

VT950

# PROWLER VT950

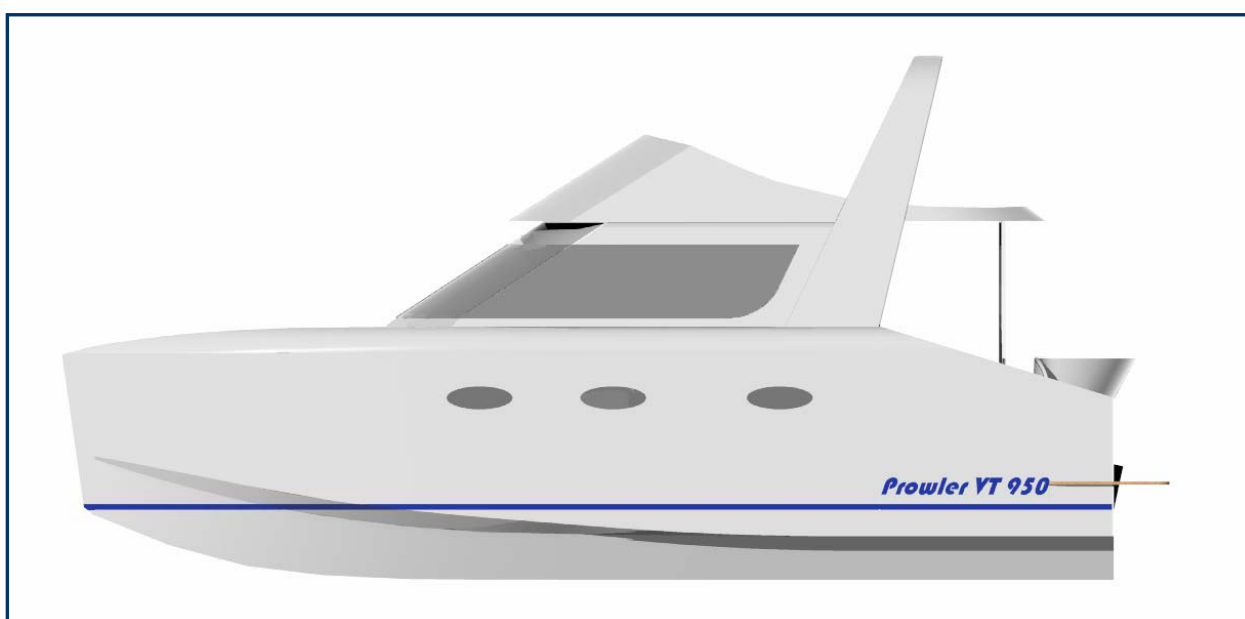
## STUDY PLANS





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## **Hello and thank you for showing interest in our Design.**

Schionning Marine is a family based Australian business, we are very passionate about our designs and continually strive to offer the best options to get you out there and make your dream a reality.

Choosing the right design can be a real challenge, there are so many options and variations and purposes a boat needs to meet. We will help you to determine which design will best suit your lifestyle and purpose, also your budget. We have plenty of options!

These Study plans contain a lot of information directed at the "OWNER BUILDER", the aim being to show you how simple and achievable it really is and to help you determine whether you will be able to do it yourself. Be assured, hundreds of absolute novices have and are doing it so if you really want to build a boat, go for it, we will help you all the way.

If you are NOT an owner builder and would like to buy one of our designs, we work closely with several excellent boat building yards in Australia and overseas. Using one of these builders to build a custom boat for you, rather than buying a molded production boat is very rewarding, you can get exactly what you want and you'll be surprised just how well priced this can be too. Later re-sale value is high and the quality of a hand build composite boat, built by a recommended builder far out strips any production process in terms of strength, quality and lightness (therefore performance).

We look forward to hearing from you once you've studied the following pages. We have not included kit pricing due to the many variations and options so please email or call us and we'll furnish these on request.

Good luck with your research and project.

*Jeff, Lorraine, Brett and Ben Schionning  
& Rob Shenn.*



## DESIGN OVERVIEW

For such a small waterline the '**VT 950**' offers space and living areas not seen in a multihull this length.

Open living areas and a sense of light flow through the interior design of this boat expanding on the already generous space. A galley and saloon that offers a 360 degree view, and hulls with massive width mean open plan living, instead of the usual 'stuffiness' that comes with a boat.

The secret behind this is mainly her unusual underwater hull shape. We have managed to achieve a blend of characteristics that has not, until now, been possible to achieve in a power cat.

The **VT** design carries forward all the good points of the Prowler lineage...

- High bridge deck clearance at speed
- Exceptional seaworthiness
- Soft ride in rough conditions
- Easy beaching
- Fully protected motors.

But there is one big difference; this amazing boat has the ability to plane. The new underwater shape as well as opening the space in the hulls allows the boat to have enough surface area to propel it on to the plane, offering high speeds and great fuel efficiency.

In addition, she offers full privacy with easy access to hulls from inside the saloon with soft steps and no

LOA	9.50 Metres
BOA	5.50 Metres
Draft	0.600 Metres
Headroom/ Bridgedeck	2.00 Metres
Headroom/ Hulls	2.00 Metres
Cruising Range	300 nm+
Bridgedeck Clearance	0.665 Metres
Displacement	4,000 Kilograms
Payload	1500 Kilograms
Motor Option	2 x 140HP Outboards
Motor Speed—Cruise	17 Knots
Motoring Speed—Top	28 Knots
Fuel Capacity	600 Litres
Water Capacity	400 Litres

head bumping. The hulls have full headroom adding to the idea of space, two queen size berths in forward cabins with exceptional headroom and loads of locker space.

Two single bunks in the port hull takes the onboard accommodation to 6.

The cockpit is big and wide with great outdoor entertaining abilities. This flows into the saloon with a large single door, bring the out doors in. The large comfortable saloon and galley with lofted ceiling gives an awesome feeling of space and headroom and also removes heat through the ceiling hatches. Windows right around the saloon sides give a very airy feel and accentuate the 360 degree aspect of this boat.. A small breakfast bar and stools extend the galley area aft into the cockpit With two steering stations



you have the choice to enjoy the sunshine on the fly bridge or escape the weather in the saloon. The middle window forward at the saloon steering station is a flat panel window giving great clear vision forward.

Outside we have good, safe, uncluttered side decks. The forward deck is large and flat with no trampolines. With plenty of locker storage for the toys up front.

The fly bridge is a great area with the targa bar raised to offer full sitting headroom under a fold out bimini. Between the targa legs we have added a full width seat for more comfort. Hatches into the lofted ceiling area allow drinks etc. to be handed up from the galley area.

#### **MOTORS:**

The new hull form has the added ability to use more power to achieve more speed. While tank testing suggests we could use similar motors to the Prowler 9000 the new hull can

easily run faster than the Prowler 9000 which has a max speed of 21 knots.

The **VT** allows for a very wide range of choice in fittings and options. You have the option to add luxury items, then simply use the motor size to give the required performance. The result will affect the fuel economy of the boat but this is not always a priority. 90hp Outboard motors are ideal for the lighter boats going up to 150hp for customers looking for speeds above 30 knots or who choose to load on extra weight. ***Diesel motors are also an option*** as there is plenty of room under the cockpit floor to house them.

The motors sit off centre leaving a large boarding area for easy access from the marina or a dinghy. This area will also accept the swimming ladder. The dinghy is stored on davits aft of the cockpit seat. Construction is Pre-cut DuFlex (balsa cored) flat panels and West system epoxy products. All DuFlex panels being pre-cut for ease of construction makes this design exceptionally quick to build.

