

September 12, 2006

MEMORANDUM FOR: Flood Insurance Manual Subscribers

FROM: National Flood Insurance Program

SUBJECT: October 1, 2006, Flood Insurance Manual –

Producer's Edition Supplemental Change Pages

This supplement to the Producer's Edition of October 1, 2006, *Flood Insurance Manual* revisions has been prepared to provide copies of underwriting forms that had been excluded from the original package (cover memo dated July 25, 2006) pending approval of new expiration dates. The attached pages also include a small revision in the Application and Rating sections. A summary of the supplemental changes follows:

- Updated the expiration dates on the following forms:
  - o Flood Insurance Application (APP section)
  - o V-Zone Risk Factor Rating Form (RATE section)
  - o Flood Insurance Preferred Risk Policy Application (PRP section)
- Revised a "NOTE" to clarify the use of the new Elevation Certificate (APP 5, RATE 16)

Our goal is to ensure that you have up-to-date information so you can assist your customers in securing the best flood insurance protection available for their individual needs. Thank you for your continued support of the NFIP.

Attachment

substantial improvement started or the building permit date.

If the building was substantially damaged, enter the actual month, day, and year that substantial damage occurred. Substantial improvement includes buildings that have incurred "substantial damage" regardless of the actual repair work performed. The agent must obtain and submit a statement from a community official before the building can be considered substantially damaged.

If the policy is for a manufactured (mobile) home or travel trailer located outside a manufactured (mobile) home park or subdivision, enter the date of permanent placement of the manufactured (mobile) home. See the Rating section of this manual for rules for manufactured (mobile) homes located in manufactured (mobile) home parks and subdivisions.

Compare the date of construction or substantial improvement with the effective date of the initial FIRM to determine if the building was constructed Pre- or Post- the effective date of the initial FIRM.

#### Substantial Improvement Exception

For new applications, renewal applications, and endorsements when making a rating correction concerning a substantial improvement to a Pre-FIRM building where the improvement is an addition to the building and it meets the conditions of Pre-FIRM construction, found on pages RATE 15-16 of this manual, the producer should complete the Construction Data section of the Application as follows:

- a. Enter the date of construction for the Pre-FIRM part of the building (not the date of construction of the addition). This date will be shown as the construction date on the declarations page.
- b. Do not respond to the question IS BUILDING POST-FIRM CON-STRUCTION? Instead, complete the top part of this section as follows:

"Substantial Improvement but continues to be Pre-FIRM."

- Supply the elevation data for the ADDITION.
- d. Complete the remainder of both parts of the Construction Data section in the usual manner.

If a policyholder elects to use the normal Post-FIRM rating for substantial improvement, the producer must complete Part 2 of the Application as indicated.

#### 2. Elevation Information

Elevation information must be completed in the second part of the Construction Data section.

#### Post-FIRM Construction

Check YES if the building is Post-FIRM construction or substantial improvement; otherwise, check NO.

 Building Diagram Number and Lowest Adjacent Grade

Provide the building diagram number and lowest adjacent grade from the Elevation Certificate (EC).

NOTE: Elevation Certificates certified on or after January 1, 2007, must be submitted on the new EC form. The EC must meet all photo requirements described on pages CERT 1-2 of this manual. An EC submitted without the required photographs is not considered valid for rating.

The lowest adjacent grade is not required for buildings without estimated BFE located in AO and unnumbered A and V zones. Policies rated using the Floodproofing Certificate do not require either the lowest adjacent grade or the diagram number.

In communities that participate in the NFIP's Community Rating System (CRS), building elevation information may be available from the community office in charge of building permits or floodplain management.

 Elevation Information for Buildings in the Course of Construction

When the building is in the course of construction, the elevation information provided by the surveyor on the EC must be based on the proposed architectural plans. The NFIP requires the agent to describe and rate the structure based on the proposed plans.

Buildings in the course of construction are to be rated the same as completed construction. A renewal application and a new EC are required at renewal time. For example, if the building is elevated and the proposed plans show an enclosure, the building must be described elevated with as enclosure. The only exception is when an EC was prepared in the course of construction, and the surveyor was able to provide all elevation information required on the EC.

 Lowest Floor Elevation and Related Items

Use the eight building diagrams on pages CERT 18-19 to determine the correct lowest floor. See pages LFG 1-7 for information about determining the lowest floor for rating. When entering elevation data, **drop hundredths of a foot** and show only tenths of a foot. For example, if the elevation difference is 10.49', enter 10.4'; do not round up to 10.5'.

#### • Wave Height Adjustment

In Zones V, V1-V30, and VE, if NO is checked for the question about Effects of Wave Action, refer to page RATE 29 for guidelines for FIRMS with wave heights.

## Floodproofing

If YES is checked for Floodproofed and the FIRM zone entered in the Community section of the Application is V, V1-V30, or VE, the Application must be submitted to the NFIP for underwriting and rating. For all other zones, refer to pages RATE 30-31 for elevation difference and rating quidelines.

#### • Elevation Certification

Enter the elevation certification date for all new business applications.

## M. Coverage and Rating

Check desired coverage against the "Amount of Insurance Available" table on page RATE 1. Then enter the limits, indicate the rates and rate type, and add additional charges/credits, i.e., deductible reduction/increase, ICC Premium, CRS Premium Discount, Probation Surcharge (if any), and Federal Policy Fee. Calculate the Total Prepaid Amount.

#### N. Signature

The producer must sign the Application and is responsible for the completeness and accuracy of the information provided on it. Enter the date of application (month/day/year). The waiting period is added to this date to determine the policy effective date of the policy listed in the Policy Term section. A check or money order for the Total Prepaid Amount, payable to the NFIP, must accompany the application.

A credit card payment by VISA, MasterCard, Diner's Club, or American Express will also be acceptable if a disclaimer form, signed by the insured, is submitted with the Flood Insurance Application. The disclaimer will state that cancellation of a policy due to a billing dispute will be permitted only for a billing error or fraud. If the credit card information is taken over the telephone by the producer, the producer may sign the authorization form on behalf of the payor only after having read the disclaimer to the payor.

# V. COMPLETING PART 2 OF THE FLOOD INSURANCE APPLICATION FORM

After completing Part 1 of the Flood Insurance Application, the producer must complete all relevant items in Part 2 of the Application for the following risks:

- Post-FIRM construction located in Zones A1-A30, AE, AH, AO, A, V1-V30, VE, and V.
- Pre-FIRM construction using optional Post-FIRM rating located in Zones A1-A30, AE, AH, AO, A, V1-V30, VE, and V.

Part 2 of the Application collects information about risk factors affecting the building, occupancy information, and elevation data

