

STATE OF HAWAII

State Building Code Council**HAWAII STATE RESIDENTIAL CODE****Effective Date: November 17, 2020**

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Scope.

The State Residential Code is hereafter referred to as "this code". This code sets forth minimum requirements for the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of detached one and two family dwellings and multiple single family dwellings (townhouses) not more than three stories in height with separate means of egress.

Definitions.

Unless the context otherwise requires, in this code:

"IBC" means the "State Building Code" adopted by the State Building Code Council adopting and amending the "*International Building Code, 2018 Edition*", published by the International Code Council.

"ICC" means the International Code Council.

"IECC" means the "State Energy Conservation Code", Hawaii Administrative Rules, Chapter 3-181.1 adopting and amending the "International Energy Conservation Code, 2018 Edition" published by the International Code Council.

"IRC" means the "International Residential Code for One- and Two-family Dwellings, 2018 Edition", as copyrighted by the International Code Council.

"Section" means a section of a chapter of the International Residential Code for One- and Two-family Dwellings, 2018 Edition or a section of this code.

Adoption of the International Residential Code for One- and Two-family Dwellings, 2018 Edition.

The "International Residential Code for One- and Two-family Dwellings, 2018 Edition", as copyrighted and published in 2017 by International Code Council, Incorporated, 500 New Jersey Avenue, 6th Floor, Washington, DC 20001, is adopted by reference and made a part of this code. This incorporation by reference includes all parts of the International Residential Code subject to the amendments hereinafter set forth. The ICC International Residential Code for One- and Two-family Dwellings, 2018 Edition, is made a part of this chapter, subject to the amendments provided in this code. The appendices of the ICC IRC are not adopted except as provided in this code.

Permit Authorization.

Each county of the State of Hawaii may, by ordinance, require that a permit be obtained from the building official for any area regulated by this code.

AMENDMENTS TO THE INTERNATIONAL RESIDENTIAL CODE FOR ONE- AND TWO-FAMILY DWELLINGS, 2018 EDITION**(1) R101.1 Title**

Section R101.1 is amended to read as follows:

R101.1 Title. These provisions shall be known as the State Residential Code and shall be cited as such and will be referred to herein as "this code".

(2) R101.2 Scope

R101.2 Scope shall be amended to read as follows:

"The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal and demolition of detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress and their accessory structures not more than three stories above grade plane in height.

Exception: The following shall be permitted to be constructed in accordance with this code where provided with a residential fire sprinkler system complying with the State Plumbing Code:

1. Live/work units located in townhouses and complying with the requirements of Section 419 of the International Building Code.
2. Owner-occupied lodging houses with five or fewer guestrooms.
3. A care facility with five or fewer persons receiving custodial care within a dwelling unit.
4. A care facility with five or fewer persons receiving medical care within a dwelling unit.
5. A care facility for five or fewer persons receiving care that are within a single-family dwelling."

(3) R102.4 Referenced Code and Standards

Section R102.4 is amended to read as follows:

R102.4 Referenced code and standards. The codes and standards referenced in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections R102.4.1 and R102.4.2.

Exception: Where enforcement of this code provision would violate the conditions of the listing of the equipment of appliance, the conditions of the listing and manufacturer's instructions shall apply.

R102.4.1 Conflicts. If a referenced code conflicts with another applicable law of the jurisdiction, then said applicable law shall prevail over the referenced code.

R102.4.1.1 Plumbing Code. Wherever the term *International Plumbing Code* is used in this code, it shall mean the adopted State Plumbing Code.

R102.4.1.2 Fire Code. Whenever the term International Fire Code is used in this code, it shall mean the adopted State Fire Code.

R102.4.1.3 International Energy Conservation Code. Whenever the term International Energy Conservation Code is used in this code, it shall mean the adopted State Energy Conservation Code.

R102.4.1.4 International Fuel Gas Code. Whenever the term International Fuel Gas Code is used in this code, it shall mean the adopted State Plumbing Code.

R102.4.1.5 International Building Code. Whenever the term International Building Code is used in this code, it shall mean the adopted State Building Code.

R102.4.1.6 Electrical Code. The provisions of the State Electrical Code shall apply.

R102.4.1.7. Other referenced codes not listed in Section 102.4.1 are considered referenced guidelines and not mandatory."

(4) Existing Structures

Section R102.7 is amended to read as follows:

"Section R102.7 Existing Structures. Existing structures that were constructed in accordance with prior building code requirements may continue to be used and occupied provided that the continued use does not constitute a hazard to the general safety and welfare of the occupants and the public."

(5) R103 through R114 Administrative Sections

Sections R103 through R114 are deleted in their entirety.

(6) R301.1.1 Alternative Provisions

R301.1.1 Alternative provisions is amended to read as follows,

"R301.1.1 Alternative provisions. As an alternative to the requirements in Section R301.1 the following standards are permitted subject to the limitations of this code and the limitations therein. Where engineered design is used in lieu of or in conjunction with these standards, the design shall comply with the State Building Code.

1. AWC Wood Frame Construction Manual (WFCM) 2018.
2. AISI Standard for Cold-Formed Steel Framing—Prescriptive Method for One- and Two-Family Dwellings (AISI S230- 2015).
3. ICC Standard for Residential Construction in High-Wind Regions (ICC 600-14)

(7) R301.1.3 Engineered Design

Section R301.1.3 Engineered design shall be amended to read as follows:

"Section R301.1.3 Engineered design. When a building of otherwise conventional construction contains structural elements exceeding the limits of Section R301, or otherwise not conforming to this code, these elements shall be designed in accordance with accepted engineering practice using the Alternative Provisions listed in R301.1.1. The extent of such design need only demonstrate compliance of nonconventional elements with other applicable provisions and shall be compatible with the performance of the conventional framed system. Engineered design in accordance with the State Building Code is permitted for all buildings and structures, and parts thereof, included in the scope of this code. Engineered design in accordance with the State Building Code shall be required when a building exceeds three stories or 3000 square feet of gross floor area."

(8) R301.2.1 Wind Design Criteria

Section R301.2.1 Wind design criteria shall be amended to read:

"R301.2.1 Wind design criteria. Buildings and portions thereof shall be constructed in accordance with the wind provisions of this code provided that the ultimate design wind speed V_{ULT} , determined from Figures R301.2(9)(a) through R301.2(9)(f), is less than 130 mph. The structural provisions of this code for wind loads are not permitted where wind design is required, when V_{ULT} , determined from Figures R301.2(8)(a) through R301.2(8)(f), is equal to or greater than 130 mph. Where different construction methods and structural materials are used for various portions of a building, the applicable requirements of this section for each portion shall apply. Where not otherwise specified, the wind loads listed in Table R301.2(2) adjusted for height and exposure using Table R301.2(3) shall be used to determine design load performance requirements for wall coverings, curtain walls, roof coverings, exterior windows, skylights, garage doors and exterior doors. Asphalt shingles shall be designed for wind speeds in accordance with Section R905.2.4. A continuous load path shall be provided to transmit the applicable uplift forces in Section R802.11.1 from the roof assembly to the foundation. The ultimate design wind speed, V_{ULT} , in the State Residential Code is equal to the basic design wind speed, V , in the State Building Code."

(9) R301.2.1.1 Wind Limitations and Wind Design Required

Section R301.2.1.1 Wind limitations and wind design required shall be amended to read:

"R301.2.1.1 Wind limitations and wind design required. The wind provisions of this code shall not apply to the design of buildings where wind design is required in accordance with Section R301.2.1.

Exceptions:

1. For concrete construction, the wind provisions of this code shall apply in accordance with the limitations of Sections R404 and R608.

2. For structural insulated panels, the wind provisions of this code shall apply in accordance with the limitations of Section R610.
3. For cold-formed steel light-frame construction, the wind provisions of this code shall apply in accordance with the limitations of Sections R505, R603 and R804.

In regions where wind design is required in accordance with Section R301.2.1, the design of buildings for wind loads shall be in accordance with one or more of the following methods:

1. AWC Wood Frame Construction Manual (WFCM).
2. ICC Standard for Residential Construction in High-Wind Regions (ICC 600).
3. AISI Standard for Cold-Formed Steel Framing—Prescriptive Method For One- and Two-Family Dwellings (AISI S230).
4. State Building Code.

The elements of design not addressed by the methods in Items 1 through 4 shall be in accordance with the provisions of this code.

Where wind design is required and design is in accordance with the methods in Items 1 through 3, the building must be provided with opening protection for windborne debris. Options for opening protection or alternatives to opening protection shall be in accordance with the State Building Code."

