

DRY STORAGE FACILITIES



- Planning & Layout
- Construction Guidance
- Operations & Management

DREAM HARBOURS CONSULTING



Turrell, Hall & Associates, Inc.
marine & environmental consulting

Introduction

Turrell, Hall & Associates, Inc. and Dream Harbours Consulting collaborated on Dry Storage projects in America and around the world. We have extensive experience with a full range of Dry Storage planning, design and construction services along with related shoreline support facilities, launch alternatives, staging docks and often adjoining marinas and boatyards.

We continually track the evolving characteristics and dimensions of vessels that will need to fit into modern Dry Storage buildings.

Our Services Include:

- Assistance with site selection and evaluation for Dry Storage building potential as well as docking concepts and environmental permitting.
- Dry Storage building design, including inside capacity and layout alternatives based on local codes and conditions. Evaluation of metal and tilt-wall concrete construction alternatives.
- Building details, including fire control systems, bunk designs, corrosion protection, adjustable rack systems, fork lift selection to meet the project's needs, and other important details.
- Exterior requirements such as launch facilities, staging docks, wash racks and washdown systems in order to comply with evolving regulatory requirements.
- Marine engineering, Dry Storage building and rack designs, bidding services and specialized construction management.
- Marina and boatyard design, including facility and yard layouts, travel lifts and maintenance area requirements.
- Operational assistance, including selection of management software, emergency response plans, coordination of staff training and provisions of facility operation manuals.



Featured Projects

Built and in Operation

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GB 32, San Diego, California	Sevastopol Yacht Club, Russia
Holton Property	Tarpon Cove
Moody Bellinger, Jacksonville, Florida	Trafalgar Wharf, Portsmouth, U.K.
Maximo Moorings Marina,	Treviso Bay Marina
Marina Del Palma	
New Smyrna Beach	





We have extensive experience in providing Dry Storage building design concepts, including efficient inside capacity and optimal layouts based on local codes and conditions. Our team tracks the ever-changing characteristics of boats that use dry storage for your building's rack layout to be accommodating. Once a fleet matrix and building style is selected, our team can provide a bid package for the steel racks and other components to save money on overall construction costs. The selection of required equipment is essential and should match the facility. We can then assist the owner with the selection of architectural enhancements and the general contractor with specialized site engineering. We also offer experienced construction management for the Dry Storage building and associated marine facilities.



Nautico Marine (metal building).

