



TM Consultants Ltd.

A. 2/7 Burdale Street.
P.O. Box 8874,
Christchurch 8440,
New Zealand

P. 03 348 6066
F. 03 348 6065
E. info@tmco.co.nz

To: Loxo Cladding Systems

Date: 30 May 2013

Address: PO Box 10 176
CHRISTCHURCH

Job No.: 121056

Attention: Marcus Stufkens <m.stufkens@loxocladding.co.nz>

RE: Loxo Fire Rated Boundary Wall Systems

Dear Marcus,

Following a review of the testing and assessments completed by CSIRO (FSV 1525, FCO 2915 & FCO 2944) and specific discussions with Hans Gerlich (Technical Manager, Building Systems, Winstone Wallboards Ltd), TMCO conclude that the Loxo Boundary Wall Systems detailed in drawings 'Fire Rated Garage Boundary Wall', Sheets F02-F04, revision C, dated 30.05.13 (as attached) will provide a 30/30/30 fire resistance rating in accordance with AS 1530.4.

This letter does not address the durability or post fire structural stability requirements of the New Zealand Building Code.

TMCO reserves the right at any time to amend or withdraw this letter in the light of new knowledge.

If there are any questions please do not hesitate to contact me.

Yours sincerely,

John Collie
TM CONSULTANTS LIMITED



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To: Loxo Cladding Systems
Address: PO Box 10 176
CHRISTCHURCH
Attention: Marcus Stufkens <m.stufkens@loxocladding.co.nz>

Date: 30 May 2013
Job No.: 120466

RE: Loxo Fire Rated Boundary Wall Systems

Dear Marcus,

We are writing to confirm that TM Consultants Ltd has conducted a post fire structural stability assessment for the Loxo Fire Rated Garage Boundary Walls.

This assessment has found that the Loxo fire rated walls described in TM Consultants Ltd Producer Statement Design, Issue A dated 31 May 2013 are capable of resisting an imposed 0.5kPa face loading for load perpendicular to the face of the wall acting toward and away from the boundary.

This letter does not address the durability or fire resistance rating requirements of the New Zealand Building Code.

TMCO reserves the right at any time to amend or withdraw this letter in the light of new knowledge.

If there are any questions please do not hesitate to contact me.

Yours sincerely,

Matthew Blyth
TM CONSULTANTS LIMITED



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PRODUCER STATEMENT - DESIGN

File No. 120466

ISSUED BY: **TM CONSULTANTS LIMITED**
 DESIGN ENGINEER: **Matthew B Blyth**
 TO: **Loxo Cladding Systems Ltd**
 TO BE SUPPLIED TO: **Local BCA or TA**
 IN RESPECT OF: **Fire rated garage boundary wall**
 AT: **Varies**

TM CONSULTANTS LIMITED has been engaged by **Loxo Cladding Systems Ltd** to provide **Structural Engineering** services in respect of the requirements of Clause **B1** of the Building Code 2004 for:

- All
- Part only as specified above

of the proposed building work. The design carried out by us has been prepared in accordance with

- Compliance Documents issued by Department of Building & Housing **B1/VM1 and B1/VM4** of the approved documents
- Alternative solution as per the attached schedule

The proposed building work covered by this Producer Statement is described on **Loxo Cladding Systems Ltd** drawing titled **Fire Rated Garage Boundary Wall, Revision C dated 30/05/13** together with the specification, and other documents set out in the schedule attached to this statement.

On behalf of TM Consultants Ltd, and subject to:

- i. All proprietary products meeting their performance specification requirements.

I believe on reasonable grounds the building, if constructed in accordance with the drawings, specifications, and other documents provided or listed in the attached schedule, will comply with the relevant provisions of the building code.

This Producer Statement - Design is valid for 1 year only from the date of issue.

I, **Timothy R M Gwatkin** am CPEng **142474**. I am a Member of IPENZ and hold the following qualifications **BE(Civil), NZCE, MIPENZ(Structural), CPEng, IntPE(NZ)**.

TM Consultants Ltd is a member of ACENZ.

