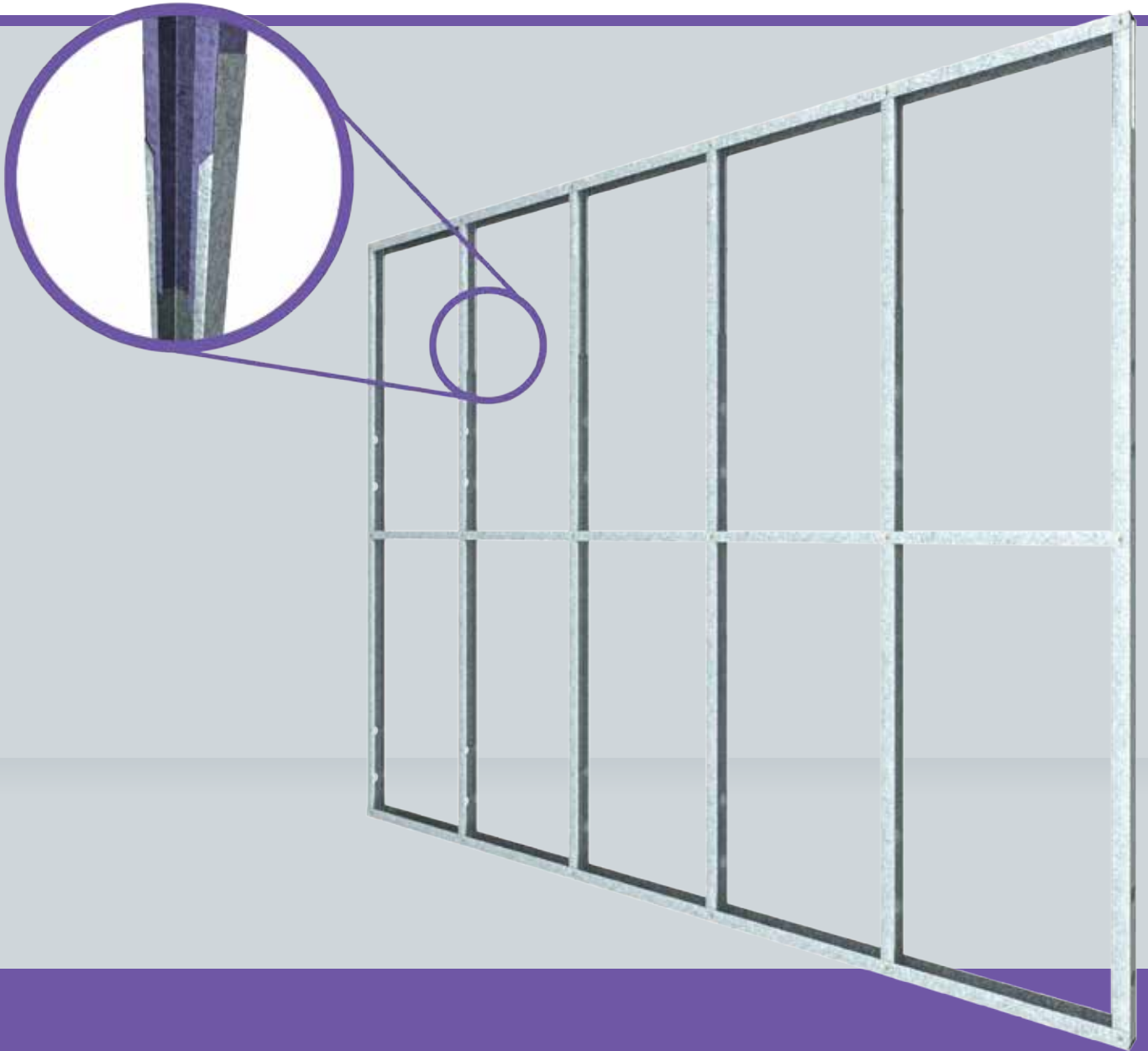


RONDO
Smart-Wall[®]



PREFABRICATED TELESCOPIC STUD INSTALLATION MANUAL

STANDARDS AND BUILDING CODES

Rondo Building Services uses the following Standards in its procurement, manufacturing, testing, design and marketing policies for compliance with the respective Building Codes of Australia and New Zealand:

Design Standards:

AS/NZS1170 Part 0	Structural design actions - General Principles
AS/NZS1170 Part 1	Structural design actions - Permanent imposed and other actions
AS/NZS1170 Part 2	Structural design actions - Wind actions
AS/NZS1170 Part 4	Structural design actions - Earthquake actions in Australia
NZS1170 Part 5	Structural design actions - Earthquake actions in New Zealand
AS/NZS4600	Cold-formed steel structures

Steel is purchased to the following standard:

AS1397	Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium
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Quality Assurance

ISO 9001	Quality Management Systems
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INTRODUCTION

The Rondo Smart-Wall® Telescopic Prefabricated Stud Framing is unlike any other.

Rondo Smart-Wall® includes the next generation Rondo Smart-Stud® which is a telescopic Stud that can move within a 'C' Stud, allowing for easy height adjustment and quicker installations.

When using the Rondo Smart-Stud feature, the wall framing height can be easily adjusted to accommodate variances in the structure. This removes the need for cutting studs to length and offers a safer site with less wastage.

Rondo Smart-Wall® can be pre-fabricated by Rondo and delivered direct to site to speed up installation and reduce onsite labour costs. Alternatively, it can be flat packed with all components marked out, allowing assembly to take place away from services.

SUITABLE FOR

- Internal Non-Load Bearing Walls
- Bulkheads
- Refurbishments
- Fire rated applications*
- Seismic Designs available

SPECIAL FEATURES

- Reduced on-site wastage
- Ability to accommodate the variations in the structure, without the need for cutting
- Minimal site noise pollution due to reduced cutting of steel
- System flexibility to allow on site adjustments
- Hot dipped galvanised for superior corrosion resistance
- Reduced onsite installation time
- Easy installation

IMPORTANT NOTES:

Rondo recommends its products and systems are installed by a qualified tradesperson and according to the relevant codes and standards. Rondo recommends that before acting on any advice or opinion in this manual, you should seek professional advice in light of your own architectural and building requirements.

* Fire rating of framing to be confirmed by lining board manufacturer.

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RONDO SMART-WALL® COMPONENTS

64MM 0.55BMT

6451	64mm (w) x 41mm (h) Prefab 'C' Steel Stud with Lip
6452	64mm (w) x 39mm (h) Prefab 'R' Steel Stud with Lip
6453	64mm (w) x 41mm (h) Prefab 'C' Steel Track with Lip
6454	64mm (w) x 48mm (h) Prefab 'U' Steel Track
6455	64mm (w) x 41mm (h) Prefab 'C' Steel Nogging with Lip
6456	64mm (w) x 48mm (h) Prefab 'U' Steel Nogging



6451 / 6471
9251 / 9271



6452 / 6472
9252 / 9272



6453 / 6473
9253 / 9273



6454 / 6474
9254 / 9274



6455 / 6475
9255 / 9275



6456 / 6476
9256 / 9276

64MM 0.75BMT

6471	64mm (w) x 41mm (h) Prefab 'C' Steel Stud with Lip
6472	64mm (w) x 39mm (h) Prefab 'R' Steel Stud with Lip
6473	64mm (w) x 41mm (h) Prefab 'C' Steel Track with Lip
6474	64mm (w) x 48mm (h) Prefab 'U' Steel Track
6475	64mm (w) x 41mm (h) Prefab 'C' Steel Nogging with Lip
6476	64mm (w) x 48mm (h) Prefab 'U' Steel Nogging

92MM 0.55BMT

9251	92mm (w) x 41mm (h) Prefab 'C' Steel Stud with Lip
9252	92mm (w) x 39mm (h) Prefab 'R' Steel Stud with Lip
9253	92mm (w) x 41mm (h) Prefab 'C' Steel Track with Lip
9254	92mm (w) x 48mm (h) Prefab 'U' Steel Track
9255	92mm (w) x 41mm (h) Prefab 'C' Steel Nogging with Lip
9256	92mm (w) x 48mm (h) Prefab 'U' Steel Nogging

92MM 0.75BMT

9271	92mm (w) x 41mm (h) Prefab 'C' Steel Stud with Lip
9272	92mm (w) x 39mm (h) Prefab 'R' Steel Stud with Lip
9273	92mm (w) x 41mm (h) Prefab 'C' Steel Track with Lip
9274	92mm (w) x 48mm (h) Prefab 'U' Steel Track
9275	92mm (w) x 41mm (h) Prefab 'C' Steel Nogging with Lip
9276	92mm (w) x 48mm (h) Prefab 'U' Steel Nogging

PRODUCT DATA SPECIFICATIONS

RONDO SMART-STUD®

The Rondo SMART-WALL System comprises two SMART-STUDS - a C stud and an R stud profile.

The Rondo SMART-STUD C profile is similar to a traditional Rondo steel stud, except that it is proportioned to allow nesting of the Rondo SMART-STUD R profile, in a web-to-web orientation.

