

**Title 12: Mississippi Department of
Part 10: Office of State Property Insurance**

State of Mississippi Floodplain Manual

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SECTION 100: GENERAL

100.1 State Law.

The Legislature of the State of Mississippi in the regular session of 1984 amended Section 29, Subsection 13, Parts 1, 3, and 5, Mississippi Code of 1972. This Section requires the Department of Finance & Administration (DFA), to (1) purchase flood insurance for state-owned buildings and/or contents as required by federal law; (2) adopt floodplain management criteria applicable to all new construction or substantial improvement of state-owned buildings and other state-owned development located in floodplain areas; (3) compile an inventory of all state-owned buildings and land in floodplain areas; and (4) enforce the floodplain management criteria and procedure.

100.2 Federal Regulations

The Code of Federal Regulations (CFR) is the codification of the general and permanent rules published in the Federal Register by the departments and agencies of the Federal Government. Regulations pertaining to the Federal Emergency Management Agency (FEMA) National Flood Insurance Program (NFIP) are found in CFR Section 44, Emergency Management and Assistance, Part 9, Floodplain Management and Protection of Wetlands.

This regulation sets forth the policy, procedure and responsibilities to implement and enforce Executive Order 11988, Floodplain Management, and Executive Order 11990, Protection of Wetlands.

(a) FEMA shall take no action unless and until the requirements of this regulation are complied with.

(b) It is the policy of the Agency to provide leadership in floodplain management and the protection of wetlands. Further, the Agency shall integrate the goals of the Orders to the greatest possible degree into its procedures for implementing NEPA. The Agency shall take action to:

- (1) Avoid long- and short-term adverse impacts associated with the occupancy and modification of floodplains and the destruction and modification of wetlands;
- (2) Avoid direct and indirect support of floodplain development and new construction in wetlands wherever there is a practicable alternative;
- (3) Reduce the risk of flood loss;
- (4) Promote the use of nonstructural flood protection methods to reduce the risk of flood loss;
- (5) Minimize the impact of floods on human health, safety and welfare;
- (6) Minimize the destruction, loss or degradation of wetlands;
- (7) Restore and preserve the natural and beneficial values served by floodplains;

- (8) Preserve and enhance the natural values of wetlands;
- (9) Involve the public throughout the floodplain management and wetlands protection decision-making process;
- (10) Adhere to the objectives of the Unified National Program for Floodplain Management; and
- (11) Improve and coordinate the Agency's plans, programs, functions and resources so that the Nation may attain the widest range of beneficial uses of the environment without degradation or risk to health and safety.

The authority for these regulations is (a) Executive Order 11988, May 24, 1977, which replaced Executive Order 11296, August 10, 1966, (b) Executive Order 11990, May 24, 1977, (c) Reorganization Plan No. 3 of 1978 (43 FR 41943); and (d) Executive Order 12127, April 1, 1979 (44 FR 1936). E.O. 11988 was issued in furtherance of the National Flood Insurance Act of 1968, as amended (Pub. L. 90-488); the Flood Disaster Protection Act of 1973, as amended (Pub. L. 93-234); and the National Environmental Policy Act of 1969 (NEPA) (Pub. L. 91-190). Section 2(d) of Executive Order 11988 requires issuance of new or amended regulations and procedures to satisfy its substantive and procedural provisions. E.O. 11990 was issued in furtherance of NEPA, and at section 6 required issuance of new or amended regulations and procedures to satisfy its substantive and procedural provisions.

100.3 Findings of Fact.

1. The floodplains of the State of Mississippi are subject to periodic inundation which results in loss of life, property, health and safety hazards, disruption of commerce and governmental services, and extraordinary public expenditures for flood protection and relief, and all which adversely affect the public health, safety and general welfare.
2. These flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities, and by the occupancy in floodplains by uses vulnerable to floods or hazardous to other properties which are inadequately elevated, flood proofed, or otherwise protected from flood damages.

100.4 Statement of Purpose.

It is the purpose of these regulations to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

1. Restrict or prohibit uses which are dangerous to health, safety and property due to water or erosion or in flood heights or velocities;

2. Require that uses vulnerable to floods, including facilities which serve such uses, to be protected against flood damage at the time of initial construction;
3. Control the alteration of natural floodplains, stream channels, and natural floodplains, stream channels, and natural protective barriers, which are involved in accommodation of flood waters.
4. Control filling, grading, degrading and other developments which may increase erosion or flood damage;
5. Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to the other lands.

100.5 Objectives.

The objectives of these regulations are:

1. To protect human life and health;
2. To minimize expenditure of public money for costly flood control projects;
3. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
4. To minimize damage to state buildings, structures and land by providing for the sound use and development of flood prone areas in such manner as to minimize flood blight areas;
5. To minimize prolonged business interruptions.