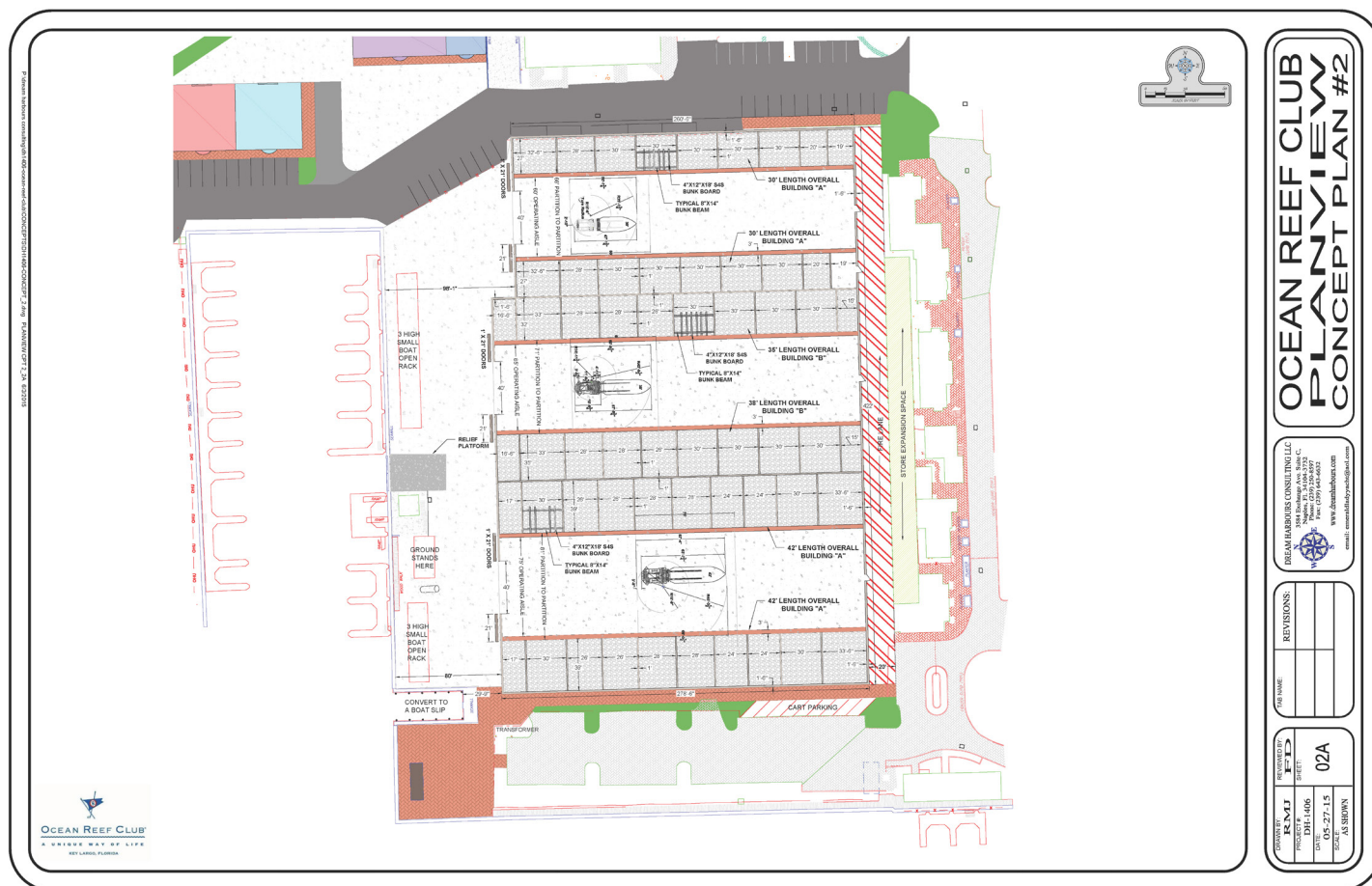


Hamilton Harbor (concrete tilt wall building).

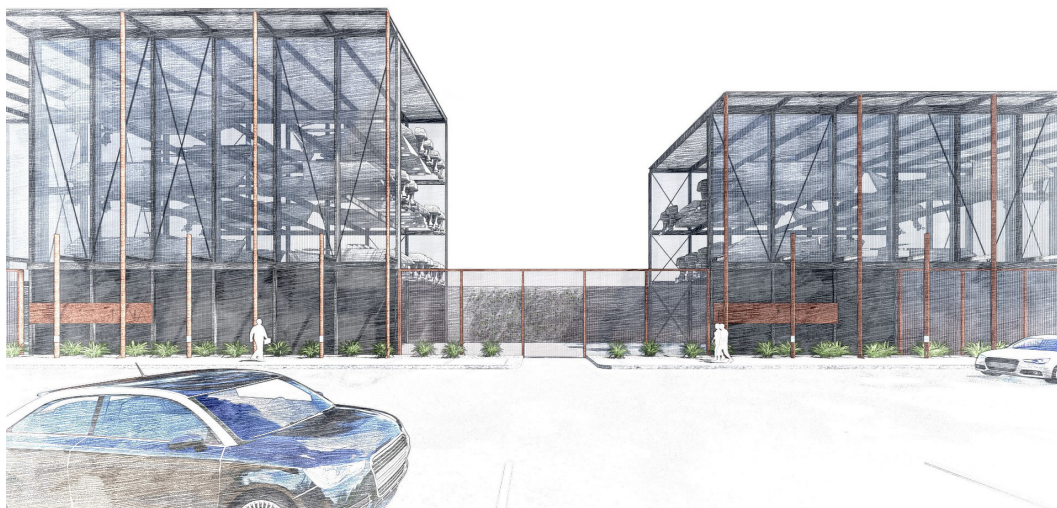


Carrabelle Boat Club (metal building with 3 bays, harbor master office to left).



