

4OCEAN DESIGN

EXPLORE NOW



ABOUT US

We are a group of freelancers each specializing in diverse fields within ship design, naval architecture, and marine engineering. Our collective, rich with decades of experience, merges the precision of engineering with the creativity of design to masterfully address the intricacies of maritime innovation and creation. As seasoned professionals, our freelance background gives us the flexibility to offer highly customized, quality-driven solutions tailored to the unique requirements of each project we undertake.

At 4 Ocean Design, we are united by a passion for the sea and its vessels. Our expertise covers the entire lifecycle of ship design and engineering - from conceptual sketches to the final delivery of a seaworthy vessel. Whether it's optimizing for efficiency, integrating cutting-edge technologies, or crafting designs that meet the rigorous demands of marine environments, we approach each project with a blend of creativity and technical excellence.

What sets us apart is not just our expertise but our approach. We believe in working closely with our clients, embracing their visions as our own, and turning challenges into opportunities. Our nimbleness as freelancers allows us to adapt quickly to industry changes, offer personalized service, and ensure unparalleled attention to detail for every project we undertake.

OUR SERVICE

At 4 Ocean Design, we are dedicated to advancing maritime engineering through innovative design and expert solutions. Our comprehensive services cover every aspect of ship design and retrofitting, ensuring our clients receive tailor-made solutions that meet their specific needs.

We leverage the latest in design software to enhance our engineering precision and efficiency. Our tools support complex simulations and 3D modeling, allowing for highly accurate and efficient project execution. This integration of cutting-edge technology ensures superior design quality and operational optimization.



CONCEPT DESIGN



HULL & CONSTRUCTION



MACHINERY & OUTFITTING



ACCOMMODATION



ELECTRICAL & AUTOMATION



CONVERSION & RETROFITS



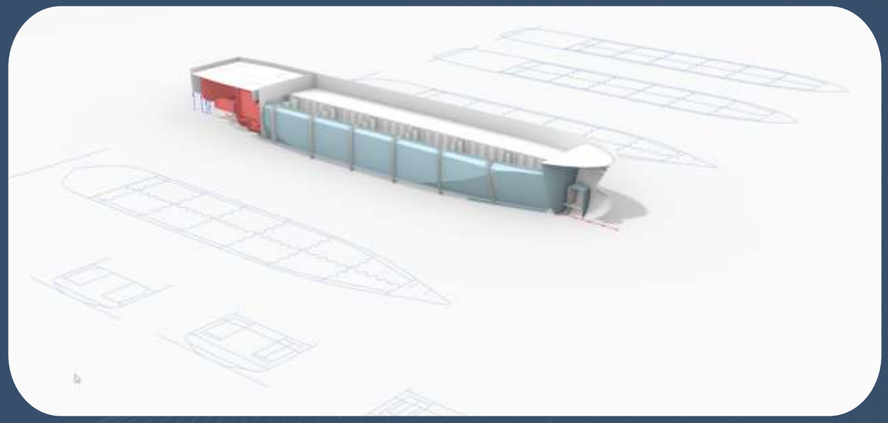
CONSULTAANCY

CONCEPT DESIGN

Our concept design service sets the foundation for successful maritime projects. We collaborate closely with clients to transform initial ideas into feasible, efficient, and cost-effective designs. Our team focuses on optimizing ship performance and operational efficiency from the earliest stages of development.







Deliverables

- **Technical Specification**
- **General Arrangement**
- **Tank & Capacity Plan**
- **Preliminary Midship Section**
- **Lightweight & COG**
- **Hull Shape**
- **Stability**
- **Speed & Power Prediction**
- **Preliminary Load Balance**
- **Single Line Diagram**

HULL & CONSTRUCTION

Our expertise in hull and construction design emphasizes durability and safety. Utilizing state-of-the-art technology and advanced modeling techniques, we ensure that every vessel's architecture meets the highest standards of quality and regulatory compliance. Our designs prioritize not only performance but also environmental sustainability.

