

Combined Edge Trim Installation

Best practice and guidance for the use of, handling and installation of ACS Combined Edge Trim

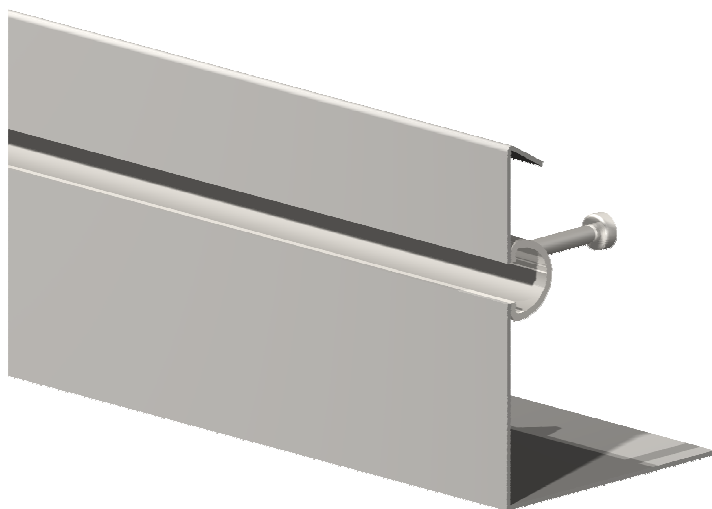
Introduction

CET has been developed for use with steel frame structures and acts as a permanent shuttering when pouring concrete in-situ onto ribbed decking floors. One of the main advantages of this system is that the profiled edge trim incorporates a channel for casting into the concrete to enable the fixing of masonry support angles, windposts & curtain walling at a later stage, as it is often not practical to site drill and fix into the concrete slab, as the thicknesses of the slabs are usually limited

ACS CET is supplied in standard 3 metre lengths which are positioned around the perimeter of the building butted together and taped to prevent the egress of concrete during pouring. The standard lengths can be easily cut to suit the length of a run or alternatively special corner details and other special fabricated sections can be manufactured as required. The edge trim is fixed to top of the steel beam and then restrained using straps fixed to the metal deck to ensure the line of the vertical face remains plumb during the pouring process.

Safety

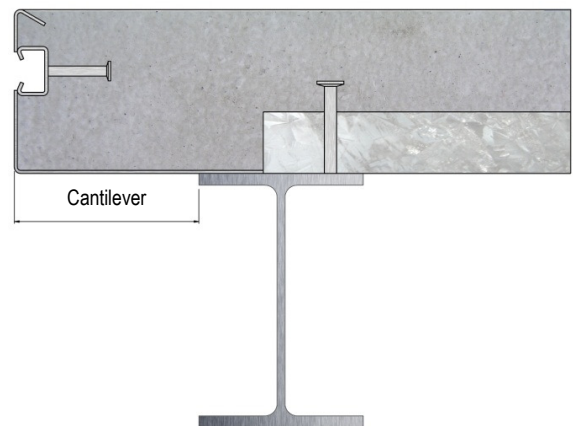
Although every effort is made to remove sharp edges during the manufacture of the product, appropriate personal protective equipment should always be worn when handling and installing masonry support to avoid injury.



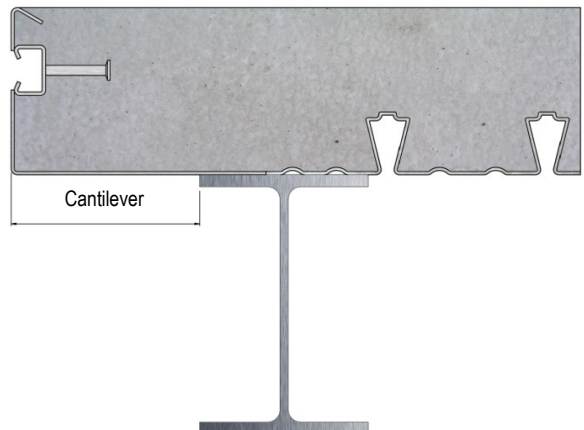
Direction of Metal Deck

The channel provides the same load capacity regardless of the direction the in which the metal deck is oriented (parallel or perpendicular).