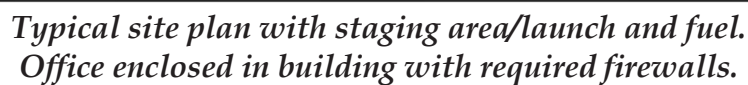


Every Dry Storage building floor plan is customized to the specific footprint and requirements of the property. Plan view shown is for 500+ boats, 30' to 42' LOA (length overall).



Artistic renderings can aid in the planning process. Featured project here is located in San Diego, CA.





Our team of Ocean and Mechanical Engineers provide expertise in the production of construction plans for the facilities we design. These are established in accordance with local laws and regulatory restrictions, including building heights, set-backs and seemingly overwhelming waterfront environmental rules and regulations. We can provide bidding services to solicit prices from qualified contractors and subsequent construction oversight services to ensure a quality project is delivered to the owner.



Construction oversight in Naples, Florida.



Hamilton Harbour tilt wall concrete construction.



We have extensive experience with water recycling and filtration facilities, which are often built in conjunction with Dry Storage, including marinas and boatyards, travel lifts, maintenance areas and state-of-the-art washdown facilities.



Rose Marina, Marco Island, Florida.

We can provide operational assistance, including the selection of marina management software to operate the facility. It is vital to select choose the right system.

We produce marina operational plans along with emergency response contingencies. These documents are produced in a practical manner to make them easy to use, while satisfying regulatory and insurance requirements.

We can also help coordinate proper staff training.

MARINA OPERATIONS & MANAGEMENT PLAN



March 2019

TURRELL, HALL &
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ATTACHMENTS

1	SEWAGE PUMPOUT LOG
2	ENVIRONMENTALLY FRIENDLY BOAT CLEANING SUPPLIES
3	EMPLOYEE TRAINING GUIDES
4	ACCIDENT REPORT TEMPLATE



Hamilton Harbor, Naples, Florida



Reinforced concrete wing walls support racks and roof.



Exterior design with architectural enhancements.



60k & 30k capacity Wiggins Marina Bull fork lifts.

