INSTALLATION 194
COMPONENTS 195
CONSTRUCTION DETAILS 204

# 3.2 Openings in Internal Steel Framed Walls

Siniat steel stud and track profiles are capable of creating the supporting frame around moderately sized doors and windows in internal steel framed partition walls. Siniat stud and track is often readily available on site, making them a practical way to frame around openings.

This section provides typical details of the framing around door and window openings for internal use. The surrounding frame around an opening requires structural engineering design based upon the dimensions of the opening, applied loads and the steel profiles used.

For large sized door and window openings, and for heavy doors alternative structural framing by others will need to be used.

## Fire Rated and Non-Fire Rated
## Opening Details for Internal Stud Walls

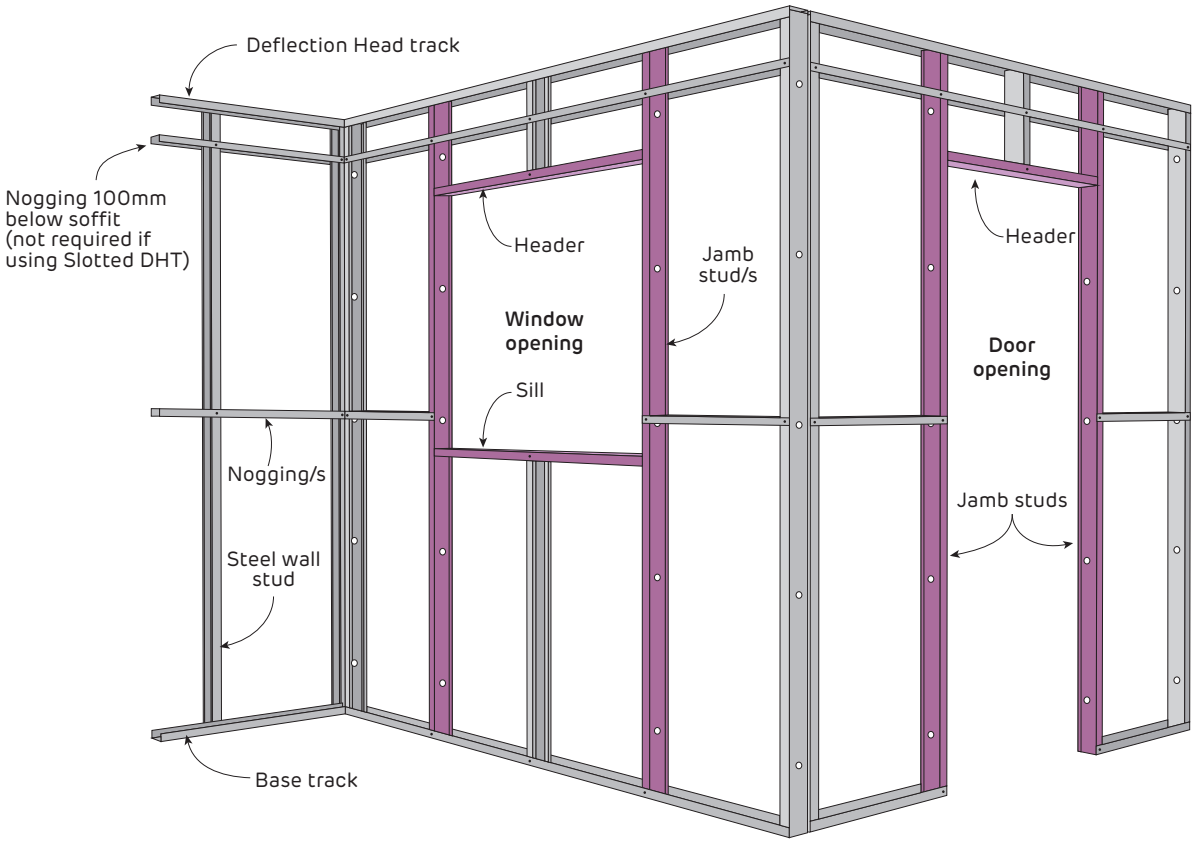


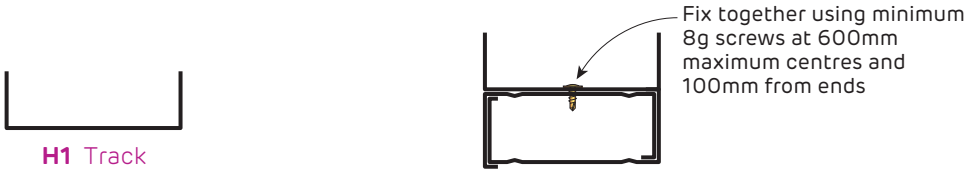

**FIGURE 1** Internal Steel Frame Wall with Window and Door Openings


**J1** Stud - 1.15mm BMT

**J2** Boxed Stud
Typically up to 1200mm opening

**J3** Stud + Boxed Stud
Typically up to 2000mm opening

**FIGURE 2** Jamb Stud Configurations
Plan

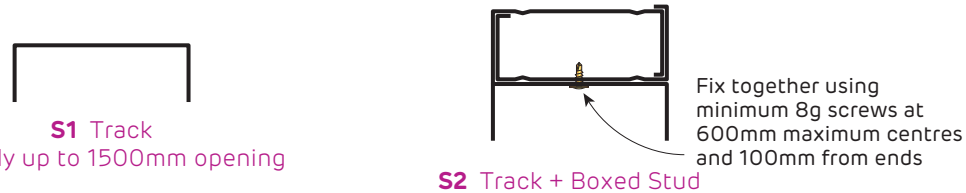



**H1** Track
Typically up to 1000mm opening

**H2** Track + Boxed Stud
Typically up to 1500mm opening

**FIGURE 3** Header Configurations
Section

Typical opening widths based upon 3m high wall, Wu=0.39 kPa, Ws=0.25 with deflection limited to height/240.




