



City of Clearwater
 Planning and Development
 Services Department
 100 South Myrtle Avenue, Clearwater, FL 33756
 Phone (727) 562-4567 www.myclearwater.com

APPLICATION FOR BUILDING/FLOOD BOARD OF ADJUSTMENT & APPEALS

Application Fee: \$130.00

Case BAA# _____

Address subject to appeal: _____ 25 Causeway Blvd, Clearwater FL 33767 _____
 Parcel Number: _____ / _____ / _____ / _____ / _____ / _____

APPELLANT AND AGENT INFORMATION

Appellant Name: _____ City of Clearwater _____
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 Mailing Address: _____ 100 S. Myrtle Ave. _____
 City: _____ Clearwater _____ State: _____ FL _____ Zip: _____ 33756 _____
 Agent Name: _____ Jeff Walker P.E. _____
 Telephone Number: _____ 727 224-2535 _____ Email: _____ jeff.walker@myclearwater.com _____
 Mailing Address: _____ 100 S. Myrtle Ave. _____
 City: _____ Clearwater _____ State: _____ FL _____ Zip: _____ 33756 _____

APPEAL INFORMATION

Request: Appeal of Building Official's Decision Variance
 To Section: The City of Clearwater Marine and Aviation along with City of Clearwater Public Works departments respectfully request a variance for the marina's proposed new structures seaward of the reach of the mean high tide. Reference Clearwater code 51.401(4) and Florida Building Code including ASCE 24. Construction would include floating docks, a walled conditioned enclosure for an attendant, and a fueling system.

Description for Request: This application requests a variance to allow for the installation, as part of the Beach Marina Replacement Project. Variance request is to construct floating docks complete with marina utilities, a fueling system, and a walled attendant structure. These would replace the existing fixed timber docks and related utilities and structures.

Basis for Request: The existing fixed timber dock marina is being replaced with a new floating dock marina, and the overwater components of the existing marina utilities, structures and vessel fuel system (piping, dispensers, controls) are being replaced for the new floating fuel dock. The new installation will reduce vulnerability and flooding. No fuel storage will occur over water. The existing upland buried fuel tanks will be re-used by the new fuel system. The new fuel system will meet all related fuel codes and regulations. The floating docks will remain above the site's design flood elevation as determined by the FEMA FIRM and the County's Vulnerability Assessment, including during the 1% probability storm surge event. The dock is designed to rise with the storm surge while being held in place by engineered multiple steel pipe piles. Top of pile height is substantially above the DFE and VE zone certificate will be submitted where applicable.

Florida Division of Emergency Management

The City received an advisory letter dated 01/14/20205 regarding the new marina's design from the Florida Division of Emergency Management (FL DEM). In this letter FL DEM suggested the City consider seeking a variance for the floating docks, utilities and structures as these items will be located seaward of the mean high tide and thus will not adhere to City and Florida Building Code requirements. The FL DEM advised the City to consider six criteria for the variance to be successful. Below are the six criteria and a subsequent explanation of how the new marina design addresses each concern.

1. Elevation. A building on a floating dock will always be "above" the water surface, regardless of whether variations in the water surface are caused by daily tidal action or storm surge.

Response: The most stringent DFE for the floating docks is equal to the County's VA of 13.6' + 2' freeboard (required by code) producing a DFE or 15.6' NAVD.

As shown on the issued for construction drawing S-510 the top of pile is 17'. During the 100yr design flood event the top surface of the floating dock is designed to be 2' (buoyance/freeboard) above the water with a minimum a 1.5' pile engagement.

2. Stability. The NFIP and ASCE 24 (standard referenced by the Florida Building Code) require buildings to be designed and constructed to be stable under base flood conditions. Please note that the wave heights in flood Zone V exceed 3 feet. Structures must also be stable under anticipated wind loads specified in the Florida Building Code. The wave loads must account for wave heights at the proposed location (i.e., not default to 3 feet in height). The registered design professional for the project should ensure the design of the dock and proposed building satisfy those requirements, and the design must be certified.

Response: The project's marine Engineer of Record has calculated via site-specific numerical modeling the following wave design criteria for the floating docks:

Operational:

Significant Wave Height (Hs) = 2.0'

Wave Period (t) = 2.5 Sec.

Extreme Event

Significant Wave Height (Hs) = 3.9'

Wave Period (t) = 3.4' Sec.

