



Wai Halana

Hawaii Flood News

Hot Off the Press ...

U.S. DEPARTMENT OF HOMELAND SECURITY
FEDERAL EMERGENCY MANAGEMENT AGENCY
National Flood Insurance Program

ELEVATION CERTIFICATE
IMPORTANT: Follow the instructions on pages 1-6.

Form No. 086-0-008
Expiration Date: July 31, 2015

SECTION A - PROPERTY INFORMATION

A1. Building Owner's Name _____
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or R.O. Route and Box No. _____
City _____ State _____ ZIP Code _____

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) _____

A4. Building Use (e.g., Residential, Commercial, Industrial, Agricultural, etc.) _____
A5. Latitude/Longitude: Lat. _____ Long. _____ Horizontal Datum: ☐ NAD 83 ☐ NAD 1983
A6. Attach at least 2 photographs of the building if the certificate is being used to obtain flood insurance.

A7. Building Elevation Number _____

A8. For a building with a crawlspace or enclosure: _____
a) Square footage of crawlspace or enclosure _____ sq. ft. b) Square footage of attached garage _____ sq. ft.
c) Number of permanent flood openings in the crawlspace or enclosure within 1.0 foot above adjacent grade _____
d) Total wet area of flood openings in A8a) _____ sq. ft. e) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade _____
f) Total wet area of flood openings in A8b) _____ sq. ft. g) Engaged flood openings? ☐ Yes ☐ No

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name and Community Number _____ B2. County Name _____ B3. State _____
B4. Map Panel Number _____ B5. Sub-Area _____ B6. FIRM Issue Date _____ B7. FIRM Special Effectivity/Revised Date _____ B8. Flood District _____ B9. Base Flood Elevation (BFE) _____
B10. Indicate the source of the Base Flood Elevation (BFE) data or other flood depth entered in item B9: ☐ FIRM ☐ Other ☐ Community Determined ☐ Other/Source _____
B11. Indicate elevation datum used for BFE in item B9: ☐ NGVD 1929 ☐ NAVD 1983 ☐ Other/Source _____
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or otherwise protected area (OPA)? ☐ Yes ☐ No
Designation Date: _____ / _____ / _____ ☐ CBRS ☐ OPA

SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: ☐ Construction Drawings ☐ Building Under Construction ☐ Finished Construction
If under construction, indicate date and as to whether it is a new or existing building.

C2. Elevations - Enter A1-A10, A12, A14, A16, A18, A20, A22, A24, A26, A28, A30, A32, A34, A36, A38, A40, A42, A44, A46, A48, A50, A52, A54, A56, A58, A60, A62, A64, A66, A68, A70, A72, A74, A76, A78, A80, A82, A84, A86, A88, A90, A92, A94, A96, A98, A100, A102, A104, A106, A108, A110, A112, A114, A116, A118, A120, A122, A124, A126, A128, A130, A132, A134, A136, A138, A140, A142, A144, A146, A148, A150, A152, A154, A156, A158, A160, A162, A164, A166, A168, A170, A172, A174, A176, A178, A180, A182, A184, A186, A188, A190, A192, A194, A196, A198, A200, A202, A204, A206, A208, A210, A212, A214, A216, A218, A220, A222, A224, A226, A228, A230, A232, A234, A236, A238, A240, A242, A244, A246, A248, A250, A252, A254, A256, A258, A260, A262, A264, A266, A268, A270, A272, A274, A276, A278, A280, A282, A284, A286, A288, A290, A292, A294, A296, A298, A300, A302, A304, A306, A308, A310, A312, A314, A316, A318, A320, A322, A324, A326, A328, A330, A332, A334, A336, A338, A340, A342, A344, A346, A348, 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Editor

Carol Tyau-Beam

Editorial Support

Jerome Acadimia

Kristen Akamine

Darron Agawa

Edwin Matsuda

Engineering Division Chief

Carty Chang

The current and selected past issues are also available at:

www.hawaiiinfip.org

We welcome your comments and suggestions, as well as, newsworthy articles. Your submissions may be sent to the Department of Land and Natural Resources, Engineering Division, P.O. Box 373, Honolulu, Hawaii 96809.

