed outboard and spaced as far apart as possible. All hoses shall be adequately supported and provided with suitable clamps. All connections shall be sized accordingly using Trident Red six (6") inch silicone connectors. Exhaust flap closures shall be installed at the outboard end of each exhaust tube.			
COOLING SYSTEM: Individual semi-positive displacement, self-priming water pumps. Full flow to exhaust manifolds, thermostatic control of each engine circulation system. Heavy-duty one hundred and eighty-two (182) degree thermostat for closed cooling system as supplied by Cummins.			

	Comply		Comments and Exceptions
	Yes	No	
FUEL SYSTEM: All construction must coincide with CFR Sub Chapter 46 governing piping, tanks and standards. Two (2) minimum one hundred (100) gallon capacity fuel tanks. Fuel tanks shall be installed independent of the hull. Fuel tanks shall be constructed of one-quarter inch (1/4") marine grade aluminum #5052. All radiused corners shall be bent, seams are to be continuously welded on both sides and joints are to be overlapped wherever possible. Joints shall be Heliarched on all four (4) corners according to Navy construction specifications. Tanks shall be coated with Bicamatic two (2) part Epoxy cold tar. Fuel tanks shall vented and filled forward. Openings for fill, vent, and pickup fuel piping shall be of sufficient size to accommodate both engines operating while fully loaded on the top-post surface of the tanks. Pick-up to be aft with the filler forward. Return line shall be plumbed to within two inches (2") of tank bottom. Fuel tanks shall be electrically bonded to the common ground per USCG regulations. Tanks shall be tested to a pressure of five (5) pounds per square inch or one half (1/2) times the maximum load to which they may be subjected to when in service, whichever is greater. All hoses to be type A-1 for distribution and A-2 for vents and fillers.			
FILLING AND SOUNDING FOR FUEL TANKS: Fill pipes shall be not less than one and one half inch (1 1/2") pipe.			

	Comply		Comments and Exceptions
	Yes	No	
Filling and sounding pipes shall be arranged so that overflow of liquid or vapor cannot escape into the bilges of the vessel. Where sounding pipes are used, their openings shall be at least as high as the opening of the fill pipes, and they shall be kept closed at all times except during sounding. Fill and sounding pipes shall run as directly as possible, preferably in a straight line from the top of the gunwale to the top of the tank. Such pipes shall terminate on the aft deck, clear of any combings and shall be fitted with watertight deck plate, suitably marked for identification. Fill and sounding pipes shall extend to within one-half (1/2) of their diameter from the bottom of the tank. Where a flexible fill pipe section is necessary, suitable flexible tubing or hose having high resistance to salt water, petroleum oils, heat and vibrations shall be used. Such hose shall overlap metallic pipe ends at least one half (1/2) times the pipe diameter and shall be secured at each end by two (2) stainless steel corrosion-resistant metal clamps. The flexible sections shall be accessible and as near the upper end of the filling pipes as practical. The flexible section is a non-conductor of electricity, the metallic sections of the filling pipes will be separated and joined to a conductor for protection against static spark.			
VENT PIPES FOR FUEL TANK: The tanks shall be fitted with a vent pipe, A-1 or A-2 hose to be used (at forward end of the tank); the hose should be installed and connected at the highest point of the tanks. The net cross-section I.D. of the vent pipe shall be not less than three quarter inch (3/4") O.D. tubing (.035 inch wall thickness, two [2] gauge).			

	Comply		Comments and Exceptions
	Yes	No	
The discharge end of vent pipe shall terminate on the hull exterior as high above the water line as practical and removed from any hull openings. The discharge end of vent pipe shall be fitted with screens or flame arresters. The flame screens shall consist of a single screen of corrosion-resistant wire of at least thirty by thirty (30 x 30) mesh. The flame screens or flame arresters shall be of such size and design as to prevent reduction in the net cross-sectional area of the flame screens or arrestor elements.			
FUEL SUPPLY PIPING, MATERIAL AND WORKANSHIP: Each engine shall have an individual fuel filter, RACOR 1000 GPM or approved equal. The fuel lines from fuel filter to fuel pump shall be sized to match the engine's requirements. The fuel lines that supply the engines are to be USCG type A-1 hose. A ten (10) micron hydraulic filter plumbed to the primary intake of the Racor unit. Connections and fittings shall be of non-ferrous drawn or forged metal of the flared type. Valves for fuel line shall be non-ferrous material of the packless type and shall be marked to indicate direction of operation. One for each tank and engine. Fuel lines shall be run at the level of the fuel tank top (from the aft end), to a point as close to the fuel filters as practical, from the filters to the manifold and fuel return lines shall run from engines to manifold and then to each tank. Fuel lines shall be accessible, protected from mechanical injury, and effectively secured against excessive movement and vibration by the use of plastic straps secured on twelve (12") inch centers. When passing through bulkheads,			