The **Prowler 950VT** is designed to suit a very wide range of applications. Due to her payload and ability to handle weight, she can accommodate a luxurious fit-out or be built to a spartan weekender. She makes a perfect sports fishing boat or rough work-horse for commercial fishing in fresh and live products.





## INSIDE...





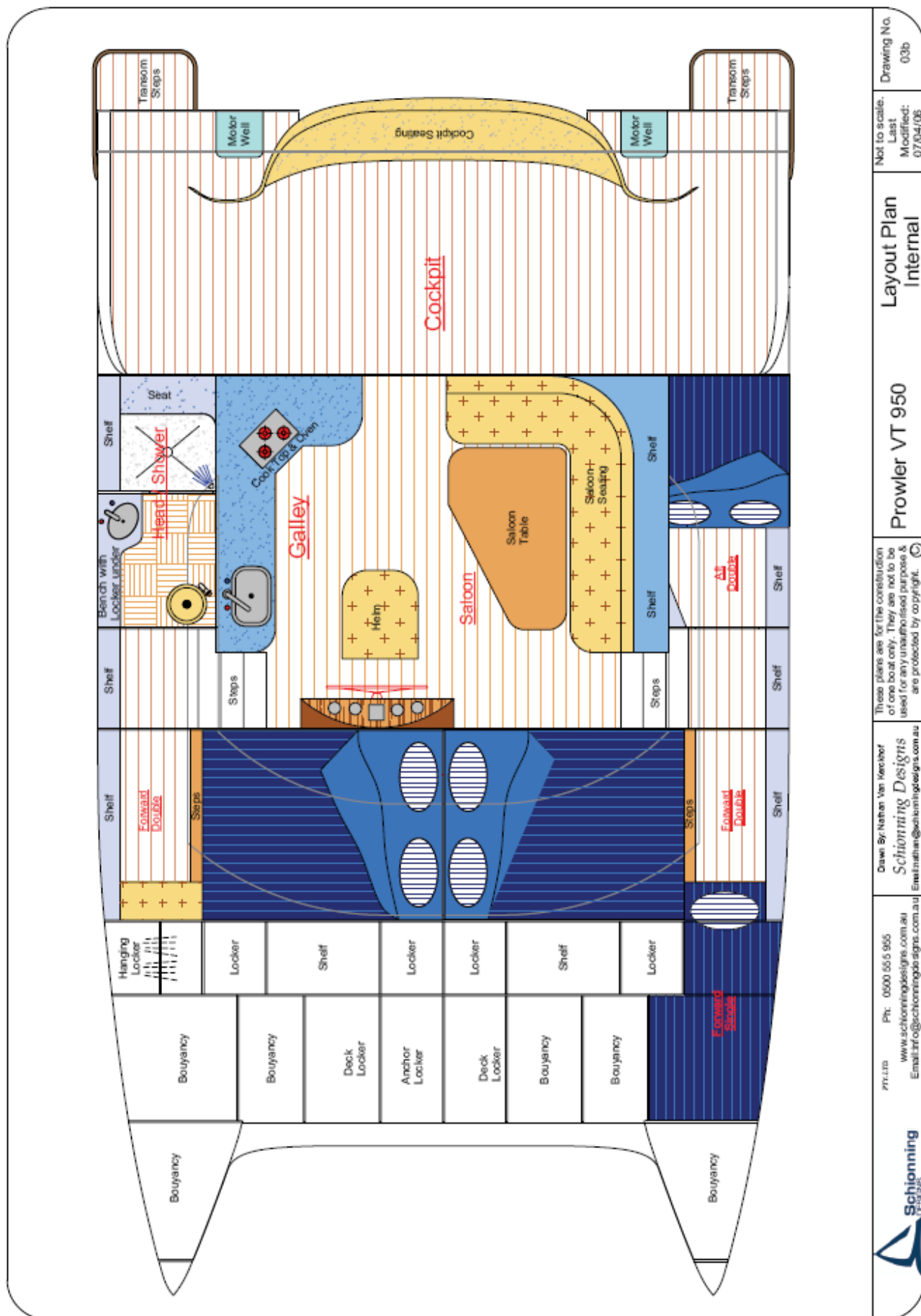
OUTSIDE...



# LAYOUT PLAN

# VT950

8



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Drawn By: Nathan Van Kester  
Schionning Designs  
Email: nathan@schionningdesigns.com.au

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Prowler VT 950

Layout Plan  
Internal

Not to scale.  
Last Modified:  
07/04/06  
Drawing No.  
03b



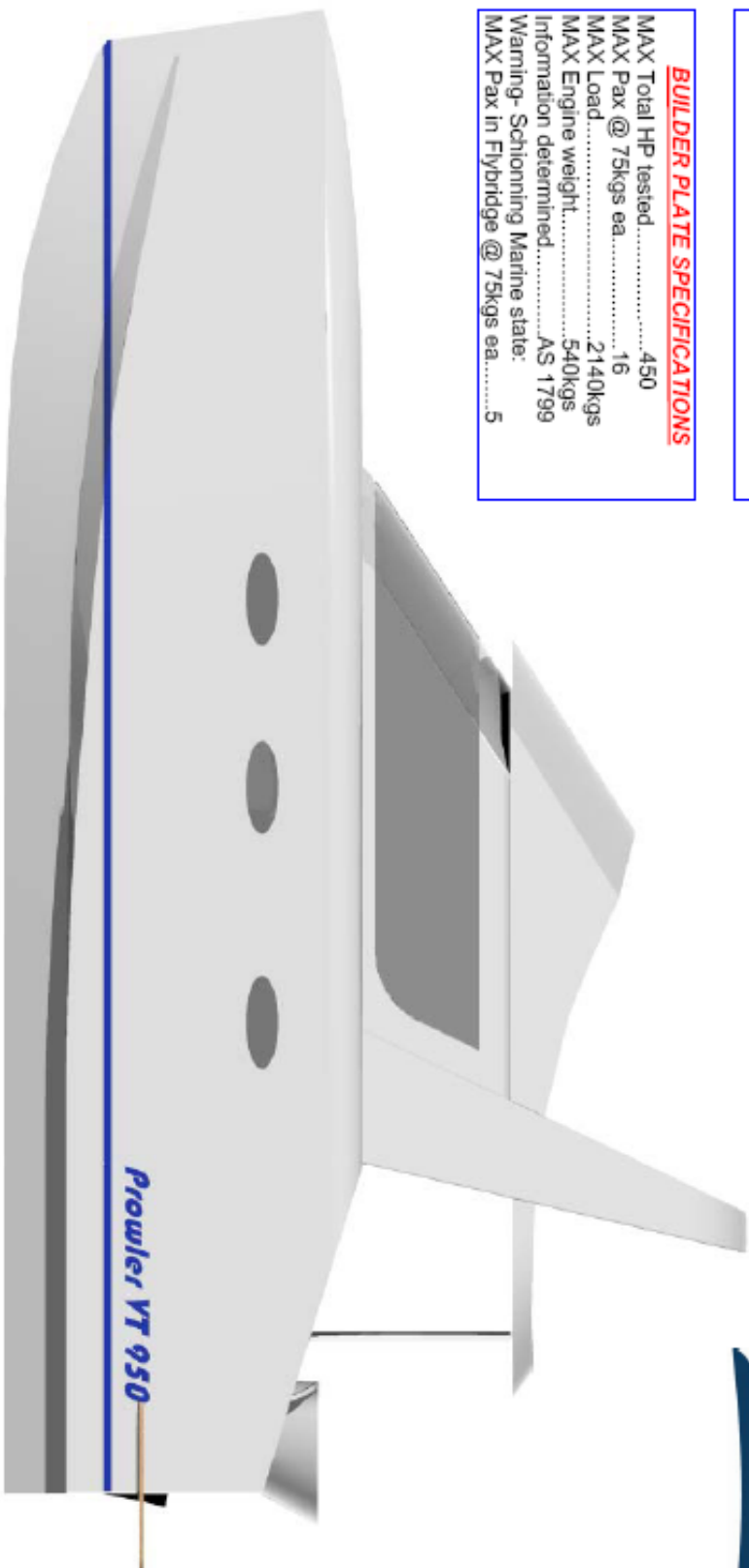
# PROFILE

## SPECIFICATIONS

LOA.....	9.5metres
BOA.....	5.5metres
Draft.....	0.600metres
Headroom - HULL.....	2metres
Headroom - Bridge/deck.....	2metres
Displacement.....	4000 Kilograms
Motors.....	2x140hp O.B's
Speed.....	30knots