Decking Perpendicular



Decking Parallel



Cantilevers & Propping

The cantilever should be kept as small as possible to prevent the need for propping during concrete pouring and in larger cantilevered systems the need to support the final loaded system. Any cantilevers over 125mm, or edge trim in slabs with a thickness greater than 225mm will require temporary propping.

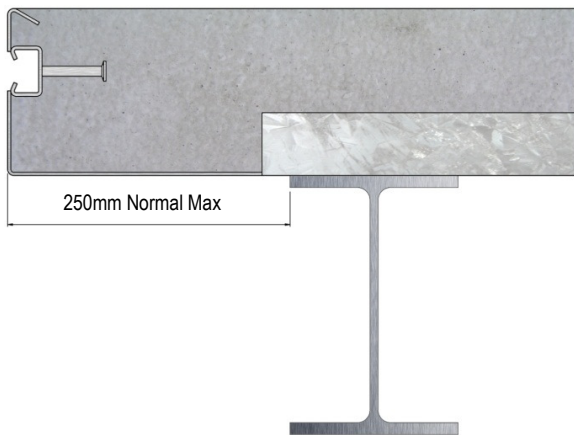
Edge Bearing Cantilever

Careful design consideration should be made to ensure the CET is able to resist applied loads in the temporary wet condition and the final cured load bearing condition.



Typically a maximum cantilever of 125mm can be accommodated without the need for temporary propping. However, this is dependent on a range of variables and the ACS Technical Department should be consulted prior to the pouring of concrete. The CET will be supplied complete with stiffening ribs and will require strapping back to the metal deck to prevent overturning of the vertical leg during the casting process.

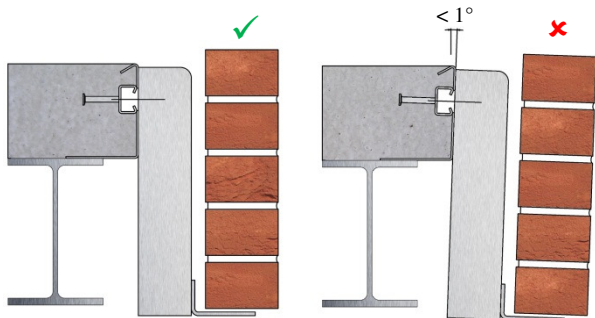
Large Cantilever



For larger cantilevers it may be necessary to provide temporary propping until such a time as the slab has achieved its required strength.

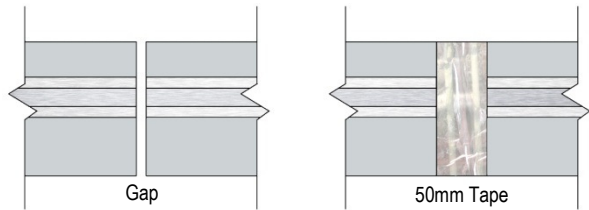
Vertical Alignment

It is critical to ensure that the CET is fixed and strapped as advised by ACS to ensure the vertical leg of the edge trim remains plumb. Even small deviations can cause significant problems when fixing ancillary components to the face of the edge trim.



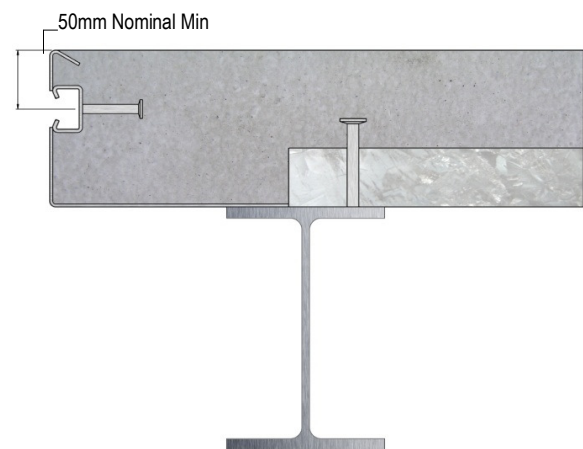
Concrete Egress

ACS CET is typically supplied in 3000mm lengths that are butted together on site and cut to suit the length of a run. To prevent concrete leaking during the pouring process, the joints should be taped using 50mm aluminium foil tape.