When the SMART-STUDS are nested together, they have the ability to “telescope” up or down to accommodate variations in the structure.

Where necessary, the “telescopic” feature can be fabricated to allow for wall panel length adjustment as well. Thus, providing adjustment in a horizontal and vertical plane simultaneously.



	PART NO	DESCRIPTION	LENGTH (mm)	HEIGHT (mm)	WIDTH (mm)	GAUGE (bmt)
	6451	Prefab 'C' Steel Stud with Lip	Made to Order	41.30	63.50	0.55
	6471					0.75
	9251				91.50	0.55
	9271					0.75
	6452	Prefab 'R' Steel Stud with Lip	Made to Order	39.80	61.70	0.55
	6472					0.75
	9252				89.90	0.55
	9272					0.75

STEEL GRADE:
Zinc Hi-ten G550

Yield Strength: 550MPa
Tensile Strength: 550MPa

FEATURES:

- 32mm service holes are included for ease of services to pass through
- Pre-punched holes to allow quick and easy screw fixing
- Dimples at each connection point which provides a positive and accurate location of the components
- Swaging at the bottom of the studs to allow easy insertion into the wall track
- Telescopic Stud Connection – holes are provided on predefined location on the C – Stud for easy installation



PRODUCT DATA SPECIFICATIONS (continued)

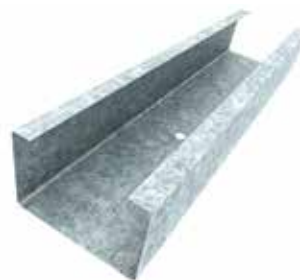
WALL TRACK AND SLOTTED DEFLECTION HEAD TRACK



	PART NO	DESCRIPTION	LENGTH (mm)	HEIGHT (mm)	WIDTH (mm)	GAUGE (bmt)
	6453	Prefab 'C' Steel Track with Lip	Made to Order	41.30	63.50	0.55
	6473					0.75
	9253				91.60	0.55
	9273					0.75
	6454	Prefab 'U' Steel Track	Made to Order	47.50	63.50	0.55
	6474					0.75
	9254				91.50	0.55
	9274					0.75

FEATURES:

- Dimples – For ease of installation, SMART-STUDs, wall tracks and noggings are pre-punched and dimpled at each connection point. The dimples provide positive and accurate location of the components and the pre-punched holes allows quick and easy screw fixing.
- Frame Connection – for easy installation to the structure fixing holes are provided at the centres as per project requirements.



- Stud Connection to C Track – the leg of the C track is notched, and a dimple and fixing hole is provided at the stud to track connection position
- The U Deflection Head Track has a 30mm vertical slot which, provides a positive location for the SMART STUD, allows for incremental slab deflection and negates the need for an additional noggings at the head track.



STEEL NOGGING



	PART NO	DESCRIPTION	LENGTH (mm)	HEIGHT (mm)	WIDTH (mm)	GAUGE (bmt)
	6455	Prefab 'C' Steel Nogging with Lip	Made to Order	41.30	63.50	0.55
	6475					0.75
	9255				91.50	0.55
	9275					0.75
	6456	Prefab 'U' Steel Nogging	Made to Order	47.50	63.50	0.55
	6476					0.75
	9256				91.50	0.55
	9276					0.75

FEATURES:

- The Steel Nogging Track is designed to support both the stud and linings.
- Stud Connection – the large opening on the nogging allows the stud to pass through and similar to the track, the leg of the nogging is notched, and a dimple hole is provided for easy installation

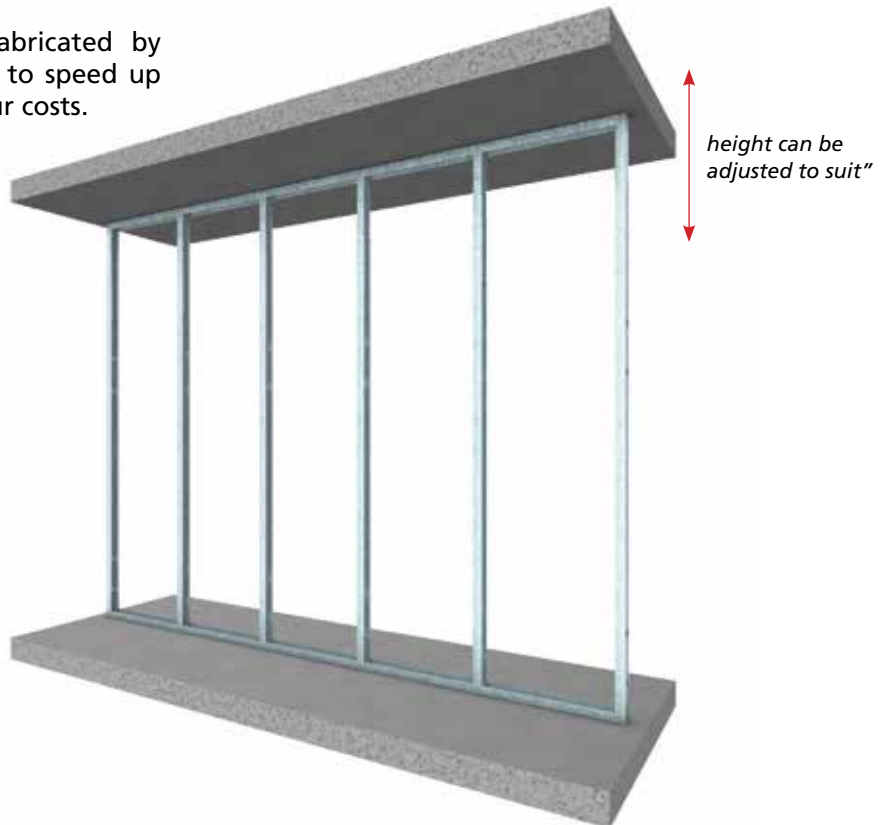


RONDO SMART-WALL® APPLICATIONS

Rondo Smart-Wall® is a versatile system that can be used in multiple locations within a building and in a range of applications.

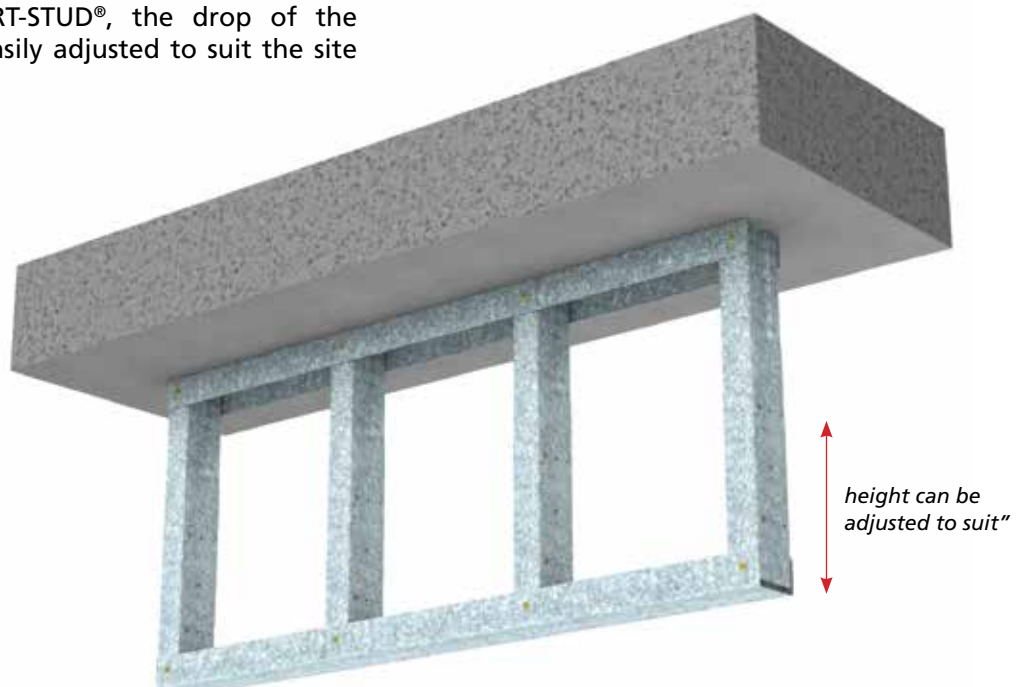
PRE-FABRICATED WALLS

Rondo Smart-Wall® can be pre-fabricated by Rondo and delivered direct to site to speed up installation and reduce onsite labour costs.



BULKHEADS

Bulkheads can be installed at a faster speed than the traditional method as a result of pre assembled frames completed by Rondo off-site. With Rondo SMART-STUD®, the drop of the bulkhead can be easily adjusted to suit the site requirements.



RAKED CEILING

Installing a wall to the underside of a raked ceiling is time consuming as each stud needs to be individually cut to length. The Rondo SMART-WALL eliminates this problem due to the telescopic nature of the SMART-STUD. The wall panels can simply be extended to achieve the required slope.

