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## Boat Drystack - A Development Diary (Pt. Sanibel, FL)

### *Making Unforeseen Problems An Asset*

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#### **Port Sanibel Marina**

This 30,620 sq. ft. boat rack storage facility in Ft. Myers, FL, was constructed with a specialized steel rack-supported structure by Roof & Rack, Boca Raton, FL. The stucco-clad building has a standing seam metal roof. Construction began in April 2001. It was completed in October of the same year. A steel frame combined structural stability with optimum flexibility to accommodate a range of boat sizes. The facility can store 140 boats up to 35' long, up to four levels high. Aiding Roof & Rack in the design process was Charlan Brock & Assoc. of Maitland, FL.

Most construction and large real estate development projects include a myriad of decisions which balance costs, environmental issues, operational efficiency and investment return. It is easy for an owner/developer to get cornered into decisions which seem reasonable at first, but may decrease the long term value of a project. Boat drystack developments are not exceptions. As construction techniques change and operational efficiency becomes better understood, making cost effective decisions about boat drystack becomes an art form. In this growing industry, unforeseen problems may be the difference between an operating profit and loss. Understanding the details associated with the uniqueness of drystack storage, provides you with the ammunition to solve these problems. The following are highlights from the Port Sanibel experience which improve your chances for successful choices.

#### **Aesthetics**

Deciding the building aesthetics and producing a beautiful drawing of a proposed project is a relatively easy step in the planning process ---- but, is the concept 'doable'?

As the expectations of city officials become more sophisticated about boat drystack, the demand for more high-end aesthetics and architectural detail may hit a limit of diminishing returns. How much is too much? How good looking does it have to be? How best to present your plan to the city fathers? — Sometimes it may not be a good strategy to show examples of the best buildings in the industry, if the site can't (or doesn't need to) accommodate high end details. The project may get 'locked into' a design which is very expensive. Everyone may agree a certain project will be beautiful, but can the operation return enough to support the level of design? A complete understanding of applicable codes, layout details and design options will help answer these questions.

#### **Code Compliance**

Because most regulatory agencies are still unfamiliar with drystack boat storage, many planning

and design elements are not sufficiently addressed in local codes. Even as national codes begin reflecting better solutions, the code may not be adapted locally for several years. Items such as parking, boat wash down areas, fire suppression and load calculations may be defined by local administrators in a way which makes the project cost prohibitive.

1. Compile 'third party resources' and sound historical data, which may help your presentation.
2. Have a reliable understanding of 'boat industry standards' and how they relate to the codes; especially when the code does not specifically address or is ambiguous about the design.
3. Obtain objective advice from the local planning staff by presenting your project in general terms. How available are variances to height restrictions? How do they interpret parking requirements for drystack?
4. Implement proven, cost-effective improvements in your design, even if they are not required. This is particularly important when working with environmental codes. The inclusion of a boat wash-down area or a pump-out system is a small price for good dialog with local enforcement agencies.

## **Structural Decisions**

Drystack storage structures are most commonly built of steel. However, many requirements for drystack storage are unique to steel buildings. Some examples:

### ***1. Column / Beam Layout***

Know the boat inventory to insure the top levels have sufficient height. As well, insure the strength of the beams can not only handle the maximum boat weights, but also withstand operator mistakes.

### ***2. Adjustability***

One of the true innovations in boat storage came when it moved from 'warehouse' racking system to true 'boat' rack systems. Racks designed for even loads usually do not work well with boats. The ability to adjust both horizontally and vertically is a true advantage in boat rack storage. There cannot too much flexibility in a boat rack design.

### ***3. Fire Suppression (Sprinkler Layout)***

Should you insure the sprinklers are as adjustable as the boat racks? If the sprinkler design does not accommodate for adjustable racks, you're in for a big expense every time a beam is moved.

### ***4. Galvanizing***

In most instances, salt water environments require galvanized materials. If the project is not near salt water (or salt air), or is less exposed, consider painting some steel members.

### ***5. Depth of concrete***

Heavier boats and heavier lift trucks are requiring deeper strength concrete. Be very sure your concrete design will handle your boat inventory and your growth.

### ***6. Door height***

Insure your equipment has plenty of clearance. A damaged door side or door header is a very common repair order on existing buildings.

## **Construction Decisions**

With or without a general contractor it is wise to maintain vigilance over your construction

schedule.

### ***1. Site Preparation***

Insure the site is ready. A well prepared construction site makes material delivery, equipment movement and contractor work easy.

### ***2. Contractor Scheduling***

Develop a balance between demanding professional work and meeting completion dates. If one contractor is behind, like falling dominos, it will affect the total project. It may be better to revise your schedule, rather than cut corners and make the quality of your project suffer. A good example is the concrete foundation phase. Proper curing has a set time limit. It is wise not to push contractors to make-up the time of a late pouring by entering the site before the concrete is properly set. What little time is saved is not worth foundation failure.

### ***3. Material Delivery***

Be watchful of freight costs. Specifically, inspect the freight costs of small quantity orders; and clarify all pricing which uses terms like 'plus freight' or 'freight to be added'.

### ***4. Construction Crew Experience***

No cost cutting here. Because boat rack storage is such a specialized construction niche, a project will pay dearly for inexperience.

After the construction phase, equipment, personnel and operating choices will govern your project. Manufacturers of marine lifts and other boat handling equipment understand the design parameters needed for efficient boat stacking systems. Newer marine trucks can lift higher, lift heavier, launch boats in deeper water and offer better maneuvering. The used equipment market is growing and can be a cost savings for smaller boat projects. As with construction experience, do not cut expense when hiring forklift drivers and other equipment operators. For a total package, insure your on-going operations reflect the same thorough and detailed planning as the rest of the development.

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