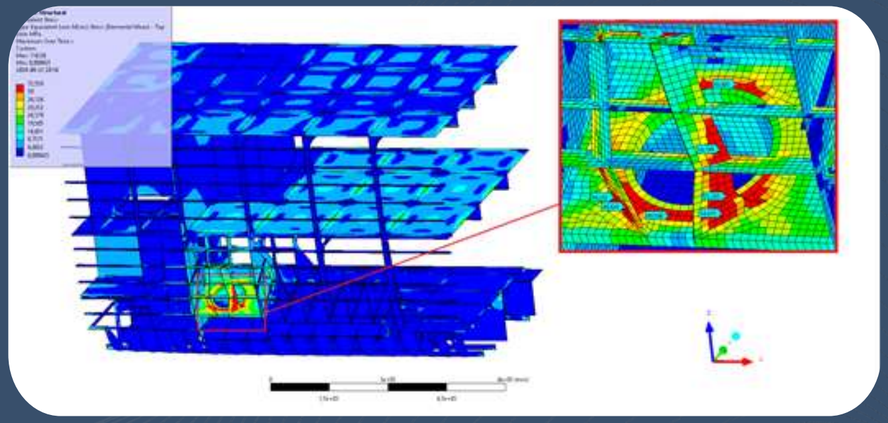
Deliverables

- **Hull Shape & Hydrostatics**
- **Fairing and Optimizations**
- **CFD Calculation**

- **Structural Calculations & Optimizations**
- **Hull Structural Class Drawings**
- **Finite Element Structural Analysis**
- **Hull Classification Model**







MACHINERY & OUTFITTING

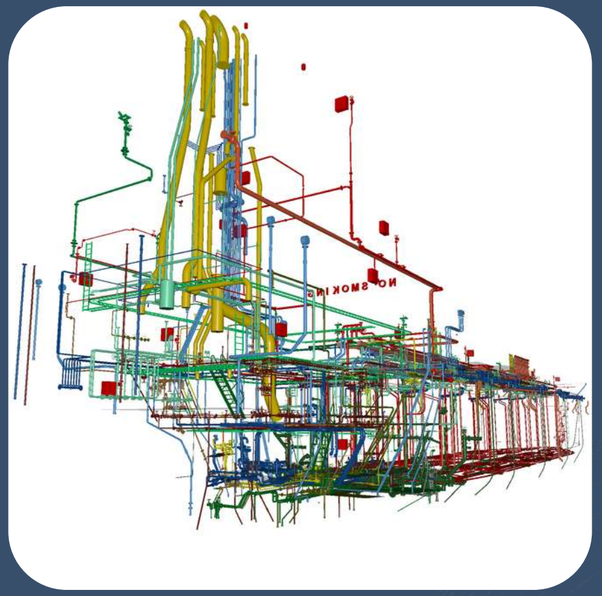
We equip vessels with the latest machinery and ensure they are fully outfitted for their intended functions. From engine selection to the integration of complex systems, our meticulous approach guarantees operational excellence and reliability. Our solutions are crafted to maximize space, enhance safety, and improve the overall operational workflow onboard.

Deliverables

Plans, diagrams, specifications and Calculations for:

- **Main & Auxilary Machinery**
- **Ship's Systems**
- **Cargo Systems**
- **Accomodation Systems**

- **Anchoring & Mooring Arrangement**
- **Rudder Arrangements & Calculation**
- **Cargo & Cargo Equipments**
- **Cranes Arrangement**
- **Deck Equipment Foundation**







ACCOMMODATION

At 4 Ocean Design, we specialize in designing ergonomic, functional, and aesthetically pleasing crew and passenger accommodations for maritime vessels. Our approach prioritizes comfort, space optimization, and safety, integrating modern amenities and durable materials suitable for marine environments. We tailor interiors to meet specific client needs while ensuring compliance with maritime regulations, creating a seamless blend of style and practicality.

Deliverables

- **General Arrangement Plan**
- **List of Accommodations**
- **Fire Control and Safety Plan**
- **Architectonic Design**
- **Accommodation Insulation Plan**
- **Floor Covering Plan**
- **Windows and Portholes Arrangement Plan**
- **Shadow Sector Plan**
- **Staircase Arrangement Plan**







ELECTRICAL & AUTOMATION

In the realm of electrical systems and automation, we provide cutting-edge solutions that enhance vessel automation and control. Our electrical designs incorporate the latest advancements in technology, optimizing energy consumption and improving system integration and automation for better management and reduced crew workload.