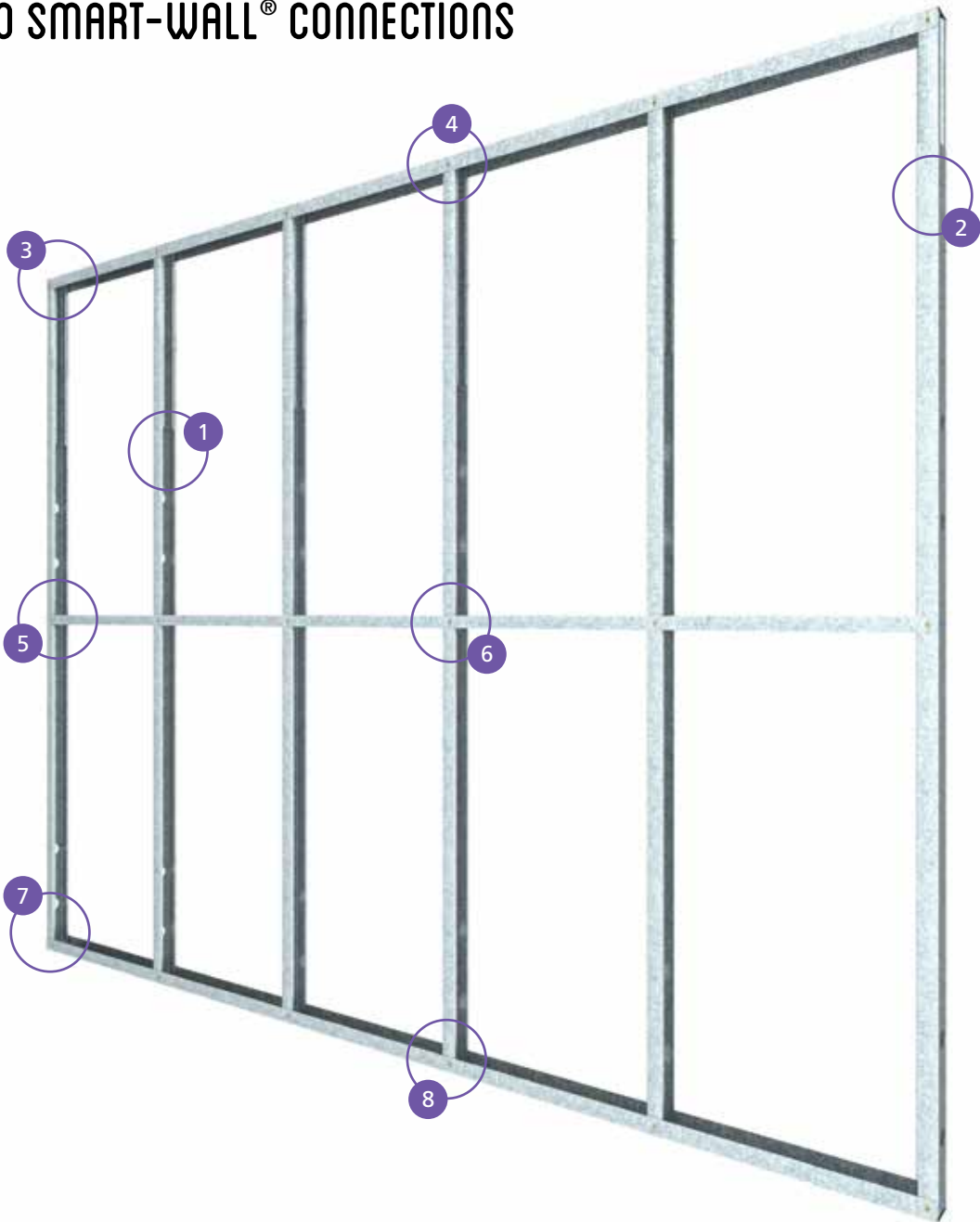


REFURBISHMENT

Refurbishment projects have limited access to move products between levels and on-site work space. Rondo Smart-Wall® with a centre splice allows the frame to be reduced to fit into an alimac or lift and moved to the required location.



RONDO SMART-WALL® CONNECTIONS



1



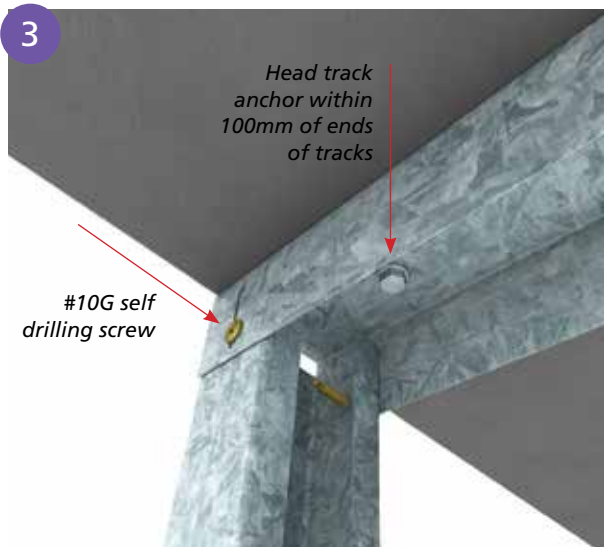
TYPICAL SPLICE DETAIL

2



PRE-PUNCHED HOLES

Refer to Page 21 for screw fixing details at splice location.



■ SLOTTED HEAD TRACK CONNECTION



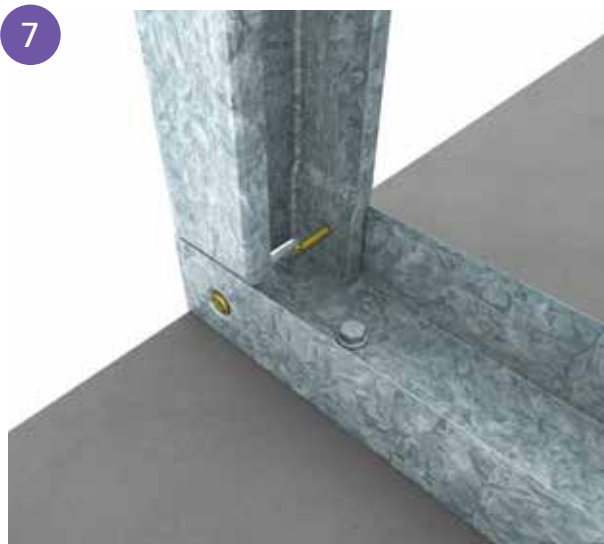
■ COMMON STUD HEAD TRACK DETAIL



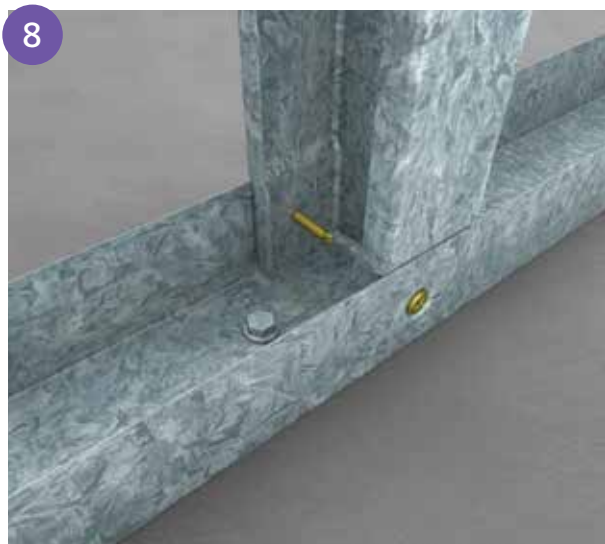
■ NOGGING TRACK END DETAIL



■ COMMON STUD NOGGING DETAIL



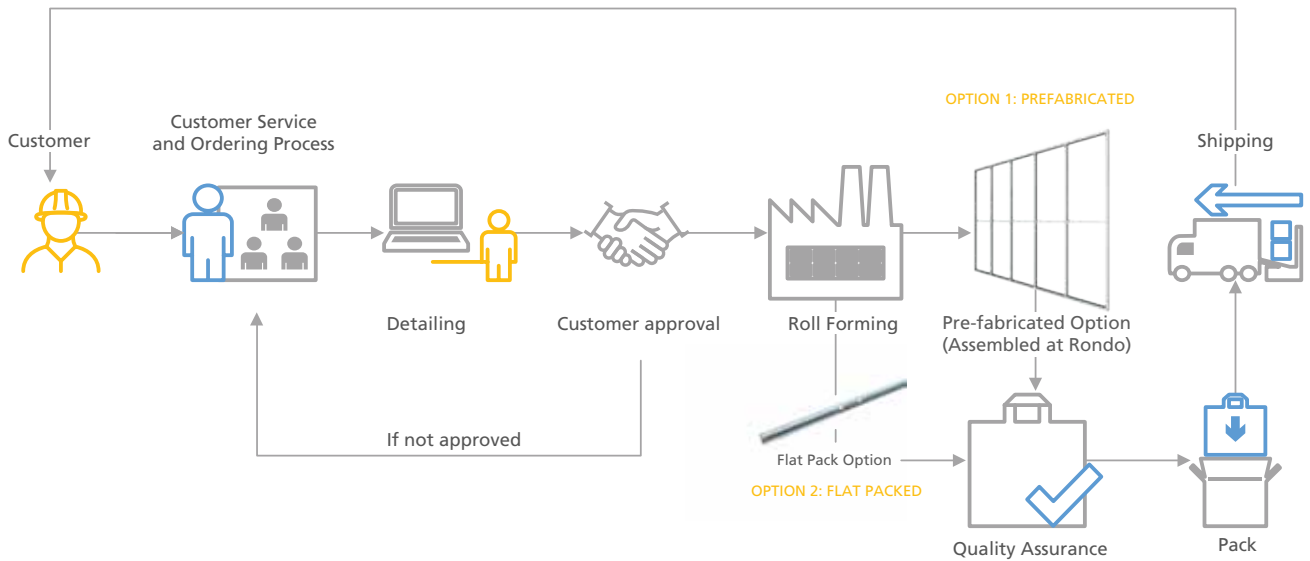
■ END STUD BASE TRACK DETAIL



■ COMMON STUD BASE TRACK DETAIL

ORDERING PROCESS

The following diagram shows you the ordering process for SMART-WALL with options for either Prefabricated or Flat Packed.