(10) R301.2(5) Ultimate Wind Speed Maps

Figures R301.2(5)(a) through R301.2(5)(f) are added to replace Figures R301.2(5)A and R301.2(5)B, as follows:

"

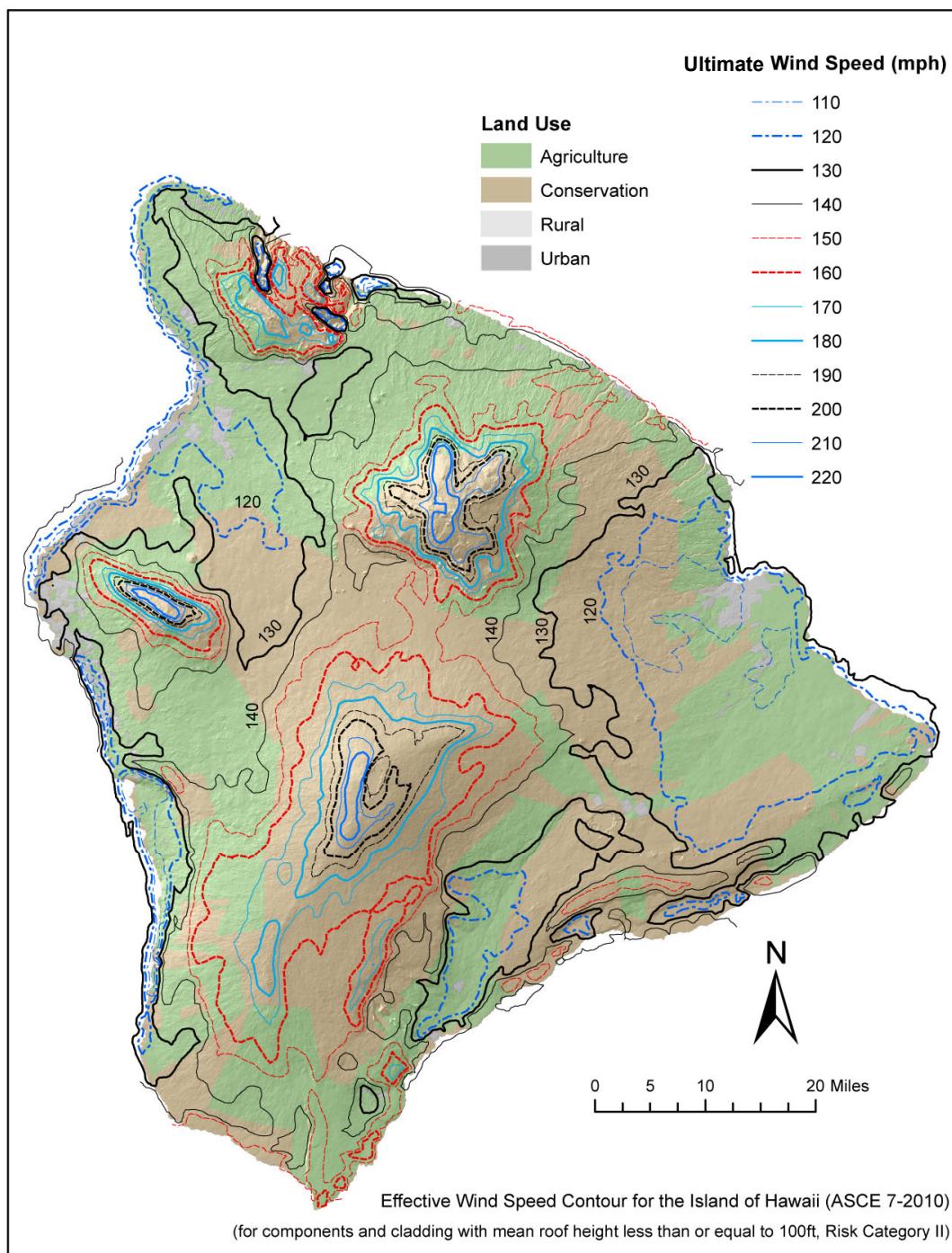


Figure R301.2(5)(a) County of Hawaii Ultimate Wind Speed, V_{ULT} , for Components and Cladding

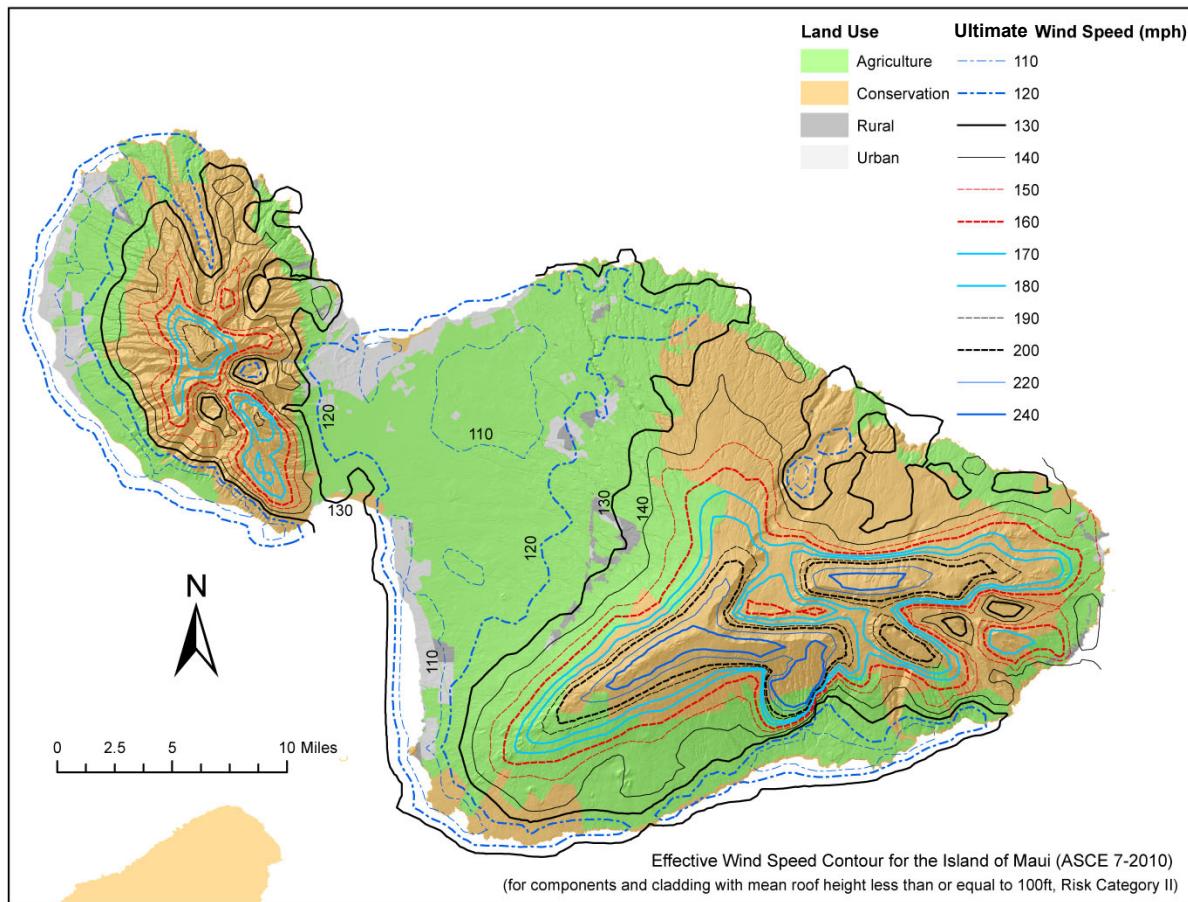


Figure R301.2(5)(b) County of Maui, Island of Maui Ultimate Wind Speed, V_{ULT} , for Components and Cladding

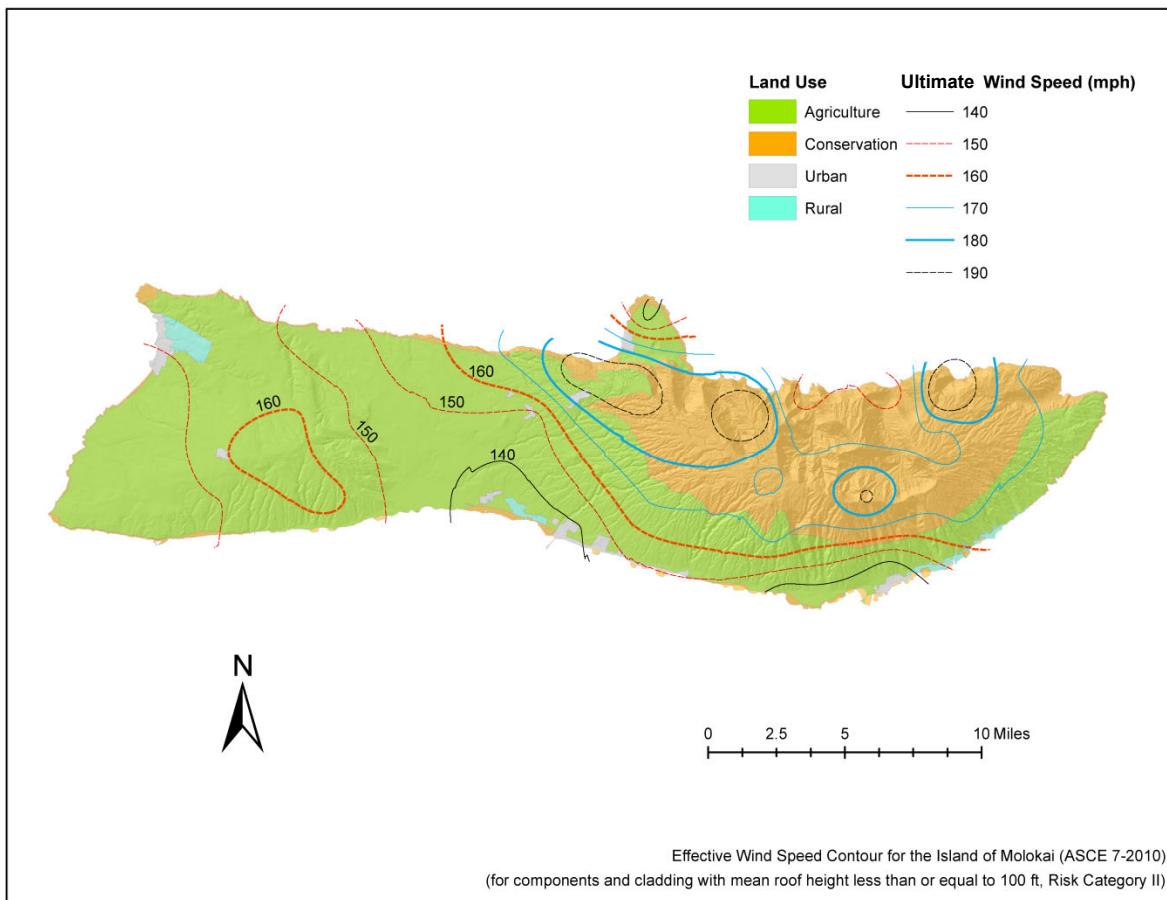


Figure R301.2(5)(c) County of Maui, Island of Molokai Ultimate Wind Speed, V_{ULT} , for Components and Cladding

