## FLOODPROOFING CERTIFICATE FOR NON-RESIDENTIAL STRUCTURES

The floodproofing of non-residential buildings may be permitted as an alternative to elevating to or above the Base Flood Elevation;
however, a floodproofing design certification is required. This form is to be used for that certification. Floodproofing of a residential building
does not alter a community's floodplain management elevation requirements or affect the insurance rating unless the community has been
issued an exception by FEMA to allow floodproofed residential basements. The permitting of a floodproofed residential basement requires a separate certification specifying that the design complies with the local floodplain management ordinance.

FOR INSURANCE COMPANY USE
POLICY NUMBER
STREET ADDRESS (Including Apt., Unit, Suite, and/or Bldg. Number) OR P.O. ROUTE AND BOX
NUMBER S. KINOS HM!
OTHER DESCRIPTION (Lot and Block Numbers, etc.)
BFIMHOSE H


SECTION I - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION
Provide the following from the proper FIRM:


All elevations must be based on finished construction.
Floodproofing Elevation Information:
Building is floodproofed to an elevation of $\qquad$ . 0 feet (In Puerto Rico only: $\qquad$
$\qquad$ meters).NGVD 1929
ZNNAVD 1988Other/Source:
$\qquad$
(Elevation datum used must be the same as that used for the Base Flood Elevation.) Height of floodproofing on the building above the lowest adjacent grade is $\qquad$ feet (In Puerto Rico only: $\qquad$ meters). For Unnumbered A Zones Only:
Highest adjacent (finished) grade next to the building (HAG) $\qquad$
$\qquad$ feet (In Puerto Rico only: $\qquad$ . $\qquad$ meters). .
$\square$ NKVD $1929 \square$ NAV $1988 \square$ Other/Source: $\qquad$
(NOTE: For insurance rating purposes, the building's floodproofed design elevation must be at least 1 foot above the Base Flood Elevation to receive rating credit. If the building is floodproofed only to the Base Flood Elevation, then the building's insurance rating will result in a higher premium. See the Instructions section for information on documentation that must accompany this certificate if being submitted for flood insurance rating purposes.)

## FLOODPROOFING CERTIFICATE FOR NON-RESIDENTIAL STRUCTURES

Non-Residential Floodproofed Elevation Information Certification:
Section II certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information
I certify that the information in Section II on this Certificate represents a true and accurate interpretation and determination by the undersigned using the available information and data. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.


SECTION III - FLOODPROOFED CERTIFICATION (By a Registered Professional Engineer or Architect)
Non-Residential Floodproofed Construction Certification:
I certify the structure, based upon development and/or review of the design, specifications, as-built drawings for construction and physical inspection, has been designed and constructed in accordance with the accepted standards of practice (ASCE 24-05, ASCE 24-14 or their equivalent) and any alterations also meet those standards and the following provisions.

The structure, together with attendant utilities and sanitary facilities is watertight to the floodproofed design elevation indicated above, is substantially impermeable to the passage of water, and shall perform in accordance with the 44 Code of Federal Regulations (44 CFR 60.3(c)(3).

All structural components are capable of resisting hydrostatic and hydrodynamic flood forces, including the effects of buoyancy, and anticipated debris impact forces.

I certify that the information in Section III on this certificate represents a true and accurate determination by the undersigned using the available information and data. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.


Copy all pages of this Floodproofing Certificate and all attachments for 1 ) community official, 2) insurance agent/company, and 3) building owner.

