



BUILDING NOTE

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ENERGY EFFICIENCY PROVISIONS FOR GLAZED STRUCTURES

The purpose of this Building Note is to clarify the energy efficiency provisions of the Building Code of Australia (BCA) for glazed structures attached to Class 1 buildings. Local governments frequently receive applications from builders wanting to construct glazed sunrooms, garden rooms and conservatories or the like. There appears to be a difference of opinion in the industry as to when the energy efficiency provisions of the BCA are applicable to these types of structures. One of the main problems with applying the Deemed-to-Satisfy solutions of the BCA to glazed structures is that the effective glazing area is likely to exceed the Deemed-to-Satisfy percentages in the BCA Table 3.12.2.1.

The BCA energy efficiency Performance Requirement P2.6.1 states in part:

A building must have, to the degree necessary, a level of thermal performance to facilitate the efficient use of energy for artificial heating and cooling appropriate to-

- (a) the function and use of the building; and*
- (b) the internal environment;...*

The expression 'to the degree necessary' provides flexibility by allowing a building surveyor to determine the level of performance necessary in a particular case. In determining the level of performance necessary, the building surveyor needs to assess the proposed building against each of the performance criteria to ascertain the appropriate level.

The Deemed-to-Satisfy provisions of the BCA, relating to building fabric, external glazing, building sealing and air movement, can be applied to all Class 1 buildings and with the exception of air movement can also be applied to all Class 10a buildings with a conditioned space.

A Class 10a building without a conditioned space appears to have no requirement to meet the Performance Requirements, as there is no artificial heating or cooling. However, clause 3.12.1.6 of the BCA in relation to a Class 10a building that may be attached to a Class 1 building, for the purpose of protecting the energy efficiency of the Class 1 building, states the following:

A Class 10a building attached to a Class 1 building must-

- (a) have an external fabric that achieves the required level of thermal performance for a Class 1 building; or*
- (b) be separated from the Class 1 building with construction having the required level of performance for the Class 1 building; or*
- (c) Provide the level of thermal performance required for the external element of the Class 1 building*

There also appears to be some differences of opinion in classifying glazed structures. The BCA definition of a habitable room clearly includes sunrooms. However, the explanatory information associated with clause 3.12.1.6 of the BCA suggests that glasshouses and solariums are Class 10a buildings. Therefore, a local government, when classifying these types of structures should first establish their function and use.

In relation to a glazed structure without domestic services a local government would have the following options:

1. If a proposed glazed structure is a Class 10a building without a conditioned space, the local government could approve the proposal, provided the building is free standing, or if attached to a Class 1 building complies with clause 3.12.1.6 of the BCA; or
2. If a proposed glazed structure is a Class 10a building with a conditioned space and is submitted as a Deemed-to-Satisfy, the local government could approve the proposal, provided the building meets Parts 3.12.1, 3.12.2 and 3.12.3 of the BCA in relation to building fabric, external glazing and building sealing; or
3. If a proposed glazed structure is a Class 1 building and is submitted as a Deemed-to-Satisfy, the local government could approve the proposal, provided the building meets Parts 3.12.1, 3.12.2, 3.12.3 and 3.12.4 of the BCA in relation to building fabric, external glazing, building sealing and air movement; or
4. In other cases, an Alternative Solution should be requested and assessed on its merits. That solution could have regard for the unique function and use of the glazed structure.

If an Alternative Solution is proposed, it is the responsibility of the building licence applicant to demonstrate compliance with the Performance Requirements of the BCA



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