



Informal Interpretation Report Number 7125



Date February 05, 2013

Edition 2010

Section 402 Energy Code

Question:

For a residential renovation (which exceeds 30% of the structure value) when the existing AHU and ductwork in attic are being replaced as part of the renovation, is it the intent of the Prescriptive Method 402-2010 to prohibit the reinstallation of new ductwork in unconditioned attics? For a residential renovation (which exceeds 30% of the structure value) where there is no existing central ac or ductwork, is the intent of the Prescriptive Method 402-2010 to prohibit the installation of new ductwork in unconditioned attics?

Answer

The answer to the question is probably no. Please see the comments attached below.

Section 402 discusses only thermal envelope requirements.

Section 403.2 discusses where and how ducts may be installed in unconditioned attics.

Commentary:

This is not a simple yes/no question as it may seem.

If the project meets the definition of a renovation as found in FBC-EC Section 202, then certain requirements of the Energy Conservation Code will apply. Table 101.4.1 for Nonexempt Existing Buildings, includes a chart for what building systems and components must comply with the energy

code when installed as new or are replaced.

A 2012 "Glitch fix" to the 2010 Energy Conservation Code included the following: "403.2 Ducts.403.2.1 Insulation (Prescriptive) Supply and return ducts, including air filter enclosures, air ducts and plenums, shall be located inside the building thermal envelope and All other ducts

shall be insulated to a minimum of R-6."

This provides a disconnect with the Existing Building Code Level One Alterations Section 601.2 Conformance. Which allows a building to be altered so long as the replaced system does not reduce the minimum efficiency of the

structure. This carries forward into Level Two Alterations (701.2).

In short, the Energy Code would not require the relocation of ductwork or air handlers to within the thermal envelope of the structure for a renovation. However, if additional square footage is being added, then there could be some application of the more stringent requirements based on exact system design.

Requiring the relocation of the equipment and duct systems being replaced as part of a renovation meeting the 30% rule to comply would appear to be punitive in nature and result in a gross expense for something that was previously approved and acceptable.

That being said, the argument can be made that 402.3 as written is applicable if the project meets the definition of a renovation in Section 202. This would mean no AHU or ducts in unconditioned spaces. However, insulating the roof deck and sealing off the attic would bring the ducts and

equipment within the thermal envelope of the structure and therefore meet the requirements of 402.3.

Further reason for the confusion is form 402-2010 on table 402A next to "ductwork & air handling unit"; it says "not allowed". Section 403.2 discusses where and how ducts may be installed in unconditioned attics. Section 403.2.4 does prohibit air handling units from being located in an attic when using section 402 for compliance.

Notice:

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