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**SEMINOLE COUNTY GOVERNMENT  
AGENDA MEMORANDUM**

**SUBJECT:** Request for a variance from the finished floor elevation requirements of the Seminole County Floodplain Ordinance

**DEPARTMENT:** Planning and Development      **DIVISION:** Building

**AUTHORIZED BY:** Alison Stettner

**CONTACT:** Paul Watson

**EXT:** 7460

**MOTION/RECOMMENDATION:**

1. Deny the request for a variance from the finished floor requirements of the Seminole County Floodplain Ordinance; or
2. Approve the variance from the finished floor requirements of the Seminole County Floodplain Ordinance; or
3. Continue the public hearing until a time and date certain.

District 4 Carlton D. Henley

Paul Watson

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**BACKGROUND:**

Mr. Peter Wales, applicant, is requesting a variance from the minimum finished floor elevation requirements of the Seminole County Floodplain Ordinance. On July 30, 2009, Mr. Wales's contractor applied for a permit to add a 462 square foot addition to his home. During the plan review, staff determined that the home lies within flood zone with a base flood elevation of 58.7 feet. The minimum finished floor elevation for the proposed addition would need to be 59.7 feet according to Section 30.965 (E) of the ordinance. In September of 2000, staff improperly submitted a variance request to the Board of Adjustment (BOA) for variances on the flood plain requirements for this property. The Floodplain Ordinance does not provide for BOA authority to hear requests for variances of the flood plain requirements. However, the BOA approved the request for another addition allowing it to be constructed 1.8 feet (approximate elevation 57.2 feet) below the base flood elevation.

There are a number of criteria that the Board must consider when a request for variance is considered as required by the ordinance section 30.968. They are separated into two sections and are attached. In the applicant's letter of request for the variance, Mr. Wales cites his own physical conditions and the requirement for ramp access to the addition as the basis for his request. The ordinance does not recognize physical conditions as a hardship. It relates hardships specifically to the land (Section 30.963). There are also other methods to achieve access to the proposed addition without the use of a ramp such, including a mechanical lift.

The County is a participating community in the National Flood Insurance Program (NFIP) and as such is charged with enforcing the Code of Federal Regulations (CFR) Chapter 44 as they relate to flood issues, in addition to enforcing the County's ordinance. The granting of a variance without a hardship as defined could result in the community being suspended from the NFIP program for not adequately enforcing the regulations that meet the minimum

requirements set forth in section CFR 60.3. There is a ninety (90) day notification period wherein the community has the opportunity to correct the deficiencies and avoid the probation. If the corrections are not made and the community is put on probation, all flood insurance policyholders would be charged an additional premium of fifty dollars (\$50.00) for the current year as well as for the successive year. If the community does not correct the deficiencies and remedy all violations, it would be subject to suspension from the NFIP.

In addition to this the County also participates in the Community Rating System (CRS) where the County's floodplain regulation program is rated on a number scale based upon the specific flood plain management activities it is involved in. Our current rating saves our four thousand forty nine (4049) flood insurance policyholders fifteen percent (15%) on the price of their premiums. The granting of a variance without the defined hardship would likely result in the County's CRS rating being reduced resulting in increased costs to our policyholders.

**STAFF RECOMMENDATION:**

Staff recommends that the Board deny the request for a variance to the minimum finish floor elevation requirements of the Seminole County Flood Plain Ordinance.

**ATTACHMENTS:**

1. Letter to Request Variance to Floodplain Ordinance 11/20/09
2. Floodplain Ordinance Section 30.965
3. Floodplain Ordinance Sec 30.968
4. Floodplain Ordinance Sec 30.963-Definitions
5. Code of Federal Regulations Chapter 44 Sec 60.3

<b>Additionally Reviewed By:</b> <input checked="" type="checkbox"/> County Attorney Review ( Melissa Clarke )
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Peter Wales  
315 Lazy Acres Lane  
Longwood  
FL 32750  
Phone 407 951 7440  
e-mail [pwales@cfl.rr.com](mailto:pwales@cfl.rr.com)

## Variance Application.

### Outline:

A special exception is requested to build a 20x20 ft room on the back of my house joining the existing extension to the bedroom. The exception is needed as the whole building, including the proposed new room, is below the level of the flood plain.