SIGNED BY  ON BEHALF OF TM Consultants Ltd

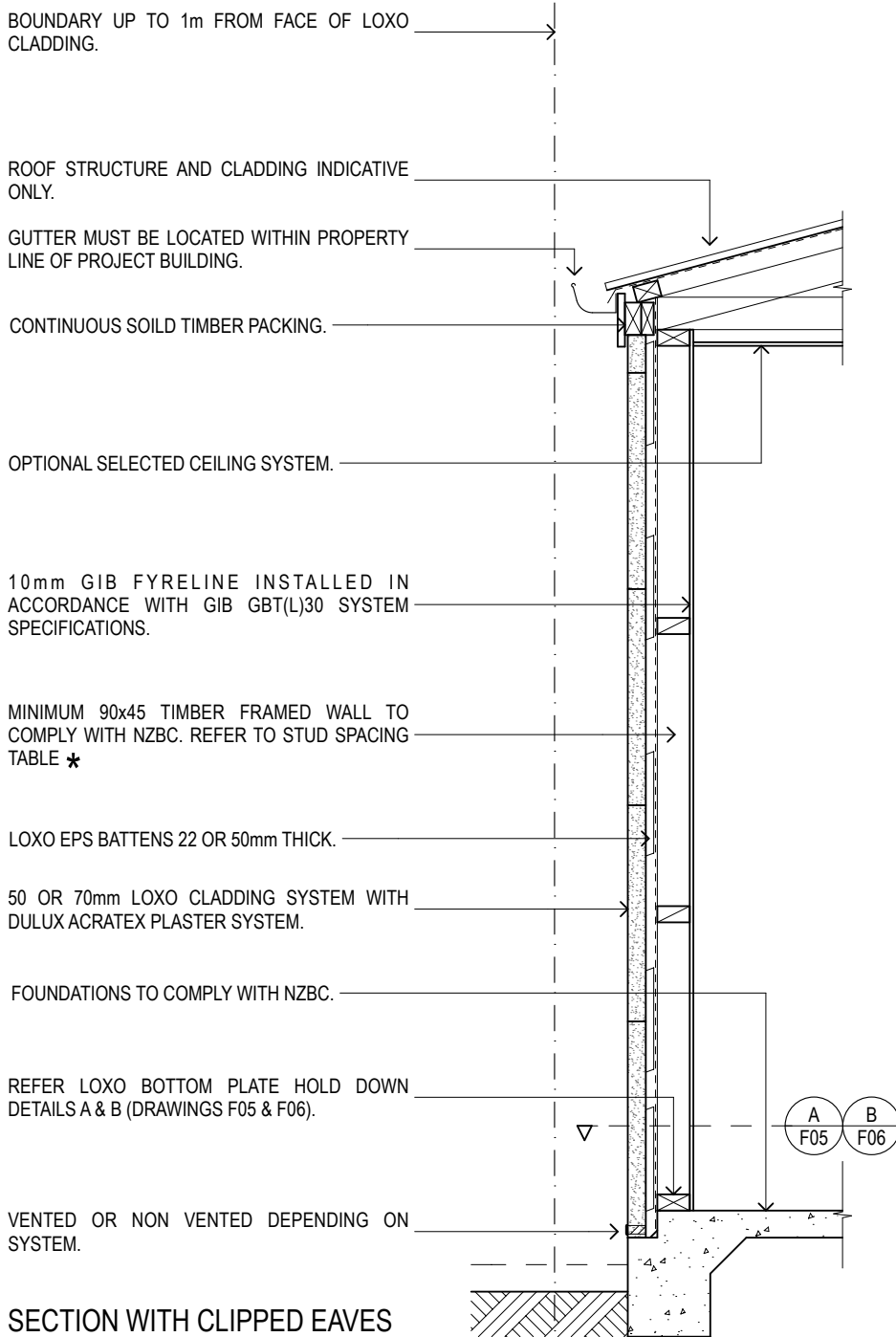
DATE: 31 May 2013

Original To:- **Loxo Cladding Systems Ltd, PO Box 10-176, Christchurch**

TM Consultants Ltd in issuing this statement holds a current policy of Professional Indemnity Insurance no less than \$200,000.

Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to TM Consultants Ltd only. The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of \$200,000.

Construction monitoring site visits are to be carried out by the local Territorial Authority.