## BUILDER PLATE SPECIFICATIONS

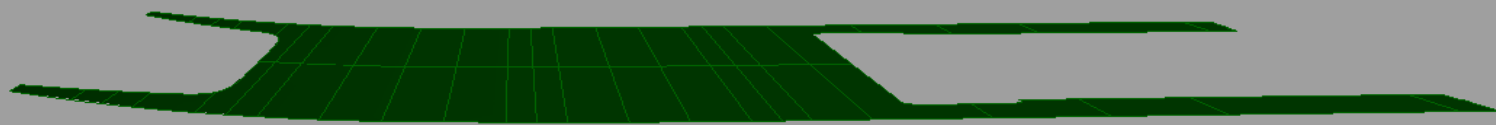
MAX Total HP tested.....	450
MAX Pax @ 75kgs ea.....	16
MAX Load.....	2140kgs
MAX Engine weight.....	540kgs
Information determined.....	AS 1799
Warning- Schionning Marine state:	
MAX Pax in Flybridge @ 75kgs ea.....	5





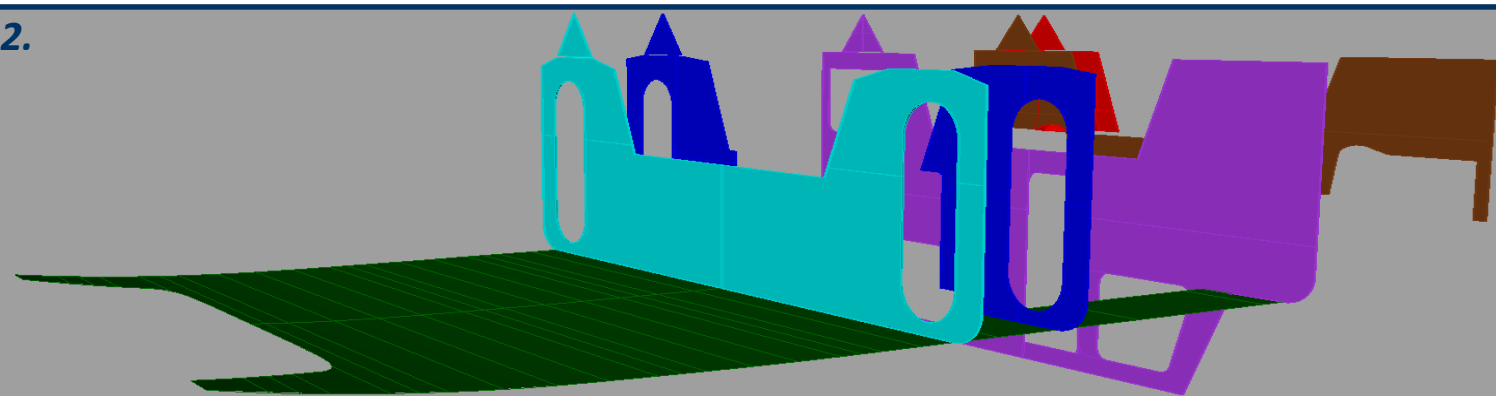
## Kit Construction Sequence

1.



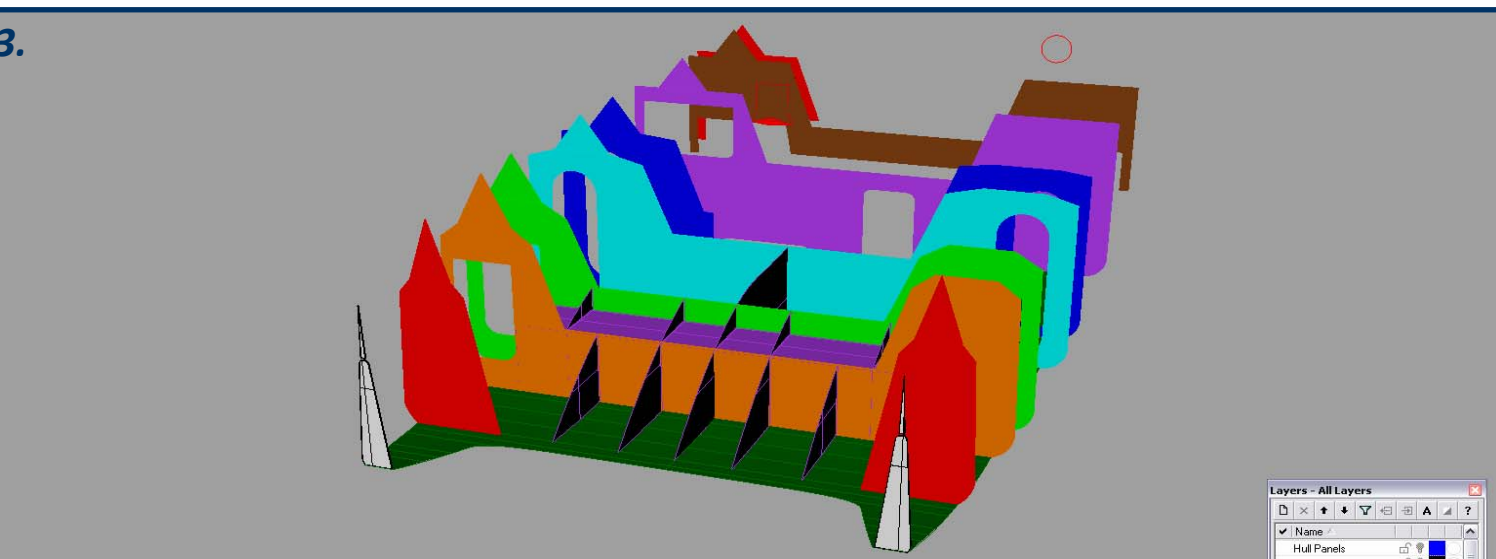
This design is initially assembled upside down. With this in mind, a level strong back is assembled that encompasses the flat deck area. Note the turn up in the bow sections. The strong back is built to reflect this.

2.



Once the flat decks are in position, the bulkheads are stood on station along the flat deck. Note the aft bulkhead suspended beyond the flat deck area. Bulkheads must be appropriately braced so they are square and plumb.

