

MEMORANDUM
MONROE COUNTY GROWTH MANAGEMENT DIVISION
We strive to be caring, professional, and fair.



To: Construction Industry
County Inspectors, Plans Examiners
FEMA Flood Managers

From: Rick Griffin, Building Official
Marathon, FL 33050

Emily Schemper, Senior Director of Planning & Environmental Resources
Marathon, FL 33050

Date: February 25, 2021

RE: Shipping/storage containers at residential locations for storage only

SHIPPING/STORAGE CONTAINERS AT RESIDENTIAL LOCATIONS FOR STORAGE ONLY

Shipping containers, also known as *storage containers*, when installed at a residence for storage, are an accessory structure and require a building permit. The permit application will be reviewed by the Planning & Environmental Resources Department and the Building Department including structural and flood plain review. The application will be reviewed for compliance with the Monroe County Comprehensive Plan, the Land Development Code (LDC), and Chapter 6 of the Code of Ordinances. These can be accessed at https://library.municode.com/fl/monroe_county. The permit application will also be reviewed for compliance with the current editions of the Florida Building Code (FBC) as well as FEMA regulations.

The following is applicable for residential storage:

Each site is unique, and will be reviewed for compliance with all aspects of the code(s). Generally the following applies:

- The size (square footage) of the shipping/storage container, as well as in total/combined area of all other accessory structures, must be smaller in area (square footage) than the principal structure (the dwelling) per LDC Section 101-1 definition of accessory structure.
- The shipping/storage container cannot be located in the required setbacks. Setbacks are based on the land use (zoning) district. You can check your zoning on-line by following the research tips at: <http://www.monroecounty-fl.gov/698/Research-Tips>. Once you know your land use (zoning) district, you can check LDC Section 131-1 and 131-2 for your required non-shoreline setbacks. For shoreline setback requirements refer to LDC Section 118-12f(c).
- The shipping/storage container cannot exceed the maximum height of 35 feet per LDC Section 131-2.

- The site must comply with the minimum required open space per the table in LDC Section 130-157.
- The site must comply with the surface water management (stormwater) requirements per LDC Section 114-3(d)(3).
- Properties are subject to review for compliance with the permitted clearing allowances per LDC Section 118-9. Development may also be limited due to other environmental and habitat conditions per LDC Section 118-10.
- Shipping/storage containers at historic properties and those properties located in the Tavernier Historic District are discouraged, and would be subject to review and approval at a public hearing by the Historic Preservation Commission, based on staff recommendation (LDC Chapter 135).
- There are also standards and guidelines established in the Livable CommuniKeys Plans related to community character and aesthetics. These do not apply to all parcels and are generally identified in overlay districts. You can access the Livable CommuniKeys Plans at <http://www.monroecounty-fl.gov/184/Livable-CommuniKeys-Programs>
- Flood regulations also apply:
 - Shipping/storage containers are NOT considered *light* metal construction.
 - FBC R322.1.2 requires the shipping/storage container structure to be designed, connected and anchored to resist floatation, collapse or permanent lateral movement due to structural loads and stresses from flooding equal to the design flood elevation.
 - FBC R322.1.3 buildings and structures erected in areas prone to flooding shall be constructed by methods and practices that minimize flood damage.
 - FBC 1603.1.7 Flood Design Data requires for buildings located in whole or in part in flood hazard areas, the documentation pertaining to design, shall be included and the following information, referenced to the datum on the community's Flood Insurance Rate Map (FIRM), shall be shown, regardless of whether flood loads govern the design of the building:
 1. Flood design class assigned according to ASCE 24.
 2. In flood hazard areas other than coastal high hazard areas or coastal AE zones, the elevation of the proposed lowest floor, including the basement.
 3. In flood hazard areas other than coastal high hazard areas or coastal AE zones, the elevation to which any nonresidential building will be dry floodproofed.
 4. In coastal high hazard areas and coastal AE zones, the proposed elevation of the bottom of the lowest horizontal structural member of the lowest floor, including the basement.
 - FLOOD ZONE AE: Shipping containers of enclosed space, installed on site, regardless of size or value may be permitted if they meet all of the criteria outlined in [LDC Section 122-4\(b\)\(1\)d](#). including:
 - The placement of a shipping/storage container below the lowest floor of an elevated structure for limited storage shall be a maximum of 299 square feet.
 - The shipping/storage container must either be elevated, or the walls of any enclosed area below the base flood elevation in zone AE shall have a minimum of