| U.S. DEPARTMENT OF HOMELAND SECURITY<br>FEDERAL EMERGENCY MANAGEMENT AGENCY  |  |   |   |                                   |  | O.M.B. No. 1660-0006 Expires July 31, 200 PART 1 (OF 2) OF FLOOD INSURANCE APPLICATION     |  |  |                             |
|--|--|---|---|-----------------------------------|--|--|--|--|-----------------------------|
| Natio  | onal Flood Insurance Progr   | ram   |   |                                   |  | CURRENT POLICY NUMBER  |  |  |                             |
|  | ORTANT— PLEASE PRINT C   |   |   |                                   |  | RENEWAL FL   |  |  |                             |
| POLICY   | DIRECT BILL INSTRUCTIONS:  BILL INSURED  BILL SECOND  MORTGAGEE  BILL OTHER  | ☐ BILL FIRST MORTGAGEE ☐ BILL LOSS PAYEE  | OLICY PERIOD IS FROM  2:01 AM LOCAL TIME AT THE INSURED PROPERTY LOCATION  VAITING PERIOD: STANDARD 30-DAY  VIITIAL PURCHASE OF FLOOD INSURANCE RELATED TO:  COAN—NO WAITING MAP REV. (ZONE CHANGE FROM NON-SFHA TO SFHA)—ONE DAY   |                                   |  |  |  | ONE DAY  |                             |
| PROPERTY FIRST DISAS. AGENT LOCATION MORTGAGE ASSIST. INFORMATION  | AGENCY NO:  AGENCY NO:  AGENTS TAXID TOR SSN S FAX NO:  EINSURANCE REQUIRED FOR DISASTER ASSISTANCE? YES NO IF YES,  ENTER CASE FILE NUMBER OR INSURED'S SOCIAL SECURITY NUMBER  NAME AND ADDRESS OF FIRST MORTGAGEE  LOAN NO:  PHONE NO:  FAX NO:  IS INSURED PROPERTY LOCATION SAME AS INSURED MAILING ADDRESS?  YES NO IF NO, ENTER PROPERTY ADDRESS, IF RURAL, DESCR   |   |   |                                   | NAME, M. NAM | SSOCIAL: SSOCIAL: SENT AGEI MORTGAG MUST B D 2ND LOSS                                      | DDRESS, AND TELEPHONE N  SECURITY NUMBER:  NCY: SEA F  OTHER (SPECI  GEE, LOSS PAYEE OR OTH E COMPLETED, INCLUDIN MORTGAGEE  | NO.OF INSURED:   | D.THE<br>D. ADDRESS<br>ENCY |
| - YTINOWW  |  | NAME OF COUNTY/PARISH LOCATED IN AN UNINCORPORA COMMUNITY NO/PANEL NO.AND SUFFIX FOR LOCATION OF PROPERTY INSURED |   |                                   |  | COMMUNITY PROGRAM IT PE IS:  |  |  |                             |
| BUILDING   | BUILDING IN SPECIAL FLOOD HAZARD AREA? Y Y BUILDING OCCUPANCY SINGLE FAMILY SINGLE FAMILY OTHER RESIDENTIAL NON-RESIDENTIAL NO |   | RE RESIDENTIAL CONDOMINIUM BUILDING ASSOCIATION POUCY ONLY TOTAL NUMBER OF UNITS (INCLUDE NON-RES) I LEVEL ESTIMATED REPLACEMENT COST IF SINGLE FAMILY PRINCIPAL RESIDENCE RCBAPOR ANY WZONE BUILDING AMOUNT \$ SULLING, IS SULLING INSUREDS PRINCIPAL RESIDENCE! Y YES IN NO |                                   | I'Y YES NOO  IS BUILDING ELEVATED? I'Y YES NOO  IF BUILDING IS ELEVATED, COMPLETE PRAT 2 OF THE FLOOD INSURANCE APPLICATION.  IF YES, AREA BELOW IS.   |  | R REGULAR E EMERGENCY  DESCRIBE BUILDING AND USE IF NOT A 1-4 FAMILY DWELLING, FOR MANUFACTURED (MOBILE) HOMES, COMPLETE PART 2, SECTION III.  IS INSURED PROPERTY OWNED BY STATE GOVERNMENT? [Y] YES [N] NO |  |                             |
| NSTRUCTION DATA CONTENTS   | THE BUILDING UNIT DATE BUILDING WITH OBSTRUCTION  CONTENTS LOCATED IN: BASEMENTENCLOSURE BASEMENTENCLOSURE AND ABOVE LOWEST FLOOR ONLY ABOVE GROUND LEVEL  ABOVE GROUND LEVEL MORE THAN ONE FULL FLOOR (IF SINGLE FAMILY, CONTENTS ARE RATTHROUGHOUT THE BUILDING)  IS PERSONAL PROPERTY HOUSEHOLD CONTENTS? [Y] YES [N] NO IF NO, PLEASE DESCRIBE:  ALL BUILDINGS: CHECK ONE OF THE FIVE BLOCKS: BUILDING PERMIT DATE OR DATE OF CONSTRUCTION _/ (MM/DD/YY)  SUBSTANTIAL IMPROVEMENT DATE/ (MM/DD/YY)  MANUFACTURED (MOBILE) HOMES LOCATED IN A MOBILE HOME PARK OR SUBDIVISION: DATE OF PERMANENT PLACEMENT/ (MM/DD/YY)  |   |   |                                   |  |  |  | P P Y DDI/YY) PARK OR SUBDIVISION (MM/DD/YY) (LAG) (LAG) |                             |
| CO   | (SEE FLOOD INSURANCE MA  | (-) BASE FLOOD E<br>LY DOES BASE FLOOD ELEVATION<br>INUAL FOR CERTIFICATION FORM<br>CHECK ONE BLOCK: BUILDING     | INCLUDE EFF   | ECTS OF                           | WAVE ACTIO   | n? Yes<br>Ion cert   | NO IS BUILDING   | FLOOD-PROOFEE  | D? YYES N NO                |
| D RATING   |  | BASIC LIMITS  MOUNT OF RATE ANNU. NSURANCE PREMI  | JM INSUI  | ADD<br>(REGULA<br>JNT OF<br>RANCE | R PROGRAM O  | ANNUAL<br>PREMIUM  | INCREASE   | BASIC AND<br>ADDITIONAL<br>TOTAL AMOUNT<br>OF INSURANCE  | TOTAL<br>PREMIUM            |
| COVERAGE AND   | □ ALTERNATIVE    □ V-ZONE RISK FACTOR RATING FORM    □   □   |   |   |                                   | CARD   | 00 .00 00 .00 ANNUAL SUBTOTAL ICC PREMIUM SUBTOTAL CRS PREMIUM DISCO                       |  | .00  |                             |
| PROVISIONAL RATING  CRS PREMIUM  THE ABOVE STATEMENTS ARE CORRECT TO THE BEST OF MY KNOWLEDGE. I UNDERSTAND THAT ANY FALSE STATEMENTS MAY BE PUNISHABLE BY FINE OR IMPRISONMENT UNDER APPLICABLE FEDERAL LAW.  SEE REVERSE SIDE OF COPIES 2, 3, 8, 4  PROBATION SL  FEDERAL POLICE |  |   |   |                                   |  | CRS PREMIUM DISCO<br>SUBTOTAL<br>PROBATION SURCH<br>FEDERAL POLICY FE<br>TOTAL PREPAID AMO | ARGE +   | s  |                             |

FEMA Form 81-16, AUG 06

PLEASE ATTACH TO NFIP COPY OF APPLICATION THE CHECK OR MONEY ORDER FOR THE TOTAL PREPAID

FROM (8/06)

PREMIUM MADE PRIVABLE TO THE NATIONAL PLOOD INSURANCE PROGRAM

IMPORTANT — COMPLETE PART 1 AND, IF REQUIRED, PART 2 (ON LAST PAGE) BEFORE SENDING APPLICATION TO THE NFIP.— IMPORTANT

| ALL APPROPRIATE DATA PROVIDED BY THE INSURED OR OBTAINED FROM THE EL  |  |
|---|--|
| Post-FIRM construction located in Zones A,A1-A30,AE,AH,AO,V,V1-V30, and when using optional Post-FIRM rating. | CURRENT POLICY NUMBER  IVE.   NEW   SI   |
| SECTION I—ALL BU  | UILDING TYPES  |
| 1. Diagram number selected from Building Diagrams 1-8: 2. The lowest floor is (round to nearest foot):        | If yes, check the appropriate items:    1  |
| SECTION II—ELEVA  | TED BUILDINGS  |
| (Including Manufactured [Mobi  8. Elevating foundation of the building:  1                                    | c) Is the area below the elevated floor enclosed using materials other than insect screening or light wood lattice?  Y Yes N No  If yes, check one of the following:  Breakaway walls  Other:  d) Is the enclosed area/crawl space constructed with openings (excluding doors) to allow the passage of flood waters through the enclosed area?  Y Yes N No  If yes, number of permanent openings (flood vents) within I ft. above adjacent grade, Total Area of all permanent openings (flood vents) sq. in.  e) Is the enclosed area/crawl space used for any purpose other than solely for parking of vehicles, building access, or storage?  Y Yes N No  If yes, describe:  f) Does the enclosed area/crawl space have more than 20 linear feet of finished wall, paneling, etc?  Y Yes N No  BILE) HOMES / TRAVEL TRAILERS |
| Make:   | 1. The manufactured (mobile) home's anchoring system utilizes:    1  |

FEMA Form 81-16, AUG 06 F-050 (8/06)

## FLOOD INSURANCE FLOOD INSURANCE APPLICATION FEMA FORM 81-16

#### NONDISCRIMINATION

No person or organization shall be excluded from participation in, denied the benefits of, or subjected to discrimination under the Program authorized by the Act, on the grounds of race, color, creed, sex, age or national origin.

#### **PRIVACY ACT**

The information requested is necessary to process your Flood Insurance Application for a flood insurance policy. The authority to collect the information is Title 42, U.S. Code, Sections 4001 to 4028. Disclosures of this information may be made: to federal, state, tribal, and local government agencies, fiscal agents, your agent, mortgage servicing companies, insurance or other companies, lending institutions, and contractors working for us, for the purpose of carrying out the National Flood Insurance Program; to current Repetitive Loss Target Group (RLTG) property owners and Preferred Risk Policy (PRP) owners for the purpose of property loss history evaluation; to the American Red Cross for verification of nonduplication of benefits following a flooding event or disaster; to law enforcement agencies or professional organizations when there may be a violation or potential violation of law; to a federal, state or local agency when we request information relevant to an agency decision concerning issuance of a grant or other benefit, or in certain circumstances when a federal agency requests such information for a similar purpose from us; to a Congressional office in response to an inquiry made at the request of an individual; to the Office of Management and Budget (OMB) in relation to private relief legislation under OMB Circular A-19; and to the National Archives and Records Administration in records management inspections. Solicitation of your Social Security Number (SSN) is authorized under Executive Order 9397. Providing the SSN, as well as the other information, is voluntary but failure to do so may delay or prevent issuance of the flood insurance policy.

DISCLOSURE OF YOUR SOCIAL SECURITY NUMBER UNDER PUBLIC LAW 93-579 SECTION 7(B) Solicitation of the Social Security Number (SSN) is authorized under provisions of E.O. 9397, dated November 22, 1943. The disclosure of your SSN is voluntary. However, since many persons appearing in the Government's administrative records possess identical names, the use of your SSN would provide for your precise identification.

#### **GENERAL**

This information is provided pursuant to Public Law 96-511 (Paperwork Reduction Act of 1980, as amended), dated December 11, 1980, to allow the public to participate more fully and meaningfully in the Federal paperwork review process.

#### **AUTHORITY**

Public Law 96-511, amended, 44 U.S.G. 3507; and 5 CFR 1320.

#### PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 12 minutes per response. Burden means the time, effort, and financial resources expended by persons to generate, maintain, retain, disclose, or to provide information to us. You may send comments regarding the burden estimate or any aspect of the form, including suggestions for reducing the burden to: U.S. Department of Homeland Security, Emergency Preparedness and Response Directorate, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472, Paperwork Reduction Project (1660-0006). **NOTE: Do not send your completed form to this address.** 

#### V. RATING STEPS

- A. Determine the exact location of the building and/or contents to be insured. IF THE MAILING ADDRESS DIFFERS FROM THE PROPERTY ADDRESS, USE THE PROPERTY ADDRESS ONLY.
- B. Determine if the building is located in an eligible community.

Not all communities participate in the NFIP. There is NO COVERAGE available in non-participating communities. If you are uncertain, call the NFIP insurer, consult a local community official, or check the NFIP Community Status Book online (http://www.fema.gov/fema/csb.shtm).