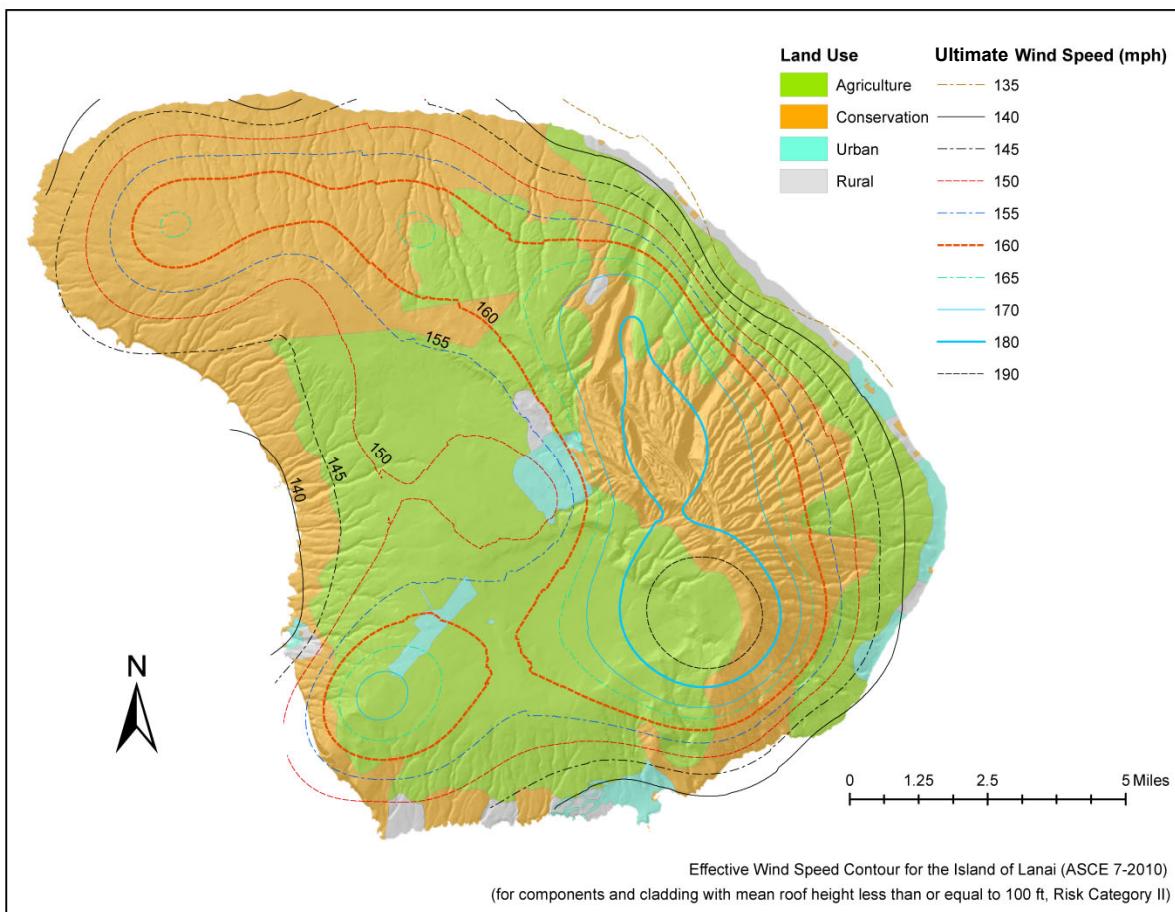


Figure R301.2(5)(d) County of Maui, Island of Lanai Ultimate Wind Speed, V_{ULT} , for Components and Cladding

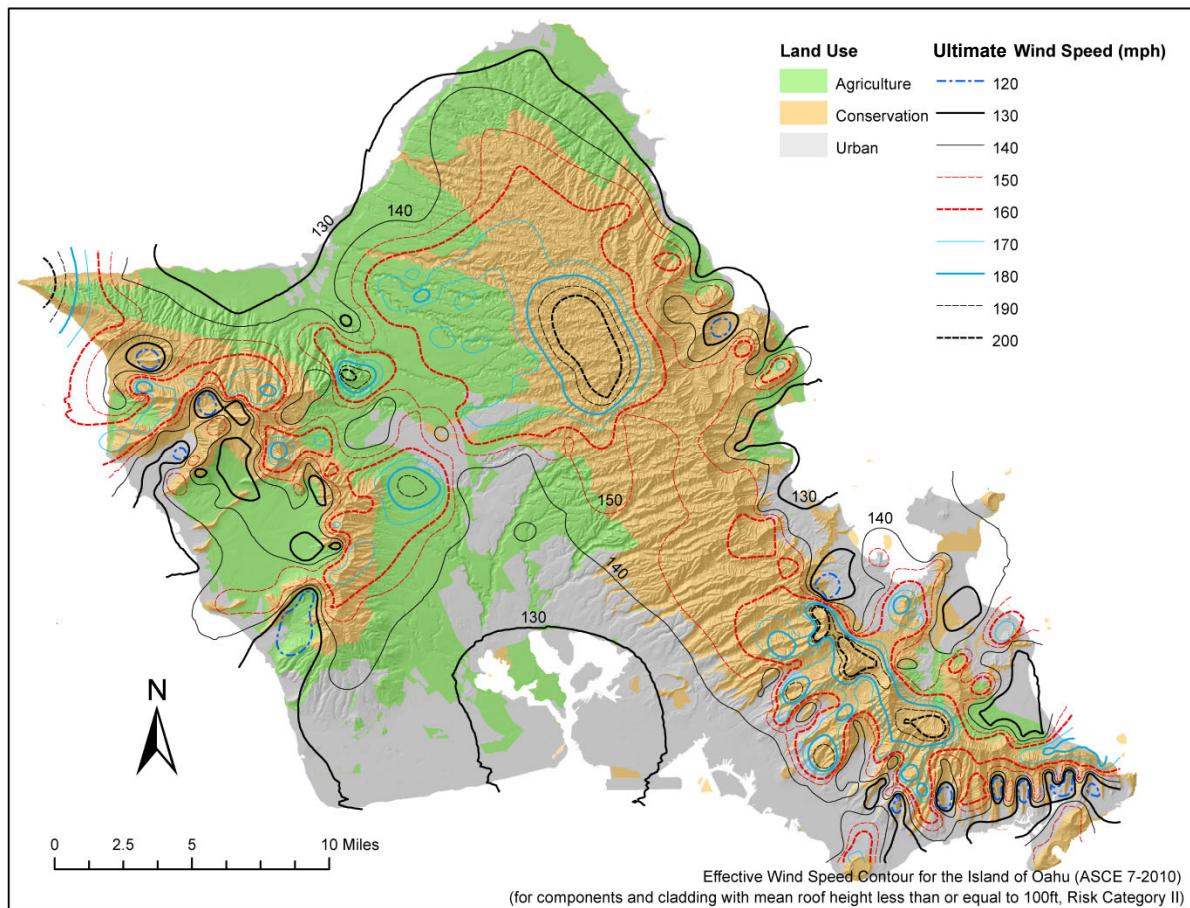


Figure R301.2(5)(e) City and County of Honolulu Ultimate Wind Speed, V_{ULT} , for Components and Cladding for Risk Category II Buildings less than 100 feet Tall