**S1** Track
Typically up to 1500mm opening

**S2** Track + Boxed Stud
Typically up to 2000mm opening

**FIGURE 4** Sill Configurations
Section

# Components

**FIGURE 5 80mm wide Universal Bracket (UB80)**
For 92mm and 150mm studs
Perspective

**FIGURE 6 60mm wide Universal Bracket (UB60)**
For 64mm and 76mm studs
Perspective

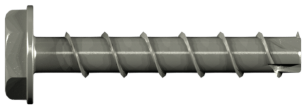


**FIGURE 7 Siniat 6 x 45mm Screw Anchor (SA6x45)**
Perspective

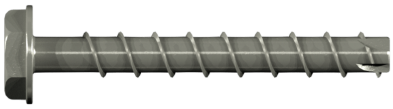


**FIGURE 8 Siniat 6 x 60mm Screw Anchor (SA6x60)**
Perspective

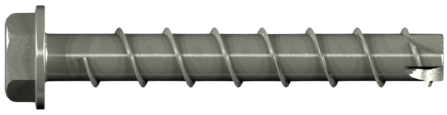


**FIGURE 9 Siniat 8 x 65mm Screw Anchor (SA8x65)**
Perspective

Refer to Section 1 for available profile sizes

**FIGURE 10 Stud**
64mm, 76mm, 92mm and 150mm
Profile

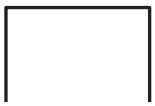


**FIGURE 11 Deflection Head Track**
64mm, 76mm, 92mm and 150mm
Profile

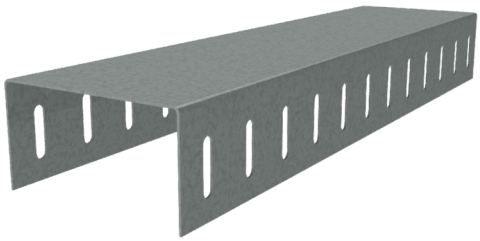


**FIGURE 12 Slotted Deflection Head Track**
64mm, 76mm, 92mm and 150mm widths
Perspective

**FIGURE 13 Base Track**
64mm, 76mm, 92mm and 150mm
Profile

**FIGURE 14 Backing Angle**
50x50 x 1.15mm BMT
Profile

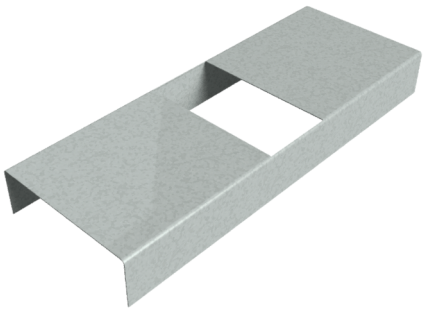
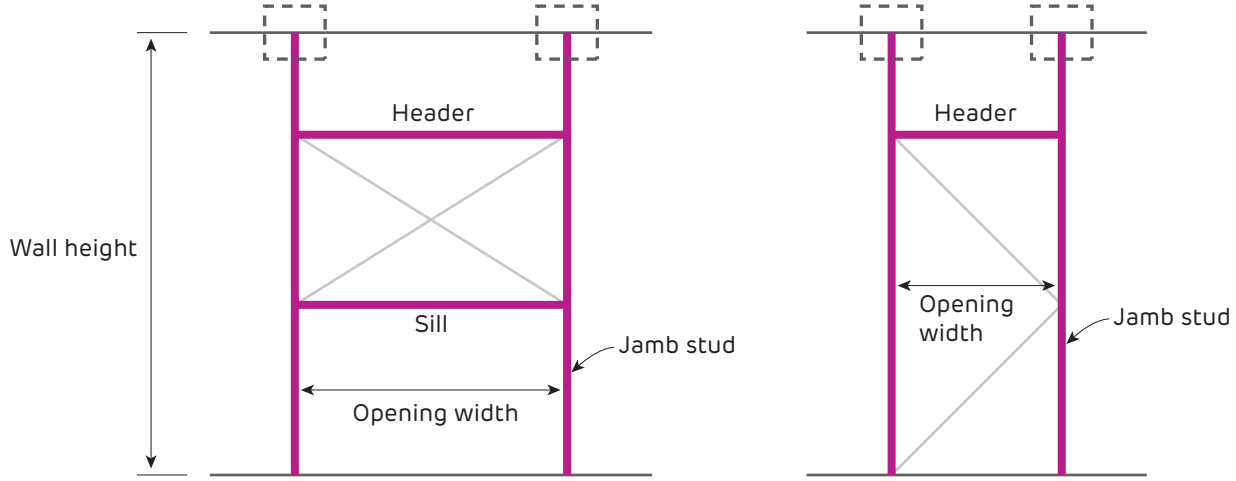