If you'd like to receive the Wai Halana via email or wish to be removed from our mailing list, contact Jerome Acadimia at (808) 587-0254.

Upcoming Events



2013 National Flood Determination Association Annual Conference

The NFDA's Annual Conference provides an open forum to discuss current flood-related issues with industry experts in a casual atmosphere. It is an educational conference that will allow you to learn the latest news about the National Flood Insurance Program, and will also provide networking opportunities.

If your organization makes flood determinations, sells determinations, or utilizes flood hazard data, this event is not to be missed!

Dates

March 24-26, 2013

Location & Accommodation

The Scottsdale Plaza Resort
7200 North Scottsdale Road
Scottsdale, AZ 85250

For more info, visit: www.nfda flood.com



Coastal Construction Manual (4th Edition)



Coastal Construction Manual

Principles and Practices of Planning, Siting, Designing, Constructing, and Maintaining Residential Buildings in Coastal Areas (Fourth Edition)

FEMA P-55 / Volume I / August 2011



The 2011 CCM, 4th Ed. (FEMA P-55), is a 2-volume publication that provides a comprehensive approach to planning, siting, designing, constructing, & maintaining homes in the coastal environment. Volume I provides information about hazard identification, siting decisions, regulatory requirements, economic implications, & risk management. The primary audience for Volume I is design professionals, officials, & those involved in the decision-making process. Volume II contains in-depth descriptions of design, construction, & maintenance practices that, when followed, will increase the durability of residential buildings in the harsh coastal environment and reduce economic losses associated with coastal natural disasters. The primary audience for Volume II is the design professional who is familiar with building codes & standards & has a basic understanding of engineering principles.

CCM is available at www.fema.gov/rebuild/mat/fema55.shtm and has been an authoritative source of guidance for designers in coastal areas for over the past three decades. With this update, CCM can be used to address both existing and new issues in coastal construction using modern techniques and engineering concepts.



Mahalo Francis

Written by: Carolyn Cortez, CFM



Thirty-eight distinguished years of public service, a collection of awards and kudos culminating in the County of Maui's Employee of the Year award. Whether it's cooking an intimate 9-course Chinese dinner for 50, mitigating flooding, or biking across the continental U.S., Francis Cerizo has done it all and done it well.



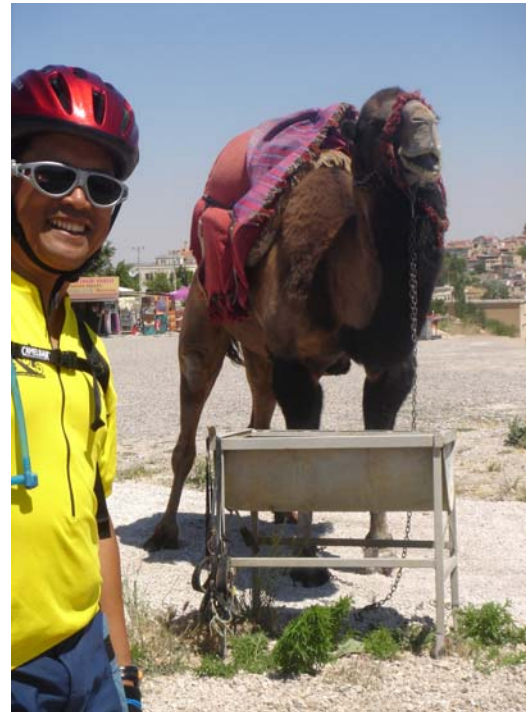
Cooking is a beloved hobby and Francis' culinary talent is well-known. If you've ever had the privilege of attending one of his dinners at the family farm, you know that he utilizes many of the fresh fruits and vegetables grown on the premises and that his water is drawn through a complex, gravity-fed system from Iao Stream. Oftentimes after heavy rains, Francis would need to hike up the mountain to remove fallen trees and debris to restore water flow to the house.

An avid bicyclist and world traveler, Francis has biked and hiked across many countries including Turkey, India, Nepal, Greece, Rome, Japan, New Zealand, Cambodia, Laos, Vietnam and Thailand to name a few.

No air-conditioned motor coaches for him. He's also participated in the Maui marathon, 2012 Disneyland half-marathon and Hana Relays.