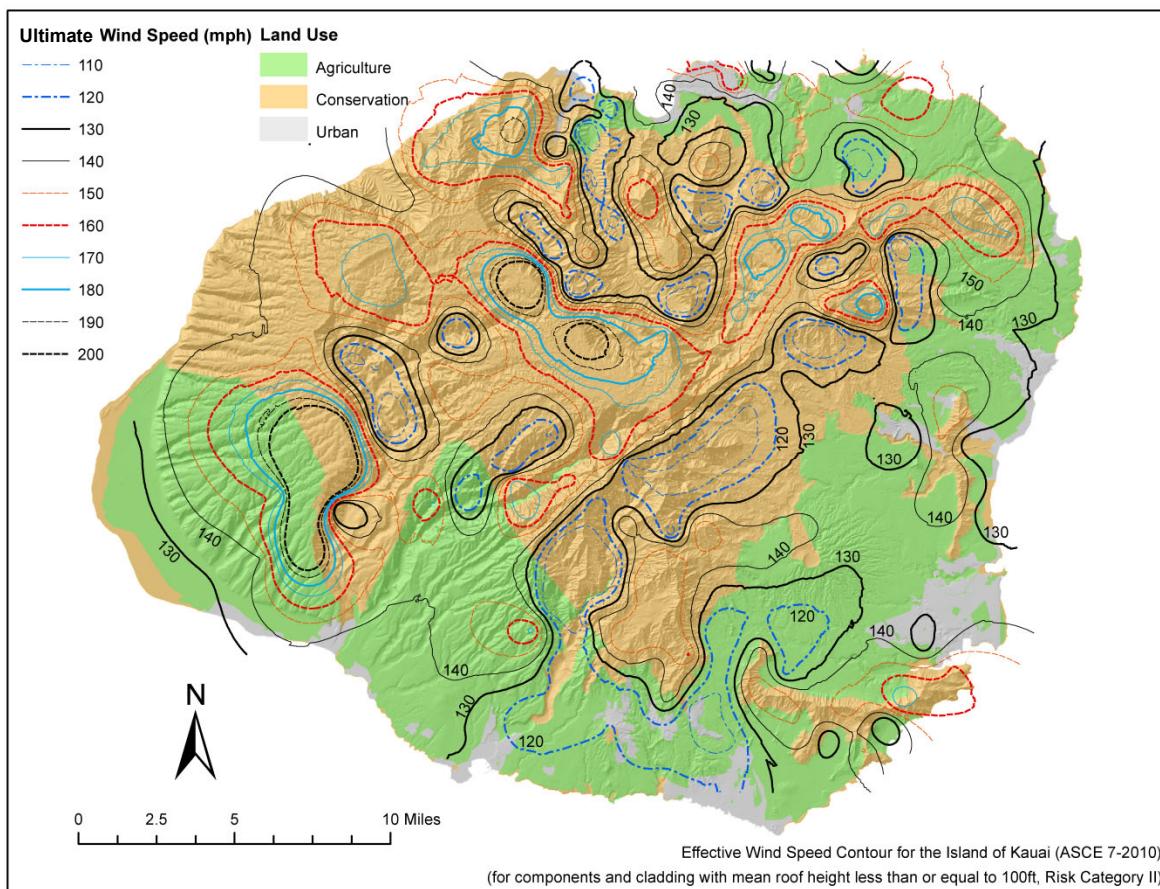
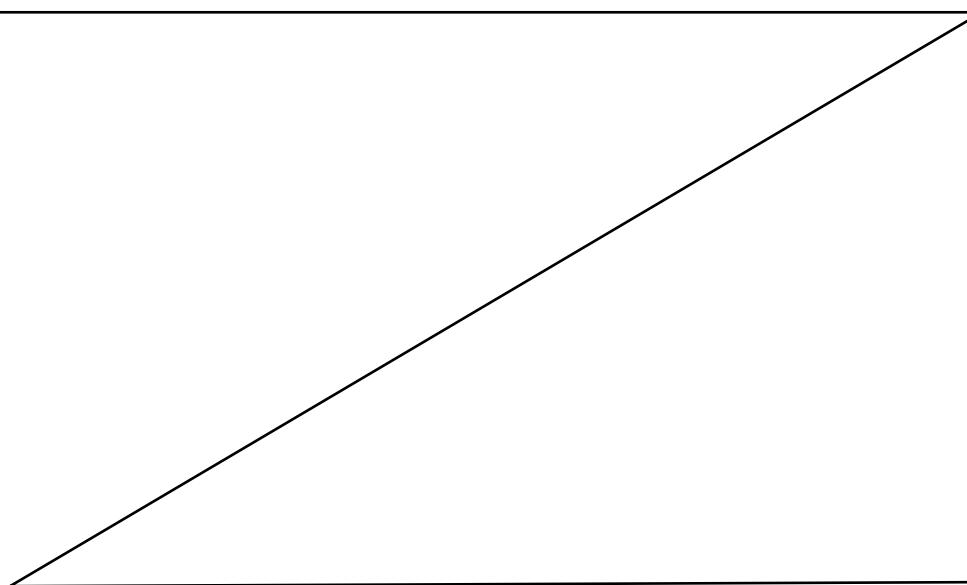
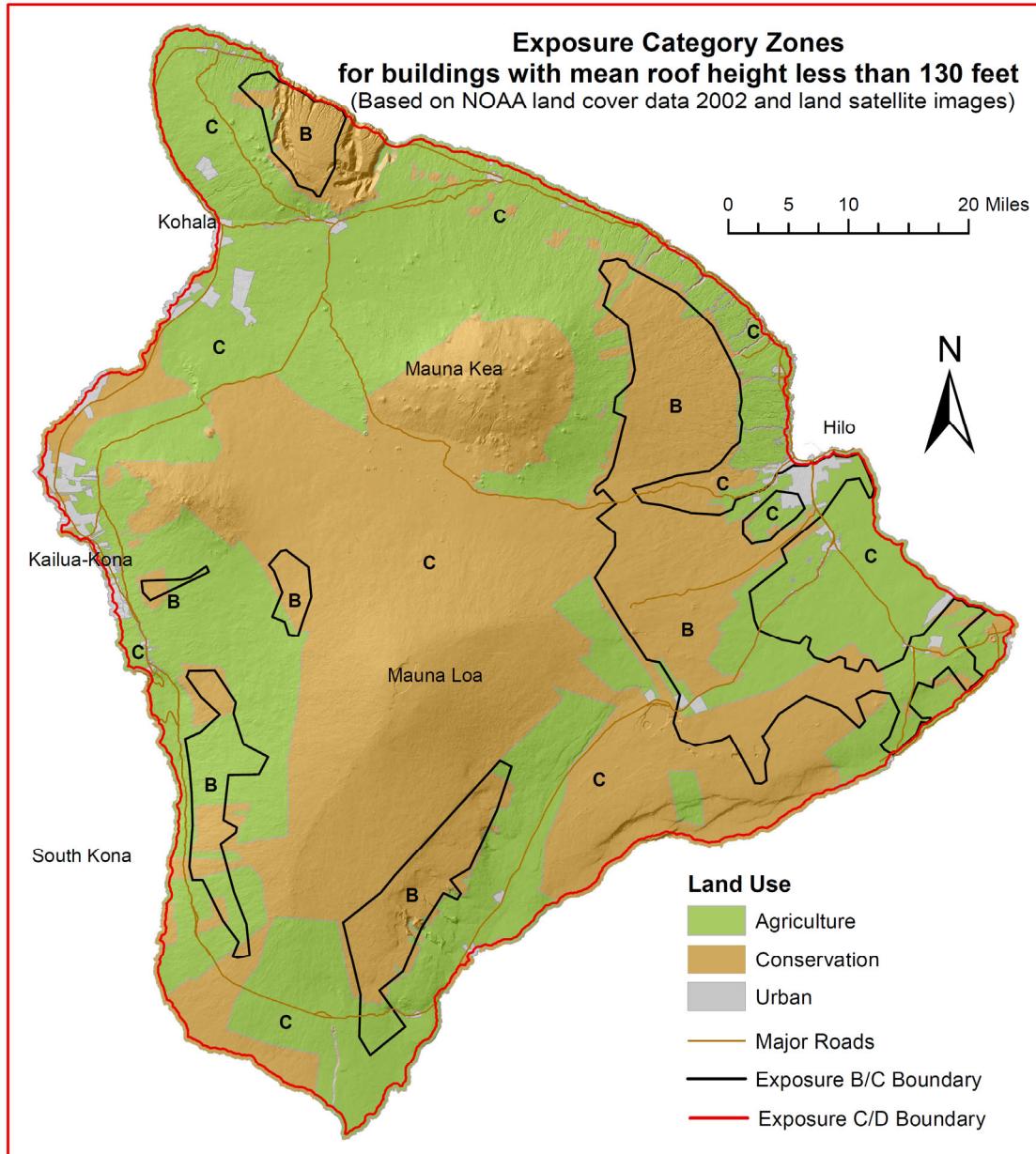


Figure R301.2(5)(f) County of Kauai Ultimate Wind Speed, V_{ULT} , for Components and Cladding for Risk Category II Buildings less than 100 feet Tall"



(11) R301.2.1.4 Exposure Category

Exposure Category Section R301.2.1.3 is amended to read as follows:
"R301.2.1.4 Exposure Category. The exposure category shall be determined from Figures R301.2.1.4(a) through R301.2.1.4(e) or using the provisions of ASCE 7-10.



Notes:

1. Intermediate exposures, between categories B and C and between C and D, are permitted when substantiated per ASCE 7 recognized methodology.
2. Sites located within the C (coastal) zone shall be permitted to be evaluated for exposure category B for the wind directions where an adjacent B zone exists in the applicable upwind sector.
3. Sites located within 600 feet from the coastline shall be exposure category D for onshore wind directions.
4. For buildings whose height is equal to or greater than 130 ft, exposure category shall be determined per Section 1609.4.1.
5. For buildings whose mean roof height is less than or equal to 30 ft, exposure category shall be permitted to be evaluated per Section 1609.4.