	Comply		Comments and Exceptions
	Yes	No	
close-fitting ferrules or stuffing boxes shall protect the fuel lines. Shut-off valves, shall be bronze with a stainless steel ball size shall be determined by fuel line size and shall be fitted on the fuel supply line, one at the tank connection and one at the engine end of the fuel lines to stop fuel flow so as to facilitate accessory servicing.			
PROPELLER SHAFTS: Shall be made of "Armco" or "Sealoy", shaft size shall be determined by the engine and reduction gear torque specifications (1-1/2 inch minimum size). Shafts shall be provided with marine bronze propeller nuts and locknuts with cotter pins. Propeller size shall be designed in such a way to maximize engine and hull specifications and approved by the builder and engine manufacturer in consultation with the City of Long Beach representative.			
SHAFT LOGS: Shall be of bronze or fiberglass with self aligning packing glands.			
STRUTS: Shall be manganese bronze, single or double arm type having rubber cutlass bearings, attached with at least six (6) silicon bronze or stainless steel through bolts. Backing plates to be of a similar or compatible material that prevents or reduces electrolysis and corrosive reactions.			
PROPELLERS: Shall be Federal, Michigan or Dynajet, three (3) or four (4) bladed, and shall have the most suitable pitch and diameter to maximize the			

	Comply Yes	Comply No	Comments and Exceptions
performance level in accordance with City specifications. Propellers shall be dynamically and statically balanced, manufactured of a "bronze" type material.			
HULL: The Lifeguard Fire/Rescue Boat shall be of an open cockpit type, a decked bow with a weather deck area extending through to the transom. A generous flare in the bow shall have a modified "V" planning hull that is seaworthy and balanced, built with a dry bow flare so as to throw water to sides rather than forward. The vessel shall be constructed, engineered and designed for rough weather and open sea conditions. Hull design shall be full length with straight buttocks parallel to the keel with eight (8) external longitudinal lifting strakes extending from stem to stern.			
PERFORMANCE REQUIREMENTS: 1. Shall maintain a minimum speed of thirty-six (36) MPH on calm water with three (3) persons aboard, fully loaded with fuel as described in the specifications. 2. Boat must maneuver through all variations of high, medium and slow speeds and confined locations throughout the City's waterways. 3. Shall be capable of making a two (2) hour continuous test run without the loss of power, overheating of engines, degradation of fuel supply, while planning and maintaining a minimum speed of twenty-three (23) MPH. 4. Shall be capable of going from a dead start in the water and accelerating to a full plane in two hundred (200) yards or less. 5. The vessel shall handle and maneuver in accordance with the highest standards in marine practice.			

CITY OF LONG BEACH
DETAILED SPECIFICATIONS NO. FS0408
CLASS 2 LIFEGUARD/FIRE RESCUE BOAT

	Comply Yes	Comply No	Comments and Exceptions
CONSTRUCTION MATERIAL: Plywood — Marine grade plywood Mahogany — Philippine Glue — West System Epoxy Fastenings — All silicon bronze screws and bolts, anchor-fast nails may be used where authorized by City Rep.			
GENERAL CONSTRUCTION: Fastenings shall be of suitable size, in sufficient number (minimum four inch (4") centers), which offer resistance to withdrawal and lateral stresses. All fastenings shall be covered with fiberglass, shall be countersunk to not more than one (1) ply of the outer layer of plywood. West System Epoxy filler shall be used over counter-sunk fastenings. Scarf joints shall be machine cut, ratio ten (10) to one (1). Joints shall be glued and pressure applied to approximately twenty (20) lbs. per square inch during curing. All construction joints shall be glued and appropriately fastened with screws.			
FIBERGLASSING: All exterior surfaces shall be matted with fiberglass. Application shall be of the highest standards following the recommendations specified by the fiberglass manufacturer. General recommendations are as follows: The wood shall be dry and rough sanded and the temperature shall be controlled. All air bubbles shall be removed and the cloth thoroughly saturated with West System epoxy. All laps shall be sanded to a smooth finish and there shall be no pinholes or voids.			

	Comply Yes	Comply No	Comments and Exceptions
MATERIAL AND FLUIDS: Fabric seven and one half ounce (7.5 oz) boat fiberglass. Fabric construction sixteen-fourteen (16-14) count. Hull exterior shall have two (2) coats and bilge shall have one (1) coat fabric and epoxy finish. West System epoxy resin. Hull sides, transom, weather decks, bridge deck, sprayshield, top, flying bridge wings, cockpit sides, deck, hatches, and hatch gutters shall have two (2) coats of fabric. Engine room bulkheads and bilge shall have two (2) coats of fabric. All corners shall be overlapped. All rub, sheer; toe rails shall be installed/attached after fiberglassing.			
PRESERVATIVES: All surfaces inside and outside of the hull that are not fiberglassed, all trim, rub rails, etc., shall have two (2) coats of West System clear epoxy. The bilges shall have two (2) coats of West System clear epoxy. All interior hull wood surfaces not fiberglassed shall have two (2) coats of West System clear epoxy.			
DECKS (Superstructure, Console, Wings): The bow deck shall be built up to the required thickness of three quarter inch (3/4"). If laminated, it shall be glued and screwed to each other and to deck beams. The deck beams shall be one and one half inch by three inches (1-1/2" x 3") Douglas Fir at sixteen inch (16") centers, extending to the sheer clamp. The cockpit deck shall have two (2) longitudinal two by five (2" x 5") inch deck braces below center engine hatch. Drains to run from bulkhead shall be installed. The aft cockpit deck shall be marine grade			