PROJECT PLANS

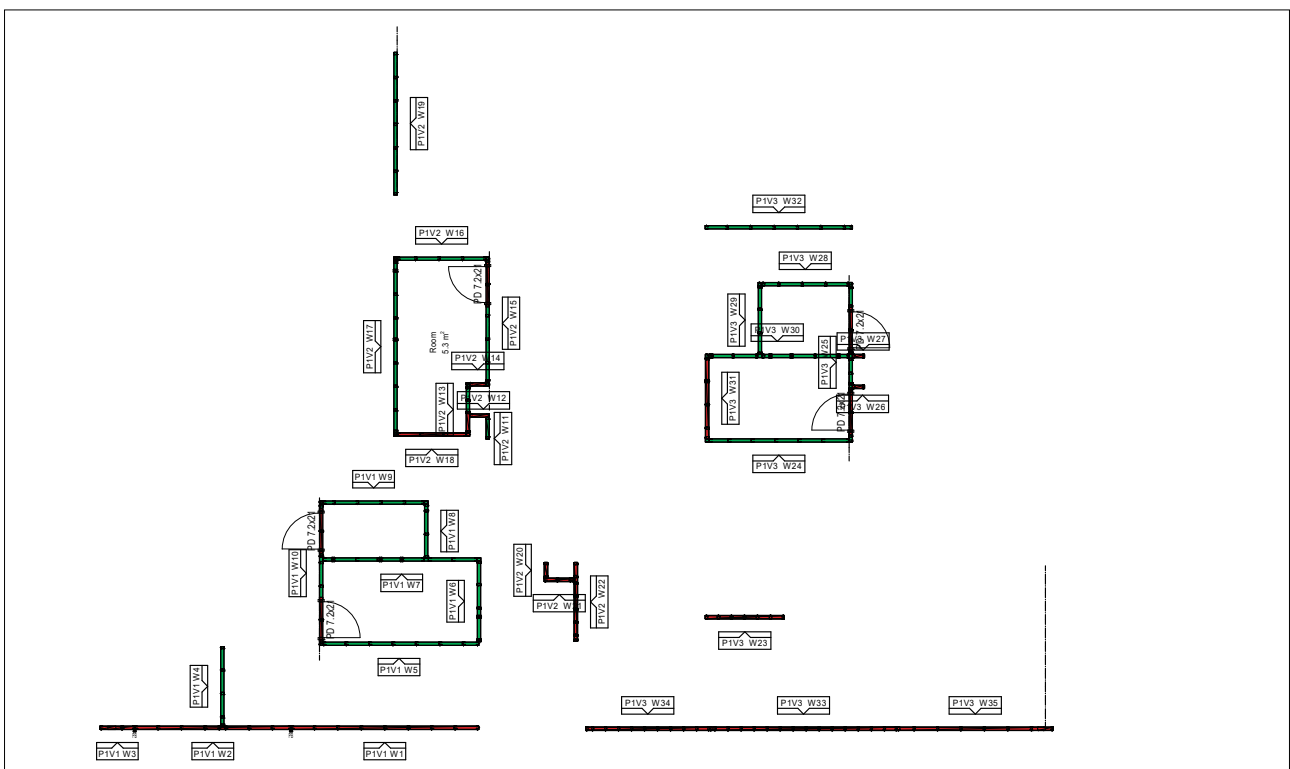
Two sets of plans will be included with every Rondo Smart-Wall framing system, (1) the floor plans and (2) the wall panel assembly plans.

THE FLOOR PLANS

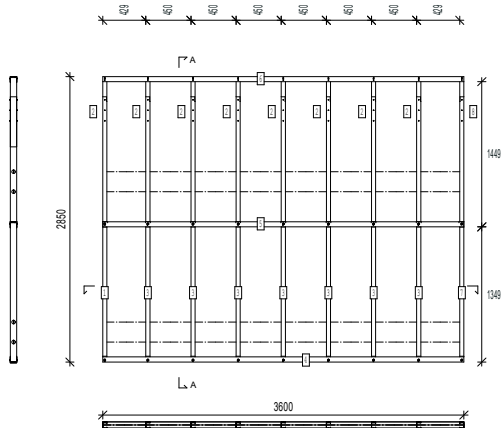
The floor plans provide the set-out of the individual wall panels over the architectural floor plans.

These plans also provide a directional marker which indicates the direction from which the individual wall panel is viewed. This ensures the wall panels are installed in the correct orientation.

It is important that these plans are thoroughly checked and approved by the customer to ensure they align with the final approved plans on site.



FLOOR PLAN



ASSEMBLY PLAN

WALL PANEL ASSEMBLY PLANS

The wall panel assembly plans provide the individual wall panel overall dimensions, member schedule, assembly details and orientation of components.

The component numbering on these plans match to the ink-jetting of the components to facilitate construction on-site for stick form supply.

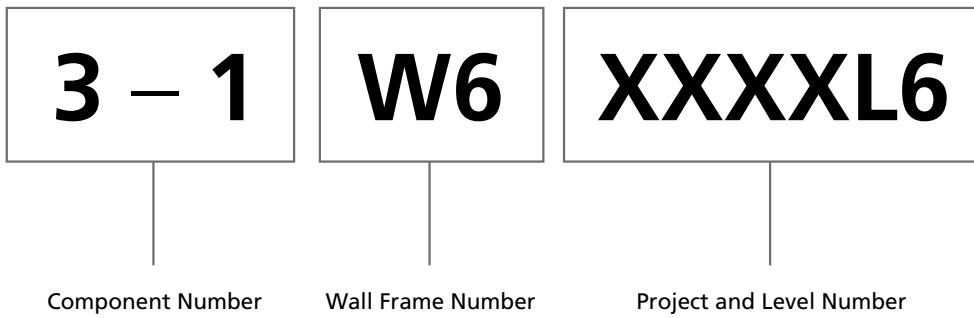
It is important that these plans are thoroughly checked and approved by the customer to ensure they align with the final approved plans on site.

DISCLAIMER

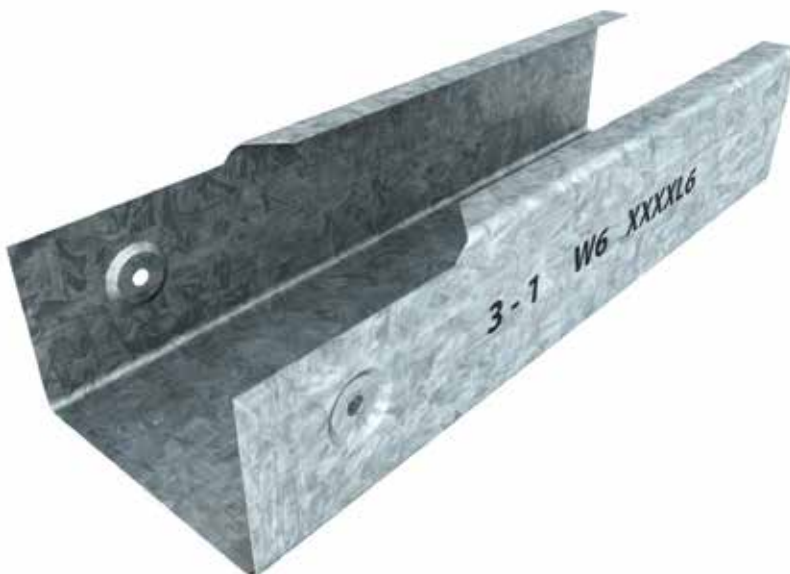
It is the responsibility of the customer to check and verify the accuracy of the plans provided. Rondo cannot accept responsibility for the coordination of the plans to the actual site conditions, and can only prepare the plans based on the architectural plans provided.

INSTALLATION LABELLING

To help identify the components onsite, each component is labelled with a unique code. This unique code indicates the Component Number, Wall Frame Number, Project Number and Floor Level for which the panel is to be installed.