The delegated professional engineers for dock design and fabrication (both concrete and aluminum docks) have applied this design criteria. The dock design will be certified by the delegated professional engineer responsible for the dock design.

The fuel office structure on top of the fuel dock has been designed for the Florida Building Code (2020) site specific wind design criteria of:

Code: ASCE 7-16

Basic Wind Speed 145 mph (Vult), 113 mph (Vasd)

Risk Category II

Exposure D

Building Classification Enclosed (all fenestration is large missile impact rated)

Internal Pressure Coefficient+/- 0.18

3. Exposure to flooding. Although the dock is proposed to float, there likely will be overwash by waves passing by the structure during coastal storms. To account for this flooding, we recommend the City requires the interior floor surface of the building to be above the level of the pier deck. In addition, we recommend the City requires that the building be constructed of flood damage-resistant materials and corrosion resistant fasteners and connectors. See FEMA Technical Bulletins: TB 2 Flood Damage-Resistant Materials Requirements and TB 8 Corrosion Protection of Metal Connectors and Fasteners in Coastal Areas.

Response: Architectural drawings (i.e., A-130) and specifications issued for construction denote flood damage resistant materials for the fuel office main wind-force resistant system and finishes. This includes but is not limited to:

1. Aluminum structural framing.
2. Aluminum structural insulated panels (roof)
3. Hardie Board (fiber cement) exterior siding and interior wall panels.
4. PT wood for wall framing etc.
5. Mineral wool batt wall insulation.
6. Aluminum doors & storefront and vinyl picture window assemblies (rated for the design wind speed and large missile impact resistance).
7. Stainless steel (304/316) corrosion resistant fasteners.

As shown on detail 6/A-721, the fuel office floor is raised ¾" above the top of dock deck. This along with the dock's 2' buoyance/freeboard is considered sufficient to prevent water from pooling in the fuel

office. Please note there are ADA requirements that limit the finish floor elevation due to the dock's limited surface area, i.e. an ADA ramp (1-12) would introduce an unsafe trip hazard if the floor is raised more than ¼").

4. Utility service. We recommend the City require the applicant to specify how utility service, including water, sewer, electric, and fuel, will be protected (e.g., with "quick disconnects" or shut-off controls). Protection should address operator safety (electric), release of contents (sewage and fuel), and infiltration of floodwater into systems (water, sewer, and fuel).
Response: Both the floating concrete A Dock (aka Fuel Dock) and Aluminum Docks (B, C & D) are designed with internal utility duct banks, chases or conduits that are elevated above the floating dock's water level and are protected from impact by the surrounding dock structure. The heavy-duty G cable used for electrical utility and the welded HDPE pipe used for Potable and Fire water are flexible and wave action resilient. The diesel and gas fuel lines are non-metallic semi flexible double walled piping specified for marine conditions. The floating dock is attached to the uplands via a hinged and sliding gangway. At both the hinged (landward) and sliding (seaward) ends of the gangway appropriately specified flexible hose complete with sufficient slack is used to accommodate the design flood elevation rise of the floating dock during a storm event. A detail of this typical arrangement is shown on the issued for construction drawing MF-502. This drawing along with details shown on MF-501 also shows the isolation valves on each end of the gangway that will be closed in advance of an approaching hurricane

5. Storm preparation and evacuation. We recommend the City require the applicant to develop a storm preparation and evacuation plan that is coordinated with the City and County emergency management and notification system. The plan should explain timing and steps to be taken to minimize damage.

Response: The City's department of Marina and Aviation's Hurricane Preparation Plan will be amended to reflect the operational requirements for the new floating docks prior to a dock receiving a Certificate of Occupancy. This plan will include closing the multiple fuel isolation valves and disconnecting power to each dock in advance of a hurricane. Please note there is no storage of fuel or sewage on the floating docks that necessitate removal.

6. Limitations on NFIP flood insurance and disaster assistance. The City should be aware that NFIP flood insurance coverage is not available for buildings in Zone V that are entirely over water. This office is not able to advise as to whether federal disaster assistance would be available should the building be damaged in events declared major disasters by the President.

Response: City acknowledges that the floating fuel office being seaward of the mean high tide would not be eligible for NFIP flood insurance and disaster assistance.

Community Development Code Ch. 51.

In addition to the six FL DEM suggested variance criteria, the City Flood Plane Manager requested the project describe how the City's Community Development Code's Ch. 51, 601 through 608 are addressed.