	Comply Yes	Comply No	Comments and Exceptions
plywood, three quarter inch (3/4") thickness, concave, approximately two inches (2") to center with a two (2") inch slope to the stern. The deck shall be a minimum of nine inches (9") above the transom-boarding step. The deck beams shall be two inches by five inches (2" x 5") running fore and aft with two (2) leg bracings each attached to the longitudinal stringers. Non-skid: Weather deck use Silica Sand 16 (medium; Inside cockpit deck use Silica Sand 16 (light). All engine and fire pump hatches shall have foil backed latex insulation one (1") inch attached to the undersides.			
MEASUREMENTS: Length — LOA – Centerline 31 feet Length at Waterline — 28 feet Beam — 11 feet 6 inches Beam at Chine 1 — 9 feet 6 inches Freeboard Forward — 4 feet 4 inches Freeboard Aft — 2 feet 8 inches Draft — 2 foot 10 inches Dead Rise — 12 degrees at transom 25 degrees at forefoot Transom – Straight — 10 feet 9 inches Transom Step — 2 feet Transom Opening — 36 inches Sprayshield — 42 inches fm weatherdeck Overall height from water line — 77 inches Bow – Stem — 3-3/4 inches x 5 inches Keel — 3-3/4 inches x 8 inches Chines — 3-3/4 inches x 5 inches Stern Posts — 1-3/4 inches x 4 inches Sheer Clamp — 2-1/4 inches x 5 inches Bottom Diagonal — Minimum 1-1/4 inches Sides Planking — Minimum 3/4 inch Transom Plywood — Minimum 1-1/2 inch Bulkhead — Minimum 1 inch			

	Comply Yes	Comply No	Comments and Exceptions
TRIM-TOW-SHEER-RUB COMBING: Sheer and Toe — 1 inch x 3 inches x 1/2 inch Cockpit Combing — 1 inch x 6 inches with stainless steel oval cap. Rub Strake — 3 inches x 4 inches taper to 1-1/4 inch, 22 feet forward of step with stainless steel cap.			
ENGINE BEDS: Shall be of sufficient strength to carry the weight and torque load of each engine. Maximum operating angle at the waterline level. Mounting bolts shall be of sufficient size to avoid engine movement. The center of gravity of the engines shall be installed according to designer's specifications. Galvanized double-dip or 304 stainless steel overlays bolted to the stringers, overlapping the stringers by at least six inches (6") on both the forward and aft end. Engines shall be placed on the stringer and saddled at engine rails. Engines shall sit on stainless steel or galvanized saddle mounts bolted through to the stringer.			
ENGINE ALIGNMENT: The alignment of the coupling flanges of the reduction gear and propeller shaft shall be parallel within .002 inches, or as specified by engine, transmission, and reduction gear specifications. Transmission couplings-manufacturer Walter 5 inch skirted couplings with the pin installed and extending through the coupling and into the shaft.			

	Comply Yes	Comply No	Comments and Exceptions
LONGITUDINAL LIFTING STRAKES: Shall extend the length of the hull, spaced sixteen (16") inches apart, starting from the chine inward. They shall be West System Epoxied, resined and screwed, and fiberglass covered. Size approximately two inches x zero inches to one half inch (2" x 0" to 1/2"), and installed after the bottom has been fiberglassed.			
TRANSOM BOARDING STEP: Full width of transom approximately ten feet by twenty inches by two inches (10' x 20" x 2"). Material: Philippine Mahogany. Construction: Shall be laminates of Philippine Mahogany, two inches by one inch (2" x 1"), epoxy glued, and fastened with silicon bronze screws every six inches (6") above the waterline with five and three-eights inches by thirty inches (5-3/8" x 30") stainless steel bolts, extending the full width of the step through the transom and oak backing blocks one inch by six inches by six inches (1" x 6" x 6") with extra-large flat washers under the nuts, four (4) stainless steel 300 series (non-magnetic) angle braces, one quarter inch by two inches by twenty inches by twelve inches (1/4" x 2" x 20" x 12) installed under the step for support. Bolts connecting to the step and transom. The outer braces shall be angled outward. A rub strake stainless steel cap shall be attached to protect the step on three sides approximately 1-1/2 inches x 1-1/2 inches. Installed as per City representative and similar to previous installations. The protective cap shall extend from the stern and around the swim step. A protective stainless steel half round continuous strip running the full length from the leading edge of the hull rub strake to the transom boarding step.			

CENTER AND ENGINE HATCHES:	Comply Yes	Comply No	Comments and Exceptions
1. Engine hatches approximately three feet by four feet (3' x 4'), center two feet by four feet (2' x 4').			
2. Plywood construction three-quarter inch (3/4") with three-quarter inch by two-inch (3/4" x 2") sides around the perimeters, beams, size and spacing to be determined by the builder.			
3. Install vendor provided hatch hold down locking mechanisms and ware surface guards. Each hatch hold down mechanism to have a stainless steel ware surface guard to prevent damage to the hatch gutter. All wear surfaces to be mortised into the hatch opening wood surface.			
4. The bridge deck shall have thirteen-sixteenth inch by three inch (13/16" x 3") combing around each hatch opening.			
5. The clearance between the outboard edge of hatches and bridge wings shall be sufficient to ensure that the hatches do not stick when they swell.			
6. The spacing between engine and center hatches shall be approximately one inch (1").			
7. The center hatch shall be hinged in the middle with two (2") inch stainless steel piano hinges.			
8. All engine compartment hatches to be flush with cockpit deck.			
9. Piano hinges on all hatches with a securing device when in the open position that will prevent undue wear to the fiberglass surfaces.			
10. Each deck hatch shall be equipped with one (1) vendor provided AB1 D-ring locking lifting devices.			