SECTION WITH CLIPPED EAVES

BOUNDARY WALL DETAILS (GARAGE)

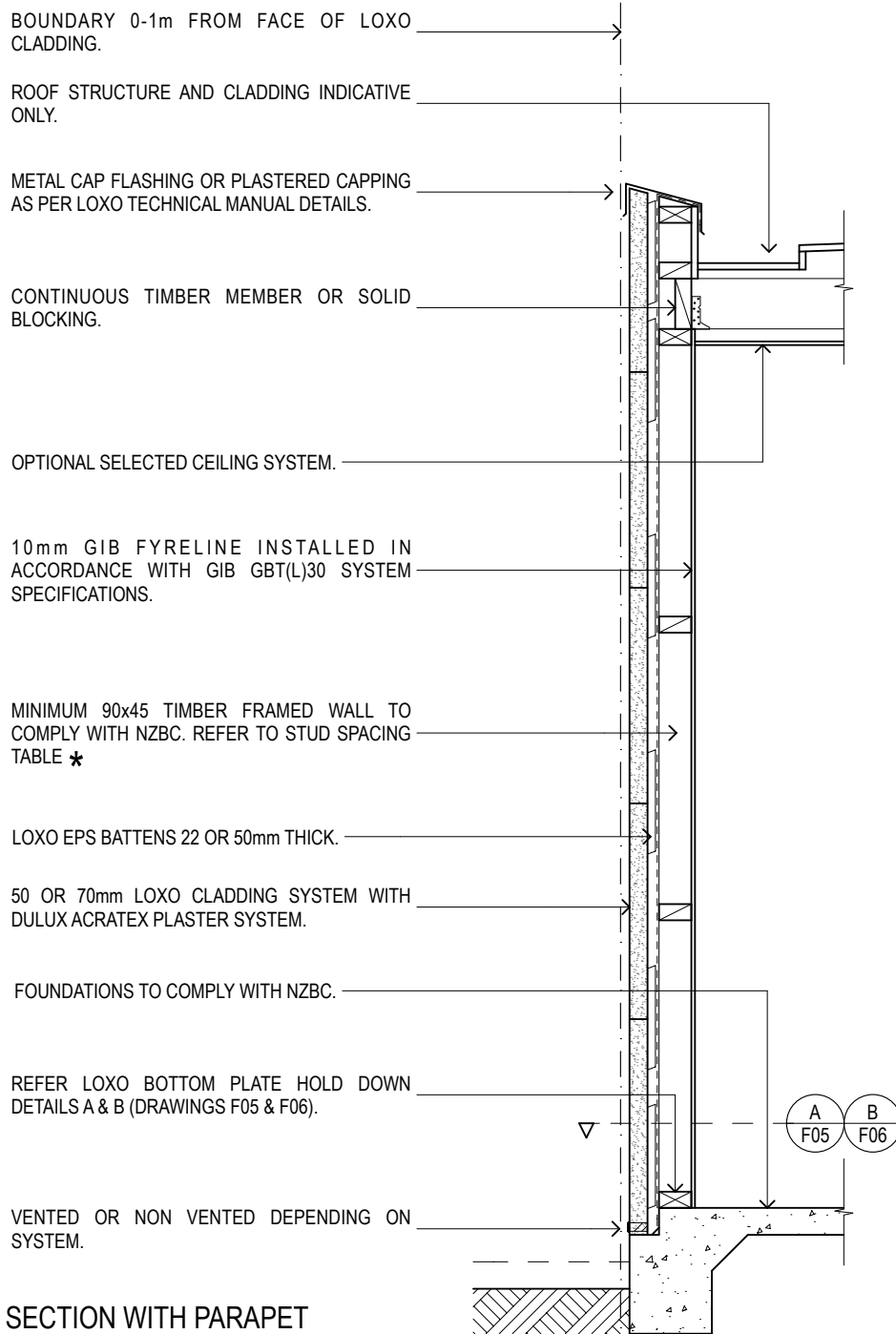
FIRE RATED 30/30/30

NOTES:

SECTIONS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTRATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS. LOXO PANEL OVERHANGING FOUNDATION DETAIL MUST NOT BE USED.

* REFER TO ALLOWABLE STUD SIZE AND CENTRES FOR THE APPLICABLE MAXIMUM WALL HEIGHT.

