

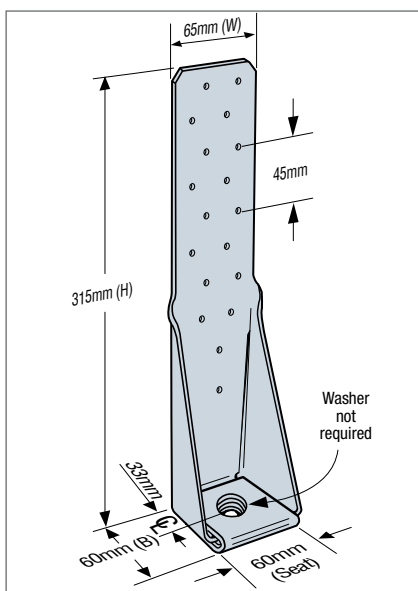
HTT4 Braces Shear Wall for Mid Floor Holddown Connection



When it comes to hold down and shear wall bracing, the Simpson Strong-Tie HTT4 Tension Tie is a favourite of the engineers and builders.

THE CHALLENGE

The team at Kirk Roberts Consulting were looking for mid floor shear wall bracing holddown system as well as bracing holddown for bottom plate with BRANZ appraisal under 50mm concrete edge distance.



PROJECT INFORMATION

Project Category

Tension Tie & Holdown

Project Name

Avondale, Auckland

Engineer

Kirk Roberts Consulting

Builder

Dominion Constructors

Simpson Strong-Tie Products

HTT4 Tension Tie & Holdown

Project Start Date

• November 2022

CHALLENGE

Looking for an approval mid floor shear wall bracing holddown systems.

SOLUTION

Simpson Strong-Tie HTT4 Tension Tie & Holdown Bracket is designed for heavy duty holddown applications on studs and bottom plates, and offers a solution for resisting tension loads. The HTT4 Holddown is fixed at both ends of the bracing element with an M12 rod and bolts through the mid floor.

RESULTS

KRC engineers are so happy with what the solutions Simpson provided. "Simpson Strong-Tie products are generally robust and well performing".

THE SOLUTION

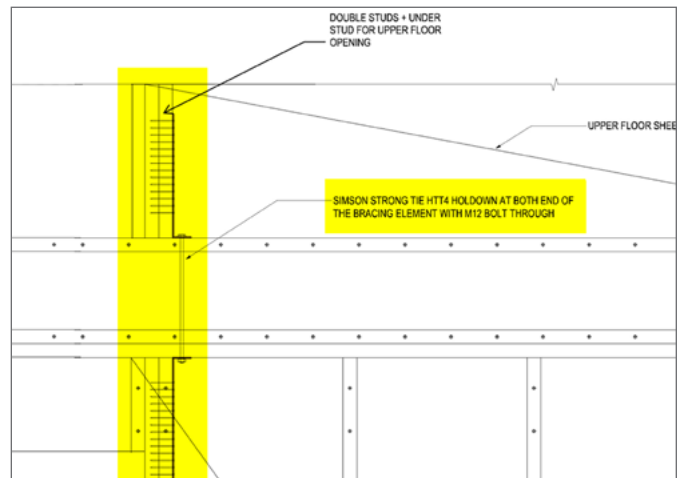
The HTT4 Tension Tie & Holdown Bracket is designed for heavy duty holdown applications on studs and bottom plates, and offers a solution for resisting tension loads.

KRC engineers specified the heavy-duty HTT4 shear wall brace for the mid-floor connection after consulting with Simpson Strong-Tie. The HTT4 holdown is attached at both ends of the brace element with a M12 rod and bolts through the mid-floor.

The HTT4 Tension Tie & Holdown Bracket has a multi ply seat formed from a single piece of steel, providing extra strength. No washers are required. It uses Strong-Drive® SD#10 x 38mm Connector screws in a unique screw pattern that provides less joint slip or fastener/connector deformation.

Approvals

Simpson Strong-Tie HTT4 Holdown is a heavy-duty holdown and tension tie bracket. The HTT4 is designed for heavy duty holdown applications including external and internal 15kN bracewalls for concrete floors in accordance with NZS 3604:2011. It is supported with Anchor solution approvals as follows:



- THD Approvals - [BRANZ Appraisal 983 \(2023\)](#) for applications related to bottom plate fixings and holdown applications per NZS 3604 using Titen HD Screw Bolts
- [BRANZ Structures Test Report](#) - Bracewall Hold-Down Bottom Plate Anchor

THE RESULTS

It was a cost effective solution that is in good supply, making it easy for the builder Dominion Constructors. The heavy duty HTT4 is suitable for residential and commercial projects, sub diaphragm floor, seismic upgrades, and mid floor vertical connection applications.

KRC engineers are so happy with what the solutions Simpson provided, as they believe "Simpson Strong-Tie products are generally robust and well performing". This is one of the best

compliments we have heard and they are so happy with the engineering support from our structure engineer Daniel Scheibmair and our sales team Darrin Eichmann making sure products are available for the installation.

The one makes us proud the most is that KRC engineers specified the HTT4 bracing holdown solutions for another project a few month later.



**MORE
INFO**

Simpson Strong-Tie® New Zealand Ltd
Call **09 477 4440**

www.strongtie.co.nz