	Comply Yes	Comply No	Comments and Exceptions
LAZARETT HATCHES: Lazarett hatches similar to engine hatches with piano hinges and AB1 D-ring locking lifting devices protecting fire engine and pump. Securing mechanisms shall be water tight.			
STORAGE SHELVES: Two (2) storage shelves in forward engine compartment on inner hull side. Two (2) forward of forward engine attached to bulkhead or covering battery boxes as specified by City Inspector.			
EXHAUST OUTLETS: Exhaust tubing and connections sized to match the engines supplied by Cummins Marine. Six inch (6") minimum.			
ALARM SYSTEM: Shall have a low oil pressure and overheat alarm, dash warning light back-up alarm supplied by engine manufacturer. Also, bilge alarms shall be located in the cabin area engine room and rear lazarett.			
ENGINE INSTRUMENT PANEL – CUMMINS STANDARD SMART CRAFT SYSTEM GAUGES: Shall include: 1. Three (3) each electrical tachometers, dial TYPE with ability to display engine faults and audible fault indicator, range 0-4000 rpm. 2. Three (3) each oil pressure gauges, 0-100 lbs. 3. Three (3) each pressure senders, or electronic gauges. 4. Four (4) each starting button switches, three (3) for starting, one (1) for horn.			

	Comply		Comments and Exceptions
	Yes	No	
5. Three (3) each voltmeters. 6. One (1) each Hobbs hour meter or engine manufacturer's equal. 7. Two (2) hour meters – one (1) for both main power plants, one (1) for dewatering engine, with oil ground senders. 8. Three (3) each water temperature gauges, 100-230 degrees with sender. 9. Three (3) each pyrometers (mains and pump engine).			
ENGINE THROTTLES AND REVERSE GEAR CONTROLS: 1. Pump engine controls shall be mounted above the centerline of steering wheel below the gauges, adjacent to each other, both control handles together. Morse 33C cables. Morse installation kits shall be installed on the engine and transmission. 2. One (1) each Morse twin for throttles, per engine. 3. Two (2) each singles Morse for transmission control, per engine. 4. Transverse centerline of wheel.			
VENTILATIONS: The engine, fuel and storage areas shall have adequate forced ventilation for using Par Breezie #4739 or equal. Interior vents.			
CONTROL STATION: Shall be of a sit down design, with all controls, steering, switches, instruments, etc., at a level so as to be easily manipulated. Visibility for the operator at the steering station shall be a primary consideration. The helm is to on the starboard side and positioned for maximum control and comfort when operating in a sitting or standing position at the wheel. The console is to have			

	Comply		Comments and Exceptions
	Yes	No	
ample storage area within and afford good covered access to the underside of instrument panel for the accommodation of maintenance. The console is to be constructed to protect all engine instrumentation in a safe, dry, convenient manner; visible to the operator. The steering station is to include at least two (2) stainless steel handrails for the operator and passenger. Installed according to City specifications.			
NAVIGATION CENTER: Radar/video plotter display, GPS, video color and digital fathometers to be housed in weatherproof, fiberglass molded, light gray, gel-coated instrumentation boxes. Boxes to be permanently affixed forward on port and starboard side dashboard and at an angle to accommodate viewing from the steering station or boat manufacturer's suggested location. Access to the navigation center shall be from the front viewing side with a top hinge, one-quarter inch (1/4") clear lexan panel. When open, the panel shall be at and stay at a 90-degree/right angle to its closed position. When closed, the panel shall be water tight to sea spray, rain and wash down water, along with being lockable. The boxes shall be large enough to house and accommodate the following City furnished navigation equipment: 1. Furuno, radar/video plotter, Model 1933C 10.4" color LCD. 4kw 3.5 open array antenna. 2. Furuno, chart/video plotter, Model GP-1700C 7" color TFT LCD. 3. Furuno, proper heading sensor, C2000. 4. Furuno, network sound FRFUBBFF1, dual frequency 50/200 with transducer. 5. Furuno, differential GPS, FU36. 6. Furuno, VHF DSC radio, FM 8500. 7. Taiyo, VHF ADF, TD-L1550.			