**FIGURE 15 Continuous Nogging Track**
64mm, 76mm, 92mm and 150mm widths
Perspective

## Internal Steel Stud Wall Openings

### Typical Head Track Connections for Doors and Windows




**Window opening** **Door opening**

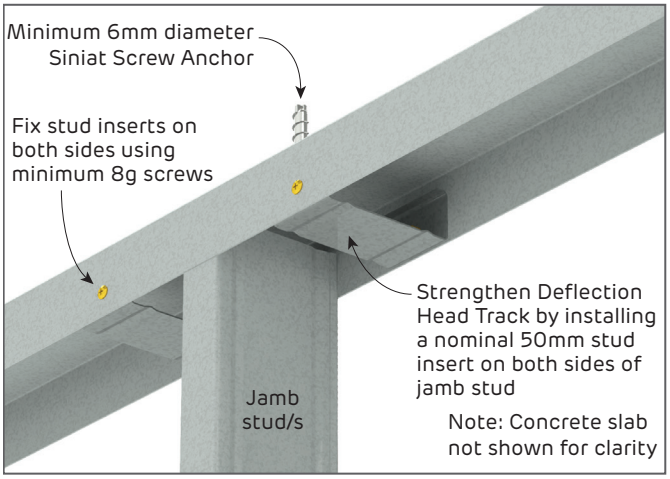



**FIGURE 16a Head Track Connection HC5**
Medium Duty Connection
Perspective

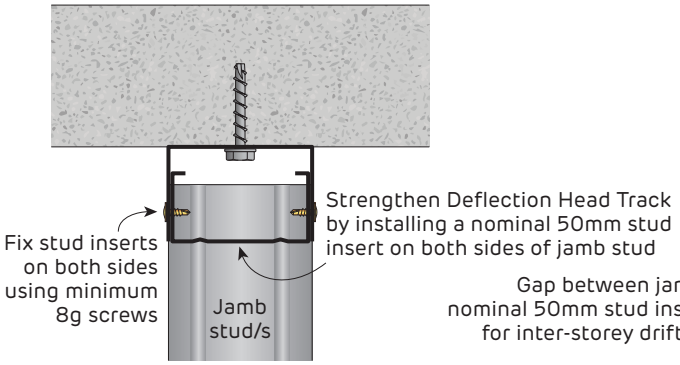



**FIGURE 16b Head Track Connection HC5**
Section

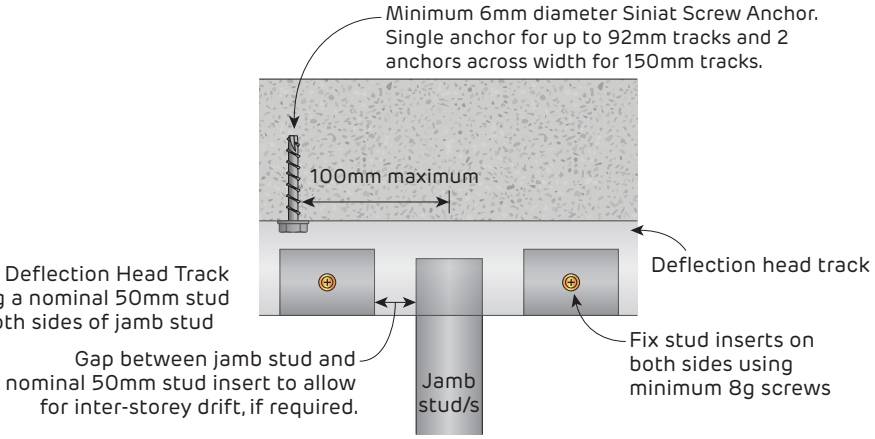



**FIGURE 16c Head Track Connection HC5**
Elevation

## Internal Steel Stud Wall Openings

### Typical Head Track Connections for Doors and Windows

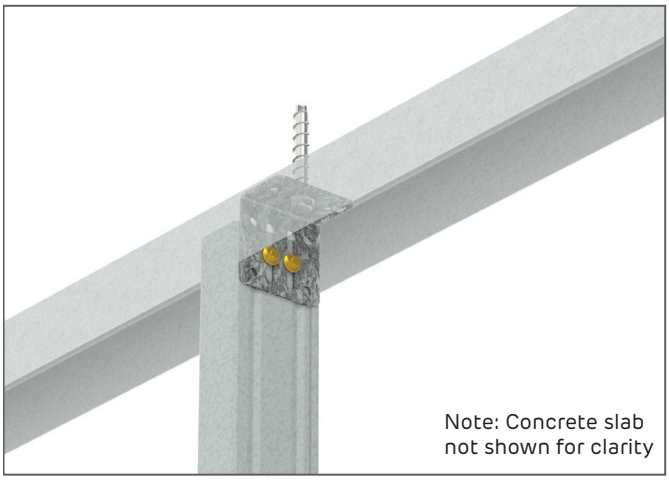



**FIGURE 17a Head Track Connection HC3 using UB60**
Heavy Duty Connection for 64mm and 76mm studs
Perspective

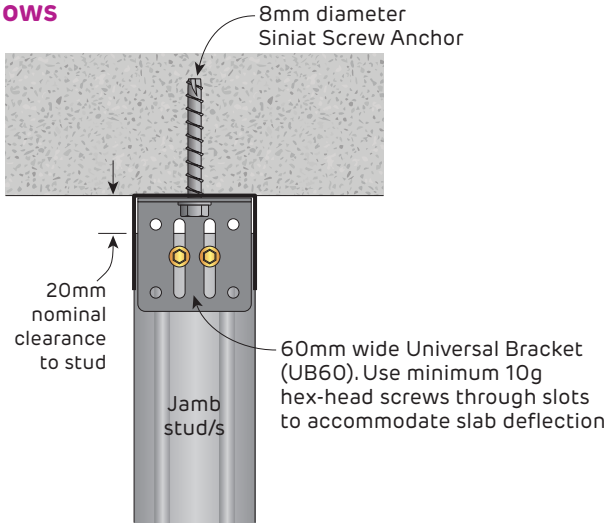



**FIGURE 17b Head Track Connection HC3**
Heavy Duty Connection for 64mm and 76mm studs
Section

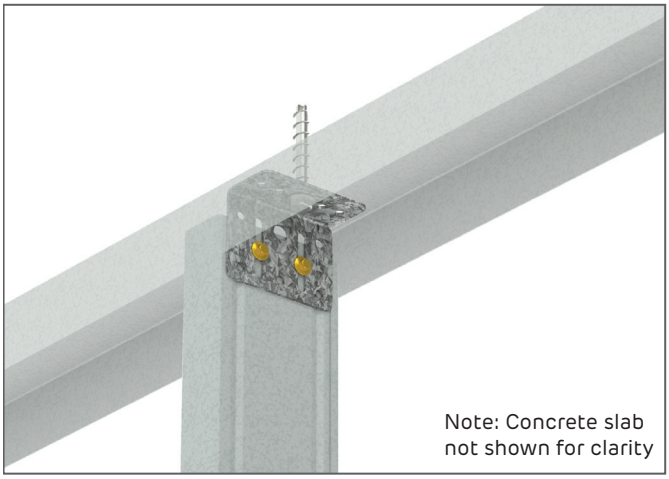



**FIGURE 18a Head Track Connection HC3 using UB80**
Heavy Duty Connection for 92mm and 150mm studs
Perspective

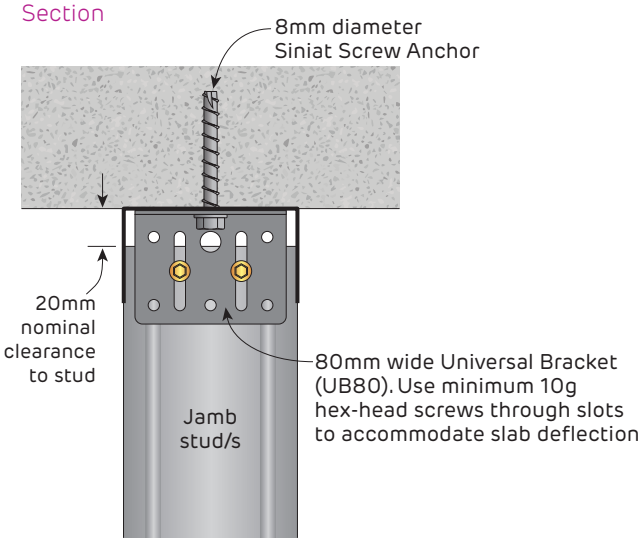
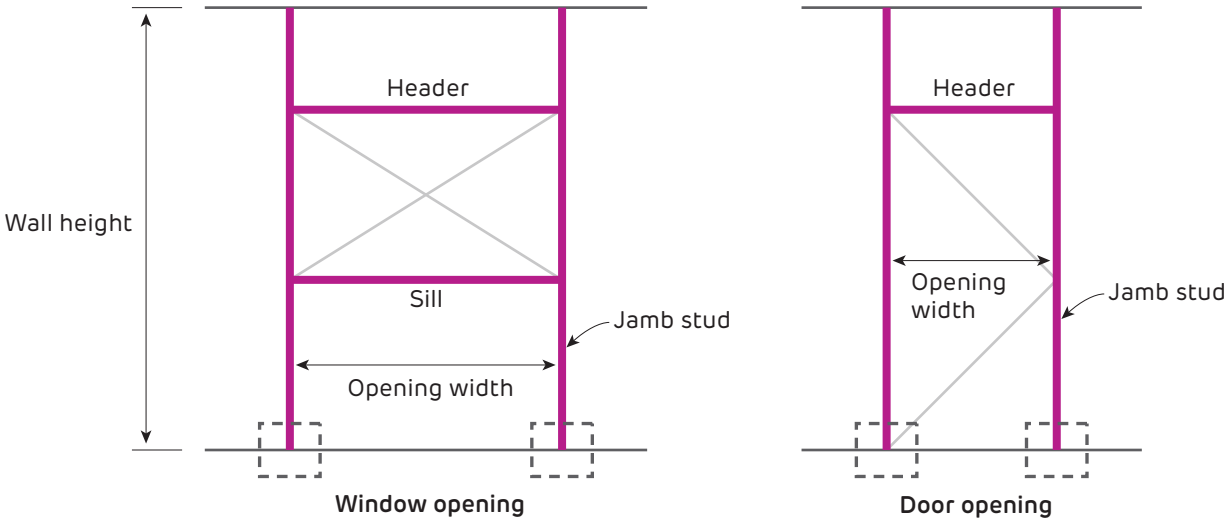