C. Determine the NFIP program phase (Emergency or Regular) and the community in which the property is located.

Some communities may be eligible for premium discounts under the Community Rating System (CRS). See the CRS Section for a list of eligible communities, the corresponding discounts, and an example showing how to apply the CRS discount.

- D. Determine the location of the contents in the building.
- E. Determine the date of construction as described below.
  - Date of Construction—Buildings

For flood insurance purposes, the date of construction for buildings under the NFIP must be determined in order to establish whether the building is Pre-FIRM or Post-FIRM construction.

The start of construction or substantial improvement for insurance purposes means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, or improvement was within 180 days of the permit date.

For the Coastal Barrier Resources System, the start of construction or substantial improvement, for insurance purposes, must be determined in accordance with the documentation requirements set forth by the Coastal Barrier Resources Act (CBRA). (See the Coastal Barrier Resources System Section.)

 Date of Construction—Manufactured (Mobile) Homes/Travel Trailers

The date of construction for a manufactured (mobile) home is different from a standard building and depends upon the location of the manufactured (mobile) home.

For manufactured (mobile) homes located in manufactured (mobile) home parks or subdivisions, the date of construction is the date facilities were constructed for servicing the manufactured (mobile) home site, or the date of the permit, provided that construction began within 180 days of the permit date. This rule applies to all manufactured (mobile) homes even if the manufactured (mobile) home is rated and classified as single family.

For manufactured (mobile) homes not located in manufactured (mobile) home parks or subdivisions, but located on individually owned lots or tracts of land, the date of construction is the date the manufactured (mobile) home was permanently affixed to the site or the permit date if affixed to the site within 180 days of the date of permit.

#### Pre-FIRM Construction

For the purpose of determining insurance rates, buildings for which the start of construction or substantial improvement was on or before December 31, 1974, or before the effective date of the initial FIRM for the community, are considered Pre-FIRM construction. However, for insurance purposes, manufactured (mobile) homes that are located or placed in existing manufactured (mobile) home parks or subdivisions, or expansions to existing manufactured (mobile) home parks or subdivisions, are considered Pre-FIRM.

All historic buildings are considered Pre-FIRM as long as the building meets the definition of a historic building. (See the Definitions Section.)

Pre-FIRM buildings that are substantially improved may continue being rated as Pre-FIRM if certain conditions are satisfied. Pre-FIRM rating is applicable ONLY when ALL of the following conditions are met:

- The building must be Pre-FIRM.
- The substantial improvement must be an ADDITION to the building. (This condition excludes substantial improvements made as interior remodeling or repair projects.)
- The ADDITION and extension must be next to and in contact with the existing building. (This condition does not apply to substantial improvements consisting of the construction of additional floors.)
- An Elevation Certificate must be submitted to the NFIP Underwriting Unit with the application or renewal.
   The Elevation Certificate must verify that the lowest floor elevation of the ADDITION is at or above the applicable base flood elevation in effect at the time the addition is started.

NOTE: Elevation Certificates certified on or after January 1, 2007, must be submitted on the new Elevation Certificate form. The Elevation Certificate must meet all photo requirements described on pages CERT 1-2 of this manual. An Elevation Certificate submitted without the required photographs is not considered valid for rating.

If all of the above conditions are satisfied, the entire building is eligible for Pre-FIRM rates. (Except for some V-Zone risks and some manufactured [mobile] home risks, Post-FIRM rates provide less costly coverage and, therefore, the coverage may be rated using the lower Post-FIRM rates.)

If the above conditions are not satisfied, the entire building MUST be rated as Post-FIRM.

#### Post-FIRM Construction

For insurance rating purposes, buildings for which the start of construction or substantial improvement was after December 31, 1974, or on or after the effective date of the initial FIRM for the community, whichever is considered later. are Post-FIRM construction. This would include all manufactured (mobile) homes located in either new manufactured (mobile) home parks or subdivisions or outside of existing manufactured (mobile) home parks or subdivisions.

#### VI. PREMIUM CALCULATION

#### A. Emergency Program

- Determine Occupancy Type: Residential or Non-Residential.
- 2. Calculate premium using appropriate rates.
- 3. Apply appropriate deductible factor if an Optional Deductible is selected.
- 4. Add Federal Policy Fee.

#### B. Regular Program

- Determine if the property to be insured is Pre-FIRM or Post-FIRM. A Pre-FIRM premium table for standard risk, single family property is located on page RATE 11.
- 2. Determine Zone.
- 3. Determine Occupancy: Single Family, 2-4 Family, Other Residential, Non-Residential, or Manufactured (Mobile) Home.
- 4. Determine Building Type (including basement or enclosure, if any): one floor, two floors, three or more floors, split level, or manufactured (mobile) home on foundation.
- 5. Determine if building has basement (or enclosed area below an elevated building): none, finished, or unfinished.
- 6. Determine Elevation Difference.
- Calculate premium using the appropriate rates.
- 8. Apply appropriate deductible factor if an Optional Deductible is selected.

# U.S. DEPARTMENT OF HOMELAND SECURITY

**EMERGENCY PREPAREDNESS AND RESPONSE DIRECTORATE** 

NATIONAL FLOOD INSURANCE PROGRAM

# V-ZONE RISK FACTOR RATING FORM

**AND** 

**Instructions** 

# National Flood Insurance Program V-ZONE RISK FACTOR RATING FORM

#### PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 6 hours per response. Burden means the time, effort, and financial resources expended by persons to generate, maintain, retain, disclose, or to provide information to us. You may send comments regarding the burden estimate or any aspect of the form, including suggestions for reducing the burden to: U.S. Department of Homeland Security, Emergency Preparedness and Response Directorate, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472, Paperwork Reduction Project (1660-0006). NOTE: Do not send your completed form to this address.

#### PURPOSE OF V-ZONE RISK FACTOR RATING FORM

The severe economic losses due to flood damage led to the establishment of the NFIP to fulfill the essential purposes of community flood hazard mitigation and provide flood hazard insurance protection. This certification form can be used to (1) guide designers, owners, local officials, agents, and others as they consider those types of siting, design, and construction activities that exceed minimum NFIP requirements, and (2) rate buildings and provide insurance premium discounts to those structures that exceed minimum NFIP siting, design, and construction requirements.

This form provides a basis for the actuarial rating of buildings and their contents on an individual risk basis that allows a rate discount for prudent building designs. This approach will serve to further the NFIP goals of providing incentives for hazard mitigation in coastal high hazard flood risk zones while permitting adequate insurance protection under premium rates that ensure that the risk of flood losses related to building placement and construction is borne by the owners of the properties at risk.

Thus, construction in coastal high hazard areas should follow certain construction guidelines. Those construction guidelines, explanations, data, and examples for residences are set forth in the third edition of the FEMA *Coastal Construction Manual* (CCM), which was published in June 2000.

To obtain a copy of the Coastal Construction Manual, you may submit a written request to:

FEMA Distribution Center P.O. Box 2012 Jessup, MD 20794

or call toll-free 1-800-480-2520 and ask for the FEMA *Coastal Construction Manual*, either the print publication (FEMA 55) or the interactive CD-ROM (FEMA 55CD).

FEMA Form 81-25, AUG 06 F-086 (8/06)

# U.S. DEPARTMENT OF HOMELAND SECURITY FEDERAL EMERGENCY MANAGEMENT AGENCY

National Flood Insurance Program

O.M.B. No. 1660-0006 Expires July 31, 2009

## V-ZONE RISK FACTOR RATING FORM

Important: Read the instructions that begin immediately after page 5 of 5 of this form.

|   | SECTION A - PROPERTY I  | NFORMATION  |   |                    |
|---|---|---|---|--------------------|
|   |   |   | FLOOD PROGRA  | AM USE ONLY        |
| POST-CONSTRUCTION PROPERTY ADDRES   | S (address of building being rated, if known)                                     |   | V.R.N. NO.  |                    |
| CITY  | STATE ZIP C   | CODE  | DATE REC.   | INIT.              |
| PROPERTY DESCRIPTION (Lot and Block Nu  | mbers, Tax Parcel Number, Legal Description, etc.                                 | )   |   |                    |
| BUILDING USE (e.g., Residential, Non-residen                                  | tial, Addition, Accessory, etc.)  |   |   |                    |
| LATITUDE/LONGITUDE (Optional)<br>( ## °- ## '- ##.## " or ##.##### °)         | HORIZONTAL DATUM  NAD 1927 NAD 1983   | SOURCE: GPS   | S (Type)<br>SS Quad Map  ☐ OTHER  |                    |
| ESTIMATED COST OF CONSTRUCTION (exc   | luding cost of land)  |   |   |                    |
| Owner   |   |   |   |                    |
| Name  |   |   |   |                    |
| Address (not necessarily the property being rated)                            | City  | Stat  | e   | ZIP Code           |
| Telephone Area Code and Exchange Number                                       |   |   |   |                    |
| certificate is not available, the profelaw.  NFIP Community No  FIRM Panel No | supporting member 6   | t determine the re  (BFE)*  evation*  tion*  izontal elevation* | quired information, if a  | authorized by      |
| SECTION B — CO  | ASTAL V-ZONE FLOOD RISK BUI   | LDING POINT C   | ALCULATION SHEE   | Т                  |
| Enter your File or Identification Nur   | mber here and on the top of pages 2   | of 5 through 5 of 5   | 5   |                    |
| The submitting registered profession  | nal engineer or architect should compl  | ete the calculation   | sheet using the buildi  | ng points shown    |
| You may use this form only if:  |   |   |   |                    |
| The bottom of the lowest h     or above 0.1 foot below th                     | norizontal supporting member of the lo  | owest floor is at   | ☐ Yes (continue)  | □ No (stop)        |
|   | nt materials are used below the BFE in 2-93 in CCM Appendix H).                   |   | ☐ Yes (continue)  | ☐ No (stop)        |
| that less than 25% of the b   | olid obstructions below the BFE are in<br>ouilding width measured parallel to the | e shoreline is  | ☐ Yes (continue)  | □ No*              |
| obstructed.   |   | process is u  | ay be used in situations with is obstructed, only if the<br>sed and engineering calced to this form; otherwise, set<br>to this form; otherwise, set<br>to the set in the set in the set in the set<br>the set in the set | ulations and plans |