100.6 Definitions

Unless specifically defined below, words or phrases used in these regulations shall be interpreted so as to give them the meaning they have in common usage and to give these regulations the most reasonable application.

“Addition” (to an existing building). Any walled and roofed expansion to the perimeter of a building in which the addition is connected by a common loadbearing addition which is connected by a fire wall or connected by independent perimeter loadbearing walls in new construction.

“Adverse Effects.” An increase in the base flood elevation which had harmful effects on properties.

“Appeal.” A request for a review of State Property Floodplain Manager’s interpretation of any provision of these regulations, or a request for a variance.

“Appurtenant Structure.” A structure which is on the same parcel of property as the principal structure to be insured and the use of which is incidental to the use of the principal structure.

“Area of Shallow Flooding.” A designated AO or VO zone on a Flood Insurance Rate Map (FIRM) with base flood depths from one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may vary.

“Area of Special Flood Hazard “. The land in the flood plain subject to a one percent or greater chance of flooding in any given year.

“Base Flood “. The flood having a one percent chance of being equal to or exceeded in any given year (100- year frequency flood).

“Basement.” Any area of the building having its floors subgrade (below ground level) on all sides.

“Breakaway Wall.” A wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces without causing damage to the elevated portion of the building or the supporting foundation system.

“Building.” A walled and roofed building, as well as manufactured home, that is principally above ground, including a gas or liquid storage tank.

“Building, Insurable.” A walled and roofed building other than a gas or liquid storage tank that is principally above ground and affixed to a permanent site, as well as a manufactured home on foundation.

“Coastal High Hazard Area.” The area subject to high velocity waters, including but not limited to hurricane wave wash. The area is normally designated on a Federal Emergency Management Agency’s Flood Insurance Rate Map (FIRM) as Zone V1 through V30, VE or V.

“Development.” Any man-made change to state-owned improved or unimproved real estate, including but not limited to structures, buildings, mining, dredging, filling, grading, paving, excavation, or drilling operations, or permanent storage of materials.

“Elevated Building.” A non-basement building built to have the lowest floor elevated above the ground level by means of fill, solid foundation perimeter wall, piling, columns (post and piers), shear walls, or breakaway walls.

“Encroachment.” Any significant obstruction within a floodway which would result in any increase in the water surface elevation of the base flood.

“Flood or Flooding.”

- (1) A general and temporary condition of partial or complete inundation of normally dry land areas from:
 - (a) The overflow of inland or tidal waters;
 - (b) The unusual and rapid accumulation of runoff of surface waters from any source.

- (2) The collapse or substance of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm or by an unanticipated force of nature, such as a flash flood or an abnormal tidal surge, or by some similarly unusual event which results in flooding as defined in (a) above.

“Flood Hazard Boundary Map (FHBM).” An official map of a municipality or county, issued by the Federal Emergency Management Agency where the boundaries of the areas of special flood hazards have been designated as Zone A.

“Flood Insurance Rate Map (FIRM).” An official map of a municipality or county on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to the municipality or county.

“Flood Insurance Study.” A Flood Insurance Study (FIS) is a compilation and presentation of flood risk data for specific watercourses, lakes, and coastal flood hazard areas within a community. When a flood study is completed for the NFIP, the information and maps are assembled into an FIS. The FIS report contains detailed flood elevation data in flood profiles and data tables.

“Floodplain.” Any large area susceptible to being inundated by the base flood (100-year frequency flood) as shown on maps prepared by the Federal Emergency Management Agency.

“Flood-Proofing.” Any combination of structural and non-structural additions, changes, or adjustments to buildings or structures which reduce or eliminate flood

damage to real estate or improved real property, water and sanitary facilities, structures, or buildings and their contents.

“Floodway.” The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

“Floor.” The top surface of an enclosed area in a building (including basement), i.e., top of the slab in concrete slab construction or top wood flooring in wood frame construction. The term does not include the floor of a garage used solely for parking vehicles.

“Functionally Dependent Facility.” A facility which 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, ship repair, or seafood processing facilities. The term does not include long-term storage, manufacture, sales, or service facilities.

“Highest Adjacent Grade.” The highest natural elevation of the ground surface, prior to construction, next to the proposed walls of a structure.

“Lowest Floor.” The lowest floor of the lowest enclosed area (including basement). An unfinished flood resistant enclosure, usable solely for parking of vehicles, buildings access or storage in an area other than a basement area is not considered a building’s lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of these regulations.

