

DOCKETED

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Recognition of ICFs

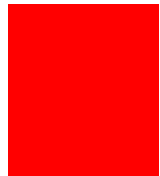
document attached

Additional submitted attachment is included below.

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905-914-2880



February 8, 2019

California Energy Commission

Docket #: 19-BSTD-01

Draft 2019 Alternative Calculation Method Reference Manuals and Compliance Software Tools

As a consultant in the insulated concrete form industry and an advocate for energy efficiency, the following recommendations are being made to include attributes and characteristics of insulated concrete forms (ICF) as a typical wall assembly for below and above construction on residential and non—residential buildings.

The Building Energy Efficiency Standards covers light mass and heavy mass walls, but these simple wall types are not included or identifies in the ACM, nor are ICF assemblies as a double insulated wall assembly.

ACM

ACM 2.2.62.5 Quality Insulation Installation (QII)

ICFs are continuous rigid EPS insulation on both sides of the light or heavy mass concrete wall. This should be classified as a QI installation. There is no cavity or exposed mass.

Table 4: Materials List should include: Type II EPS insulation with an R 4.0 per inch

Page 25 Construction Type: item 4 should include - light and heavy mass walls and ICFs.

Construction layers: *note not all assemblies have a cavity path*, mass walls and/or an ICFs do not have a cavity path. Also, ICFs do not promote thermal bridging.

2.5.6.4 ICFs walls as mass walls should be included in this sentence - 'Mass such as concrete slab floors, masonry walls, concrete walls, ...

Proposed Design -

... the proposed design may be modeled with the default 20 percent exposed mass/80 percent covered mass,...

In an ICF wall assembly there is 0 percent exposed mass in the overall wall assembly.



Building Efficiency Standards

Section 120.7 (b) Wall Insulation – under light and heavy mass walls include concrete walls

Table 912: Standard Design Building Below-Grade Wall Construction Assembly

This table should include ICFs assemblies 6” and 8” both with ci insulation, 2500 psi concrete, 5.25” double layer of R4.0 EPS insulation, Total assembly R-value 6” = R 22.06 and 8” = R22.08

Summary, ICFs are a viable building product that is being used across North America and exceeds energy codes and minimum building code standards.

Thank you.

Tom Patton

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