- two openings, such as vents, located on separate walls, having a minimum total net area of one square inch for each square foot of enclosed area, where the enclosed area is calculated by outside dimensions. Openings shall be situated such that the bottom of each opening is no higher than one foot above finished grade.
 - Interior walls, ceilings and floor, below base flood elevation, in enclosures may be finished with allowable exterior finish in accordance with the most recent FEMA Technical Bulletin.
 - The interior may not be partitioned.
 - Enclosed area below base flood elevation shall not be used for human habitation.
 - No electrical, mechanical or plumbing may be located below the base flood elevation except necessary electrical switches for required lighting circuits and one GFI receptacle installed per Section 122-4(b)(1)d.5
 - FLOOD ZONE VE: Shipping containers of enclosed space, installed on site, regardless of size or value may be permitted if they are elevated and meet all of the criteria set forth in Section 122-4(b)(5)a. Shipping containers are not of break away wall construction and do not meet the requirements of Section 122-4(b)(5)a and 122-4(b)(5)i for installation below base flood elevation in a VE zone.
 - FEMA Technical Bulletin 5 (adopted by BOCC resolution # 152-2020), Section 7.1 *Accessory Storage Structures*, requires structures made of material that is likely to create either damaging debris or flow and wave diversion problems to be constructed and elevated in compliance with NFIP requirements.
 - Section 122-4(b)(5)a requires that new construction within zones V1-30, VE or V shall be elevated so that the bottom of the lowest horizontal structural member of the lowest floor (excluding pilings or columns) is located at or above the base flood elevation level, with the space below the lowest horizontal structural member open or constructed with breakaway walls so as not to impede the flow of floodwaters. **Breakaway walls may be permitted for aesthetic purposes only** and must be designed to wash away in the event of abnormal wave action and in accordance with the provisions of Sections 122-4 (b)(5)g., (b)(5)h. and (b)(5)i. Shipping containers do not meet the break away wall requirement and must be elevated in a VE zone.
 - Section 122-4(b)(5)i. requires that walls and partitions below the base flood elevation, be designed to break away under the impact of abnormally high tides or wind-driven water without damage to the structural integrity of the building on which they are to be used. Shipping containers do not meet the break away wall requirement.
- Structural regulations of the Florida Building Code apply. Engineer Tie Down system or Foundation plans are required as part of the building permit application.
 - FBC R202 defines HABITABLE SPACE as “A space in a building for living, sleeping, eating or cooking. Bathrooms, toilet rooms, closets, halls, screen enclosures, sunroom categories as defined at Section R301.2.1.1.1, storage or utility spaces and similar areas

- are not considered habitable spaces.” Repurposing of a shipping container for any use other than limited storage would require full compliance with the Florida Building Code.
- FBC R301.1 requires the shipping/storage container structures be constructed to safely support all loads, including dead loads, live loads, roof loads, flood loads, snow loads, wind loads and seismic loads.
 - FBC R322.1.2 requires the shipping/storage container structure to be designed, connected and anchored to resist floatation, collapse or permanent lateral movement due to structural loads and stresses from flooding equal to the design flood elevation.
 - FBC 1603.1.4 Wind Design Data requires the following information related to wind loads shall be shown, regardless of whether wind loads govern the design of the lateral force-resisting system of the structure:
 1. Ultimate design wind speed, V_{ult} , (3-second gust), miles per hour (km/hr) and nominal design wind speed, V_{asd} , as determined in accordance with Section 1609.3.1.
 2. Risk category.
 3. Wind exposure. Applicable wind direction if more than one wind exposure is utilized.
 4. Applicable internal pressure coefficient.
 5. Design wind pressures to be used for exterior component and cladding materials not specifically designed by the registered design professional responsible for the design of the structure, psf (kN/m²).

Useful references:

Monroe County’s website is: <http://www.monroecounty-fl.gov/>

For additional Building Department information related to building and permitting:

<https://www.monroecounty-fl.gov/243/Additional-Permit-Information>

You can access information from Planning & Environmental Resources Department at:

<http://www.monroecounty-fl.gov/178/Planning-Environmental-Resources>

You can access the Property Appraiser’s office information about your property at:

<http://qpublic.net/fl/monroe/>

You can access the Clerk of the Court records at:

<https://gov.kofiletech.us/FL-Monroe/>

Rick Griffin
Monroe County
Building Official
305-289-2521

Emily Schemper
Senior Director of Planning
& Environmental Resources
305-289-2500