	Comply		Comments and Exceptions
	Yes	No	
8. IO-Base T, Ethernet Hub. 9. Standard DS-41, digital depth sounder with flush mounted bronze transducer. 10. Siren, Unitrol Touch Master. Shall have a remote Unitrol 180K operations switch located at the steering station. All major electronics to be on their own circuit breaker box with an adequate number of switches for each item with two (2) spares. The City shall supply a carbon fiber siren driver and horn to be installed with a stainless steel bracket supplied by the vendor and installed to accommodate both a horn and the siren driver. The stainless steel bracket shall be designed similar to those existing on four of the City's current rescue boats. Items 1-10 supplied by the City shall be mounted by the vendor. However, the City shall arrange with an outside contractor for the connections and networking of the various components.			
AUDIO HEADSET: City supplied and installed. Sigtronics controller to accommodate additional communication demands and to provide send and receive capabilities for VHF FM marine radio, City Fire radio, City UHF radio, and onboard cell phone. The City shall arrange for this installation after the vessel is delivered and sea trials concluded.			
INSTRUMENTATION: Control station instruments shall be protected behind a clear plastic Lexan cover of at least one quarter inch (1/4") thickness with full access for repair of gauges and wiring. Cover shall be fixed and installed for easy removal, repair and service. Instruments shall be individually lighted and controlled by a separate switch labeled for			

	Comply		Comments and Exceptions
	Yes	No	
instrument lights. Location to be determined during construction. The compass light shall be on it's own separate switch; clearly labeled. Instruments shall be Cummins Marine Smart Craft System or highest marine quality design and shall include at least three (3) of the following for each engine: 1. Pyrometer 2. One (1) hour meter, electric, engine oil pressure activated. 3. One (1) compass, four-inch (4") minimum, lighted with a separate on/off switch; Richie Power Damp, properly adjusted after launching. 4. Individual switches, Blue Sea Systems four (4) panels with eight (8) circuit breakers each for a total of thirty-two (32) circuit breakers to accommodate all standard systems and accessories. 5. Boost pressure one (1) each.			
CONTROL: Shall be of the highest marine quality: 1. Steering controls shall be hydraulic, with a smooth rim stainless steel, twenty-inch (20") minimum diameter steering wheel. 2. Autopilot (City supplied), Robertson /Simrad, AP11, Model SR1103 shall be installed at the rudder post by the vendor. All other system connections shall be may by the City supplied marine electronic vendor after delivery and sea trial. 3. Dual levers, for both the throttles and the shifters. Morse. 4. Fire/dewatering pump instrumentation and controls. 5. A Morse single control transmission throttle lever with forward engage only and progressive throttle control.			

	Comply Yes	Comply No	Comments and Exceptions
ELECTRICAL: Shall be a twelve (12) volt, negative ground system with three (3) 300 ampere rating, continuous duty, vapor proof, marine master switches to provide starting/charging of either one (1) or all batteries. System shall be color-coded and be protected with adequate circuit breakers accessible inside the V-berth area. The system shall include at least two (2) additional circuit breakers for accessory equipment that may be added at a later date. All wiring to be loomed, dressed and appropriately attached with screw-on metal insulated clips. **Fuses shall only be used on selected equipment approved by City representatives where necessary.** All major electronic, communication and navigational units shall be individually switched to their own circuit breaker. Electrical panel assembly shall have as many switches as required to operate all accessories. Blue Sea System four (4) panels with eight (8) breakers each for total of thirty-two (32) breakers. Toggle switches shall be mounted inside of the cabin on the starboard side within easy reach of the helmsman and labeled. Switches shall be mounted in a recessed panel. There shall be three (3) master battery selectors/ disconnect switches. Insert manufacturer Cole/Hersee three (3) way vapor-proof switches shall be mounted on the forward side of the engine room bulkhead. Battery cable leads to the master switch and from the switches to the engine, starting solenoids shall be double zero (00) size with silver solder fittings. From the master switches, three (3) cables No. 4 to three (3) terminal block assemblies M448, and three (3) junction block No. M-594 (for grounding) shall be installed near the underside of the console. The electrical equipment shall be evenly			

	Comply		Comments and Exceptions
	Yes	No	
distributed between the two (2) power supplies. All wiring shall be configured for the current carrying capacities and no conductor shall be smaller than No. 12 AWG or builder's recommendations except for short leads. All conductors shall be of the standard type (when possible, two (2) conductors shall be used). Silver Beauty Triple A conductor insulation shall be of the plastic type. All wiring shall be run as high as practical above the bilges. If subject to mechanical pressure, terminal wiring shall be secured by plastic strap on twelve-inch (12") centers using stainless steel pan head screws.			
ALTERNATORS: One (1) per engine, marine quality, at least one hundred-fifteen (115) ampere manufacturer's rated capacity. Must be fully operational at 500 RPM. (High output, low RPM) Alternators must supply total amp load before the vessel is delivered.			
BATTERIES: Shall be two (2) 8D batteries minimum, 4750 deep cycle capacity; Model (30) H, Delco, Gould maintenance-free type or equal.			
BATTERY CHARGER INVERTER SYSTEM: XANTREX Marine 25 Charging Inverter System #SW2512. 2500-watt inverter charger that uses 12 volt. SW series Sine Wave. The charging outlet shall be located behind the steering wheel with a receptacle attached to the steering wheel bulkhead. The receptacle shall be metal marine type with a cover. Two (2) receptacles 115 volt GFI located in accordance with City			