**FIGURE 18b Head Track Connection HC3**
Heavy Duty Connection for 64mm and 76mm studs
Section

## Internal Steel Stud Wall Openings
### Typical Base Track Connections for Doors and Windows



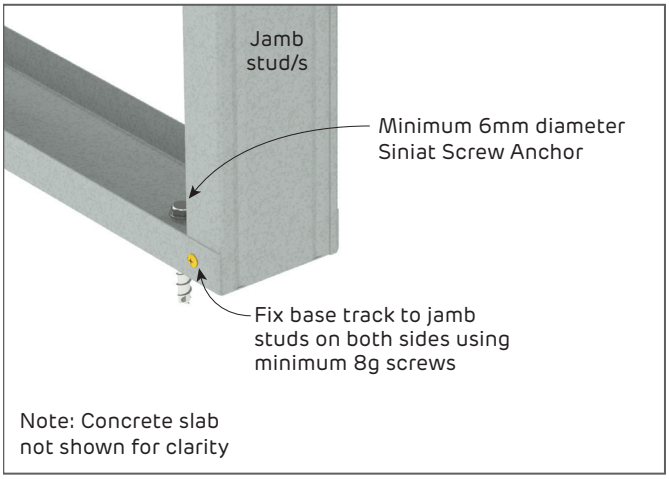




**FIGURE 19a Base Track Connection BC2 - Doorway**
Perspective

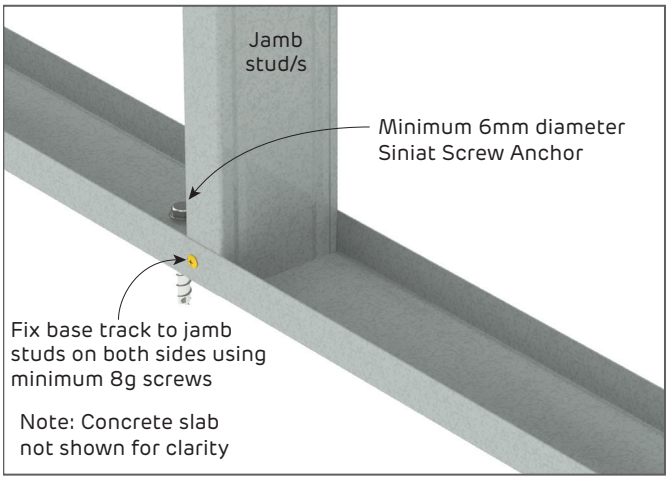



**FIGURE 20a Base Track Connection BC2 - Window**
Perspective

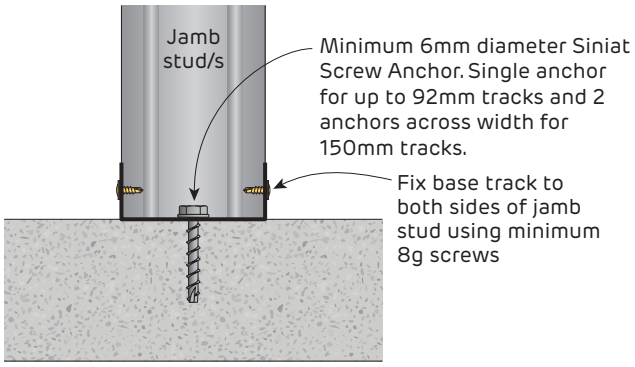



**FIGURE 19b Base Track Connection BC2**
Section

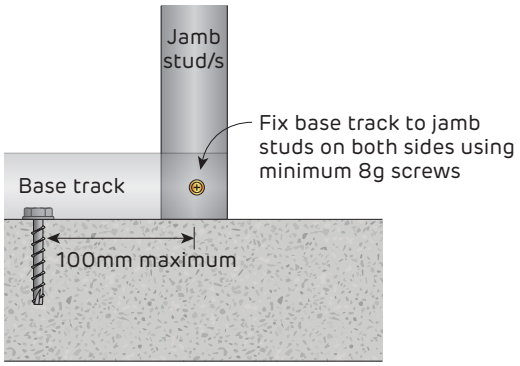



**FIGURE 19c Base Track Connection BC2 for Door Opening**
Elevation

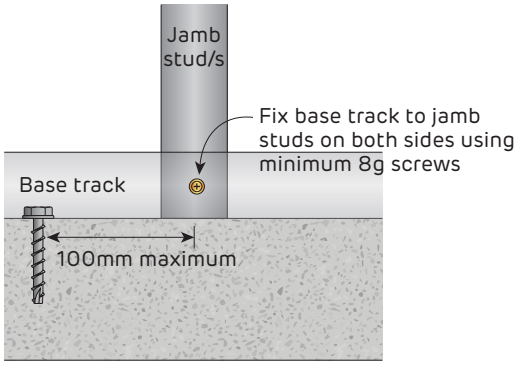



