

# Breeze Block Construction

Most of our standard breeze block products come in a 290 mm x 290 mm x 90 mm format. These products are developed as architectural features that create an aesthetic differentiation coupled with a practical outcome providing privacy screening and thermal shading. All our products are well suited for external and internal applications as non structural elements. Due to the composition of most of our blocks they are not suitable for carrying structural loads.

It is important to have the right advice when contemplating putting together a composition of any of our products to understand the structural requirements to ensure the installation is first and foremost safe. Once the necessary level of comfort is achieved through consultation with your bricklayer and/or engineer depending on the size and nature of your project, you then need to ensure the built outcome matches the design requirements specified/agreed.

All our blocks are made with a special sand mix combined with aggregate, cement and water to allow our production process that works primarily on vibration and compaction. All our products are extruded under pressure and air dried for two days before packaging to allow further drying. Generally we wait one week before shipping blocks to allow them to achieve the necessary level of strength.

We have very few breakages but do recommend a small allowance for damages to ensure you have the right number of blocks for the job. This also prevents situations where a customer in Perth might run one block short of finishing a job.

While there are many applications for our breeze blocks, the most common application is external and internal screen walls. We have developed our blocks with special rebates on two perpendicular edges to enable a wall to be assembled that can accommodate reinforcing steel in the mortar joints.

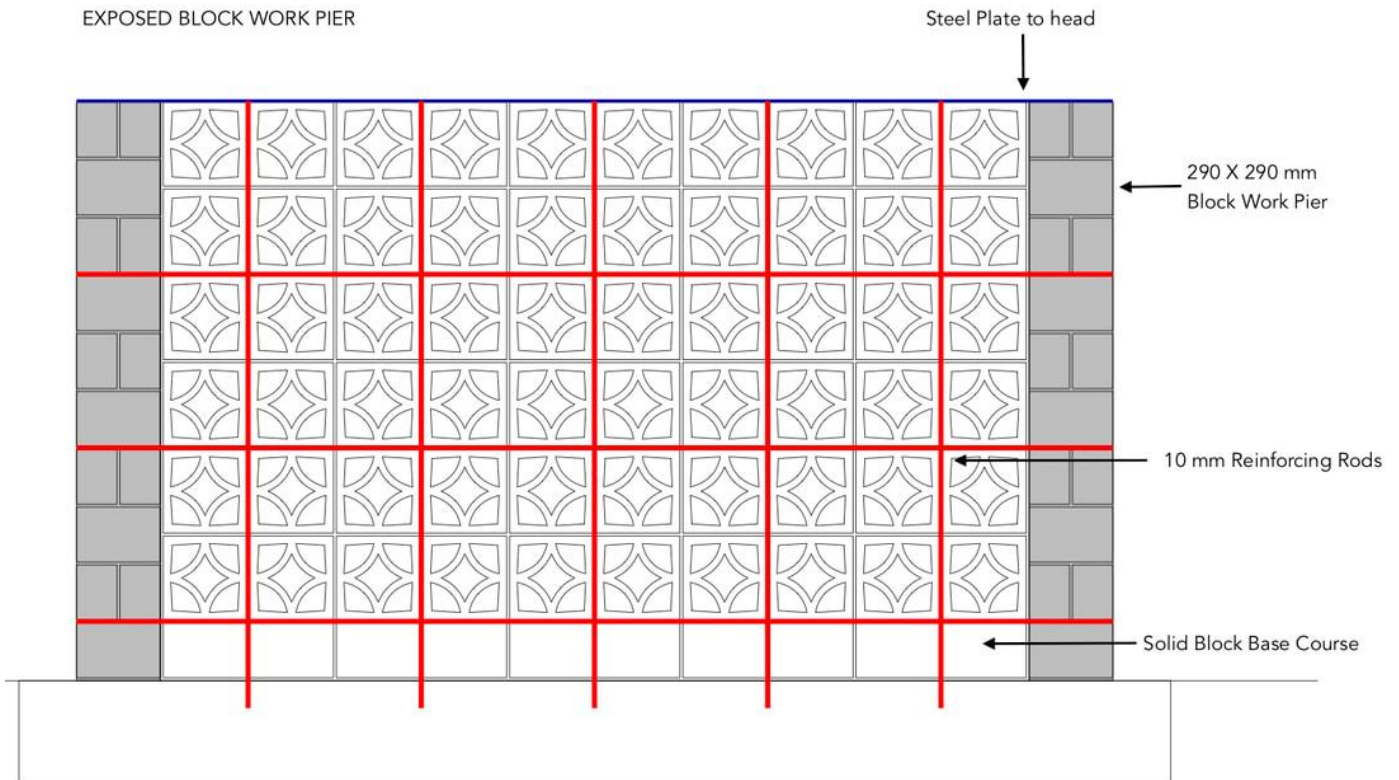
While every application is different, the diagram below sets out an example of how a wall assembly might be fabricated to provide you with the visual you are looking for and the structure you need. Naturally consult with your engineer or block layer or both to ensure that all conditions are being taken into consideration. Please do not hesitate to call us to discuss your ideas so as we can work with you to make it come to life.