	Comply		Comments and Exceptions
	Yes	No	
representative instructions and in consultation with the vendor.			
BATTERY BOXES: Molded fiberglass or fiberglass encapsulated marine plywood properly ventilated, with securable lids.			
HORN: Air, marine type, chrome, with button at console, next to the pilot station. Manufacturer; Grover air horn, supplied by the City.			
BILGE PUMPS: Three (3); one (1) forward, one (1) mid-ship and one (1) aft, electric, Rule Model #1750 or equal, with automatic and manual switches. Two (2) additional vacuum pumps, manufacturer Jabsco, Model #36950-2000 (switched at location of pump) within the bilge and used for cleaning the bilge. One each mounted in the primary engine and pump engine compartments discharging into the outflow side of the bilge pump system. The location to be determined during construction and in consultation with City representative.			
BOW: Bow to have formed stainless steel guard contouring to the stem of the hull extending from the top of shear downward and aft at least seven (7') feet beyond the waterline and under the boat where it will mold into the natural keel of the hull. The plate shall extend at least three inches (3") on each side if the bow stem. It may taper in width to match the width of the hull's keel, but must mold into the fiberglass construction of the keel.			

	Comply Yes	Comply No	Comments and Exceptions
LIGHTING: The following lamps and fixtures shall be provided for this Class II vessel: Lamps shall be selected to provide good appearance, reliability, long life, assurance of local availability and shall be mounted so as not to be obstructive. 1. Side lights, port (red) and starboard (green), Aqua Signal or approved equal, two (2) mile visible range. 2. Bow lights, Aqua Signal or approved equal, three (3) mile visible range. 3. Flush mounted stern light. Aqua Signal SK78 NSSK 77 7m SBb 25 10W or equal, two (2) mile visible range. 4. Two (2) flush mounted docking lights, mounted flush to the stern Mfg. Jabsco (8-1/2 x 6-9/16 x 3-3/16), flood beam, Fox Marine Catalog Number 45 900-001. 5. Cabin Lights; four (4) minimum, forward storage area, surface mounted lights in cabin. One (1) light to be installed within the communications center cabinet. 6. Blue Lights; two (2) Grote three hundred and sixty (360) degree flashing type beacon lights, (Supplied by the City). 7. Radar Light Mast; Single stainless steel mast mounted on foredeck and tied to bridge capable of being lowered to allow for maximum clearance to vessels permanent fixed super structure with room for mounting of radar, horn, blue lights, bow light, deck lights. All wiring shall pass through the mast. The mast shall support the following equipment: radar (City supplied), deck lighting; one (1) floodlight, Hobbs 1700 or equal, working deck, and two (2) floodlights, Hobbs 1700 or approved equal, one (1) facing port and the other facing starboard to illuminate the areas on each side of the vessel. An aft			

	Comply		Comments and Exceptions
	Yes	No	
light to illuminate the cockpit and aft work deck and it shall be mounted below or on the underside of the stainless steel mast plate. 8. Battery source for lighting and electronics shall be a separate system. 9. Siren/PA Bracket; constructed of stainless steel, Type 316 or higher quality. To be attached on the forward face of the dodger and centered in front of the port deckhand seat. 10. Installation of three (3) City furnished female receptacles for handheld spotlights. One (1) at the operator and deckhand station, and one (1) near the transom. Final locations to be determined during construction. 11. Two (2) aft deck spotlights positioned under the port and starboard gunwales. 12. Two (2) lights in the engine compartment and two (2) in the fuel tank compartment to be vapor-proof. All with protective wire cages.			
CABIN CONFIGURATION: 1. Cabin to be located immediately aft of the chain locker and shall have a athwart ship seat with enclosed storage underneath it. 2. Cabin to be located aft of the seat, both port and starboard sides shall have storage lockers. 3. Stairway with hand railing extending from V-berth to the weather deck. 4. Ladder and hatch centered. Interior light shall also be centered over the ladder.			
FORWARD INTERIOR DETAIL: 1. Located immediately aft of the chain locker shall be athwartship's seat with enclosed storage underneath. A coat type-hanging			

	Comply		Comments and Exceptions
	Yes	No	
bar shall extend on both the port and starboard sides extending from the front of the storage locker towards the bow as is practical. 2. Located aft of the seat, both port and starboard sides shall have storage lockers with hand openings. Configuration to be determined in consultation with City representatives during construction. 3. Ladder and hatch centered with interior lights. 4. Interior Light Locations: a. Two (2) each, one (1) facing on each storage locker, forward, facing inboard. b. One (1) each below mast bracket. c. One (1) each in ladderway to light radio and switch panel. d. Each light controlled by a switch at the light with master switch at switch panel. Lights to be Wilcox-Crittenden (WC1141) stainless steel.			
CABINETRY: All wood trim shall be Philippine mahogany or teak, unless otherwise specified. It is to be understood that certain dimensions will be limited to hull and superstructure designs. However, the boat builder shall work with City representatives to facilitate efficient cabinet construction in an effort to maximize this City's storage needs. All dimensions will be provided in width, height and depth at time of construction by City representatives working in conjunction with the vendor. All enclosed compartments shall be well vented, equipped with drain holes to the bilge and steel louvers will be provided where necessary. All open storage compartments shall be designed so as to provide storage for the City provided equipment listed.			