FEMA Form 81-25, AUG 06

Page 1 of 5 Pages F-086 (8/06) File or Identification Number \_ CIRCLE APPROPRIATE I. LOWEST FLOOR ELEVATION POINTS AND ENTER A. Bottom of lowest horizontal supporting member of lowest floor, relative to effective **BUILDING POINTS IN** BFE at the time of project construction (Round all measurements to the nearest 0.1 foot. Do not consider equipment and breakaway enclosures below the elevated floor for APPROPRIATE BOX BELOW this calculation.) POST-CONSTRUCTION II. SITE AND ENVIRONMENTAL CONSIDERATIONS A. Distance from shoreline (Complete either item 1 or item 2) 1. Ratio of horizontal distance from dune crest or bluff edge or crest of erosion control device (e.g., seawall or revetment) to seaward side of building foundation, divided by long-term average annual erosion rate (AAER) used in calculation shown in Section C, item 2. (If no dune or bluff, use seaward line of stable vegetation; for stable, accreting, or rocky shorelines, use erosion rate = 1.0 foot/year; for shoreline with erosion control device or beach nourishment project, use pre-project AAER.) a. If minimum horizontal distance from crest of erosion control device to seaward side of building foundation < 30 ft b. If no erosion control device, or crest of device ≥ 30 feet from seaward side of building foundation (see Figures 1, 2, 3, and 4b in Instructions) and: 60 < ratio ......pts. = 2.0 x ratio, not to exceed 150 pts. 2. For shoreline without an erosion control device, subject to periodic large-scale fluctuations, location of seaward side of building foundation relative to most landward historical vegetation line (see Figure 5 in a. Foundation at or landward of most landward vegetation line in past 20 years...... pts. b. Foundation at or landward of most landward vegetation line in past 40 years......75 pts. c. Foundation at or landward of most landward vegetation line in past 60 years ......150 pts. B. Dune, structural, or beach nourishment protection (Complete item 1, item 2, and/or item 3, 1. Dune reservoir above 100-year stillwater elevation (see Figure 6 in Instructions) d. Unknown .......0 pts. 2. For upland property fronted by erosion control device (e.g., seawall, revetment) a. Seaward side of building foundation < 30 feet from crest of wall b. Seaward side of building foundation ≥ 30 feet from crest of wall or revetment enter points for only one of the following three conditions: (1) Crest elevation of wall or revetment at or below 100-year stillwater elevation (see Figure 7 in Instructions) (2) Crest elevation of wall or revetment above 100-year stillwater elevation

(see Figure 8 in Instructions)......pts. = D/2, not to exceed 15 pts.

(satisfies criteria set forth in Part VII of CERC TR 89-15) ......50 pts.

(3) Wall or revetment adequate to protect upland property during 100-year event

FEMA Form 81-25, AUG 06

Page 2 of 5 Pages F-086 (8/06)

| File or Identification Number  |                  |
|--|------------------|
| For upland property with an ongoing beach nourishment project undertaken within the last 5 years     a. Constructed project with a Federal, state, or local government sponsor, with all necessary permits and a long-term funding mechanism in place, and with ongoing renourishment (project maintenance)  | POST-CONSTRUCTIO |
| b. Less than 3.a   |                  |
| III. BUILDING SUPPORT SYSTEM AND DESIGN DETAILS  A. Foundation design (Complete item 1, item 2, and item 3)  1. Foundation design based on lowest expected ground elevation and highest expected BFE over 50-year life of structure (accounts for lowering of soil due to long-term erosion, shoreline fluctuations, and storm erosion — see Figure 9 in Instructions) |                  |
| B. Foundation type (Complete either item 1 or item 2)  |                  |
| 1. Pile foundation (complete items a, b, and c for driven piles; complete items a, b, c, and d for jetted piles; complete items a, b, c, and e for piles set in augered or pre-dug holes)  a. Pile embedment  (1) All pile tips are to -10 feet MWL or deeper*   |                  |
| (2) Any pile embedment is less than -10 feet MWL, but no pile is less than -5 feet MWL*0 pts.  |                  |
| (3) Any pile embedment is less than -5 feet MWL*75 pts.  |                  |
| * If refusal is reached before the specified depth, consult a professional engineer to determine whether foundation anchoring is adequate and whether scour will undermine the foundation. These judgments should determine the appropriate point value.   |                  |
| b. Pile size and type  |                  |
| (1) Wood piles at least 10" x 10" or 8" tip round  |                  |
| (2) Wood piles smaller than dimensions in (1) but no smaller than 8" x 8" or 6" tip round30 pts.   |                  |
| (3) Wood piles less than dimensions in (2)75 pts.  |                  |
| (4) Reinforced or prestressed concrete piles at least 8" x 8"75 pts.   |                  |
| (5) Steel piles with corrosion protection or engineered to take predicted corrosion into account   |                  |
| c. Bracing  (1) Bracing (including grade beams) is required to resist lateral loads, and bracing conforms to CCM Sections 12.4.5, 13.2.3.1, 13.2.3.2, and 13.2.3.3  25 pts.  |                  |
| (2) Designed to resist lateral loads without bracing or grade beams50 pts.   |                  |
| d. Jetted pile foundation  |                  |
| (1) After initial jetting, design embedment and capacity attained by driving0 pts.   |                  |
| (2) Jetting only50 pts.  |                  |
| e. Pile set in augered or pre-dug hole (post foundation)   |                  |
| (1) After initial set and backfill, design embedment attained by driving0 pts.   |                  |
| (2) After initial set and backfill, design embedment attained by jetting25 pts.  |                  |
| (3) Set and backfilled only100 pts   |                  |
| 2. Masonry or concrete columns (piers) supported on footing  |                  |
| a. Embedment and footing size  |                  |
| (1) Footing elevation and dimensions consistent with CCM Section 12.4.3.275 pts.   |                  |

FEMA Form 81-25, AUG 06

Page 3 of 5 Pages F-086 (8/06)

| File or Identification Number   |                                   |
|---|-----------------------------------|
| b. Column (pier) design   | DOCT CONSTRUCTION                 |
| (1) Consistent with requirements of CCM Sections 13.2.4 or 13.2.5   | POST-CONSTRUCTION                 |
| (2) Less than required by (1)75 pts.  |                                   |
| c. Bracing  |                                   |
| (1) Bracing (including grade beams) is required to resist lateral loads, and bracing<br>conforms to CCM Sections 12.4.5, 13.2.3.1, 13.2.3.2, and 13.2.3.325 pts.  |                                   |
| (2) Designed to resist lateral loads without bracing or grade beams50 pts.  |                                   |
| C. Lowest horizontal supporting member (Complete item 1 and item 2, or item 1 and item 3)   |                                   |
| 1. Orientation (see Figure 11 in Instructions)  |                                   |
| a. ≤ +/- 20 degrees from perpendicular to shoreline20 pts.  |                                   |
| b. > +/- 20 degrees from perpendicular to shoreline0 pts.   |                                   |
| <ol><li>Connections between lowest horizontal supporting member and foundation (wood piles and beams)</li><li>a. Wood pile notching</li></ol>   |                                   |
| (1) All piles AND horizontal members notched 50% or less  |                                   |
| (2) Any piles OR horizontal members notched more than 50%100 pts.   |                                   |
| b. Connections between wood piles and beams   |                                   |
| (1) All bolted connections50 pts.   |                                   |
| (2) Any non-bolted connections (e.g., light-gauge metal connectors, nailed connections)250 pts.   |                                   |
| 3. Engineered connections between beam and pile (when either pile or beam is not wood)50 pts.   |                                   |
| A. Obstructions below BFE (Complete item 1, item 2, and item 5, and either item 3 or item 4; see NFIP Technical Bulletin 5-93 in CCM Appendix H)  1. Free of obstruction AND no enclosed areas below BFE (open stairs, insect screening, and open lattice are permitted — see Instructions for discussion of open lattice)  |                                   |
| Spacing of piles/columns/piers  |                                   |
| a. < 8 feet on center (o.c.)  |                                   |
| b. ≥ 8 feet o.c   |                                   |
| 3. Breakaway walls (non-loadbearing) are used below the BFE   |                                   |
| a. Length of breakaway walls ≤ 20 feet10 pts.   |                                   |
| b. Length of breakaway walls > 20 feet but ≤ 60 feet20 pts.   |                                   |
| c. Length of breakaway walls > 60 feet40 pts.   |                                   |
| <ol><li>Area enclosed by non-loadbearing breakaway walls, and some portion of the non-loadbearing<br/>walls is finished</li></ol>   |                                   |
| a. Length of finished breakaway wall < 20 feet50 pts.   |                                   |
| b. Length of finished breakaway wall ≥ 20 feet but < 50 feet100 pts.  |                                   |
| c. Length of finished breakaway wall ≥ 50 feet250 pts.  |                                   |
| 5. Elevator, stairwell, masonry chimney, or other solid obstruction in 1- to 4-family, 3-story or less, residential structure100 pts.   |                                   |
| B. Equipment  |                                   |
| 1. ALL equipment and ductwork below building lie at or above BFE0 pts.  |                                   |
| 2. ANY equipment or ductwork below the building is below the BFE and is NOT resistant to flood damage, but will not adversely affect the ability of other parts of the building to resist velocity flows and wave action (complete item 1 in Section C of this form below; FEMA may use the additional information from item 1 in section C of this form to deduct fewer than 100 points)100 pts. |                                   |
| 100 points)   |                                   |
| V. BUILDING POINT TOTAL   |                                   |
| FEMA Form 81-25, AUG 06   | Page 4 of 5 Pages<br>F-086 (8/06) |