“Mangrove Stand.” An assemblage of mangrove trees which is mostly low trees noted for a copious development of in development of interlacing more of the following species: black mangrove (Avicenna Nitida); red mangrove (Rhizophora mangle); white mangrove (Languncularia racemose); and buttonwood (Conocarpus Erecta).

“Manufactured Home.” A building or structure transportable in one or more sections, which is built on permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. Also includes recreational vehicles or travel trailers, placed on a site for greater than 180 consecutive days.

“Mean High Tide.” The average height of the sea for all stages of high tide.

“Mean Sea Level.” The average height of the sea for all stages of the tide. For purposes of these regulations, the term is synonymous with National Geodetic Vertical Datum (NGVD). It is used as a reference for establishing varying elevations within the floodplain.

“National Geodetic Vertical Datum (NGVD).” A vertical control, as corrected in 1929, used as a reference for establishing varying elevations within the floodplain.

“New Construction”. Buildings or structures for which the “start of construction” commenced on or after the effective date of these regulations.

“Openwork Structure”. Structures having physical characteristics of open or “flow-through” access, absent of walls, divisions or obstructions.

“Person.” Any individual or age group of individuals, corporations, partnership, association, or any other entity, including municipal, county and state government agencies.

“Principally Above Ground”. At least 51 percent of the actual cash value of the building, less land value, is above ground.

“Riverine”. Relating to, formed by, or resembling a river (including tributaries), streams, brooks, etc.

“Sand Dunes.” Naturally occurring accumulations of sand in ridges of mounds landward of the beach.

“Special Flood Hazard Area.” A Special Flood Hazard Area (SFHA) is an area identified by the Federal Emergency Management Agency (FEMA) as an area with a special flood or mudflow, and/or flood related erosion hazard, as shown on a flood hazard boundary map or flood insurance rate map.

“State.” The State of Mississippi.

“State Property Floodplain Manager.” The Office of State Property Insurance of the Mississippi Department of Finance & Administration, under the direction of the Executive Director.

“State Agency.” Any department, institution, commission, board, or other agency established by the Legislature of the State of Mississippi or by Executive Order of the Governor.

“State Owned.” Buildings, structures or real estate owned in fee-simple title by the State of Mississippi. It does not include buildings, structures, or real estate funded totally or in part by state loans or grants, and which are not state-owned. However, privately owned property on state-owned land shall meet all floodplain management measures.

“Structure.” A walled and roofed building that is principally above ground, a manufactured home, a gas or liquid storage tank, or other man-made facilities or infrastructures.

“Substantial Improvement.” Any repairs, reconstruction, alteration, or improvements to a structure, the cost of which equals or exceeds fifty percent (50%) of the value of the structure either (1) before the improvement or repair is started or (2) if the structure has been damaged and is being restored, before the damage occurred. For the purpose of this definition “substantial improvement” is considered to occur when the first alteration affects the external dimension of the structure. The term does not, however, include either (1) any project for improvement of a structure to comply with existing state health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions, or (2) any alteration of a structure listed on National Register of Historic Places or which are considered eligible for nomination of the National Register by the State Director of the Department of Archives and History or which are listed on the State Inventory of Historic Places.

“Uninsurable Structures and Property.” Structures and property which are not eligible for flood insurance coverage under the National Flood Insurance Program. Such property and structures include, but are not limited to, docks, piers, breakwaters, wharfs, seawalls, roads, bridges, fences, growing crops and plants, and gas or liquid storage tanks.

“Variance.” A grant of relief to a person or entity from the requirements of these regulations which permits construction in a manner otherwise prohibited by these regulations where specific enforcement would result in unnecessary hardship.

“Watercourse.” Any natural lake, river, creek, or other natural body of water or channel having definite banks and bed.

“Water Surface Elevation.” The projected heights in relation to mean sea level reached by floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

100.7 Applicability

- (1) These regulations shall apply to: All state-owned lands within the floodplains of the State of Mississippi.
- (2) Every State of Mississippi property participates in the National Flood Insurance Program via the DFA Office of State Property Insurance (OSPI).
- (3) The Mississippi State Port Authority provides their own NFIP flood insurance.

100.8 Basis for Establishing the Floodplains.

All floodplains (to include base flood elevations and floodways) in the state shall be identified by the appropriate State Property Floodplain Manager from the following sources, documents and maps:

1. FEMA Flood Map Service Center (www.msc.fema.gov);
2. Flood Insurance Studies, Flood Insurance Rate Maps, and Flood Boundary and Floodway Maps as prepared by the Map Service Center of the Federal Emergency Management Agency.

100.9 Establishment of Development Permit.

A development permit shall be required in conformance with the provisions of these regulations prior to the commencement of any development activities.