CITY OF LONG BEACH
DETAILED SPECIFICATIONS NO. FS0408
CLASS 2 LIFEGUARD/FIRE RESCUE BOAT

		Comply		Comments and Exceptions
		Yes	No	
1.	Four (4) coiled towlines			
2.	First-aid trauma kit			
3.	Medical splints			
4.	Backboard and aluminum scoop			
5.	Scuba diving gear x 2 (tanks, backpacks and gear bags)			
6.	Two (2) oxygen resuscitation bottles			
7.	Two (2) pony bailout SCUBA bottles, belts and regulators			
8.	Two (2) blankets. Two (2) complete sets of protective fire fighting turnouts (pants, jackets, boots, helmets and gloves)			
9.	Two (2) breathing apparatus			
10.	Two (2) spare breathing apparatus bottles			
11.	Fire axe			
12.	Hatchet			
13.	Bolt cutters			
14.	Gas meter for detecting explosive vapors			
15.	Five (5) gallon container of AFFF agent			
16.	Foam nozzle applicator			
17.	Three (3) portable fire extinguishers (CO2, dry chemical and AFFF)			
18.	Two (2) complete wet suits (pants, hood, vest, jacket, booties and gloves)			
19.	Radio equipment (City furnished, VHF and UHF radio control head, Sigtronics intercom headsets and control boxes, and other accessories) Loran/GPS and color video depth finder, digital depth finder, etc			
20.	Hanging poles both port and starboard sides and forward of cabinetry			
21.	Eductor hose; two (2) twenty-two foot sections by three and three eights inches (22' x 3 3/8") o.d.			
22.	Eighty (80) cubic foot scuba tank bracket located in aft lazarette on starboard side. Designed to hold two (2) tanks.			
23.	Fire extinguisher bracket located under the steps along the engine room bulkhead to support three (3) fire extinguishers provided by the City.			
24.	Thermal imaging camera.			

	Comply Yes	Comply No	Comments and Exceptions
TOWLINE SPOOL: Towline spool to be placed in a stern compartment located on the port side. Spool to be constructed of marine grade aluminum #5086 and powder coated. The spool must accommodate five hundred feet (500') of five eighth (5/8") polyproplene three (3) stranded line. The dimensions of the spool are to be determined by the vendor at the time of construction. The spool shall be rotated by a crank that extends through the port side of the swim step passage way. .			
BOARDING HANDLES: Two (2) vertical boarding handles on each side of transom opening. Approximately eighteen inches (18") long, constructed of eighteen-eight (18-8) stainless steel and mounted as directed.			
GRAB HANDLE: One (1) grab handle on port dashboard between cabin hatch and spray shield approximately sixteen inches (16") long and horizontally mounted as directed. One (1) grab handle on port side of companionway constructed of eighteen-eight (18-8) stainless steel.			
ELECTROLYTIC PROTECTION: Monitrol Zinc system with all components properly bonded to provide complete cathartic protection.			
ADDITIONAL EQUIPMENT: The following shall be furnished and installed by vendor: 1. Towing Bits/Post: (Round) shall be at least four inches (4") in diameter stainless steel, anchored and properly braced to the engine stringers. It shall have sufficient			

		Comply		Comments and Exceptions
		Yes	No	
	height at the towing hawser to clear the transom when in use. Approximate location shall be near the midship's bulkhead. Normans to run fore and aft.			
2.	Deck/Hardware:			
	a. One (1) deck Samson bitt for mooring or anchoring. With a five inch (5") or six inch (6") stainless steel base mounted plate. Normans beam to beam.			
	b. Two (2) stainless steel chocks mounted on bow to accommodate three quarter inch (3/4") line.			
	c. Eight (8) stainless steel mooring cleats minimum, twelve inches (12"), bolted through deck with backing plates of compatible material (no aluminum backing plates). Location to be determined during the final stages of construction.			
	d. One (1) anchor with thirty feet (30') of one-quarter inch (1/4") diameter chain. Anchor and chain to be hot dipped galvanized, Danforth 22S or equal with hardware and chain stuffing box suitable for deck mounting.			
	e. Mahogany sheer rub rail one and three quarter inches by two inches (1-3/4" x 2") with stainless steel protective half round to cover sheer rub rail. Two (2) pieces one (1) piece shall be one inch (1") and the other shall be one and half inches (1/2") extending from the bow to within thirty (30") inches of the stern.			
	f. Mahogany toe rail at least three sixteenth inches by three inches (13/16" x 3") shall be fiberglassed and West Systems coated.			
	g. Gunnels and splash shields: At least three quarter inch (3/4") with curved stainless steel caps.			