| File or Identification Number   | 315  |   |
|---|--|---|
| SECT  | ION C — INFORMATION PERTAINING                                 | TO THE BUILDING   |
| 1. List all equipment below BFE (ch   | eck all that apply):   |   |
| ☐ Air conditioner/heat pump   | ☐ Furnace  | ☐ Air handler   |
| ☐ Ductwork  | ☐ Electric panel, fuse box                                     | ☐ Elevator equipment  |
| ☐ Water heater  | □ Water softener/conditioner                                   | □ Pump  |
| ☐ Clothes washer/dryer  | ☐ Other (list)   |   |
| 2. To support the point values claim  | ned in item II.A in Section B of this form, pro                | vide the following:   |
| Average annual erosion rate   | feet/year  |   |
| Source of rate  |  |   |
| Date of rate calculation  |  |   |
| Reference feature used (e.g., dune  | crest, vegetation line, top of bluff, crest of a               | rmoring)  |
| Source of most landward vegetation  | n line   |   |
| When claiming points for compliant describe how the device meets the  | e with item II.B.2.b.(3) (erosion control devi<br>requirements | ce meets requirements of CERC TR 89-15),  |
|   | e with item II.B.3.a (beach nourishment pro                    | ject), provide the name of the project, the name nourishment work.  |
| Name of Project   |  |   |
| Sponsor   | Da<br>Cone Risk Factor Rating Form, provide the f              | te of last nourishment/renourishment  |
|   |  | ollowing supporting material.   |
| <ul> <li>Building plans for "before or</li> <li>Completed NFIP Elevation "after construction" rating</li> </ul> | •  | ance Application, and photographs of building for   |
|   | SECTION D — CERTIFICATION                                      | DN  |
| 1 of 7 of the Instructions for this V-Z   |  | Flood Program Use Only  NFIP Flood Risk Factor CONFIRMATION Total Coastal V-Zone Flood Risk Factor POST-CONSTRUCTION Buildings: |
| Addices.  |  | Contents:   |
| Signature   | Date   | NFIP Underwriter's Signature  Date  |

FEMA Form 81-25, AUG 06

Page 5 of 5 Pages F-086 (8/06)

#### INSTRUCTIONS

This V-Zone Risk Factor Rating Form is to be used in the determination of the flood insurance discount for buildings and contents located in a coastal area designated by the NFIP as Zone V, VE, or V1-V30.

The basic premise behind this form is that flood insurance premiums can be reduced for V-zone buildings that exceed minimum NFIP requirements. This form allows an engineer or architect to claim points for a variety of siting, design, and construction practices that exceed minimum NFIP requirements. Section B of the form, Coastal V-Zone Flood Risk Building Point Calculation Sheet, is divided into four main categories:

- Lowest Floor Elevation
- II. Site and Environmental Considerations
- III. Building Support System and Design Details
- IV. Obstructions and Enclosures

The NFIP will review the completed form and assign a premium discount, depending on the number of points awarded.

This form may be submitted only after construction is completed. However, the form may be used **before** construction is begun (during site selection and project planning) to guide the designer and owner with regard to those practices that will result in the greatest flood insurance premium reduction—that is, those practices that are deemed most important in reducing potential flood and erosion losses.

The maximum number of points that can be claimed on this form is 1,030. The greater the number of points, the greater the reduction in the flood insurance premium. Of the total number of possible points, the approximate percentage for each of the four categories listed above is as follows:

- · Lowest Floor Elevation 30 percent
- · Site and Environmental Considerations 30 percent
- · Building Support System and Design Details 30 percent
- · Obstructions and Enclosures 10 percent

This form is used solely to adjust insurance rating for a building and does not replace other forms and certificates that may be required by a community or state.

To complete this form, the engineer or architect will need to refer to the *Coastal Construction Manual* (FEMA 55). See the inside cover of this form for information about how to obtain a copy of FEMA 55.

Completion of this form must be accomplished by a registered professional engineer or registered architect duly licensed in the state where the subject structure is located.

The completed form should be submitted to the NFIP Bureau and Statistical Agent, Underwriting Department, 7700 Hubble Drive, Lanham, MD 20706. Confirmation of the V-zone risk discount and rate for National Flood Insurance coverage will be returned in approximately 30 days.

Local permit officials will have on file copies of the community's most recent Flood Insurance Rate Map (FIRM) and Flood Insurance Study (FIS). Your client's property and casualty insurance agent may have a copy of the community's FIRM and is a valuable source of related information. If you need assistance, call the NFIP toll-free at 1-800-358-9616.

FEMA Form 81-25, AUG 06 Page 1 of 7 Pages F-086 (8/06)

## SPECIFIC INSTRUCTIONS FOR SECTION B, COASTAL V-ZONE FLOOD RISK BUILDING POINT CALCULATION SHEET

<u>I. Lowest Floor Elevation.</u> The lowest floor elevation measurement should be made at the bottom of the lowest horizontal structural member supporting the lowest floor. Lowest floor guidance can be obtained from the Elevation Certificate or the *Flood Insurance Manual* (Lowest Floor Guide):

- The Elevation Certificate can be downloaded from FEMA's site on the World Wide Web at http://www.fema.gov/business/nfip/elvinst.shtm. The certificate is also available from the FEMA Distribution Center at 1-800-480-2520 (ask for FEMA Form 81-31).
- The Flood Insurance Manual is available from the FEMA web site at http://www.fema.gov/business/nfip/manual.shtm.

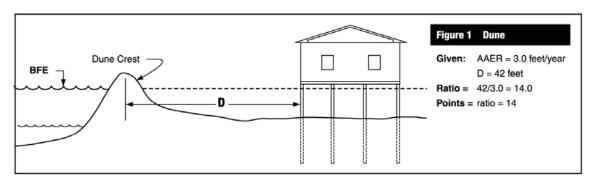
**II.A. Distance from shoreline.** Siting structures away from the shoreline is recognized as one of the most important ways of preventing building damage. This form provides credit for siting buildings landward of dunes, bluffs, and erosion control devices (item II.A.1), and landward of shorelines that fluctuate large distances (i.e., those that experience large-scale erosion and accretion through time, item II.A.2).

Points may be claimed for II.A.1 or II.A.2, but not for both. In the majority of situations, II.A.1 will be used for calculating points.

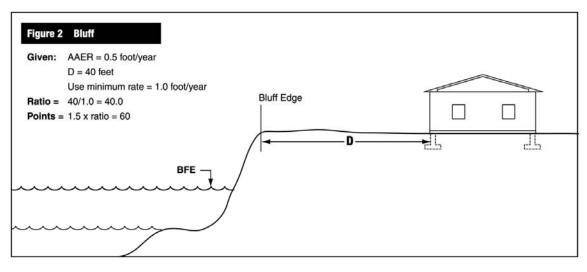
**II.A.1.** Points will be awarded based on (1) the distance between the seaward side of the building foundation and the dune crest, bluff edge, or erosion control device crest and (2) the average annual erosion rate (AAER) for the site.

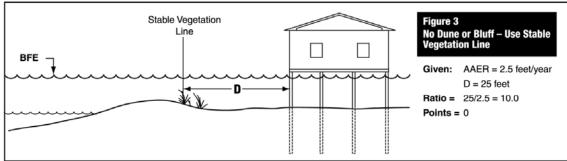
This item requires the engineer or architect to (1) measure the horizontal distance between the building foundation and the dune crest, bluff edge, or erosion control device crest, (2) obtain the average annual erosion rate at the site, and (3) calculate the ratio between the distance and the erosion rate (consult the local jurisdiction or state coastal management program for erosion rate information). The examples shown in Figures 1-4b, following, illustrate the calculation of points for five cases.

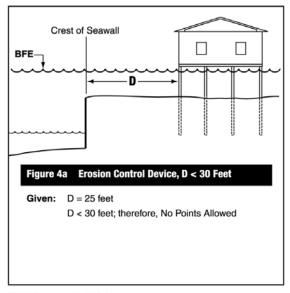
II.A.2. Points will be awarded based on the location landward of the seaward side of the building foundation relative to

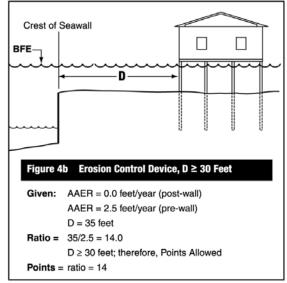


FEMA Form 81-25, AUG 06 Page 2 of 7 Pages F-086 (8/06)







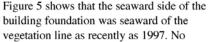


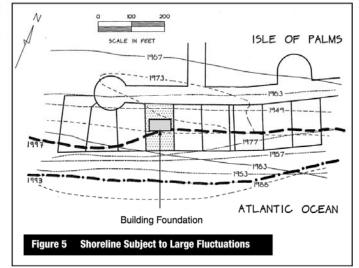
FEMA Form 81-25, AUG 06

Page 3 of 7 Pages F-086 (8/06)

the fluctuating shoreline on the site. Average annual erosion rates are not used for this calculation. CCM Figures 7-47, 7-48, and 7-49 show a situation in which item II.A.2 would be used to calculate points.