100.10 Compliance.

No state-owned building, structure, land or real property located on the floodplains of the state shall hereafter be located, extended, converted or structurally altered by any person or state agency without full compliance with the terms of these regulations.

100.11 Abrogation and Greater Restrictions.

These regulations are not intended to repeal, abrogate, or impair any existing state or federal easements, covenants, or deed restrictions. However, where these regulations and another state or federal regulation

conflict or overlay, whichever impose the more stringent restrictions shall prevail.

100.12 Interpretation.

In the interpretation and application of these regulations, all provisions shall be: (1) considered as minimum requirements; and (2) liberally construed in favor of the state.

100.13 Warning and Disclaimer of Liability.

The degree of flood protection required by these regulations is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. These regulations do not imply that land outside the areas will be free from flooding or flood damages. These regulations shall not create liability on the part of the State of Mississippi or by an officer or employee thereof for any regulations or any administrative decision lawfully made thereunder.

100.14 Penalties for Violation.

- a. It shall be the responsibility of the State Property Floodplain Manager to notify in writing any state department or agency or division thereof, which is found to be in violation of any section of the State Floodplain Management Regulations, Criteria & Procedures within five days from discovery of such violation.
- b. Upon receipt of such notification by any state department or agency or division thereof, action should be initiated by the same within forty-five (45) calendar days from receipt of said notice to remedy all violations of floodplain regulations which are cited in the notice.
- c. Failure by any state department or agency or division thereof, to begin such action within the specified time and complete necessary action within a reasonable time period will result in a notification to the Mississippi Office of the State Auditor and a recommendation by the State Property Floodplain Manager to the Deputy Executive Director and/or Executive Director of the MS Department of Finance & Administration to the freezing of their state project funds, exclusive of payrolls which were directed for use by that department or agency division thereof, which is found to be in violation, until such action had been completed which eliminates the violation(s) and brings that

state department or agency or division thereof, into compliance with the floodplain regulations of the state.

- d. Nothing herein contained shall prevent the MS Department of Finance & Administration from taking such other lawful action as is necessary to prevent or remedy any violation.

100.15 Amendment Procedure.

- a. Any amendment of these regulations shall be submitted to the Federal Emergency Management Agency and the State Property Floodplain Manager, MS Department of Finance & Administration.

100.16 Severability.

If any section, clause, provision or portion of these regulations is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of these regulations shall remain in effect.

SECTION 200 ADMINISTRATION

200.1 Designation of State Property Floodplain Manager

The MS Department of Finance & Administration, by adoption of these regulations, appoints the Director of the DFA Office of State Property Insurance as State Floodplain Manager to administer and enforce these regulations as they apply to state-owned development, with the exception of state-owned roads and bridges. The Mississippi Department of Transportation is appointed to enforce and administer the provisions of these regulations as they apply to state-owned roads and bridges.

200.2 Duties and Responsibilities of State Property Floodplain Manager

Duties and responsibilities of the State Property Floodplain Manager shall include, but not be limited to:

- (1) Review all development permits to assure that the permit requirements of these regulations have been satisfied;
- (2) Advise permittee that additional federal permits may be required, and if specific federal permit requirements are known, require that copies of such permits be provided and maintained on file with development permit;
- (3) Notify adjacent communities of State of Mississippi owned properties prior to any alteration or relocation of a watercourse and submit

- evidence of such notification to the Federal Emergency Management Agency;
- (4) Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carry capacity is not diminished;
 - (5) Verify and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new substantially improved structures in accordance with Section 200;
 - (6) Verify and record the actual elevation (in relation to sea level) to which the new or substantially improved structures have been flood-proofed, in accordance with Section 200;
 - (7) In Coastal High Hazard Areas, certification shall be obtained from a registered (in Mississippi) professional engineer or architect that the structure is designed to be securely anchored to adequately anchored pilings or columns in order to withstand velocity waters and hurricane wave wash;
 - (8) In Coastal High Hazard Areas, the State Property Floodplain Managers shall review plans for adequacy of breakaway walls in accordance with Section 300.2;
 - (9) When flood-proofing is utilized for a particular structure, the State Property Floodplain Manager shall obtain certification from a registered (in Mississippi) professional engineer or architect, in accordance with Section 200;
 - (10) Where interpretation is needed as to the exact location of boundaries of the areas of special flood hazard (for example, where there appears to be a conflict between a mapped boundary and actual field conditions) the State Property Floodplain Manager shall make the necessary interpretation. The person or agency contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this article;
 - (11) When base flood elevation data or floodway data have not been provided in accordance with Section 100, Paragraph 100.5, then the State Property Floodplain Manager shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal state or other source, in order to administer the provisions of Section 300;
 - (12) All records pertaining to the provisions of these regulations shall be maintained in the office of the State Property Floodplain Manager and shall be opened for public inspection;
 - (13) The State Property Floodplain Manager shall enforce the provisions of these regulations and may enter any building, structure, or premises to perform any duty imposed upon him by these regulations;
 - (14) Upon notice from the State Property Floodplain Manager, work on any building or structure that is being done contrary to the provisions of this manner shall be immediately stopped. Such notice shall be in writing and shall be given to the agency and person doing the work, and