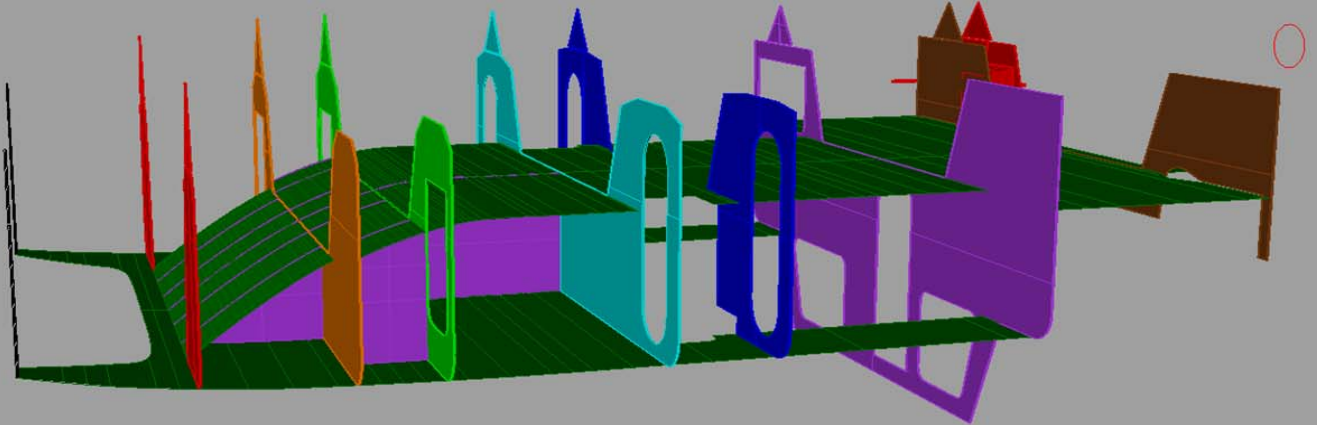
3.



Once the bulkheads are in place and secured, forward webs and stiffeners are glued into position. The sole of the anchor locker is glued in place before the webs that are positioned between bulkheads 2 & 3. Note the web in between bulkhead 3 and 4, this is the area between the forward doubles and the anchor locker sole in purple.

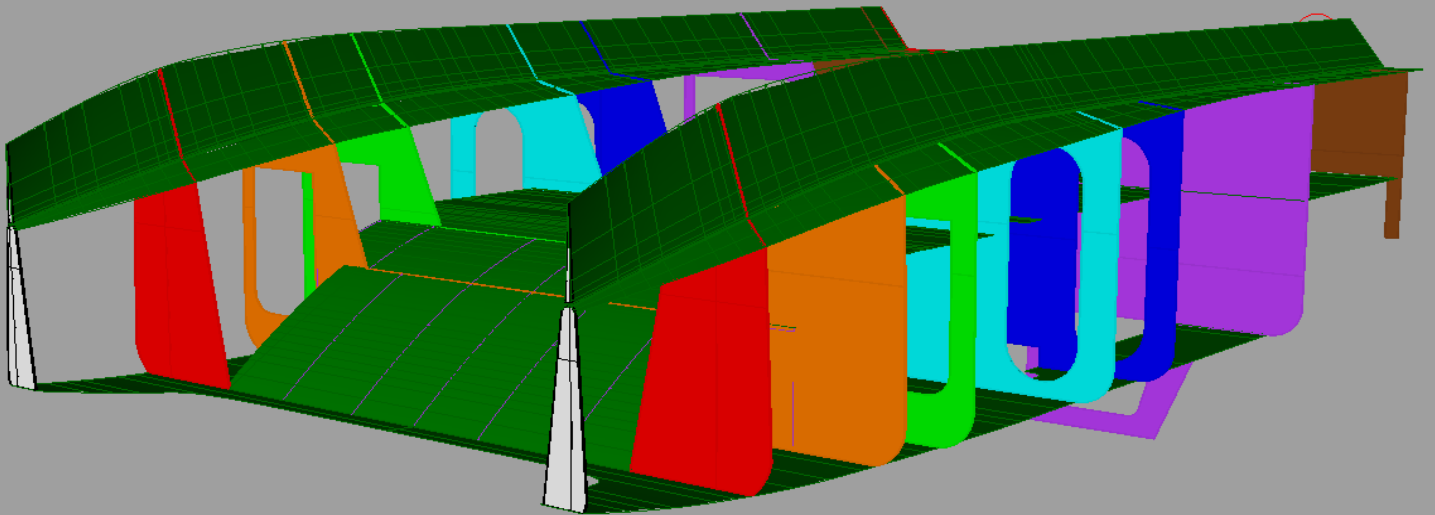


4.



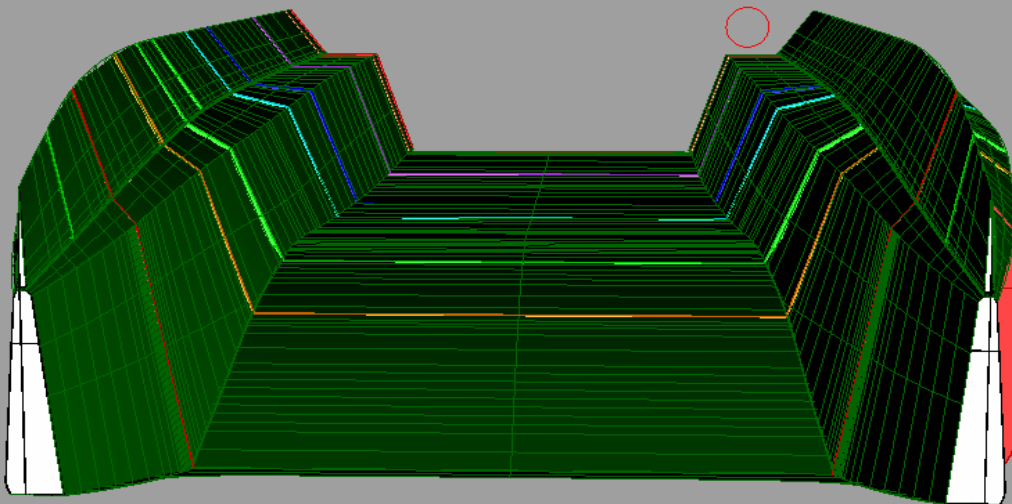
Bridgedeck panel in place. To bend the panel over the forward 'D' sections and webs, kerf panel. The bulkheads are braced and secured into position with a 'spine' and brace making sure they remain plumb, as before.

5.



The V section of the hull is glued in place. The next panels are then attached, forming the bottom hull chine which creates the spray rails forward and the flat planing sections aft.

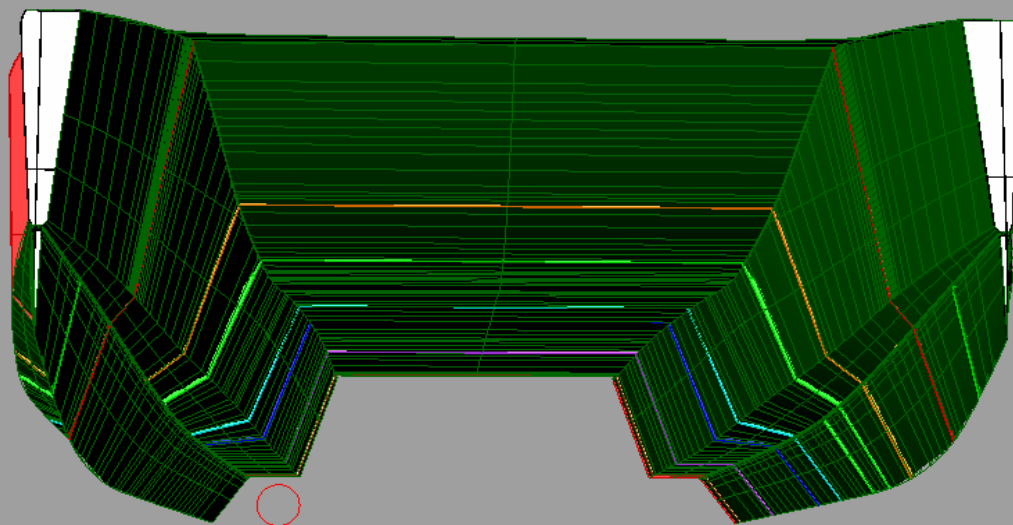
6a.



Explanation continued overleaf...