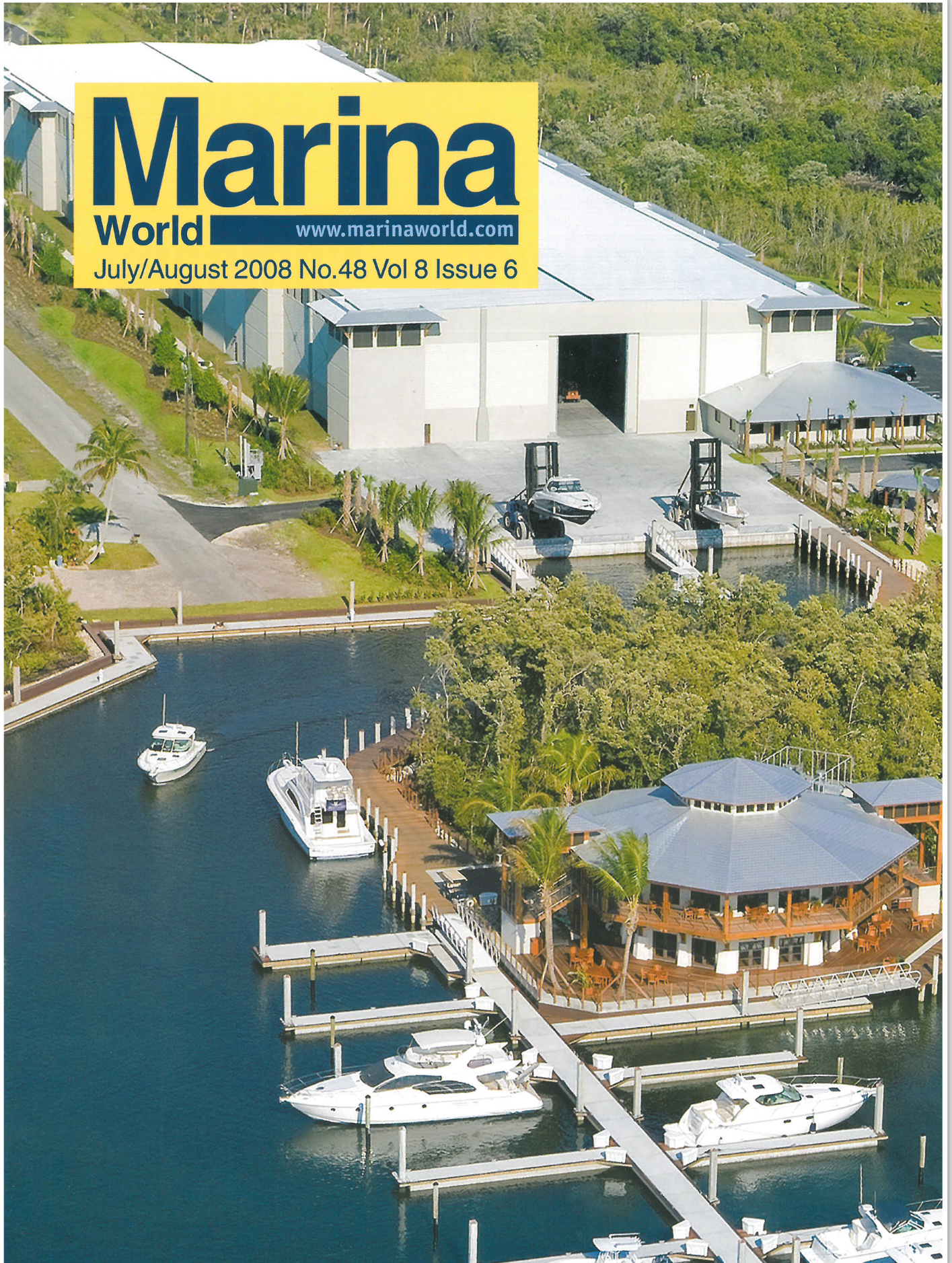


Marina

World

www.marinaworld.com

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Rose Marco River Marina, Marco Island, Florida



Our team provided the design, planning and coordination of the architect, engineering, and general contractor selection for this project at Rose Marina. This site features Dry Storage for 140 boats up to 45' LOA. The building has two stories of adjoining offices. The facility also has a 75 M.T. travel lift and 2 Wiggins Marina Bull fork lifts (with a respective capacity of 22k & 45k capacity).





Concrete tilt wall construction and custom metal roof, steel bunk beams supported by concrete wing walls.



Architectural enhancements (such as the logo shown here) can be cast in concrete during construction.



Naples Boat Club, Naples, Florida



Overall view of Naples Boat Club at opening.



Dream Harbours provided planning, personnel training and management for the project.





Naples Boat Club is an excellent example of a marine mixed-use project that incorporates the following elements:

- *Hi & Dry boat slips (167)*
- *Marina with fuel dock (48 slips)*
- *Residential units*
- *Clubhouse with pool*
- *Commercial office units*
- *Restaurant*
- *Full service boat yard with 75 M.T. travel lift*



Carrabelle Boat Club, Carrabelle, Florida



A rack-supported metal building with a capacity for 300 boats that are 25'-40' LOA. Also features a clubhouse, offices adjoined to building, and 2 fork lifts.



35' LOA bay section. Yellow bunk coverings for greater visibility to assist fork lift operator.





Close up of the clubhouse & harbor master operations office.



22k and 30k capacity Wiggins Marina Bull fork lifts.



Diversified Yacht Service Ft. Myers, Florida



Dream Harbours provided complete project design and equipment selection, including:

- *150 M.T. Travel Lift*
- *45k capacity Wiggins Marina Bull Fork Lift*
- *60 M.T. (metric ton) Self-Propelled Yard Trailer*





Custom travel lift slip.



150 M.T. travel lift, paint booth entrance are the grey two-story doors the left.



Nautico Marine, St. Petersburg, Florida



Nautico Marine has Dry Storage for 325 boats, with 4 launch ramps and multiple staging docks. The harbor master building on the right side gives the staff a panoramic view of the entire operation. This facility has fueling capability on both the water and upland.





35' LOA boat racks at Nautico. Blue bunk coverings for greater visibility to assist fork lift operator.