STUD TABLE		
STUD(MSG8, mm)	CENTRES(mm)	MAX. WALL HT.(mm)
90x45	300	3010
90x45	400	2600
90x45	450	2460
140x45	600	3000



BOUNDARY WALL DETAILS (GARAGE)

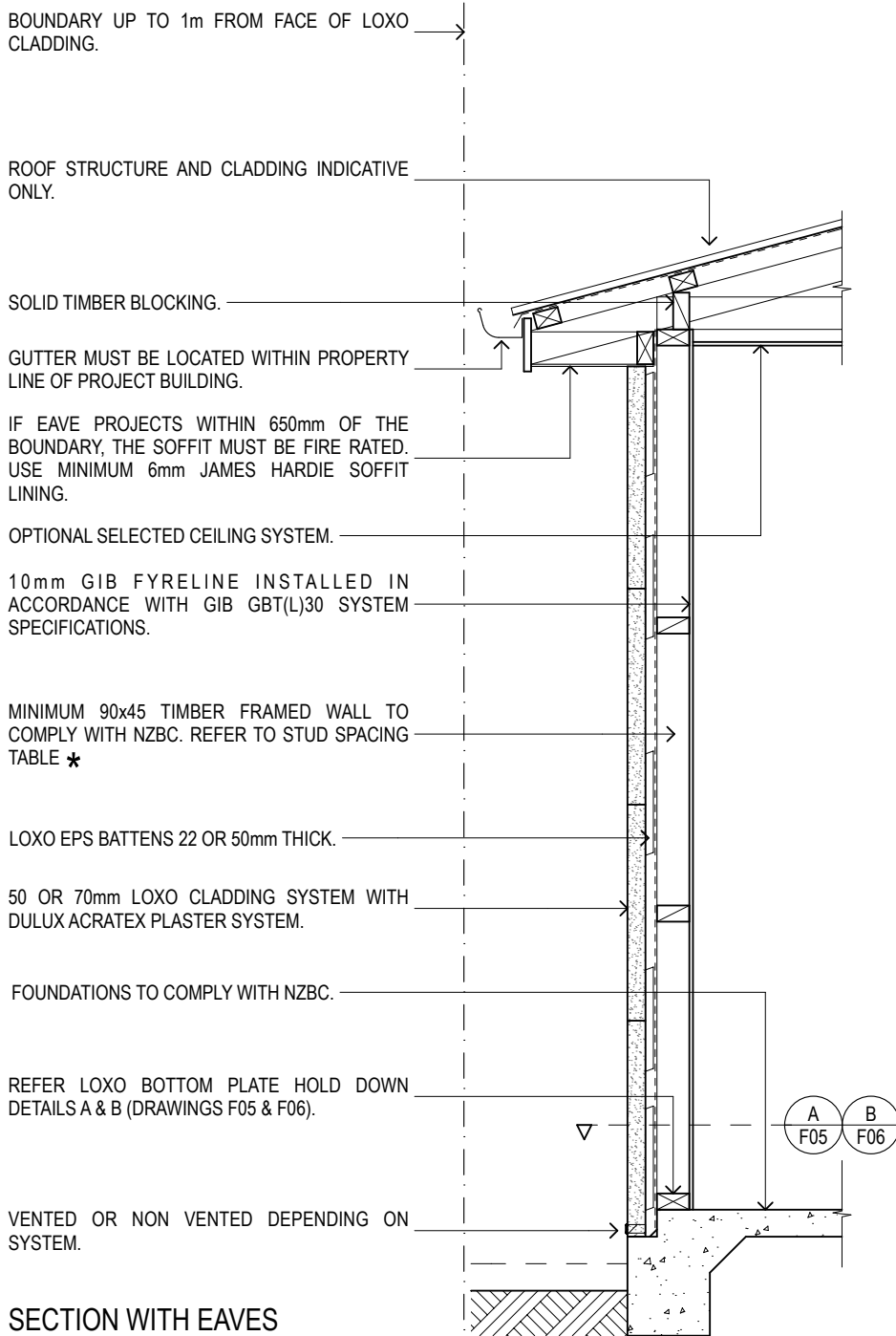
FIRE RATED 30/30/30

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SECTION WITH EAVES

BOUNDARY WALL DETAILS (GARAGE)