51.601 General: The project is seeking a variance per Sec. 51.602.

51.602 Appeals: The project is not appealing a decision of the AHJ regarding floating structures seaward of the mean high tide. The City's staff report supports the variance request.

51.603 Limitations on authority to grant variations: The project acknowledges the limitations set forth in Sec. 51.608.

51.604 Restrictions in floodways: The project does not affect/encumber a floodway.

51.605 Historic Buildings: The project does not involve historic building(s).

51.606 Functionally dependent uses: The Project is not utilizing a functionally dependent use argument.

51.607 Considerations for issuance of variances:

1. The danger that materials and debris may be swept onto other lands resulting in further injury or damage. Response: The floating docks per design will remain moored by their guide piles at a design flood elevation of 15.6'.
2. The danger to life and property due to flooding or erosion damage. Response: The floating docks do not result in an increase in danger to life or property. Floating docks by their nature will reduce likelihood of property damage.
3. The susceptibility of the proposed development, including contents, to flood damage and the effect of such damage on current and future owners. Response: The floating docks per design will remain elevated and moored by their guide piles at the design flood elevation.
4. The importance of the services provided by the proposed development to the community. Response: The Clearwater Beach Marina is an existing 165-slip municipal marina located in the Pier 60 district. The City of Clearwater has operated a Marina at this location since the 1940's and historical aerials confirm the Marina was built prior to 1951 and was expanded to how it essentially exists today by 1965. Over the past 50 years the Marina has been repaired and rehabilitated but never fully replaced. Beach by Design for the Pier 60 District calls for the beautification of this entire District in conjunction with the construction of the Roundabout and for the development of a Pier 60 Plaza as a place of assembly on the Beach. The proposed replacement of the Beach Marina will complete the final stage of this beautification process. The existing marina offers slips for a variety of boating activities including recreational, seasonal and annual leases, commercial charters, and transient boaters and is home to the finest fishing charters, sightseeing tours, and watersports activities. The marina property also offers some great amenities, including restaurants, retail, a mini-mart, four popular restaurants, and marina-focused amenities such as restrooms, showers, and laundry facilities.
5. The availability of alternate locations for the proposed development that are subject to lower risk of flooding or erosion. Response: Due to the marina's historic nature and ties to the local community no alternative locations were investigated or considered feasible.
6. The compatibility of the proposed development with existing and anticipated development. Response: The Beach Marina Replacement Project is replacing the existing fixed timber docks with floating aluminum & concrete docks and limited fixed timber finger piers on the bulkhead. The new docks are fully compatible with existing and future marina operations. The floating dock will increase the resiliency of the marina in terms of sea level rise and storm surge.
7. The relationship of the proposed development to the comprehensive plan and floodplain management program for the area. Response: The replacement floating docks do not affect the area's comprehensive plan or floodplain management.
8. The safety of access to the property in times of flooding for ordinary and emergency vehicles. Response: The replacement floating docks do not affect the area's access in times of flooding for ordinary or emergency vehicles.
9. The expected heights, velocity, duration, rate of rise and debris and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site. Response: The replacement floating docks will not affect rate of rise and debris and sediment transport of the floodwaters.

The marina's Engineer of Record has calculated via site-specific numerical modeling the following wave design criteria for the floating docks:

Operational:

Significant Wave Height (Hs) = 2.0'

Wave Period (t) = 2.5 Sec.

Extreme Event

Significant Wave Height (Hs) = 3.9'

Wave Period (t) = 3.4' Sec.

10. The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, streets and bridges. Response: The replacement floating docks will not negatively affect the costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities. In contrast, because the docks will remain above the 100-year flood level the cost of maintenance to the docks and the utilities they contain will be reduced as compared to the existing fixed timber docks.

11. The necessity of the proposed development to a waterfront location, in the case of a functionally dependent use or facility. Response The project's variance request is not conditional to a functionally dependent use argument.

Sec. 51.608. Conditions for issuance of variances: The project agrees to providing a signed statement by the applicant that the variance, if granted, shall be recorded in the office of the clerk of the court at the applicant's expense, and in such a manner that it appears in the chain of title of the affected parcel of land.

- Submit evidence of ownership
- Submit 10 copies of application
- Submit 10 copies of substantiating plans or other data to be filed with the Building Official.
Will Accept Digital

Jeff Walker
Print Name



Signature

02/22/25
Date

OFFICE USE

Meeting Date: _____

Legal Description: _____
Public Notice _____
Statement: _____

Cc: City Clerk