Figure R301.2.1.4 (a) Exposure Category Zones for Hawaii County

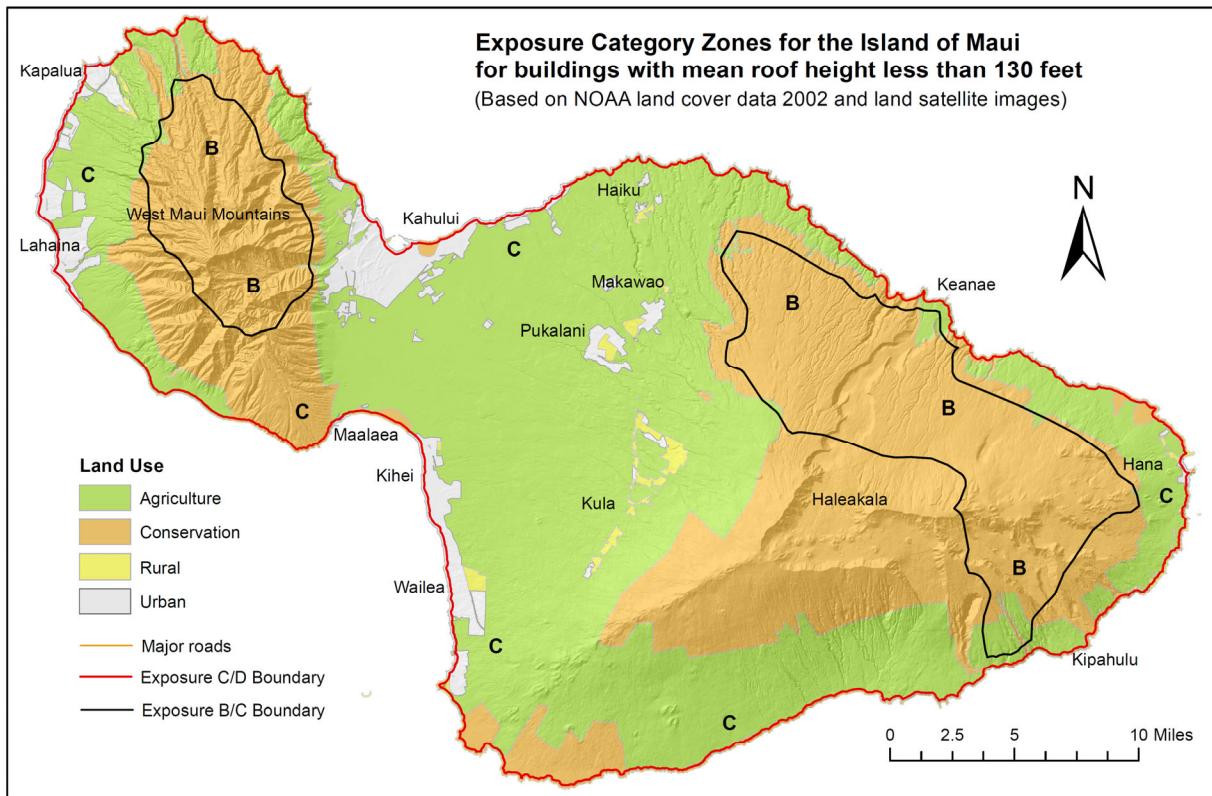


Figure R301.2.1.4 (b) Exposure Category Zones for Island of Maui, Maui County

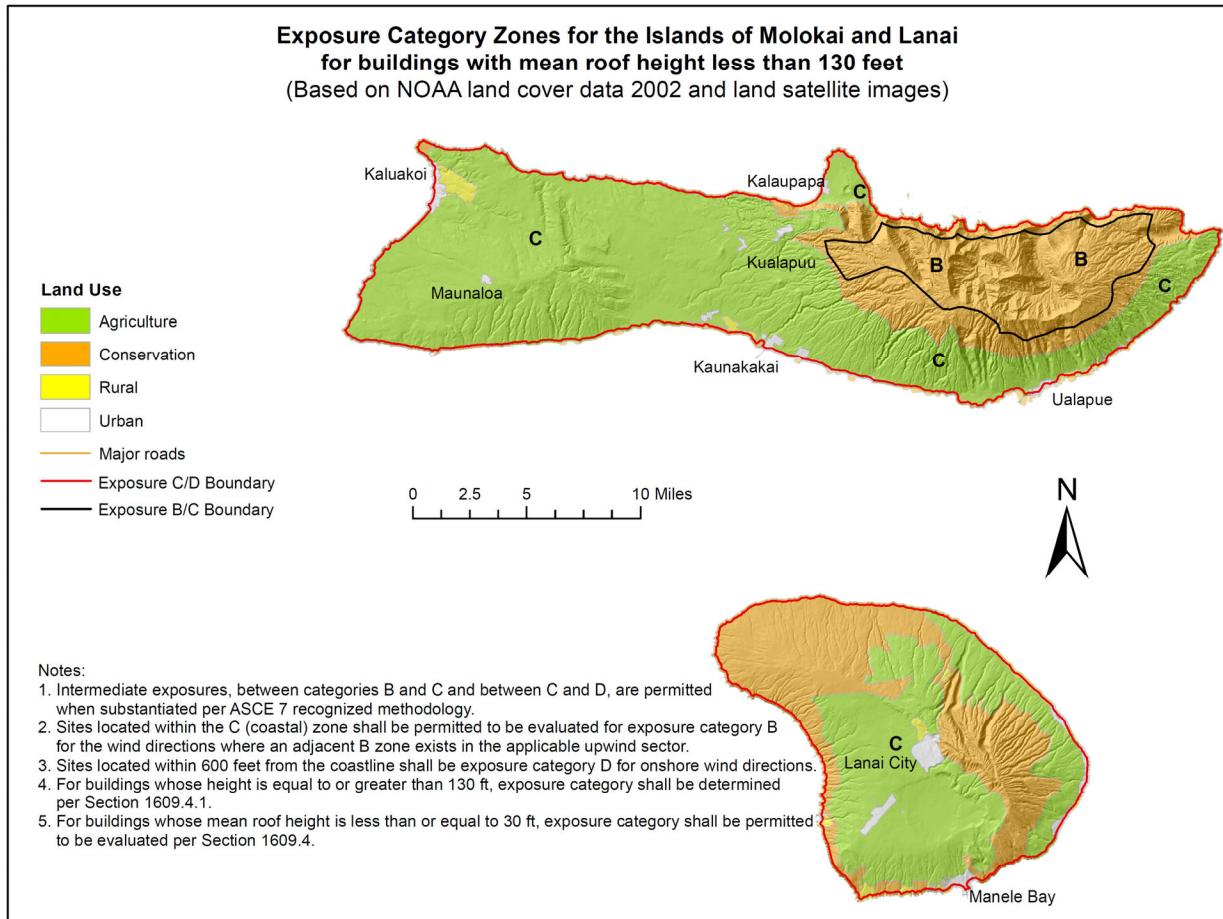
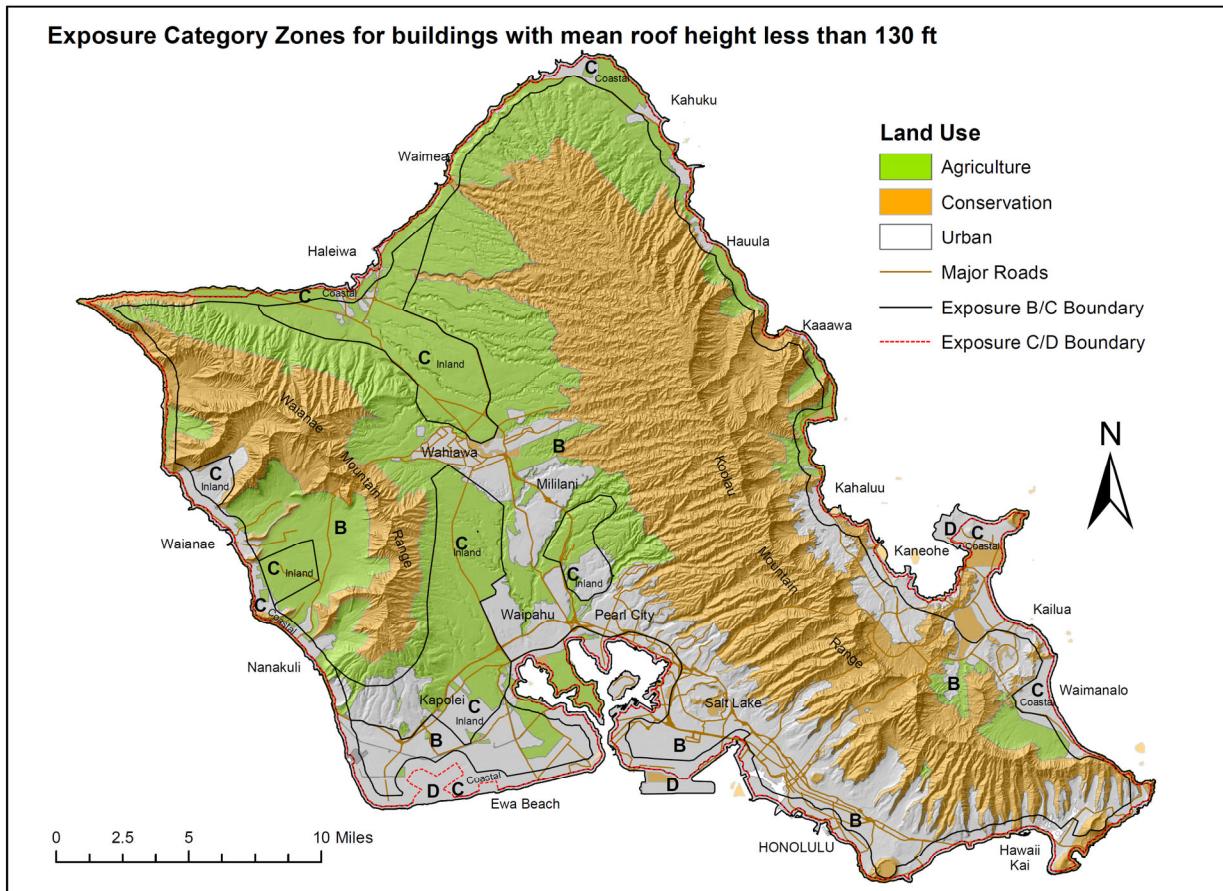


Figure R301.2.1.4(c) Exposure Category Zones for Islands of Molokai and Lanai, Maui County



Notes:

1. Intermediate exposures, between categories B and C and between C and D, are permitted when substantiated per ASCE 7 recognized methodology.
2. Sites located within the C (coastal) zone shall be permitted to be evaluated for exposure category B for the wind directions where an adjacent B zone exists in the applicable upwind sector.
3. Sites located within 600 feet from the coastline shall be exposure category D for onshore wind directions.
4. For buildings whose height is equal to or greater than 130 ft, exposure category shall be determined per Section 1609.4.1.
5. For buildings whose mean roof height is less than or equal to 30 ft, exposure category shall be permitted to be evaluated per Section 1609.4.