**FIGURE 20b Base Connection BC2 for Window Opening**
Elevation

## Internal Steel Stud Wall Openings

### Typical Base Track Connections for Doors and Windows

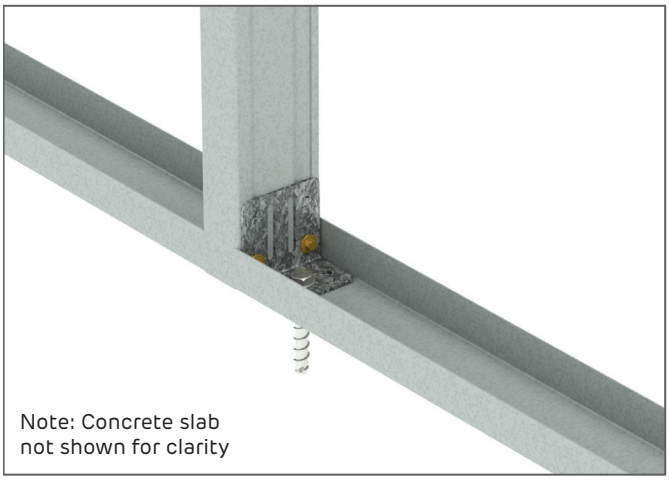



**FIGURE 21a Base Track Connection BC3 using UB60**
Heavy Duty Connection for 64mm and 76mm studs
Perspective

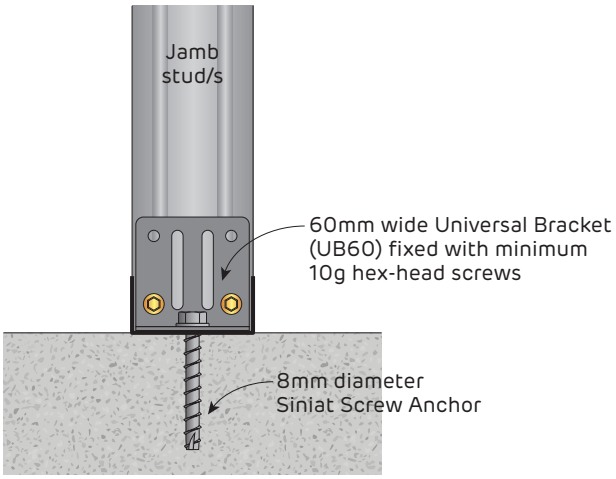



**FIGURE 21b BaseTrack Connection BC3**
Heavy Duty Connection for 64mm and 76mm studs
Section

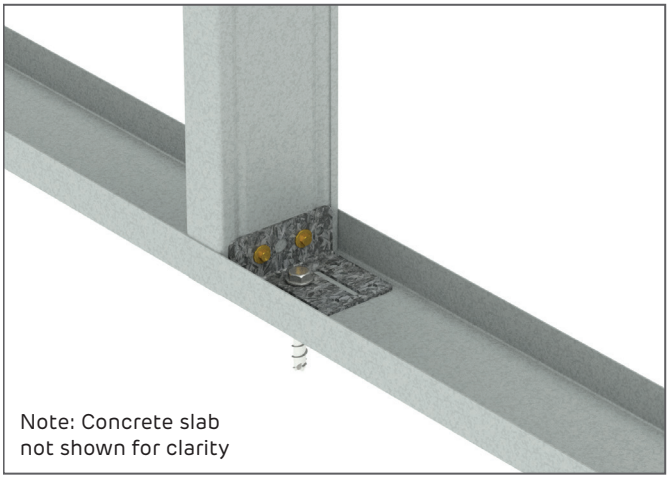



**FIGURE 22a Base Track Connection BC3 using UB80**
Heavy Duty Connection for 92mm and 150mm studs
Perspective

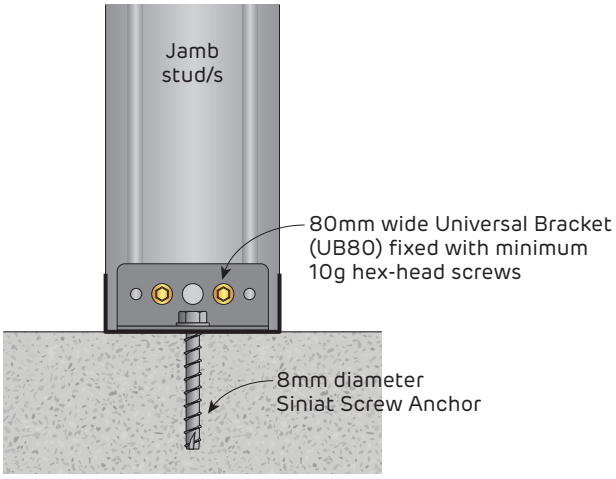
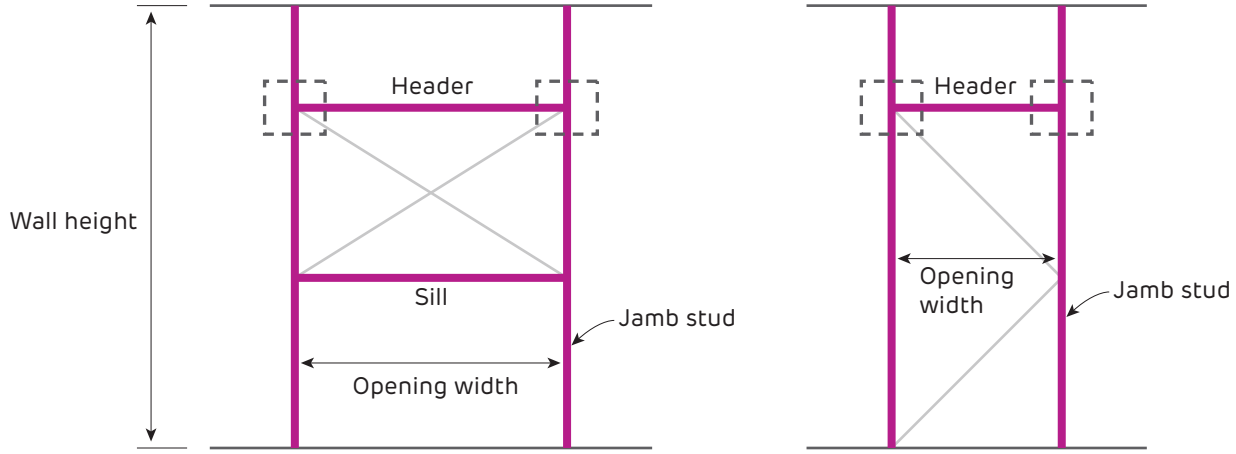