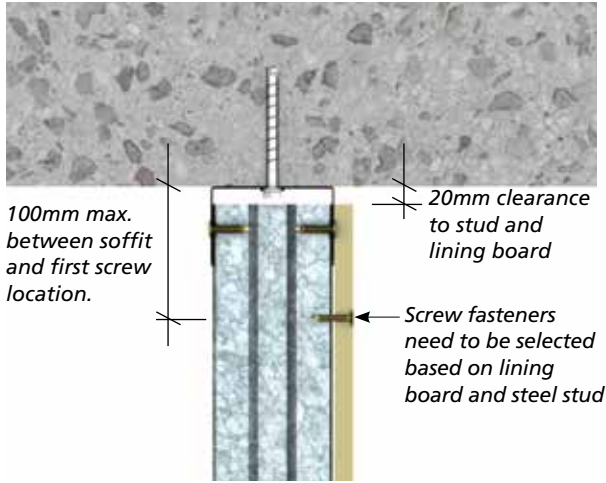
■ INSTALLATION LABEL



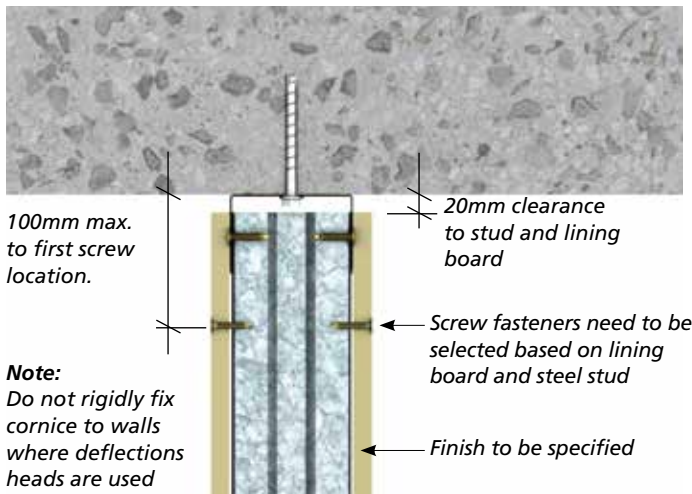
■ INSTALLATION LABEL ON COMPONENTS

TYPICAL DETAILS

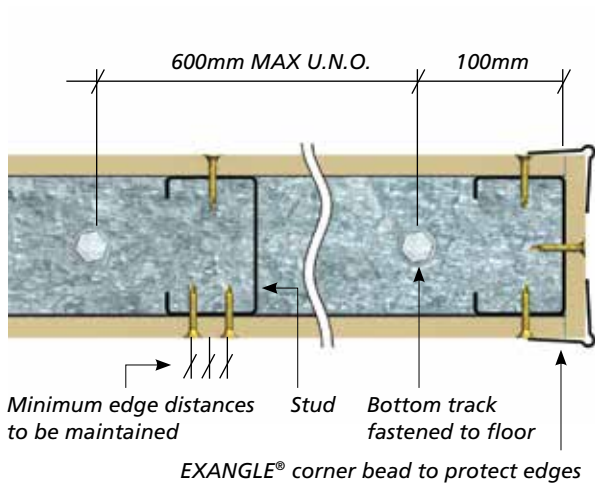
Rondo Smart-Wall can readily be used in non-fire rated applications, and the following details provide typical construction details on site. For fire rated construction, Rondo recommends the specific construction details to be coordinated with their preferred board manufacturer to ensure compliance.



■ U SLOTTED DEFLECTION HEAD TRACK - LINE ONE SIDE - NON-FIRE RATED

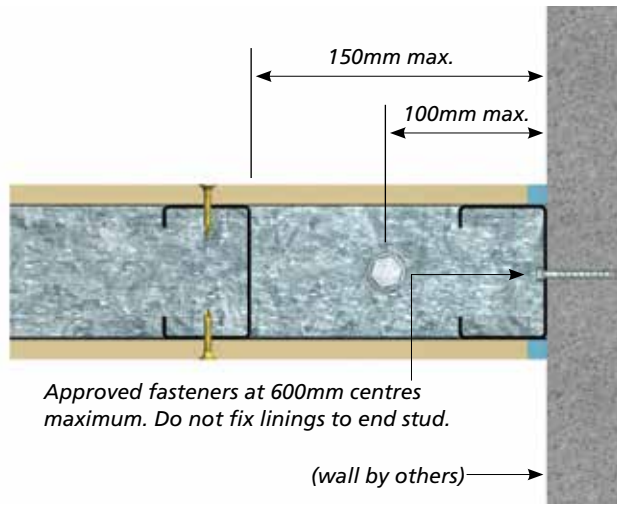


■ U SLOTTED DEFLECTION HEAD TRACK - LINED BOTH SIDES - NON-FIRE RATED

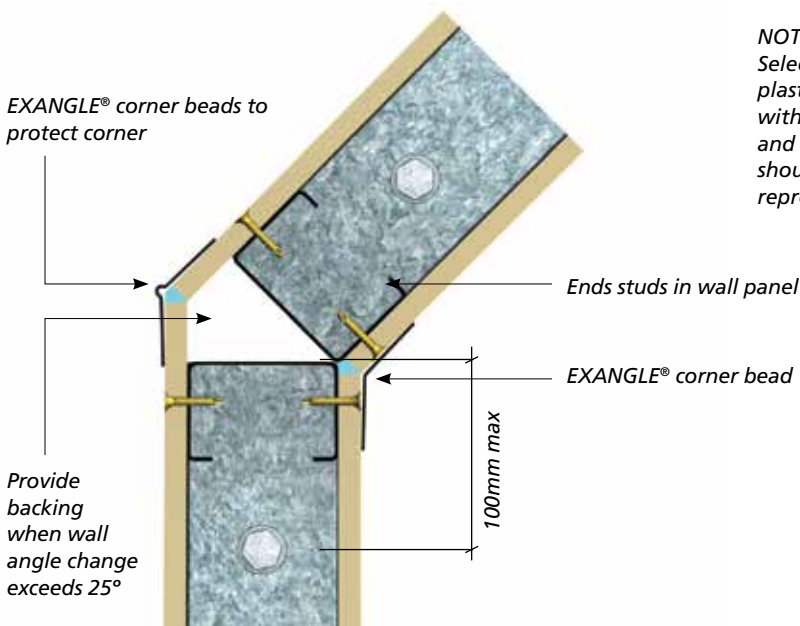


■ WALL END

TYPICAL DETAILS (continued)