Figure R301.2.1.4 (d) Exposure Category Zones for the City and County of Honolulu

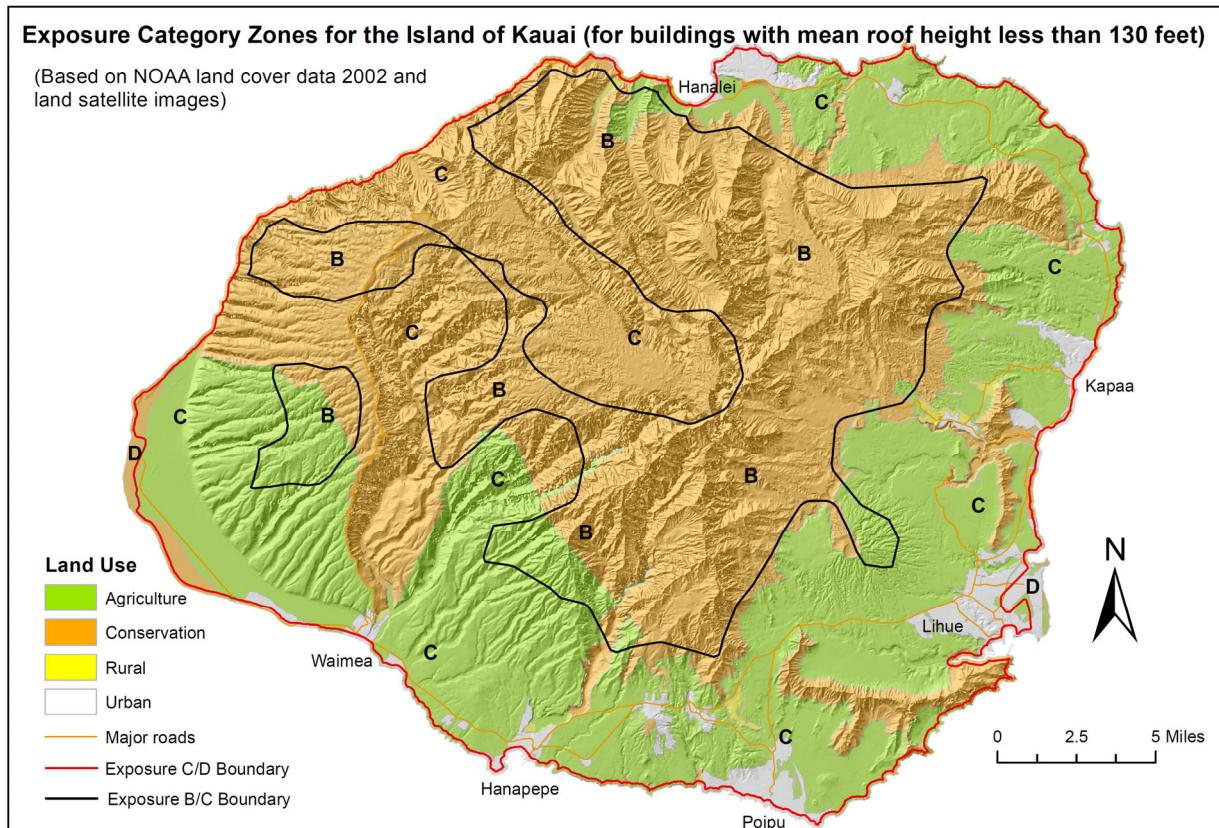


Figure R301.2.1.4 (e) Exposure Category Zones for Kauai County"

(12) R301.2.1.5 Topographic Wind Effects

Section R301.2.1.5 Topographic wind effects shall be amended to read:
"R301.2.1.5 Topographic wind effects. Topographic wind speed effects shall be considered in the design of the building. Buildings designed using the ultimate wind speed as determined from Figures R301.2(5)(a) through R301.2(5)(f) and wind exposure categories determined in accordance with section R301.2.1.4 shall be deemed to comply with this section."

(13) R301.2.1.5.1 Simplified Topographic Wind Speed-up Method

Section R301.2.1.5.1 Simplified topographic wind speed-up method shall be deleted in its entirety.

(14) R301.2.2.1 Determination of Seismic Design Category

Section R301.2.2.1 Determination of seismic design category shall be amended to read:
"R301.2.2.1 Determination of seismic design category. Buildings shall be assigned a seismic design category in accordance with Table R301.2(4) or Figure R301.2(2)."

Table R301.2(4) Seismic Design Category by Location-Site Class D

Location	Seismic Design Category
Kauai	B
Oahu, Molokai & Lanai	D ₀
Maui	D ₁
Hawaii: North and South Kohala , Hamakua, & North Hilo Districts	D ₂
All other Hawaii County Districts	E

(15) R301.2.2.1.1 Alternate Determination of Seismic Design Category

Section R301.2.2.1.1 shall be deleted in its entirety.

(16) R301.2.2.6 Irregular Buildings

Section R301.2.2.6 is amended to read as follows:

"The seismic provisions of this code shall not be used for structures, or portions thereof, located in Seismic Design Categories C, D₀, D₁ and D₂ and considered to be irregular in accordance with this section. A building or portion of a building shall be considered to be irregular where one or more of the conditions defined in Items 1 through 7 occur. Irregular structures, or irregular portions of structures, shall be designed in accordance with the State Building Code to the extent the irregular features affect the performance of the remaining structural system. Where the forces associated with the irregularity are resisted by a structural system designed in accordance with the State Building Code, the remainder of the building shall be permitted to be designed using the provisions of this code.

1. Shear wall or braced wall offsets out of plane. Conditions where exterior shear wall lines or braced wall panels are not in one plane vertically from the foundation to the uppermost story in which they are required [see Figure R301.2.2.6(1)].

Exception: For wood light-frame construction, floors with cantilevers or setbacks not exceeding four times the nominal depth of the wood floor joists [see Figure R301.2.2.6(2)] are permitted to support braced wall panels that are out of plane with braced wall panels below provided that all of the following are satisfied:

1. Floor joists are nominal 2 inches by 10 inches (51 mm by 254 mm) or larger and spaced not more than 16 inches (406 mm) on center.
 2. The ratio of the back span to the cantilever is not less than 2 to 1.
 3. Floor joists at ends of braced wall panels are doubled.
 4. For wood-frame construction, a continuous rim joist is connected to ends of cantilever joists. Where spliced, the rim joists shall be spliced using a galvanized metal tie not less than 0.058 inch (1.5 mm) (16 gage) and 11/2 inches (38 mm) wide fastened with six 16d nails on each side of the splice; or a block of the same size as the rim joist and of sufficient length to fit securely between the joist space at which the splice occurs, fastened with eight 16d nails on each side of the splice.
 5. Gravity loads carried at the end of cantilevered joists are limited to uniform wall and roof loads and the reactions from headers having a span of 8 feet (2438 mm) or less.
2. Lateral support of roofs and floors. Conditions where a section of floor or roof is not laterally supported by shear walls or braced wall lines on all edges [see Figure R301.2.2.6(3)].

Exception: Portions of floors that do not support shear walls, braced wall panels above, or roofs shall be permitted to extend not more than 6 feet (1829 mm) beyond a shear wall or braced wall line [see Figure R301.2.2.6(4)].

3. Shear wall or braced wall offsets in plane. Conditions where the end of a braced wall panel occurs over an opening in the wall below and extends more than 1 foot (305 mm) horizontally past the edge of the opening. This provision is applicable to shear walls and braced wall panels offset in plane and to braced wall panels offset out of plane in accordance with the exception to Item 1 [see Figure R301.2.2.6(5)].

Exception: For wood light-frame wall construction, one end of a braced wall panel shall be permitted to extend more than 1 foot (305 mm) over an opening not more than 8 feet (2438 mm) in width

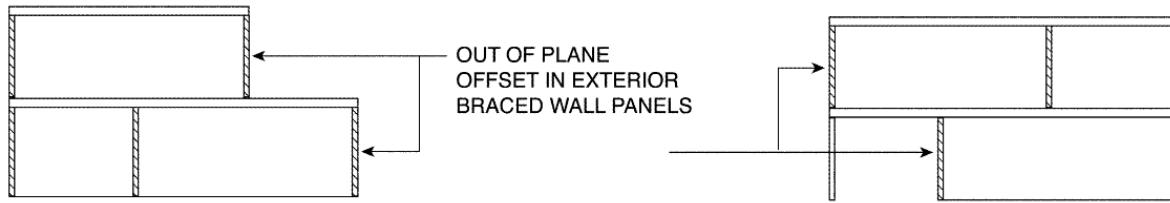
in the wall below provided that the opening includes a header in accordance with all of the following:

1. The building width, loading condition and framing member species limitations of Table R602.7(1) shall apply.
2. The header is composed of:
 - 2.1. Not less than one 2 12 or two 2 10 for an opening not more than 4 feet (1219 mm) wide.
 - 2.2. Not less than two 2 12 or three 2 10 for an opening not more than 6 feet (1829 mm) in width.
 - 2.3. Not less than three 2 12 or four 2 10 for an opening not more than 8 feet (2438 mm) in width.
3. The entire length of the braced wall panel does not occur over an opening in the wall below.
4. Floor and roof opening. Conditions where an opening in a floor or roof exceeds the lesser of 12 feet (3658 mm) or 50 percent of the least floor or roof dimension [see Figure R301.2.2.6(6)].
5. Floor level offset. Conditions where portions of a floor level are vertically offset [see Figure R301.2.2.6(7)].

Exceptions:

1. Framing supported directly by continuous foundations at the perimeter of the building.
2. For wood light-frame construction, floors shall be permitted to be vertically offset where the floor framing is lapped or tied together as required by Section R502.6.1.
6. Perpendicular shear wall and wall bracing. Conditions where shear walls and braced wall lines do not occur in two perpendicular directions [see Figure R301.2.2.6(8)].
7. Wall bracing in stories containing masonry or concrete construction. Conditions where stories above grade plane are partially or completely braced by wood wall framing in accordance with Section R602 or cold-formed steel wall framing in accordance with Section R603 include masonry or concrete construction. Where this irregularity applies, the entire story shall be designed in accordance with accepted engineering practice.

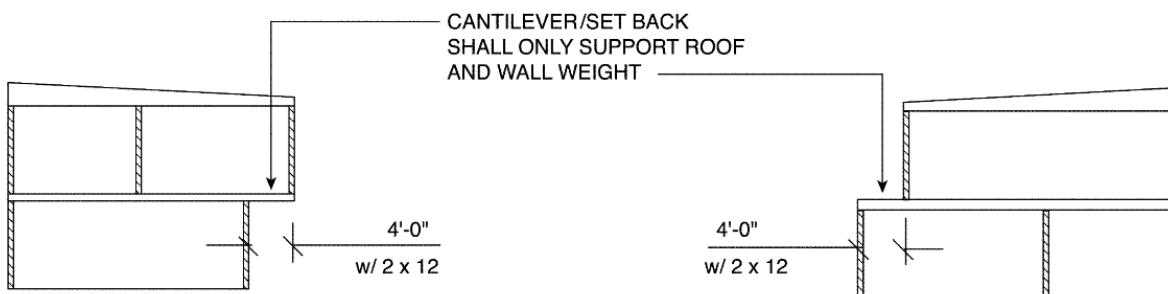
Exceptions: Fireplaces, chimneys and masonry veneer in accordance with this code.