### Background:

In 2000 I applied for a Variance to allow the building of a "Therapy Room" as an extension of my house during the process of remodeling it. The variance was granted and the therapy room constructed and equipped with various devices to aid in my well being. After 5 years my weight had dropped from 350 lbs to 180 lbs and I was fit and healthy. I felt the objective had been achieved so the therapy room was progressively changed to a hobby room where I pursued my hobby of building model helicopters. Some heavy machinery was brought in including a milling machine and a lathe.

Recently my walking ability has degraded and when a new device was announced in the summer, which would improve my walking tremendously, I immediately went to the manufacturers consulting room to try it out. The device consists of a strap which fits around the calf just under the knee and it senses that the user is about to lift his leg. It then sends out some electrical impulses which cause the foot to lift. My problem with walking is that by straining to lift my leg, I am inadvertently causing my foot to be forced down and I am, in effect, tripping over my own feet.

The trial was successful for 2-3 steps until my walking became so bad that the device could not detect that I was trying to take a step and it failed to help. What I need to do is to practice my walking again so that I can maintain a correct walking mode for long enough to be able to make use of the new device. This will require the use of parallel bars, a horizontal bicycle and later on, an inclined treadmill. I do not have enough space in my house for these things.

Building the extra room to code will require it to be four feet above the height of the rest of the house and so it will require a ramp for access. This would be 48 feet long with a couple of turns and so would effectively fill the new room making it useless.

#### Description:

The plan is to build an extension to the hobby room utilizing its rear wall and doors, and using the existing block wall of the bedroom at the back of the house. The main problem will be that of a new roof which the architect has solved by extending the existing hobby room roof line to the bedroom roof and then fitting a new roof which will be at a shallower angle over the new room.

#### Environment:

The house was built in 1972 and has since had several extensions build on to it giving a ground floor of approximately 3000 square feet. Since it was built, to the best of my knowledge, it has never been flooded. When Progressive insurance decided to drop properties over a certain value and I was forced to go to another insurer, my flood insurance premium was quoted as rising from about \$300 a year to \$15,000 a year. As the property had never been flooded, I decided that I would self insure and over a period of 10 years or so would have enough money saved to completely repair any damage should the property be flooded. Adding a further 400 square feet is not going to increase my costs significantly.

(l) Standards for Subdivision Proposals and other Proposed Development (including manufactured homes):

- (1) All subdivision proposals shall be consistent with the need to minimize flood damage;
- (2) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage;
- (3) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards.

~~(j) Encroachments. The cumulative effect of any proposed development shall not adversely affect the flood-prone area.~~

**Section 4. Section 30.965 of the Land Development Code of Seminole County is hereby amended as follows:**

**Section 30.965. Specific standards.**

~~The following requirements shall apply to all areas classified as flood-prone.~~

In all A-Zones where base flood elevation data have been provided (Zones AE, A1-30, and AH), as set forth in Section 30.964(1), the following provisions shall apply:

- (a) No structure shall be constructed or placed and no land filling or grade level changes shall be permitted

~~within said classification~~ without the implementation and utilization of appropriate "flood-protection measures" as defined herein; and/or the implementation and utilization of on-site compensating storage if required pursuant to this part.

- (b) No Structure shall be constructed or placed ~~within said classification~~ where a septic tank will be utilized to service said structure unless prior approval as to the use and location of said septic tank shall be obtained through the Seminole County Department of Health and other appropriate state agencies.



- (c) No structure shall be constructed or placed and no land filling or grade level changes shall be permitted ~~within said classification~~ unless the resulting filling or change will not inhibit the flow of flood waters or drainage waters or cause erosion. All filling within said classification is limited to the minimum area necessary for a building site. In the event the necessary filling area for a building site is greater than ten percent (10%) of the total area within said classification, on-site compensating storage shall be provided. In riverine situations,

notification of alteration or relocation of a watercourse will be in accordance with approved county procedures.