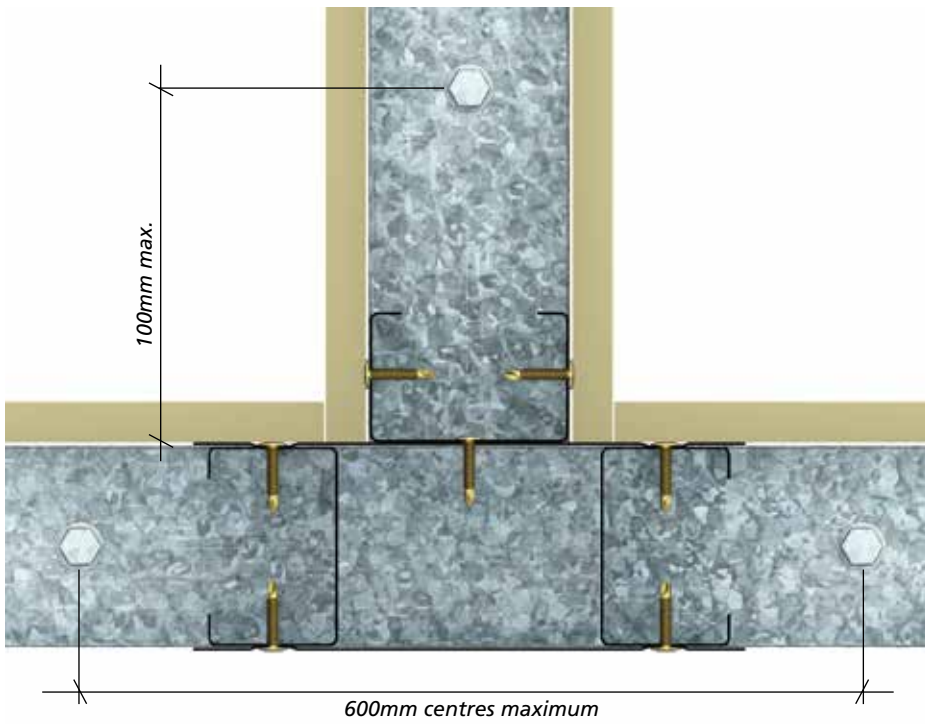


■ ABUTMENT TO OTHER WALLS

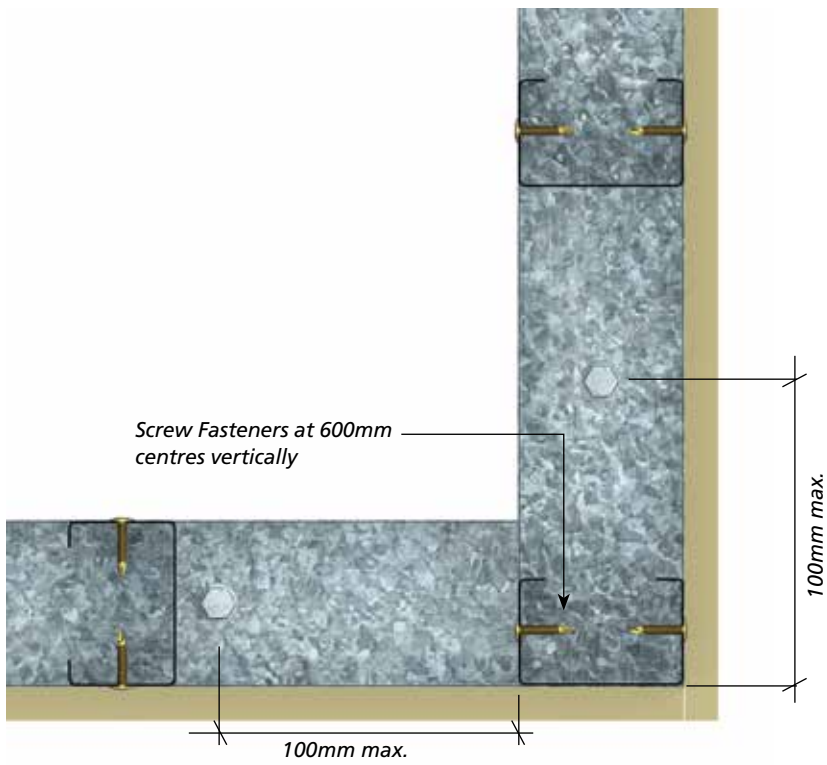


NOTE:
 Selection, fixing and finishing of plasterboard wall linings to be in accordance with the manufacturer's recommendations and AS/NZS2589. Alternative wall linings should be discussed with your Rondo representative.

■ ANGLED WALL - NON-FIRE RATED

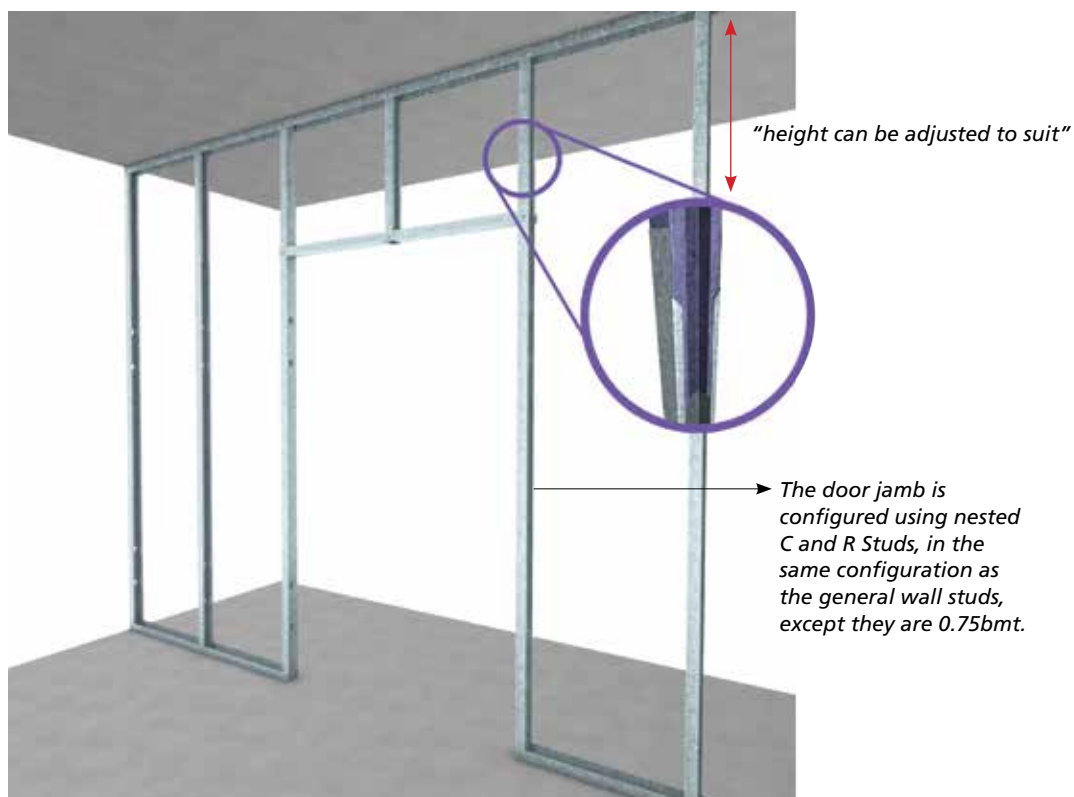


■ WALL T JUNCTION - NON-FIRE RATED



■ WALL CORNER JUNCTION - NON-FIRE RATED

TYPICAL DETAILS (continued)



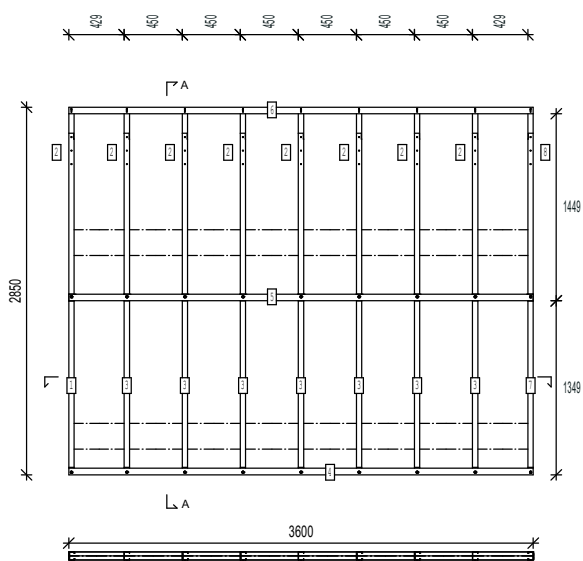
■ DOOR INSTALLATION USING SMART-STUD

INSTALLATION GUIDE

If ordering SMART-WALL flat packed, start at Step 1 and if ordered prefabricated, start at Step 8.

STEP 1 Review the floor plan and count the number of wall panels. Check all wall panels are supplied. Determine wall panel installation process.

The Rondo Wall Panels will be individually packed, so locate the first Rondo Wall Panel to be assembled and unpack all the components.



■ ASSEMBLY PLAN

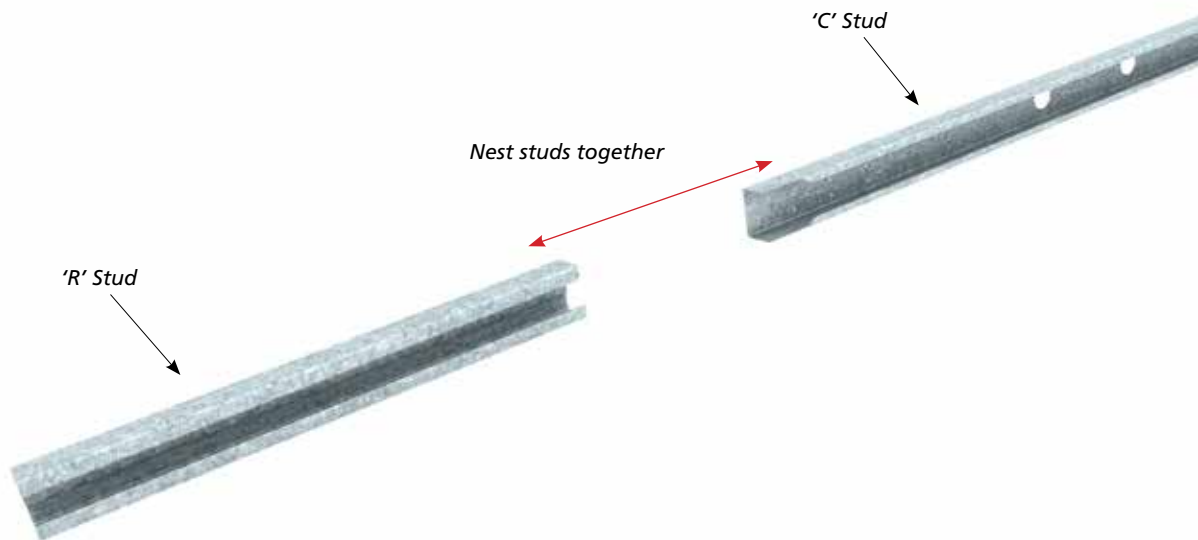
STEP 2 Lay the Wall Track on the ground or on an assembly table