**FIGURE 22b Base Track Connection HC3**
Heavy Duty Connection for 64mm and 76mm studs
Section

## Internal Steel Stud Wall Openings

### Typical Header Connections for Doors and Windows




**Window opening** **Door opening**

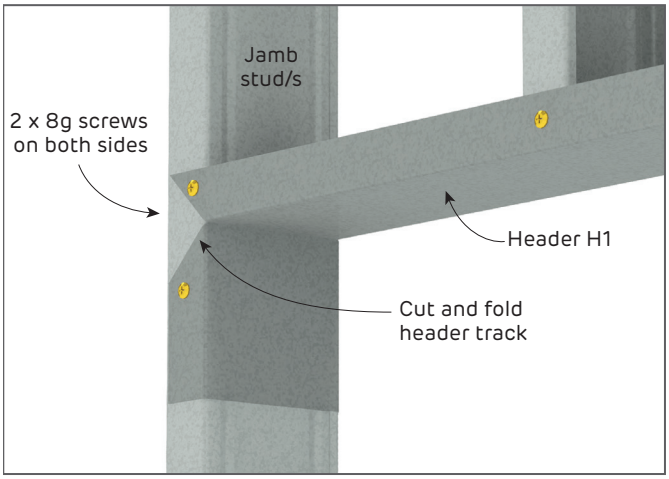



**FIGURE 23a Header H1 Connection**
Perspective

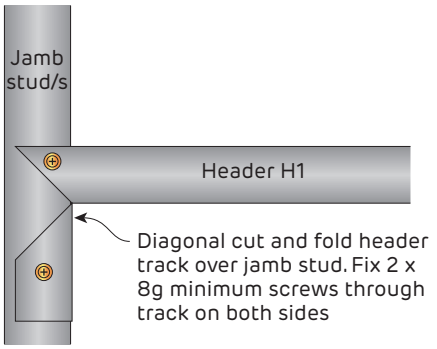



**FIGURE 23b Header H1 Connection**
Elevation

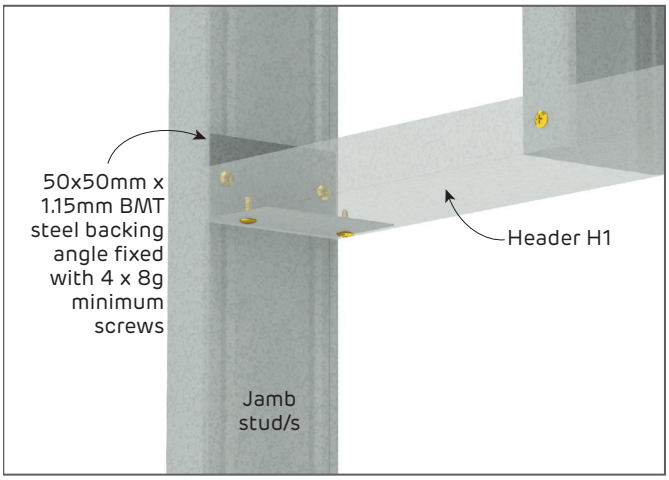



**FIGURE 24a Alternative Header H1 Connection**
Perspective

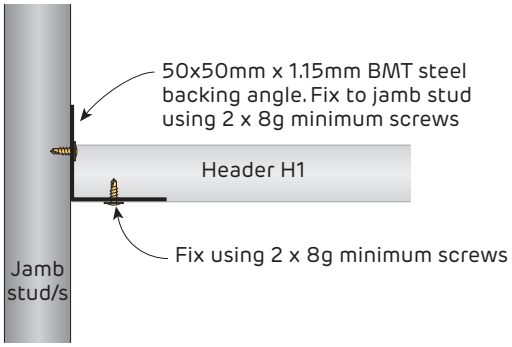
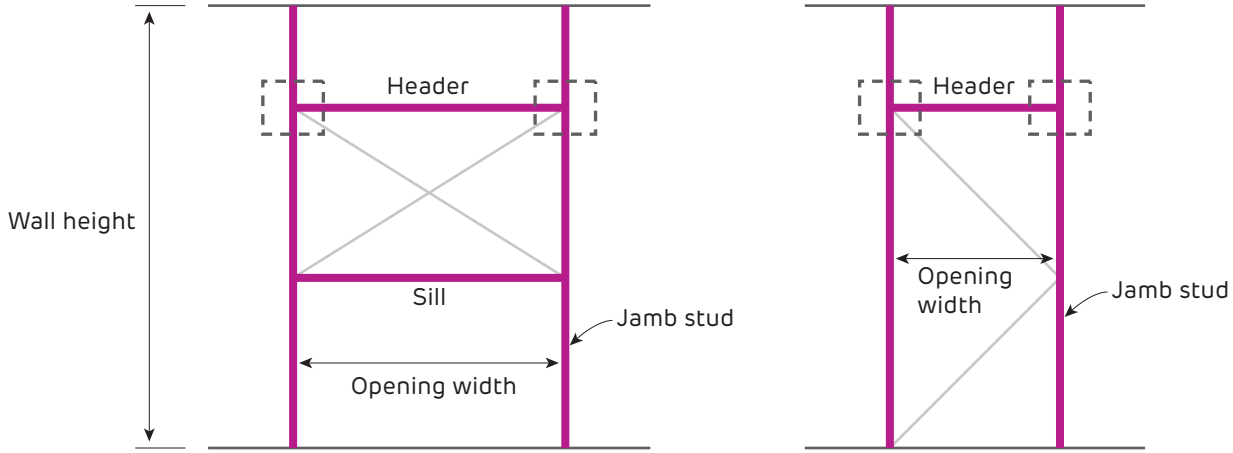



**FIGURE 24b Alternative Header H1 Connection**
Elevation

## Internal Steel Stud Wall Openings

### Typical Header Connections for Doors and Windows




**Window opening** **Door opening**

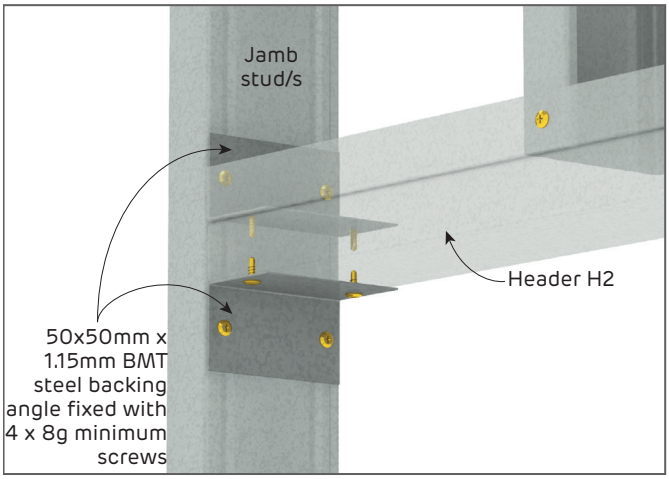



**FIGURE 25a Header H2 Connection**
Perspective

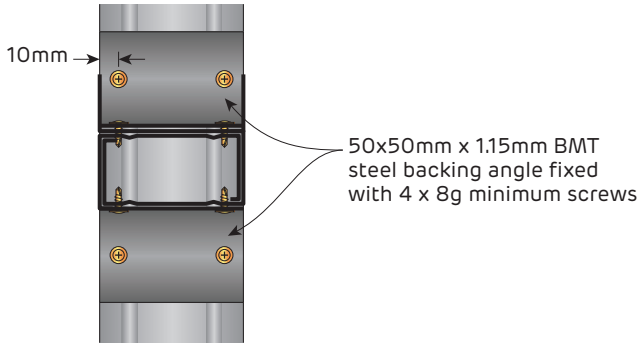



**FIGURE 25b Header H2 Connection**
Section

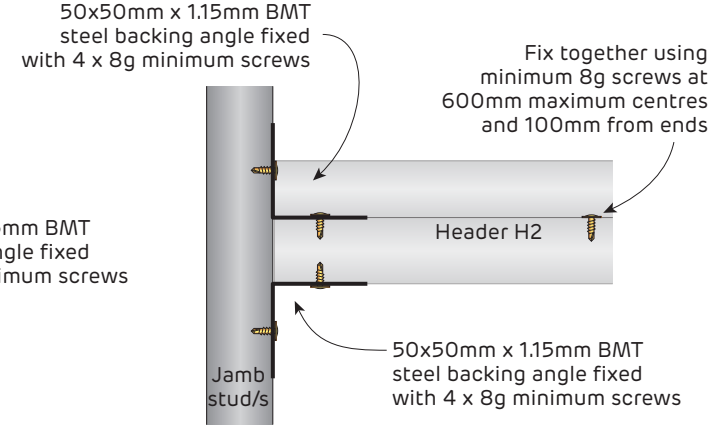
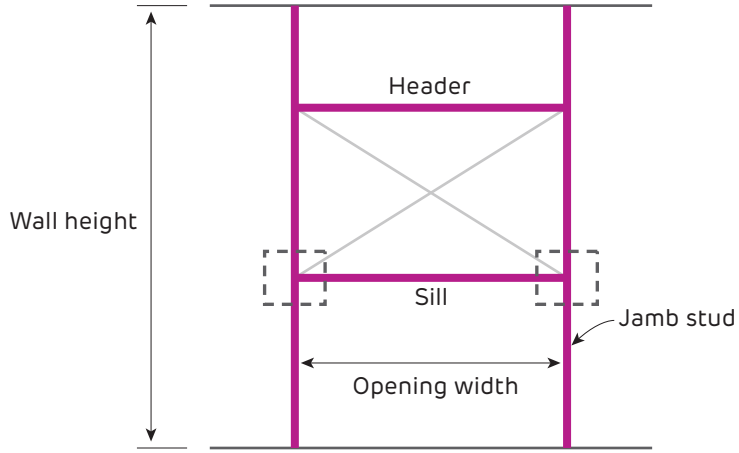