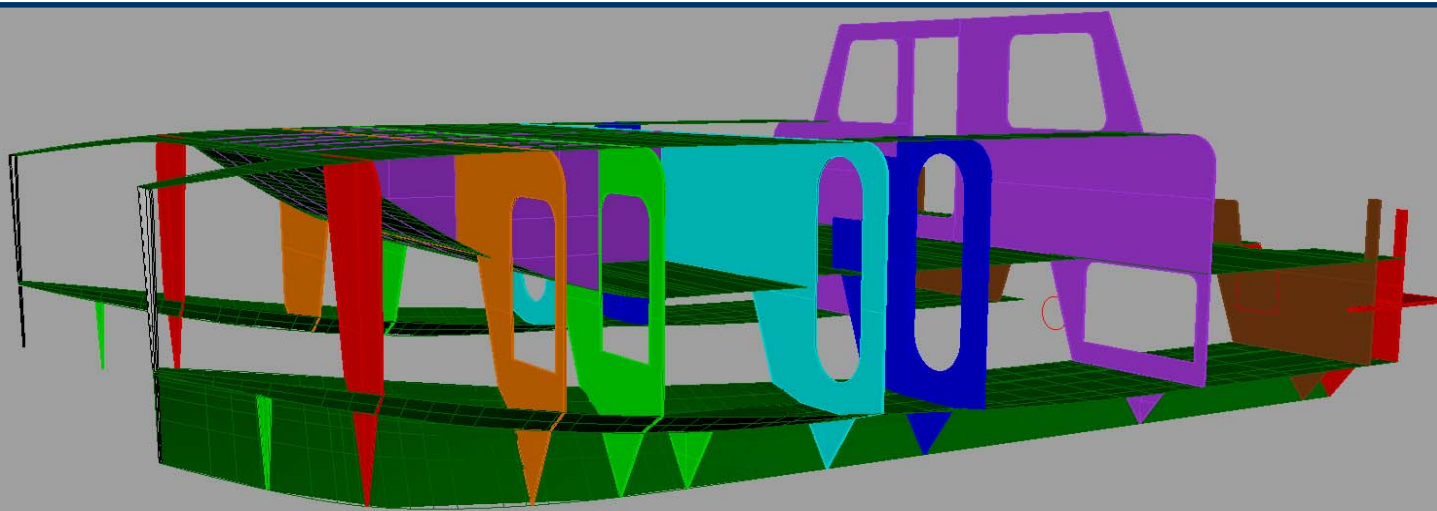


6b.



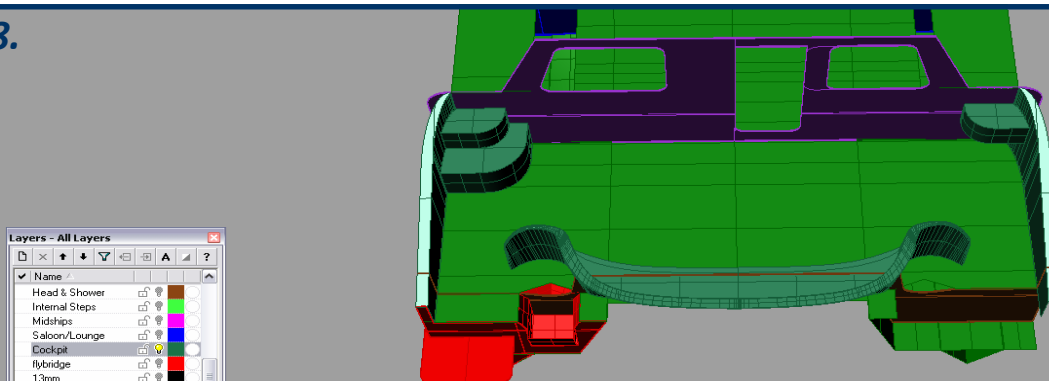
Chamfer and hull side panel is glued into position. Whilst upside down, fare the finished hull sections before turning (6a).  
Turn the whole platform using a small crane (6b).

7.



Once upright and positioned correctly in cradles, all the intermediate V Webs are glued in. Note: Chamfer panel and outside V hull panel has been removed to illustrate.

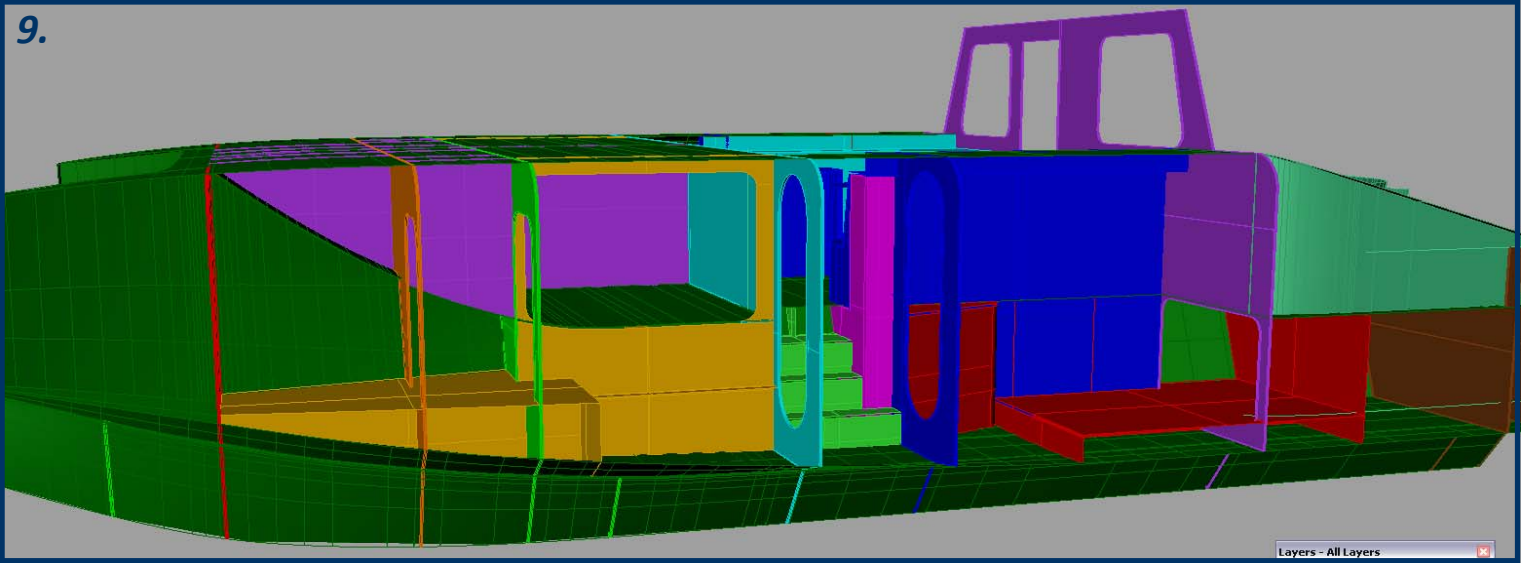
8.



The cockpit floor, seating, coaming and side deck steps are now installed.