(d) No structure shall be constructed or placed and no land filling or grade level changes shall be permitted ~~within said classification~~ unless the resulting filling or change will not increase flooding of or drainage of lands above or below the property and the modification to an affected watercourse can be maintained.

(e) Residential Construction. New construction or substantial improvement  of any residential structure (including manufactured home) shall have the lowest floor, including basement, all electrical equipment, all mechanical equipment elevated to no lower than one foot six inches (1') above the base flood elevation. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate the unimpeded movements of flood waters shall be provided. automatic equalization of flood hydrostatic forces on both sides of the exterior walls shall be provided in accordance with the standards set forth in Section 30.965(h) of this Part.

- ~~(h) The compatibility of the proposed use with existing and anticipated development;~~
- ~~(i) The relationship of the proposed use to the comprehensive plan, wetlands overlay zoning distance regulations and flood plain management program for the area;~~
- ~~(j) The safety of access to the property in times of flood for ordinary and emergency vehicles.~~
- ~~(k) The expected heights, velocity, duration, rate of rise, and sediment transport of flood waters expected at the site; and~~
- ~~(l) Such other factors as shall be relevant to the purposes of this chapter.~~



**Section 7.** Section 30.968 of the Land Development Code of Seminole County is hereby created as follows:

**Section 30.968. Variances.**

The Board of County Commissioners of Seminole County shall hear and decide requests for variances from the requirements of this Part.

(a) Variance Criteria. Variances shall only be issued under this Part under the following circumstances:

- (1) There is a showing of good and sufficient cause; and

- (2) A determination is made that failure to grant the variance would result in exceptional hardship; and
- (3) A determination is made that the granting of a variance will not result in increased flood heights, additional threats to public expense, create nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances; and
- (4) A determination is made that the variance is the minimum necessary deviation from the requirements of this Part; and
- (5) Variances shall not be granted after-the-fact.

(b) Additional Considerations  In acting upon variance applications under this Part, the Board shall consider all technical evaluations, all relevant factors, standards specified in other sections of this Part, and:

- (1) The danger that materials may be swept onto other lands to the injury of others;
- (2) The danger of life and property due to flooding or erosion damage;
- (3) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

- (4) The importance of the services provided by the proposed facility to the community;
  - (5) The necessity to the facility of a waterfront location, where applicable;
  - (6) The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
  - (7) The compatibility of the proposed use with existing and anticipated development;
  - (8) The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
  - (9) The safety of access to the property in times of flood for ordinary and emergency vehicles;
  - (10) The expected heights, velocity, duration, rate of rise, and sediment of transport of the flood waters and the effects of wave action, if applicable, expected at the site; and
  - (11) 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, and streets and bridges.
- (c) Records. The Floodplain Administrator shall maintain the records of all variance actions, including justification for their issuance or denial, and report such variances in

the community's NFIP Biennial Report or upon request to FEMA and the State of Florida, Department of Community Affairs, NFIP Coordinating Office.

(d) Written Notification Requirement. Any applicant to whom a variance is granted shall be given written notice, signed by the Floodplain Management Administrator, of the following:

(1) The issuance of a variance to construct a structure below the base flood elevation will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage, and

(2) Such construction below the base flood level increases risks to life and property.



A copy of the notice shall be recorded by the Floodplain Administrator in the Office of the Clerk of the Court and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land.

(e) Variances for Historic Structures. Variances may be issued for the repair or rehabilitation of "historic" structures - meeting the definition in this Part - upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a "historic" structure.

(f) Structures in the Regulatory Floodway. Variances shall not be issued within any designated floodway if any impact in flood

conditions or increase in flood levels during the base flood discharge would result.