**FIGURE 25c Header H2 Connection**
Elevation

## Internal Steel Stud Wall Openings
### Typical Sill Connections for Windows



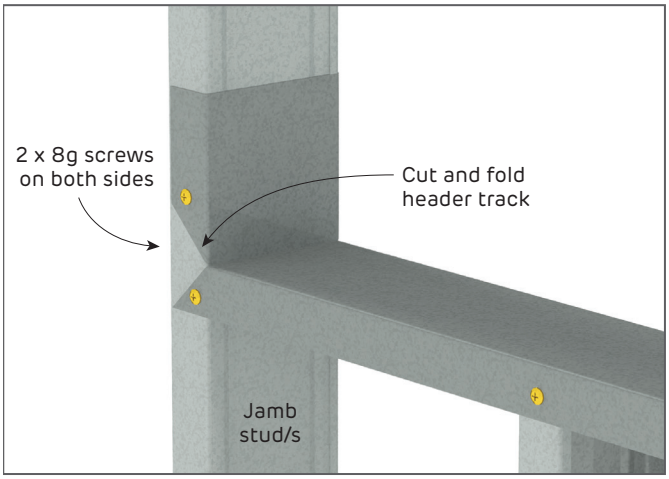




**FIGURE 26a Sill S1 Connection**
Perspective

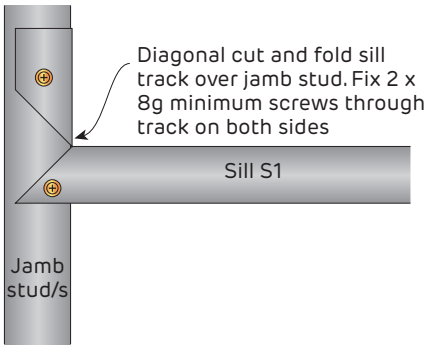



**FIGURE 26b Sill S1 Connection**
Elevation

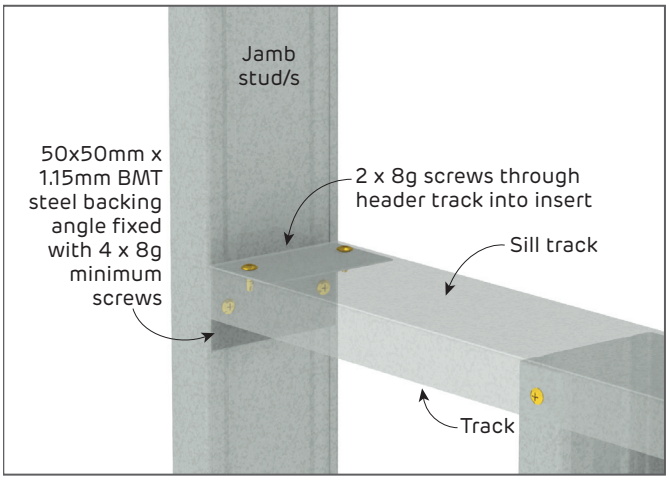



**FIGURE 27a Alternative Sill S1 Connection**
Perspective

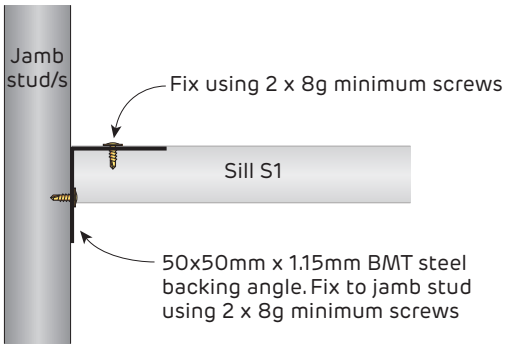
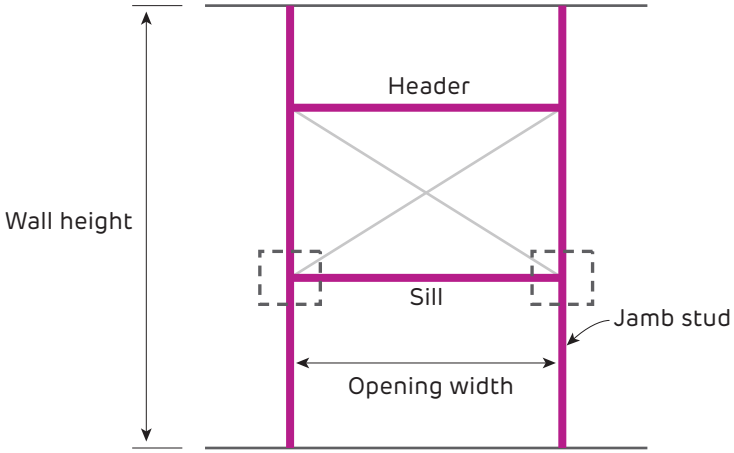