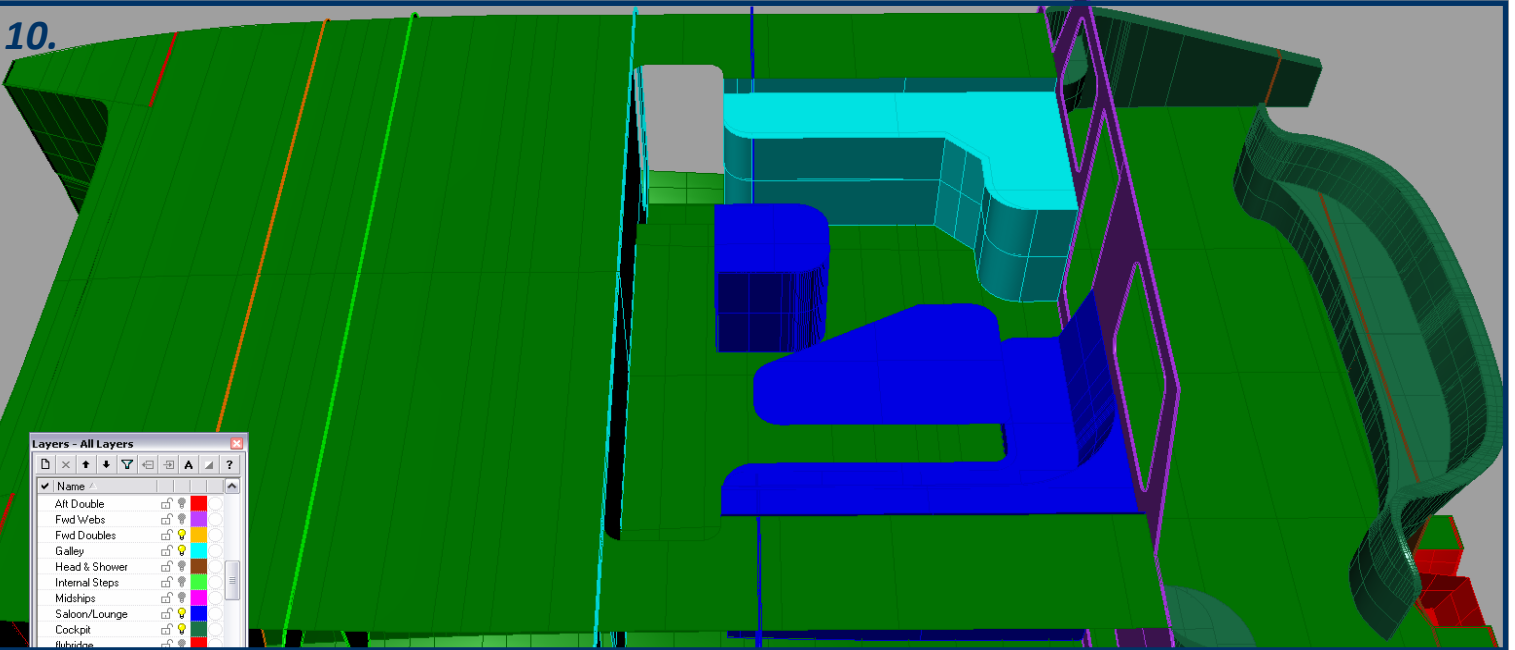


9.



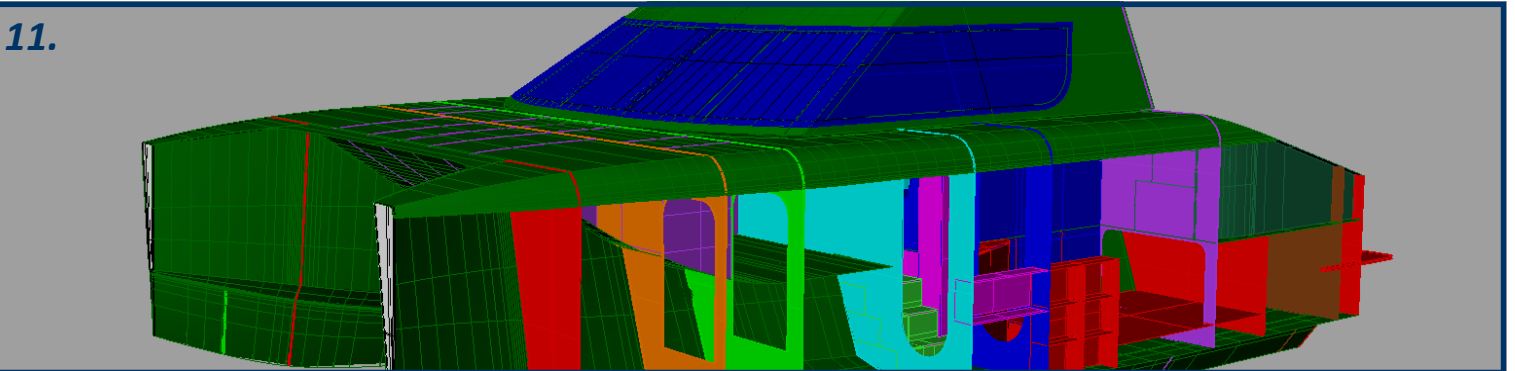
All internal furniture is installed (using honeycomb Featherlite panels) into the hulls. All parts that join to the outside hull panels are left off for ease of access, ventilation and working light.

10.



The saloon seating and galley area on the bridgedeck are fitted.

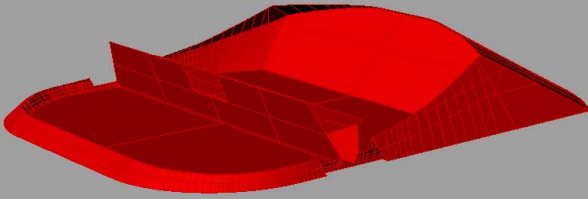
11.



Cabin sides are now fitted, ready for the installation of the windows.

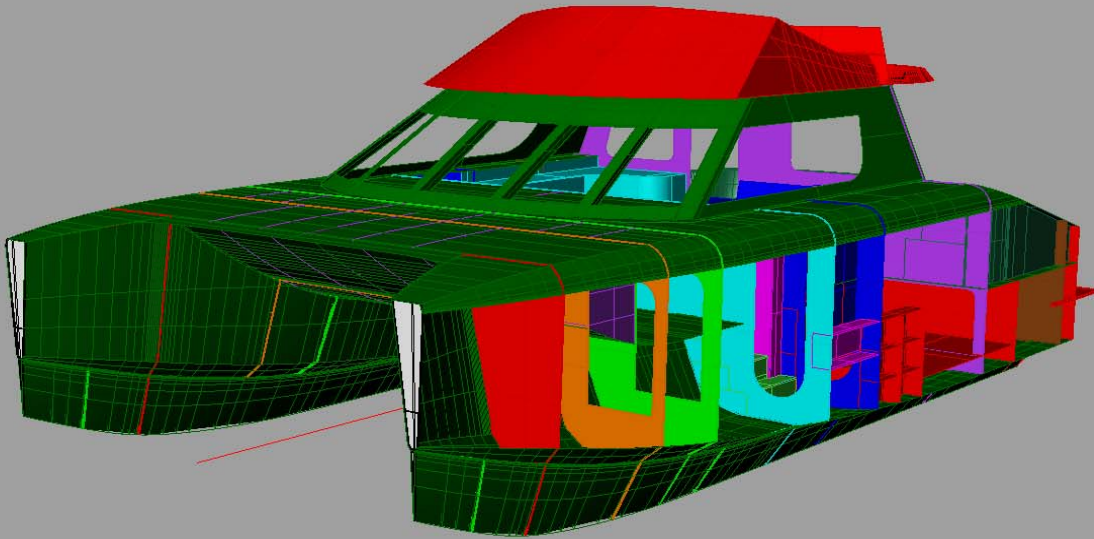


12.