shall state the conditions under which work may be resumed. Where an emergency exists, no written notice shall be required to be given by the State Property Floodplain Manager. Failure to comply with this order will result in penalties imposed as stated in Section 100, Paragraph 100.14.

200.3. Permit Procedures.

- (a) Each state agency or person that proposes to undertake a development activity or improvement to an existing structure within a floodplain shall apply for a development permit on forms provided by the DFA Office of State Property Insurance prior to initiating or undertaking such development activity. The Preliminary Planning Application shall be submitted to the State Property Floodplain Manager and shall include a written statement or assessment of the proposed activity, including alternative sites considered and why alternative sites were rejected. Where proposed repairs, reconstruction, alteration or improvement to an existing structure is determined by the State Floodplain Manager as not a substantial improvement, no submittals subsequent to the Preliminary Planning Application will be required.
- (b) The Floodplain Permit process for the State of Mississippi involves four (4) progressive permit applications. Initially, a Preliminary Planning Application is completed by the department or agency involved in the new potential activity and submitted to the State Property Floodplain Manager. After review and acceptance, the department or agency completes the Final Planning Application and submits it to the State Property Floodplain Manager. After receipt and acceptance, the department or agency proceeds with the new development activity identified in the Planning Applications. Prior to the development activity completion, the department or agency will complete the Initial Construction Application and submit it to the State Property Floodplain Manager. After receipt and acceptance, the development completion and finalization can proceed. At completion of all development activity the Final Construction Application shall be submitted to close out Permit. These four floodplain permit applications can be found on the DFA Office of State Property Insurance website.

Floodplain 4-Step Permit Application Process

STEP	TIMELINE REQUIREMENT
Preliminary Planning Application	Submit as soon as possible following initiation of project planning but in no case prior to advertisement of procurement.
Final Planning Application	Due at least 15 calendar days prior to advertisement of procurement.
Initial Construction Application	Due before the lowest floor is completed, or in instances where the structure is subject to the Coastal High Hazard Areas, after placement of the horizontal structural members of the lowest floor.
Final Construction Application	After all work is completed.

(c) Completion of the four Permit/Application forms is required, including:

1. A complete description of the development;
2. Plans and specifications drawn to scale showing the nature; location dimensions, and elevations of the area in question; existing, on proposed structures, fill, storage of materials, drainage facilities, location and necessary for adequate review;
3. Elevation in relation to mean sea level of the existing or proposed lowest floor (including basement) of all structures;
4. Elevation in relation to mean sea level to which any non-residential structure will be flood-proofed;
5. Certificate from registered (in Mississippi) professional engineer or architect that non-residential flood-proofed structure will meet the flood-proofing criteria (FEMA Floodproof Certificate can be found on DFA Office of State Property Insurance website);
6. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development;
7. A floor elevation or flood-proofing certification after the lowest floor is completed, or in instances where the structure is subject to the regulations applicable to Coastal High Hazard Areas, after placement of the horizontal structural members of the lowest floor. Upon placement of the lowest floor, or flood-proofing by whatever construction means, or upon placement of the horizontal structural members of the lowest floor whichever is applicable;
8. A certification of the elevation of the lowest floor, flood-proofed elevation, or elevation of the lowest portion of horizontal structural members of the lowest floor, whichever is applicable, as built, in relation to mean sea level. Said certification shall be prepared by or

under direct supervision of registered (in Mississippi) land surveyor or professional engineer and certified by the same. When flood-proofing is utilized for a particular building, said certification shall be prepared by or under the direct supervision of professional engineers or architect registered in Mississippi and certified by the same. Any work undertaken prior to submission of the certification shall be at the permit holder's risk. The State Property Floodplain Manager shall review the floor elevation survey data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further progressive work being permitted to proceed. Failure to submit the survey or failure to make said corrections required hereby shall be cause to issue a stop work order for the project;

9. An estimate of the cost to perform the proposed improvements or repairs. If the building has been damaged, the cost estimate must include all work required to repair the building to its pre-damage condition. The cost estimate must include all labor and materials. If the work will be done by a contractor, the contractor's overhead and profit must be included with breakdown by category details;
10. A market value appraisal of the building (structure only, not land) that is prepared by a Mississippi licensed professional appraiser according to standard practices of the profession.