Recognising that a good portion of the application for our products relates to fences and screen walls we have set up the following outlines for how these walls might typically be composed using a number of different approaches. These approaches are to serve as a guide only understanding every application is different however the general intent can be applied to most applications. Of primary importance is the recognition that breeze block walls require restraint through structural vertical elements that the breeze block wall can be connected to.

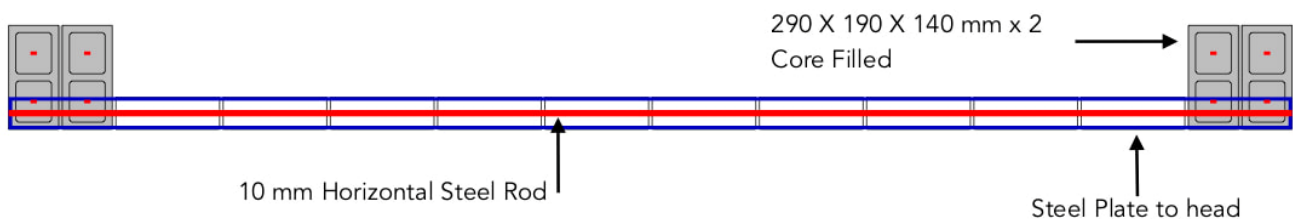
## Exposed Block Work Structure

This is a very common installation method where block work piers are installed using 290 x 190 x 140 mm blocks which work to three courses for each block work pier to every two of our breeze blocks. This approach enables steel reinforcing to be placed in corresponding joint lines which provides the necessary lateral restraint. We recommend fences are created using a solid block base to elevate the breeze blocks from ground level as they tend to collect leaves and dirt and require regular maintenance. We can supply solid blocks for this purpose.