I have had the privilege of working with Francis for the past 8 years, 5 of those years as my direct supervisor. Under his tutelage I earned my certification as a Certified Floodplain Manager. As a supervisor he was patient and willingly shared his vast and expansive knowledge, after all, he had a lot! He wrote Maui County's first floodplain ordinance, and received our first set of Flood Insurance Rate Maps and Flood Hazard Boundary Maps (remember those?) which were issued on June 1, 1981. Under his leadership Maui County was the first community in the State of Hawaii to participate in the Community Rating System, which provided a reduction in flood insurance premiums for Maui residents.

Thanks Francis for your years of dedication and service to the citizens of Maui County. It has been my honor and pleasure to have worked with you. Have fun in your well-deserved retirement!



**Welcome Maui County's New Floodplain Manager
Ms. Carolyn Cortez
(808) 270—7253**



January 1, 2013 New Legislation to take Effect

The Biggert-Waters Flood Insurance Reform Act of 2012 (BW-12) requires FEMA to take immediate steps to eliminate a variety of existing flood insurance subsidies and calls for a number of changes in how the program operates. The new rates will reflect the full flood risk of an insured building, and some insurance subsidies and discounts will be phased out and eventually eliminated. Rates on almost all buildings that are, or will be, in Special Flood Hazard Areas (SFHAs) will be revised over time to reflect full flood risks. Based on various conditions set forth in the law, subsidies and grandfathered rates will be eliminated for most properties in the future.

“New rates will reflect the full flood risk ... subsidies and discounts will be phased out and eventually eliminated.”

Effective on January 1, 2013, flood insurance policy rates for some older non-primary residences in SFHAs that received subsidized rates based on their “pre-Flood Insurance Rate Map” (pre-FIRM) status will increase by 25 percent a year until they reflect the full-risk rate. A pre-FIRM building is one that was built before the community’s first flood map became effective and has not been substantially damaged or improved. If the building will be lived in for less than 80 percent of the policy year, it is considered to be a non-primary residence. Visit <http://bsa.nfipstat.fema.gov/wyobull/2012/w-12043.pdf> to read a National Flood Insurance Program (NFIP) bulletin that provides additional details around the legislation.

The NFIP will also begin eliminating subsidized premiums for other buildings effective on August 1, 2013, as mandated by Section 100205 of BW-12. Visit <http://bsa.nfipstat.fema.gov/wyobull/2012/w-12109.pdf> to read the full bulletin and note that key changes include:

- Subsidies will be phased out for severe repetitive loss properties consisting of 1-4 residences, business properties, and properties that have incurred flood-related damages where claims payments exceed the fair market value of the property.
- Properties with subsidized rates will move directly to full-risk rates after a sale of the property or after the policy has lapsed.
- New policies will be issued at full-risk rates.

Note that policyholders should be aware that allowing a policy to lapse could be costly. A new application will be required and full-risk rates will take effect.

Important Note on Preferred Risk Policies (PRPs)

As of January 1, 2013, PRPs issued on properties located in a high-risk area may continue beyond the previously designated two-year period until FEMA completes analysis and implements a revised premium structure put in place with BW-12.

For some policyholders in areas flooded by Sandy, the impact of these changes could be substantial. For this reason, the Federal Emergency Management Agency (FEMA) encourages property owners to consider flood insurance costs when making decisions about how high to rebuild. A brochure that details some of the legislation’s impacts on building is also available at: <http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=6712>. We encourage you to print it out and distribute to your local community members.

For More Information:

For the latest NFIP Bulletins about the implementation of these changes, visit www.nfipiservice.com/nfip_docs.html. For more details about flood insurance, visit FloodSmart.gov. Visit FloodSmart’s Community Resources section (http://www.floodsmart.gov/floodsmart/pages/partner/partner_index.jsp) for tools and resources you can use to help you better communicate the risk of flooding and the importance of flood insurance.





