GENERAL SPECIFICATIONS:

- 1. Hull length to be between 25' 26' {does not include engines, guards or rub rails).
- 2. Beam to be between 9'-10' (does not include engines, guards or rub rails).
- 3. Overall height not to exceed 13'6" while on trailer and attached to a tow vehicle.
- 4. Draft should not exceed 18" with motors up.
- 5. Person and Cargo Capacity 5000 lbs.
- 6. Boat weight 6000 lbs. approx.
- 7. Trailer weight 2200 lbs. approx.
- 8. Combined boat & trailer weight 8200 lbs approx.
- 9. Bottom Plating .250" thick 5083/ 5086 Aluminum Alloy.
- 10. Side Plating .190" thick 5083/5086 Aluminum Alloy.
- 11. Keel is to run from Transom to Bow and be .375" thick x 4" 5086 plate.
- 12. Stringers and frames to be .250" and or .190" thick.
- 13. Sub floor supports will be 2"x2" 6061 Aluminum Tube.
- 14. Deck Plating minimum .124" 5052-H32 diamond tread plate.

HULL DESIGN & OUTFITTING:

- 1. Hull to be Landing craft style modified "V' with 16 degree transom and 34" delta pad.
- 2. The boat will have a 63" hydraulically operated bow door. The hydraulic system will have cylinders on both sides of the door and be able to deploy door to 90 degrees from the closed position. The bow door will have an integrated ladder for diver re-entry. The hydraulics will have activation points at forward bow area.
- 3. There will be two dive 30" clear opening dive doors, one port and one starboard. These doors will swing out to level and have an integrated fold out dive ladder that will deploy to have at least two steps in the water. These doors will be manually operated and will be able to support 350 lbs.
- 4. There will be a tread plate gunnel of at least 5" fore to aft.
- 5. There will be sufficient two part polyurethane foam below deck to maintain flotation in the event of swamping.
- 6. All decks will be self bailing with sufficient water egress.

- 7. Deck aft of the pilot house will be raised to provide engine and pump compartment. The deck will be consisted of a series of panels that will provide easy access for pump, engine and mechanical maintenance.
- 8. 6' long, lockable storage compartment, suitable for seating area shall be provide on each side of the forward bow deck.
- 9. A .75" aluminum double Padeye shall be incorporated into the keel.
- 10. 1.25" pipe safety railings shall be installed 6" above gunnel from dive doors forward 72".
- 11. Six 10" bolted on aluminum cleats shall be installed (3 per side). Retractable flush mount
- 12. There will be a 3" Duramax D shaped Rub Rail along the full length of the boat at the gunnel height.
- 13. There will be 3-3" Duramax D shaped Rub Rail on bow door full height vertically.

WELDING:

- 1. The hull and superstructure shall be constructed of marine grade aluminum and MIG and or TIG welded throughout.
- 2. All water seams will be welded 100% both sides.
- 3. Longitudinal structural members will be stitch welded opposite sides.
- 4. Frames and bulkheads 1-3 will be continuously welded one side, stitched opposite; remainder of frames stitched welded opposite sides.

FUEL SYSTEM:

- 1. A welded aluminum fuel tank of 100 gallons.
- 2. Withdrawal tubes to be stainless steel.
- 3. A WEMA fuel sender will be utilized and attached to a NMEA fluid level interface to supply data to electronic gauges.

PILOT HOUSE:

- 1. The pilot house will be 6' long by 66" wide and 78" head clearance throughout.
- 2. The pilot house will be constructed with .190" thick 5052 and 5086 aluminum alloy.
- 3. The windows will be Diamond Sea Glaze or approved equivalent.
- 4. Sliding door on port side with door sliding aft.
- 5. Windshield to be leaning forward.
- 6. There will be one window on each side, starboard window will be sliding. The portside window will be fixed. One swing out hinge top full width aft window.
- 7. Helm station shall be designed with fire pump controls and monitors.

- 8. There will be an overhead radio rack. Emergency radios will be supplied by fire department and installed by builder.
- 9. There will be ladder to roof top, ladder and rooftop must support 350 lbs.
- 10. There will be a 1.25" grab bar on side of roof gutters.
- 11. There will be 2 overhead grab rails running lengthwise in the pilot house.
- 12. There will be a grab rail on or near console at pump control station.
- 13. Four 12V red/white LED dome lights shall be installed overhead inside of the cabin.
- 14. The helm seat/leaning post will have a 2" padded seat with cover that will open to storage below.
- 15. There will be a 3' bench along port side of pilot house that can be folded up and secured when not in use.
- 16. There will be bench seating with storage beneath, along aft wall of pilot house where possible.
- 17. There will be a stokes basket rack extending from the pilot house overhanging the motor area.