Deliverables

- **Electric Load Balance**
- **Equipment Specification**
- **Short Circuit Calculations**
- **Lighting Calculations**
- **Battery Capacity Calculation**
- **Emergency Shut-Down Diagram**
- **Fire Detection Signalling System Diagram**
- **External, Internal Communication System Layout**
- **ECR Equipment Arrangement**
- **Wheelhouse Equipment Arrangement**
- **Navigation lights Arrangement**
- **Main Cable ways plan**
- **Main electrical equipment arrangement plan**







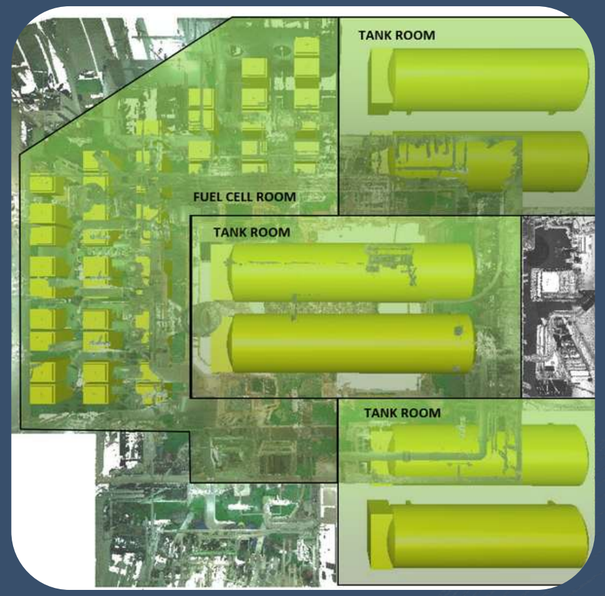
CONVERSION & RETROFITS

Our conversion and retrofit services help extend the life of existing vessels by updating and enhancing their capabilities. Whether upgrading systems to meet new environmental regulations or transforming vessels for new operational roles, we provide comprehensive solutions that revitalize and modernize with minimal downtime.

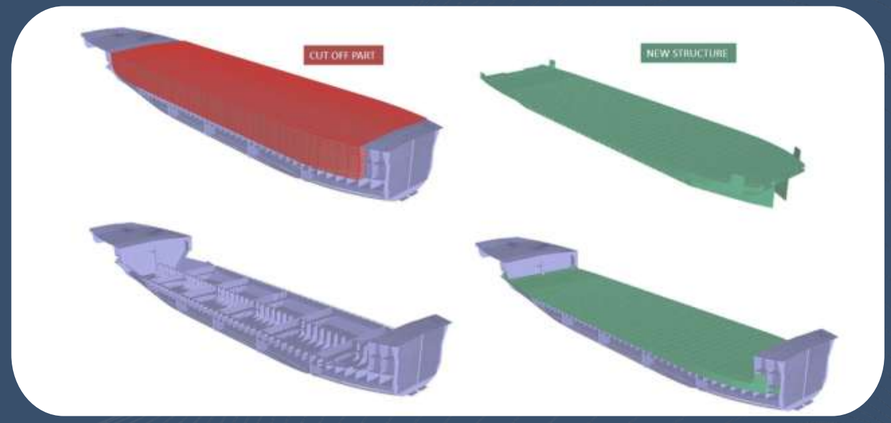
Deliverables

- **Conversions from Tanker to SSHLV**
- **Ship's Extensions**
- **Commercial Vessel to Yacht Conversion**
- **New Rigs on PSV**
- **Other Major Conversions**

- **Feasibility & Detailed study for Every Application**
- **Ship's Power & Fuel Consumption Optimization**
- **Exhaust Gas Cleaning Systems**
- **Ballast Water Treatment**
- **EEXI Compliance**







CONSULTANCY

Our consultancy service offers expert advice across all phases of ship design and operation. We assist clients in navigating complex maritime regulations, operational challenges, and technological advancements. Our consultants are dedicated to helping clients achieve their goals through strategic guidance and deep industry insights.

Ship Delivery Documentation

- **Lightship Check**
- **Inclining Test**
- **Intact Stability Calculation**
- **As built General Arrangement & ER Plan**
- **Final Capacity Plan**
- **Final Trim and Stability Booklet**
- **Subdivision and Damage Stability Calculation**

CFD Analysis

- **Hull for Optimization for New Concept Designs**
- **Hull for Optimization for Hull Form Retrofit**
- **Bulbous Bow Optimization**

Other

- **New Build Commisioning Assistance**
- **Pre Purchase Supervision**
- **Cost Estimation**
- **Assistance and Consultancy for Towing Tank Test**
- **Commisioning, Testing & Sea Trial Procedure**
- **Consctruction Supervision**
- **Project Management**
- **Owner Representatives**





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