~~The following shall apply to all subdivision proposals required to comply with the requirements of this Code.~~

~~(a) All shall be consistent with the need to minimize flood damage;~~

~~(b) All shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage;~~

~~(c) All shall have adequate drainage provided to reduce exposure to flood hazards; and~~

~~(d) All subdivision proposals  which are greater than fifty (5) lots or five (5) acres shall provide base flood elevation data.~~

**Section 8.** Section 30.969 of the Land Development Code of Seminole County is hereby deleted and reserved.

**Section 9.** Section 30.970 of the Land Development Code of Seminole County is hereby amended as follows:

**Section 30.970. ~~Building p~~ Permit procedures.**

Application for a ~~building permit~~ Development Permit shall be made to the ~~building division~~ Floodplain Administrator on forms furnished by him or her prior to any development activities, and

**Floodway fringe** means that area of the floodplain on either side of the regulatory floodway where encroachment may be permitted without additional hydraulic and/or hydrologic analysis.

**Freeboard** means the additional height, usually expressed as a factor of safety in feet, above a flood level for purposes of floodplain management. Freeboard tends to compensate for many unknown factors, such as wave action, bridge openings and hydrological effect of urbanization of the watershed, which could contribute to flood heights greater than the height, calculated for a selected frequency flood and floodway conditions.

**Functionally dependent use** means  a use that cannot be used for its intended purpose unless it is located or carried out in close proximity to water, such as a docking or port facility necessary for the loading and unloading of cargo or passengers, shipbuilding or ship repair. The term does not include long-term storage, manufacture, sales, or service facilities.

**Hardship** as related to variances from this Part means the exceptional hardship associated with the land that would result from a failure to grant the requested variance. A hardship is exceptional, unusual, and peculiar to the property involved. Mere economic or financial hardship alone is not exceptional. Inconvenience, aesthetic considerations, physical handicaps,

personal preferences, or the disapproval of one's neighbors likewise cannot, as a rule, qualify as a hardship. All of these problems can be resolved through other means without granting a variance, even if the alternative is more expensive, or requires the property owner to build elsewhere or put the parcel to a different use than originally intended.

**Highest adjacent grade** means the highest natural elevation of the ground surface, prior to the start of construction, next to the proposed walls of a structure.

**Historic Structure** means any structure that is:

- a) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- b) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- c) Individually listed on the Florida inventory of historic places, which has been approved by the Secretary of the Interior; or

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been issued for the community at the time of application. Thereafter, the community will be given a period of six months from the date the Administrator provides the data set forth in § 60.3(b), (c), (d), (e) or (f), in which to meet the requirements of the applicable paragraph. If a community has received a FHBM, but has not yet applied for Program eligibility, the community shall apply for eligibility directly under the standards set forth in § 60.3(b). Thereafter, the community will be given a period of six months from the date the Administrator provides the data set forth in § 60.3(c), (d), (e) or (f) in which to meet the requirements of the applicable paragraph.

(b) A mudslide (i.e., mudflow)-prone community applying for flood insurance eligibility shall meet the standards of § 60.4(a) to become eligible. Thereafter, the community will be given a period of six months from the date the mudslide (i.e., mudflow) areas having special mudslide hazards are delineated in which to meet the requirements of § 60.4(b).

(c) A flood-related erosion-prone community applying for flood insurance eligibility shall meet the standards of § 60.5(a) to become eligible. Thereafter, the community will be given a period of six months from the date the flood-related erosion areas having special erosion hazards are delineated in which to meet the requirements of § 60.5(b).

(d) Communities identified in part 65 of this subchapter as containing more than one type of hazard (e.g., any combination of special flood, mudslide (i.e., mudflow), and flood-related erosion hazard areas) shall adopt flood plain management regulations for each type of hazard consistent with the requirements of §§ 60.3, 60.4 and 60.5.

(e) Local flood plain management regulations may be submitted to the State Coordinating Agency designated pursuant to § 60.25 for its advice and concurrence. The submission to the State shall clearly describe proposed enforcement procedures.

(f) The community official responsible for submitting annual or biennial reports to the Administrator pursuant to § 59.22(b)(2) of this subchapter shall also submit copies of each annual or bi-

ennial report to any State Coordinating Agency.

