

Cantilevers

Architecture

What a cantilever costs, in depth, in backspan and in the detailing behind it.

A cantilever needs far more depth than the same span supported at both ends, plus a backspan to hold it down.

backspan at least 2 to 3 x the cantilever

2 m cantilever

to resist uplift

4 to 6 m backspan

Depth for 3 m

ratio 8 to 10

about $3000 / 9 = 330$ mm

Same span, propped

half the depth

about $3000 / 20 = 150$ mm

THE COMMON MISTAKE

× **Cantilevering the slab straight out**

✓ **Break the slab and use a thermal connector**

A slab passing straight through the envelope is a large thermal bridge. It costs heat, and can cause condensation and mould at the inside junction.

Educational reference. Uplift, deflection and vibration all need checking by an engineer before the drawing is fixed.