Tsunami Evacuation Zone Maps now on FHAT

A new layer has been added to the Hawaii Flood Hazard Assessment Tool (FHAT). Tsunami Evacuation Zone Maps are now available on the FHAT. These maps are the same maps that you'll find in the Hawaiian Telcom Telephone books. Even though your home or business may not be located in FEMA's 1-percent annual chance floodplain as shown on their Flood Insurance Rate Maps (FIRM), that doesn't necessarily mean that you are not located in a Tsunami Evacuation Zone. In the example above, most of the Lanikai area in Windward Oahu is designated as an X zone on FEMA's FIRM maps, however it is within the County's Tsunami Evacuation Zone. Take a few moments to check to see if your property is within a Tsunami Evacuation Zone by visiting <http://gis.hawaiiinfip.org/fhat>. Once in the mapping application, open the LAYERS tab and toggle on the "Tsunami Evacuation Zones" layer.

You may ask what is the difference between the two maps? (FEMA FIRM Maps vs. County Tsunami Evacuation Maps). Keep in mind that evacuation maps are just that ... evacuation maps, not inundation maps. A very informative article written by FEMA Region IX Engineer, Eric Simmons, was published in a January 2011 issue of the Wai Halana (http://www.hidlnr.org/eng/nfip/waiHalana/pdf/2011_jan.pdf) entitled "What are the Differences Between Tsunami Evacuation Zone and Flood Insurance Rate Maps".



Flood Insurance Rate Maps

Updates

Are you currently doing work in the Counties listed here? If so, please take note that FEMA has approved the following Letter of Map Changes to the flood hazard information shown on the effective Flood Insurance Rate Maps.

Maui County

Type: LOMA
FIRM Panel 0588F
Effective Date of the Revision: September 25, 2012
FEMA Case Number: 12-09-2357A
Flooding Source: Pacific Ocean

On-line readers can view LOMC [here](#)

Type: LOMR-F
FIRM Panel 0586F
Effective Date of the Revision: October 11, 2012
FEMA Case Number: 12-09-3090A
Flooding Source: Pacific Ocean

On-line readers can view LOMC [here](#)

City and County of Honolulu

Type: LOMR
FIRM Panel 0185G
Effective Date of the Revision: November 12, 2012
FEMA Case Number: 12-09-1556P
Flooding Source: Makaha Stream, West Makaha Stream

On-line readers can view LOMC [here](#)

Type: LOMA
FIRM Panel 0366G
Effective Date of the Revision: August 21, 2012
FEMA Case Number: 12-09-2612A
Flooding Source: Palolo Stream

On-line readers can view LOMC [here](#)

Type: LOMA
FIRM Panel 0387G
Effective Date of the Revision: September 4, 2012
FEMA Case Number: 12-09-2687A
Flooding Source: Kuapa Pond; Pacific Ocean

On-line readers can view LOMC [here](#)

Type: LOMA
FIRM Panel 0387G
Effective Date of the Revision: October 11, 2012
FEMA Case Number: 12-09-2850A
Flooding Source: Kuapa Pond; Pacific Ocean

On-line readers can view LOMC [here](#)

Type: LOMA
FIRM Panel 0387G
Effective Date of the Revision: August 28, 2012
FEMA Case Number: 12-09-2834A
Flooding Source: Kuapa Pond; Pacific Ocean

On-line readers can view LOMC [here](#)

Type: LOMA
FIRM Panel 0387G
Effective Date of the Revision: September 18, 2012
FEMA Case Number: 12-09-2851A
Flooding Source: Kuapa Pond; Pacific Ocean

On-line readers can view LOMC [here](#)

Type: LOMR-FW
FIRM Panel 0255G
Effective Date of the Revision: November 6, 2012
FEMA Case Number: 12-09-3060A
Flooding Source: Kahaluu Stream

On-line readers can view LOMC [here](#)

Type: LOMR-F
FIRM Panel 0380G
Effective Date of the Revision: October 23, 2012
FEMA Case Number: 12-09-3160A
Flooding Source: Waimanalo Stream, Stream A

On-line readers can view LOMC [here](#)

Kauai County

Type: LOMR-VZ
FIRM Panel 0030E
Effective Date of the Revision: August 23, 2012
FEMA Case Number: 12-09-2291A
Flooding Source: Limahuli Stream, Pacific Ocean

On-line readers can view LOMC [here](#)

Type: LOMR-VZ
FIRM Panel 0095F
Effective Date of the Revision: September 6, 2012
FEMA Case Number: 12-09-2622A
Flooding Source: Aliomanu Stream, Pacific Ocean