FIRE RATED 30/30/30

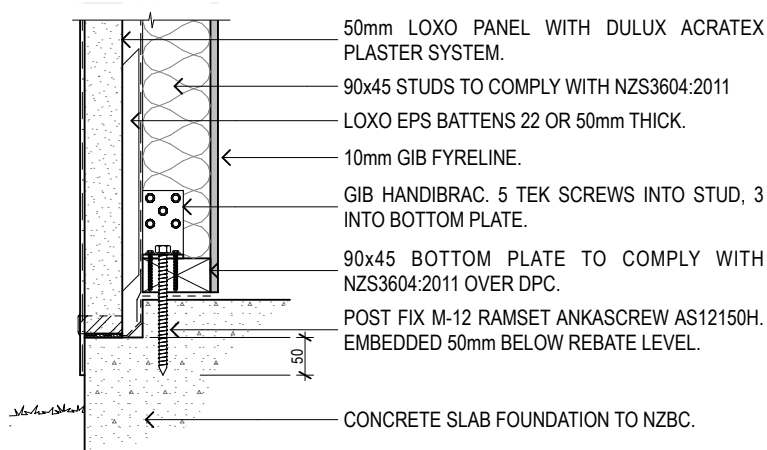
NOTES:
 SECTIONS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTRATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS. LOXO PANEL OVERHANGING FOUNDATION DETAIL MUST NOT BE USED.
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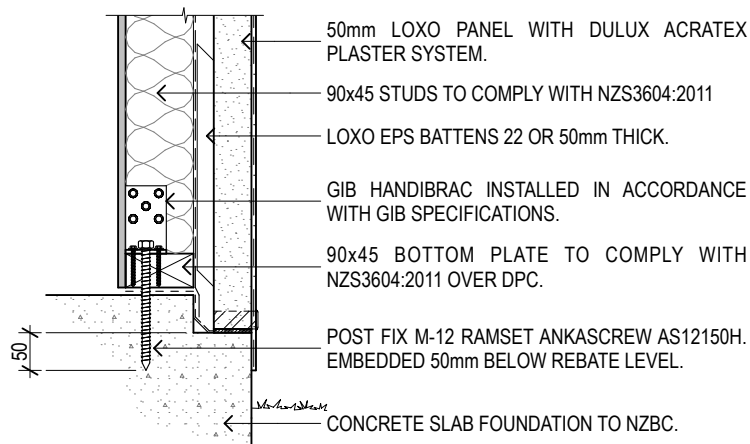