**FIGURE 27b Alternative Sill S1 Connection**
Elevation

## Internal Steel Stud Wall Openings
### Typical Sill Connections for Windows



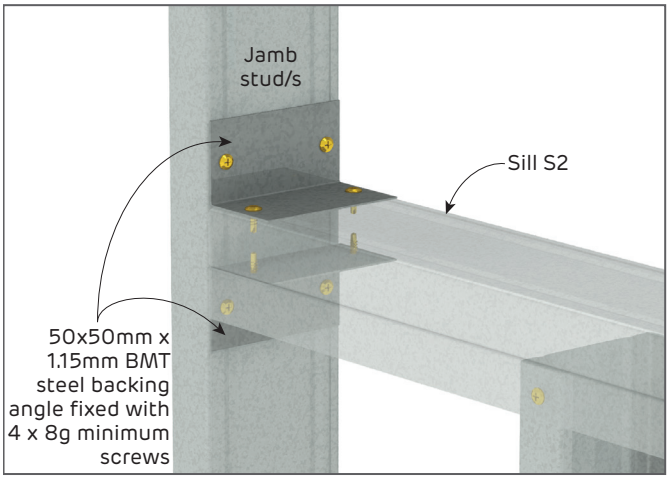




**FIGURE 28a Sill S2 Connection**
Perspective

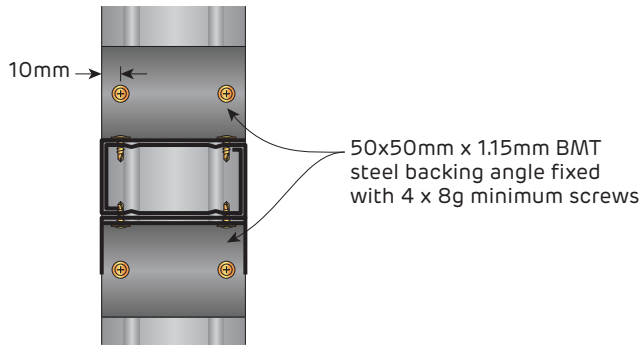



**FIGURE 28b Sill S2 Connection**
Section

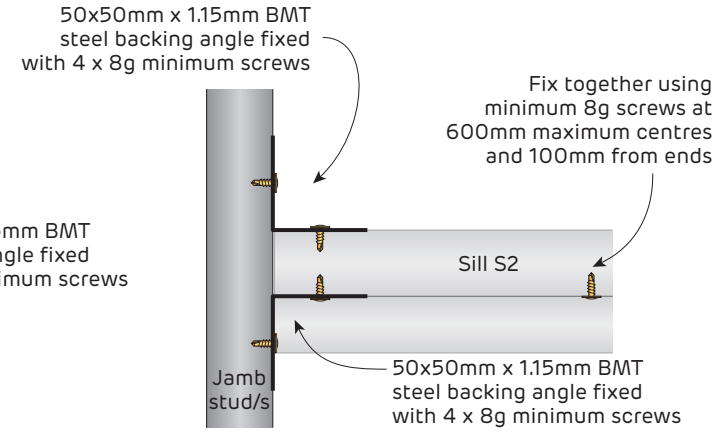



**FIGURE 28c Sill S2 Connection**
Elevation

## Fire Rated and Non-Fire Rated
## Door Opening Details for Internal Stud Walls

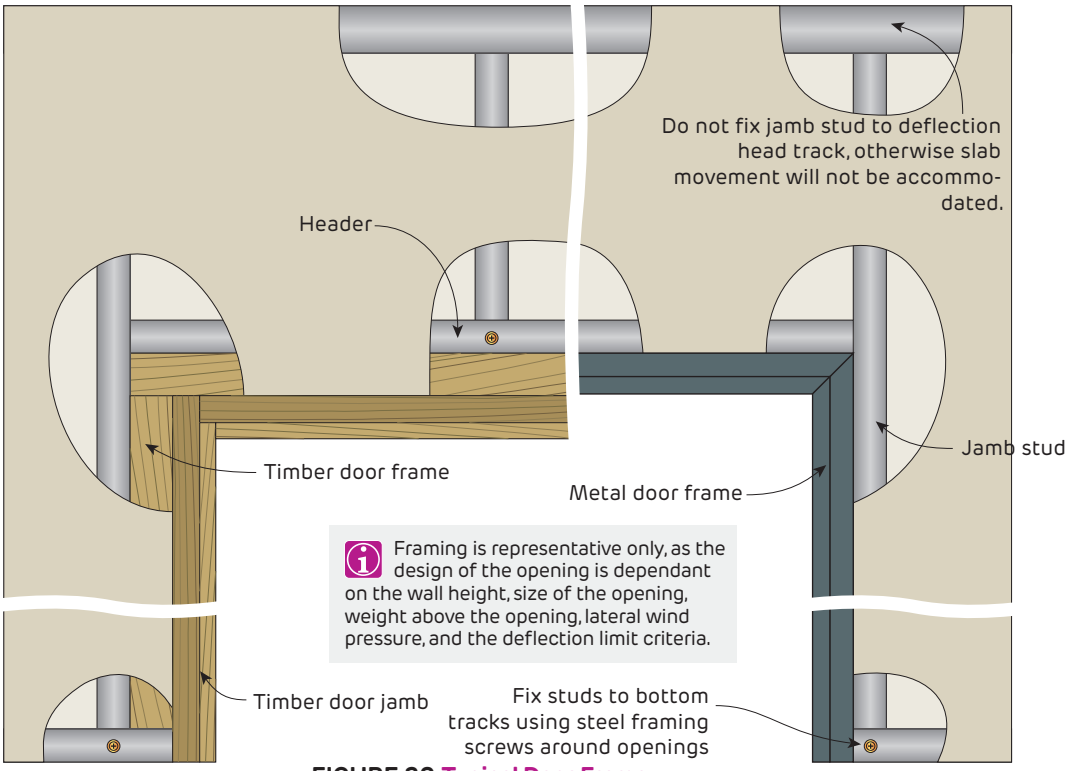



**FIGURE 29 Typical Door Frame**
Elevation

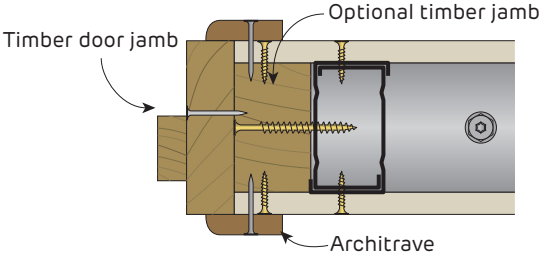



**FIGURE 30 Typical Timber Door Jamb**
Plan

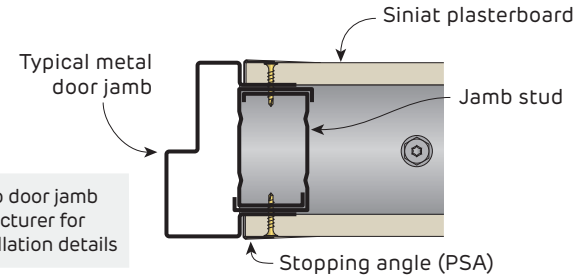



**FIGURE 31 Typical Metal Door Jamb**
Plan

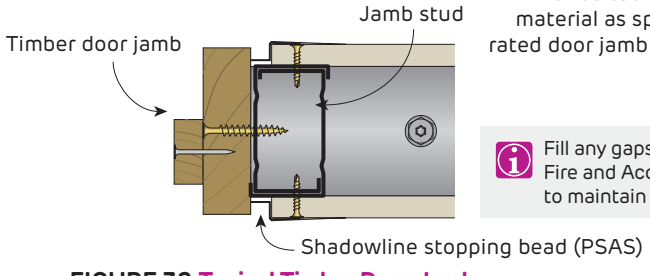



**FIGURE 32 Typical Timber Door Jamb**
With shadowline stopping bead
Plan

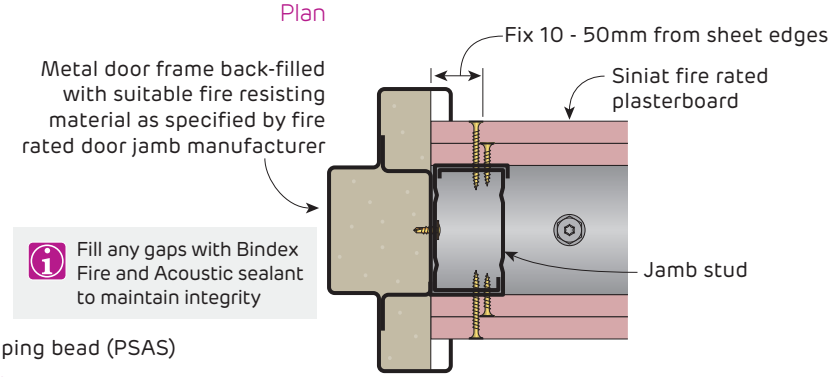



**FIGURE 33 Typical Fire Rated Door Jamb**
Example only
Plan

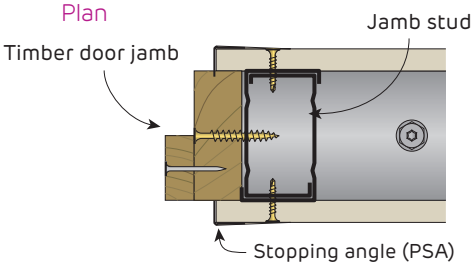



**FIGURE 34 Typical Timber Door Jamb**
With stopping angle
Plan

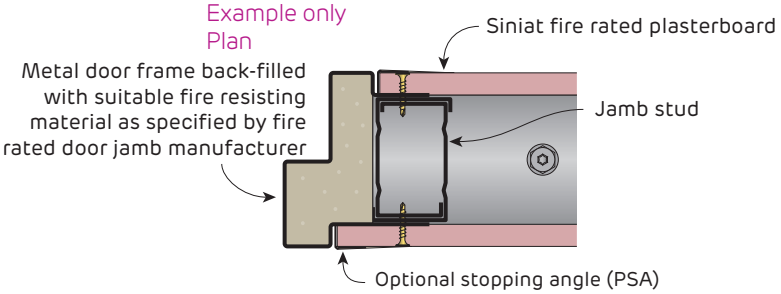



**FIGURE 35 Typical Fire Rated Door Jamb**
Example only
Plan