■ WALL TRACK PLACED ON THE GROUND

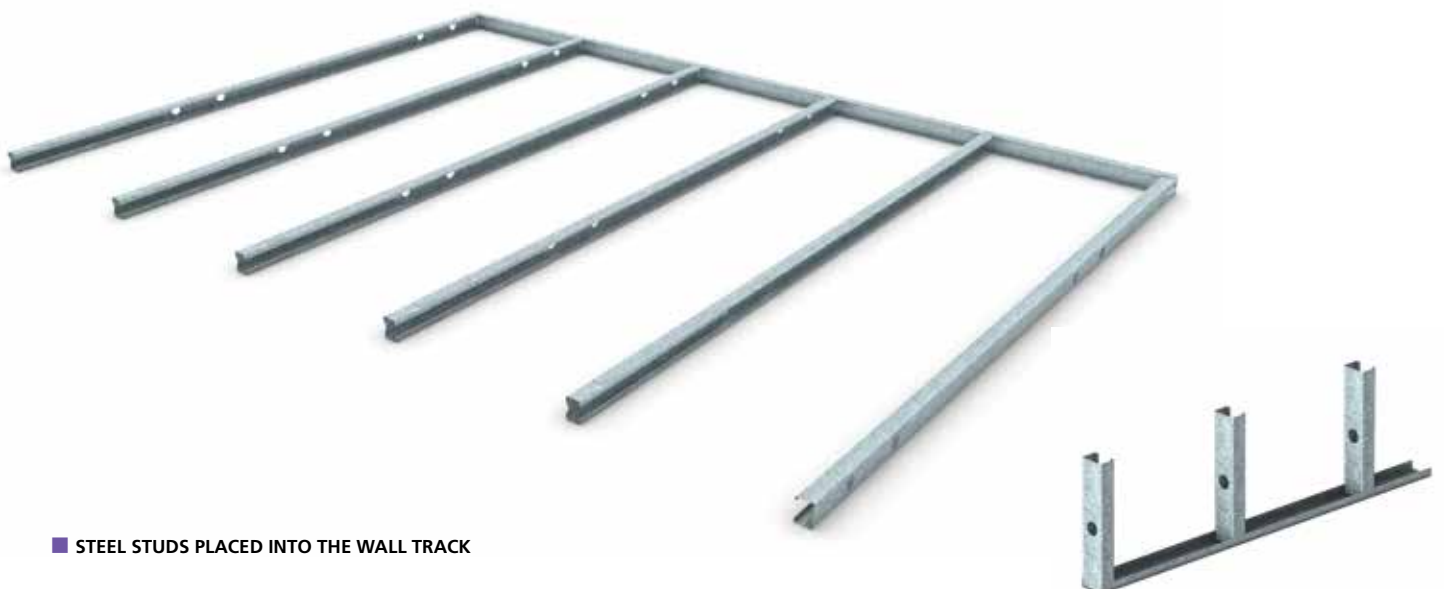
INSTALLATION GUIDE (continued)

- STEP 3** Pre-assemble the R - Telescopic Stud into the C - Stud for all the common studs within the wall panel. Ensure the studs are nested web to web. **Do not** BOX the studs.



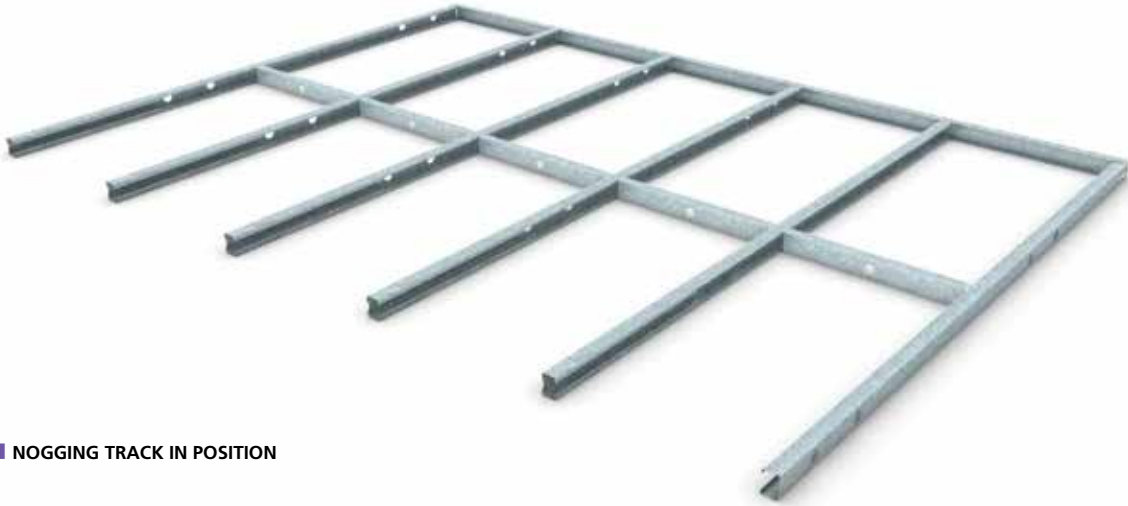
■ R - TELESCOPIC STEEL STUD INSERTED INTO THE C - STEEL STUD

- STEP 4** Place the swaged end of the nested C-Stud into the base track at the pre-punched locations, per the Wall Assembly Plan. Ensure the studs are orientated correctly, with the open side facing in the same direction.



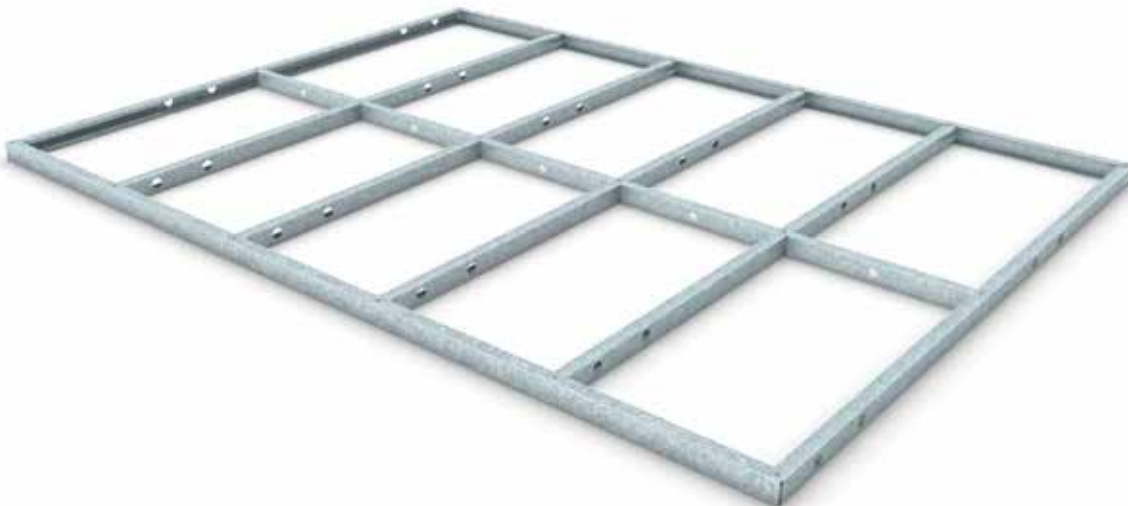
■ STEEL STUDS PLACED INTO THE WALL TRACK

STEP 5 Push the Nogging Track through the steel studs into the correct position and ensure the dimples line up



■ NOGGING TRACK IN POSITION

STEP 6 Place the Slotted Deflection Head Track onto the R-Telescopic Steel Stud

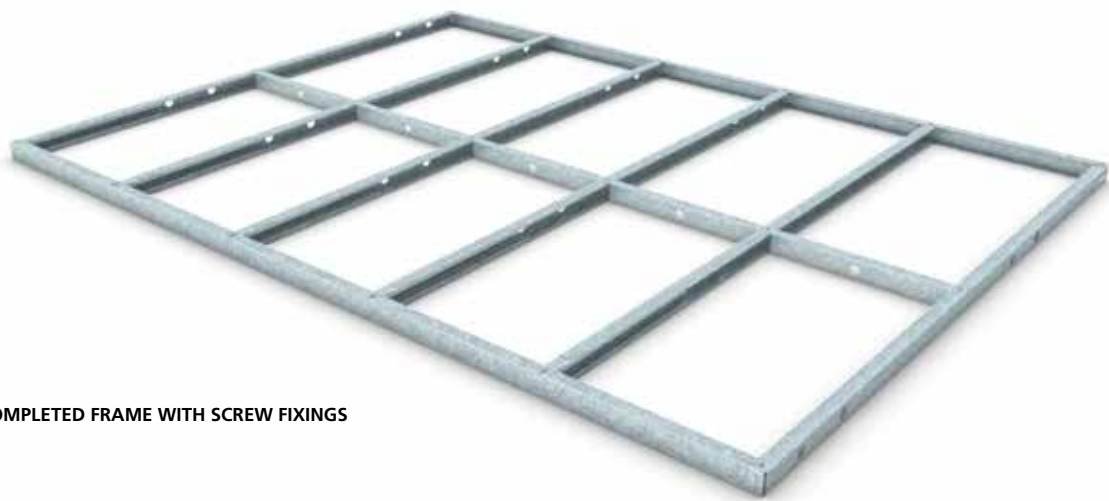


■ DEFLECTION HEAD TRACK IN POSITION

INSTALLATION GUIDE (continued)