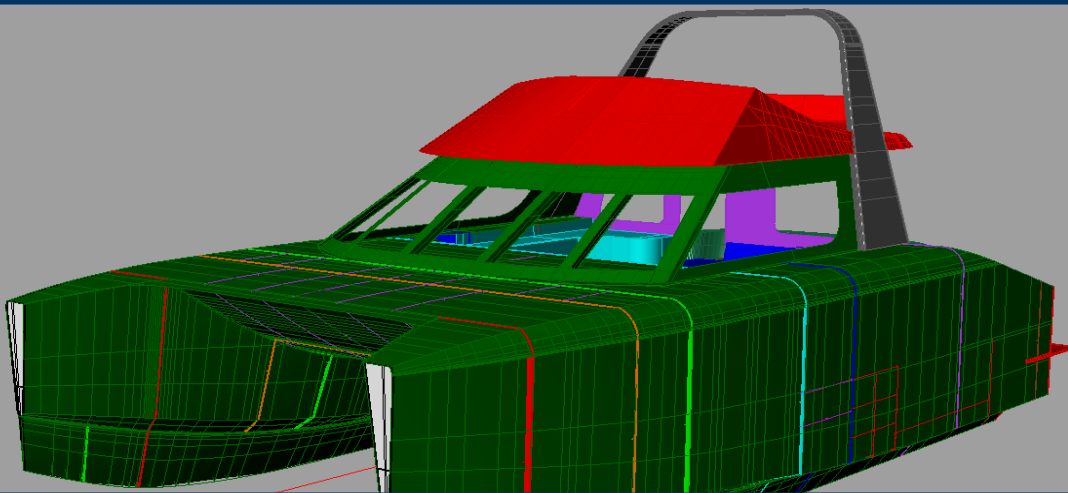
The pre-cut fly-bridge is built separately, ready for installation once complete. Note that radial kerfing is required to create some of the complex shapes using the Duflex panels.

13.



The completed flybridge is fitted into place on the cabin top.

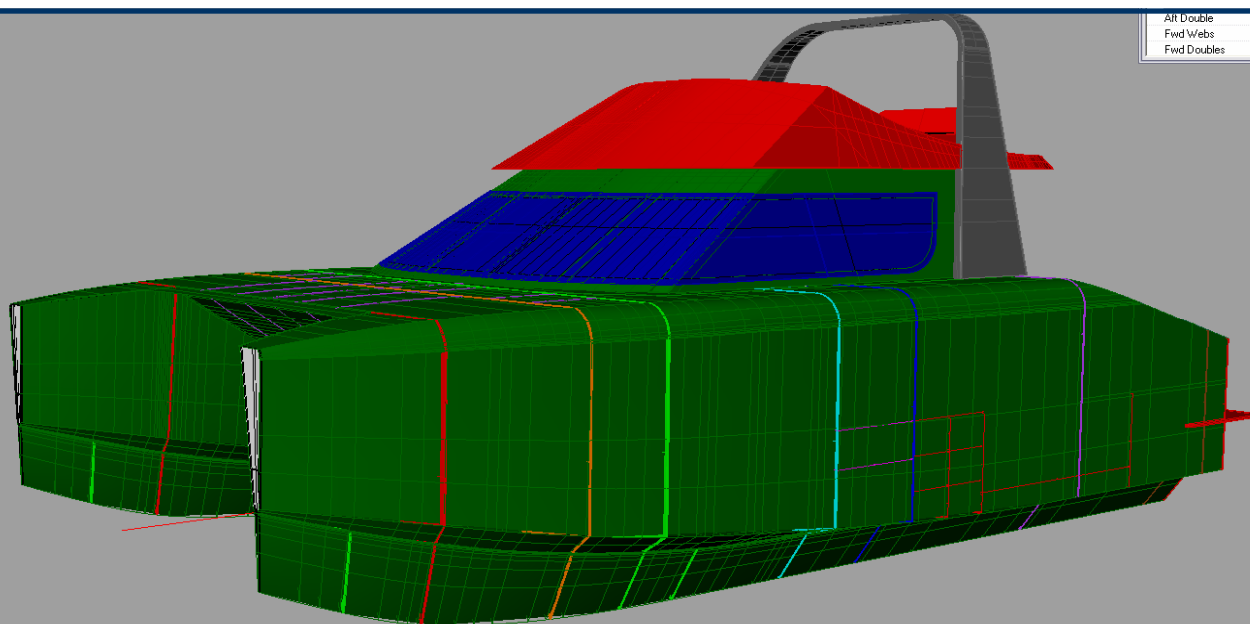
14.



The main hull panels are inserted and fitted. The pre-cut targa bar is constructed separately, and installed.



15.



The windows are inserted, and the transom area, swim step and outboard wells are finished. The structural shell is now complete and ready to be painted!



*...And you're on the water!*



## CONSTRUCTION





## MATERIAL LIST

- Durakore Planks - 2400 x 300mm**
- 13 13mm
- Duflex Balsa - 1 x 600gm Biax each side 2400x1200mm**
- 116 13mm  
13mm includes 0 Non Routed
- 14 25mm  
25mm includes 0 Non Routed
- 26 Featherlight Interior Paper H/Comb 1 x 600gm 16 mm  
2400x1200mm  
Featherlight includes 0 non routed
- West R105/206 Resin & Hardener 5:1 by volume**
- 2 200 litre West System Resin  
4 20 litre West System Hardener Slow
- Techniglue HP Toughened System 100:26 by weight**
- 1 4kg Toughened Epoxy Resin RB 5  
1 1kg Toughened Epoxy Hardener HB 5
- Powder Modifiers**
- 8 20lt Microspheres (411)  
12 20lt Microfibres (403)  
2 6.5 kg Microlight (410)
- Fibreglass Cloth (Colan Products)**
- 47 450 g Double Bias ( 47 kg roll) kg
- Fibreglass Cut Strips (Colan Products)**
- 48 450 g D/bias 105 mm ( 4.00 kg tape) kg  
48 450 g D/bias 155 mm (6.00 kg tape) kg  
12 450 g Unidirectional 105mm (4.00 kg tape) kg
- Plywood - Gaboon 2440 x 1220mm**
- 1 25mm
- Klegecell Foam 80 kg 2175 x 1220mm 2.65m<sup>2</sup> / sheet**
- 5.3 40mm sheet - per m<sup>2</sup> pricing
- 1 Precutting & Scarfing Prowler VT9500 Balsa  
1 Precutting & Scarfing Prowler VT 9500 Featherlight



## NOTES FROM THE DESIGNER....

The success of our designs I feel, stems from the practical commonsense approach of a boat builder, coupled with many years of live aboard experience and 50 - 60,000 sea miles in some of the worst conditions in the world. This experience makes one aware of the power of the sea and the need for a boat to be able to survive these conditions, protect her crew physically and psychologically as well as being a fast comfortable vehicle for all the good times. I am sure you will find our designs reflect our sailing and live-aboard experience and will give you the offshore confidence to cruise safely anywhere in the world. Multihulls are '*beautiful, safe, cruising boats*'. We hope you find them as exciting as we do.

### **CHOOSING A DESIGN...**

Choosing a design can be difficult so we hope that this introduction helps clear the way a little. We've taken particular care with the balance of construction methods in our designs, making them light and strong yet easy to build in small sections, most of which are manageable by a group of friends when they need turning over and moving. The blend of strip planking and light flat panels kept in single plane form, makes building easy and quick and produces a finished catamaran of classic good looks which will not date quickly, giving you very good investment security.

One of the first steps in changing this dream into reality is figuring out whether you can afford the boat (or more likely, how much money you 'don't' have!). Two realities here are, firstly, two similar sized boats with similar displacement, built of similar materials will cost the same to build overall. Designers' estimates of materials are often inaccurate and sometimes minimized to lead one to believe their boat will be cheaper.

