



Application of the 2017 National Energy Code for Buildings

The NECB may be used for energy efficiency for any building (9.36.1.3.(1)).

Buildings containing non-residential occupancies whose combined total floor area exceeds 300m² (3229ft²) or medium-hazard industrial occupancies shall comply with the NECB. (NBC 2015 9.36.1.3.(4))

Building Types and Sizes	Energy Efficiency Compliance Options		
	NBC 9.36.2. to 9.36.4. (Prescriptive)	NBC 9.36.5. (Performance)	NECB
<ul style="list-style-type: none"> houses with or without a secondary suite buildings containing only dwelling units with common spaces ≤ 20% of building's total floor area⁽¹⁾ 	✓	✓	✓
<ul style="list-style-type: none"> Group C occupancies buildings containing Group D, E or F3 occupancies whose combined total floor area ≤ 300 m² (excluding parking garages that serve residential occupancies) buildings with a mix of Group C and Group D, E or F3 occupancies where the non-residential portion's combined total floor area ≤ 300 m² (excluding parking garages that serve residential occupancies) 	✓	X	✓
<ul style="list-style-type: none"> buildings containing Group D, E or F3 occupancies whose combined total floor area > 300 m² buildings containing F2 occupancies of any size 	X	X	✓

Notes to Table A-9.36.1.3.:

(1) The walls that enclose a common space are excluded from the calculation of floor area of that common space.

Prescriptive Insulation Requirements (Zone 6)

Table 3.2.2.2. and Table 3.2.3.1.

		U-Value W/(m ² ·K)	RSI Value (m ² ·K)/W	R-Value (Approximate and for reference only)
Above-Ground Building Assemblies	Walls	0.247	4.049	23
	Roofs	0.156	6.410	36.5
	Floors	0.183	5.464	31
Assembly in Contact with the Ground	Walls	0.284	3.521	20
	Roofs	0.284	3.521	20
	Floors	0.757 for 1.2m	1.321	7.5

Walls in contact with the ground. The term “ground level” as used in 3.2.3.2.(3) has a different meaning than “grade”. which is defined in the NBC and NECB. the wording in 3.2.3.1.(3) requires that the bottom of the insulation follow the contours of the exterior ground level at the required depth. (A-3.2.3.2.(3))

Roofs in contact with the ground. Refers to structures that are normally below grade such as walkways or storage garages. it does not refer to structures with vegetative roofs as might be built at elevations above grade. (A-3.2.3.2.(1))

Floors in contact with the ground. Floors in contact with the ground include floors or crawl spaces even when there is no actual constructed floor. (A-3.2.3.3.)

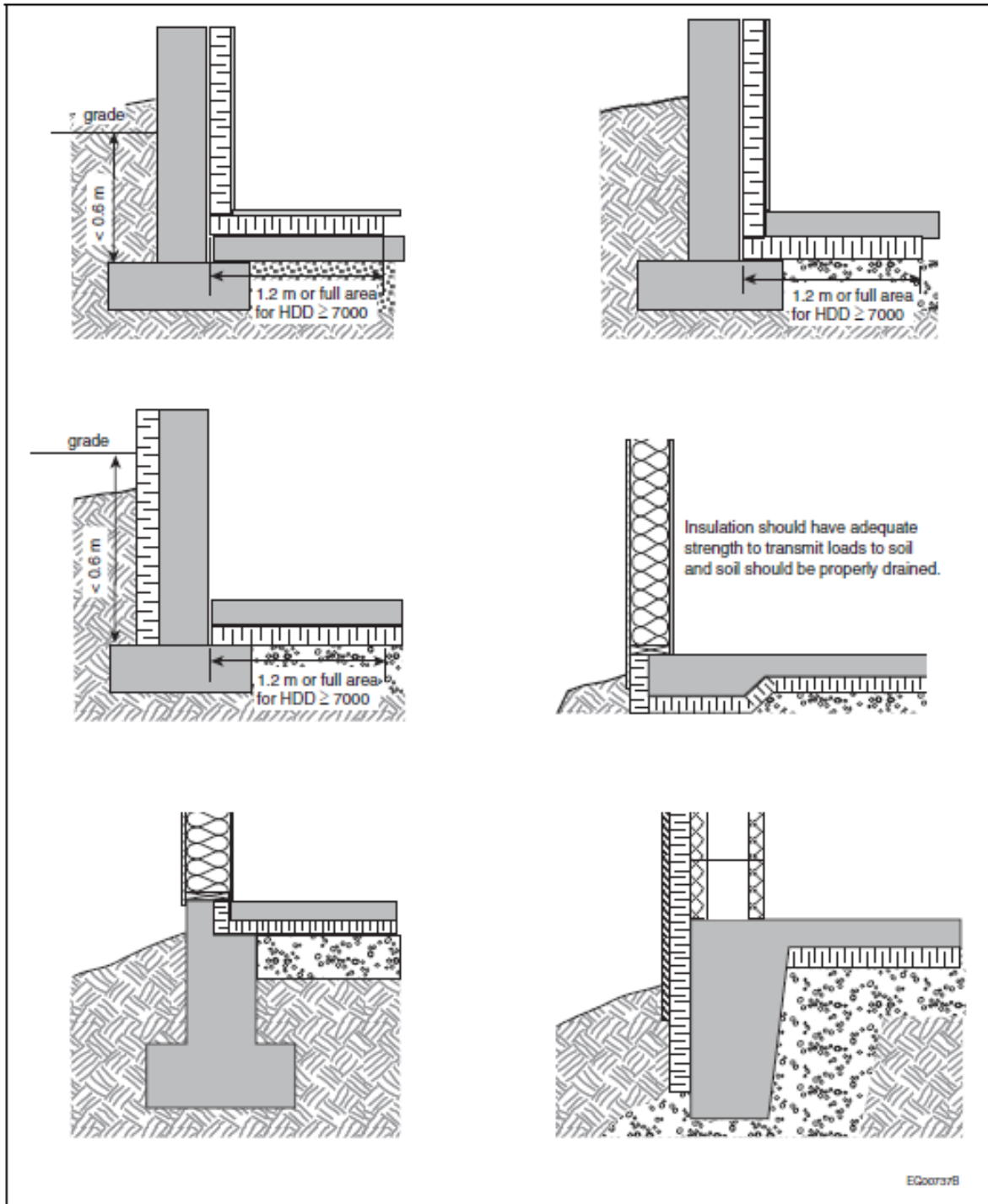


Figure A-3.2.3.3.
Insulation of floors in contact with the ground

Note to Figure A-3.2.3.3.:

- (1) Grade does not necessarily coincide with the ground levels shown in the diagrams.