EXPOSED BLOCK WORK PIER



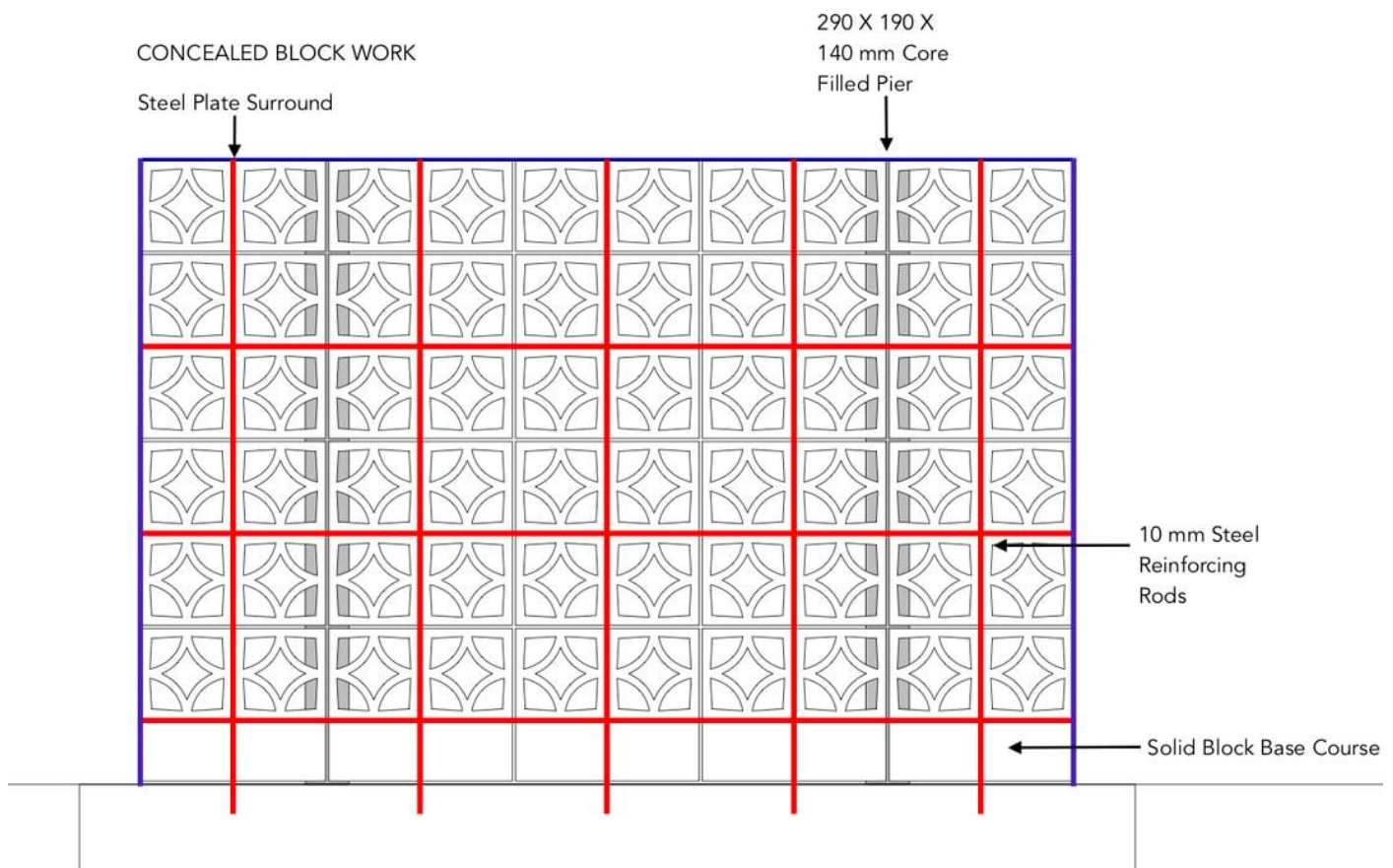
EXPOSED BLOCK WORK PLAN



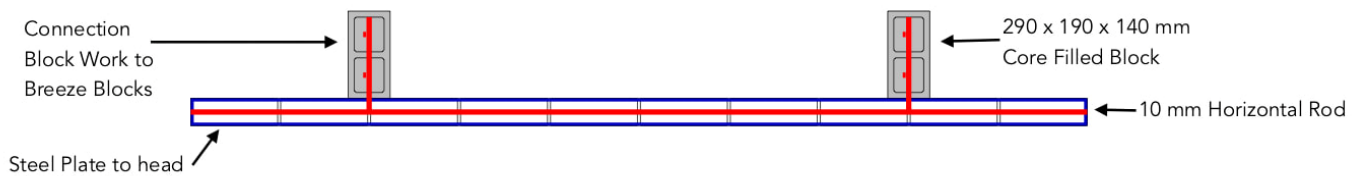
## Concealed Block Work Structure

Recognising that visible structure can interrupt the aesthetic of a breeze block wall we have developed an approach that may differ from installation to installation however the principle provides the vertical support to which the breeze block wall can be connected with no visual interruption. This involves using concrete blocks built up in conjunction with the breeze block wall and connected at a series of points with brick ties. The concrete piers that are created would ultimately be filled with concrete to provide the necessary stiffness to support the breeze block wall.

In order to tie the whole assembly together as a free standing element, the top and side flanks of an installation could be surrounded with a flat plate connected to the vertical piers.