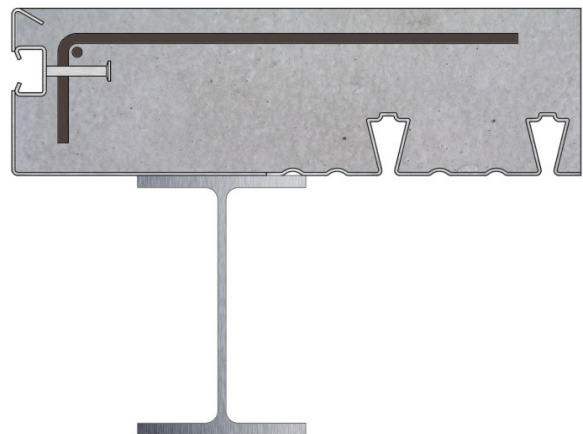
Channel Casting Level

The channel can be cast at any level in the edge trim, however, ACS typically recommend that it is cast as high as possible to ensure that the maximum possible heel bearing is achieved for the ancillary components that are fixed to it.



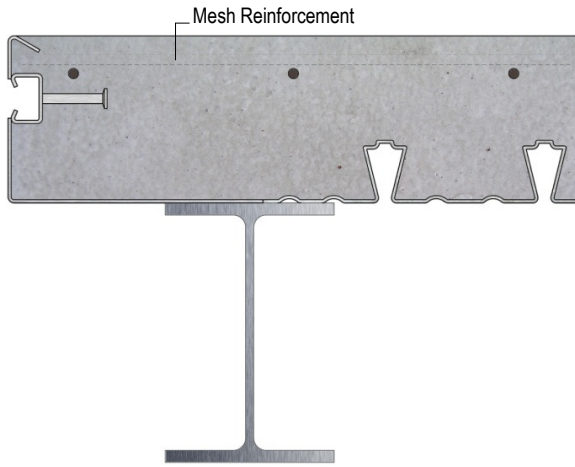
A minimum edge distance of 50mm can be achieved with smaller channel sections. On the larger channel sections the channel must be positioned to ensure that the anchors are positioned within the reinforcement cage.

Reinforcement



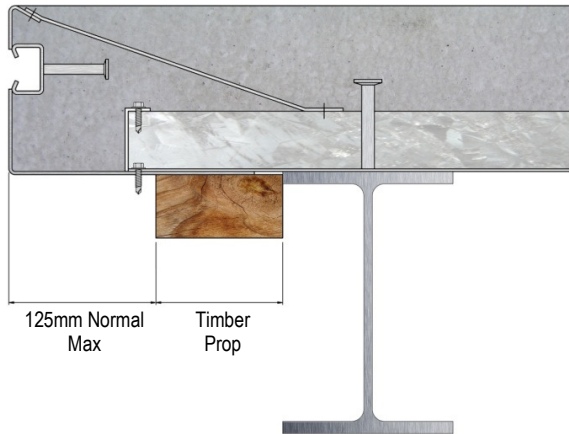
ACS channel must be positioned so that the anchors are positioned within the reinforcement cage to distribute the applied loads back to the surrounding concrete. Local bobs and links are normally sufficient to

achieve this, but mesh reinforcement can also be used.



Fixing Details

The CET should be fixed to the flange of the steel beam or underside of the metal deck at a maximum of 225mm centres using shot fired nails or tech screws as appropriate. CET is supplied as standard in 3m lengths



Fixing straps will be supplied to restrain the top edge of the CET. The straps are supplied in 2000mm lengths to be cut and bent on site to suit the specific application. The straps must be positioned within 100mm, either side of a butt joint or the end of a run and then spaced at 450mm maximum centres across the remainder of the length. The straps must be tight enough so that the front face of the CET does not bend when the slab is cast and the angle made to the vertical remains at less than 1°.