SECTION VIEW

SECTION VIEW

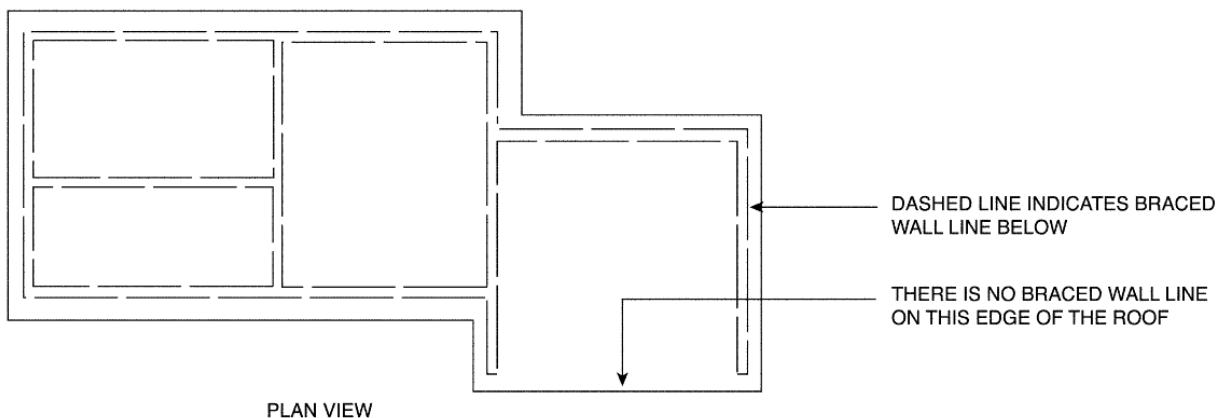
Figure R301.2.2.6(1) BRACED WALL PANELS OUT OF PLANE



SECTION THRU CANTILEVER

SECTION THRU SET BACK

Figure R301.2.2.6(2) BRACED WALL PANELS SUPPORTED BY CANTILEVER OR SETBACK



PLAN VIEW

Figure R301.2.2.6(3) FLOOR OR ROOF NOT SUPPORTED ON ALL EDGES

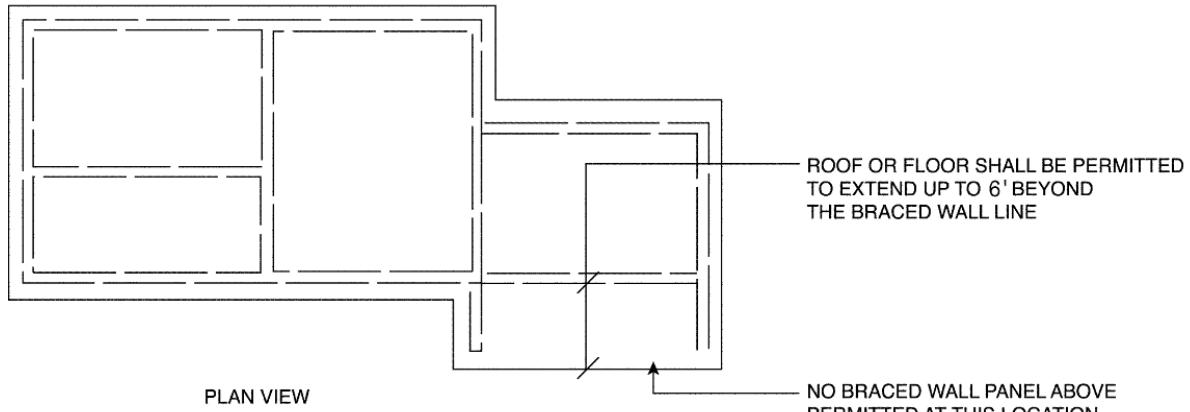


Figure R301.2.2.6(4) ROOF OR FLOOR EXTENSION BEYOND BRACED WALL LINE

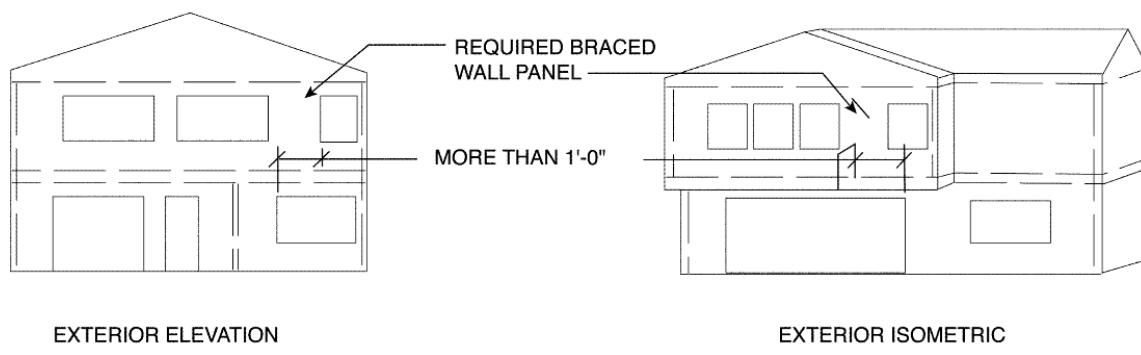


Figure R301.2.2.6(5) BRACED WALL PANEL EXTENSION OVER OPENING

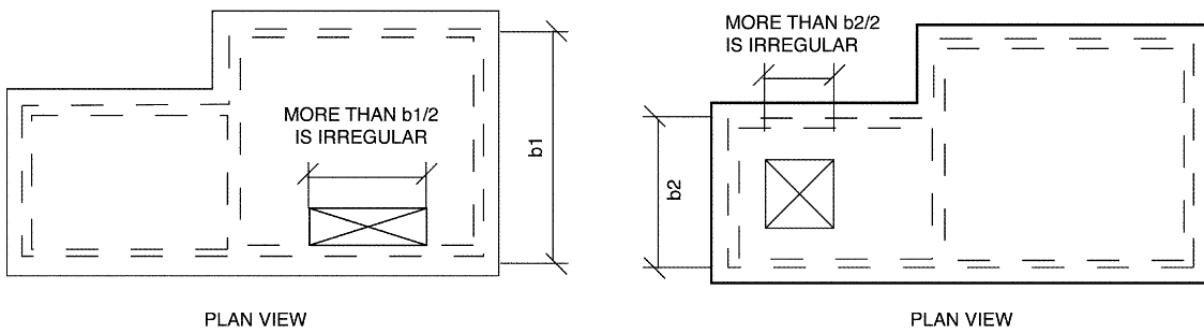
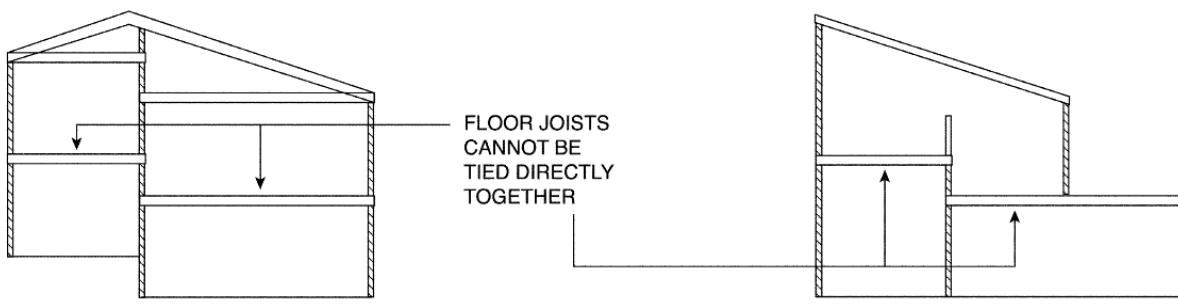


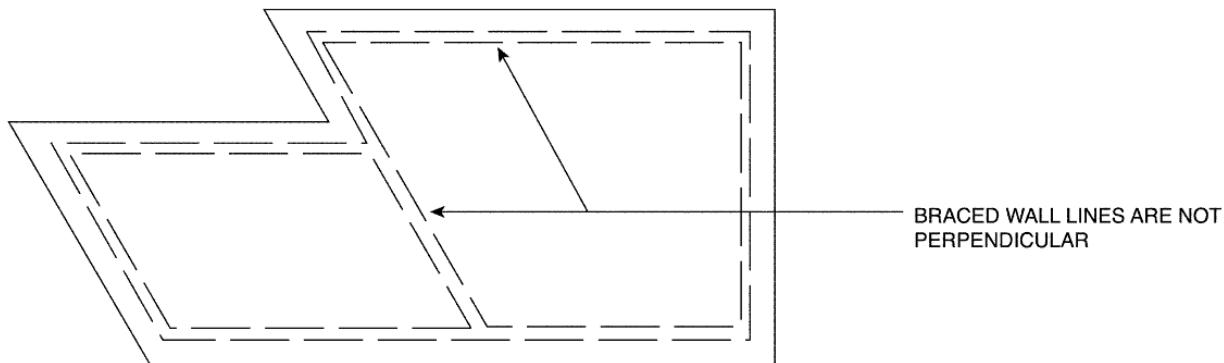
Figure R301.2.2.6(6) OPENING LIMITATIONS FOR FLOOR AND ROOF DIAPHRAGMS



SECTION VIEW

SECTION VIEW

Figure R301.2.2.6(7) PORTIONS OF FLOOR LEVEL OFFSET VERTICALLY



PLAN VIEW

Figure R301.2.2.6(8) BRACED WALL LINES NOT PERPENDICULAR"

(17) R313.2 Automatic Fire Sprinkler Systems

Section R313.2 is revised by adding the following to the Exception:
"In accordance with HRS 46-19.8 Fire sprinklers; residences, until June 30, 2027 no county shall require the installation or retrofitting of automatic fire sprinklers or an automatic fire sprinkler system in:

- (1) Any new or existing detached one- or two-family dwelling unit in a structure used only for residential purposes; and
- (2) Nonresidential agricultural and aquacultural buildings and structures located outside an urban area;

provided that this section shall not apply to new homes that require a variance from access road or firefighting water supply requirements."