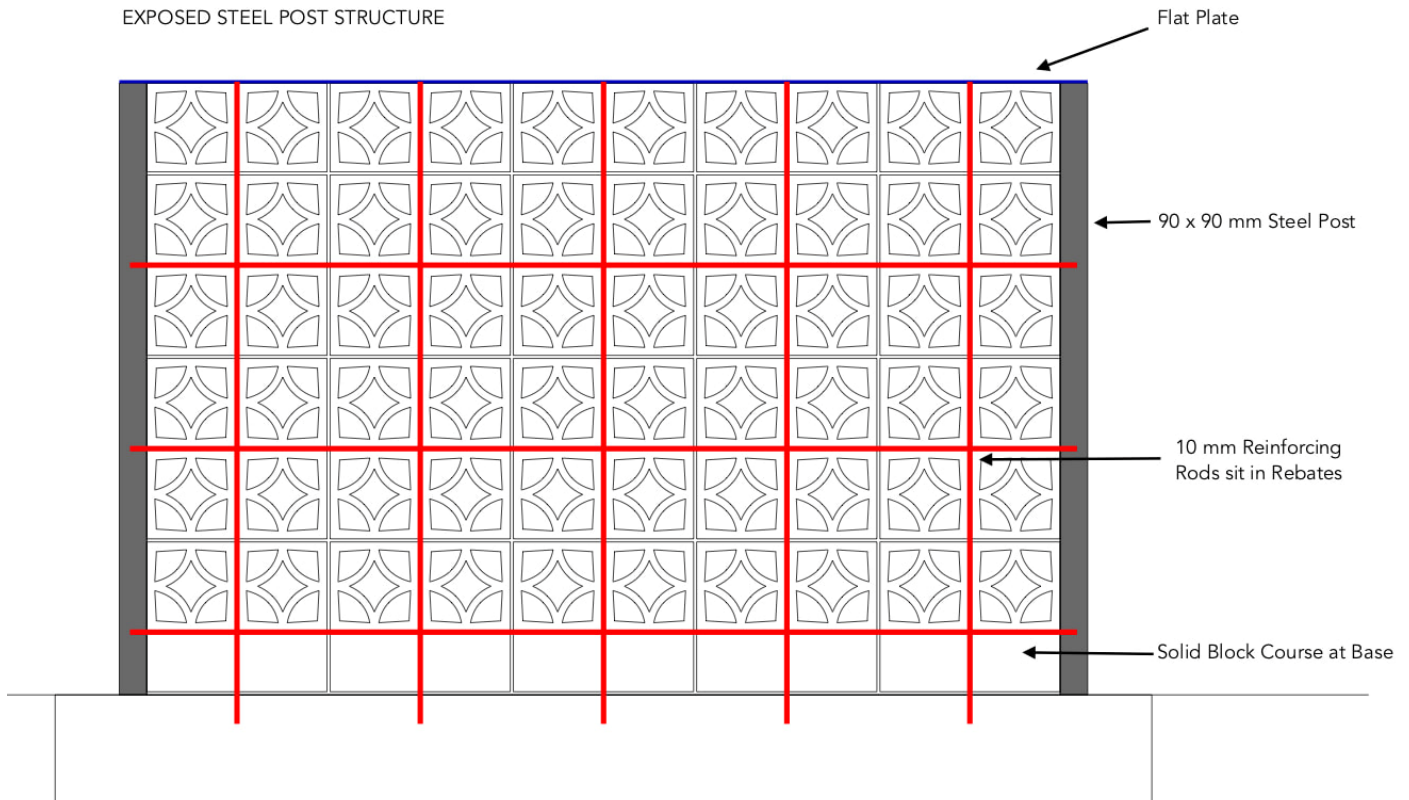
CONCEALED BLOCK WORK PLAN



## Exposed Steel Structure

Steel structure can provide a discreet outcome for a breeze block wall assembly due to the slenderness of the vertical elements into which the breeze block wall can be tied. Steel posts can be used to connect steel rods running through the mortar joints to brace the assembly. This can be further enhanced with a capping plate to tie in the overall assembly.