		Comply		Comments and Exceptions
		Yes	No	
3.	Salvage pump, Jabsco 2" Electric Pump, Model #18330-0000, with a twelve (12) volt magnetic clutch, belt driven off of the fire pump/dewatering system. The system shall have two (2) deck fittings located on the exterior aft engine bulkhead one (1) to port/the other to starboard side, both deck fittings to be constructed to receive City furnished, quick disconnect fittings. One (1) for discharge and one (1) for suction. Suction system shall be re-positioned in the aft starboard compartment. The vendor will also supply a Series #141, multi flex hose, PVC reinforced vinyl helix, two (2") inch diameter, twenty (20') feet long with a plastic protective cover to shield the pump from debris.			
4.	Protective Boat Covers/Bimini: Two (2) protective covers shall be provided. Both covers to be made of blue acrolein fabric of good durable quality for protection. The first cover to be a protective canopy bimini top, with seven-eights inch (7/8") stainless steel frame and fittings attached to the rear arch. Webbing tension straps and a blue acrolein storage cover shall be provided to cover the bimini when it is folded up. This second cover is to protect the spray venturi and the edge of the cockpit sides so as to cover the instrument and cockpit seating area. The builder to work with City to develop a functional bimini top that can be raised and lowered with ease and still provide maximum sunshade protection.			
5.	Venturi three quarter inch (3/4") stock marine plywood reversed raked spray shield.			
6.	Eductor: Gold dredge type (City supplied).			

	Comply		Comments and Exceptions
FINISH AND TRIM:	Yes	No	
1. All inside paint shall be sprayed with a gel coat or marine polyurethane. Pearl Gray, AWL GRIP			
2. Hull topsides shall be high visibility "Red-AWL GRIP paint color #5470" gel coat or equal.			
3. Boot stripe shall be Seawitch Blue gel coat or high gloss, AWL GRIP.			
4. Bottom paint shall be Pro-Line antifouling finish, Permanent Red applied per manufacturer's specifications.			
5. Decks are to be painted Pearl Gray, AWL GRIP.			
6. Superstructure shall be Pearl Gray also, AWL GRIP gloss.			
7. Cabin interior finish shall be of marine enamel or polyurethane, spray-painted on all cabinetry, bulkheads, overhead, V-berth and cabin deck. AWL GRIP matching Pearl Gray to facilitate ease of maintenance and cleanup.			
8. V-Berth deck carpet to be vinyl bound along the edge with snaps installed to facilitate easy removal.			
9. Footrests located at the operator and deckhand seat positions.			
10. Seats to be Graelick helmsman folding seats twenty (20") inches, 16-3/4" high by 17-3/4" deep, a hoop type stainless steel bracket shall support one end of the seat and the other end shall have a hinged bracket attached to both port and starboard bulkheads.			
11. Protective wear surfaces – The protective wear surface protects the hull and superstructure during normal/routine and emergency assignments.			
a. A two piece half round band extending from the stern through the bow on both the starboard and port side of the vessel.			

	Comply Yes	Comply No	Comments and Exceptions
b. Protective stainless steel on both the port and starboard quarters enclosing the stern corner and extending thirty-two (32") inches towards the bow. c. Stainless steel half-round protecting compartment openings. d. L-metal stainless steel protecting the opening, the sides and deck within the transom opening. e. A protective stainless steel cap surrounding and encapsulating the top and side edge of the transom extending from one side of the stern to the other.			
PAINT: Hull – AWL GRIP, G7037, Toreador Red, two-part linear polyurethane Super Structure – AWL GRIP, Y7001-63, Part A & B Pearl Gray. (If the above paints are unavailable, the appropriate color selection can be obtained through AWL GRIP Marine Finishs). LBFD lettering, etc shall be provided by the City of Long Beach.			
WARRANTY: The manufacturer/builder shall provide a warranty to the buyer covering a period of one (1) year against all defective workmanship, material, or any structural weakness that may appear in the hull. This warranty will also include costs of haulouts, transportation to and from the manufacturer's facility, and the vessel's return to the water without unnecessary delay.			

	Comply		Comments and Exceptions
	Yes	No	
All warranties provided by the various companies with respect to their products that are installed by the manufacturer/builder shall be replaced in a timely fashion by the manufacture/builder if they should be determined to be faulty or defective within one (1) year of installation. This warranty shall provide that the minimum top speed will be thirty (30) knots over a measured nautical mile at maximum engine operating RPM's. For this test fuel tanks shall full and all the first responder equipment called for in the contract will be placed onboard the vessel. The manufacturer warrants that this boat will pass the US Coast Guard Stability Test. Bidder must provide documentation that they have built a fiberglass and plywood rescue/ commercial power vessels for the past five (5) years. Bidder must furnish a certified financial statement for the past two (2) years. Bidder must furnish an extended five (5) year warranty for the vessel against structural hull defects and cosmetic blistering of the fiberglass matting due to substandard materials and/or workmanship. ANY CHANGES TO THIS VESSEL SPECIFICATION MUST BE APPROVED BY AN AUTHORIZED CITY REPRESENTITIVE IN WRITING.			

CITY OF LONG BEACH
DETAILED SPECIFICATIONS NO. FS0408
CLASS 2 LIFEGUARD/FIRE RESCUE BOAT

	Comply		Comments and Exceptions
FIRE/RESCUE BOAT BUILDING REQUIREMENTS: The vendor shall demonstrate that they have been in the successful business, construction and sales of a like and kind boat necessary for the City's intended use. The vessel submitted must demonstrate that it is capable of being used for ocean lifeguarding, fire suppression, boating and waterway rescues, including harbor patrol work. The vendor must have provided a vessel for any federal, state or local government, that is available for inspection by City representatives. The vessel must be of the approximate size and configuration that would be required for use by the City of Long Beach Fire Department.	Yes	No	
3896/3897/ FS			