The below answer sheet is for your own self-assessment.
Please keep your completed questionnaires and answers on file for your record.
These do not need to be sent to CPD Live. CPD-Live will send you certificate.

Proudly supported by

Fletcher Insulation
Building Better, Together

Thermal Bridging in Commercial Buildings – NCC Section J Requirements and Design Responses

1. What is thermal bridging?

Thermal bridging is an unintended path of heat flow through the building envelope.

2. What are the common causes of thermal bridging in commercial buildings?

Thermal bridging is commonly caused by metal framing, structural steel, window frames, mullions, penetrations or fixings within the building envelope.

3. What are the negative consequences of thermal bridging in commercial buildings?

Thermal bridges can lead to reduced occupant comfort, higher operational energy use, increased HVAC demand and condensation risk.

4. Name three effective solutions to thermal bridging.

- Thermal breaks
- Continuous insulation layers
- Improved façade detailing

5. As included in NCC Section J, what are Total R-Value and Total System U-Value used to describe?

Total R-Value and Total System U-Value are two ways of describing the thermal performance of a complete building system, including the effects of materials, air spaces and thermal bridging.

6. What does AS/NZS 4859.2 relate to in the context of commercial buildings?

AS/NZS 4859.2 provides methods for calculating the thermal performance of building systems, including the impact of insulation, air spaces and thermal bridging. In commercial buildings, it supports NCC Section J compliance by helping determine Total R-values and Total System U-values.

Competency Codes: PC 10, PC 12, PC 31, PC 35