## OLFC BATHHOUSE H FLOOD PREPARATION PLAN

## Facility Description

Ocean Lakes Family Campground (OLFC) is a 310 acre ocean front resort featuring 893 campsites and 2,554 annual lease sites with nearly a mile of beachfront located in Myrtle Beach, South Carolina. On an average summer day, OLFC has approximately 25,000 guests on the resort property. Among the many amenities provided to the guests are several public access bathhouses. Bathhouse H is currently being upgraded including the addition of two handicap accessible family restroom. This building currently exists withing the boundaries of the AE 12 Flood Zone.. As a consequence, the new Family Room components must meet FEMA regulations. Primary among them is that the occupied space which has a finished floor elevation of $+11.0^{\prime}$ MSL has to be floodproofed to an elevation of +15 MSL to comply with the freeboard elevation as mandated by Horry County. Among the measures provided to meet the floodproofing requirements are a continuous CMU exterior walls with all cells filled with concrete and applied waterproofing and certified metal flood shields to span across all door openings that lie in the freeboard area. A cut sheet from the manufacturer is attached herewith

Flood Plan

1. Within 48 hours of projected landfall of a named tropical storm or hurricane, the property owner and operator shall alert maintenance staff to begin storm preparation.
2. Maintenance staff shall inspect the following:
a. That all exterior doors are operable and that obstructions around all frames are removed and ready for installation of the door shields.
b. That the building CMU perimeter has not been breached or compromised with any wall penetrations.
3. Within 24 hours of projected landfall, maintenance staff shall install NGP Shields on preinstalled anchors at storefront and door openings. Deluge test with hose to ensure water tightness.
4. Prior to evacuation, inspect property to store and secure all loose items found on site.

## DOOR FLOOD SHIELD

## Protect door openings \& building contents from flood water

## Drop in and Go!

- Stainless steel springs provide constant seal compression.
- $1 / 4^{n}$ Marine grade aluminum shield with handle cutouts.
- Closed cell neoprene rubber gaskets installed on bottom and sides of shield.

Available Now<br>FS10 . . . 10" high<br>FS22 . . . 22" high<br>FS34 . . . 34" high<br>* Up to 96 6" wide<br>* Over 50 " support post recommended.



## Flood Shield

## Installation Instructions

1. Position mounting channels with radius comers up, in desired location with larger holes facing exterior.
2. With channels vertically aligned, mark screw holes.
3. Drill pilot holes for screws using $9 / 64^{u}$ drill bit.
4. Apply continuous bead of waterproof caulk to center of mounting side of channels,
5. Install channels with screws provided.
6. Caulk bottom outer edges of channels to floor surface.


Optional Support Post: Bore $8^{\prime \prime}$ deep hole in floor surface for $1-1 / 2^{\prime \prime}$ O.D., outer support post, tangent to the center of the intertor side of the plate. Install outer post in hole with top flush with floor surface. Cover with dust cap. When inserting shiseld, remove dust cap and inserti inner support post.

## Operating Instructions

Inspect channels and floor surface to insure proper working condition.
Inserting Shield: With springs and label facing out, insert bottom of plate into channels.


Push outward fo compress springs while lowering plate.
Removing Shield: While compressing springs to remove tension off the gasketing, pull straight up on plate to remove from channel.
Storing Shield: Store the shield plate indoors with no weight against the gasket.

## Flood Shield

Flood Shield is designed to help protect door openings and building contents from flood water. This unique product features a spring mechanism that maintains constant tension against the gasketing to create a solid flood barrier.

- 1/4" Marine grade aluminum shield with handle cutouts.
- Closed cell neoprene rubber gaskets installed on bottom and sides of shield.
- Anodized aluninum mounting channels.
- Universal channels can install inside or outside mount.
- Dark bronze mounting channels avallabte (specify).
- Stainless steel springs provide seal compression.
- \#10 $\times 1-1 / 2^{\prime \prime}$ stainless steel sheet metal screws.

Complies with guidelines of the Federal Emergency Management Agency (FEMA) and Federal Insurance and Mitigation Administration (FIMA) for use on doors in flood prone areas.

Lengths up to 96 " available.
Over $50^{\prime \prime}$ a center support post is recommended.
A threshoid is recommended if sill is not smooth and clean. Orders for this product are non-changeable and non-cancellable.

FS10 $10^{*} \mathrm{High}$
FS22 22" High
FS34 34* High


ANODIZED ALUMINUM MOUNTNG CHANNEL.


FSSP Optional Center
Support \& Cap
FSSP Optional Center
Support \& Cap
inside mount


Universal anodized aluminum channels can be mounted to Inside or outside of frame.