(g) A community shall assure that its comprehensive plan is consistent with the flood plain management objectives of this part.

(h) The community shall adopt and enforce flood plain management regulations based on data provided by the Administrator. Without prior approval of the Administrator, the community shall not adopt and enforce flood plain management regulations based upon modified data reflecting natural or man-made physical changes.

[41 FR 46975, Oct. 26, 1976. Redesignated at 44 FR 31177, May 31, 1979, as amended at 48 FR 29318, June 24, 1983; 48 FR 44552, Sept. 29, 1983; 49 FR 4751, Feb. 8, 1984; 50 FR 36024, Sept. 4, 1985; 59 FR 53598, Oct. 25, 1994; 62 FR 55716, Oct. 27, 1997]

#### § 60.3 Flood plain management criteria for flood-prone areas.

The Administrator will provide the data upon which flood plain management regulations shall be based. If the Administrator has not provided sufficient data to furnish a basis for these regulations in a particular community, the community shall obtain, review and reasonably utilize data available from other Federal, State or other sources pending receipt of data from the Administrator. However, when special flood hazard area designations and water surface elevations have been furnished by the Administrator, they shall apply. The symbols defining such special flood hazard designations are set forth in § 64.3 of this subchapter. In all cases the minimum requirements governing the adequacy of the flood plain management regulations for flood-prone areas adopted by a particular community depend on the amount of technical data formally provided to the community by the Administrator. Minimum standards for communities are as follows:

(a) When the Administrator has not defined the special flood hazard areas within a community, has not provided water surface elevation data, and has not provided sufficient data to identify the floodway or coastal high hazard area, but the community has indicated

the presence of such hazards by submitting an application to participate in the Program, the community shall:

(1) Require permits for all proposed construction or other development in the community, including the placement of manufactured homes, so that it may determine whether such construction or other development is proposed within flood-prone areas;

(2) Review proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334;

(3) Review all permit applications to determine whether proposed building sites will be reasonably safe from flooding. If a proposed building site is in a flood-prone area, all new construction and substantial improvements shall (i) be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, (ii) be constructed with materials resistant to flood damage, (iii) be constructed by methods and practices that minimize flood damages, and (iv) be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

(4) Review subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, to determine whether such proposals will be reasonably safe from flooding. If a subdivision proposal or other proposed new development is in a flood-prone area, any such proposals shall be reviewed to assure that (i) all such proposals are consistent with the need to minimize flood damage within the flood-prone area, (ii) all public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage, and (iii) adequate drainage is provided to reduce exposure to flood hazards;

(5) Require within flood-prone areas new and replacement water supply systems to be designed to minimize or eliminate infiltration of flood waters into the systems; and

(6) Require within flood-prone areas (i) new and replacement sanitary sewage systems to be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters and (ii) onsite waste disposal systems to be located to avoid impairment to them or contamination from them during flooding.

(b) When the Administrator has designated areas of special flood hazards (A zones) by the publication of a community's FHBM or FIRM, but has neither produced water surface elevation data nor identified a floodway or coastal high hazard area, the community shall:

(1) Require permits for all proposed construction and other developments including the placement of manufactured homes, within Zone A on the community's FHBM or FIRM;

(2) Require the application of the standards in paragraphs (a) (2), (3), (4), (5) and (6) of this section to development within Zone A on the community's FHBM or FIRM;

(3) Require that all new subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions) greater than 50 lots or 5 acres, whichever is the lesser, include within such proposals base flood elevation data;

(4) Obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source, including data developed pursuant to paragraph (b)(3) of this section, as criteria for requiring that new construction, substantial improvements, or other development in Zone A on the community's FHBM or FIRM meet the standards in paragraphs (c)(2), (c)(3), (c)(5), (c)(6), (c)(12), (c)(14), (d)(2) and (d)(3) of this section;

(5) Where base flood elevation data are utilized, within Zone A on the community's FHBM or FIRM:

(i) Obtain the elevation (in relation to mean sea level) of the lowest floor

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(including basement) of all new and substantially improved structures, and

(ii) Obtain, if the structure has been floodproofed in accordance with paragraph (c)(3)(ii) of this section, the elevation (in relation to mean sea level) to which the structure was floodproofed, and

(iii) Maintain a record of all such information with the official designated by the community under § 59.22 (a)(9)(iii);

(6) Notify, in riverine situations, adjacent communities and the State Coordinating Office prior to any alteration or relocation of a watercourse, and submit copies of such notifications to the Administrator;

(7) Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained;

(8) Require that all manufactured homes to be placed within Zone A on a community's FFBM or FIRM shall be installed using methods and practices which minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not to be limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces.

(c) When the Administrator has provided a notice of final flood elevations for one or more special flood hazard areas on the community's FIRM and, if appropriate, has designated other special flood hazard areas without base flood elevations on the community's FIRM, but has not identified a regulatory floodway or coastal high hazard area, the community shall:

(1) Require the standards of paragraph (b) of this section within all AI-30 zones, AE zones, A zones, AH zones, and AO zones, on the community's FIRM;

(2) Require that all new construction and substantial improvements of residential structures within Zones AI-30, AE and AH zones on the community's FIRM have the lowest floor (including basement) elevated to or above the base flood level, unless the community

is granted an exception by the Administrator for the allowance of basements in accordance with § 60.6 (b) or (c);

(3) Require that all new construction and substantial improvements of non-residential structures within Zones AI-30, AE and AH zones on the community's firm (i) have the lowest floor (including basement) elevated to or above the base flood level or, (ii) together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;

(4) Provide that where a non-residential structure is intended to be made watertight below the base flood level, (i) a registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice for meeting the applicable provisions of paragraph (c)(3)(ii) or (c)(8)(ii) of this section, and (ii) a record of such certificates which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained with the official designated by the community under § 59.22(a)(9)(iii);

(5) Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria: A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings

may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(6) Require that manufactured homes that are placed or substantially improved within Zones A1-30, AH, and AE on the community's FIRM on sites

(i) Outside of a manufactured home park or subdivision,

(ii) In a new manufactured home park or subdivision,

(iii) In an expansion to an existing manufactured home park or subdivision, or

(iv) In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist floatation collapse and lateral movement.

(7) Require within any AO zone on the community's FIRM that all new construction and substantial improvements of residential structures have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified);

(8) Require within any AO zone on the community's FIRM that all new construction and substantial improvements of nonresidential structures (i) have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified), or (ii) together with attendant utility and sanitary facilities be completely floodproofed to that level to meet the floodproofing standard specified in § 60.3(c)(3)(ii);

(9) Require within any A99 zones on a community's FIRM the standards of paragraphs (a)(1) through (a)(4)(i) and (b)(5) through (b)(9) of this section;

(10) Require until a regulatory floodway is designated, that no new construction, substantial improve-

ments, or other development (including fill) shall be permitted within Zones A1-30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

(11) Require within Zones AH and AO, adequate drainage paths around structures on slopes, to guide floodwaters around and away from proposed structures.

(12) Require that manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within Zones A-1-30, AH, and AE on the community's FIRM that are not subject to the provisions of paragraph (c)(6) of this section be elevated so that either

(i) The lowest floor of the manufactured home is at or above the base flood elevation, or

(ii) The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist floatation, collapse, and lateral movement.

(13) Notwithstanding any other provisions of § 60.3, a community may approve certain development in Zones A1-30, AE, and AH, on the community's FIRM which increase the water surface elevation of the base flood by more than one foot, provided that the community first applies for a conditional FIRM revision, fulfills the requirements for such a revision as established under the provisions of § 65.12, and receives the approval of the Administrator.