Pool area and chickee huts as part of the amenities available at the marina.



Gulf Star Marina, Ft. Myers, Florida (under construction)



Artistic rendering of the fully automated Dry Storage facility.



Boat storage bays with concrete wing walls and bunks under construction.





Water side view of the construction site.



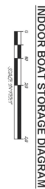
Street side view of the concrete tilt wall Dry Storage building in final stages of construction.





Size Code	Length Overall	Height	Width	Count
XX	29	5.0	4.0	4
X	29	5.0	4.0	4
XL	29	5.0	4.0	4
L	29	5.0	4.0	4
NXL	29	5.0	4.0	4
N	29	5.0	4.0	4
OO	29	5.0	4.0	4
PP	21	4.0	3.0	20
P	21	4.0	3.0	20
NR	21	6.0	6.0	6
T	21	13.50	10.0	6

Large Overhead Storage Tanks



DRAWN BY:	RMJ
PROJECT #:	DH-1405
DATE:	04-08-15
SCALE:	AS SHOWN

TAB NAME:	REVISIONS:

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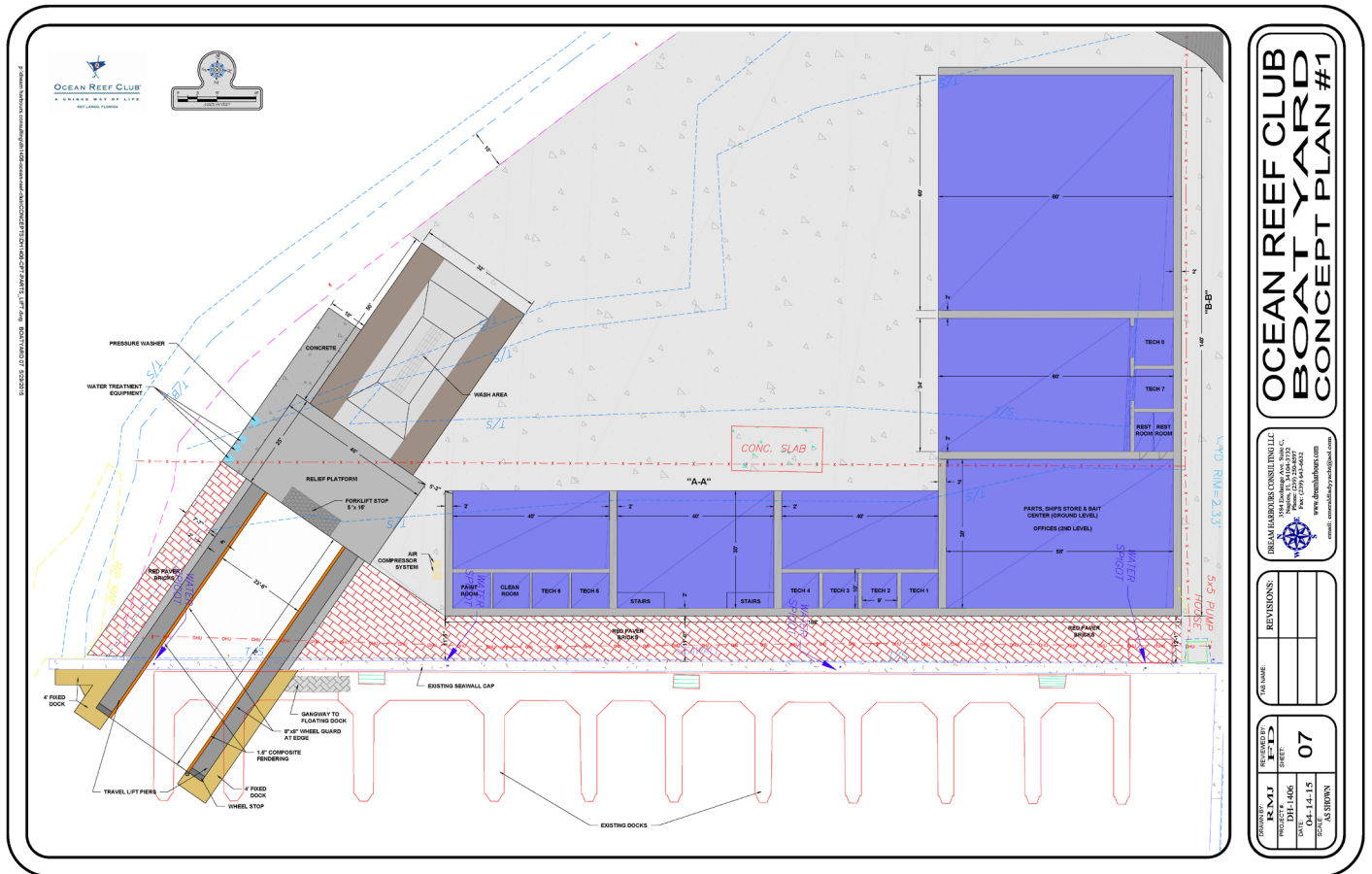
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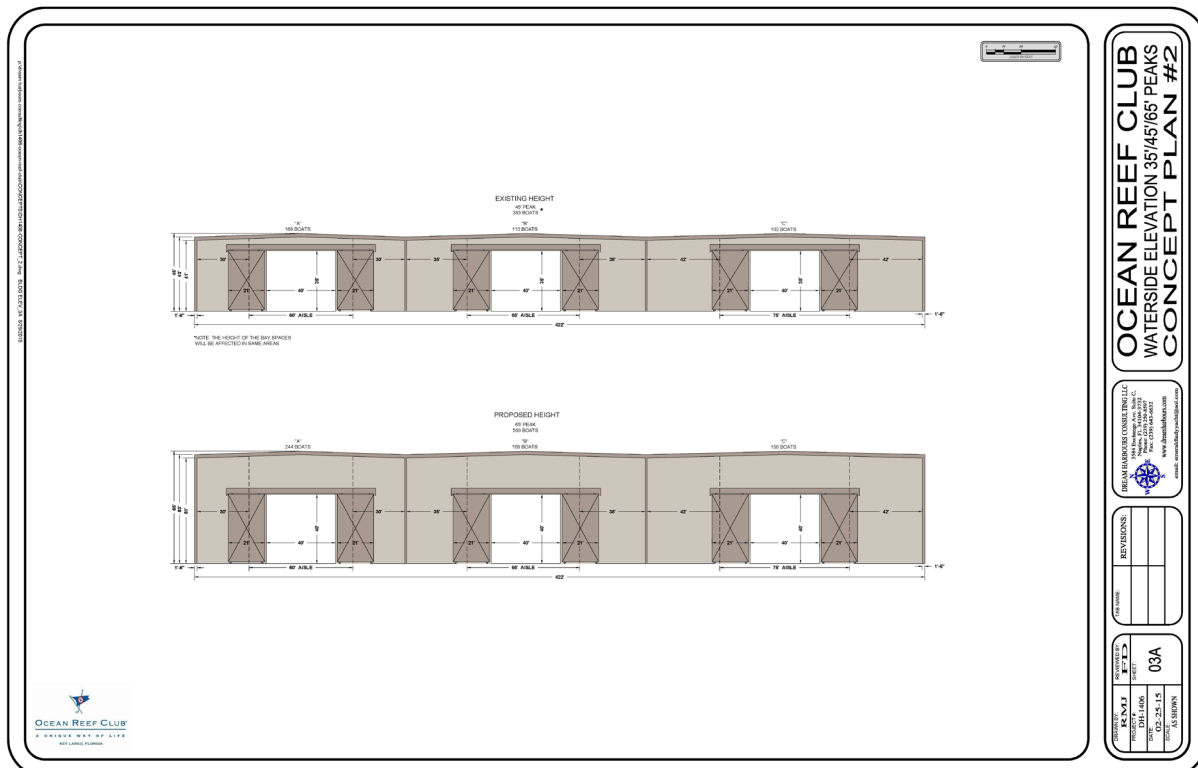
DEEP LAGOON BOAT HOUSE

MATRIX "A"





Drawings of the service yard, including the travel lift slip.



Different height elevations proposed for the Ocean Reef Club building.