EXPOSED STEEL POST STRUCTURE



PLAN EXPOSED STEEL STRUCTURE



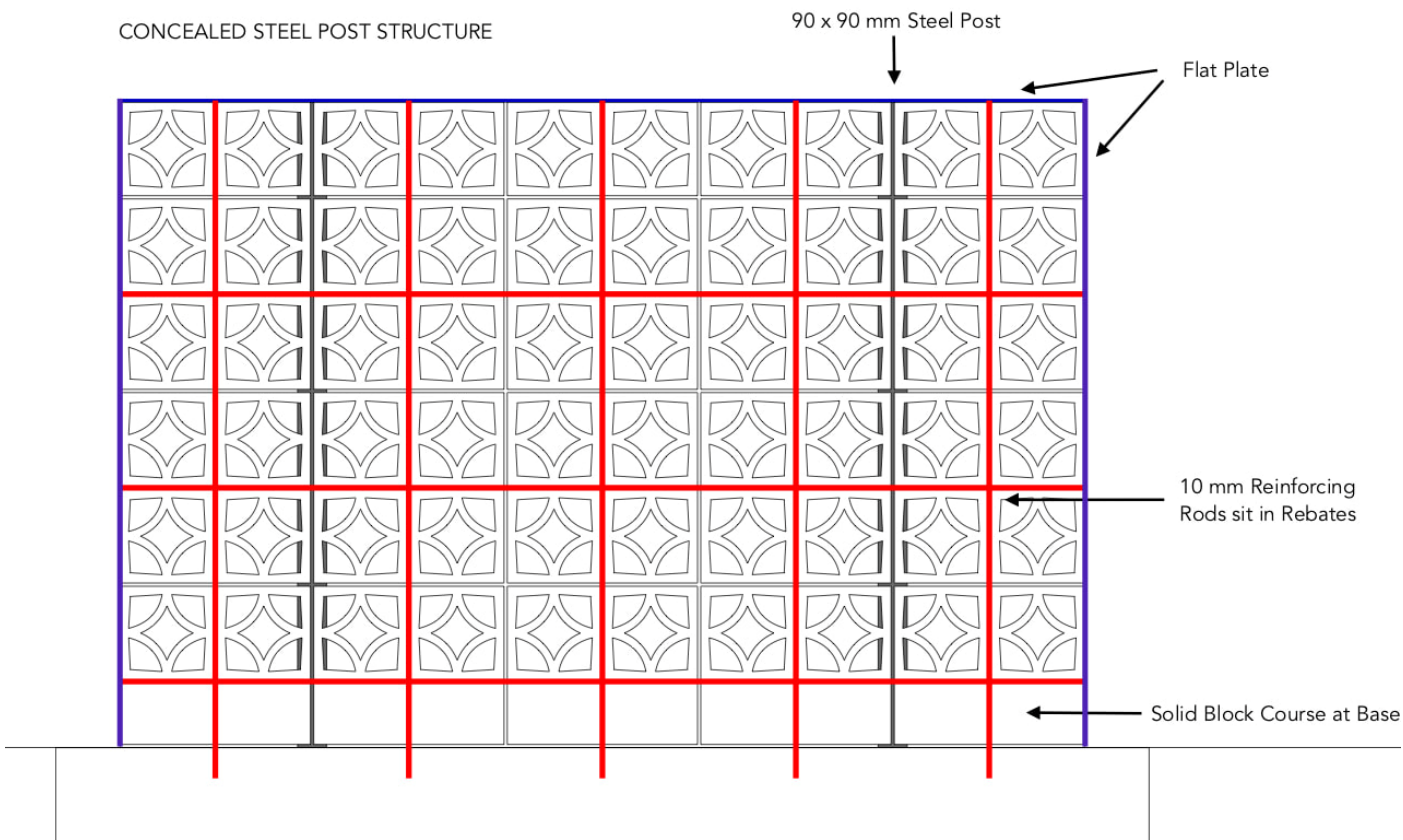
## Concealed Steel Structure

For more discreet structural outcomes we have developed a design to provide a sound structural framework for larger installations that minimises the visual impact of the structure. This is a system where the wall is supported by vertical steel columns sitting behind the block wall at suitable frequencies that have strategically located tabs that tie the block work wall to the columns. This can be done with either brick ties spot welded to the columns and inserted in the block work joints or steel tabs fixed at intervals of 600 mm protruding into the vertical joints. These tabs have a large holes which provide a void for structural steel rods to run through every second course or 600 mm. This housing of the structural steel rods that run through the mortar joint in every second course effectively ties the block assembly to the vertical posts.

Naturally every job is different and specific advice should be received for every project. See the pictures below demonstrating this system.

This system uses to good effect the rebates provided in the edges of the blocks that house the structural steel rods that can run through the mortar joints. These rods can run both horizontally and vertically and would be fastened at each side and/or top and bottom.