(14) Require that recreational vehicles placed on sites within Zones A1-30, AH, and AE on the community's FIRM either

(i) Be on the site for fewer than 180 consecutive days,

(ii) Be fully licensed and ready for highway use, or

(iii) Meet the permit requirements of paragraph (b)(1) of this section and the

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elevation and anchoring requirements for "manufactured homes" in paragraph (c)(6) of this section.

A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

(d) When the Administrator has provided a notice of final base flood elevations within Zones A1-30 and/or AE on the community's FIRM and, if appropriate, has designated AO zones, AH zones, A99 zones, and A zones on the community's FIRM, and has provided data from which the community shall designate its regulatory floodway, the community shall:

(1) Meet the requirements of paragraphs (c) (1) through (14) of this section;

(2) Select and adopt a regulatory floodway based on the principle that the area chosen for the regulatory floodway must be designed to carry the waters of the base flood, without increasing the water surface elevation of that flood more than one foot at any point;

(3) Prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge;

(4) Notwithstanding any other provisions of § 60.3, a community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that the community first applies for a conditional FIRM and floodway revision, fulfills the requirements for such revisions as established under the provisions of § 65.12, and receives the approval of the Administrator.

(e) When the Administrator has provided a notice of final base flood elevations within Zones A1-30 and/or AE on the community's FIRM and, if ap-

propriate, has designated AH zones, AO zones, A99 zones, and A zones on the community's FIRM, and has identified on the community's FIRM coastal high hazard areas by designating Zones V1-30, VE, and/or V, the community shall:

(1) Meet the requirements of paragraphs (c)(1) through (14) of this section;

(2) Within Zones V1-30, VE, and V on a community's FIRM, (i) obtain the elevation (in relation to mean sea level) of the bottom of the lowest structural member of the lowest floor (excluding pilings and columns) of all new and substantially improved structures, and whether or not such structures contain a basement, and (ii) maintain a record of all such information with the official designated by the community under § 59.22(a)(9)(iii);

(3) Provide that all new construction within Zones V1-30, VE, and V on the community's FIRM is located landward of the reach of mean high tide;

(4) Provide that all new construction and substantial improvements in Zones V1-30 and VE, and also Zone V if base flood elevation data is available, on the community's FIRM, are elevated on pilings and columns so that (i) the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to or above the base flood level; and (ii) the pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable State or local building standards. A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of paragraphs (e)(4) (i) and (ii) of this section.

(5) Provide that all new construction and substantial improvements within Zones V1-30, VE, and V on the community's FIRM have the space below the

lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. For the purposes of this section, a breakway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot. Use of breakway walls which exceed a design safe loading resistance of 20 pounds per square foot (either by design or when so required by local or State codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:

(i) Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and,

(ii) The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and non-structural). Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable State or local building standards.

Such enclosed space shall be useable solely for parking of vehicles, building access, or storage.

(6) Prohibit the use of fill for structural support of buildings within Zones V1-30, VE, and V on the community's FIRM;

(7) Prohibit man-made alteration of sand dunes and mangrove stands within Zones V1-30, VE, and V on the community's FIRM which would increase potential flood damage.

(8) Require that manufactured homes placed or substantially improved within Zones V1-30, V, and VE on the community's FIRM on sites

(i) Outside of a manufactured home park or subdivision,

(ii) In a new manufactured home park or subdivision,

(iii) In an expansion to an existing manufactured home park or subdivision, or

(iv) In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, meet the standards of paragraphs (e)(2) through (7) of this section and that manufactured homes placed or substantially improved on other sites in an existing manufactured home park or subdivision within Zones V1-30, V, and VE on the community's FIRM meet the requirements of paragraph (c)(12) of this section.

(9) Require that recreational vehicles placed on sites within Zones V1-30, V, and VE on the community's FIRM either

(i) Be on the site for fewer than 180 consecutive days,

(ii) Be fully licensed and ready for highway use, or

(iii) Meet the requirements in paragraphs (b)(1) and (e) (2) through (7) of this section.