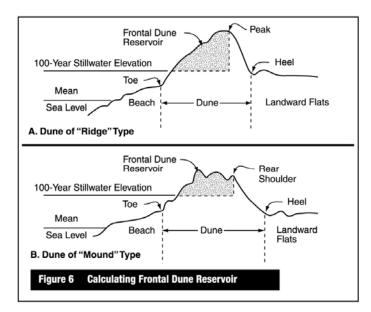
This item requires the engineer or architect to (1) obtain historical shoreline (vegetation line) positions at the site, (2) locate the seaward side of the building foundation, and (3) determine how long it has been since the vegetation line was landward of the seaward side of the building foundation. An example is shown in Figure 5 using the data from CCM Figure 7-49.





points would be claimed in this example. In order for points to be claimed for this item, the building would have had to have been constructed landward of all vegetation lines for the past 40+ years—since approximately 1957.

**II.B Dune, structural, or beach nourishment protection.** This form provides credit for protection received from large dunes (item II.B.1), erosion control devices (item II.B.2), and beach nourishment projects (item II.B.3) that meet certain criteria. Points will be awarded based on the level of flood and erosion protection afforded by a dune, erosion control device, or beach nourishment project.



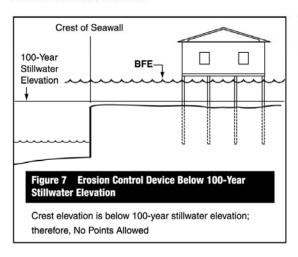
## Points may be claimed for II.B.1, II.B.2, and II.B.3, if applicable.

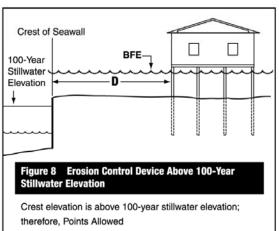
II.B.1. The dune reservoir is the crosssection (in square feet) above the 100-year stillwater elevation (obtained from the Flood Insurance Study [FIS] report) and seaward of the dune crest or shoulder (see Figure 6).

This item requires the engineer or architect to (1) plot a dune cross-section seaward of the building site, (2) determine the 100-year stillwater elevation (from the FIS report) and plot on the dune profile, (3) characterize the dune as a ridge type or mound type, and (4) define the limits of the dune reservoir and calculate its cross-sectional area.

FEMA Form 81-25, AUG 06 Page 4 of 7 Pages F-086 (8/06)

II.B.2. Points may be claimed for protection offered by an erosion control device (seawall or revetment) only if the crest elevation of the device is above the 100-year stillwater elevation, which may be obtained from the FIS report (see Figures 7 and 8.) Points may be claimed for II.B.2.b.(2) or II.B.2.b.(3). If the crest elevation is above the 100-year stillwater elevation, points may be obtained for II.B.2.b.(2)—the distance between the crest of the device and the seaward side of the building foundation—or II.B.2.b.(3)—a device that satisfies the criteria set forth in the U.S. Army Corps of Engineers, Coastal Engineering Research Center report CERC TR 89-15, Criteria for Evaluating Coastal Flood Protection Structures.





This item requires the engineer or architect to (1) determine the crest elevation of the seawall or revetment, (2) determine the 100-year stillwater elevation (from the FIS report) and compare it against the crest elevation, (3) determine the horizontal distance from the crest of the erosion control device to the seaward side of the building foundation, and (4) if maximum points are desired, evaluate the dimensions, strength, and durability of the erosion control device against the CERC criteria.

<u>II.B.3.</u> Points may be claimed for protection offered by an ongoing beach nourishment project. An eligible project must be sponsored by a Federal, state, or local government entity and must have been constructed—either initial construction or project maintenance—in the recent past (5 years or less from the date of completion of this form).

This item requires the engineer or architect to (1) determine whether an eligible beach nourishment project has been conducted in front of the building for which this form is being completed and (2) provide basic information on the project (i.e., name of project, project sponsor, most recent date of project construction) in Section C of this form. Consult the local jurisdiction for this information.

<u>III.A.</u> Foundation design. This form recognizes foundation designs that consider expected conditions over the life of the building (III.A.1), local scour (III.A.2), and design loads (III.A.3). Points may be claimed for III.A.1, III.A.2, and III.A.3, if applicable.

<u>III.A.1</u>. This item requires the engineer or architect to estimate, over the life of the building, (1) the most landward expected shoreline, (2) the lowest expected ground elevation, and (3) the highest expected BFE (see Figure 9). A minimum erosion rate of 1.0 foot/year and a minimum building life of 50 years should be used in the calculations. More details can be found in Section 7.9.2 of the CCM.

FEMA Form 81-25, AUG 06 Page 5 of 7 Pages F-086 (8/06)

#### Determine the Most Landward Expected Shoreline Location Over the Anticipated Life of the Building or Development

- Use published or calculated long-term erosion rate (ft/yr), increasing the rate to account for errors and uncertainty. It is recommended that a minimum rate of 1.0 ft/yr be used unless durable shore protection or erosion-resistant soil is present.
- Multiply the resulting erosion rate by the building or development lifetime (years) to compute the long-term erosion distance (ft). Use a minimum lifetime of 50 years.
- Measure landward (from the most landward historical shoreline) a distance equal to the longterm erosion distance – this will define the most landward expected shoreline.



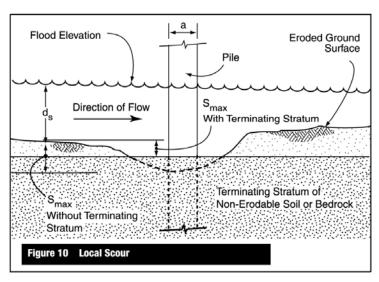
- · Beginning with the most landward expected shoreline location:
  - · calculate an eroded dune profile using a storm erosion model, or
  - · calculate a stable bluff profile using available guidance and data



. Beginning with the eroded dune or stable bluff profile, apply Runup and WHAFIS to determine BFEs

#### Figure 9 Determining Site Conditions Over the Life of the Building

III.A.2. Local scour is illustrated in Figure 10, and its calculation is discussed in Section 11.6.11 of the CCM. Local scour around pilings and columns and grade beams can generally be estimated as twice the diameter of the member (see CCM Formula 11.10.a). Local scour around large objects and enclosed areas can also be estimated, but do **not** use CCM Formula 11.10.b. Instead, estimate local scour as equal to the width of the object facing the flow or waves, with a maximum scour depth of 3 feet.

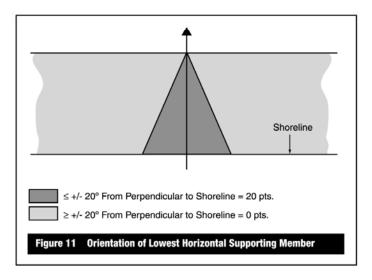


FEMA Form 81-25, AUG 06 Page 6 of 7 Pages
F-086 (8/06)

III.A.3. This form awards points for the use of loads and load combinations based on ASCE 7-98 (or later editions) and CCM Chapter 11.

III.B. Foundation type. This form recognizes several types of V-zone foundations (wood, concrete, steel, and masonry; driven piles; piles set in augered holes; cast-in-place piles; and masonry piers/concrete columns on footings). Maximum points can be obtained only with driven piles; reinforced, cast-in-place piles; and jetted or augered piles that satisfactorily pass load tests. Note that it may be very difficult to claim any points for masonry/concrete elements supported on footings.

III.C. Lowest horizontal supporting member. Points can be claimed for (1) orientation of the lowest horizontal supporting member in the expected direction of waves (see Figure 11) and (2) use of bolted or engineered connections between the foundation and lowest horizontal supporting member. For the purposes of this classification, any metal strap, plate, or connector that is not fabricated with structural steel is considered "light-gauge." Point deductions do not apply to the use of light-gauge metal connectors or nailed connections above the top of the lowest horizontal structural member.



<u>IV.</u> <u>Obstructions and Enclosures</u>. V-zone construction must be free of obstructions below the BFE. NFIP regulations allow breakaway enclosures to be constructed (flood insurance premiums will be higher as a result) and allow limited use of solid obstructions (e.g., shear walls, stairwells, elevators, and chimneys).

This form provides points for buildings without any enclosures or obstructions. The use of open lattice (see IV.A.1) and/or insect screening still allows points to be claimed. Points will be **deducted** for the use of breakaway walls. Points will be **deducted** for finished walls or space (even breakaway) below the BFE. Points will be **deducted** for equipment or ductwork below the BFE and not flood-resistant. The conversion of below-BFE space to habitable uses by building contractors and owners represents one of the most significant (and common) violations of NFIP regulations. This form reflects the importance of the issue through its point deductions.

<u>IV.A.1.</u> Open lattice is defined as thin (1/2 inch or less) wood, vinyl, plastic, or similar lattice material with at least 40 percent of the lattice area open. A wall created of brick or other masonry units meeting the opening requirement will **not** be considered open lattice.

FEMA Form 81-25, AUG 06 Page 7 of 7 Pages F-086 (8/06)

 If more than one additional mortgagee or disaster assistance agency exists, provide the requested information on the producer's letterhead.

#### H. Property Location

- Check YES if the location of the property being insured is the same as the address entered in the "Insured's Mailing Address" section. Leave the rest of this section blank unless there is more than one building at the property location.
- If more than one building is at the location of the insured property, use this section to specifically identify the building to be insured. Briefly describe the building or submit a sketch showing the location of insured buildings to assist the NFIP in matching the policy number to the specific building insured.
- 3. If NO, provide the address or location of the property to be insured.
- If the insured's mailing address is a post office box or rural route number, give the street address, legal description, or geographic location of the property.

## I. Community

- 1. Enter the name of the county or parish where the property is located.
- Check YES if the property is located in an unincorporated area of a county; otherwise, check NO.
- Enter the community identification number, map panel number, and revision suffix for the community where the property is located. Use the FIRM in effect and that has been published at the time of presentment of premium and completion of application. Community number and status may be obtained by calling the writing company, consulting a local community official, or referencing the NFIP Community Status Book online at www.fema.gov/fema/csb.shtm.
- 4. Enter the Flood Insurance Rate Map zone.