CONCEALED STEEL POST STRUCTURE

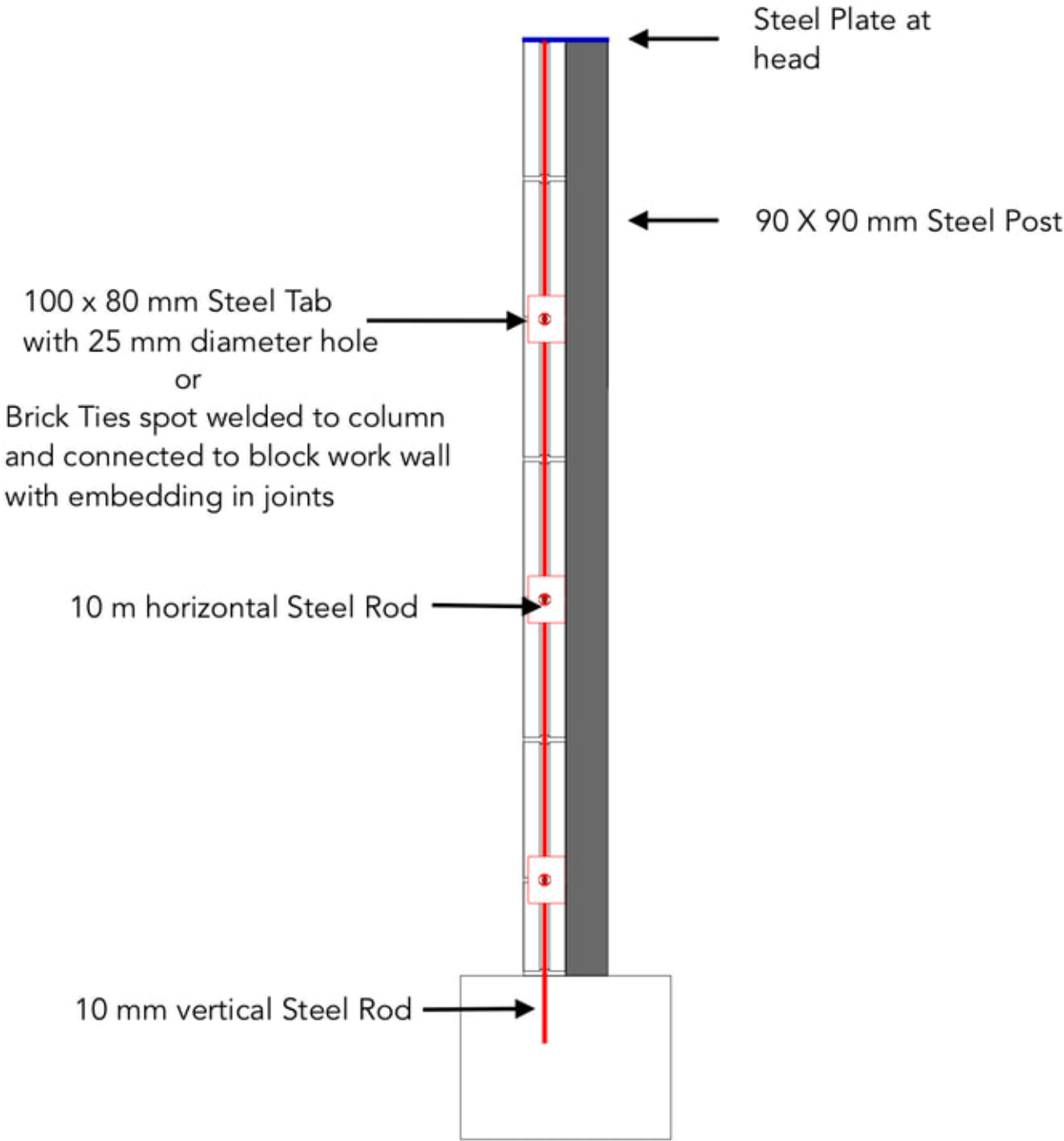


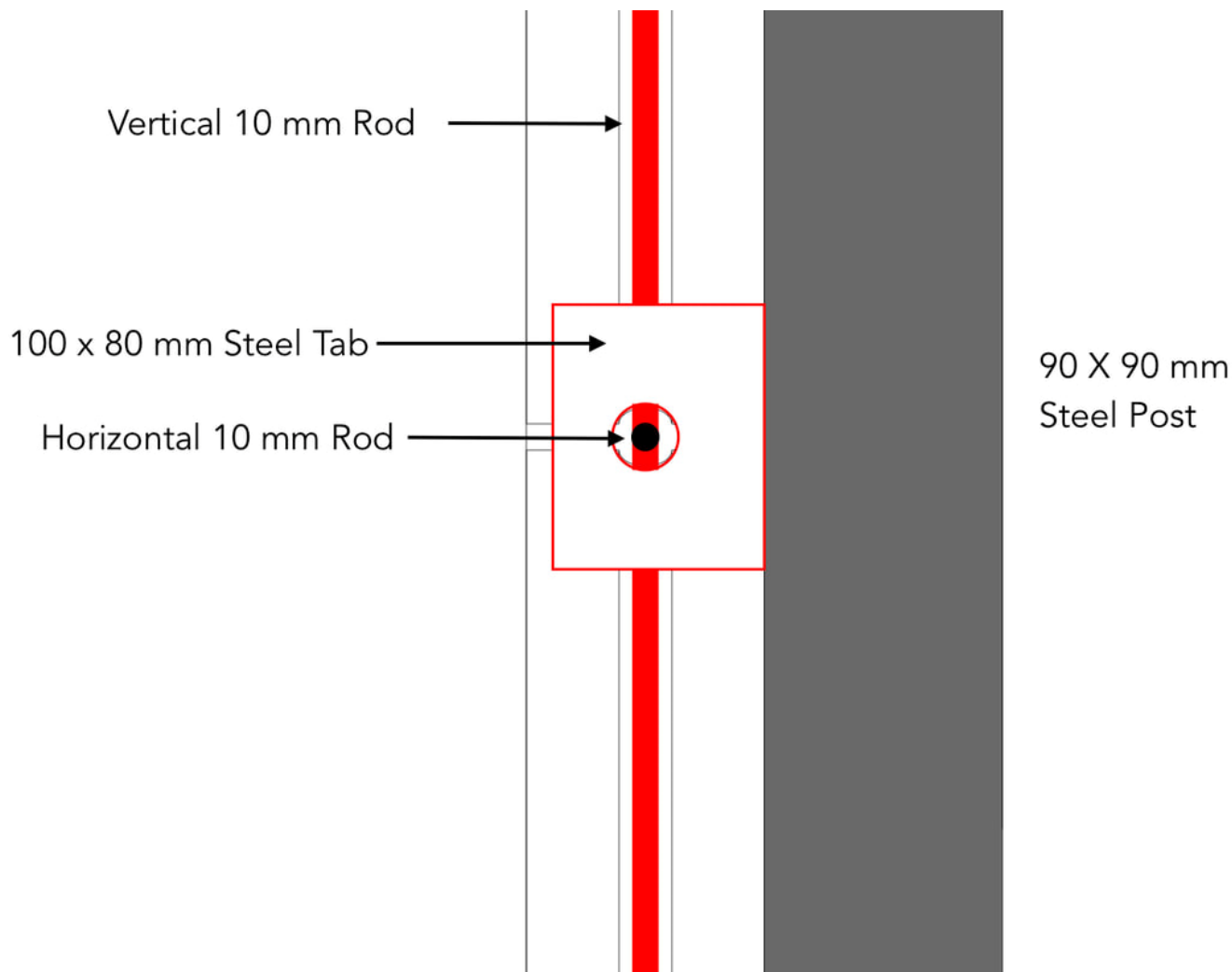
PLAN CONCEALED STEEL STRUCTURE





CONCEALED STEEL STRUCTURE SECTION





## Available from... ISLAND BLOCK & PAVING

### HEAD OFFICE: ISLAND BLOCK & PAVING

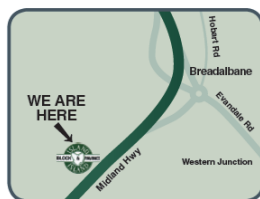
Midlands Hwy, Breadalbane  
Tasmania, AUSTRALIA 7300

Ph: (03) 6398 2088

Fax: (03) 6398 2099

#### Northern Representative

Mobile: 0439 393 137



### SOUTH: ISLAND BLOCK & PAVING

41 Howard Road, Glenorchy  
Tasmania, AUSTRALIA 7010

Ph: (03) 6224 4477

#### Southern Representative

Mobile: 0457 982 088



**Freecall 1800 004 499 | email: [sales@islandblock.com.au](mailto:sales@islandblock.com.au)**

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