ELECTRICAL SYSTEM:

- 1. The vessel's electrical system shall be 12VDC and 120VAC 60hz.
- 2. All electrical cable shall be marine grade tinned copper wire and labeled for each circuit.
- Cables should be routed in wire ways wherever possible. Wherever exposed to potential damage, cables shall be protected with loom or rubber grommets.
- 4. Electrical cable shall be sized in accordance with the American Boat & Yacht Council recommendations.
- 5. All electrical cables shall be marked in accordance with the markings in electrical drawings.
- 6. There will be a Blue Sea 12 position circuit breaker panel for control of DC accessories.
- 7. The electrical system shall be grounded. In any case the hull shall not be used as part of a galvanic feeding loop.

BATTERIES:

- 1. Four Optima marine batteries shall be installed complete with battery switches.
- 2. Two batteries shall be installed as the engine starting bank, one for each engine.
- 3. A dedicated battery shall be installed for the house bank.

- 4. The fire pump will have a dedicated battery.
- 5. There will be a switch panel that will have a battery switch for each battery and crossover switches to allow jumping in case of a dead battery. The battery switch panel will have Automatic Charging Relays that will direct alternator or battery charger to the weaker battery.
- 6. All batteries to be installed in plastic battery trays in the aft rigging locker.

120V AC ELECTRICAL:

- 1. 30 amp shore power system installed to supply battery charger.
- 2. Promariner 20 amp battery charger installed complete for use with shore power system above.

12V DC ELECTRICAL:

- 1. Two 6 position distribution panel shall be installed on the console.
- 2. Navigation lights installed to meet USCG requirements with hinging anchor light mast.
- 3. Three 12V 2000 GPH bilge pump installed with auto float switch.
- 4. Two 12V self parking wiper installed on windshield.
- 5. Two 12V power receptacles shall be installed on the console.

PROPULSION:

- 1. Twin 225 HP 25" shaft counter rotating two-stroke outboards shall be provided. These shall be complete with, fuel management system, binnacle controls, dual key switch panel, power trim and tilt, harnesses, and stainless props.
- 2. Motors shall be installed complete with Teleflex twin cylinder hydraulic steering. Includes installation of helm, cylinder, tie-bar, two group starting 27 batteries with selector switch, main engine harness, gauge package, ignition switch, and control cables.
- 3. Engines will be fed from primary fuel tank through individual water separating filters.

FIRE PUMP:

- 1. The fire pump engine will be a 210HP, 4.3L Marinized GM V-6. Fueled with gasoline.
- 2. The fire pump engine will draw its fuel from the main tank and will have a water separating filter.
- 3. Pump End will be a Hale 50FB direct mount with a Hale spring disc for connection to engine flywheel.
- 4. Fire pump will be rated at 1250GPM at 150psi.

- 5. The Fire pump control station will consist of engine start, vernier throttle, oil pressure gauge, water temp gauge, tachometer, engine hour meter, pump pressure gauge, manual relief valve control and monitor.
- 6. There will be a remote control 5" suction valve with control and indicator at fire pump control station.
- 7. There will be a Hale electric oil-less primer installed.
- 8. Hale manual relief valve with controller and indicator mounted at helm pump control station.
- 9. Deck mount manual tiller control monitor will be a Elkhart Vulcan 1250 GPM, with a Stream Shaper and Stacked tip.
- 10. There will be 2-4" slow close discharges 12" above deck forward of the pilot house with 4" Storz open connections.
- 11. The pump will be mounted forward of the pilot house, with a lift off dog house for service.
- 12. All plumbing will be 4" schedule 40 pipe. Victaulic, welded and flanged couplings and fittings are permitted.
- 13. Pump will have an electric pump out and valve that drains fire system lowest point.
- 14. Engine room heater installed to maintain 32 degree+ in pump engine compartment.

ELECTRONICS:

- 1. Lowrance HDS10, GPS, SONAR, CHARTPLOTTING, STRUCTURE SCAN SONAR.
- 2. SIMRAD NSS8, will share all above functions plus FUR monitor.
- 3. FUR M-625XP Remote control infra red video camera with pan and tilt.
- 4. LOWRANCE HDS5x for engine monitoring.
- 5. LOWRANCE LVR880 Marine VHF, with SS pivot-mount 4' antennae.

EMERGENCY LIGHTING AND SIREN:

- 1. Whelen Liberty LC 42" Light Bar all Red 4-corner LEOs.
- 2. A Whelen HHS2200 Siren and light controller shall be provided and mounted in the helm area. This shall include a Whelen SA314A 100-watt speaker to be mounted on the starboard bow Go Light mount.
- 3. Two 12V Whelen Pioneer PFP2 LED Scene Lights on bottom raising Whelen pole mounts locate on aft two corners at aft end of pilot house.
- 4. 4- Go Light remote controlled spot lights to be mounted, 2 at the stern, 2 forward on roof.