## J. Building and Contents

Complete all required information in this section.

- Check building occupancy: Single Family, 2-4 Family, Other Residential, or Non-Residential (incl. Hotel/Motel).
- 2. Enter date of construction.
- 3. Check building type. If the building has a basement or enclosure, count the base-

- ment or enclosure as a floor. If the building type is a manufactured (mobile) home/ travel trailer on foundation, enter the make, model, and serial number in the block at the bottom of this section.
- Check the "Y" box (YES) or the "N" box (NO) for "CONDO UNIT" and "TOWN-HOUSE/ROWHOUSE CONDO UNIT."
- Check location of building's contents. (Contents located entirely in a basement are not eligible for contents-only coverage.)
- 6. Check YES if the building is the insured's principal residence; otherwise, check NO.
- 7. Using normal company practice, estimate the replacement cost value and enter the value in the space provided. Include the cost of the building foundation when determining the replacement cost value.

#### K. Notice

If the answer to either question A or question B is YES, this risk is not eligible for the Preferred Risk Policy.

#### L. Premium

- 1. Enter the coverage selected, and the premium, from the appropriate table on the back of the application form.
- 2. Add the \$50.00 Probation Surcharge, if applicable. Deduct \$1.00 if this is an application for a townhouse/rowhouse condominium unit.

#### M. Signature

The producer must sign the Preferred Risk Policy Application and is responsible for the completeness and accuracy of the information provided on it. Enter the date of application (month/day/year). The waiting period is added to this date to determine the policy effective date of the policy listed in the Policy Term section. A check or money order for the Total Prepaid Amount, payable to the NFIP, must accompany the application.

A credit card payment by VISA, MasterCard, Diner's Club, or American Express will also be acceptable if a disclaimer form, signed by the insured, is submitted with the Preferred Risk Policy Application. The disclaimer will state that cancellation of a policy due to a billing dispute will be permitted only for a billing error or fraud. If the credit card information is taken over the telephone by the producer, the producer may sign the authorization form on behalf of the payor only after having read the disclaimer to the payor.

# U.S. DEPARTMENT OF HOMELAND SECURITY FEDERAL EMERGENCY MANAGEMENT AGENCY

National Flood Insurance Program
FLOOD INSURANCE PREFERRED RISK POLICY APPLICATION
IMPORTANT - PLEASE PRINT OR TYPE

|                    | O.M.B. No. 1660-0006                     | Expires July 31, 2009 |
|--------------------|--|-----------------------|
| □ NEW<br>□ RENEWAL | CURRENT POLICY<br>FL<br>IF NEW, LEAVE BL |                       |

| POLICY TERM        | DIRECT BILL INSTRUCTIONS:  BILL BILL BILL BILL BILL BILL INSURED FIRST SECOND LOSS OTHER MORTGAGEE MORTGAGEE PAYEE  | WAITING PERIOD: STANDARD 30-DAY LOAN-NO WAITING  POLICY PERIOD IS FROM TO 1201 AM. LOCAL TIME AT THE INSURED PROPERTY LOCATION   |  |  |  |
|--------------------|---|--|--|--|--|
| AGENT INFORMATION  | ADDRESS, TELEPHONE NO., AND FAX NO. OF LICENSED PROPERTY OR CASUALTY INSURANCE AGENT OR BROKER:  AGENCY NO.:  AGENCY NO.:  AGENTS TAX ID T OR SSN S   | NAME, TELEPHONE NUMBER AND MAILING ADDRESS OF INSURED:  SCHOOL OF THE PHONE NUMBER AND MAILING ADDRESS OF INSURED:  SCHOOL OF THE PHONE NUMBER AND MAILING ADDRESS OF INSURED:  SCHOOL OF THE PHONE NUMBER AND MAILING ADDRESS OF INSURED: |  |  |  |
| E ASSISTANCE       | IS INSURANCE REQUIRED FOR DISASTER ASSISTANCE? YES NO IF YES, CHECK THE GOVERNMENT AGENCY:  SBA FHA OTHER (PLEASE SPECIFY)  FEMA HHS  CASE FILE NUMBER  NAME, TELEPHONE NO., FAX NO., AND ADDRESS OF FIRST MORTGAGEE INCLUDING LOAN NUMBER:   | ## IF SECOND MORTGAGEE, LOSS PAYEE OR OTHER IS TO BE BILLED, THE FOLLOWING MUST BE COMPLETED, INCLUDING THE NAME, TELEPHONE NO., FAX NO., AND ADDRESS.    2ND MORTGAGEE   DISASTER AGENCY, SPECIFY   IF OTHER, PLEASE SPECIFY              |  |  |  |
| FIRST<br>MORTGAGEE | LOAN NUMBER   | LOAN NUMBER  |  |  |  |
| PROPERTY           | IS INSURED LOCATION SAME AS INSURED MAILING ADDRESS?  Y YES N NO IF NO, ENTER PROPERTY ADDRESS. IF RURAL, DESCRIBE PROPERTY LOCATION. (DO NOT USE P.O. BOX)   | COMMUNITY NUMBER AND SUFFIX FOR LOCATION OF PROPERTY INSURED  FLOOD INSURANCE RATE MAP ZONE  INFORMATION SOURCE:  COMMUNITY OFFICIAL FLOOD MAP MORTGAGEE   |  |  |  |
| DING AND<br>NTENTS | BUILDING OCCUPANCY:  SINGLE FAMILY  2-4 FAMILY  OTHER RESIDENTIAL  NON-RESIDENTIAL  (INCL. HOTELMOTEL)  BUILDING TYPE (INCLUDING BASEMENT/ENCLOSURE):  ONE FLOOR SPLIT LEVEL  TWO FLOORS THREE OR MORE FLOORS  ON FOUNDATION  ON FOUNDATION   | CONTENTS LOCATED IN:  INSURED'S PRINCIPAL RESIDENCE?  (BASEMENT ONLY NOT ELIGIBLE)  BASEMENT/ENCLOSURE AND ABOVE  LOWEST FLOOR ABOVE GROUND LEVEL AND HIGHER FLOORS  AMOUNT &  |  |  |  |
| BUILDIA            | CONSTRUCTION DATE IS BUILDING: CONDO UNIT Y N TOWNHOUSE/ROWHOUSE CONDO UNIT Y N   | HIGHER FLOORS HOUNT \$  AMOUNT \$  FULL FLOOR  |  |  |  |
|                    | MAKE, MODEL AND SERIAL NUMBER OF MANUFACTURED (MOBILE) HOME/TRAVEL TRAILER  THE FOLLOWING CONDITIONS SHOULD BE USED TO DETERMINE A BUILDING'S ELIGIBILITY FOR A PRP.  A) IS THE BUILDING LOCATED IN A SPECIAL FLOOD HAZARD AREA ON A FLOOD HAZARD BE  | ENTER SELECTED OPTION FROM THE PREMIUM TABLES ON THE BACK OF THIS FORM.  |  |  |  |
| NOTICE             | MAP, OR ON A FLOOD INSURANCE RATE MAP ZONE A, AE, A1-A30, AO, AH, A99, V, VE, V1-AR DUAL ZONES AR/AE, AR/AH, AR/AO, AR/A1-A30, AR/A?  B) DO ANY OF THESE CONDITIONS, ARISING FROM ONE OR MORE OCCURENCES, EXIST? 2 LOSS PAYMENTS, EACH MORE THAN \$1,000  | V30, AR, N NO BUILDING AND CONTENTS COVERAGE COMBINATION BUILDING: \$ CONTENTS: \$   |  |  |  |
| NOT                | 3 OR MORE LOSS PAYMENTS, REGARDLESS OF AMOUNT  2 FEDERAL DISASTER RELIEF PAYMENTS, EACH MORE THAN \$1,000  Y YES  3 FEDERAL DISASTER RELIEF PAYMENTS, REGARDLESS OF AMOUNT  1 FLOOD INSURANCE CLAIM PAYMENT AND 1 FLOOD DISASTER RELIEF PAYMENT  (INCLUDING LOANS AND GRANTS), EACH MORE THAN \$1,000.  WISURANCE IS AVAILABLE UNDER THIS APPLICATION ONLY IF THE ANSWERS TO THESE QUESTIONS. | IN NO IN NO CONTENTS-ONLY COVERAGE  AMOUNT: \$ IN NO PREMIUM: \$   |  |  |  |
| SIGNATURE          | THE ABOVE STATEMENTS ARE CORRECT TO THE BEST OF N   | NNKET COVERAGE NOT PERMITTED)  AY KNOWLEDGE. THE PROPERTY OWNER AND I UNDERSTAND  INE OR IMPRISONMENT UNDER APPLICABLE FEDERAL LAW.  DATE  |  |  |  |
|                    |   | (MM/DD/YY) (OVER)  |  |  |  |

PLEASE ATTACH TO NFIP COPY OF APPLICATION THE CHECK OR MONEY ORDER FOR THE TOTAL PREPAID PREMIUM MADE PAYABLE TO THE NATIONAL FLOOD INSURANCE PROGRAM

FEMA Form 81-67, AUG 06 PREVIOUS EDITIONS ARE OBSOLETE. F-089 (8/06)
SPECIAL NOTE TO INSURANCE AGENT: SEND ORIGINAL TO NFIP, KEEP SECOND COPY FOR YOUR RECORDS, GIVE THIRD COPY TO THE INSURED, AND FOURTH COPY TO MORTGAGEE.