A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

(f) When the Administrator has provided a notice of final base flood elevations within Zones A1-30 or AE on the community's FIRM, and, if appropriate, has designated AH zones, AO zones, A99 zones, and A zones on the community's FIRM, and has identified flood protection restoration areas by designating Zones AR, AR/A1-30, AR/AE, AR/AH, AR/AO, or AR/A, the community shall:

(1) Meet the requirements of paragraphs (c)(1) through (14) and (d)(1) through (4) of this section.

(2) Adopt the official map or legal description of those areas within Zones AR, AR/A1-30, AR/AE, AR/AH, AR/A, or AR/AO that are designated developed areas as defined in §59.1 in accordance with the eligibility procedures under §65.14.

(3) For all new construction of structures in areas within Zone AR that are designated as developed areas and in other areas within Zone AR where the AR flood depth is 5 feet or less:

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(i) Determine the lower of either the AR base flood elevation or the elevation that is 3 feet above highest adjacent grade; and

(ii) Using this elevation, require the standards of paragraphs (c)(1) through (14) of this section.

(4) For all new construction of structures in those areas within Zone AR that are not designated as developed areas where the AR flood depth is greater than 5 feet:

(i) Determine the AR base flood elevation; and

(ii) Using that elevation require the standards of paragraphs (c)(1) through (14) of this section.

(5) For all new construction of structures in areas within Zone AR/A1-30, AR/AE, AR/AH, AR/AO, and AR/A:

(i) Determine the applicable elevation for Zone AR from paragraphs (a)(3) and (4) of this section;

(ii) Determine the base flood elevation or flood depth for the underlying A1-30, AE, AH, AO and A Zone; and

(iii) Using the higher elevation from paragraphs (a)(5)(i) and (ii) of this section require the standards of paragraphs (c)(1) through (14) of this section.

(6) For all substantial improvements to existing construction within Zones AR/A1-30, AR/AE, AR/AH, AR/AO, and AR/A:

(i) Determine the A1-30 or AE, AH, AO, or A Zone base flood elevation; and

(ii) Using this elevation apply the requirements of paragraphs (c)(1) through (14) of this section.

(7) Notify the permit applicant that the area has been designated as an AR, AR/A1-30, AR/AE, AR/AH, AR/AO, or AR/A Zone and whether the structure will be elevated or protected to or above the AR base flood elevation.

[41 FR 46975, Oct. 26, 1976]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 60.3, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

#### § 60.4 Flood plain management criteria for mudslide (i.e., mudflow)-prone areas.

The Administrator will provide the data upon which flood plain manage-

ment regulations shall be based. If the Administrator has not provided sufficient data to furnish a basis for these regulations in a particular community, the community shall obtain, review, and reasonably utilize data available from other Federal, State or other sources pending receipt of data from the Administrator. However, when special mudslide (i.e., mudflow) hazard area designations have been furnished by the Administrator, they shall apply. The symbols defining such special mudslide (i.e., mudflow) hazard designations are set forth in § 64.3 of this subchapter. In all cases, the minimum requirements for mudslide (i.e., mudflow)-prone areas adopted by a particular community depend on the amount of technical data provided to the community by the Administrator. Minimum standards for communities are as follows:

(a) When the Administrator has not yet identified any area within the community as an area having special mudslide (i.e., mudflow) hazards, but the community has indicated the presence of such hazards by submitting an application to participate in the Program, the community shall

(1) Require permits for all proposed construction or other development in the community so that it may determine whether development is proposed within mudslide (i.e., mudflow)-prone areas;

(2) Require review of each permit application to determine whether the proposed site and improvements will be reasonably safe from mudslides (i.e., mudflows). Factors to be considered in making such a determination should include but not be limited to (i) the type and quality of soils, (ii) any evidence of ground water or surface water problems, (iii) the depth and quality of any fill, (iv) the overall slope of the site, and (v) the weight that any proposed structure will impose on the slope;

(3) Require, if a proposed site and improvements are in a location that may have mudslide (i.e., mudflow) hazards, that (i) a site investigation and further review be made by persons qualified in geology and soils engineering, (ii) the proposed grading, excavations, new