

INFORMAL CODE INTERPRETATION

NC Department of Insurance
Office of the State Fire Marshal - Engineering Division
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Insulation Placement Between Multi-Family Dwelling Units

Code: 2012 Residential Code
Section: N1102

Date: July 3, 2012

Code: 2012 Energy Conservation Code
Section: 402 & 502

Question 1:

Is insulation for purposes of energy conservation required between dwelling units such as condominiums, apartments, and townhouses?

Answer 1:

No. The NC Energy Conservation Code is concerned with the energy consumption of a building as a whole and not with the energy consumption of an individual unit. These types of buildings are maintained as a whole and the thermal envelope is expected to be maintained as a whole. Although a dwelling unit may lose heat to an adjacent unconditioned (empty) dwelling unit, the overall energy loss of the building is maintained. For that reason the “thermal envelope” of a building will be the exterior walls, floors, and ceilings/roof that define the interior conditioned space of a building. Walls and floor/ceiling assemblies that divide dwelling units do not define the thermal envelope and therefore do not require insulation for purposes of energy conservation.

Question 2:

Is insulation for purposes of energy conservation required in the walls that separate duplex dwelling units?

Answer 2:

No. The NC Energy Conservation Code is concerned with the energy consumption of a building as a whole and not with the energy consumption of an individual unit. Since both units of a duplex are owned by a single owner it is expected that the thermal envelope will be maintained as a whole. For that reason the “thermal envelope” of a building will be the exterior walls, floors, and ceilings/roof that define the interior conditioned space of a building. Walls and floor/ceiling assemblies that divide dwelling units do not define the thermal envelope and therefore do not require insulation for purposes energy conservation.

Question 3:

Is the sound attenuation insulation in the walls separating dwelling units required to meet the R-value requirements of the NC Energy Code and Chapter 11 of the NC Residential Code?

Answer 3:

No. Insulation only needs to meet the requirements of the NC Energy Code and Chapter 11 of the NC Residential Code when it is located in the assemblies forming the building thermal envelope.