If FEMA has not defined the SFHA within a community (State of Mississippi), the community shall 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. Permits are required to ensure that proposed development projects meet the requirements of the NFIP and the community's floodplain management ordinance.

200.4 Variance Procedures.

- (1) The Mississippi DFA Deputy Executive Directors shall serve as the appeal board and shall hear and decide appeals and requests for variances from the requirements of these regulations;
- (2) The MS Department of Finance & Administration shall hear and decide appeals when it is alleged there is an error in any requirements, decision or determination made by the State Property Floodplain Manager in the enforcement or administration of these regulations;

- (3) Any state agency or person aggrieved by the decision of MS Department of Finance & Administration may appeal such decision to the Chancery Court of Hinds County, Mississippi;
- (4) Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or those which are considered eligible for nomination to the National Register by the Executive Director of MS Department of Archives & History or which are listed by the State Inventory of Historic Places without regard to the procedure set forth in the remainder of those section and provided the proposed reconstruction, rehabilitation, or restoration will not result in the structure losing its historical designation. See FEMA NFIP Bulletin on Historic Structures on the DFA Office of State Property Insurance website;
- (5) In passing upon such application, the MS Department of Finance & Administration (Appeal Board) shall consider all technical evaluations, all relevant factors, all standards specified in other sections of these regulations, and:
 - (a) The danger that materials may be swept onto other lands to the injury of others;
 - (b) The danger of life and property due to flooding or erosion damage;
 - (c) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the state;
 - (d) The importance of the services provided by the proposed facility to the state;
 - (e) The necessity to the facility of a waterfront location, in the case of a functionally dependent facility.
 - (f) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
 - (g) The compatibility of the proposed use with existing and anticipated development;
 - (h) The relationship of the proposed use to the comprehensive plan and floodplain management program for that;
 - (i) The safety of access to the property in times of flood for ordinary and emergency vehicles;
 - (j) The expected heights, velocity, duration, rate of rise and sediment transport of flood waters and the effects of wave action, if applicable, expected at the site; and
 - (k) The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and structures such as sewer,

gas electrical and water systems and streets and bridges.

- (6) Upon consideration of the factors listed above, and the purposes of these regulations, the MS Department of Finance & Administration (Appeal Board) may attach such conditions to the granting of variances as it deems necessary to further the purposes of these regulations;
- (7) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result;
- (8) Conditions of Variances:
 - (a) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief; and in the instance of a historical building, a determination that the variance is the minimum necessary so as to not destroy the historic character and design of the building;
 - (b) Variances shall only be issued upon: (i) showing of a good and sufficient cause; (ii) a determination that failure to grant the variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisance, cause fraud on or victimizations of the public, or conflict with existing state laws;
 - (c) Any applicant to whom a variance is granted shall be given a written notice specifying the difference between the base flood elevation and the elevation to which the structure is to be built and stating that the cost of flood insurance will be commensurate with the increased risk resulting from reduced lowest floor elevation;
 - (d) The State Property Floodplain Manager shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency and our Insurance Broker of Record.

SECTION 300. PROVISIONS FOR FLOOD HAZARD REDUCTION

300.1 General Standards.

In all areas of special flood hazards, the following provisions are required:

- (1) All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure;
- (2) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- (3) All new construction and substantial improvements shall be constructed by methods and practices that minimize flood damage;
- (4) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
- (5) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems flood waters;
- (6) Onsite waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding;
- (7) Any alteration, repair, construction, or improvements to a structure which is in compliance with the provisions of these regulations, shall meet the requirement standards for “new construction”;
- (8) Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities shall be designed and/or located so as to prevent water from entering or accumulation within the components during conditions of flooding.

300.2. Specific Standards.

In all areas of Special Flood Hazards where base flood elevation data has been provided, the following provisions are required:

- (1) Residential Construction - New construction or substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to one foot (1’), above the base flood elevation. A registered (in Mississippi) land surveyor shall certify that the standards of the subsection are satisfied. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate the impeded movements of flood waters shall be provided in accordance with standards Elevated Buildings, Section 300, Paragraph 300.2(3).

(2) Non-Residential Construction – New construction or substantial improvement of any commercial, industrial, or non-residential structure shall have the lowest floor, including basement, elevated no lower than one foot (1') above the level of the base flood elevation. Structures located in all A zones may be flood-proofed in lieu of being elevated provided that all areas of the structure below the required elevation are water tight with walls substantially impermeable to the passage of water, and use structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A registered (in Mississippi) professional engineer or architect shall develop and /or review structural design, specifications, and plans for the construction and shall certify that design and method of construction are in accordance with accepted standards of practice.