(18) R318.1 Subterranean Termite Control Methods

Section R318.1 is amended to read:

"R318.1 Subterranean termite control methods. Methods of protection shall be one of items 1, 2 or 3 and one of items 4, 5 or 6.

1. Chemical termiticide, as provided in Section R318.2

2. Termite-baiting system installed and maintained according to the label.
3. Physical barriers, as provided in Section R318.3 and used in locations as specified in Section R317.1
4. Pressure-preserved-treated structural wood in accordance with Section R317.1
5. Cold-formed steel framing in accordance with Sections R505.2.1 and R603.2.1.
6. Naturally durable termite-resistant wood as approved by the Building Official.

(19) **R318.4 Foam Plastic Protection**

Section R318.4 is amended to read:

R318.4 Foam plastic protection. Extruded and expanded polystyrene, polyisocyanurate and other foam plastics shall not be installed on the exterior face or under interior or exterior foundation walls or slab foundations located below grade. The clearance between foam plastics installed above grade and exposed earth shall not be less than 6 inches (152mm).

Exceptions:

1. On the interior side of basement walls.

(20) **R318.5 Water Splash**

Section R318.5 is added to read as follows,

"R318.5 Water splash. Where wood-frame walls and partitions are covered on the interior with plaster, tile or similar materials and are subject to water splash, the framing shall be protected with approved waterproof paper."

(21) **R318.6 Pipe and Other Penetrations**

Section R318.6 is added to read as follows,

"R318.6 Pipe and other penetrations. Insulations around plumbing pipes shall not pass through ground floor slabs. Openings around pipes or similar penetrations in a concrete or masonry slab, which is in direct contact with earth, shall be filled with non-shrink grout, or other approved physical barrier."

(22) **R401.5 Post or Pier Foundations**

Section R401.5 Post or pier foundations shall be added to read:

"Raised floor systems supported by post or pier foundations shall be designed in accordance with accepted engineering practice and the State Building Code."

(23) **R402.2.1 Maximum Water to Cement Ratio**

Section R402.2.1 Materials for Concrete shall be amended to read as follows:

"R402.2.1 Materials for concrete. Materials for concrete shall comply with the requirements of Section 608.5.1. The maximum water to cement ratio for concrete slabs-on-grade shall not exceed 0.50."

(24) R403.1.6.2 Concrete Strap Type Anchors

Section R403.1.6.2 is added to read as follows:

"R403.1.6.2 Concrete strap type anchors. Concrete strap-type anchors made out of cold-formed steel shall not be used along the perimeter edges of a slab on grade where the steel does not have at least 1-1/2 inches side cover or other adequate protection".

(25) R403.1.6.3 Anchor Bolts at the Perimeter Edge of a Slab-on-grade

Section R403.1.6.3 is added to read as follows:

"R403.1.6.2 Anchor bolts at the perimeter edge of a slab-on-grade.

Anchor bolts shall be hot dipped galvanized in accordance with ASTM F2329 and have a minimum concrete side cover of 1-1/2 inches unless provisions have been made to protect the anchor bolts from corrosion".

(26) R406.1 Foundation Waterproofing

Section R406.1 is deleted in its entirety.

(27) R406.2 Concrete and Masonry Foundation Waterproofing

R406.2 Concrete and masonry foundation waterproofing is amended to read:

"R406.2 Concrete and masonry foundation waterproofing. Exterior foundation walls that retain earth and enclose interior spaces and floors below grade shall be waterproofed from the higher of (a) the top of the footing or (b) 6 inches (152mm) below the top of the basement floor, to the finished grade. Walls shall be waterproofed in accordance with one of the following:

1. Two-ply hot-mopped felts.
2. Fifty-five-pound (25kg) roll roofing.
3. Forty-mil (1mm) polymer-modified asphalt.
4. Sixty-mil (1.5mm) flexible polymer cement.
5. One-eighth inch (3mm) cement-based, fiber-reinforced, waterproof coating.
6. Sixty-mil (1.5 mm) solvent-free liquid-applied synthetic rubber.

All joints in membrane waterproofing shall be lapped and sealed with an adhesive compatible with the membrane.

Exception: Organic-solvent based products such as hydrocarbons, chlorinated hydrocarbons, ketones and esters shall not be used for ICF walls with expanded polystyrene form material. Use of plastic roofing cements, acrylic coatings, latex coatings, mortars and pargings to seal ICF walls is permitted. Cold-setting asphalt or hot asphalt shall conform to Type C of ASTM D449. Hot asphalt shall be applied at a temperature of less than 200° F (93°C)."

(28) R406.3 Dampproofing for Wood Foundations

R406.3 Dampproofing for wood foundations is amended to read as follows:

"R406.3 Waterproofing for wood foundations. Wood foundations enclosing habitable or usable spaces located below grade shall be waterproofed in accordance with Section R406.2.

(29) **R406.3.2 Below-grade Moisture Barrier**

R406.3.2 Below-grade moisture barrier is amended to read:

"R406.3.2 Below-grade waterproofing. One of the waterproofing systems listed in R406.2 shall be applied over the below-grade portion of exterior foundation walls prior to backfilling. The top edge of the waterproofing shall be bonded to the sheathing to form a seal. Film areas at grade level shall be protected from mechanical damage and exposure by a pressure preservative treated lumber or plywood strip attached to the wall several inches above finish grade level and extending approximately 9 inches (229 mm) below grade. The joint between the strip and the wall shall be caulked full length prior to fastening the strip to the wall. Other coverings appropriate to the architectural treatment may also be used. The waterproofing shall extend down to the bottom of the wood footing plate but shall not overlap or extend into the gravel or crushed stone footing."

(30) **R406.4 Precast Concrete System Dampproofing**

Section R406.4 Precast concrete system dampproofing is deleted in its entirety.

(31) **R406.5 Cold Formed Steel Protection of Sill Track**

Section R406.5 is added to read as follows:

"R406.5 Cold formed steel protection of sill track. Cold formed steel framing sills that directly bear on concrete or masonry that is in direct contact with earth shall be shielded along the exterior flange and bottom of the sill track with a self-adhered rubberized asphalt flashing material with a minimum thickness of 25 mil (0.64 mm) or other moisture barrier conforming to ASTM D412, D570, and E96/E96M."

(32) **R602.10.9 Braced Wall Panel Support**

Section R602.10.9 Braced wall panel support shall be amended to read:

"R602.10.9 Braced wall panel support. Braced wall panel support shall be provided as follows:

1. Cantilevered floor joists complying with Section R502.3.3 shall be permitted to support braced wall panels
2. Raised floor system post or pier foundations supporting braced wall panels shall be designed in accordance with accepted engineering practice and the State Building Code.
3. Masonry stem walls with a length of 48 inches (1219 mm) or less supporting braced wall panels shall be reinforced in accordance with Figure R602.10.9. Masonry stem walls with a length greater than 48 inches (1219 mm) supporting braced wall panels shall be constructed in accordance with Section R403.1. Methods ABW and PFH shall not be permitted to attach to masonry stem walls.
4. Concrete stem walls with a length of 48 inches (1219 mm) or less, greater than 12 inches (305 mm) tall and less than 6

inches (152 mm) thick shall have reinforcement sized and located in accordance with Figure R602.10.9."

(33) Chapter 11 Energy Efficiency

Chapter 11 Energy Efficiency is deleted in its entirety if the authority having jurisdiction has adopted the International Energy Conservation Code.

(34) M1201.1 Mechanical

Section M1201.1 Scope is amended to read as follows:

"M1201.1 Scope. The provisions of Chapters 12 through 22 regulate the mechanical installations that are permanently installed and used to control environmental conditions within buildings. Mechanical systems, system components, equipment, and appliances. mechanical systems specifically addressed in this code. Where an application is made for construction as described in these chapters, the owner, or the licensed design professional in responsible charge acting as the owner's agent, shall employ one or more special inspectors to provide inspections during construction on the work in these chapters as required by the building official. These inspections are in addition to the inspections specified in Section R109."

(35) M1301.1 Scope

Section M1301.1 is amended to read as follows:

"M1301.1 Scope. The provisions of this chapter shall govern the installation of mechanical systems not specifically covered in other chapters applicable to mechanical systems. Installations of mechanical appliances, equipment and systems not addressed by this code shall comply with the applicable provisions of nationally published mechanical codes or standards."

(36) M1301.1 Mechanical Ventilation

Section M1307.4.2 is amended to read as follows:

"M1307.4.2 Mechanical Ventilation. Indoor locations intended for hydrogen-generating or refueling operations shall be ventilated in accordance with nationally published mechanical codes or standards."

(37) Chapter 24 Fuel Gas

Chapter 24 Fuel Gas is deleted in its entirety. Refer to the adopted State Plumbing Code.

(38) Part VII Plumbing

Part VII Plumbing, which corresponds to Chapter 25 through 33, is deleted in its entirety. Refer to the adopted State Plumbing Code.

(39) Chapters 35 through 43 Electrical

Chapters 35 through 43, are deleted in their entirety. Refer to the adopted State Electrical Code.

(40) Appendix Q Tiny Houses - Adoption

Appendix Q is adopted in its entirety with amendments.

Section AQ102 the definitions of *tiny house* is amended to read as follows:

"Tiny House. A dwelling that is 500 square feet (46 m²) or less in floor area excluding lofts. The maximum total floor area of 500 square feet shall mean the sum of the horizontal areas of each floor of a building, measured from the interior faces of the exterior walls. The total floor area shall include enclosed attached accessory structures such as garages or storage areas. Unenclosed attached structures such as carports, breezeways lanais or porches shall be excluded."

(41) Appendix N Venting Methods – Adoption

Appendix N is adopted in its entirety with amendments.

Amend User Notes to replace "Chapter 31 of this code" with the "State Plumbing Code".