TITLE: FIRE RATED GARAGE BOUNDARY WALL
 REVISION: C
 DATE: 30.05.13

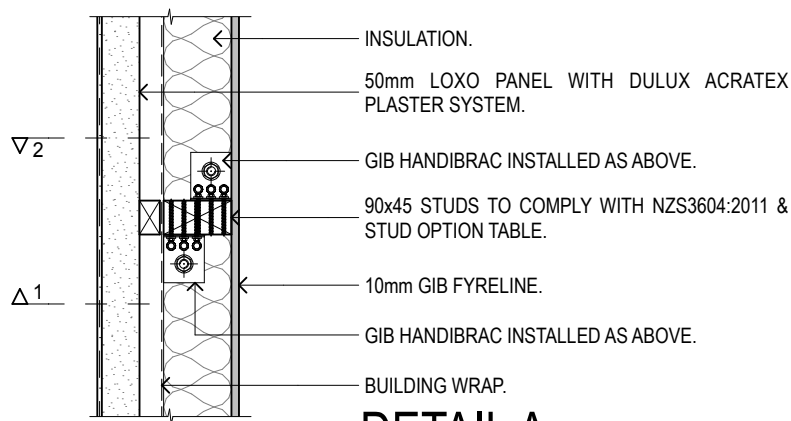
DRAWING NUMBER: F04



SECTION 1



SECTION 2



DETAIL A

LOXO BOTTOM PLATE HOLD DOWN DETAILS

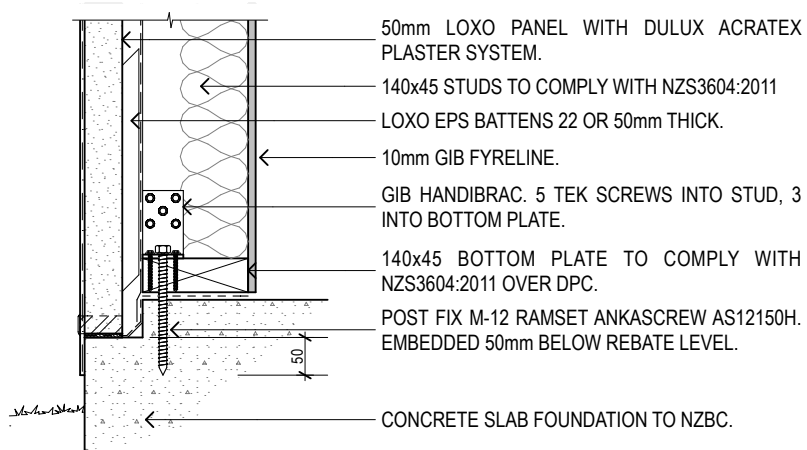
FOR 90mm WIDE STUDS AND BOTTOM PLATES
FIRE RATED 30/30/30

NOTES:

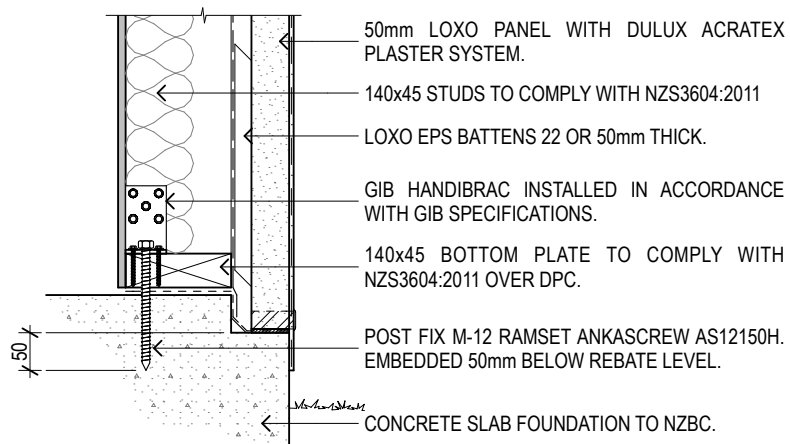
DETAILS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTRATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS.

LOXO PANEL OVERHANGING FOUNDATION DETAIL MUST NOT BE USED.

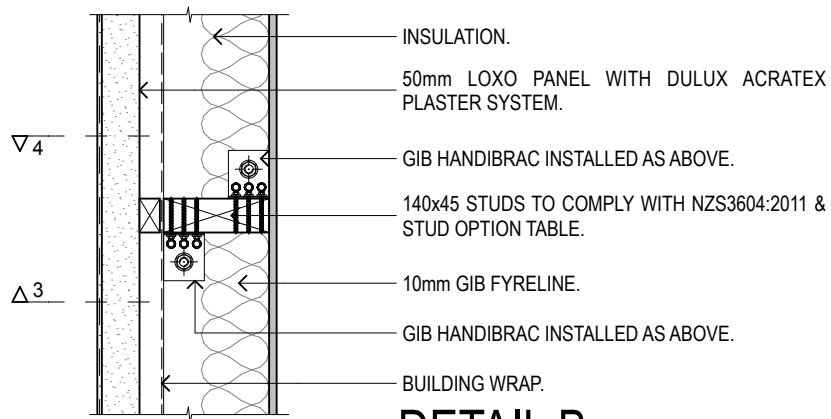
DETAILS FOR 90mm STUDS AND BOTTOM PLATES ONLY. FOR STUDS AND BOTTOM PLATE WIDTHS OF 140mm, BOTTOM PLATE HOLD DOWNS ARE TO BE IN ACCORDANCE WITH DETAIL B



SECTION 3



SECTION 4



DETAIL B

LOXO BOTTOM PLATE HOLD DOWN DETAILS

FOR 140mm WIDE STUDS AND BOTTOM PLATES
FIRE RATED 30/30/30

NOTES:

DETAILS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTRATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS. LOXO PANEL OVERHANGING FOUNDATION DETAIL MUST NOT BE USED.

DETAILS FOR 140mm STUDS AND BOTTOM PLATES ONLY. FOR STUDS AND BOTTOM PLATE WIDTHS OF 90mm, BOTTOM PLATE HOLD DOWNS ARE TO BE IN ACCORDANCE WITH DETAIL A