(3) Elevated Building.

New construction or substantial improvements of elevated buildings that include fully enclosed areas formed by foundation and other exterior walls below the base flood elevation shall be designed to preclude finished living space and designed to allow for the entry and exit of flood waters to the automatically equalize hydrostatic flood forces on exterior walls.

(a) Designs for complying with this requirement must either be certified by a professional engineer or architect, registered in Mississippi, or meet the following minimum criteria:

- (i) Provide a minimum of two openings on separate walls having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding;
- (ii) The bottom of all openings shall be no higher than one foot above grade; and,
- (iii) Openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic flow of floodwaters in both directions.

(b) Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

- (c) Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment used in connection with the premises (standard exterior door) or entry to the living area (stairway or elevator); and the interior portion of such enclosed area shall not be partitioned or finished into separate rooms.
- (4) Floodways – Located within areas of special flood hazard are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles and has erosion potential, all development with a floodway is permitted (except manufactured homes which are specifically prohibited) provided the development does not result in any increase in the water surface elevation of the base flood, the development is designed to withstand the velocity waters associated with the base flood waters, and the development would present no significant obstruction to the flow of the base flood waters, and would not create hazards to public health and safety. For purposes of meeting the requirements of “no increase in the water surface elevation of the base flood”, the following methods shall be acceptable in order of preference:
- (a) Development shall be designed to cause no encroachment within the floodway, and certification by a professional engineer (registered in Mississippi) must be provided demonstrating that the encroachment shall not result in any increase in the water surface elevation of the base flood, based on the present conditions of the floodways;
 - (b) Based on an engineering analysis and certification, the effect of the encroachment shall be fully offset by the creation of equal floodway hydraulic capacity at that location;
 - (c) In those areas where base flood elevations have been determined but a floodway has not been designated, an engineering analysis and certification shall be conducted to establish an appropriate floodway, or it must be demonstrated by an engineering analysis and certification that the proposed development will not increase the water surface elevation of the base flood more than one (1) foot at any point within the total floodplain;
 - (d) In those areas where the proposed construction increases the base flood elevation by more than one (1) foot the adversely affected property owners in the floodplain shall be

- compensated by securing the affected land by flood easement or fee simple purchase;
- (e) In special flood hazard areas where base flood elevations have not been determined, proposed development should be designed so as to minimize any adverse effects to other properties;
 - (f) Where an engineering analysis and certification are utilized, engineering methodology used in conducting an engineering analysis shall be approved by the Natural and Technological Hazards Division of the Federal Emergency Management Agency (FEMA). Any changes in floodways or base flood water surface elevations (previously established by the Federal Emergency Management Agency) , along with supporting engineering analysis, shall have been submitted to the Natural and Technological Hazards Divisions of FEMA for review and approval prior to any construction taking place.
- (5) Manufactured Homes - All manufactured homes (mobile homes) shall be installed using methods and practices which minimize flood damage. The placement of manufactured homes (mobile homes) in V Zones is prohibited. For the purpose of this requirement, the following provisions shall apply:
- (a) All manufactured homes to be placed or substantially improved within Zones A, AE, AH, and A99 shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is one (1) foot above the base flood elevation and be securely anchored to an adequately anchored foundation;
 - (b) All manufactured homes shall be anchored to resist flotation, collapse, or lateral movement by providing over-the-top and frame ties to ground anchors as specified under the Mississippi Insurance Department's "Rules and Regulations for the Mobile Home Division of State Fire Marshall's Office For Factory Manufactured Movable Homes." (See Article 6). Specific minimum requirements shall be that:
 - i. Over-the-top ties be provided at each of the four corners of the manufactured home with one additional tie per side at an intermediate location of the manufactured home of less than 50 feet or more;

- ii. Frame ties be provided at each corner of the manufactured home with four additional ties per side at intermediate points for the manufactured home less than 50 feet long and one additional tie for the manufactured home of 50 feet or longer;
- iii. Each tie down shall be designed to resist an allowable working load equal to or exceeding 3,150 pounds and shall be capable of withstanding a 50 percent overload without failure;
- iv. All components of the anchoring system be capable of carrying a force of 4,800 pounds;
- v. Any additions to the manufactured home be similarly anchored;
- vi. Where manufactured homes are elevated on compacted fill or on pilings, the lowest floor of the manufactured home will be no lower than one (1) foot above the base flood level;
- vii. In the instance of elevation on pilings: (1) piling foundations are placed in stable soil no more than 10 feet apart, and (2) reinforcement is provided for pilings more than six feet above ground level.