This is definitely not the case, ***similar boat, similar price!*** Your choice should therefore be towards the boat that suits you best and offers you good backup and is a good investment. Secondly, we know a lot of people who could not afford their boat at the onset so don't be discouraged. Once you start building it is surprising how you focus your interest, spare time and money into your new project. With our new owner-builders we suggest they start with the



smaller items which can be built in the garage, carport, (lounge?) etc. These initial items use very little material and money but use a lot of time, so at the early stages you can get a lot done while you wait for your old boat or car or house etc. to sell. These items are; flybridge, targa bar, cabin roof, rudders, dinghy etc. The experience and confidence gained building these bits speeds up the second stage of larger items and gets the whole project finished much sooner.

### **WHAT MAKES A GOOD MULTIHULL?**

Cat design is not just a matter of two hulls floating a cabin above the water. Only in fairly recent years have the basic elements of design and an understanding of their effect on the use and performance of the finished boat been understood. The basic principles of good design should all be present in the boat you're considering building or buying. These will blend together to produce an excellent Multihull.



### **THE BASICS ELEMENTS OF A GOOD DESIGN:**

- GOOD ENGINEERING is obviously essential.
- FLAT DECKS. The flatter deck lines have a number of advantages. Secure footing while on deck at any time in rough conditions, life lines are at a sensible protective height instead of set down a level. A flat deck is great for socializing, sunbathing or as a kids playground.
- BUOYANCY. Buoyancy distribution is the placement of buoyancy in the hulls. Our designs have between 50 and

*"A power vessel that uses less fuel and is capable of running efficiently at higher speeds saves you money and time."*

60 separate buoyancy tanks built into every shell so they are almost unsinkable. Most old designs hobbyhorse a lot making them uncomfortable and inefficient. Modern designs have the buoyancy pushed towards the hull ends damping down the hobby-horsing tendencies and giving a lot more safety downwind where the buoyant hulls stop nose-diving. Coupled with a lot of reserve buoyancy high up and forward in the hulls, this adds an enormous amount of safety and gives you confidence off the wind.

- A soft 'V'd entry, quickly picking up reserve buoyancy with lots of reserve

higher up is an ideal combination.

- BRIDGEDECK CLEARANCE. High Bridgedeck Clearance is essential. A short cabin length with long hull overhangs is a good safety feature. Good clearance on a planing hull cat would be 600mm – 800mm, or 1m—1.2m for a power cat running displacement hulls. Chamfer panels add high reserve buoyancy and need less clearance than a similar cat without them.
- FUEL ECONOMY AND CRUISING RANGE. When discussing sailing designs we often talk about speed and performance as being a real safety feature, and our power designs are no different. Good power designs should be capable of speed in all kinds of sea conditions safely, as severe weather can be outrun or avoided, and there is no need to spend time waiting for a gap in the weather. Fuel economy is important for saving you money, and time. Having a vessel that uses less fuel and is capable of running efficiently at higher speeds means less time at sea, more time fishing or relaxing on the beach and a smaller risk of bad weather while on that ocean passage or weekend trip. We feel a healthy fuel reserve is extremely important, and being able to carry enough fuel to get you safely there and back, and keep you going should something go wrong cannot be emphasized enough.



- **LOW DRAG.** This is a good characteristic. Slim hulls reduce drag and are efficient.

A good cruising cat would have a Waterline beam to length ratio of 11.5 to 12.5:1. A performance cruising cat 12.5 to 14:1 and a racing cat 14 to 20:1. It is important to note that **ALL** these elements must be present in a design to make any of them valid. For example, a design can be really good looking, have high bridge-deck clearance, a powerful rig and sail plan and be built reasonably light and show a fair displacement, but then have an 8:1 Beam to Length ratio. She'll be a good looking, powerful boat but it will be impossible to go forward, except slowly!

There is no reason why a good modern design does not have all of these features. If you find some of these lacking it is usually for the wrong reasons. A lot of cats have very little bridge-deck clearance because the designer is concentrating on a low profile cat which looks good or being dictated by interior accommodation and ignoring the fact that the boat will pound badly at sea. This is not only noisy and uncomfortable but can well be the cause of structural problems.

Our designs have been developed around these practical elements of good design then we accommodate personal comforts and lifestyle choices.

Good luck with your research and project, don't hesitate to contact us should you need further information or a chat about our designs. *Jeff*



## NEED HELP SOURCING MATERIALS?

**We supply hundreds of builders and don't carry stock, the goods go directly from the manufacturer or distributor to you.**

**SAVE MONEY AND HANDLING COSTS**

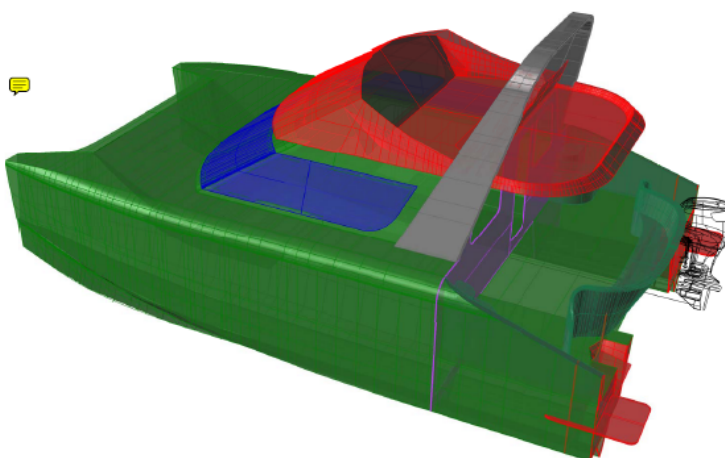
**Call Rob at Schionning Marine today (02) 4982 4858**



## Prowler VT 950 Plan Index

## Full Size Plot Sheets

- Bulkheads Plots  
Temporay Frame Plots



## AN EXAMPLE SHEET FROM PROWLER VT950 CONSTRUCTION PLANS





## HOW TO ORDER

### HOW TO ORDER PLANS:

We require a signed and faxed or mailed PLAN ORDER FORM with every plan purchase. The Plan Purchase Order form explains our terms and conditions and plans will not be mailed until a signed order form is received. (See form included in study plans)

### PAYMENT:

WE ACCEPT: Bank cheques or direct deposit into our bank account. Our account details are on the order form. Credit cards are not accepted for plan purchases.

### SHIPPING:

Plans are sent by express mail within Australia and by courier to other countries at no extra charge to you.

### HOW TO ORDER PLANS:

- Complete the attached PLAN PURCHASE ORDER form and mail or fax it back to us on (02) 4982 4722.
- Deposit payment to Schionning Design's Account, (details on order form).
- When payment and your order are received your construction plans will be assembled, checked and mailed within 7—10 days to your nominated address.

### KIT ORDERS:

Construction plans must be ordered before (or at the same time) as your kit.

- Contact Schionning Marine for a KIT quote when you are ready to order your kit.
- We will invoice you for the kit, 50% of this invoice value is required upon order, deposit to the account as shown on the invoice.
- You will also be asked to complete a second order form for the kit and on this form you will nominate whether you would like

us to insure the kit during transit (cost is 0.75% of the invoice value) and you'll need to provide us the delivery address.

- We will notify you of the lead time (date) once the order is logged into the manufacturing schedule and we will contact you again about two weeks before your kit is ready for dispatch.
- You will then need to deposit the balance of the kit value, including freight and insurance if you nominated to use our services, into our account. Once this is received, the kit will be shipped to you.

### ANY PROBLEMS, CONTACT US:

**+61 (02) 4982 4858**

*Building a boat is definitely a challenge but with good plans, our helpful friendly support and the modern materials available, it's never been easier. The investment of time and money is very worthwhile, offering a rich life experience, fun reward when you launch her and financially you can certainly stand to gain substantially. We look forward to hearing from you again and wish you the very best with your project.*



*Milski family on launch day.*