#### 1-4 FAMILY RESIDENTIAL BUILDING & CONTENTS COVERAGE COMBINATIONS

#### ALL RESIDENTIAL CONTENTS ONLY1.4

| With Basement/Enclosure                  |      |       |          | Without Basement/Enclosure |         |        |                        |       |
|--|------|-------|----------|----------------------------|---------|--------|------------------------|-------|
| Building Contents Premium <sup>2,3</sup> |      |       | Building |                            | Co      | ntents | Premium <sup>2,3</sup> |       |
| \$ 20,000                                | \$   | 8,000 | \$137    | \$                         | 20,000  | \$     | 8,000                  | \$112 |
| \$ 30,000                                | \$ 1 | 2,000 | \$163    | \$                         | 30,000  | \$     | 12,000                 | \$138 |
| \$ 50,000                                | \$ 2 | 0,000 | \$205    | \$                         | 50,000  | \$     | 20,000                 | \$180 |
| \$ 75,000                                | \$ 3 | 0,000 | \$232    | \$                         | 75,000  | \$     | 30,000                 | \$207 |
| \$100,000                                | \$ 4 | 0,000 | \$263    | \$                         | 100,000 | \$     | 40,000                 | \$233 |
| \$125,000                                | \$ 5 | 0,000 | \$279    | \$                         | 125,000 | \$     | 50,000                 | \$249 |
| \$150,000                                | \$ 6 | 0,000 | \$294    | \$                         | 150,000 | \$     | 60,000                 | \$264 |
| \$200,000                                | \$8  | 0,000 | \$331    | \$2                        | 200,000 | \$     | 80,000                 | \$296 |
| \$250,000                                | \$10 | 0,000 | \$352    | \$2                        | 250,000 | \$1    | 100,000                | \$317 |

|          | ed Above Ground Level<br>re Than One Floor | All Other Locations<br>(Basement Only Not Eligible) |                      |  |  |
|----------|--|---|----------------------|--|--|
| Content  | s Premium <sup>2</sup>                     | Contents  | Premium <sup>2</sup> |  |  |
| \$ 8,00  | 0 \$ 39                                    | \$ 8,000  | \$ 61                |  |  |
| \$ 12,00 | 0 \$ 53                                    | \$ 12,000   | \$ 86                |  |  |
| \$ 20,00 | 0 \$ 81                                    | \$ 20,000   | \$116                |  |  |
| \$ 30,00 | 0 \$ 93                                    | \$ 30,000   | \$131                |  |  |
| \$ 40,00 | 0 \$105                                    | \$ 40,000   | \$146                |  |  |
| \$ 50,00 | 0 \$117                                    | \$ 50,000   | \$156                |  |  |
| \$ 60,00 | 0 \$129                                    | \$ 60,000   | \$166                |  |  |
| \$ 80,00 | 0 \$153                                    | \$ 80,000   | \$181                |  |  |
| \$100,00 | 0 \$177                                    | \$100,000   | \$196                |  |  |

#### NON-RESIDENTIAL BUILDING & CONTENTS COVERAGE COMBINATIONS<sup>1</sup>

#### NON-RESIDENTIAL CONTENTS ONLY14

| NOT TESTDENTIAL BOILDING & CONTENTS CONTENTS |                        |                            |           |                        |  |  |  |  |
|--|------------------------|----------------------------|-----------|------------------------|--|--|--|--|
| With Basement/E                              | nclosure               | Without Basement/Enclosure |           |                        |  |  |  |  |
| Building Contents                            | Premium <sup>2,3</sup> | Building                   | Contents  | Premium <sup>2,3</sup> |  |  |  |  |
| \$ 50,000 \$ 50,000                          | \$ 800                 | \$ 50,000                  | \$ 50,000 | \$ 500                 |  |  |  |  |
| \$100,000 \$100,000                          | \$1,375                | \$100,000                  | \$100,000 | \$ 800                 |  |  |  |  |
| \$150,000 \$150,000                          | \$1,850                | \$150,000                  | \$150,000 | \$1,050                |  |  |  |  |
| \$200,000 \$200,000                          | \$2,200                | \$200,000                  | \$200,000 | \$1,300                |  |  |  |  |
| \$250,000 \$250,000                          | \$2,500                | \$250,000                  | \$250,000 | \$1,500                |  |  |  |  |
| \$300,000 \$300,000                          | \$2,800                | \$300,000                  | \$300,000 | \$1,700                |  |  |  |  |
| \$350,000 \$350,000                          | \$3,100                | \$350,000                  | \$350,000 | \$1,850                |  |  |  |  |
| \$400,000 \$400,000                          | \$3,350                | \$400,000                  | \$400,000 | \$2,000                |  |  |  |  |
| \$500,000 \$500,000                          | \$3,850                | \$500,000                  | \$500,000 | \$2,300                |  |  |  |  |

| NON-RESIDENTIAL CONTENTS ONLY |  |  |  |  |  |  |
|-------------------------------|--|--|--|--|--|--|
|                               | All Other Locations<br>(Basement Only Not Eligible)  |  |  |  |  |  |
| m <sup>2</sup> Contents       | Premium <sup>2</sup>   |  |  |  |  |  |
| 1 \$ 50,000                   | \$ 275   |  |  |  |  |  |
| 1 \$100,000                   | \$ 500   |  |  |  |  |  |
| 1 \$150,000                   | \$ 675   |  |  |  |  |  |
| 1 \$200,000                   | \$ 850   |  |  |  |  |  |
| 1 \$250,000                   | \$1,000  |  |  |  |  |  |
| 1 \$300,000                   | \$1,150  |  |  |  |  |  |
| 1 \$350,000                   | \$1,300  |  |  |  |  |  |
| 1 \$400,000                   | \$1,450  |  |  |  |  |  |
| 1 \$500,000                   | \$1,700  |  |  |  |  |  |
|                               | Level   All Other   (Basement On other transport of the contents of the cont |  |  |  |  |  |

#### FLOOD INSURANCE PREFERRED RISK POLICY APPLICATION FEMA FORM 81-67

WARNING TO AGENTS AND INSURANCE APPLICANTS
The National Flood Insurance Act of 1968, as amended, prohibits a flood insurance policy from being newly issued or renewed on a property officially declared as being in violation of Section 1316 of the Act.

NONDISCRIMINATION

No person or organization shall be excluded from participation in, denied the benefits of, or subjected to discrimination under the Program authorized by the Act, on the grounds of race, color, creed, sex, age or national origin.

PRIVACY ACT
The information requested is necessary to process your Flood Insurance Application for a flood insurance policy. The authority to collect the information is Title 42, U.S. Code, Sections 4001 to 4028. Disclosures of this information may be made: to federal, state, tribal, and local government agencies, fiscal agents, your agent, mortgage servicing companies, insurance or other companies, lending institutions, and contractors working for us, for the purpose of carrying out the National Flood Insurance Program; to current Repetitive Loss Target Group (RLTG) property owners and Preferred Risk Policy (PRP) owners for the purpose of property loss history evaluation; to the American Red Cross for verification of nonduplication of benefits following a flooding event or disaster; to law enforcement agencies or professional organizations when there may be a violation or potential violation of law; to a federal, state or local agency when we request information relevant to an agency decision concerning issuance of a grant or other benefit, or in certain circumstances when a federal agency requests such information for a similar purpose from us; to a Congressional office in response to an inquiry made at the request of an individual; to the Office of Management and Budget (OMB) in relation to private relief legislation under OMB Circular A-19; and to the National Archives and Records Administration in records management inspections. Solicitation of your Social Security Number (SSN) is authorized under Executive Order 9397. Providing the SSN, as well as the other information, is voluntary, but failure to do so may delay or prevent issuance of the flood insurance policy.

DISCLOSURE OF YOUR SOCIAL SECURITY NUMBER UNDER PUBLIC LAW 93-579 SECTION 7(B)
Solicitation of the Social Security Number (SSN) is authorized under provisions of Executive Order 9397, dated November 22, 1943. The disclosure of your SSN is voluntary. However, since many persons appearing in the Government's administrative records possess identical names, the use of your SSN would provide for your precise identification.

This information is provided pursuant to Public Law 96-511 (Paperwork Reduction Act of 1980, as amended), dated December 11, 1980, to allow the public to participate more fully and meaningfully in the Federal paperwork review process.

Public Law 96-511, amended, 44 U.S.C. 3507; and 5 CFR 1320.

#### PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 15 minutes per response. Burden means the time, effort, and financial resources expended by persons to generate, maintain, retain, disclose, or to provide information to us. You may send comments regarding the burden estimate or any aspect of the form, including suggestions for reducing the burden to: U.S. Department of Homeland Security, Emergency Preparedness and Response Directorate, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472, Paperwork Reduction Project (1660-0006). NOTE: Do not send your completed form to this address.

Add the \$50.00 Probation Surcharge, if applicable. Premium includes Federal Policy Fee of \$11.00.

Premium includes ICC premium of \$1.00. Deduct this amount if the risk is a townhouse/rowhouse condominium unit. 4 Contents-only policies are not available for contents located in basement only.

NOTES: Condominium associations are not eligible for the Preferred Risk Policy. Individual condominium units are not eligible located and the preferred Risk Policy. Individual condominium units are not eligible for the Preferred Risk Policy. Individual condominium units are not eligible for the Preferred Risk Policy. Individual condominium units are not eligible for the Preferred Risk Policy. Individual condominium units are not eligible for the Preferred Risk Policy. Individual condominium units are not eligible for the Preferred Risk Policy. Individual condominium units are not eligible for the Preferred Risk Policy. Individual condominium units are not eligible for the Preferred Risk Policy. Individual condominium units are not eligible for the Preferred Risk Policy. Individual condominium units are not eligible for the Preferred Risk Policy. Individual condominium units are not eligible for the Preferred Risk Policy. Individual condominium units are not eligible for the Preferred Risk Policy. Individual condominium units are not eligible for the Preferred Risk Policy. Flood Insurance Manual. The deductibles apply separately to building and contents. Building deductible, \$500. Contents deductible, \$500.