

STATE OF HAWAII CODE AMENDMENT PROPOSAL FORM FOR PUBLIC PROPOSALS TO AMEND THE HAWAII STATE BUILDING CODES

D THE HAWAII STATE BUILDING CO

(Form Version 1.0 May 2010)

1)

Name: Gary Chock and Ian Robertson		Date: September 1	4, 2010	
Department/Company: Department of Civil and Environmental Engineering				
Submitted on Behalf of University of Hawaii College of Engineering				
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2) Indicate appropriate Model Code(s) and Sections to be amended in Hawaii by this Proposal – IBC-2009 Section 2308.9.4 Cripple Walls______

CODE AMENDMENT PROPOSAL INSTRUCTIONS

Please provide all of the following items in your code change proposal.

REQUIRED INFORMATION:

The following items are required to be included in your proposal:

1. The proponent shall clearly state the purpose of the proposed code amendment (e.g., clarify the Code; revise outdated material; substitute new or revised material for current provision of the Code; add new Hawaii requirements to the adopted Code; delete current requirements, etc.). Any proposed revisions or additions to tables or figures must be included.

2. The proponent shall justify amending the current code provisions, stating why the proposal is superior to the current provisions of the Model Code. Proposals that add or delete requirements shall be supported by a logical explanation which clearly shows why the current Code provisions are inadequate or overly restrictive, specifies the shortcomings of the current Code provisions in Hawaii, and explains how such proposals will improve the Hawaii State Code.

3. The proponent shall substantiate the proposed code change based on technical information and substantiation. Substantiation provided which is determined as not germane to the technical issues addressed in the proposed code change shall be identified as such, and the proponent shall be notified that the proposal is considered an incomplete proposal and may be held until the deficiencies are corrected.

4. The proponent shall submit a bibliography of any substantiating material submitted with the code change proposal. The proponent shall make the substantiating materials available for review.

5. Per Hawaii Revised Statutes \$107-26, the State Building Code Council shall not adopt provisions that relate to administrative, permitting, or enforcement and inspection procedures of each county. Any such code amendments shall be proposed instead to the individual county building officials during the code adoption process of each county.

PROPOSAL FORMATTING:

Show the proposal (see form on page 2) using strikeout, underline format. At the beginning of each section, one of the following instruction lines are also needed:

Revise as follows

•Add new text as follows

•Delete and substitute as follows

•Delete without substitution

The only formatting that is needed is **BOLDING**, <u>STRIKEOUT</u> AND <u>UNDERLINING</u>. Please do not provide additional formatting such as tabs, columns etc. DO NOT USE THE TRACKING CHANGES OPTION, AUTOMATIC NUMBERING, OR ANY OTHER ADVANCED FORMATTING TOOLS PROVIDED BY WORD.

_	Date Considered by Building Official Sub-Committee:
This Section	Sub-Committee Action on Proposal:
For Official Use	Reason for Sub-Committee Action:
Only	Action by State Building Code Council: Date:

PUBLIC PROPOSAL FORM TO AMEND THE HAWAII STATE BUILDING CODES

HAWAII CODE AMENDMENT PROPOSAL FORM

(See instructions on page 1)

Model Code: <u>IBC -09</u> (*IBC-09*, *IEBC*, *IECC*, *UFC*, *IMC*, *UPC*, *IRC*, etc) Code Sections/Tables/Figures/Standard Proposed for Revision; If the proposal is for a new section, indicate proposed section #.

Section_2308.9.4.3_is added to read:_____ Proponent: Name/Company/Representing: (DO NOT USE ACRONYMS FOR YOUR COMPANY OR ORGANIZATIONAL NAME)

Ian Robertson / University of Hawaii /

___Gary Chock / Structural Engineers Association of Hawaii_____

Revise as follows (include deletion in strikeout, with modified text/proposed addition underlined, affected Code Section(s) in Bold):

•Add new text as follows:

"2308.9.4.3 Pre-Engineered Seismic Bracing of Post & Pier Foundations. For conventional light-framed one and two story single family residences, seismic bracing of elevated wood post & pier foundation systems are permitted to be pre-engineered designs for braces or shear walls constructed in accordance with FEMA Hazard Mitigation Grant Program DR-1664-HI drawings, *Structural Seismic Retrofits for Hawaii Single Family Residences with Post and Pier Foundations."*

Reason:

A large percentage of single family residences in Hawaii were constructed using the post & pier styloe of construction. Seismic vulnerability of this elevated wood foundation system is high, as clearly evidenced by Kiholo Bay post-earthquake safety inspections conducted by SEAOH and the County of Hawaii. After the Kholo Bay earthquake of Ocotober 15, 2006, several pre-engineered seismic bracing designs were prepared by licensed structural engineers in a FEMA-sponsored Hazard Mitigation Grant Program engineering project. The construction details for the pre-engineered designs were developed into construction drawings for three options: bracing, plywood shear walls, and reinforced masonry shear walls. The designs take into account the level of seismic hazard, building size and post heights.

The designs prepared by the University of Hawaii have been extensively peer-reviewed within State Civil Defense's Hawaii State Earthquake Advisory Committee. Thus, it is appropriate that these standardized preengineering designs be accepted in the IBC-09 Hawaii State amendments.

List of Supporting Information References (attached):

University of Hawaii at Manoa, Department of Civil and Environmental Engineering, College of Engineering, Structural Seismic Retrofits for Hawaii Single-Family Residences with Post and Pier Foundations, FEMA Hazard Mitigation Grant Program DR-1664-HI, May, 2009.

Proposals must be submitted using this form and are to be submitted electronically to Kerry Yoneshige, kerry.k.yoneshige@hawaii.gov Department of Accounting & General Services, Administrative Services Office, 1151 Punchbowl Street, Room 414, Honolulu, Hawaii 96813