On-line readers can view LOMC [here](#)

Hawaii County

Type: LOMA
FIRM Panel 0880C
Effective Date of the Revision: September 18, 2012
FEMA Case Number: 12-09-2667A
Flooding Source: Wailuku River Tributary

On-line readers can view LOMC [here](#)



How to Record Electrical System as “Lowest Machinery or Equipment Servicing the Building” on an Elevation Certificate

Question:

If the lowest machinery or equipment servicing the building is the building's electrical system. Then what elevation should be recorded on FEMA's Elevation Certificate (EC) item C2e (Lowest elevation of machinery or equipment servicing the building)?

Answer:

This could be viewed as a two-fold approach to the issue, 1) EC elements for documentation of compliance and surveyor guidance, and 2) enhanced building performance measures for VE zone compliance, and risk reduction. They may not be precisely compatible, but should ensure safe building practice. Any electrical box where components are potentially exposed, such as breaker boxes, or electrical distribution boxes, need to be ideally, elevated above BFE, and should be located on the landward side of structures, ie, pilings or columns, and protected from surge and wave action (In VE zones, they should not be affixed to breakaway walls).

If not, then they should be waterproofed to prevent the introduction of flood waters that can compromise the entire system, and designed to resist lateral break away. Electrical system components, such as pull boxes, should also be waterproofed to prevent water from accumulating in supply lines (conduit), particularly underground supply lines. Usually, these are protected by construction methodology that uses PVC cemented joints for electrical supply runs or corrosion resistant metal, and is an additional factor to inspect for in plan form and field check. "

While electrical pull boxes are nothing more than a containment box that has no open wiring, it may, unless waterproofed, allow salt water to accumulate in underground supply lines which can be difficult at best to evacuate after the event, and will leave behind salt residue which can ultimately be corrosive to the internal wiring supply, and subsequently, costly to replace. It may, however, be common practice to place access and pull boxes just above grade (below BFE) to conserve costs, and for pulling leverage. The challenge, of course, for coastal locations (especially VE), is to locate the system, including pull boxes above BFE or DFE, depending on ordinance conditions, unless the pull box can be watertight/waterproofed.

*In answering the question on how to complete the EC, **the bottom of the electrical meter box (Point B) should be recorded on line item C2e of the form.***



Useful References:

FEMA Residential Coastal Construction Resources: <http://www.fema.gov/residential-coastal-construction>

Coastal Construction - Constructing the Building by Gilbert Gedeon, PE:

www.cedengineering.com/upload/Constructing%20the%20Building.pdf

Protecting Building Utilities from Flood Damage, Principles and Practices for the Design and Construction of Flood Resistant Building Utility Systems, FEMA P-348, ED. 1, Nov. 1999: www.fema.gov/library/viewRecord.do?id=1750





*Make Hawaii a Great
Place to Live !*

Dept. of Land and Natural Resources
Engineering Division
P.O. BOX 373
Honolulu, Hawaii 96809

Board of Land and Natural Resources

William J. Aila Jr., Chairperson
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Jerry Edlao
David Goode
Dr. Samuel M. Gon III

New Online Letter of Map Change (LOMC) Application



On **December 17, 2012**, FEMA is launched the Online Letter of Map Change (LOMC) - a new way to submit a request to change a property's flood zone designation. The new Online LOMC application allows anyone to electronically submit required documents and property information when they are requesting FEMA remove their property from a Special Flood Hazard Area (SFHA).

Starting December 17th, applicants can use this new website to request a Letter of Map Amendment (LOMA) instead of using the MT-EZ paper form. A LOMA is a letter from FEMA stating that an existing structure or parcel of land will not be inundated by the base flood. LOMA-eligible requests must be concerning properties on naturally high ground, which have not been elevated by fill. FEMA will roll out more features in the coming months!

The new Online LOMC offers many advantages over the paper-based request process:

- Applicants may save information online and finish applying at their convenience;
- Clear and intuitive interface makes applying user-friendly;
- Frequent applicants can manage multiple LOMA requests online;
- More efficient communications with LOMA processing staff;
- Applicants can check their application status in real-time;
- Coming soon! Request all LOMC types via the Online LOMC.