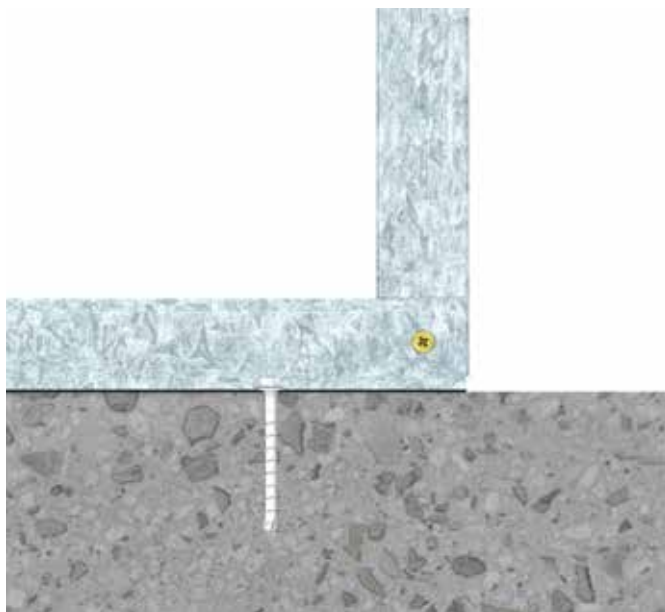
STEP 7 Ensure all the connection points are fitted with a #10G Wafer head self-drilling screw. Rondo recommends a zinc plated coating as a minimum, for internal benign environments.

STEP 8 Flip the wall panel over and ensure all connection points on the opposite side are screwed off as well.



■ COMPLETED FRAME WITH SCREW FIXINGS

STEP 9 Align the wall frame with the floor setout position and anchor it using the approved fixings.



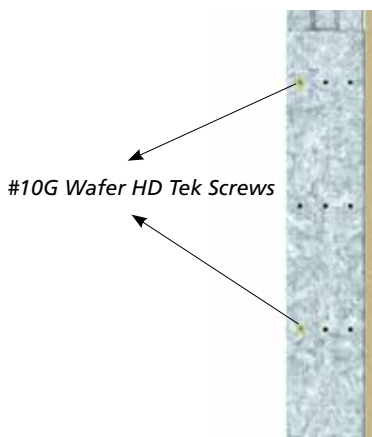
■ WALL FRAME FIXED TO FLOOR WITH APPROVED FIXINGS

STEP 10 Slide the head track and telescopic R-Stud up to the underside of the slab above. Align the wall panel to the set-out, and ensure the wall panel is not skewed. Fix the track in position with approved fasteners at not more than 600mm centres. Check there is more or less, adjust the R-Stud position to maintain this gap as necessary.

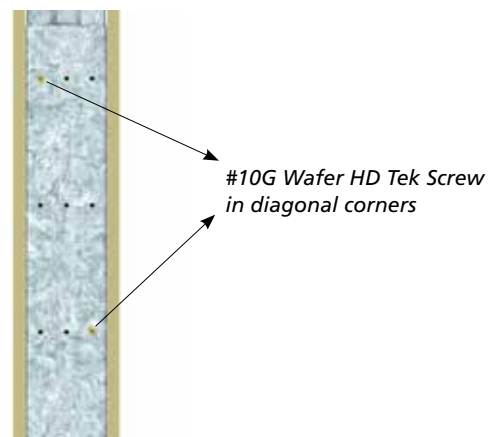


■ FIXING INTO SLOTTED DEFLECTION HEAD TRACK

STEP 11 Using #10G Wafer head self-drilling screws, fix the R-Telescopic and C Stud together as detailed below, subject to wall lining conditions. Where the wall is unlined at the splice location, secure the two studs together using 4/#10G located in the extreme top and bottom holes.



■ WALLS LINED ONE SIDE ONLY



■ WALLS LINED BOTH SIDES

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phone: 60-3-5614-9888

UAE

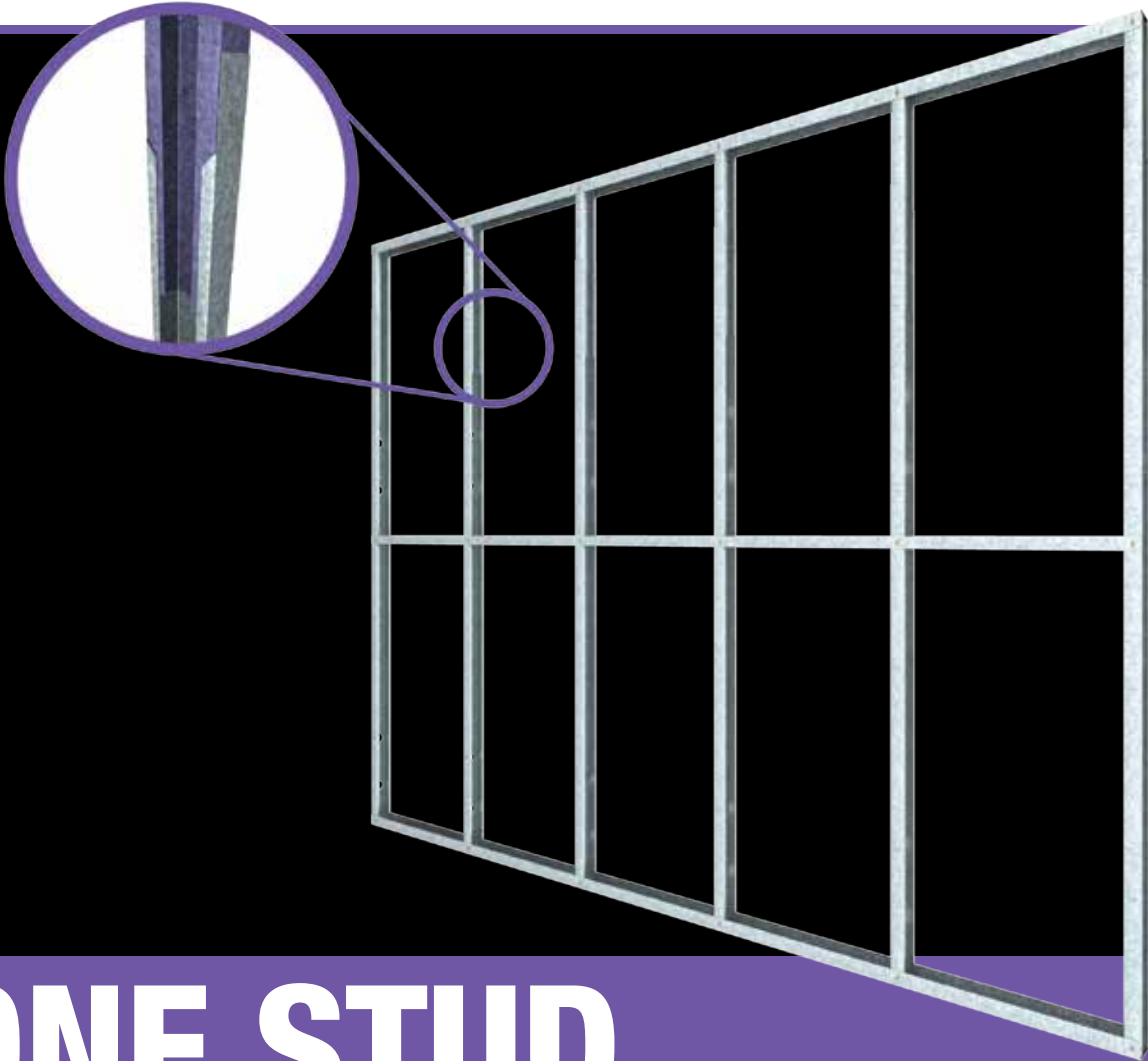
RONDO METAL PRODUCTS SDN BHD

Office 2302, Bayswater Tower, Business Bay
Dubai UAE
(PO Box 14424 Dubai UAE)
www.rondo.asia

phone: 971-4-2947959

RONDO

Smart-Wall[®]



ONE STUD. MULTIPLE HEIGHTS.

Rondo SMART-WALL[®] is unlike the others.

It includes the next generation Rondo SMART-STUD[®] which is a telescopic Stud that can move within itself, allowing for easy height adjustment and quicker installations.

By using Rondo SMART-STUD[®], installers can simply change the height of the wall frame to accommodate variances in the slab. This removes the need for cutting studs to length and offers a safer site with less wastage.

Rondo SMART-WALL[®] can be pre-fabricated by Rondo and delivered to projects within QLD to speed up installation and reduce onsite labour costs. Alternatively, it can be flat packed with all components marked out, allowing assembly to take place away from services.

RONDO[®]

we're behind the best buildings



we're behind the best buildings

RONDO
Smart-Wall[®]

PREFABRICATED TELESCOPIC STUD INSTALLATION MANUAL