6. Coastal High Hazard Areas (V Zones). - Locations within the areas of special flood hazard established in Article 3, Section B, are areas designated as Coastal High Hazard Areas. These areas have special flood hazard associated with wave wash therefore, the following provisions shall apply:

- 1. All new buildings or structures shall be located landward of the reach of the mean high tide, and shall be securely anchored on pilings or columns;
- 2. All new buildings or structures shall be elevated so that the bottom of the lowest supporting horizontal member (excluding pilings or columns) is located no lower than one (1) foot above the base flood elevation level, with all space below the lowest supporting member open so as not to impede the flow of water. Breakaway walls may be permitted and must be designed to wash away in the event of abnormal wave action;
- 3. All buildings or structures shall be securely anchored on pilings or columns;
- 4. All pilings and columns and the attached structures shall be anchored to resist flotation, collapse, and lateral movement due to the effect of wind water loads acting simultaneously on all buildings components. The anchoring and support systems shall be designed with wind and water loading

- values which equal or exceed the 100 year mean recurrence interval (one percent annual chance flood);
5. A professional engineer or architect (registered in Mississippi) shall certify that the design, specifications and plans for construction are in compliance with the provisions contained in Section 300, Paragraph 300.2 of these regulations;
 6. There shall be no fill used as structural support. Non-compacted fill may be used around the perimeter of a building for landscaping / aesthetic purposes provided the fill will wash out from storm surge, (thereby rendering the building free of obstruction) prior to generating excessive loading forces, ramping effects or wave deflection;
 7. The State Property Floodplain Manager shall approve design plans for landscaping/aesthetic fill only after the applicant has provided an analysis by an engineer, architect, and/or soil scientist (registered in Mississippi), which demonstrates that the following factors have been fully considered:
 - i. Particle composition of fill material does not have a tendency for excessive natural compaction;
 - ii. Volume and distribution of fill will not cause a wave deflection to adjacent properties;
 - iii. Slope of fill will not cause wave run-up or ramping;
 8. There shall be no alteration of sand dunes or mangrove stands which would increase potential flood damage;
 9. "Non-supporting breakaway walls, open lattice-work, or mesh screening shall be allowed below the base of flood elevation provided they are not part of the structural support of the building and are designed so as to breakaway, under abnormally high tides or wave action, without damage to the structural integrity of the building on which they are to be used and provided the following design specifications are met:
 - i. Design safe loading resistance of each wall shall not less than 10 nor more than 20pounds per square foot: or
 - ii. If more than 20 pounds per square foot, a registered (in Mississippi) professional engineer or architect shall certify that the design wall collapse would result from water load less than that which would occur during the base flood event and 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 during the base flood event;
 - iii. If breakaway walls are utilized, such enclosed space shall not be designed to be used for human habitation, but shall be designed to be used for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with premises;
 - iv. Prior to construction, plans for any structures that will have breakaway walls, lattice work or decorative screening must be submitted to the State Property Floodplain Manager for approval;
 - v. Any alteration, repair, reconstruction or improvement to a structure shall not except with breakaway walls, lattice work or decorative screening as provided for decorative screening as provided for in Section 300.
10. The placement of manufactured homes (mobile homes) in V Zones is prohibited.

300.3. Standards for Streams Without Established Base Flood Elevations and/or Floodways. (Unnumbered A Zones)

Located within the areas of special flood hazard established in Section 300.2, where small no base flood data have been provided or where no floodways have been provided, the following provisions apply:

1. No encroachments, including fill material or structures shall be located within a distance of the stream bank equal to two (2) times the width of the stream at the top of bank or twenty feet each side from top of bank whichever is greater unless certification by a professional engineer (registered in Mississippi) is provided demonstrating that such encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge;
2. New construction or substantial improvements of structures shall be elevated or flood-proofed to elevations established in accordance with Section 300.2.

300.4. Standards for Areas of Shallow Flooding (AO Zones and Unnumbered A Zones).

Located within the areas of special flood hazard established in Section 300.2, are areas designated as shallow flooding areas. These areas have special flood hazards associated with base flood depths of one to three feet (1-3') where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate; therefore, the following provisions apply:

1. All new construction and substantial improvements of residential structures shall have the lowest floor, including basement, elevated to the depth number specified on the Flood Insurance Rate Map, in feet, above the highest adjacent grade. If no depth number is specified, the lowest floor, including basement, shall be elevated at least two (2) feet above the highest adjacent grade; or
2. Together with attendant utility and sanitary facilities be completely flood-proofed to or above that level so that any space below that level is water tight 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.